Urban Archaeology in the Capitol Complex Historic Neighborhood

Santa Fe, New Mexico

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Administrative Summary

At the request of Ms. Martha Perrins-Dallman of the Property Control Division, New Mexico General Services Department (GSD), archaeological excavation and monitoring of 9,244 sq m of LA 158037 on property administered by the State of New Mexico was conducted in 2008 and 2009 by the Office of Archaeological Studies (OAS), Department of Cultural Affairs. The intent of the project was to study intact cultural features and deposits in advance of construction of the State Capitol Parking Facility, at the northeast corner of Galisteo Street and West Manhattan Avenue in Santa Fe, New Mexico. Completion of the archaeological investigation allowed the New Mexico General Services Division to comply with state regulations regarding the treatment of cultural resources.

Large-scale data recovery efforts were completed between March 1 and May 9, 2008. Monitoring was conducted intermittently between August 17, 2008, and September 1, 2009. The principal investigator was Stephen S. Post, deputy director, OAS. Matthew J. Barbour directed fieldwork and laboratory investigations. All archaeological work conducted at LA 158037 complies with the provisions set forth in Barbour (2008a) and Section 18-6-5 (NMSA 1978) of the Cultural Properties Act (4.10.16.15 NMAC-N, January 1, 2006).

Archaeological investigations resulted in the documentation of nine structures, 219 cultural features, and 23,188 artifacts and samples associated primarily with a residential neighborhood dating to the later half of the nineteenth and early twentieth centuries. The data was used to examine ethnic, socioeconomic, contextual, and temporal differences in consumption and discard patterns of material culture among residents of the individual structures and how these differences (or similarities) characterized the neighborhood as a whole.

Data recovery and subsequent archaeological monitoring have exhausted the potential of the 9,244 sq m of LA 158037 within the area of potential effect to provide information on the history of the region, and no further archaeological study is needed within the project boundaries. However, based on the presence of intact cultural features outside of the State Capitol Parking Facility footprint, LA 158037 continues to remain eligible for inclusion in the *National Register of Historic Places* and the *State Register of Cultural Properties* under Criterion D (36 CFR Part 60.4). Thus, further work may be necessary at LA 158037 if future projects are planned for areas outside those impacted by construction of the State Capitol Parking Facility.

MNM Project No. 41.862
NMCRIS Activity No. 119622
Archaeological Excavation Permit SE-264

Acknowledgments

The Office of Archaeological Studies would like to thank Martha Perrins-Dallman and the New Mexico General Services Department, the New Mexico Legislative Council, and the New Mexico Department Cultural Affairs for their support during this undertaking. This project also depended on the help of Museum of New Mexico Foundation Friends of Archaeology volunteers Mimi Burling, Arlen Clinard, Richard Habakuk, Barry Kirschbaum, Linda McGee, Kathy McRee, Robert Mizerak, Colette Pogue, and Mary Anne Sanborn. Your efforts are much appreciated.

This report is dedicated to Marjorie Mizerak and Juan Pedro "Pete" Alarid. Without their contributions, it would not have been possible to present much of the information presented in this report. Marj, who passed away on June 16, 2010, helped compile most of the historic background information. Pete passed away on November 19, 2009. He was the voice of LA 158037, having lived on the site for 30 years (1927–1957). His memories of the people living in the neighborhood and things that happened there filled in gaps and provided a more colorful picture of life in the Capitol Complex Historic Neighborhood.

Rest in peace.

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Chapter 1
Introduction

At the request of Ms. Martha Perrins-Dallman of the Property Control Division, New Mexico General Services Department (GSD), the Office of Archaeological Studies (OAS), Department of Cultural Affairs, performed archaeological data recovery and monitoring on areas impacted as a result of construction of the State Capitol Parking Facility, west of the State Capitol in Santa Fe, New Mexico. These archaeological investigations were conducted under State Archaeological Excavation Permit SE-264, expiration date February 20, 2010, in conjunction with a research design and data recovery plan (Barbour 2008a) approved by the New Mexico Cultural Properties Review Committee (CPRC), the New Mexico Historic Preservation Division (HPD), and the City of Santa Fe Archaeological Review Committee (ARC); and an expanded monitoring plan (Post and Barbour 2008) developed in consultation with HPD.

The project area, on the southern half of LA 158037, encompassed 9,244 sq m (Figs. 1.1, 1.2; Appendix 5). LA 158037 encompasses 18,334 sq m and is bounded by Galisteo Street, South Capitol Street, Don Gaspar, and Manhattan Avenue in the Capitol Complex Historic Neighborhood of Santa Fe, New Mexico (Sze and Spears 1988:74). All archaeological investigation and construction was performed on state land under the control of GSD.

Data recovery at LA 158037 was conducted between March 1 and May 9, 2008. This was followed by construction monitoring from August 2008 until the structure's completion in October 2009. Matthew Barbour directed field investigations, assisted by Phillip Aldritt, Gavin Bird, Alfides Chavez, Isaiah Coan, Henry Etsitty, Lynette Etsitty, Vernon Foster, Stephen Lentz, Gerald Lujan, Guadalupe Martinez, Susan Moga, Richard Montoya, Virginia Prihoda, and Mary Weahkee. Laboratory analyses were directed by Nancy Akins (fauna), Matthew Barbour (Euroamerican artifacts and ground stone), J. Royce Cox (archaeomagnetism), Linda Scott Cummings (coprolite), James Moore (flaked stone), Mollie Toll (flotation and macrobotanical samples) and Dean Wilson (locally produced ceramics). Archival research was conducted under contract by David Snow, historian, supplemented with material compiled by Matthew Barbour and Marjorie Mizerak. Tom Ireland edited the manuscript, and illustrations were produced by Scott Jaquith.

Archaeological excavation of eight scraping units and 38 backhoe trenches allowed OAS to examine 3,257 sq m of LA 158037, or 35 percent of the 9,244 sq m to be occupied by the parking structure and associated utilities. This was followed by an intensive monitoring plan, which oversaw mechanical removal of all 9,244 sq m of fill necessary to construct the State Capitol Parking Facility. Archaeological investigations resulted in the documentation of nine structures, 219 cultural features, and 23,188 artifacts and samples associated with agricultural fields and residential structures dating to the later half of the nineteenth and early twentieth centuries.

Excavation and analysis of agricultural fields and associated features dating to the Spanish Colonial, Mexican, and Early Territorial periods was aimed at identifying changes in field use and irrigation practices over time. Unfortunately, this study could not address questions proposed in the data recovery plan due to limited archaeological evidence dating prior to the construction of the residential neighborhood in the 1880s. However, backyard gardens and pits of butchered bone, mistakenly identified as Colonial features during testing, did aid in studies associated with the residential neighborhood, offering possible evidence of cottage industry and/or feasting within the project area during the late nineteenth and early twentieth centuries.

Excavation and analysis of residential structures and associated domestic-refuse pits and privies focused on examining differences ethnically, socioeconomically, contextually, and temporally in regards to consumption and discard patterns of material culture and how these differences (or similarities) characterized the neighborhood as a whole. Excavation of LA 158037 is among the first archaeological studies

in the downtown Santa Fe area to focus on the late nineteenth and early twentieth centuries. This report provides a more comprehensive understanding of New Mexico during the late Territorial and Early Statehood periods than previously available and is a model for future work focusing on life in the City Different during the twentieth century.

Archaeological work conducted at LA 158037 and this report comply with the provisions set forth in Barbour (2008a) and Section 18-6-5 (NMSA 1978) of the Cultural Properties Act (4.10.16.15 NMAC-N, January 1, 2006).

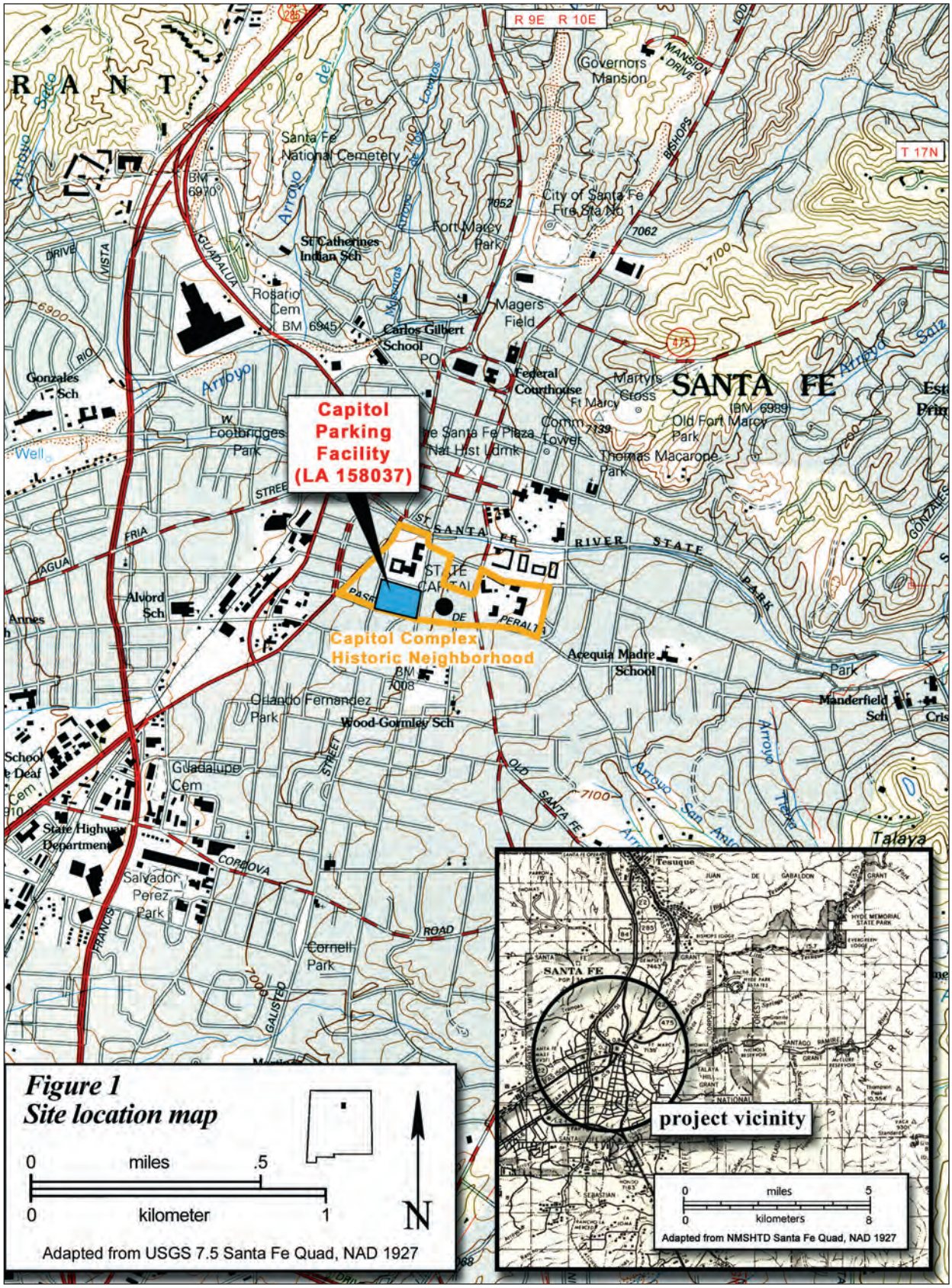


Figure 1.1. Site location and project vicinity.

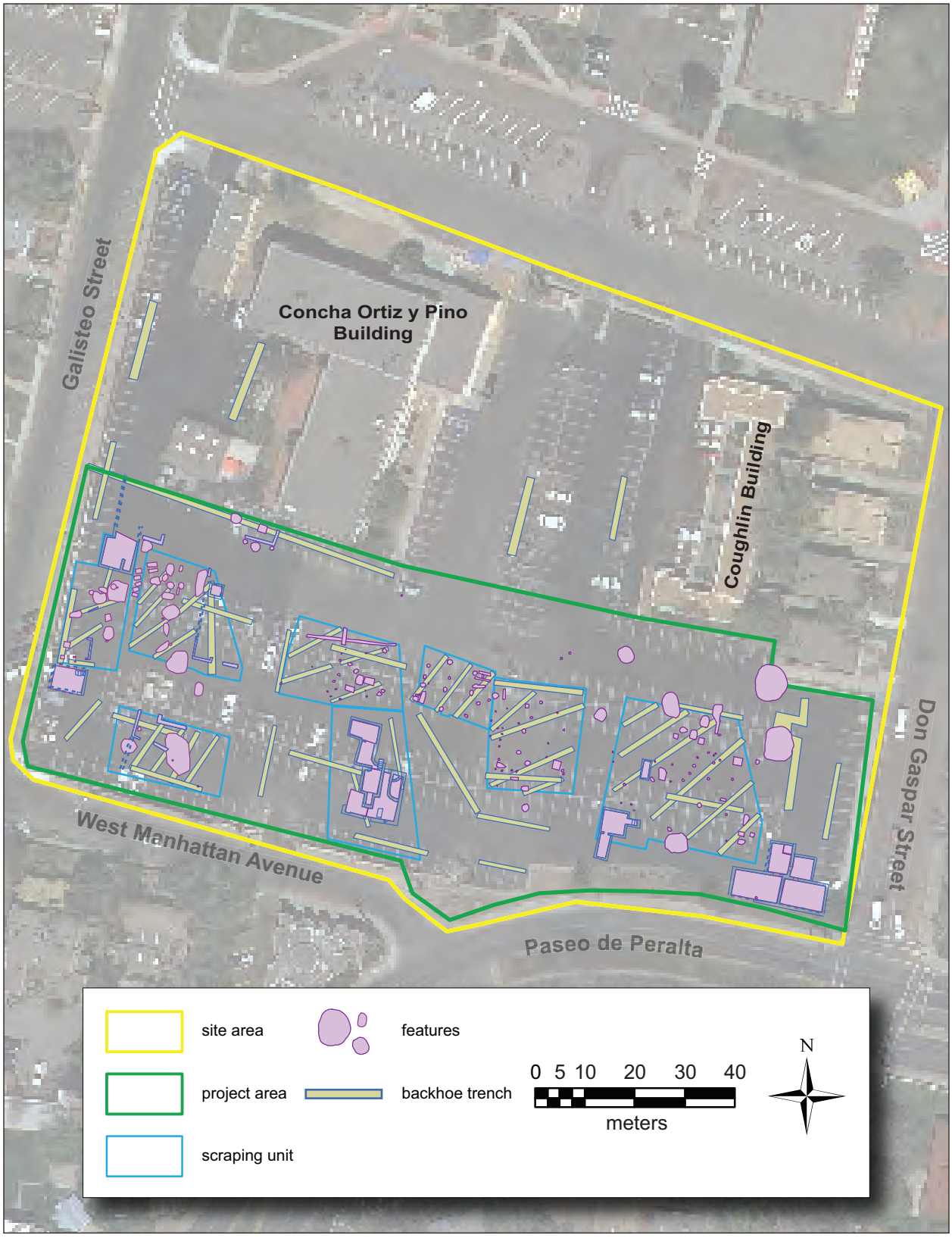


Figure 1.2. Plan of LA 158037.

Chapter 2
Environmental Setting

The following environmental overview is adapted from the results of archaeological investigations at the Santa Fe Plaza (Lentz 2004), four blocks north of the project area.

Physiography

Santa Fe is in a fault zone within a subdivision of the Southern Rocky Mountain physiographic zone known as the Española Basin, one in a chain of basins comprising the Rio Grande Rift, which extends from southern Colorado to southern New Mexico (Kelly 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, and the Rio Grande flows along the long axis of the feature (Kelly 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 east 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 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 (Kelly 1979:281).

Local topography at LA 158037 is a nearly level southern terrace of the Santa Fe River at an elevation of 2,126 m. This area is part of an ancient alluvial fan upon which most of Santa Fe resides. Soils are formed in reworked, mixed alluvial material of the Tertiary/Quaternary-period Santa Fe Formation (Folks 1975).

Geology

The Rio Grande rift was established during the late Oligocene epoch (ca. 30 million years BP), when a cycle of crystal downwarping and extensional faulting succeeded a period of regional uplift (Kelly 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 mature Laramide Sangre de Cristo uplift to the east provided most of the sediments for what is known as the Santa Fe Group, the prominent geologic unit within the Española Basin. Other sources of sediments of this geologic unit include volcanic fields in the Jemez, Brazos, and Sangre de Cristo Mountains (in an area northeast of the Española Basin). 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 (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 lithic production. In particular, chert is available in the Ancha Formation (Kelley 1980:11-12), 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 west of Santa Fe (Kelley 1980:12).

The project area is within the Santa Fe River inner valley, or airport physiographic surface (Spiegel and Baldwin 1963:56). The major soil association is Bluewing gravelly sandy loam (Folks 1975:15-16). This soil occurs on 0- to 5-percent slopes and may coexist with Pojoaque

and Fivemile soils. These well-drained soils formed in alluvium of mixed origin along terraces and floodplains. The gravelly sandy loam has rapid permeability with medium runoff and severe erosion hazard.

Climate

LA 158037 has a semiarid climate. Latitude and altitude are the two basic determinants of temperature; however, altitude is the more powerful variable in New Mexico. 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. 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 local topographic 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 Santa Fe station is 10.5 degrees C (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 latest and earliest recorded frosts, respectively, occurred on May 31 (in 1877) and September 12 (in 1898) (Reynolds 1956:251). Although a frost-free season of 130 days is sufficiently long to grow most indigenous varieties of maize by means of dry farming (Schoenwetter and Dittert 1968; Hack 1942), the unpredictability of late spring and early fall frosts creates agricultural risk. The best agricultural strategy is to plant late enough that seedlings will not erupt above the ground until after the last frost, but early enough that they will be able to fully mature prior to the first killing fall frost.

Precipitation in 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 in 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 that 45 percent of the mean annual precipitation falls between July and September (Gabin and Lesperance 1977). Although October is drier than September, it is 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. They saturate the ground surface at the beginning of a storm, and much of the moisture is lost to runoff.

Flora

Prior to archaeological investigations, the project area was an asphalt-covered parking lot (Fig. 2.1). However, historical local flora and fauna are typical of Upper Sonoran grasslands. Piñon-juniper grassland, which supports a variety of plant and animal species, is 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 shortgrass plains containing scattered juniper midway between the foothills and the Santa Fe River (Kelley 1980:12). 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 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 the present study area.

Figure 2.1. The project area.

Fauna

Fauna found historically within the project area include coyote, badger, porcupine, black-tailed jackrabbit, desert cottontail, spotted ground squirrel, 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 these animals may have been more common before the twentieth century (Carroll 1984:2). Plains animals such as buffalo and pronghorn may also have been present or available within a few days' travel.

Chapter 3
Cultural Overview

Matthew J. Barbour, Barry Kirschbaum, and Marjorie Mizerak

Large nearby projects conducted by the OAS have helped to place the project area in regional cultural context (Hannaford 2007; Lentz 2005; Wenker 2005a). This overview is an adaptation of Hannaford (2007), the testing of the Santa Fe Judicial Complex. The prehistoric overview was further modified from work conducted by Lentz (2005) at the Santa Fe Civic Center (LA 1051), five blocks north. Much of the historic section incorporated data first synthesized in the work of Wenker et al. (2005) during testing at the Santa Fe Railyard, about three blocks to the west. Information specific to the twentieth century was added by Barry Kirschbaum and Marjorie Mizerak.

Prehistoric-Period Overview (9500 BC–AD 1540)

Paleoindian Period (9500–5500 BC)

The earliest known occupation of the American Southwest was by big-game hunters referred to collectively as Paleoindians (9500–5500 BC). Recorded Paleoindian sites are primarily in grassy basins or on plains around playa lakes and are identified by large diagnostic projectile points. Early Paleoindian groups characteristically hunted now-extinct mammoths, while later Paleoindians concentrated on *Bison antiquus* or *Bison occidentalis.* While the pursuit of the large mammals was a subsistence focus, general foraging must have been a critical aspect of the economy as well. Evidence of Paleoindian occupation is rare in the Santa Fe area and consists mainly of isolated projectile points that have been found in the Galisteo Basin to the south and on the Caja del Rio west of Santa Fe.

Archaic Period (5500 BC–AD 600)

The term *Archaic* applies to the broad-spectrum foraging cultures that evolved out of the Paleoindian big-game hunting populations in North America (5500 BC–AD 600). Archaic populations in the Southwest reflect adaptations to local topography and food sources and like their Paleoindian predecessors are identified by distinctive projectile point types, scrapers, knives, and grinding stones. Late in the Archaic adaptation, maize was added to the diet but seemingly with little initial disruption to the established subsistence strategy. In the northern Southwest the Archaic period is generally described in terms of two major material culture traditions: the Oshara Tradition (Irwin-Williams 1973) and the Cochise Tradition (Sayles 1983). Santa Fe is surrounded by Archaic-period sites consisting mainly of flaked stone scatters of varying sizes and sometimes associated with charcoal stains and fire-cracked rock showing differing occupation intensity, duration, and activities. No Archaic-period sites are found in the immediate vicinity of the project area. Post (1996) presents a comprehensive overview of Archaic-period settlement and subsistence trends in the Santa Fe area.

Developmental Period (AD 600 to 1200)

Sites from the Developmental period in the Northern Rio Grande are comparable to the late Basketmaker III and Pueblo periods of the Pecos Classification. Basketmaker III sites are rare and 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 the southern areas (Bullard 1962; Jenkins and Schroeder 1974) or the Four Corners and San Juan area (Judge

1991; Stuart and Gauthier 1981:49; Lekson and Cameron 1995:185).

Archaeological sites in the Santa Fe area with Late Developmental components include Pindi Pueblo (LA 1), along the Santa Fe River west of the project area.. The Developmental-period component included a pithouse and a single jacal room. Kwahe'e Black-on-white pottery was recovered, and a tree-ring date of 1218 +vv was recovered below the jacal structure (Stubbs and Stallings 1953:24–25; Robinson et al. 1972:38). Nearby is the Agua Fria Schoolhouse site (LA 2; Lang and Scheick 1989). Closer to downtown, LA 608/LA 609 is a large pueblo under Fort Marcy (Acklen et al. 1994), and LA 618 is a pithouse site on the bluff overlooking the Santa Fe River on upper East Palace Avenue (Elliott 1988:17).

An example of a Late Developmental site near downtown Santa Fe is the KP Site (LA 46300). At this site, on top of a ridge along the north side of the Santa Fe River near Fort Marcy, a single trash-filled burned structure was tested (Wiseman 1989). 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 pottery were recovered during testing. Obsidian predominated in the flaked stone assemblage, although local chert types, particularly red jasper, were also used. Eleven tree-ring and two radiocarbon dates indicate that the structure was occupied in the mid- to late AD 1000s and the accumulation of fill in the early AD 1100s. Dendrochronological 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).

Coalition Period (AD 1200 to 1325)

The Coalition period (AD 1200 to 1325) in the Northern Rio Grande is marked by a shift from the use of mineral pigment paint to organic paint on decorated pottery. There are substantial increases in the number and size of habitation sites coincidental with expansion into previously unoccupied areas. Although above-ground pueblos were built, pit structure architecture was used through the early phases of this period. Rectangular kivas, which are incorporated into roomblocks, also coexisted with subterranean circular structures (Cordell 1979:44). Frisbie (1967) notes that settlement shifted away from less optimal upland settings and returned to permanent water and arable land adjacent to the major drainages.

During the Coalition period, the Chama, Gallina, Pajarito Plateau, Taos, and Galisteo Basin districts, which had been the focus of little Ancestral Puebloan use prior to AD 1100 to 1200, were settled (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 Resource Information System, Archaeological Records Management Section, Historic Preservation Division). Among the representative sites of the Coalition period are LA 4632; LA 12700; and Otowi, or Potsuwii (LA 169).

Numerous Coalition-period sites have been recorded in and near downtown Santa Fe. In 1955 excavations were undertaken by Stubbs and Ellis (1955) at the site of the old San Miguel Church. Deposits dating to the fourteenth and seventeenth centuries were found. Excavations at LA 132712, at 125 Guadalupe Street (near Johnson Street), had a Coalition component. A trash concentration, pits, and burials were excavated (Scheick 2003). A Coalition-period pit structure and associated artifacts were found in the west courtyard of the Federal Courthouse (personal communication, C. Scheick to S. Post, 2004). Other sites with Coalition- or Coalition/Classic-period materials include LA 114261 (Hannaford 1997), LA 930 (Peckham 1977; Post and Snow 1982), LA 120430 (Post et al. 1998), LA 125720 (C. Snow 1999), LA 126709 (Viklund 2001), and LA 111 (Snow and Kammer 1995).

Classic Period (AD 1325–1540)

The Classic period (AD 1325–1540) 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 roomblock complexes were established (Wendorf and Reed 1955:13). The

beginning of 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, the Galisteo Basin, and the Salinas area after ca. AD 1315; and Biscuit wares in the Pajarito Plateau, Santa Fe, and Chama areas (Mera 1935; Warren 1979a). Near Santa Fe, the Galisteo Basin saw the construction of some of the Southwest's most spectacular ruins. Many of these large pueblos were tested by N. C. Nelson (1914, 1916) in the early part of the twentieth century. The majority of these Classic-period sites were established in the early 1300s, and several were occupied into the historic time period. Arroyo Hondo (LA 12), an important site with Classic-period components just south of Santa Fe, appears to have ties to contemporaneous sites in the Santa Fe area (Schwartz 1971, 1972; Schwartz and Lang 1973).

Few sites of the Classic period have been found in the immediate project area. The nearest one is LA 1051 (the Santa Fe Community Convention Center and City Hall area). Coalition- and Classic-period structural remains and abundant artifacts have consistently been encountered in this area (Mera 1934; Peckham 1977; Tigges 1990; Drake 1992; Deyloff 1998). The site has been the center of major archaeological excavations by the OAS over the last several years.

Historic-Period Overview (AD 1540–Present)

Spanish Contact, Pueblo Revolt, and Reconquest (AD 1540–1692)

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 (Hammond and Rey 1953:244, 259). Having heard of Coronado's earlier plundering farther south, these pueblos were hastily abandoned by their occupants. The Spaniards looted the deserted villages (Ortiz 1979:280; Winship 1896:476).

After the Spanish entradas of the mid- and late sixteenth century, Native American groups underwent numerous changes in lifestyle, social organization, and religion. The introduction of new crops and livestock contributed to major changes in subsistence, as did mission programs, which taught new industries such as metalsmithing and animal husbandry, meant to wean the Pueblo people away from traditional ways (Simmons 1979b:181). Incursions by Plains groups caused the abandonment of many pueblos and a contraction of the region occupied by the Pueblos (Chávez 1979; Schroeder 1979). A combination of new diseases to which the Pueblos had no natural defenses, intermarriage, conflict attendant with the Pueblo Revolt of AD 1680–92, and the abandonment of traditional lifestyles contributed to a significant decrease in Pueblo populations over the next few centuries (Dozier 1970; Eggan 1979).

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 governor, a mayor, and various other administrators (Schroeder and Matson 1965:121, 129; Lentz 1991:7).

With the goals of missionization, territorial expansion, and 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 partially abandoned 400-room pueblo village, which they renamed San Gabriel de los Caballeros. The first Catholic mission church, called San Miguel, was built at the southern end of the village. Soon, New Mexico was divided into seven missionary districts. A Spanish alcalde (magistrate) was appointed for each pueblo, and all were under Oñate's leadership (Spicer 1962:156). In January 1599, in retaliation for the death of Juan de Zaldívar (one of Oñate's two nephews), 70 of Oñate's men attacked Acoma Pueblo. After a three-day battle, the Spanish troops prevailed. In retribution, 500 Acoma prisoners over the age of 25 had one foot severed and were sentenced to 20 years of hard labor in the mines of Zacatecas.

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 (Ortiz 1979:281; Pearce 1965:146; Spicer 1962:157). There is some scholarly debate regarding exactly when Santa Fe was initially founded (see Ivey 2010). Bandelier

(1893) and Twitchell (1963) argued that Santa Fe had been founded by Oñate in 1605. However, the most recent interpretations of the archival documents suggest the settlement was initially established by Oñate's captain, Juan Martínez de Montoya, between 1605 and 1608. Early in 1610, under the orders of the viceroy, Peralta organized the Villa of Santa Fe as a royally chartered town.

During the next 20 years, churches were built in all the pueblos. Native American secular and church officers were also established in each village. These included governors, alcaldes, and fiscales (tax collectors). During the 1620s the villages were peaceful, population grew, and conversions to the Catholic Church increased. By 1630, 50 Franciscan missionaries were working in 25 missions, and a school was operating in each (Spicer 1962:158).

In 1676 a series of events 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 (Spicer 1962:162–163). Twenty-one of the Franciscan friars in the territory were killed, along with 400 Spaniards. Santa Fe was besieged by an alliance of Pueblo forces, and on August 21, 1680, Governor Otermín was forced to surrender and evacuate the city (Hackett and Shelby 1942:11, 56–57; Lentz 2004). Coincidentally, a similar insurrection successfully ousted the Spanish from the isthmus of Tehuantepec, Mexico, that year.

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 Reconquest was initiated in 1692 by Don Diego de Vargas (Dozier 1970:61; Simmons 1979b:186).

Later Spanish Colonial Period (AD 1692–1821)

During the later Spanish Colonial period, under Hapsburg (until 1700) and Bourbon (1700–1821) rulers, Spain changed from a world empire to a second-tier political and economic power as its European landholdings dissolved, its New World riches were spent, and the social hold of its missionization effort was diminished (Kamen 2003). At the height of its empire, early in the eighteenth century, Spain had economic ties covering three-quarters of the known world. The empire was based on economic superiority gained through alliances with the rich bankers and royalty of the Italian city states, the Flemish, and its neighbor and sea power, Portugal. New Spain and New Mexico were affected by imperial trends as the structure of the government, the focus of the economy, and pressures on the imperial borderlands changed. New Mexico and Santa Fe were on the frontier of the Spanish Empire and at the end of the Camino Real, the main communication and transport route for public, governmental, and ecclesiastic institutions and individuals. Pressured until 1789 by the French and English advances into the North American interior, Santa Fe soon felt the social and economic pressures brought on by the growing pains of the United States and its rapid institution of Manifest Destiny. These pressures were exerting tremendous influence on New Mexico as Mexico gained its independence from Spain in 1821.

Government and military. During the eighteenth century and into the early nineteenth century, Santa Fe functioned as the provincial capital of Nuevo Mexico in New Spain. The greater territory and military were administered by the governor and his appointed officials (Jenkins and Schroeder 1974; Kessell 1979; Weber 1992). After 1735 the governor ruled under the Audencia of Mexico and the viceroy of New Spain (Westphall 1983:16–17). Locally, Santa Fe was governed by an *alcalde mayor* and *cabildo*, or town council (Hordes 1990; Snow 1990; Twitchell 1925). The alcalde and cabildo were responsible for carrying out daily operation of the local government, fulfilling the legal requirements of land petitions as assigned by the governor, and the collection of taxes and tithes for the church. These individuals, who were citizens and soldiers, controlled the social and economic well-being and development of the community and surrounding area (Bustamante 1989; Westphall 1983). After 1722 the alcalde mayor in Santa Fe appointed two *juezes repartidores*, one for each side of the river, to inspect farmlands and acequias and allot water based on need (Baxter 1997:19).

Beginning in 1776 and continuing into the 1800s, the *presidio* system was revamped along with the military importance of Santa Fe and New Mexico. Until the late 1780s, the Santa Fe presidio and the improved and expanded presidio system provided protection against continued Indian raiding of Spanish and Pueblo villages. With a major decrease in the raiding following Governor Juan Bautista de Anza's treaty with the Comanches, the military served as a buffer against French, English, and later American incursions from the north and east (Moorhead 1974; Simmons 1990; Weber 1992). During this time the Spanish governmental organization in Mexico changed three times, but New Mexico remained primarily under its governor, who also remained the military commanding officer.

Settlement and economy. Following Don Diego de Vargas's Reconquest (1692–1696), pre–Pueblo Revolt and new settlers returned to Santa Fe and the Rio Grande Valley. They allegedly returned to a villa that had been partially destroyed after the escape of Governor Otermín and the surviving colonists, soldiers, and missionaries. The fact that settlers temporarily moved into the Tano pueblo that occupied the former *casas reales* suggests that most of the residences were destroyed or rendered uninhabitable. Early priorities for the returning colonists and administration were rebuilding the casa reales and the acequia system, reallotting grants to former *encomenderos* and landholders or their surviving family members, and expanding on the pre-Revolt settlement (Kessell 1989; Simmons 1979a). With the termination of *encomienda,* settlers were expected to be more independent and self-sufficient and to properly compensate the Indians for their labor and goods (Westphall 1983:7). For defensive purposes, settlers were encouraged to settle lands near Santa Fe. However, the quality and quantity of suitable farmland, combined with the practice of living close to their fields, resulted in an elongated and dispersed settlement pattern along the Santa Fe River and adjacent to acequia-irrigated fields as depicted in the 1766–1768 map by Joseph Urrutia (Fig. 3.1) (Simmons 1979a:105–106; Adams and Chávez 1956:40; Moorhead 1975:148–149).

Presumably, all families were eligible for the typical town lot, which in the seventeenth century was defined as two lots for house and garden, two contiguous fields for vegetable gardens, two others for vineyards and olive groves, and four *caballerías* of land; and for irrigation, the necessary water, if available, obligating the settlers to establish residence for ten consecutive years without leaving (Hammond and Rey 1953:1088). Land documents from the eighteenth century clearly show that house and garden lots were common and that they were bought and sold regularly, once the ten-year residency requirement had been fulfilled (Tigges 1990). The extent to which vineyards and olive groves were actually introduced is unclear and has not been addressed archaeologically or well documented historically.

Obviously, arable land within the villa was scarce by the middle 1700s. Individual or family grants within the city league that included the full four caballerías of land or explicit access to the *ejido* (common land) parcels for livestock grazing were relatively few. Only 24 are shown on William White's undated *Sketch Map of Grants within the Santa Fe Grant,* reflecting land ownership in the early 1890s and coinciding with land claims filed with the Court of Private Land Claims (Westphall 1983:237). Based on William White's 1895 map, *Showing Owners of Land within the Santa Fe Grant outside of City Limits*, the long-lot land subdivision pattern is clearly evident. These long-lots were the basis of the small-scale agropastoral economic tradition that typified eighteenth- and early nineteenth-century land use within village or urban settings such as Santa Fe. The residences, which may be termed *ranchos* or *rancherías*, were much smaller in scale than *haciendas* (Simmons 1979a; Payne 1999:100–109). They were sufficient for subsistence but did not lead to economic advantage or prosperity. Long-lots allowed access into the ejido lands for other natural resources such as wood, game, and stone for construction (Wozniak 1987:23–25). Acequia irrigation that supported intensive wheat and corn cultivation was the backbone of successful settlement in New Mexico (Ackerly 1996; Baxter 1997; Snow 1988; Wozniak 1987).

Class and community. During the eighteenth-century, Santa Fe and New Mexico were inhabited by a diverse population. It was a socially stratified society with the governor, high-ranking officials, and officers of the presidio in the upper echelon. The middle class contained the farmers and artisans, who were slightly more prosperous

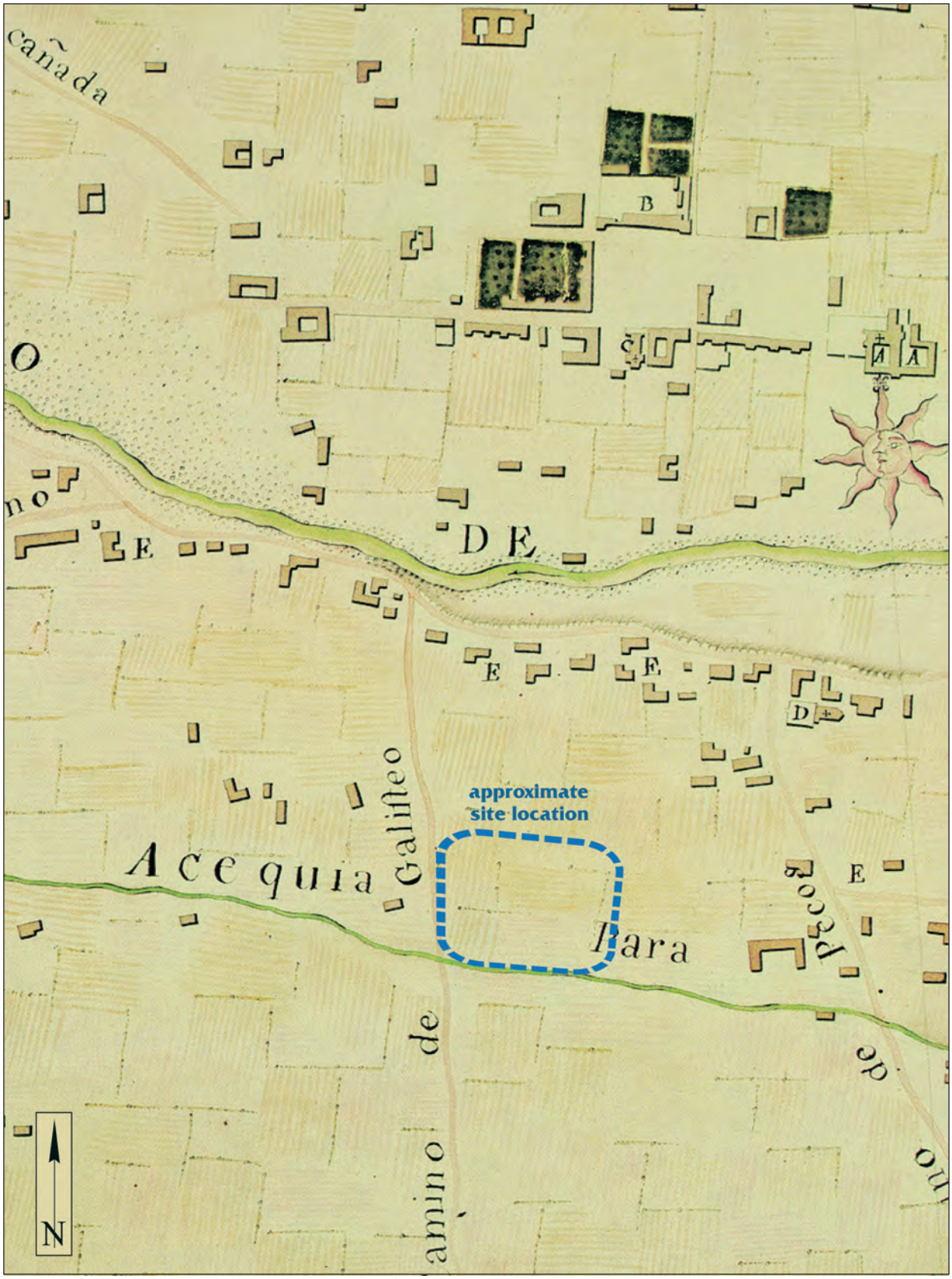


Figure 3.1. Detail of Urrutia's map of Santa Fe (1766).

than the common people and the soldiers of the presidio (Bustamante 1989:70). Other divisions within Hispano society reflected a diverse, mixed, and perhaps somewhat discriminatory and arbitrarily defined caste system (Brooks 2002; Bustamante 1989; Frank 2000). Economic-based social stratification was present, but the majority of the population consisted of small landholders of Hispano, Mestizo, Genízaro, or Indio castes. The Urrutia map shows the area south of the Santa Fe River and between San Miguel Church and Guadalupe Church as the Barrio de Analco, in which the population was partly composed of Tlaxacalan Indians from Mexico. Men were soldiers, farmers, shepherds, and laborers, along with a few skilled blacksmiths, educators, and medical professionals. During this time, churches and secular *cofradías* remained the main avenues by which social and economically defined groups cooperated and acted as a community (Frank 2000). Until the building of the Santuario de Guadalupe in the early 1800s, worship and service would have been connected with the Parroquia or would have occurred at San Miguel Chapel. With addition of the Santuario, the area assumed a more communal organization mediated through church membership and lay organizations (Sze and Spears 1988:37).

Mexican Period (AD 1821–1846)

At the beginning of the nineteenth century, Spain's hold on Mexico and the northern territories had diminished significantly. Recognizing that the citizens of New Mexico could not partake in the normal political, economic, and social activities of the declining empire, Spain allowed New Mexico to operate in virtual independence, except for the most important activities (LeCompte 1989; Westphall 1983). The positive effect was that New Mexico could determine much of its social and economic future. The negative effect was that the economic problems, compounded by limited sources of money, limited access to durable goods, and slow responses to military and administrative issues, created a stagnant economic environment. In addition, pressure from the United States to open economic ties, applied through small-scale economic reconnaissance, increased in frequency between 1803 and 1821.

With Mexico's independence from Spain in 1821, New Mexico became a frontier province and economic avenue to the commercial markets and production centers of the United States. Two major changes instituted by the new government had important consequences in northern New Mexico. These were the establishment of normal economic relations with the United States through overland trade on the Santa Fe Trail and the abolition of the caste system, which meant that everyone was a Mexican citizen.

Government. The political structure of Santa Fe experienced only minor change with the switch to a Mexican administration (LeCompte 1989; Pratt and Snow 1988). The abolition of the caste system meant that any citizen had an equal opportunity to hold a public office. Governors were still appointed by Mexico, and the governor continued to be the military commander. He was also responsible for collecting tariffs and regulating the Santa Fe Trail commerce. The town council and alcalde still oversaw the town business. Santa Fe was divided into six parishes that formed the nucleus through which issues could be advanced to the council and discussed throughout the community.

Economy. In 1821, with Mexico's independence, the New Mexican frontier was opened to trade with the United States. The Santa Fe Trail, extending from Santa Fe, New Mexico, to Independence, Missouri, became a major trade route for European goods from the east (Jenkins and Schroeder 1974; Simmons 1989). England also opened formal trade relations with Mexico. Due to these improved trade relations, large volumes of Euroamerican manufactured goods were available and filtered north on the Camino Real. By the 1830s, the dominant source of manufactured goods was the Santa Fe Trail, eclipsing the Camino Real in importance. Trade between the United States traders and Mexico did continue with a special focus on the northern Mexican silver mining region (Scheick and Viklund 2003:14). Americans not only traded in New Mexico, but also became involved in the transfer and allotment of large illegal land grants from Mexican officials (Westphall 1983).

With the opening of the Santa Fe Trail, New Mexico still remained predominantly an agropastoral economy. Most villages and towns barely felt the effects of the increase in commercial and consumer opportunity, except that basic household

and work items were more readily available. The opening of the Santa Fe Trail and the effect that it had on northern New Mexico's economy has been explored by many researchers (LeCompte 1989; Pratt and Snow 1988; Boyle 1997). While not widespread immediately, but with greater effect through time, the Santa Fe Trail trade provided access to durable and manufactured goods in quantities and at lower costs than had been available from Camino Real commerce. Seemingly basic household goods such as window glass, dishware, and hand tools were available to anyone that could afford to buy them or who could open a line of credit based on projected farm and ranch production. The beginnings of a more viable cash economy meant that wage labor added to the available options for supporting a family. It also meant that with cash available, land that could not sustain a family's needs could be sold.

Society in transition. Mexican independence from Spain resulted in limited changes to the family- and church-based social structure of Santa Fe and New Mexico. The abolition of the caste system and the granting of equal citizenship to all Mexicans and New Mexicans potentially allowed for changes in the social status of local and provincial officeholders or officials, but there is not strong evidence for such changes in Santa Fe. General historical descriptions indicate that under Mexican rule, Santa Fe and New Mexico continued to have considerable autonomy, resulting in strong organizations that governed secular aspects of religion and other aspects of Hispanic organization (LeCompte 1989:83; Abbink and Stein 1977:160; Frank 2000). Abolition of the caste system and full citizenship had little effect on Hispanic populations but had serious consequences for the Pueblo Indians, who had enjoyed special status relative to landholdings under Spanish rule. Their lands could now be sold and were subject to the vagaries of land transactions (Hall 1987).

Perhaps, the strongest force for social change in Santa Fe resulted from the opening of the Santa Fe Trail. This officially opened New Mexico to influences and settlement by populations from the United States and added a new layer of cultural diversity to the social setting, which would eventually shift the balance of the social and economic relations in Santa Fe and along the Rio Grande.

American Territorial Period (AD 1846–1912)

New Mexico's Territorial-period quest for statehood was one of the longest endured by any state of the Union. Following the United States' acquisition of new southwestern and western territories, there was a disorderly and turbulent rush to own or control land, and mineral and natural resources. The struggle for control created a political, economic, and social order that still affects how New Mexico functions as a state today. Two authoritative accounts of this period are Larson (1968) and Lamar (1966). Much of the following summary is derived from these sources.

Santa Fe Trail and pre-Railroad times (AD 1846–1879). On July 30, 1846, rumors that the United States would invade Mexican territory became a reality as Kearny proclaimed his intention to occupy New Mexico. After possible secret negotiations with General Manuel Armijo, the Army of the West arrived in Santa Fe on August 18, and New Mexico was surrendered to the United States (Jenkins and Schroeder 1974:44). Between 1846 and the ratification of the Treaty of Guadalupe Hidalgo on March 10, 1848, the army continued to occupy New Mexico, and a civilian government was installed, including a governor (initially appointed by General Kearny) and a territorial assembly (Fig. 3.2).

New Mexico changed politically when it was designated a territory of the United States under the Organic Act of 1851 (Lamar 1966:13). The act set up the territorial governorship, from which important appointments were made in the territorial administration. The territorial legislative assembly dealt with issues on a local level, while the territorial governor's job was to ensure that federal interests were served (Lamar 1966:14). The center of government remained in Santa Fe, as it had been during the Spanish and Mexican administrations.

Between 1848 and 1865, the economy continued to focus on Santa Fe Trail trade, with the inclusion of routes from Texas (Scurlock 1988:95–97). Santa Fe continued to be the economic and political center of the territory. In addition to the mercantile trade, the establishment of military forts such as Fort Union and Fort Stanton expanded the economic markets (Jenkins and Schroeder 1974:50; Scurlock 1988:76–88). Local

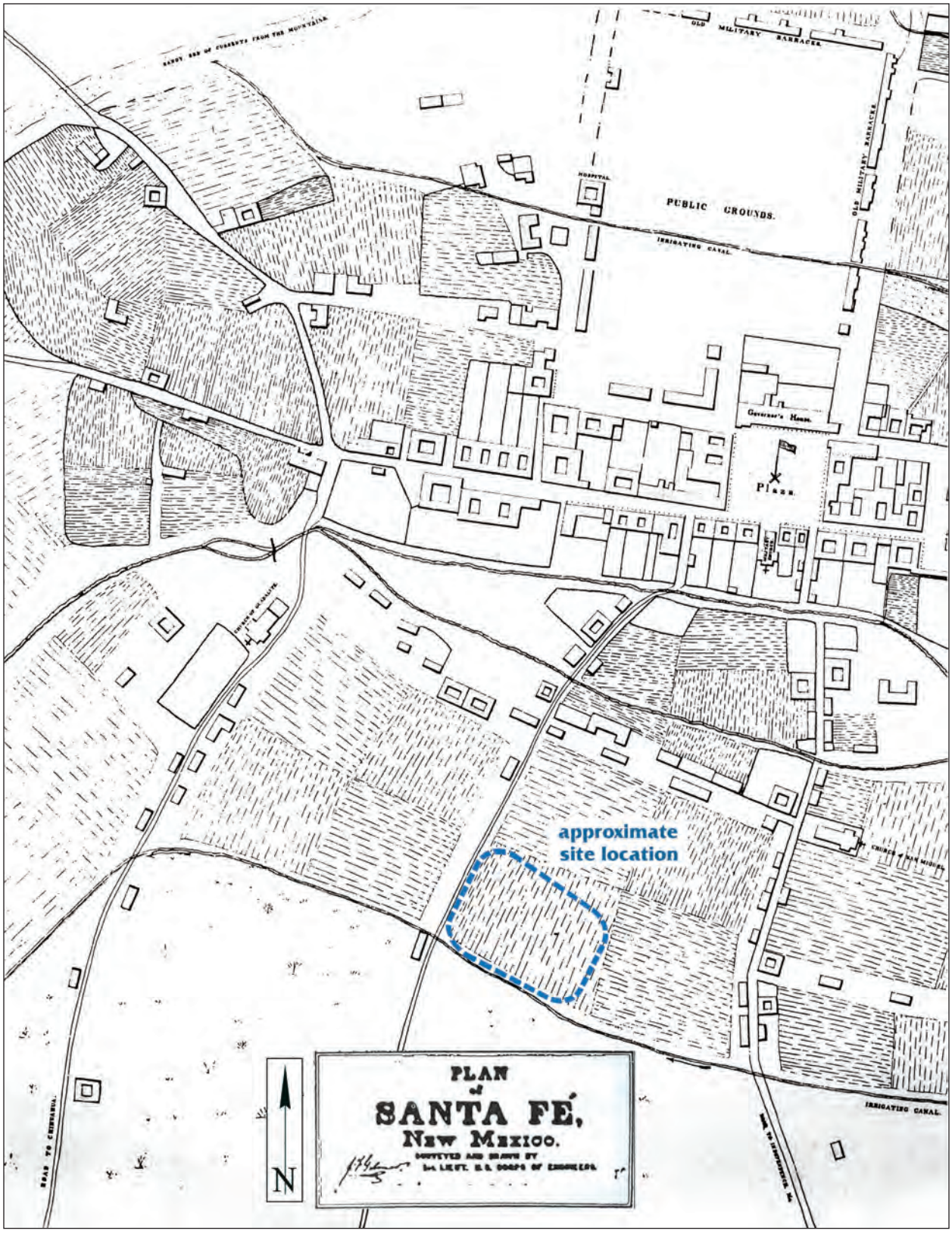


Figure 3.2. Detail of Gilmer's map of Santa Fe (1846–1847).

economies continued to be agrarian and pastoral. The large ranches supplied cattle and wool to the eastern markets and, until the end of the Civil War, to Mexico. A full-scale cash and wage economy was not yet in place, since New Mexico was still isolated from the rest of the United States by long distances and hostile Indian tribes (Abbink and Stein 1977:167; Fierman 1964:10).

Changes in the social structure were gradual before the Civil War. Early migration by Euromerican and European entrepreneurs was slow because industries such as mining had only been established on a small scale. As the terminus of the Santa Fe Trail, Santa Fe attracted immigrant Jewish and German merchants, who brought eastern European business experience into the new territory. These merchants replaced the early traders and established formal businesses (Jenkins and Schroeder 1974:63). Early merchants were not satisfied with dealing only in goods and participated in growing land speculation in Spanish and Mexican land grants.

Between 1865 and 1880, the trends that began with establishment of the territory were amplified. Before 1860 the United States' attention was focused on the sectional conflict and the resulting Civil War. New Mexico was a Union territory, and for a brief period in 1862 the Confederates occupied Santa Fe without a shot being fired from the cannons of Fort Marcy, which overlooked Santa Fe. However, when the Confederate contingent attempted to move north to the Colorado gold mines, they were engaged, defeated, and exiled from the territory (Jenkins and Schroeder 1974:50–51).

With the end of the Civil War, attention was turned to the settlement of the new territories and their potential for economic opportunity. Military attention turned to pacification of the Native American tribes that roamed New Mexico outside the Rio Grande and its tributaries (Jenkins and Schroeder 1974:51–56). The new western territories were perceived as a place where lives ruined by the Civil War could be renewed. Eastern professionals with all kinds of expertise were encouraged by associates to come to New Mexico, where the political and economic fields were wide open (Lamar 1966). Much of this migration centered on Santa Fe, which continued to be the economic and political center of the territory.

The newcomers joined forces with and embraced the *patrón* system, thereby gaining acceptance into the existing cultural setting. These alliances were referred to as "rings." The rings were informal organizations of lawyers, cattlemen, mining operators, landowners, merchants, and government officials (Larson 1968:137). Their common goal was to provide a favorable environment for achieving economic and political aims. The most well-known was the Santa Fe Ring, which included territorial governors, land registrars, newspaper owners, lawyers, and elected and appointed officials. Important persons in New Mexico history belonged to the Santa Fe Ring, including Stephen Elkins (secretary of war and US senator), Thomas Catron (territorial delegate and US senator), L. Bradford Prince (US senator and territorial governor), Francisco Chávez (president of the Territorial Assembly), and M. W. Mills (territorial governor), to name a few (Larson 1968:142–144). The Santa Fe Ring crossed party lines and was extremely fluid in its membership; disloyalty resulted in ostracization and often in political or economic ruin. Opposition to the ring was suppressed by law and violence, as demonstrated by the Lincoln and Colfax County wars in the 1870s (Larson 1968:137–140).

The alliances between the new political and economic entrepreneurs and the old power structure came to dominate the territorial legislature, which through time passed an increasing number of laws benefiting the new structure to the detriment of the Spanish and Native American populations (TANM Roll 102, Frames 78–95). The new westerners often had contacts in Washington through which they influenced territorial political appointments and disbursement of economic aid (Lamar 1966:169–170).

Perhaps the greatest lure in the New Mexico territory was land. Ownership of large tracts of land was intensely sought by Santa Fe Ring members, a pattern typified by Thomas Catron, who was one of largest landholders in the United States by 1883, only 16 years after arriving in the territory (Larson 1968:143). To land speculators, most of New Mexico was unsettled and unused. This was an illusion promoted by the frontier subsistence economy of low-density, land-extensive farming and ranching, which had

prevailed before the Territorial period. Lack of transportation to markets, conflicts with Indians, and a general lack of funds had retarded New Mexico's cattle, lumber, and mining industries. Under the Spanish land grants, nonarable land was a community resource and was therefore not overexploited. It was the community land that land speculators obtained, to the detriment of New Mexico's rural economy and social structure (Van Ness 1987).

New Mexico's economy changed after the Civil War because of increases in the number of military forts and the growing Anglo -controlled mining and ranching industries. A mercantile system that had focused on Mexican and California trade now supplied the military and transported precious ores from the gold and silver mines of the Santa Rita and Ortiz Mountains to national markets. A marginal cash economy grew as the federal government spent money on military forts and the Indian campaigns. The Santa Fe, California, and Texas trails were the main routes for goods. The Chihuahua trade died after the Civil War (Jenkins and Schroeder 1974:61–62).

Early Railroad era (AD 1879–1912). Between 1879 and 1912, political power was concentrated in the Santa Fe Ring, which consisted of several Santa Fe politicians (Dean 2010). The group controlled territorial and local political appointments through a system of patronage and effectively blocked legislation proposed by its opponents. In 1885 Edmund G. Ross was appointed territorial governor and was asked to end the political and economic control of the Santa Fe Ring, a task he was unable to complete.

National attention on New Mexico focused on the continued abuses of the land grant situation. Between 1870 and 1892, the Santa Fe Ring was able to manipulate land grant speculation to their advantage. Surveyors general were usually appointed with the blessing of the ring and were often involved in land deals with ring members (Westphall 1965). William Julian was appointed surveyor general and given the job of halting the land grant abuses, which he carried out in spectacular if not a little overzealous fashion. His inclination was to deny all claims as fraudulent and recommended very few to Congress for confirmation. The grants within and on the periphery of Santa Fe were at both ends of the spectrum. Julian recommended the Sebastián de Vargas Grant, on the southeast boundary of Santa Fe, for confirmation, even though it lacked the proper documents (Court of Private Land Claims [CPLC]). On the other hand, the Salvador Gonzáles Grant, within the northeast corner of the Santa Fe Grant, became the focal point for a national lambasting by Julian (1887) of the abuses of the land grant situation. To the Santa Fe Ring, Julian was an obstructionist who used his position to advance personal vendettas (Bowden 1969).

At stake in the land grab were millions of acres that would leave private control and enter the public domain if they could not be confirmed as part of a land grant. Julian and Ross believed the public domain should be available to small landholders (Lamar 1966). The Santa Fe Ring supported large-scale ranching and mining interests. Because Santa Fe was the political and economic center of the territory, the land around it was valuable, and large tracts not legitimately included in the Spanish land grants were falsely claimed.

From 1880 to 1912, economic growth in the Santa Fe area began to lag as other areas of the state—Las Vegas, the Mesilla Valley, and Albuquerque—grew in importance. Much of the economic slowdown can be ascribed to the lack of a through railroad (Elliott 1988:40). No longer an important economic center, Santa Fe became nothing more than a stop at the end of a spur of the Atchison, Topeka & Santa Fe Railway. Although it was also the terminus of the Denver and Rio Grande Railway, which had local and regional significance, that route had little national importance because it did not tie in directly to the east–west transportation corridor (Pratt and Snow 1988:419).

In a move to spur economic growth, a concerted effort was made to advertise Santa Fe and New Mexico as a tourist and health destination (Spude 2010). Sanatoriums sprang up all across New Mexico, even in remote locations such as Folsom, in the northeast corner of the state. The trip on the Denver and Rio Grande Railway was described as an excellent remedy for lung problems (Nims 1881; Williams 1986:129–131). Two notable sanatoriums in Santa Fe were St. Vincent Sanatorium, established in 1883, and Sunmount Sanatorium, started in 1906 (Lewis 2010). John Gaw Meem was treated at Sundermount between 1920 and 1921 and

was the lead architect in remodeling and new construction at St. Vincent in 1954.

New Mexico's unique cultural heritage was recognized as an important tourist draw. Preservation and revival of traditional examples of architecture and Native crafts and ceremony were encouraged. Large-scale tourist corporations such as the Harvey Corporation invested heavily in Native American crafts. Tourism and economic development became a dichotomy of economic goals. The tourist industry emphasized the old and romantic, while the economic development interests portrayed New Mexico as booming and vital, embodying the modern values embraced by the eastern establishment (Wilson 1981:105–159).

Spude (2010:339) notes that during this time Santa Fe went through a period of "Americanization," where progressive-minded citizens strove to reform government, social and cultural values, and the very appearance of their city (Fig. 3.3). These reforms included the incorporation of the city in 1891, the installation of a sewage system, the paving of roads, new laws governing trash disposal, closing saloons on Sundays, and prohibitions against many forms of gambling. While Santa Fe may not have grown, it maintained economic stability. The city acquired many federal and territorial expenditures and jobs. Attempts to move the capital to Albuquerque in the early 1880s were defeated, which proved critical to the long-term economic stability of Santa Fe (Lamar 1966). Another choice made by legislators interested in Santa Fe's economic growth was to locate the penitentiary in Santa Fe. As a tradeoff, Albuquerque, Las Cruces, Las Vegas, and Socorro received colleges. The penitentiary was viewed as economically more valuable than schools.

Statehood to Modern Times (AD 1912–Present)

New Mexico was delayed in its quest for statehood by eastern politicians who viewed the small population, the arid climate, and a Spanish-speaking majority as liabilities. Most New Mexicans favored statehood but had different conditions under which they would accept it. Some citizens feared statehood because of the potential for increased taxation, domination by one ethnic group over another, and the loss of federal jobs under a state-run system. These factors, combined with political factionalism in New Mexico, resulted in the struggle (Larson 1968:302–304).

On January 6, 1912, New Mexico was admitted into the Union as a state. After statehood the patterns that were established in the Territorial period continued. New Mexico experienced only slow population growth, with most settlement concentrated along the Rio Grande corridor and in the southeast around Roswell. More than half the state land had fewer than five people per square mile (Williams 1986:135), partly because of the large area that was part of the National Trust and could not be settled. The major industries continued to be mining, ranching, lumber, farming within the Pecos and Rio Grande irrigation districts, and tourism (Jenkins and Schroeder 1974:77).

Prohibition era (1920–1933). In the United States, the term "Prohibition" refers to the period from 1920 to 1933, when the sale, manufacture, and transportation of alcohol for drinking was banned nationally by the Eighteenth Amendment to the United States Constitution (Hakim 1995:16–20). After much pressure by the temperance movement, the United States Senate passed the Eighteenth Amendment on December 18, 1917. The Volstead Act, the popular name for the National Prohibition Act, passed Congress over President Woodrow Wilson's veto on October 28, 1919. The Eighteenth Amendment was certified as ratified on January 16, 1919, having been approved by 36 states, including New Mexico, and went into effect on a federal level on January 16, 1920 (Skilnik 2006).

The prohibition or dry movement began in the 1840s, primarily through various religious denominations, but didn't become a strong force in state and local politics until the 1880s, after the Civil War had ended, and after the founding of the Women's Christian Temperance Union (WCTU) in 1873 and the Carrie Nation Prohibition Group around 1881 (Green 2009:9; Kyvig 2002:3–4). They identified saloons as politically corrupt and drinking as a personal sin and were opposed by other groups who denounced the idea that the government should define morality. The Progressives won, however, when the Eighteenth Amendment went into effect.

In New Mexico, heavy drinking was a staggeringly pervasive fact of life, with some men

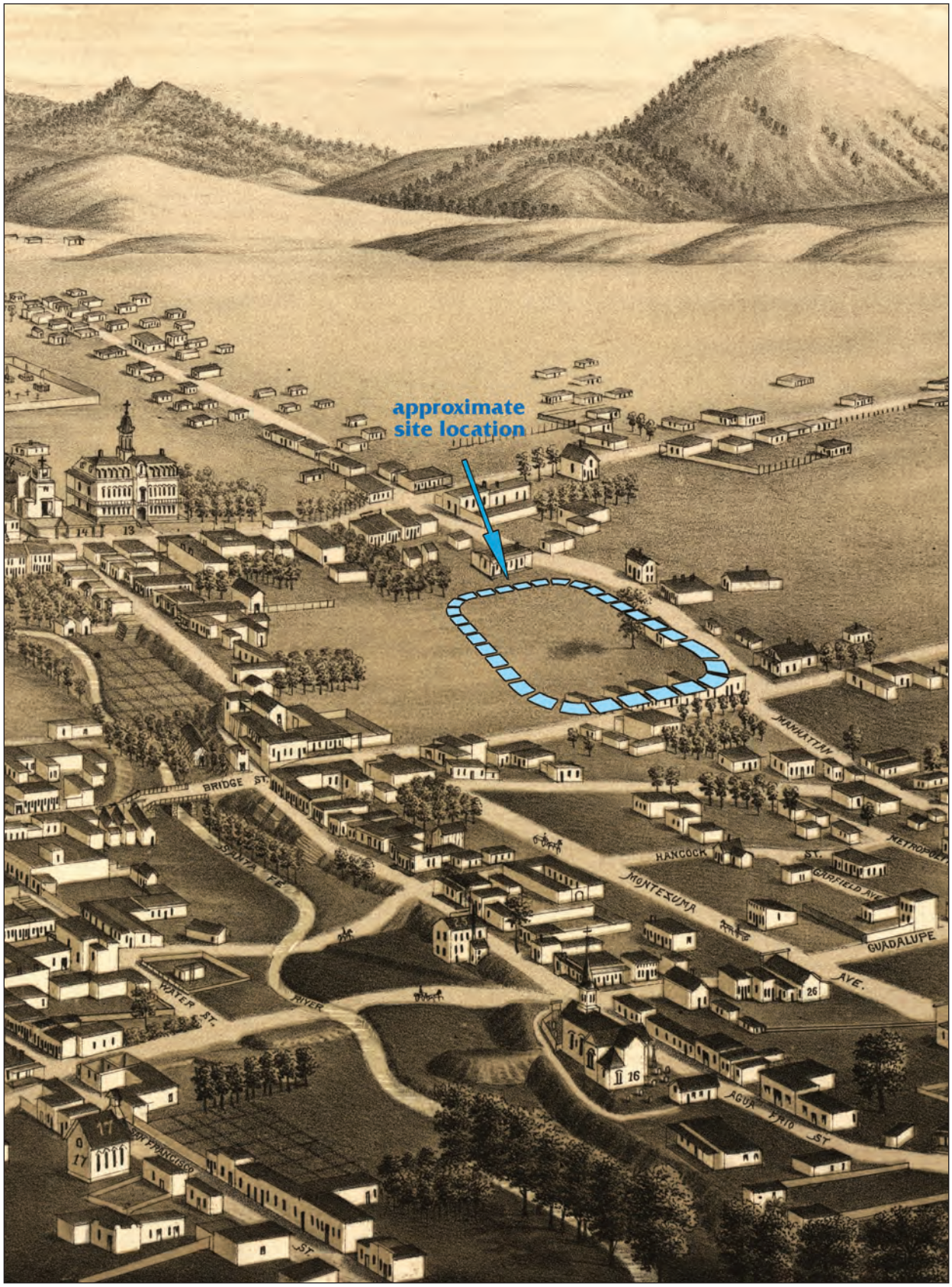


Figure 3.3. Detail of Stoner's **Birdseye View of Santa Fe** *(1882).*

drinking throughout the day. New Mexico voters and legislators were therefore attempting to pass their own prohibition against alcohol during the time of the general movement nationwide. The WCTU and other Prohibition supporters quickly gained ground after the start of World War I. An editorial in the *Santa Fe New Mexican* argued, "If we are to win this war we cannot do it if we stay 'pickled.' We should vote 'dry' for our country's sake" (Silverman 2006:34–38).

New Mexico voters passed Article 23 on November 6, 1917, by a margin of three to one, with every county but Rio Arriba and Taos voting for Prohibition, and on October 1, 1918, New Mexico became the 26th dry state (Silverman 2006). This milestone was overshadowed by news of the war and the arrival of a flu epidemic that closed all public gathering places.

Although it was highly controversial, Prohibition was supported by diverse groups, including Progressives, the Ku Klux Klan, women, southerners, people in rural areas, and African Americans (Blue 2004). The law, however, proved difficult to enforce: while alcohol was illegal in the US, it was not illegal in surrounding countries such as Canada, Mexico, and the Caribbean, where alcohol was either consumed by visiting Americans or illegally imported to the US. Chicago became notorious as a haven for disobeying Prohibition during the Roaring Twenties, with Bugs Moran and Al Capone making millions of dollars from illegal alcohol sales through the Chicago speakeasies and the bootlegging business from Canada to Florida (Kyvig 2002:163–186).

As in other areas of the nation, New Mexicans never really stopped drinking. Cheap booze, created in homemade and commercial stills and smuggled up from Mexico by rumrunners, remained readily available. New Mexico also had its illegal drinking establishments, although not on as large a scale as Chicago's. Historian David J. McCullough described one Santa Fe speakeasy, ca. 1927:

> One of the more notable establishments was housed in a three-story building. . . . The quality of the drinks and the décor of the rooms changed on each floor. The first floor was for "poorer people" who wished to quench their thirst with "white mule. . . ." The second floor was for those slightly more affluent who wished to ascend to "Second Heaven. . . ." Only those with a "fat wad" could make it to the third floor where good quality booze was sold.

To add to the problem of enforcing the state's Prohibition, New Mexico Legislators at the time were hard drinkers and refused to pass legislation that would give the antialcohol laws any teeth. When the Eighteenth Amendment went into effect, 1,520 Federal Prohibition agents (police) were given the task of enforcing the law. Some of those officers later rated New Mexico as worse than average in fighting illicit liquor sales (Silverman 2006).

As Prohibition became increasingly unpopular, especially in the big cities, repeal of Prohibition was eagerly anticipated. On March 23, 1933, President Franklin Roosevelt signed into law an amendment to the Volstead Act, known as the Cullen-Harrison Act, which allowed certain kinds of alcoholic beverages to be manufactured and sold (Skilnik 2006). The Eighteenth Amendment was then repealed with ratification of the Twenty-first Amendment on December 5, 1933. This amendment gives states the right to restrict or ban the purchase or sale of alcohol, which has led to the confusion of laws that allow some counties and towns within a state, but not others, to sell alcohol.

Overturning the New Mexico legislation was a challenge. Attempts at reform were made in 1927 and 1929 to no avail. The temperance movement remained strong, but the antitemperance movement began to gain prominent citizens as supporters, rather than just saloon owners. It took a few years, but they were finally able to bring a repeal measure to the State Legislature. New Mexico voters finally ratified the measure in September 1933 to overthrow Prohibition. New Mexico then ratified the Twenty-first Amendment on November 2, 1933 (Silverman 2006).

Many social problems have been attributed to the Prohibition era, in New Mexico as well as across the US, including a profitable, often violent, black market for alcohol and racketeering. Stronger liquor surged in popularity because it was more profitable to smuggle. The high cost of enforcing Prohibition and the lack of tax revenues on alcohol negatively affected the local, state, and

federal treasuries of government. Only half the breweries that had existed before Prohibition were able to reopen, and several historians credit Prohibition for destroying the fledgling wine industry in the US (MacNeil 2000:630–631).

The Great Depression era and the New Deal (1929–1941). A great depression is defined as a period of diminished economic output with at least one year where output is 20 percent below the trend (Kehoe and Prescott 2007). The beginning of the Great Depression in the United States is associated with the stock market crash on October 29, 1929, known as Black Tuesday, and it lasted until the onset of the war economy of World War II, beginning around 1939. It caused a worldwide economic downturn, affecting countries worldwide, some as early as 1928 (Engerman and Gallman 2000). Cities and countries around the world were hit hard, especially those that depended on heavy industry. International trade sharply declined, construction virtually halted in many countries, and crop prices in farming and rural areas fell by 40 to 60 percent. Demand plummeted, and there were few alternate sources of jobs (Cochrane 1958; World Economic Survey 1932–1933).

In the US, however, optimism persisted even following the 1929 Wall Street crash. John D. Rockefeller insisted that "depressions had come and gone" in his 93 years, and "prosperity has always returned" (Schultz 1999). In fact, the stock market turned upward in early 1930, and government and business actually spent more in the first half of 1930 than in early 1929. Consumers who had lost heavily in the crash, however, were wary and cut back their spending by 10 percent. Even though credit was ample and available at low rates, people were reluctant to add new debt by borrowing. By May 1930, prices in general began to decline. Wages, however, held steady in 1930, then began to drop in 1931. Furthermore, a severe drought hit the agricultural heartland beginning in the summer of 1930. Areas with the worst conditions were farming, due to low commodity prices, and mining and logging, where unemployment was high, and few other jobs were available. As the American economy declined, other countries were affected positively or negatively, depending upon their internal strengths or weaknesses. By late 1930, a steady decline set in, which reached bottom by March 1933.

There are several theories on what can catapult a usually mild and short recession into a depression, a full discussion of which is beyond the scope of this chapter. As for the Great Depression, however, debt is seen as one of the causes. People and businesses who were deeply in debt when price deflation occurred or demand for their product decreased often risked default. Massive layoffs occurred, leading to over 25 percent unemployment. As debtors defaulted on debt and worried depositors began massive withdrawals, banks began to fail. Capital investment and construction then slowed or completely ceased, resulting in banks becoming even more conservative in their lending. A vicious cycle developed, and the downward spiral accelerated.

A sharp decline in international trade after 1930 is also thought to have helped worsen the depression, particularly for countries significantly dependent upon foreign trade (Kindleberger 1973:291–308). Others argued that the Great Depression was caused by monetary contraction, the consequence of poor policy making, inaction by the Federal Reserve, and the continuous crisis in the banking system (Bernanke 2000; Krugman 2007; Griffin 2002). Some argue that part of the reason the Federal Reserve did not act to limit the decline of the money supply was the laws regulating gold (Hawley and Wueschner 1999). At the beginning of the Great Depression, Herbert Hoover was president (Hakim 1995). His secretary of the treasury, Andrew Mellon, advised Hoover that shock treatment would be the best response to deal with the economic problems: "Liquidate labor, liquidate stocks, liquidate the farmers, and liquidate real estate. . . . That will purge the rottenness out of the system. High costs of living and high living will come down. People will work harder, live a more moral life. Values will be adjusted, and enterprising people will pick up the wrecks from less competent people." Hoover rejected that advice because he believed that government should not directly aid the people. He insisted instead on "voluntary cooperation" between business and government (Hoover 1979:3–9) and stricter government regulation of existing laws.

Enter Franklin D. Roosevelt. Inaugurated in 1933, he primarily blamed the excesses of big

business for an unstable economy. He wanted to restructure the economy, and so the New Deal was designed as a remedy, empowering labor unions and farmers and raising taxes on corporate profits, among other things (Vietor 1994). Part of the initial reforms (called the "First New Deal" by historians), the National Recovery Administration (NRA) and the Agricultural Adjustment Act (AAA), were meant to highly regulate and stimulate the economy (Kyvig 2002:236–238). The two concepts were incompatible, however, as the economy continued to stagnate. In 1935 the "Second New Deal" added Social Security, a national relief agency (the Works Progress Administration, WPA), and, through the National Labor Relations Board, a strong stimulus to the growth of labor unions (Kyvig 2002:269–270). Unemployment fell from 25 to 14.3 percent from 1933 to 1937. But then a short-lived recession in 1937–1938 caused unemployment to jump to 19 percent. Roosevelt also responded to the 1937–1938 deepening of the Great Depression by abandoning his efforts to balance the budget and launching a $5 billion government spending program in the spring of 1938, an effort to increase mass purchasing power. It was not until the draft to fight World War II and the decontrol of the wartime command economy in 1946, including a sharp reduction of taxes and regulations, that finally allowed consumer goods to be created, and unemployment finally fell to levels under 10 percent.

Eventually, some of the New Deal regulations (the NRA in 1935 and AAA in 1936) were declared unconstitutional by the US Supreme Court. In a bipartisan wave of deregulation, most New Deal regulations were later abolished or scaled back in the 1970s and 1980s (Vietor 1994).

The citizens of New Mexico benefited greatly from many of the New Deal programs. New Mexico was one of the most destitute states in the Union even prior to the onset of the Depression (Arrington 1969:311–316). In the early 1930s, many New Mexicans were struggling financially, which in turn caused a shortfall in the state's tax base, leading to its inability to serve the state's most vulnerable citizens (Coan 1925; Forrest 1989). By the height of the Depression, about half of New Mexicans were unemployed, and only 1 percent of the irrigable land was actually under cultivation (Welsh 1985:20). The need for jobs was so great that the New Mexico Federation of Labor proposed limiting employment on government construction projects to one wage earner per family. Governor Arthur Seligman applied for a small amount of federal aid, initially from the Reconstruction Finance Corporation and later from other programs, seeing it not only as a way to employ out-of-work New Mexicans, but also as a way to improve New Mexico's infrastructure. He believed that plenty of men would be willing "to work for a dollar a day and their board and keep" to provide something beneficial to the state (Seligman 1933).

New Mexico's state-government-sponsored capital improvements were insignificant compared to the projects completed through New Deal programs. New Mexico is ranked fifth among all states in per capita expenditure of New Deal money from 1933 to 1939 (Kammer 1994:2). Conchas Dam (35 miles north of Tucumcari) is a consummate example of the New Deal in New Mexico and involved essentially every New Deal program created by the Roosevelt Administration, from the 1935 Federal Emergency Relief Act (ERA) to the Civilian Conservation Corps (CCC), including the Works Progress Administration (WPA), the Public Works Administration (PWA), and the Works Projects Administration (WPA) programs for writers, artists, and teachers. The Conchas Dam construction project was justified as a way to bring wage-paying jobs to an area of great unemployment. Labor-intensive methods such as the production of handmade adobes and hand-quarried local sandstone blocks, were employed during the construction of an entire town, which had to be built before construction of the dam began (Schelberg and Everhart 2008:134). The town was created by constructing virtually every facility and amenity associated with contemporary life in the 1930s (Kramer 1941).

As first proposed in 1931, the project was rejected by Congress and the US Army Corps of Engineers as not economically justified at over $11,600,000. It was not considered economically viable until 1935, and only then with the possibility of using ERA relief workers. Ultimately, 2,500 people worked on the Conchas Dam, many for as little as $.25 per hour for as little as 20 hours per week so that more people could be hired. Even with the low wage, applicants were routinely placed on a waiting list. In accordance with ERA

provisions, 90 percent of the employees were listed on relief rolls and 10 percent on the Civil Service Commission registry. Of the former, 80 percent were from New Mexico and 20 percent from the Texas panhandle. Most skilled workers were from California and the Midwest, since there were no skilled workers in New Mexico (Welsh 1985:22–32; Kammer 1994:64).

One of the lasting legacies of the New Deal in New Mexico was adopting the Spanish-Pueblo Revival style and the Territorial Revival Style in the construction of government buildings that remain in use to this day (Kammer 1994:32). Clyde Tingley, mayor of Albuquerque from 1932 to 1934, became familiar with the New Deal programs by bringing Civil Works Administration (CWA) projects into Albuquerque, including 17-acre Roosevelt Park, near the University of New Mexico; and Tingley Beach, adjacent to a flood-control channel (Kammer 1994:27–28). After Tingley became governor, from 1934 to 1938, he maintained a special relationship with President Roosevelt and wholeheartedly embraced the New Deal with the goal of improving New Mexico by expanding governmental services—a fundamental tenet of the New Deal. Under Tingley's guidance the WPA put thousands of New Mexicans back to work on projects resulting in unprecedented public capital improvements (Kammer 1994:26–41). During his years as governor, these projects included 2,916 miles of road improvements, 277 new schools, many highway district buildings, institutional buildings and hospitals, public parks, water and sewer systems, and several dams (Kammer 1994:76).

Conchas Dam continues to exist today, but provisions of the lease required that the construction town be demolished once the dam was completed, and any salvaged materials be sold to other Corps districts or government agencies. Neither adobe nor sandstone could be profitably sold or transported great distances. Therefore, much of the demolition was done carefully by hand by the CCC, and the materials were then reused by the CCC to construct the Corps' administration building and five houses for the personnel operating the dam. The administration building and the houses were still in use in 2007, and the land that the town sat on reverted to private ownership in 2007 (Schelberg and Everhart 2008:144).

Other buildings and structures around New Mexico that were built by CCC crews and other New Deal programs include 30 structures at Bandelier National Monument, the National Park Service building on Old Santa Fe Trail, the 1934 Don Gaspar Bridge, the Supreme Court Building in Santa Fe, and six structures for the New Mexico School for the Deaf (Weideman, *Santa Fe New Mexican*, May 1 and 2, 2008).

While the New Deal is well known for the construction projects undertaken throughout the country, it is less well known that artist and writer projects were established by the Works Progress Administration (WPA) to provide support for the humanities. Many of New Mexico's best-known artists were involved in this New Deal's WPA Art Project. More than 65 murals with various subjects were created in New Mexico during the Depression. In addition to these murals, more than 650 paintings, ten sculptural pieces, and numerous indigenous Hispanic and Native American crafts were sponsored by the WPA (*Collector's Guide* 2008).

New Mexico is one of the highest-ranked states in terms of benefiting from New Deal programs, especially those concerned with building and conservation. The programs of the New Deal essentially created the existing New Mexico State government structures, confirmed the architectural style of the government buildings, and did much to introduce New Mexico to the modern era (Schelberg and Everhart 2008:145).

The proud decades (1941–1960). President Roosevelt's New Deal programs were credited with pushing New Mexico to modernize. State agencies had to be created for New Mexico to take advantage of the federal government's offers of financial aid. By 1939 New Mexico's economy was deeply in trouble, having seen farm, livestock, and taxable property values tumble for almost a decade. As in much of the country, New Mexico's economic rebound was intimately associated with World War II and the militarization of the state. Agriculture also received a strongly needed boost as the demand for food surged.

During World War II, New Mexico was home to eight major air bases, thirteen bombing and gunnery ranges, four army hospitals, three prisoner of war camps, eleven National Guard armories, and seven specialized military locations (Hoffman n.d.). Its citizens had compiled an

impressive and unique record of military service, although contributions by Hispanic and Native Americans received little public recognition. The secrecy that cloaked one such program, the Navajo Code Talkers, until the 1980s may offer a partial explanation. In 194, 29 Navajo volunteers from boarding schools in Shiprock, Fort Defiance, and Fort Wingate were organized into the first unit of Code Talkers. Structuring the code was not a simple task. Military terms had to be translated into images and the images into Navajo spoken language, allowing messages to be radioed among combat command posts. First employed in 1942 at Guadalcanal, the code was used throughout the war years and was never broken by the enemy (Paul 1998).

In 1940 the 111th Cavalry Unit of the New Mexico National Guard was renamed the 200th Coast Artillery Regiment, and the 158th was reorganized as the 104th Anti-tank Battalion (Reed 2010). These units as well as the 21st Engineer Regiment were called to active duty for one year of training. In August 1941, the 200th shipped out to Fort Stotsenberg in the Philippines and was responsible for downing seven aircraft during the Japanese attack of December 8, despite having to use outdated and faulty ammunition (Reed 2010:389–391). A segment of the 200th was subsequently assigned to the 515th Coast Artillery Regiment, which was charged with providing aircraft protection for Manila, the Philippine capitol. These units all participated in the four-month Battle of Bataan and are credited with delaying the Japanese advance and thereby preventing the invasion of Australia (Reed 2010).

On April 9, 1942, 47,000 surviving American and Filipino soldiers surrendered to the Japanese. The American "Battling Bastards of Bataan" were subsequently to receive numerous medals and commendations from the United States and Philippine governments for their heroic performance under terribly adverse conditions. During the 65-mile Bataan Death March, 16,950 American and Filipino service men died, and many more succumbed during their years of imprisonment at Camp O'Donnell. Of the 1,800 New Mexicans who took part in the Bataan campaign, only one-half returned home at the end of the war (Reed 2010:383). Many of those who made it back died the following year from war-related injury and illness.

On the European front, the New Mexico National Guard's 104th Anti-Tank Battalion was sent to Oran in East Africa in February 1943 for advanced training. In January 1944 the battalion landed in Italy and participated in the fighting that led to breaking the Gustav Line and entering Rome in June of that year. One month later, the 104th helped clear enemy forces from the Arno River, which allowed penetration into northern Italy. The spring of 1945 saw the 104th cross the Po River and enter Treviso in what was the final phase of the war in Italy. The men of the battalion received eight Silver Stars, three Legions of Merit, and sixty Bronze Stars. One hundred thirty-five Purple Hearts were awarded, thirty posthumously.

The Albuquerque Army Base, which later became the Air Force Advanced Flying School, was the site of bombardier training and the filming of the 1943 movie *Bombardier*, starring several of Hollywood's biggest names. In 1942–1943, the actor Jimmy Stewart was in Albuquerque teaching trainees to pilot AT-7, AT-9, and B-17 aircraft. He went on to command the 703rd Bomb Squadron and flew several combat missions in the war against Germany (http://en.wikipedia.org/wiki/James_Stewart).

The 20th Combat Engineering Battalion also compiled a commendable record, participating in the invasion of Sicily on July 10, 1943, and, later in the year, the invasion of Paestrum, Italy. Journalist Ernie Pyle, who called New Mexico his adopted state, documented the 20th's activities throughout the Italian campaign, writing, "It was good to get back to those slow-talking, wide and easy people of the desert, and good to speak of places like Las Cruces, Socorro, and Santa Rosa." Pyle also praised the cartoonist Bill Mauldin, who hailed from Mountain Park, New Mexico, for his sensitive portrayal of the men fighting and dying on the battlefield. After the war, Mauldin went on to a distinguished career as a newspaper cartoonist. In 1962 he moved to Santa Fe and sculpted a bronze statue of his *Cavalry Sergeant* cartoon which is still on display at the New Mexico Veterans Memorial Visitor Center and Museum. In 2010 he was honored with a commemorative stamp by the US Postal Service. Ernie Pyle did not survive the war he covered so brilliantly (http://en.wikipedia.org/wiki/Ernie_Pyle).

New Mexico history is inseparably linked to

the Manhattan Project, conducted between 1942 and 1946 at Los Alamos, which culminated in the development and assembly of the world's first atomic bomb (Diggins 1988:48–53). The project, named after the borough of Manhattan, in New York City, where early operations were conducted, was a massive undertaking involving more than 30 sites in the United States and Canada and thousands of scientists and engineers from around the world. The project director, J. Robert Oppenheimer, summarized the motivation of the participants: "Almost everyone knew that this job, if it were achieved, would be a part of history. This sense of excitement, of devotion, and other patriotism in the end prevailed." Oppenheimer recalled the difficulty recruiting personnel who could not be told anything about the where, what, and why of the job (Sullivan 2004). "The notion of disappearing into the desert for an indefinite period and under quasi-military auspices disturbed a good many scientists and the families of many more." After the US Army purchased the site at Los Alamos, there was a rush to construct laboratories, barracks, apartments, and all the supporting structures required for the new town (Merlan 1997). The only mailing address for all residents was P.O. Box 663, Santa Fe, and this address appeared on the birth certificates of all the children born at Los Alamos. Soft coal fueled the town; soot and dust covered everything. When it rained, the streets and yards were mired in mud. Water control was strictly enforced; new arrivals were advised to soap their bodies before entering the shower and hope that the water turned on. Some residents kept horses and rode the countryside; others took advantage of the outdoors by hiking.

The first and only nuclear test, code name Trinity, took place on July 16, 1945, near Alamogordo (Merlan 1997). The two other weapons, code names Little Boy and Fat Man, were released over Hiroshima and Nagasaki, respectively. While causing massive destruction and loss of life, the bombs forced the surrender of Japan and averted the need for an invasion of the Japanese mainland, which, it is claimed, would have resulted in an even greater number of Japanese casualties and the deaths of many thousands of American servicemen.

Despite the tight security at Los Alamos, three spies were identified. Klaus Fuchs arrived with a delegation of British scientists and was subsequently convicted of spying for the Soviet Union. Theodore Hall was never tried for spying and subsequently immigrated to Great Britain. Also convicted was David Greenglass, the brother of Ethel Rosenberg. His testimony was instrumental in the conviction of Julius and Ethel Rosenberg, who were executed for spying for the Soviet Union (http://en.wikipedia.org/wiki/Julius_and_Ethel_Rosenberg). Finally, KGB files, opened many years after the war, brought into question the possibility of a fourth spy, code name Perseus.

After the war ended, Los Alamos National Laboratory continued with the development of nuclear weapons. Operation Crossroads tested the effect of the atomic bomb on naval vessels, and Operation Sandstone in 1948 evaluated newly designed nuclear weapons. The laboratory continues to be actively engaged in weapons and other research projects (Eidenbach et al. 1996).

The White Sands Missile Range, just west of Alamogordo and the site of the Trinity test, comprises 60 percent of the area covered by the White Sands dunes; the remaining 40 percent is White Sands National Monument (Welsh 1995). Part of the land was designated the Alamogordo Bombing Range during World War II, and after the first atomic bomb test, a press release issued by the US Army claimed that an ammunition magazine had exploded. Late July saw the arrival of 300 freight-car loads of V-2 rocket components taken from the German Pennemuende Rocket Center on the Baltic Sea. Toward the end of 1945, German scientists headed by Wernher Von Braun arrived to conduct the rocket research project at White Sands Proving Ground, code name Paperclip. On April 16, 1946, the first missile was launched. In 1958 the White Sands Proving Ground was officially designated the White Sands Missile Range. Then in 1985 the original Trinity launch site and blockhouse were designated a national historic landmark by the National Park Service.

One regrettable consequence of the attack on Pearl Harbor was Executive Order 9066, signed on February 19, 1942, which authorized the roundup of 120,000 Americans of Japanese origin who lived along the West Coast of the United States and their internment in relocation centers (Reed 2010). Two-thirds were American citizens.

Twenty-three thousand Canadians of Japanese origin were also relocated by the Canadian government. The justification offered for the disenfranchisement of American citizens was the threat to national security. General John Dewitt, in command of West Coast defenses, stated, "The Japanese race is an enemy race and while many second and third generation Japanese born on US soil, possessed of US citizenship, have become 'Americanized' the racial strains are undiluted." As it turned out, not only were there no instances of proven collusion between Japanese Americans and the government of Japan throughout the war, but also, many Japanese Americans volunteered to fight. The 442nd Infantry Regiment of the 34th Army Division, composed entirely of Japanese men born in the United States, became the most highly decorated unit of the war.

Santa Fe and Fort Stanton were both sites for detention camps administered by the United States Department of Justice (Reed 2010). Other facilities were administered by the US Army, the Wartime Civilian Central Agency, and the War Rehabilitation Authority. In March 1942 the first of the detainees arrived at the Santa Fe facility. During the war years, 4,555 detainees were housed at a 28-acre site in the current Casa Solana neighborhood (Reed 2010:400). High-risk prisoners, mainly issei (men born in Japan who immigrated to the United States), were often transferred to US Army camps such as the facilities in Santa Fe and Lordsburg. Lower-risk persons were permitted to join their families in relocation camps or to reside outside the West Coast Military Zone. In general, while the detainees in Santa Fe resented their internment, they were treated with respect, and no serious problems emerged. Prisoners at Lordsburg complained of persecution and mistreatment by the army. The Santa Fe interment camp closed in April 1946 (Reed 2010:400–401).

During this time, Santa Fe was also home to the army's Brun Hospital (Reed 2010:397–398). In March 1943 a tract of land southeast of the city was set aside for the facility, which opened it doors April 19, 1943. Named after Colonel Earl Harvey Bruns, a leading authority on pulmonary disease and thoracic surgery, the hospital treated 1,352 patients in the first year of operation and employed 1,000 civilians and 600 military personnel. By 1934 the Bruns Hospital complex had grown to 196 buildings. Bruns was one of 51 general hospitals built during World War II for the Army, but it was never intended to be a permanent facility (Reed 2010:398). The buildings were constructed of wood or plasterboard, like some in Los Alamos during the Manhattan Project. Today, the facility functions as the College of Santa Fe.

Well into the 1940s, New Mexico, Arizona, Maine, Mississippi, and Washington excluded Native Americans from voting. Article VII, Section 1, of the New Mexico Constitution, enacted in 1912, stated, "Indians not taxed may not vote." It was not until 1948 that this exclusion was challenged by Miguel Trujillo Sr. On August 3, 1948, a federal court in Santa Fe struck down this constitutional provision, ruling New Mexico had discriminated against Native Americans who did pay state and federal taxes except for private property on reservations (Bronitsky 2004).

The era from 1940 to 1960 saw a major shift in the basic economic sectors for Santa Fe County. Expressed as percentage of the total work force, there was a decline in agricultural workers from 12 to 2 percent and in mining/manufacturing workers from 12 to 5 percent; Government employees increased from 14 to 21 percent, while tourism/arts staff rose from 10 to 12 percent (Wilson 1997:331). Over the same period, the number of hotels and lodging rooms increased from 21 and 740 to 31 and 1,150, reflecting the growing importance of tourism to the city's economy. A principal attraction of Santa Fe was its distinctive architectural styles. In 1958 the city, determined to avoid the glass and steel high-rise structures springing up in cities around the country, passed an ordinance stating that all new and rebuilt buildings, especially those in designated historic districts, must demonstrate Spanish Territorial or Pueblo-style architecture with flat roofs and other features indicative of the area's traditional adobe construction (Wilson 1997). It should not be assumed that this decision was made without prolonged and, at times, harsh disagreements among the residents of the city. Later houses built of lumber, concrete, and other common materials but with stucco exteriors have sometimes been referred to as faux-adobe. Rancorous debate over architectural style of planned state government structures continued into the 1960s.

Santa Fe today. In Santa Fe, the absence of a major spur into the national railroad lines proved to be a detriment to industrial growth. Instead, development in Santa Fe focused on its state and federal administrative centers and the tourism and art trade (Pratt and Snow 1988; Wilson 1981). Today, Santa Fe is the centerpiece of a tourism industry that brings more than $1 billion into the state every year. Municipal ordinances and efforts of the art and anthropological community to preserve Santa Fe's cultural heritage in the 1920s and 1930s have made it a desirable location for second residences and professional people who supply services to the national markets. The lack of industry that had retarded Santa Fe's growth was turned into a positive situation. Without heavy industry and the accompanying population density that accompanies it, quality of life became a draw for people seeking to escape the increasingly crowded and polluted cities. As part of the quality of life and the uniqueness of Santa Fe, its multicultural heritage continues to be emphasized.

Chapter 4

History of the Capitol Complex Historic Neighborhood

Marjorie Mizerak and Matthew J. Barbour

The Capitol Complex Historic Neighborhood is an area bounded on the north by East De Vargas Street, on the east and south by Paseo de Peralta, and on the west by Cerrillos Road and Galisteo Street. Portions of West Manhattan and South Capitol Streets, Galisteo Street, Don Gaspar, Old Santa Fe Trail, and Orchard Drive are included in the neighborhood. Today, the area is dominated by large buildings, the majority of which are owned by the State of New Mexico and used for the administration of state government (Sze and Spears 1988:74–85).

After the United States conquest of New Mexico in 1846, the Palace of the Governors was used for US government offices. By 1852 it had been decided that a territorial capitol should be built on the north side of Santa Fe (Fig. 4.1). Due to lack of funds, it took 30 years to complete, by which time the building was considered more appropriate for use as the Federal Courthouse than as the Capitol (*Daily New Mexican*, January 27, 1887).

In 1884 the Legislative Assembly voted to acquire property and build a Capitol (Wilson 1981:86). The area chosen by the assembly was south of the Santa Fe River between De Vargas Street and Manhattan Road. This locale had served as farmland since the founding of Santa Fe but had become more attractive real estate in recent years after the arrival of the railroad,

Figure 4.1. Initial construction of the proposed Capitol Building was halted in 1853 and completed in 1889. No longer needed as a state house, it became the Federal Courthouse. Palace of the Governors Photo Archives (NMHM/DCA), Neg. No. 010242.

several blocks to the west, in 1880.

By the time the Capitol was completed in 1886 (Fig. 4.2), a residential community had developed around the structure. This community was initially comprised largely of Hispanic families from Santa Fe. Principal families associated with this expansion included the Alarids and Romeros. As the neighborhood grew, Anglo occupants from the eastern United States began to settle the area in ever increasing numbers.

The first Capitol Building burned down in 1892 (Fig. 4.3), probably due to arson, although responsibility was never determined (Sze and Spears 1988:75). Shortly afterward, efforts were made to move the capital to Albuquerque. Finally, in 1900, after delays due to those efforts and difficulties in raising funds, a second Capitol Building was built on the same site (Jenkins and Schroeder 1974)—the present-day Bataan Building.

In 1887 plans were made to extend Don Gaspar Avenue southward along the east side of the Capitol grounds, but that extension was delayed for several years due to land-acquisition problems (Wilson 1981:104). In 1900, eight years after it was first proposed, a street named North Capitol was constructed north of the capitol grounds between Don Gaspar and Galisteo Street. By 1912 the street name had been changed to Manderfield Street in honor of William Manderfield, a long-time editor of the *New Mexican* (Sze and Spears 1988:76).

Construction of the new governor's mansion began in 1907 and was completed in 1909 on the south side of the river, just north of the Capitol, near the site of the present Education Building (Jenkins n.d.; Sze and Spears 1988:76). By 1912 (Fig. 4.4), Santa Fe had acquired and subdivided several large tracts of land south of the Capitol into residential building lots, although these areas were still mostly vacant. They included Allan's Highland Addition; the Collingwood, Buena Vista, Salmon, and Capitol Additions; and the Mahaffey Tract. South Capitol Street had also been established, and six new brick houses stood facing the south end of the Capitol (Figs. 4.5, 4.6, 4.7). Manhattan Avenue also had several new one- and two-story houses but was still not very built up. The Collingwood Addition, at

Figure 4.2. Old Capitol Building, built in 1886. Palace of the Governors Photo Archives (NMHM/DCA), Neg. No. 76041.

Figure 4.3. The old Capitol Building burned in 1892. Palace of the Governors Photo Archives (NMHM/DCA), Neg. No. 16710.

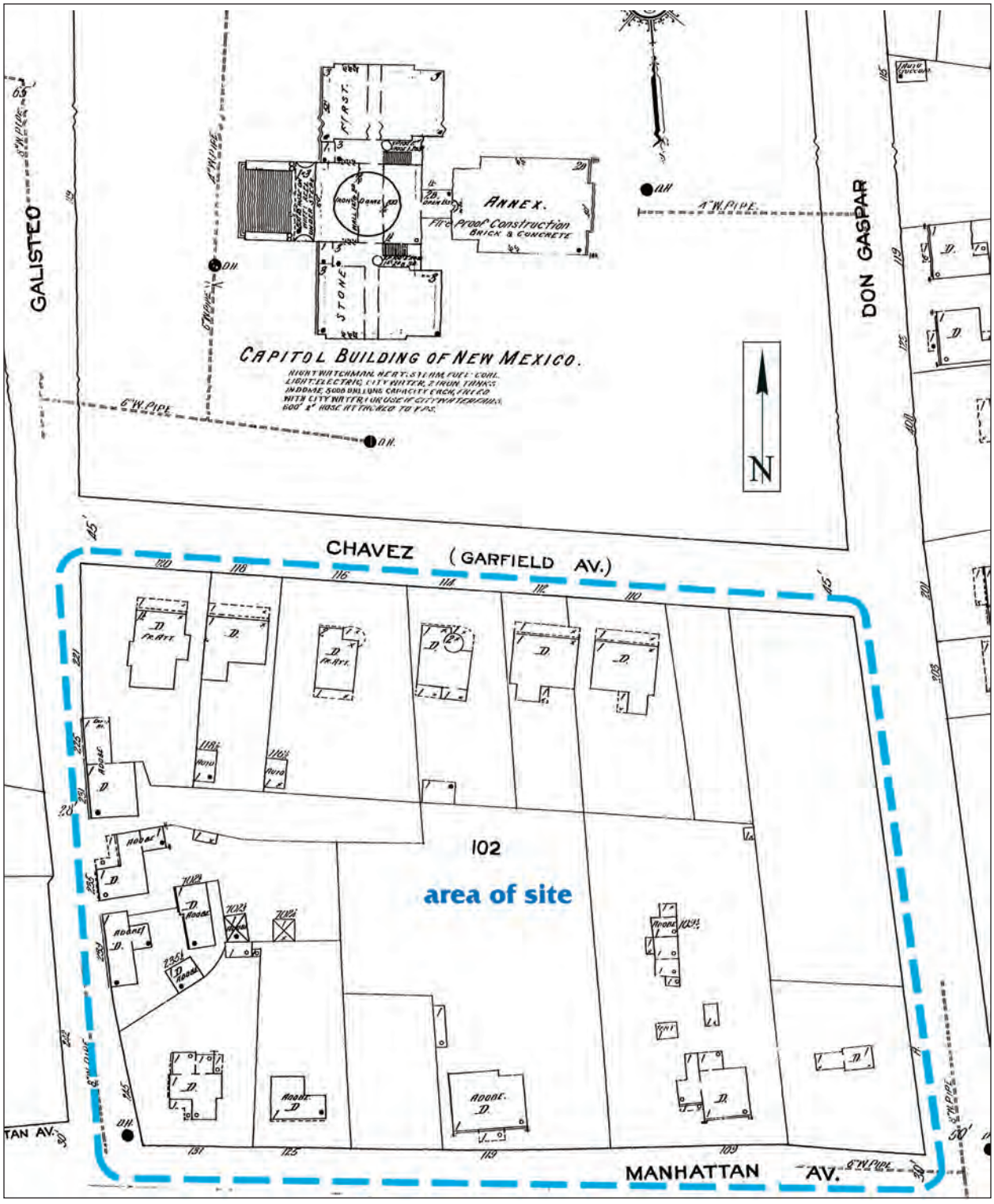


Figure 4.4. Detail of the Sanborn Fire Insurance map (June 1913).

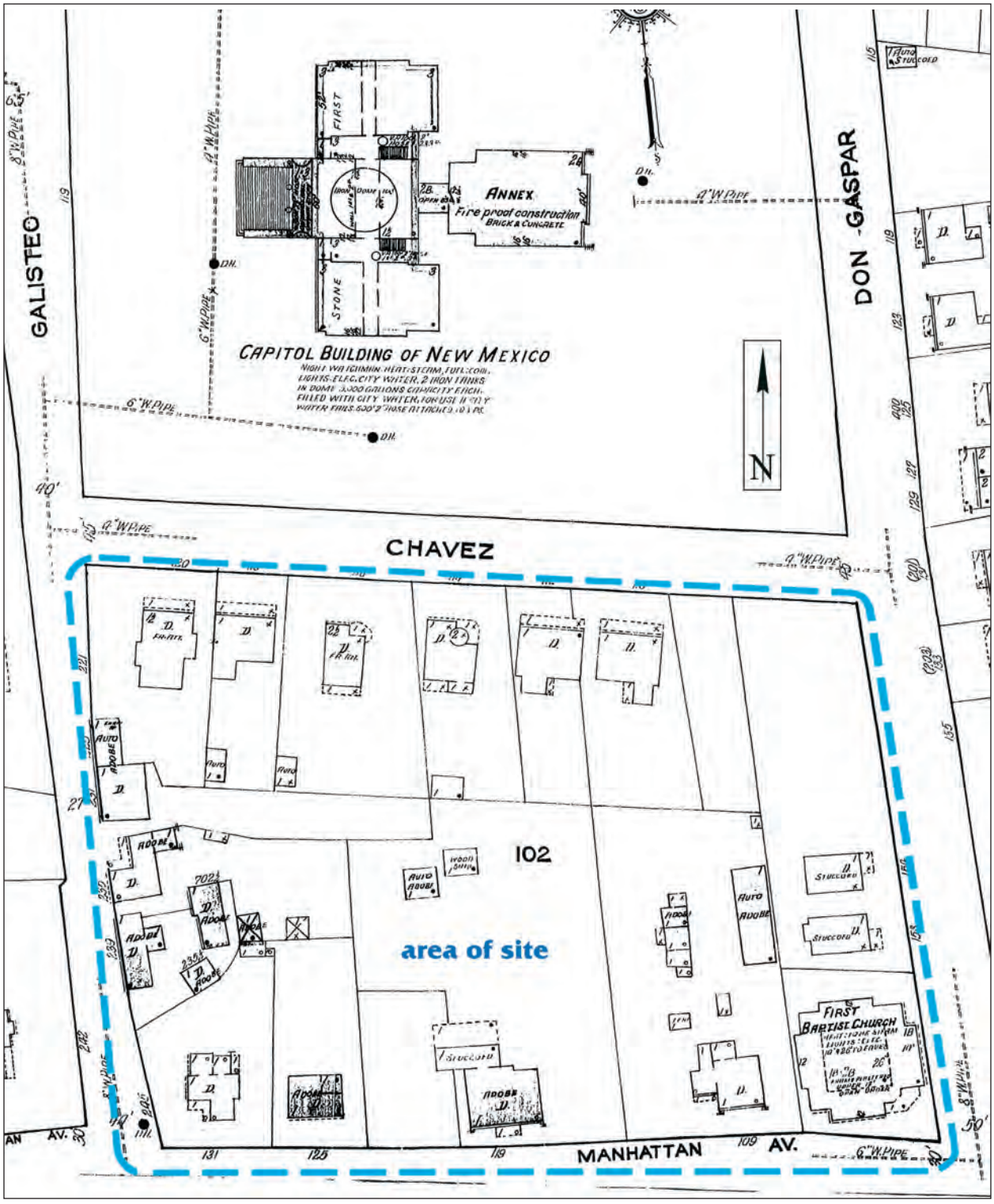


Figure 4.5. Detail of the Sanborn Fire Insurance map (June 1921).

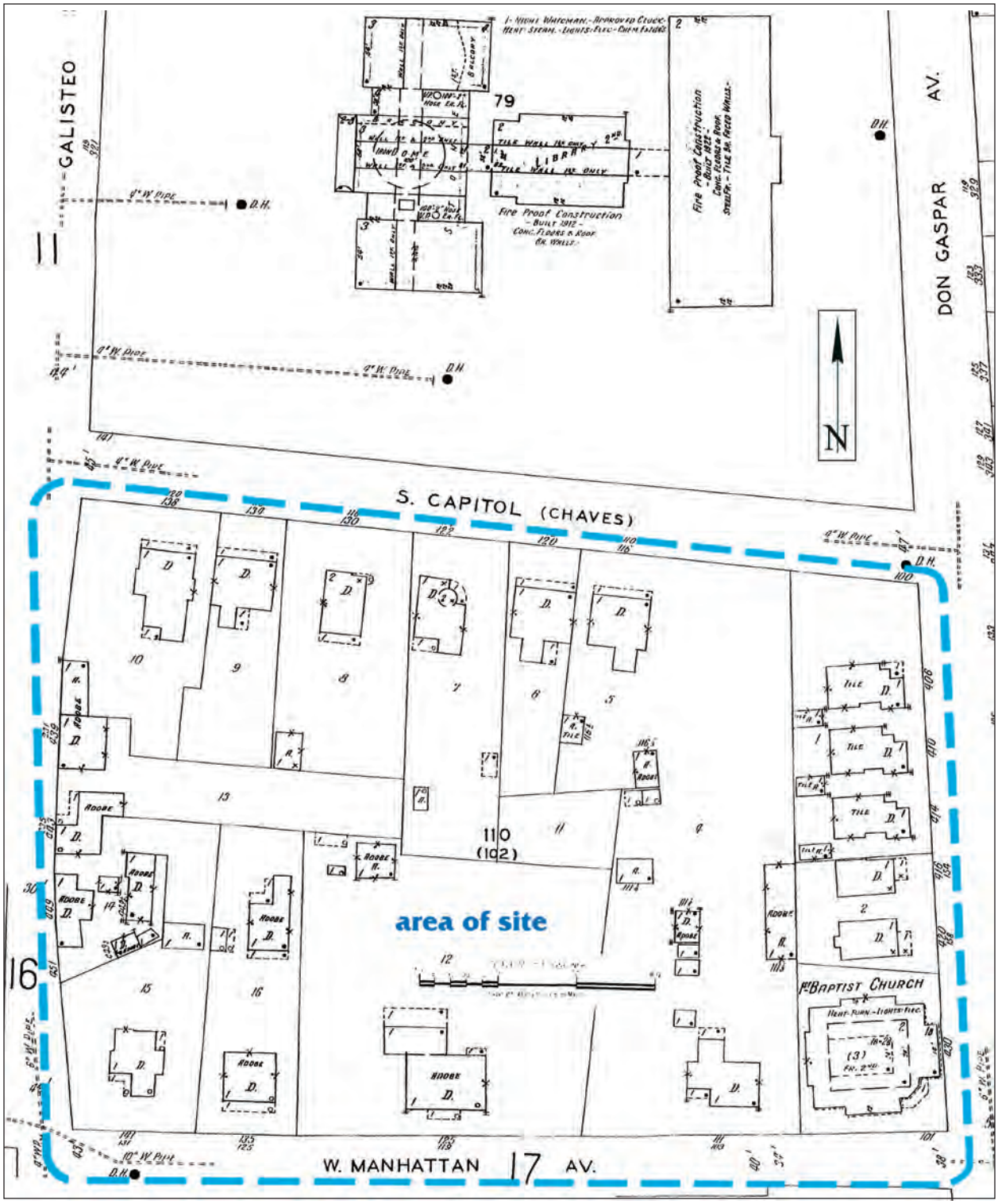


Figure 4.6. Detail of the Sanborn Fire Insurance map (January 1930).

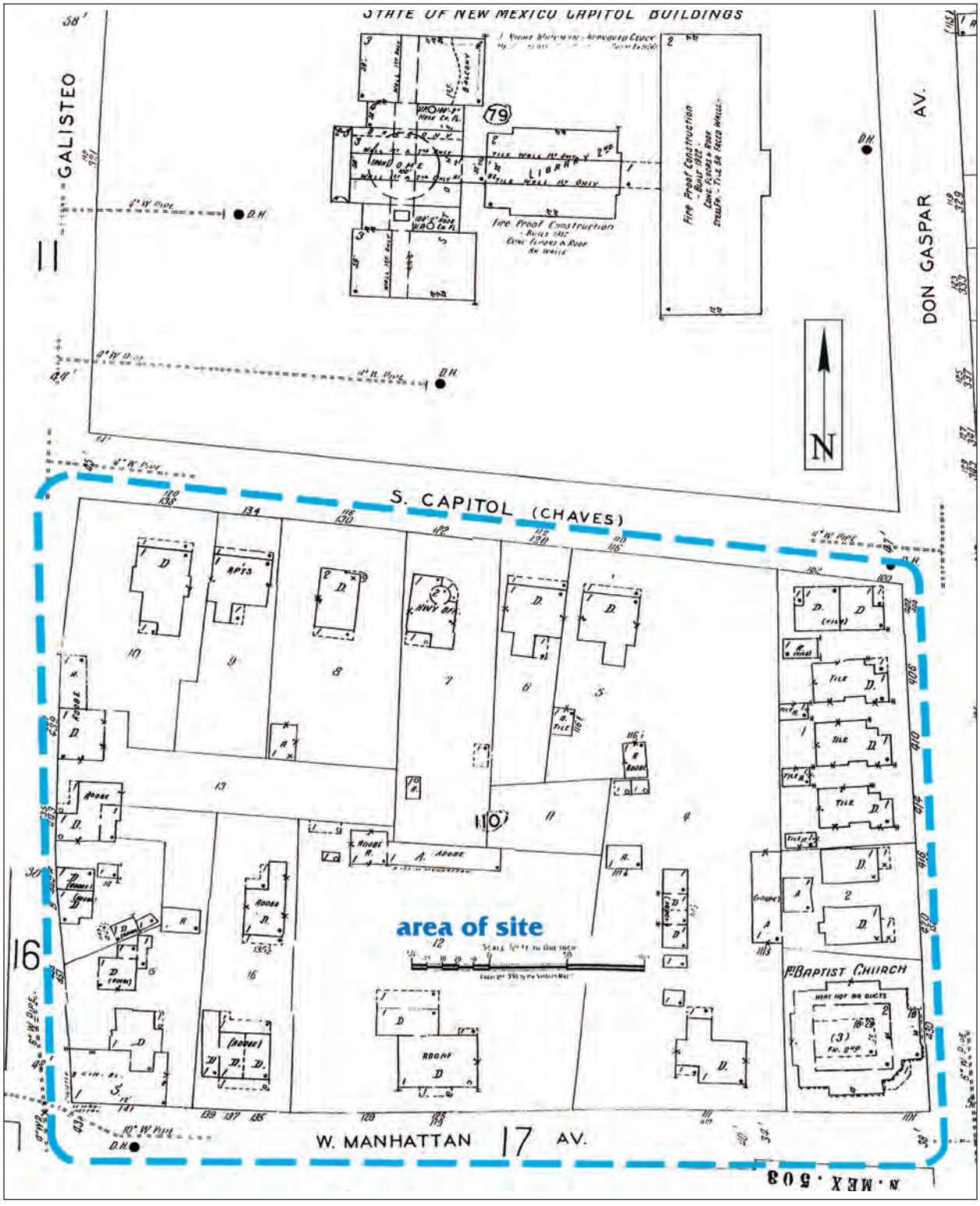


Figure 4.7. Detail of the Sanborn Fire Insurance map (January 1930, modified for August 1948).

Manhattan Avenue and Don Gaspar Avenue, where the current State Capitol now stands, had no buildings in 1912, but several small frame structures were added later (Sze and Spears 1988:76).

Throughout the 1900s (Fig. 4.8), the number of state government buildings gradually increased in the Capitol Complex area, replacing older residential structures. The existing Capitol Building was enlarged with a major new wing facing Don Gaspar Avenue (Jenkins and Schroeder 1974). In 1934, replacing several pre-1886 structures, the New Mexico Public Welfare building (now the Villagra Building) was completed by the Works Progress Administration (WPA) on the west side of Galisteo Street opposite the domed Capitol. In 1937, using federal Public Works Administration (PWA) funds, the Supreme Court, which had been housed in the Capitol, constructed a building facing the river just east of Don Gaspar Avenue (Short and Brown 1939:64).

The 1950s brought more changes to the area. The Capitol dome and portico were removed, and the building was "Territorialized" from 1951 to 1953. The governor's mansion was dynamited in 1955 after the new Governor's Residence had been built on Mansion Drive, north of town. The State Department of Education Building, originally named the Mabry Building, was built north of the Capitol in 1950. It had a series of terracotta bas-relief representational panels of images based on New Mexico themes. However, there was a great public outcry over one of the images, Miss Fertility, and it had to be removed before the building opened (Sze and Spears 1988:79).

Extensive remodeling and expansion of the Capitol Complex occurred during the 1960s, mostly to the east of the existing Capitol building. The New Mexico State Land Office was built in 1960 at the southwest corner of the river and Old Santa Fe Trail, replacing pre-1886 structures (Sze and Spears 1988:79). The New Mexico State Library, constructed in 1964 at the southeast corner of De Vargas and Don Gaspar, replaced some pre-1912 structures, several old adobes

Figure 4.8. Aerial view of the old Capitol Building, looking east (ca. 1930s). Palace of the Governors Photo Archives (NMHM/DCA), Neg. No. 40671.

along Amado Street, and Judge Laughlin's house (*New Mexican*, July 12, 1964).

The present State Capitol ("the Roundhouse") was built in 1964–1966 between Don Gaspar and Old Santa Fe Trail, north of Paseo de Peralta, displacing the Collingwood Subdivision on Paseo de Peralta and the William Manderfield house on Old Santa Fe Trail (Fig. 4.9; Sze and Spears 1988:79; Wilson 1997:287–291). The PERA (Public Employees Retirement Association) Building was constructed in 1966–1967, north of Paseo de Peralta and east of Old Santa Fe Trail, on vacant land, part of which had been a baseball field belonging to St. Michael's College, and part of which was a cemetery. The Lew Wallace Building and the Lamy Building, east of Old Santa Fe Trail and south of De Vargas, were originally St. Michael's College buildings (1887 and 1878) that had been acquired by the state in 1965 and remodeled in 1969. The Villagra Building, west of Galisteo Street and east of Cerrillos Road, was remodeled in 1969, and the New Mexico Employment Security Building, between Guadalupe and Sandoval and south of De Vargas, was planned in the late 1960s and completed in 1971 (Sze and Spears 1988:79–83; Wilson 1997:282).

Today, the Capitol Complex area is dominated by large buildings primarily owned by the state (Fig. 4.10). A few older residential pockets remain, including remnants of the Barrio de Analco along De Vargas Street, a residential compound on the grounds south of the Crespin House off west De Vargas, and a few other houses on Galisteo Street, Don Gaspar Avenue, Old Santa Fe Trail, and between the PERA Building and Paseo de Peralta; most were built prior to 1920 (Sze and Spears 1988:83–84).

In 2007, the State of New Mexico drew up plans to redevelop and modernize the Capitol Complex Historic Neighborhood involving the construction of several new structures to house state offices. As a first step in this redevelopment plan, work was to begin on construction of the new State Capitol Parking Facility along West Manhattan Avenue between Galisteo Street and Don Gaspar Avenue (Fig. 4.11).

Figure 4.9. LA 158037 at the completion of archaeological investigations in relation to the present-day Capitol, also known as the Roundhouse.

Figure 4.10. The last remaining structures at LA 158037 associated with the early twentieth-century residential neighborhood.

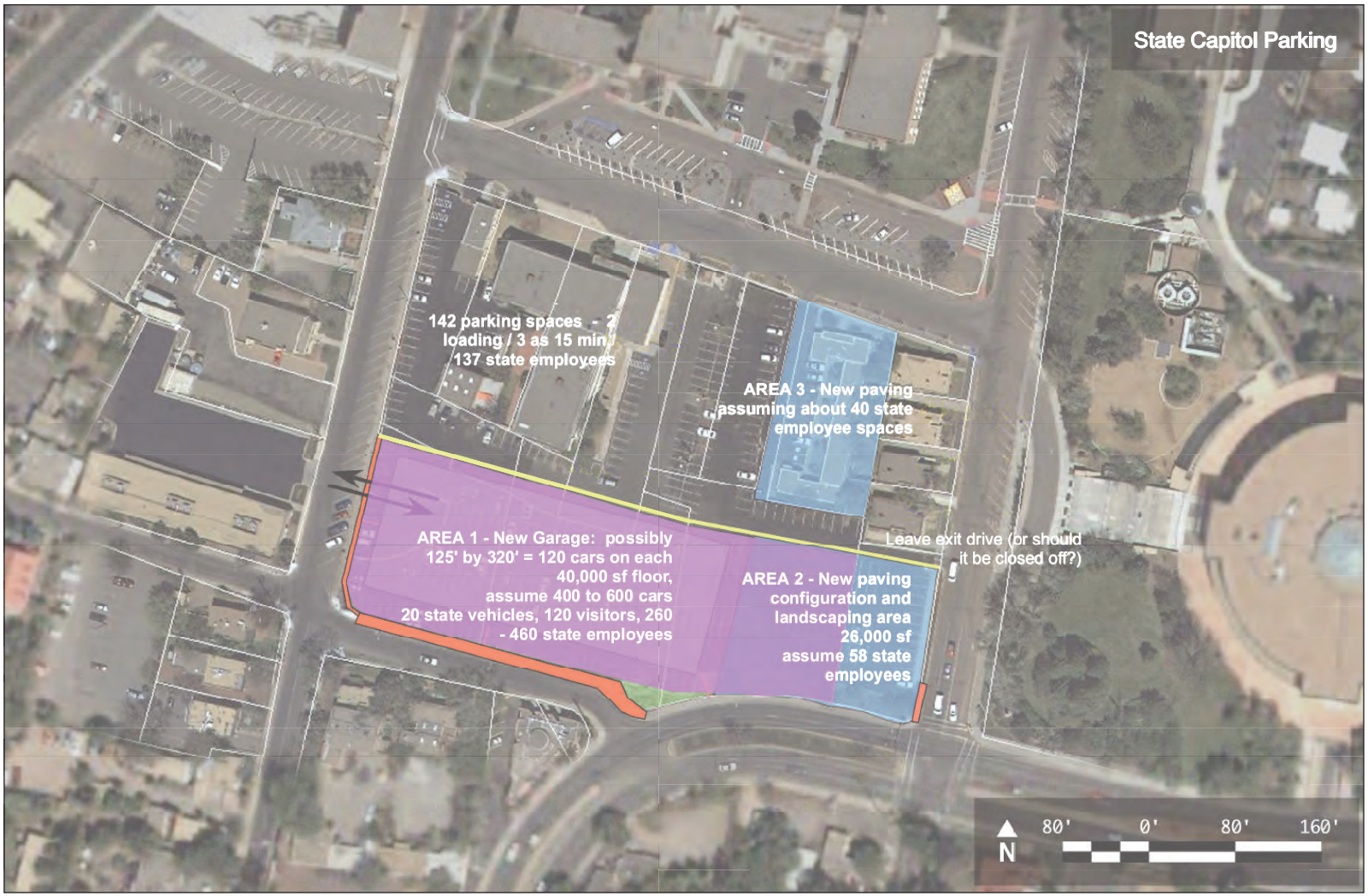


Figure 4.11. Planned development of the Capitol Parking Facility.

Chapter 5

Historic Land Use and Occupation in and around LA 158037

David H. Snow

It was anticipated that archaeological data from the State Capitol Parking Facility might hold potential for investigating rapid social and economic change in an area of Santa Fe devoted to agriculture until the last decades of the nineteenth century. Monitoring changes in economic strategies and consumption patterns following the loss of agricultural lands in the area (Barbour 2008a:85) were identified as primary goals of the research. For much of Santa Fe's existence, lands south of the river were the domain, primarily, of small farms worked by individual families, many of whom resided north of the river. As a result, particularly during the eighteenth and much of the succeeding century, the Barrio de Analco rapidly became crisscrossed with a complex network of irrigation ditches to provide water for croplands.

Publication of "historic neighborhood" architectural surveys by the city's Land Use Department (formerly the Planning Department) has focused greater attention on certain aspects of the barrio's background; even so, those studies are concerned, for the most part, with developments during and after the Territorial period (Ittelson and Tigges 1983; Sze and Spears 1988). With gentrification of the Capitol Complex neighborhoods beginning shortly after construction of the new State Capitol and Governor's Residence, the complexion of this outlying agricultural land-base rapidly changed as traditional Hispanic agriculturalists sold off much of their heritage for cash, affording them the opportunity to become more fully engaged in the larger economies of the city, the state, and the nation—or simply to move elsewhere, as the processes of gentrification expanded across the river.

By about 1880, individually owned residential lots in Santa Fe comprised 74 percent of the city's land base, with only some 129 acres (1.5 percent) categorized as "speculative" (referring to lots in the "Valuable Lot Subdivision" in anticipation of the railhead; Tigges 1993:157). People with Hispanic surnames owned 62 percent of the lots depicted on the 1885–86 *Hartmann Map of Santa Fe*, but non-Hispanics already owned large lots in the Barrio de Analco, ownership that had increased substantially by 1912–1914. For example, of 312 parcels identified along the *acequia madre* from its takeout by Cristo Rey Church, west to Guadalupe Street, 51.6 percent were owned by Hispanics. West of Old Santa Fe Trail, however, only 39 percent of those lots were still owned by Hispanics (New Mexico Office of the State Engineer 1977:2, G-30–G-55)—a figure that reflects establishment of the Capitol Complex and increasing gentrification of the neighborhood.

Much of Colonial North America, in particular the northeastern Atlantic coastal states from the seventeenth through the nineteenth centuries, witnessed the transformation from predominantly household-production (basic subsistence) to a mercantile and eventually urban (and suburban), capitalist "mode of production" (e.g., Braudel 1979; Wolf 1982). Those transformations altered household economic strategies and resulted, by mid-nineteenth century, in "consumption-based" household units, particularly in urban centers (Trigg 2005:21). A significant consequence of this latter stage was the separation of the workplace from the home. The workplace—not the home—became the focus of production and, therefore, of livelihood. In Santa Fe, this latter transformation accelerated with the advent of Yankee mercantilism following the opening of the Santa Fe Trail but seemingly had little impact on the Barrio de Analco until the later decades of the nineteenth century and early years of the twentieth.

From the initial settlement, economic pursuits in colonial New Mexico were, for the most part, embedded in the household. Differences in the economic status of colonial households in New Mexico were slow to develop, since no significant technological changes were introduced to attract capital ventures until the

Territorial period. Labor costs for production were low (one does not necessarily have to pay one's family), and payment generally was in-kind (produce, livestock, etc.), since barter was the engine that drove and sustained the local and regional market economies. In the absence of coinage during most of the Colonial and Mexican periods in New Mexico, labor and entrepreneur endeavors (*santeros*, smiths, field laborers, for example) were paid with goods and/or services. What little hard money was available to any but the wealthiest landowners apparently was expended on imported cloth and clothes of Mexican and European manufacture, as wills and estate inventories attest (Snow 1992).

The production of goods and services was frequently labor-intensive, but it was the cooperation of mobile and flexible kin-based units, comprised of households and extended families (*agregados;* Snow 1992; Levine 1992), that eased the burdens. Four basic patterns of activities, not necessarily mutually exclusive, are characteristic of the local economies through the end of the nineteenth century. First, independent household production dominated, in which household members produced for their own use or for exchange with others. Second, itinerant skilled and unskilled laborers moved among households practicing a variety of specialized crafts or tasks (blacksmithing, for example), including the production of religious items. Third, households exchanged work tasks, swapping labor or goods and other services for like goods and services, or labor; and, finally, craft production (weaving, for example) was carried out in separate workshops that often involved individual skills that contributed to a single product, as well as distinctions between masters, journeymen, and apprentices (Esquibel and Carrillo 2004).

Household compositions vary for a variety of reasons, but archaeologists are constricted to a definition of *household* based on specific tasks inferred from recovered (or expected) archaeological materials. Thus, for example, recovery of quantities of spindle whorls is believed to indicate household spinning and weaving, but whether for household use or "sale" outside the home cannot be determined from those artifacts. Wilk (1984:56) defined a household as "not so much a static social unit defined by co-residence as it is a set of ongoing economic activities, a relation of production, consumption and reproduction."

It is these relationships that structure household activities and production strategies, and how those might have changed through time in the project vicinity was anticipated by the historical research. Unfortunately for the research expectations, neither materials nor occupational evidence of indisputable Colonial and Mexican eras were recovered in sufficient quantities from the site. Furthermore, the period of greatest anticipated economic stress on households, the Depression era, cannot be evaluated from most of the documents examined. The decision to establish the State Capitol to the south side of Santa Fe in 1884, however, set in motion more or less rapid change in the immediate project vicinity, one in which agricultural holdings gave way to residential neighborhoods modeled on eastern US, Euromerican ideals.

The Barrio de Analco: Formation and Growth Trends

The establishment of residences and irrigated lands along the south side of the Santa Fe River might have occurred very shortly after (if not at the same time as) the small plaza called Santa Fe was founded by Juan Martínez de Montoya during 1605–1606 (Saenz y Maurigade 1785; Esquibel 2007). Regardless of the sequence of its origins, the *barrio*, or ward, conformed to established city planning practice throughout New Spain—the separation of Spaniard and Indian into discrete residential districts: "For administrative and religious purposes, the large towns were divided into wards or barrios. . . . Effort was usually made to resettle Indians from the same pre-conquest hamlet together in the same new barrio. As in the older Indian towns, the head of each family owned their house and adjoining small plot, and the community as a whole owned larger areas of fields outside the main nucleus, and sometimes also pastures" (McAndrews 1965:100).

That the Barrio de Analco was home to Mexican Indians is clear from seventeenth-century documents (Chávez 1953:143; Hackett and Shelby 1942:13) and some limited archaeological evidence (Fig. 5.1). What is not evident from the surviving documents is whether

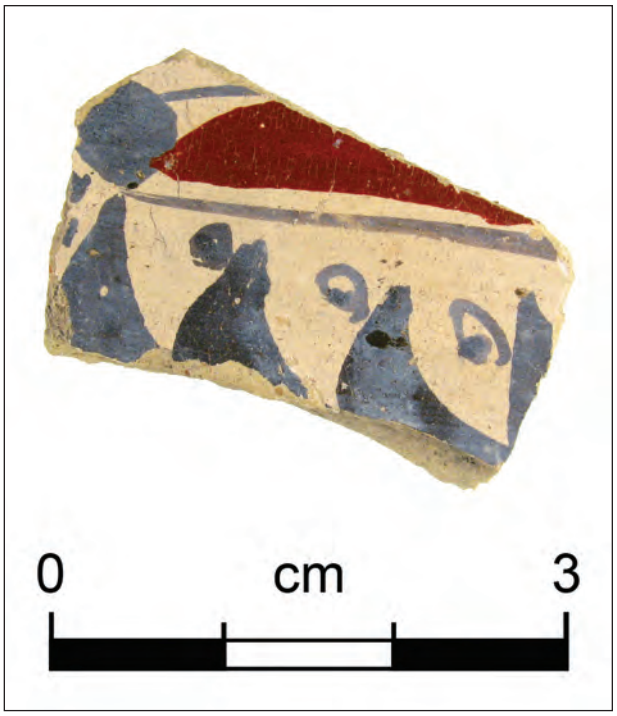


Figure 5.1. Guadalajara Polychrome sherd, a Native ceramic produced in the Jalisco region of central Mexico by Nahua potters, recovered from archaeological excavations in the Santa Fe area.

the Barrio de Analco was formally set aside for the Mexican Indians, and whether lands there were granted by the Crown (or occupied under a formal arrangement with the Church) or by the villa's administrative authorities, as I suspect was the case.

The church, or hermitage of San Miguel, first mentioned in 1628 (Chávez 1953:142), originally seems to have served as a hospice for friars who were not, therefore, parish priests; although it is evident that the church also served, prior to the 1680 rebellion, as the place of worship for the barrio's residents, many of whom were Native American servants in "Spanish" households in the villa proper. Not until the last decade, apparently, was the chapel, or shrine to Our Lady of Guadalupe, constructed, an event that established a new barrio separate from that (by then) called San Miguel (Snow and Jaramillo 1994). The dividing line between the two was the "camino de carros"—that is, the wagon road—that led to the Rio Abajo, approximately today's Cerrillos Road.

By 1640, the "hermita de San Miguel" also supported an infirmary, the placement of which was recommended by the 1573 *Ordenanzas Reales* formulated by Felipe II at Seville (No. 121): "para los enfermos de enfermedad contagiossa se ponga ospital emparte que ningun viento danosso passando por el vaya a herir en la demas poblacion, y si se edificare en lugar lebantado sera mejor" (Cerdá 1973:92): for those ill with a contagious sickness, a hospital should be placed where no ill-wind that passes near it might harm the remainder of the settlement, and it would be better if it should be erected in an elevated location (my translation).

The elevated location, selected in conformity with the *ordenanza* cited, was referred to during the Colonial period as "el alto de analco" (the high-ground of the *analco*), overlooking the river from San Miguel west to about Don Gaspar Street. That higher land begins to trend southwesterly beyond Don Gaspar, leaving a more gradual slope down toward the river—an area referred to historically as Buena Vista (from which the present street of that name derives) or, in some documents, the "balsofete" (a term so far untranslatable). Here, below Buena Vista Street, was land with considerable agricultural potential under irrigation, as many eighteenth-century deeds indicate.

The agricultural heritage of the barrio is evident in Governor Otermín's observation during the early days of the 1680 Revolt: "the enemy's army was seen on the plain of the maize fields of San Miguel and in the houses of the Mexicans . . . [and] in the cultivated fields of the hermitage of San Miguel" (Hackett and Shelby 1942:13).

Aside, however, from those persons of "low estate," Spanish families owned and in several cases resided on lands south of the river, both before and after the Revolt, including General Juan Paez Hurtado, Vargas's aide during the conquest and recolonization of the villa; the presidial armorer, Francisco Lucero de Godoy; and the Franciscans' syndic, Bernardino de Sena. In addition, many of those newly recruited colonists from Mexico took up lands in the barrio. The seventeenth-century population of the barrio, however, cannot be accurately determined from surviving documents.

Reconstruction of the small San Miguel Church was completed in 1710 (Kubler 1939), and it is assumed that those who labored in the

reconstruction were former and current residents of the barrio. Surviving documents identify a number of other workmen who owned and/or occupied lands in the barrio, among them, Lucas Flores (who also owned land in the villa across the river) and his son and grandchildren, identified as *mulatos*. I should note here that the *casta* category, *mulato*, was not necessarily indicative of anything but physical characteristics of the person so designated, and did not necessarily indicate socioeconomic status (persons of "low estate")—or a lack thereof—in New Mexican colonial society. (For a brief overview of New Mexico's colonial mulato population, see Snow [1998].)

Writing in 1782, Fray Juan Agustín de Morfí said of the barrio's population, "To the south of the Villa and separated from it by the river is the section of Analco where some Genízaros were established. [Santa Fe] in 1779 comprised two hundred and seventy-four families with one thousand nine hundred and fifteen souls."

Morfí noted that those numbers were the result of progressive depopulation of the frontiers, since they were "unable to withstand the invasions [of hostile Native Americans and] abandoned the ranches where they were cultivating and took refuge in the capital." Also in 1779, Morfí wrote that Governor Don Juan Bautista de Anza "wished to give a new form to the Villa and for this purpose to move it to the south bank of its river, razing all the buildings of the old settlement" (Thomas 1932:92). Owing to opposition from the barrio's residents, that plan was abandoned. Casual review of extant deeds from the Spanish Archives and the county deed books discloses a minimum of 120 land transfers from ca. 1701 to 1800 in the barrio.

Just how the barrio's extent was defined by its residents (or authorities) during the eighteenth century is nowhere indicated in documents that survive, and possibly no formal limits were recognized. Certainly by mid-century, the road to Rio Abajo, approximately today's Cerrillos Road, separated land and residents from what later was called the Barrio de Guadalupe from those of San Miguel. East, along the bank of the river, residences reached at least as far as today's Camino del Monte Sol and, perhaps, some distance beyond. To the south, lands were owned as far as the junction of Old Las Vegas Highway and Santa Fe Trail during the eighteenth century, and some might have been irrigated from a former spring behind St. John's College. Beyond, at least until the early twentieth century, land south of Arroyo Chamiso was primarily for grazing and wood or plant collecting; the occasional "permanent" residence was recorded during the latter years of the nineteenth century, far from the barrio's core of settlement.

Population numbers for the barrio during the eighteenth century cannot be calculated from the two censuses that exist (Olmsted 1975, 1981), since no divisions were noted by the census takers. An undated document, apparently of late eighteenth-century origin, lists 66 households in the Barrio de San Miguel, with 150 inhabitants. The 1821 Santa Fe census (Esterly 1994) lists 108 households, but only 65 are identified in the subsequent 1823 census (Olmsted 1975), while the 1841 census listed 132 households with a population of 538 persons (Vigil 1983). To what extent any of these censuses accurately reflect the population is debatable. The 1850 US Federal census (Windham 1976), again, provides no distinction among the various neighborhoods or precincts, and it is impossible to identify residents of one barrio or another.

The 108 families counted by the 1821 census contained 451 persons (4–5 persons per household), while the 1823 census, listing only 65 households, counted 290 persons, or some 4.5 persons per household. Demographic data from the latter decades of the eighteenth century in New Mexico indicate that burgeoning Hispanic numbers were increasingly drawn to existing population centers at Santa Fe, Albuquerque, and Santa Cruz de la Cañada (Gutiérrez 1991:168–171; Tjarks 1978). It is interesting, therefore, to note that among the occupations identified in the 1823 San Miguel census, farmers and (day) laborers comprised over 60 percent of the male population, followed by carpenters (n = 6), shoemakers (n = 5), blacksmiths (n = 3), muleteers (n = 3), musicians (n = 3), builders (n = 2), sheepherders (n = 2), a mason, an adobe-maker, a tailor, a brick layer, a silversmith, and a student (Olmsted 1975). The 1841 census of San Miguel identified fewer occupations by males but included a scribe, a servant, nine hatters, and a dress-maker (female), in addition; "laborers" (that is, farmers and day laborers) still comprised the bulk of the male

population (Vigil 1983).

Although it is not possible to identify population numbers or occupations by barrio residence from the 1790 census of Santa Fe, and not all males had occupations identified, of 398 males for whom their occupation was provided, 264 were farmers, and 59 were laborers or day laborers. Of the 21 occupations listed for males in that census, farmers comprised 66 percent and laborers 15 percent. Also listed are muleteers (n = 19), carpenters (n = 16), lumbermen (n = 2), ranchers (n = 3), weavers (n = 2), blacksmiths (n = 11), masons (n = 2), shoemakers (n = 13), tailors (n = 7), a beggar, a sexton, a builder, a carder, an adobe maker, a church singer, a silversmith, a schoolteacher, a merchant, and a general who functioned as governor (the soldiers and families of the presidio are not included in any of these figures for Santa Fe). These figures indicate the predominate pattern of household production units, itinerant craftsmen, and skilled labor characteristic of colonial northern New Mexico.

A burgeoning mercantilism developed rapidly with the opening of the Santa Fe Trail and the influx of Anglos, many of whom settled in Santa Fe and married local Hispanic women. The result was the rapid entry into the economic system of local Hispanic males, employed by Yankee merchants, who developed wholesale, retail, and freighting businesses (e.g., Boyle 1994). The influx of Anglos into Santa Fe as the Trail trade increased and became more profitable also resulted in a real estate market handled by local entrepreneurs (Gaspar Ortiz y Alarid, Antonio Ortiz y Salazar, and many others). With the rapid growth of the mercantile economy, particularly following US intervention and Territorial status (1846–1850), Santa Fe's plaza and surrounding neighborhoods, formerly residential, quickly took on the appearance of the general eastern US pattern—a central business sector with residences increasingly pushed to more rural or "suburban" districts.

With the arrival of the railroad in Santa Fe, in 1880, changes in material culture, economy, and the city's layout, architecture, and social structure and organization accelerated as population increased significantly, expanding particularly to the south side of the river. The number of commercial enterprises and buildings, as well as homes, increased at the expense of agricultural and garden properties, and the irrigation canals that had supported them. Santa Fe's commercial and prime residential centers remained along the north side of the river, the latter east of the plaza district, in spite of a number of businessmen who attempted to create a competing commercial center around the railroad depot. Southside homes and lots were purchased, the area was gridded off, and lots were sold for the construction of new homes, but development of the "valuable building lots" in the railroad district scarcely reached as far east as Galisteo Road. By 1886, however, some 14 or more new houses had been constructed east of Guadalupe Street, and subdivisions were planned or laid out that ultimately would reach as far east as Santa Fe Trail and south to the "altos del arroyo Chamiso." Nevertheless, streets south of Montezuma remained unpaved, and the area was a commercial and residential backwater until the 1950s (Scheick 1991:16).

In 1884 the Territorial Legislative Assembly voted funds for construction of a new capitol building south of the Santa Fe River on farmland south of the street then known as Analco (now De Vargas Street) and north of Manhattan (Sze and Spears 1988:75). By 1887 the city planned the extension of Don Gaspar Avenue south across the river and along the east side of the Capitol Complex, an extension that was seen as a "splendid business thoroughfare," but the plans were delayed "for several years by land acquisition problems" (Sze and Spears 1988). Subsequent development of the vicinity is provided in more detail by Sze and Spears, and brief historical sketches of homes in the area are contained in the city's Don Gaspar Architectural Historic Survey (Ittelsen and Tigges 1983, especially pp. 11–15, 23–24). All of the residences discussed, however, date from ca. 1890–1920 and do not include any on the north side of Manhattan Street.

Ittelson and Tigges (1983:6) said of the Don Gaspar neighborhood that "historically" it was a middle class area, and although the northern boundary of their study was present Paseo de Peralta, their characterization applies equally to the Manhattan Street–to–South Capitol area during the last decades of the nineteenth century through mid-twentieth century, as this report indicates. According to Ittelson and Tigges (1983), "The early adobe structures tended to be small and when large, they were family compounds. A

few prominent Santa Fe merchants and lawyers built large houses in the area, along Manhattan and Don Gaspar. . . . Generally speaking, however, the Don Gaspar area was a neighborhood of small business owners, bookkeepers, State employees . . . teachers and service people."

According to Pete Alarid (interview, April 6, 2009), his parents' and Frank W. Parker's homes on West Manhattan Street were constructed of brick over cellars. Similarly, the First Baptist Church, constructed about 1920–1921 on the corner of West Manhattan and Don Gaspar Streets, was of brick construction with a cellar (Fig. 5.2). An adobe house in the vicinity, together with an orchard, were on land sold in 1883 on the north side of the "acequia analco," prior to purchase of land for the capitol. The orchard, no doubt, is illustrated by Stoner in his 1882 *Birdseye View of Santa Fe*. The only other deed that mentions a house and lot was that sold by Anastacio Romero in 1885 on or near the corner of West Manhattan and Galisteo Streets.

Also recalled by Mr. Alarid was a large apricot tree in his father's yard which provided a playground for the neighborhood children. An editorial in the *Santa Fe New Mexican* (October 8, 1889) remarked, "Shade trees on the streets more completely each year hide the shapeless adobe houses that must give way gradually to modern buildings" (cited in La Farge 1959:135). Earlier that year, the *New Mexican* provided a litany of new construction around town using brick: "Messrs. Donoghue & Monier said today that the 1st of May would find their yards in full blast, as they expected to manufacture 1,500,000 brick this spring" (La Farge 1959:138). In spite of the city's anticipation of a "splendid business thoroughfare" upon completion of Don Gaspar Street, no businesses took root there, nor did residents live north of its intersection with West Manhattan Street beyond the First Baptist Church.

The Acequias

A reference in 1680 to the milpas of San Miguel (Hackett and Shelby 1942:98) indirectly points

Figure 5.2. The 1921 First Baptist Church congregation and building, at 424 Don Gaspar. Courtesy of the Santa Fe First Baptist Church.

to the existence of one or more acequias south of the river during the seventeenth century, but none are mentioned specifically in the surviving seventeenth-century documents. A 1715 deed of sale refers to an acequia "from which I irrigate my milpa" on land that was bounded north by the river (SANM I:831); this is the earliest mention I have found of a ditch south of the river. Two deeds, in 1742, mention as boundaries "an ancient ditch" and "a very old main ditch" as their boundaries, both of which were south of the river (SANM I:180, 961). The locations of these, however, are impossible to determine from the descriptions. Without better descriptions, this might be the same ditch illustrated on Joseph de Urrutia's 1766 map (Fig. 3.1), or perhaps what is known as the Agua Fria Ditch.

By the mid-nineteenth century, the area south of the river was bisected by numerous acequias (see Snow 1988:118–119, Fig. 26). Running out from the Acequia Madre a short distance east of the intersection of Garcia and Acequia Madre Streets, the Acequia de Analco entered lands of the Christian Brothers property, immediately south of the real estate offices of Richard Mares on the Paseo de Peralta, opposite Mateucci's gallery. From there it crossed the Santa Fe Trail (formerly College Street), running along the north side of the house of Juan Delgado (now the Rio Chama Restaurant; Snow 2006:37). Its course westward is shown on the 1924 *King's Official Map of Santa Fe* aligned with South Capitol Street, probably on its north side; its course west of Galisteo Street is suggested by the alley that separated King's Blocks 175 and 176 and, thence, down Garfield Street.

Thus, the Analco ditch bordered the project property on its north side until South Capitol Street destroyed that portion of it prior to about 1912. At some point within the property of the Christian Brothers, east of former College Street, a lateral, or *contra acequia*, was taken out from the south side of the Analco ditch and served—after crossing College—as the south boundary of Delgado's property (Snow 2006:37). Where that lateral eventually went is not presently known, but most likely it emptied into the "acequia de Juan Diego Romero," flowing down the north side of West Manhattan Street, neither of which is again mentioned after about 1900. The Romero ditch might not have been present until after 1844, when María Antonio Pacheco sold to Rafael Padilla a house and lot bounded west by the road to Galisteo, south by the "acequia del pino," and north by lands of Pablo Sandobal (SANM I:715).

At the eastern end of Arroyo Tenorio Street, at its intersection with Garcia and Acequia Madre Streets, is the diversion point for the Acequia Madre and "de los Pinos" ditches. I have assumed the latter was the original course of the eighteenth-century (and earlier?) "acequia para regadio" illustrated by Joseph de Urrutia in 1766 (Snow 2006:37). At the point where Arroyo Tenorio intersects the street of the same name, the Acequia Madre turned southwesterly, crossing Old Santa Fe Trail along today's Buena Vista Street; while the Acequia de los Pinos ditch continues almost due west, crossing Old Santa Fe Trail directly behind Kaune's grocery along Pino Street—almost certainly named by members of the Pino family, with whom the Alarids intermarried early in the nineteenth century. The Acequia Madre continued southwesterly under Buena Vista Street, thence southerly along West Houghton Street, providing irrigation for Buena Vista, an area bounded very roughly by Cerrillos Road, Don Diego Avenue, and Don Canuto Street. Buena Vista appears to have been part of the Barrio de San Miguel, since many of its residents owned lands there, and there are references to multiple irrigation ditches coursing westerly across the area.

Finally, attempting to locate a lateral that formerly ran along the north side of Manhattan Street, Thomas McIntosh and I walked a portion of the Pino ditch and the takeout for what we had assumed was that lateral (Snow 2004:30). The takeout for this contra acequia was found at the east end of the property on the south side of Paseo de Peralta opposite the north end of the State Capitol Parking Facility site. The course of the lateral south of Paseo de Peralta was visible as a slight depression along which bushes grow until its course was obliterated by the sidewalk and the street. This ditch was referred to in 1836 as the "acequia de Juan Diego Romero," father of Anastacio Romero (SFCD Bk B-misc.:222; Snow 2004:30; Appendix 2). It is not known how long it served the neighborhood, but its existence was not known by Pete Alarid, who was born in 1927 (interview, April 6, 2009); nor, apparently, was it in use at the time of Hartmann's or King's

maps of the neighborhood. Hordes and Payne (1991:43–45) failed to identify this ditch in their study of the railroad properties.

The Occupational History of LA 158037

Compiled from the Santa Fe County Deed books are a substantial number of separate transactions in which lands were bought and sold by individuals in the area bounded by Analco Street (today's West De Vargas), Don Gaspar Street, West Manhattan Street, and Galisteo Street from about 1846 to 1934 (Appendix 1). But they are a sample only, since efforts to trace detailed ownership history of individual parcels within the project area would provide little substantive information—particularly because most of the individuals cannot be further identified—and would entail more time (and money) than seems warranted. Seventy-six percent of the deeds prior to 1880 involved Anglos; but only 23 percent of the deeds were claimed by Anglos prior to the late 1870s. In 1930, the US census identified only a single Hispanic as owner of property on the project site—Amado Alarid. In 1900, of 18 properties along West Manhattan, 8 were "farms," all operated by Hispanic families, and 11 were "homes," of which seven had Hispanic occupants—presumably, owners. Prior to this, in the 1850 through 1880 censuses, streets were not identified, and it is difficult to determine what routes the census takers followed.

Prior to about 1850, reference features—acequias, roads, etc.—either do not bear names in the deeds or cannot otherwise be identified or sufficiently to determine the boundaries or even locations of deeded properties. In a previous study, I identified approximately 100 land transfers in the area south of the river and east of the "camino de los carros" (Cerrillos Road) between about 1700 and the last decade of the century. Many of those refer to lands within or adjacent to "buena vista," and some of the family names are those evident in the deeds listed in Appendix 1. Pre-1850 lot owners within the new Capitol Complex include members of the Sandoval, Gonzales, and Pino families—the "los pinos" ditch undoubtedly was named for the latter. The earliest Alarid purchase of a lot on or adjacent to LA 158037, in 1859, was by José Felipe de la Asención and his wife, María Simona Sandoval (Appendix 1).

My point of departure for reviewing the occupational history of the project property and vicinity is the cluster of nineteenth- and twentieth-century Alarid and Romero family holdings in the southwest sector of the site and along Galisteo Street. Largely, this is because adjacent and nearby properties changed owners frequently as far back as I can trace them. Alarid and Romero family members on the site—or at least in the immediate vicinity—are identified in the federal censuses (1850–1930), on the Hartmann map (1885–86; see also Tigges 1987), on *King's Official Map of Santa Fe* (1912, 1924), in *Hudspeth's Santa Fe City Directories* (1928–ca. 1960), and in Santa Fe County deed records. The late Waldo Alarid's (1997) genealogical history of the Alarid family, as well, has proven invaluable for this research.

The 1821 Santa Fe census (Olmsted 1975:40, 50) listed two Alarid families resident in the Barrio de San Miguel: Antonio José and José Ramón Alarid, second half-cousins and grandchildren of the Frenchman, Juan Bautista, from his two successive marriages. These, however, were not the Alarid families identified on the site in later years; those are descendants of José Manuel Alarid, specifically, his son, José Felipe de la Asención; and his wife, María Simona Sandoval (Alarid 1997:94, 103). The subsequent civilian census of 1823 lists only Antonio José as a resident in the barrio, and José Manuel Alarid does not appear in that census.

José Manuel Alarid was the son of José Antonio (son of the Frenchman and his second wife, Ana María Tenorio) and María Rosa Sandoval (Alarid 1997:93). Identified as a farmer, he was, nevertheless, on active military duty in 1826. The 1823 military census (Olmsted 1975:175) includes three José Alarids, but they are otherwise unidentified. I can only surmise that, following his discharge after 1823, he and his family acquired land and took up residence in the barrio—perhaps because cousins already lived there. The 1841 civilian census (Vegil 1983) similarly does not identify José Manuel Alarid, and he was, perhaps, not retired from military service at the time.

The 1841 census identifies the following Alarid family members in the barrio: the widow of Antonio José, with five of her children; two young Alarid children in the family of Tomás Ribera and his wife, Guadalupe Quintana; and

three other young Alarid children in the family of Nepomuceno García and his wife, María Concepción Sandobal, including Pedro, age two. The specific locations of the residences of these Alarids is not evident from the census.

Alarids, as suspected residents of the barrio in the 1850 US census (although no wards or barrio headings were identified by the census taker), included [José] Manuel Alarid; his (second) wife, Isabel Gonzales; and two young children; Benito Alarid, age 19, in the household of Felipe Sandoval and his wife, Simona [Alarid], daughter of José Manuel; and Pedro Alarid, age 11, in the household of Concepción Sandoval, widow of García. Josefa Alarid y Quintana also appears in the 1850 census, apparently a widow, with two older, unrelated persons in the household, but it is not clear whether she was resident in the barrio of San Miguel. Still missing in the 1841 and 1850 censuses is José Felipe Alarid whose purchase of lands, beginning in 1859, are those, in part, occupied by Alarids named in the later censuses and other sources.

The US federal censuses of 1850–1880 did not provide street names, so I have listed from those censuses the appropriate Alarid and Romero individuals, on the assumption that their residences were the same indicated in later census records.

1860: 562th household, Felipe Alarid, blacksmith, and (second) wife, Peregrina [Rodrigues], with three children—Juan, Manuela, and Senobia. On the Hartmann map, Felipe Alarid also has property bounded north by Manhattan Street and east by (?) Rodrigues (Tigges 1987).

1860: 568th household, Juan Alarid (unidentified), carpenter, his wife Antonia (unidentified), with seven children, including Canuto, age 3. Possibly, Juan José Alarid, great-grandfather of Waldo (Alarid 1997:107–108).

1870: 256th household, Felipi [sic] Alarid, farmer, his wife Pelegrina [Peregrina] Rodrigues, with five children, including Simona, age 13, and Albino, age 5.

1870: 40th household, Benito Alarid, blacksmith, his wife, Refugia Sanches, with six children, including Ricardo, age 9.

1870: 41st household, Simona Alarid, keeping house, her husband, Juan Sandoval, farmer; daughter of José Manuel Alarid.

1870: 39th household, Anastacio Romero, farmer, and his wife, Inez Romero, and six children.

1880: 39th household, Simona Alarid, keeping house, with Marcial [Alarid?], and seven children, including Ricardo and Amadeo, age 18 and 15, respectively. María Simona was widowed of Juan Felipe Sandoval following their marriage in 1844 (Alarid 1997:101).

1880: 40th household, Canuto Alarid, wagon driver, his wife, Ines [Ortiz], with Benito, age 6, and Nasario, age 4 (for Nasario's criminal past, see Waldo Alarid [1997:188–222]); son of Benito and Refugio Sánchez.

1880: 41st household, Anastacio Romero, laborer, widower, and five children; Anastacio Romero and/or his son, Adolfo, owned the corner lot at Galisteo and West Manhattan in 1885–86.

1880: 95th household, Benito Alarid, blacksmith, his wife, Refugio [Sanches], and a daughter, age 15.

1900: 73rd household, Benito Alarid, farmer, his wife, "Rosa" [sic], and daughter Refugio (the census taker had the wife and daughter reversed here). In the same household is Benito Alarid, day laborer, his wife, Guadalupe, and Nazario Alarid, day laborer, and his wife, Rebecca, both sons of Benito and Refugio.

1900: 74th household, "Adolphus" Hill, farmer, his wife, Juana.

1900: 75th household, Juan B. Sandoval, farmer, his wife Rosalia, and a daughter, Ramona.

1900: 33rd household, Ramón Romero, day laborer, his wife, Refugio, and Anastacio and Adolfo, among six children.

1900: 38th household, Amado Alarid, salesman, his sisters, Josefa and Tomasa.
1900: 39th household, Fritz Muller, grocer, his wife, Adella, with a son, Fritz.

1910: 20th household, Albino Alarid, bricklayer, his wife, Refugio [Griego], with eight children, none of whom are later identified with the site or in the vicinity; son of Simona, grandson of Felipe, residence on Manhattan Street.

1920: No Alarid families can be identified as residents in the presumed project area.

1930: 434th household, Amadeo [i.e., Amado Macedonio] Alarid, son of Benito; no occupation, his second wife, Reyes [Portillo], with four children, none of whom are mentioned in reference to the site or vicinity; residence on Galisteo Street.

From the lack of archaeological evidence for colonial residence or use in the areas tested at the site, and based on depictions of fields occupying the site on the 1766 Urrutia map, on the Gilmer map of 1846, and Stoner's 1882 map, I assume that the land was farmed (or lay fallow) from the beginning of settlement south of the river until some time late in the nineteenth century. Stoner's *Birdseye View of Santa Fe*, in fact, depicts the northern portion of the property under fruit trees.

Between 1859 and 1865, José Felipe Alarid and his wife purchased four lots in the barrio: two from María Rita Tafoya, one from Antonio Brito, and the last from Miquela Luján—possibly, the initial purchases by Alarids in the project area (Appendix 1). Miquela Luján was Felipe's mother-in-law, the wife of José Rafael Rodríguez (Martinez et al. 1992:437). Each of the abutters identified in those purchases are found in the 1860 US census in the same vicinity as Felipe Alarid. In that census, José Antonio Rodríguez, the entrance to whose land was a western abutter to one of Felipe's purchases, and Felipe occupied households 561 and 562, respectively. In two of the properties purchased by Felipe, the south boundaries were cited as a road and "*el camino real*" (not the road to Chihuahua!), a public road—almost certainly the future Manhattan Street.

These are the earliest deeds I find to purchases in the barrio by Felipe Alarid or any Alarids in the project vicinity, but this does not preclude earlier Alarid residence in the neighborhood, since some of their lands might have come to them as dowry from their wives or other inheritance. Of the abutters identified in the deeds referred to, four of them were related by marriage to Felipe Alarid: Tomas Ribera, Felipe Pino, Miquela Luján, and María Rita Tafoya, in addition to Rodríguez extended-family members. Thus, José Manuel Alarid's second wife, Peregrina Rodríguez, was closely related to two of the abutters to lands purchased (above) by Felipe Alarid. The interrelatedness of these and other families in the larger barrio district suggests close-knit and long-standing family ties to the neighborhood and its land. In 1871, however, Felipe Alarid bought land in Arroyo Hondo and is no longer mentioned in reference to the project area.

In 1885 the State of New Mexico purchased two tracts of land on which the new capitol was to be constructed: one from Nemesio Roibal et al., the second from Manuel Salazar. In anticipation of plans for the new capitol, Etienne Lacassagne purchased two tracts south of the river from Adelaida Krummeck in 1883. The first of these tracts is not described in the deed. The second was bounded north by the river and south by a street—probably "Analco" Street (referred to in 1871 as the "*camino del alto*")**.** Also purchased in 1883 from Adelaida Barron de Krummeck by Napoleon B. Laughlin was an adobe house and orchard, the boundary of which "begins on the north bank of the *acequia analco*" (Appendix 1).

Roibal apparently had previously owned much of the land purchased by the state for the new capitol, for in 1868 he sold to Eduardo "Ed" Miller land bounded north by the buyer and by a road to "hill," referring to land of Mr. Pleasant Hill (Snow 2004), possibly the father of Adolfo Romero. On the south and east, Miller's purchase was bounded by Roibal and on the west by the road to Galisteo.

Levi Garnier, mentioned above as abutter to land purchased for the capitol grounds, had purchased his lot in 1882 from Ambrose P. Adams and his wife, Edubina Ramírez de Adams, was bounded west by Felipe Delgado (father of Juan, whose land is depicted on Hartmann's map, east by J[uan?] Gonzales, south by a road (unnamed, but clearly what a few years later was called Manhattan Street), and north by the Acequia de Analco. I am unable to identify Levi Garnier, but he may have been related to one of the French priests brought to Santa Fe by Bishop Lamy (Appendix 2).

It is evident that immigrants from the eastern

US were early attracted to properties south of the river, perhaps as a result of deliberations concerning the location of the future Capitol Complex. Already, by 1850, a number of Euroamericans, many of whom married local Hispanic women, were residents (or landowners) in the barrio: Thomas Britton, James Carter, R. M. Stevens, Lidy Sutton, Thomas Clinton, Andrew Murphy, William Jones, Andres Constante and his brother Luis, James Hunt, and a number of other, for the most part, unidentified newcomers to Santa Fe.

The Hartmann map (Fig. 5.3) identified the following lot owners within the new Capitol Complex, south of what later was South Capitol Street, and north of West Manhattan to Galisteo Street. Those lots reached from West Manhattan north to the Acequia de Analco—later, South Capitol Street. From east to west these individuals were F[rederick] García (sic, Grace), (?) Garnier, J[uan] Delgado, and A[nastacio] Romero as far as the intersection of Galisteo and West Manhattan. Fronting on Galisteo Street were A[dolfo] Romero, son of Perfelia Romero (daughter of Anastacio) and Pleasant Hill (Snow 2004); B[enito] Alarid, (H [K?]) [Adelaida] Krummick, S[imona] Alarid, and Mrs. [Jacob] Julia Esselbach.

In 1885 the state purchased land from "Nemesion" [sic, Nemesio] G. Roibal for the proposed new Capitol Complex, in Precinct 3 (SFCD Bk N:108) and bounded north by "Nemesion" Roibal et al., south by Jacob Esselbach, Levi Garnier, and Hilario Romero, east by T[homas] B. Catron; and west by Galisteo Road. Also in 1885, the state next purchased a lot bounded east by N. B. Laughlin, west by T. B. Catron, and south by the Acequia de Analco (SFCD Bk N:125). This piece was sold by Manuel L. Salazar et ux. Four years later, in 1888, the city managed to secure, from Juan B. Sandoval et al. property for the Don Gaspar extension (SFCD Bk T:222). This was bounded east by Katie K. Laughlin (wife or daughter of Napoleon?), south and west by the capitol building ground, and north by Analco Street. An effort to identify several of these individuals and how they acquired their properties has been only partially successful.

Hartmann's map depicts lots owned north of the capitol grounds from west to east by Ed Miller, Mrs. A[lbina] Roybal, F[elipe] Pino; M[anuel] Salazar, S[teven] (Etienne) Lacassagne, N[apoleon] B. Laughlin, P[reston] H. Kuhn (unidentified), Mrs. J[uan B?] Sandoval, and [A?] Archuleta, unidentified. These lots lie south of and face "Analco" Street (West De Vargas), between it and the capitol grounds. An alley is depicted that abuts "Analco" Street opposite (north of) the Archuleta lot that most likely was extended late in the century to become Don Gaspar Street; presumably, Archuleta's property was among those purchased for the planned extension.

The 1912 *King's Official Map* identified 11 individual lots with water rights to properties encompassed by Galisteo, South Capital, Don Gaspar, and West Manhattan Streets. The individuals, their water rights, and the amount of land irrigated (Tracts under Ditch 11, Acequia Madre) are provided in the *1978 State Engineer's Santa Fe River Hydrographic Survey*, Vol. 2 (see Snow 1988). Clearly, the acreage recorded indicates use for gardens—vegetables, flowers, and possibly fruit trees—but whether the rights included wells for household use is not known.

Tract 11.241, 3.07 acres, State Capitol grounds
Tract 11.256, 0.01 acres, William H. Manderfield (see Snow 2006)
Tract 11.257, 0.22 acres, Speaman [sic?]
Tract 11.259, 0.20 acres Fred Muller
Tract 11.260, 0.10 acres, Fred Muller
Tract 11.261, 0.02 acres, Napoleon B. Laughlin
Tract 11.262, 0.22 acres, T. Z. Winter
Tract 11.263, 0.12 acres, Miguel Chaves
Tract 11.264, 0.54 acres, Frank W. Parker
Tract 11.265, 0.09 acres, Ricardo Alarid
Tract 11.266, 0.01 acres, [Adolfo?] Romero

Reestablishment of the Baptist denomination in Santa Fe was undertaken by Dr. E. B. Atwood, secretary of State Missions in New Mexico, assisted by Dr. J. M. Dawson of Waco, Texas; "an evangelistic meeting" occurred on August 20, 1917, in a large tent (Fig. 5.4). Subscriptions for a new building to house the First Baptist Church were initiated in 1919 during the pastorate of Reverend Jonathan F. Measells (Fig. 5.5), who subsequently left Santa Fe and was replaced by Reverend Buren Sparks, from Artesia, New Mexico (Table 5.1 [all tables are in Appendix 4]).

Ground for the building was broken late in December 1920 on the corner lot at Don Gaspar

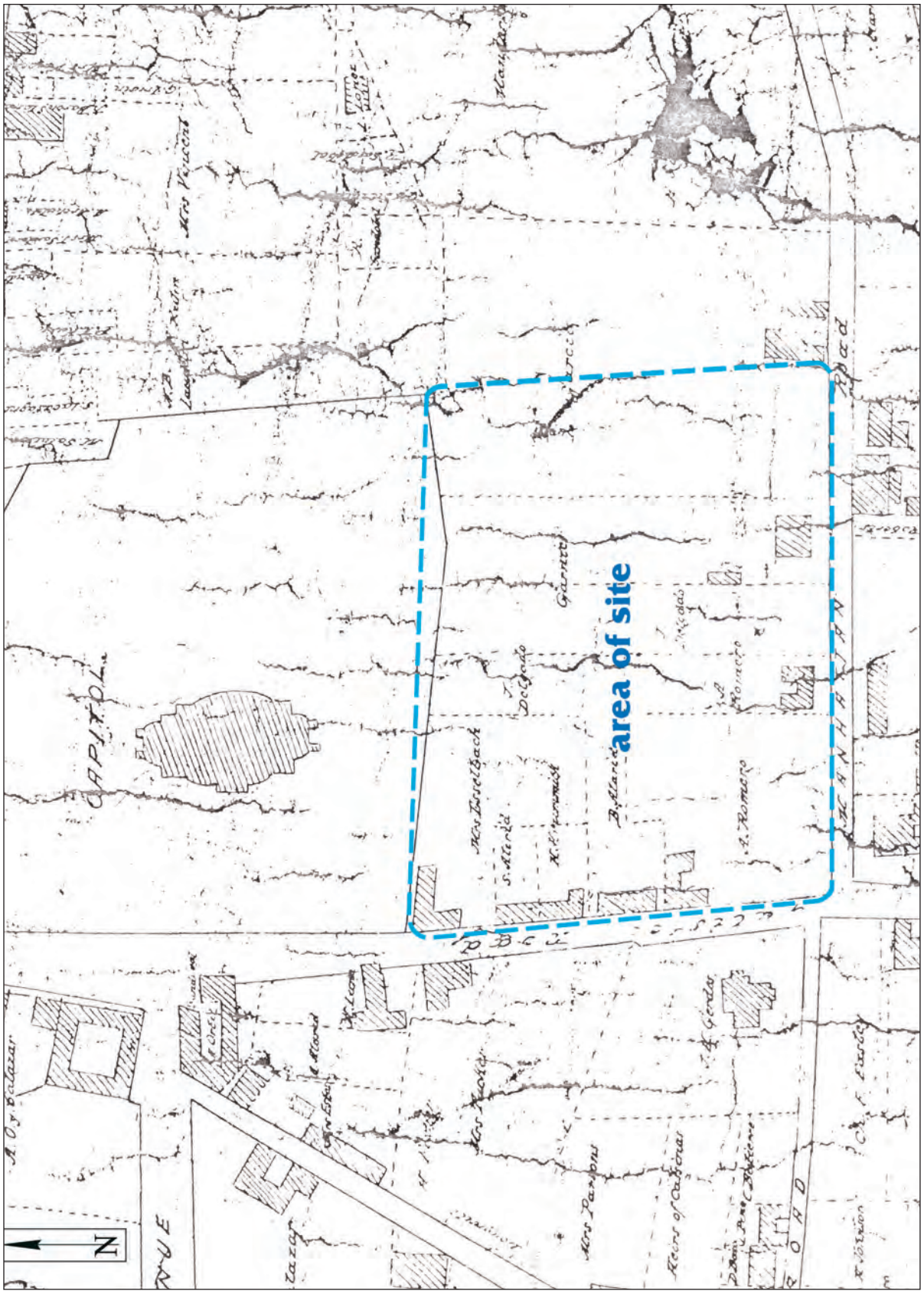


Figure 5.3. Detail of Hartmann's map (1885–1886).

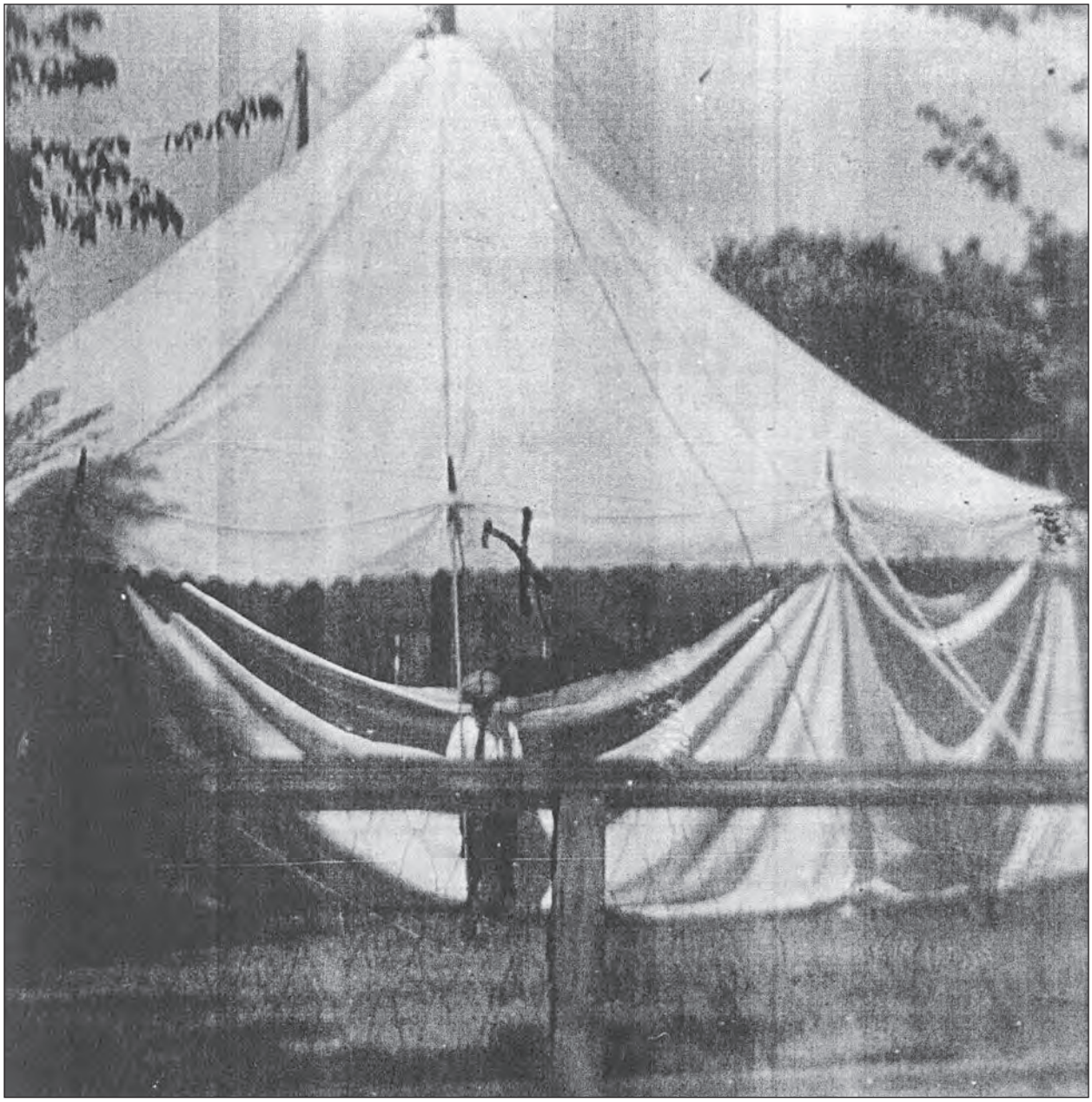
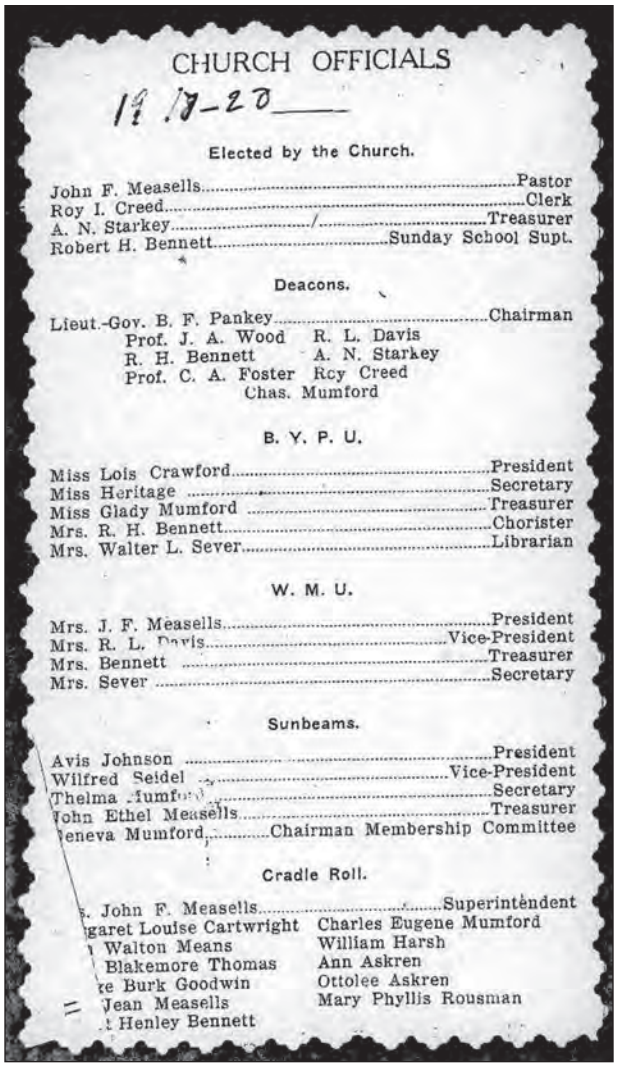


Figure 5.4. Large tent where church meetings were held until the construction of the First Baptist Church in 1921.



CHURCH OFFICIALS

1917-20

Elected by the Church.

John F. Measells.....Pastor
Roy I. Creed.....Clerk
A. N. Starkey.....Treasurer
Robert H. Bennett.....Sunday School Supt.

Deacons.

Lieut.-Gov. B. F. Pankey.....Chairman
Prof. J. A. Wood R. L. Davis
R. H. Bennett A. N. Starkey
Prof. C. A. Foster Roy Creed
Chas. Mumford

B. Y. P. U.

Miss Lois Crawford.....President
Miss Heritage.....Secretary
Miss Glady Mumford.....Treasurer
Mrs. R. H. Bennett.....Chorister
Mrs. Walter L. Sever.....Librarian

W. M. U.

Mrs. J. F. Measells.....President
Mrs. R. L. Davis.....Vice-President
Mrs. Bennett.....Treasurer
Mrs. Sever.....Secretary

Sunbeams.

Avis Johnson.....President
Wilfred Seidel.....Vice-President
Thelma Mumford.....Secretary
John Ethel Measells.....Treasurer
Geneva Mumford.....Chairman Membership Committee

Cradle Roll.

Mrs. John F. Measells.....Superintendent
Margaret Louise Cartwright Charles Eugene Mumford
William Walton Means William Harsh
Blakemore Thomas Ann Askren
Clare Burk Goodwin Ottolee Askren
Jean Measells Mary Phyllis Rousman
Robert Henley Bennett

Figure 5.5. First Baptist Church officials (1918–1920).

and West Manhattan, and a contract was let to George O. Teats of Rocky Ford, Colorado, who was in the city to construct the La Fonda Hotel. The new brick church building, with arched windows, replaced a temporary structure, the nature of which is not identified. The opening service for the new church, on August 17, 1921, featured the Reverend Sparks, and the benediction was given by Reverend C. H. Starkey, undoubtedly related to Deacon A. N. Starkey, who was treasurer of the church in 1920. The Reverend Sparks might have been housed in the church, as his name appears on the 1924 King map at the corner location. The Baptist church, in 1955, purchased some nine acres of land on Old Santa Fe Trail, the brick church was demolished, and its cornerstone was moved to the new site.

The 1924 *King's Official Map* identified 15 lots owned as follows. Fronting on Galisteo Street were Miguel Chaves, Ricardo Alarid, [Adolfo?] Romero, and Ricardo Alarid. Facing West Manhattan were Ricardo Alarid, Frank Parker, Frederick Muller, and [Reverend Buren] Sparron [sic, Sparks] of the First Baptist Church. Fronting on Don Gaspar were Miss (illegible: Ryan?) and W. M. [Pope], on the northeast corner. Facing the capitol grounds, on the south side of South Capitol Street, were Frederick Muller, (illegible), N. B. Laughlin, T. Z. Winter (House 8), and Miguel Chaves on the northwest corner at Galisteo Street. In 1920 Winter was Santa Fe's mayor (La Farge 1959:265). Only five of these individuals are identified in *Hudspeth's Santa Fe City Directories* beginning in 1928 through the Depression years.

The 1920 federal census identifies Fritz (Frederick) Muller, Frank W. Parker on Manhattan Street, John R. McFie, and his son-in-law, Lansing B. Bloom (Appendix 1). None of the other residents' names appear in the subsequent 1930 census, but Manuel Romero, son of Anastacio, is listed on Galisteo Street in 1920. Nor do any of those names appear in the 1910 census.

I am able to identify only five individuals on or adjacent to the site who owned the properties they resided on in the 1920 federal census, and none are Hispanic. Of the individuals who owned property in 1930 and 1910, only Frank Parker and John McFie, attorneys, are listed in 1920. Attorneys and other state employees are represented by five individuals in that census; the remainder include two lumber men ("lumberjack" and "laborer," one from Greece, the other a Swede); a stockbroker; a house painter; a plasterer; a traveling hide buyer; stenographers; a sheepman; a printer; a clerk at the museum, (Alice?) Wilson; an architect (Andrew Goodwin); dry goods and various other clerks; a schoolteacher; a mechanic; a maid; a minister/professor (Lansing B. Bloom); and five individuals with no listed occupation.

Of the individuals listed above, only Muller and Parker occur in the 1930 federal census of the neighborhood. According to Waldo Alarid, Ricardo lived on Alarid Street; he devotes two pages outlining the highlights of Ricardo's colorful life in Santa Fe early in the twentieth century (Appendix 1). Included in the 1930 census, but not identified in Hudspeth's, were F[orest] N[eal] Pack, minister of the First Baptist Church (House 116) on the corner of West Manhattan and Don Gaspar; and Alfred N. Starkey, a plumber with a hardware store and treasurer and deacon of the First Baptist Church (1920). From the census it appears that Pack occupied quarters in the church.

Residents in the project area in 1930, bounded by Don Gaspar, Manhattan, Galisteo, and South Capitol Streets, included only 5 native-born New Mexicans of the more than 26 listed; the remainder, except for German-born Frederick Muller, were from states east of New Mexico. Several employees of the capitol were white-collar workers and attorneys; the others were tradesmen and blue-collar workers or laborers. These included a druggist, dentists, the manager of a garment company, a grocery clerk, a hardware merchant, an advertising superintendent for the AT & SF Railway, a private secretary, a carpenter, a plumber, and a serviceman for Phillips Company. Nine of the individuals owned their premises, only three of whom, including Amado Alarid, were Hispanic.

Previous research by Barbour (2008a), based on *Hudspeth's Santa Fe City Directories*, identified 18 residents of lots on and adjacent to the project site between 1928 and ca. 1960. Of those, all but two were Hispanic individuals, seven of whom were owners at the addresses provided. Two of the properties were commercial establishments—a barbershop and a grocery operated by members of the Alarid family, Pete and Richard (Ricardo) Alarid Jr. Other owners included Reverend W. P. Bell of the First Baptist Church; Adolph Romero

and/or his widow, Romancita; Ramón Romero Jr.; Frank W. Parker; and Fred Muller and/or his widow, Adella. The list of pastors of the church, however, does not include the Reverend Bell for 1938–39; instead, the official list provided identifies C. R. Barrick as pastor in 1936–39. Residents identified in *Hudspeth's Santa Fe City Directories* by street number follow:

111 West Manhattan: Fred Muller and his wife, Adella, owners.
125 West Manhattan: Frank W. Parker and his wife Anna, owner.
135 West Manhattan: Richard Alarid Jr. (not listed in the 1930 census), owner; barbershop, John D. Ortiz (unidentified, not listed in the 1930 census), owner.
141 West Manhattan: Richard Alarid Jr., owner of Pete's Super Market on the property.
443 Galisteo: Richard Alarid Jr., owner (as above on West Manhattan); Pete Alarid, a carpenter, is listed as a renter.
449 Galisteo: Adolph Romero; his wife, Ramoncita (no surname), owner; Ramón
Romero, son of Anastacio, owner.
451 Galisteo: Richard Alarid Jr., barbershop owner.

Hartmann's 1885–86 map of the city identified 15 presumed owners of lots, not including the State Capitol and nearby governor's mansion, and only the Alarid and Romero families, among the later lot owners, are identified. That map indicates that the Capitol Complex itself occupied about four acres, and the adjacent 15 landowners occupied slightly less than 7 1/2 acres. Seven of those 15 were individuals from the eastern United States or European-born. Alarids identified by Hartmann are Benito, bounded west by Galisteo Street and south by A[nastacio?] Romero; Felipe Alarid, bounded north by Manhattan and elsewhere by Rodríguez (no given name); Anastacio Romero, bounded north by Alarid, south by Manhattan, and east by (? Juan) Delgado, in addition to another lot bounded west by Galisteo and his heirs, north by Alarid, and south by Manhattan; and Adelaida Krummick (Krummek), bounded south by Alarid and west by Galisteo.

Review of US census sheets for 1930 and 1920 indicates considerable changes in ownership and occupants within the area bounded by the streets surrounding the project area, and only two individuals listed in those censuses are identified in *Hudspeth's Santa Fe City Directories*. Nine owners are listed in the 1930 census, but only five in the 1920 census. Fifteen or more renters and/or roomers are listed in the 1930 census, while 10 (including a live-in maid) are indicated in the earlier census. The owners in both censuses are identified in Appendix 2; many of them were employees of various state agencies. Several of the renters were originally from Canada, Italy, and Greece. Among those listed by the censuses are several individuals prominent in the history of both Santa Fe and New Mexico, including Fritz Muller, Ricardo Alarid, Anastacio Romero, and William Hayes Pope.

Unlike the José de Jesús Alarid family, who moved to the east side of town, all of the other early Alarid families that remained in Santa Fe made their homes on the west side on or near Galisteo Street, west Manhattan Avenue, and Alarid Street. The 1924 *King's Official Map* identified the following property owners on and adjacent to the project site. Facing Galisteo Street: Miguel Chávez, Ricardo Alarid, [Anastacio/Adolfo] Romero, and Ricardo Alarid; facing Manhattan Street: Ricardo Alarid, Frank W. Parker, Frederick Muller, [?] Sparks, later occupied by the First Baptist Church; facing Don Gaspar Avenue: Miss Ruyn [?] and W. M. Pope [?]; fronting on South Capitol: Frederick Muller, [?] Mink [?], Napoleon [B. Laughlin], T. Z. Winter, and Miguel Chaves, on the northwest corner of Galisteo and South Capitol Street. I have attempted to further identify these individuals in Appendix 2 of this report.

In anticipation, perhaps, of the intention to move the capitol to the south side of the river to a site most likely selected prior to the Territorial Legislative Assembly's 1884 vote, land sales in the vicinity appear to have increased substantially, and over the next 10–15 years lots in the vicinity changed hands frequently. In 1883, for example, Adelaida Barron de Krummeck sold three tracts south of the river. First, Etienne Lacassagne purchased two tracts from her, but only the second is briefly identified as bounded north by the river and south by a street (SFCD Bk M:118). The second purchase from Adelaida was by Napoleon B. Laughlin, consisting of an adobe house and orchard, and described only as beginning on the north bank of the Acequia de

Analco (SFCD Bk M:209).

The Hartmann map shows nine tracts of land owned by the following (from east to west south of the approximate location of later South Capitol Street): J [F.?] Garcia, Garritt [Garnier?], J[uan] Delgado, A[nastacio] Romero, B[enito] Alarid, K. [H.?] Krummick [sic, Krummeck], S[imona] Alarid, and Mrs. [Jacob] Esselbach. The latter five properties fronted on Galisteo Street, the former on Manhattan. In addition, nine structures, presumably residences, are shown on the lots, but none on that of J. Delgado. Less than 35 years later, the area had become substantially subdivided into much smaller lots (for the most part) and was entirely residential (e.g., the 1912 *King's Official Map*). In subsequent years the Capitol Complex neighborhood had become one of Santa Fe's more substantial middle-class districts, as indicated by the listings in *Hudspeth's Santa Fe City Directories*.

Summary

Within the relatively brief period of 50 years, following New Mexico's achievement of US territorial status—a result, in part, of the relocation of the state's Capitol Complex and augmented by a burgeoning cash economy—the project area's landscape, social and cultural structure, and organization underwent fairly rapid changes. Streets bounding the project area were created; others improved, designated by formal names; irrigation ditches were filled; and former agricultural small-holdings were divided and subdivided to create an eastern US–model neighborhood of primarily working-class residents, whose income derived primarily from outside the home.

The 1860 US census identified seven "farmers" in the neighborhood (see Appendix 1 for those specifically identified as residents on the project property), three in 1870, none in 1880, seven in 1900, two in 1920; and none in 1930. These figures do not include "farm laborers" or "day laborers," that is, individuals who "farmed" their labor out to others for wages. The 1920 census of residents in the general neighborhood (not specifically on the project properties) identified only 2 "farm laborers," none in 1920, 1 in 1900, none in 1880, 6 in 1870, and 2 in 1860. Four "day laborers," however, were identified in 1860, none in 1870, 16 in 1880, and 7 in 1900—an occupation that was no longer identified in subsequent censuses. This may indicate that agricultural endeavors in the barrio were no longer important after about 1900, and that other wage labor was on the rise in the city.

Lot sizes have not been determined from the deeds, since they appear on the various maps. Prior to the Hartmann (and Gaynor) map, however, lot dimensions were most frequently provided in a single measurement—for example, "130 *varas*" (or "yards"), and it is not clear what the other dimension(s) was. By 1912 (*King's Official Map*), the average (mean) size of acreage irrigated from the Acequia de Analco and the Juan Diego Romero ditch, or both, on the individual lots in the project area is only 0.1530 acres, suggesting the use of irrigation water for small gardens.

The 1924 *King's Official Map* depicts the Acequia de Analco as far as Don Gaspar at South Capitol Street, and it might have continued west beside (or beneath) somewhat beyond Galisteo Street, but neither the 1924 nor the 1912 versions depict the Juan Diego Romero ditch, and I suspect that it had been obliterated (or covered over) prior to 1912. The 1977 state engineer's survey indicates that properties on and adjacent to the site were irrigated (the 0.1530 acres mentioned above) from Ditch 11—the Acequia Madre—but from which of its laterals (Analco, Romero, or Los Pinos) is unknown. On the other hand, city water was available for irrigation and domestic purposes by the turn of the century.

In most cases, deeds to those properties prior to about 1860 fail to mention the presence of structures on the various properties, and it is assumed that much of the project vicinity remained under cultivation until that period. Census records, nevertheless, suggest that most of the properties along the three (and later, four) streets bounding the project area contained residences, many of which had undoubtedly been replaced by brick and mortar structures by 1900 or so.

The census data indicate that many of the properties after about 1920 were occupied by more or less transient wage earners (owners were not indicated for those residences), and the more "stable" occupants tended to be state employees, among them several prominent members of the state bar. In spite of the city fathers' anticipation

of a "splendid business thoroughfare" along the Don Gaspar extension early in the twentieth century, the only recorded business that can be identified in the vicinity were private secretarial services, and the presence, during the 1930s, of a small grocery and barbershop owned by descendants of the Alarid family, whose members retained possession of their holdings for some 100 years—the only family to have done so (Fig. 5.6).

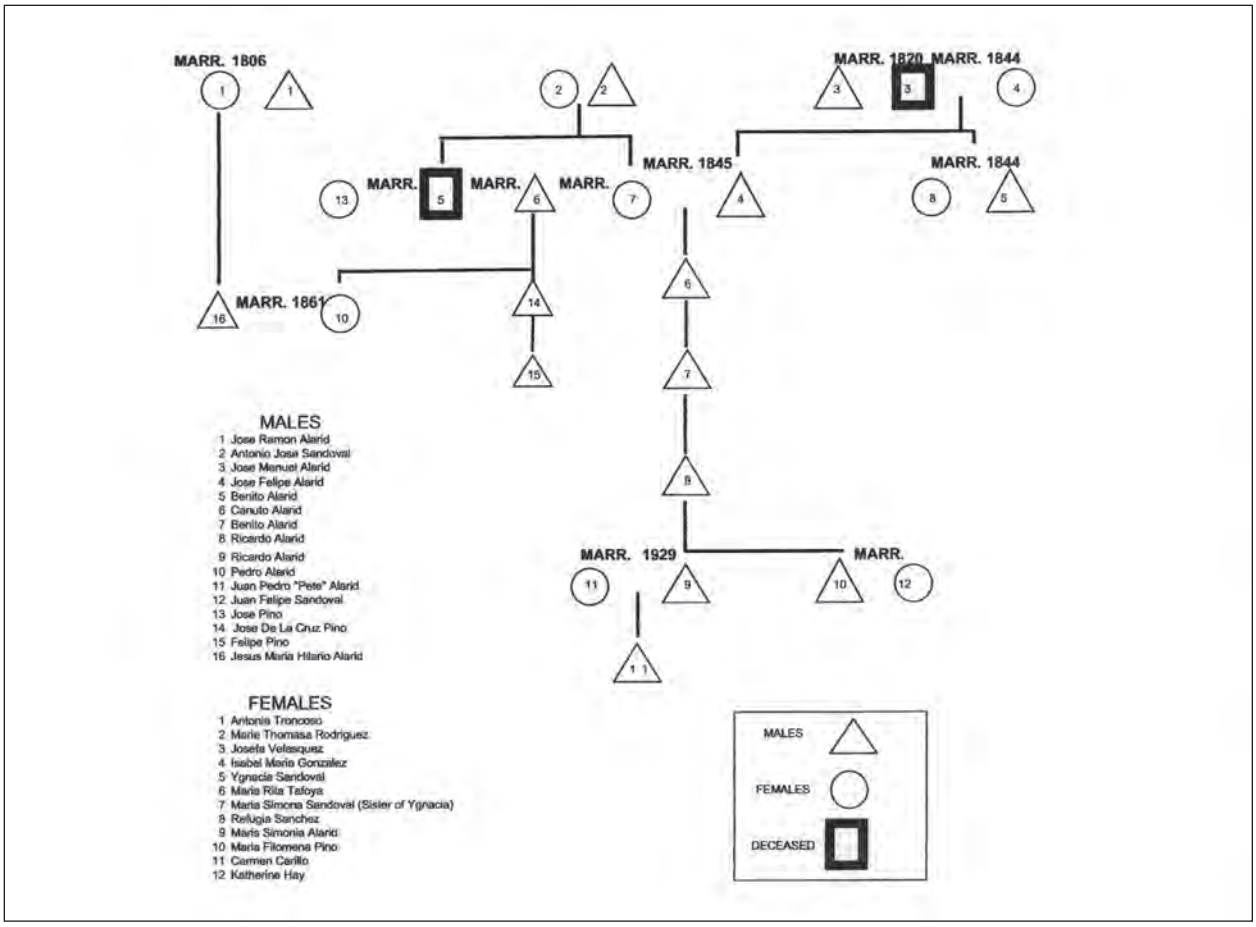


Figure 5.6. Alarid family tree.

Chapter 6
Previous Archaeological Work

Susan M. Moga and Matthew J. Barbour

A search of the New Mexico Cultural Resource Inventory System (NMCRIS) database turned up 61 sites represented by 93 temporal components within a 500 m radius of the project area. (Table 6.1). No previously recorded sites or properties listed on the *National Register of Historic Places* (NRHP) or the *State Register of Cultural Properties* (SRCP) were within the project area.

The vast majority of the components (n = 66) are historic Hispanic and Anglo/Euroamerican, representing 400 years of European occupation of the area in and around Santa Fe. These Hispanic and Anglo/Euroamerican components represent a mixture of residential and industrial/transportation settings. The residential settings date back as early as the founding of Santa Fe, when the project area was slightly south of the Barrio de Analco Historic Neighborhood. One of the oldest residential areas in Santa Fe, the Barrio de Analco is believed to have been settled by *mestizo* and *genízaro* servants in the seventeenth century. However, this has recently become the subject of some academic debate (Wroth 2010; Barbour 2011). To the west, the Railroad Historic District was the transportation and industrial hub of the city from AD 1880 onwards. The railroad provided the incentive for large-scale settlement south of the Santa Fe River during the late nineteenth and early twentieth centuries. Lastly, the Capitol Complex Historic Neighborhood encompasses the project area and its immediate environs. The neighborhood has housed state government for the territory and the State of New Mexico since the 1880s as well as provided a residential setting for occupants of the city.

The remaining cultural components are unknown (n = 9) and Pueblo (n = 18); the vast majority of Puebloan sites date between AD 1100 and 1600. These dates can be linked to a large-scale pueblo, LA 1051, which dominated the downtown Santa Fe area during the Coalition and Classic periods (Lentz 2011).

Nineteenth- and Twentieth-Century Archaeological Investigations in the Surrounding Area

During the search of the NMCRIS system, we found 36 sites with archaeological components dating to the nineteenth and twentieth centuries (Table 6.2). If known, the following data include site name, date of occupation (1800s and 1900s only), archaeological work conducted, feature types found, and artifacts recovered.

LA 1742

Archaeological investigations at LA 1742 included surface collection and excavation of human remains at the Hispanic San Miguel Cemetery, which was east of "the oldest church." Archival research suggests this cemetery was in use during the American Territorial period (1846–1912). Investigations at the cemetery were undertaken by the Museum of New Mexico in January 1966 during construction of the PERA Building.

LA 4450

LA 4450 covers the Santa Fe Historic District. As a historic district, Santa Fe is listed in the *National Register* (July 23, 1973) and *State Register* (No. 260, September 20, 1972). Landowners of LA 4450 include the State of New Mexico, city and county government, and private landowners. Archaeological investigations within the Historic District suggest continual occupation of the Santa Fe area from the Late Developmental period (ca. AD 1100) to the present. Cultural features dating to the nineteenth or early twentieth centuries include buried and standing structures, a church with associated structures, a depression, residences, and roomblocks (Dart 1977).

LA 20195

The Second Ward School site is owned by Union Protectiva. It is a one-story brick structure built in 1886 with two classrooms for primary school grades. In 1910 the building exterior was covered with light brown stucco. By 1966 the school was occupied by two small businesses, Buffalo Hunter and Santa Fe Auto Parts. During this period the building façade was embellished with brown sandstone, and three corbelled brick chimneys were added.

In 1977 the State of New Mexico recorded several features associated with the school structure, including three fire-brick structures, a fence, and an outhouse/privy dating to an Anglo/Euroamerican occupation within the American Territorial (1846–1912) and New Mexico Statehood (1912–present) periods (Dart 1977). LA 20195 is listed on the *National Register* (March 30, 1978) and *State Register* (No. 516, July 20, 1977).

LA 54000

The La Fonda project area was the future site of a three-story parking garage. The site is owned by the La Fonda Corporation of Santa Fe. In January 1985, salvage archaeology by the Laboratory of Anthropology revealed several historic features, including dugouts, house foundations, a midden, and a well. Two Hispanic components dating to the Spanish Colonial (1539–1680 AD) and US Territorial (1846–1912) periods were identified (Wiseman 1988, 1992).

LA 54312

LA 54312 was an asphalt-covered parking lot owned by the City of Santa Fe.

During the nineteenth century, an industrial power plant and a domestic residence occupied the premises. Features associated with these structures became visible during the January 1986 excavation conducted by the Laboratory of Anthropology in preparation for the Water Street Parking Lot (Rudecoff 1987). These features included a refuse pit, the basement foundation of the Windsor house, a power plant spray reservoir and cooling tower, the power plant foundation with a brick floor, the power plant substation concrete foundation, a motor footing foundation for the power plant, the power plant main office foundation, concrete walls for the power plant underground fuel tank, and a well with concrete walls. Thousands of fragments of Euroamerican artifacts were retrieved from these features, along with lesser amounts of faunal remains, lithics, and some prehistoric diagnostic ceramics.

Archival research and chronometric dating place this Anglo/Euroamerican site within the US Territorial (1883–1912) period for the Windsor residence and US Territorial (1891) to recent historic (1960) periods for the industrial power plant. The few diagnostic prehistoric ceramic fragments suggest earlier use of the area by indigenous populations but could not be assigned a specific date.

LA 69193

LA 69193 is privately owned and functioned in the late twentieth century as a gravel parking lot. Backhoe trenches and test excavation of the site by Rio Abajo Archaeological Services in January 1989 exposed several Hispanic features. These included four concrete poured foundations and two refuse pits. Artifacts recovered include porcelain, metal, and glass fragments and suggest a US Territorial (1846–1912) and New Mexico Statehood (1912–present) occupation. Excavation of the site was conducted in anticipation of future construction (Gossett 1989).

LA 70092

The Spiegelberg/Spitz and Spiegelberg No. 1 site is owned by Robert Spitz and Spitz Brothers. Evidence of a warehouse with a small basement with coarse stone masonry walls dated from 1858 to 1869. Then in 1881, wholesale and retail stores were constructed and an underground tunnel was dug to connect the store and warehouse. Between 1946 and 1950, the north face of the building was restored by architect John Gaw Meem to Pueblo Revival from the original Italianate cast iron.

The features at LA 70092 were recorded by a Cordelia Snow in January 1989, and only a surface collection was initiated (Snow 1989). Visible features included a milled lumber structure, an ash stain, several trails, a mercantile, and a cobble wall. Historic ceramics and Euroamerican

artifacts were also identified with the features. Based on this survey, the site appears to have several components, dating as early as the Spanish Colonial period and continuing until World War II (1692–1945).

LA 80000

LA 80000, the Santa Fe Plaza National Historic Landmark, is owned by the City of Santa Fe. It is listed in both the *State Register* (No. 27, no date) and the *National Register* (October 15, 1966). The majority of the site is still buried and not defined. Partial excavation was performed by Cross Cultural Research Systems in the fall of 1990 and by the Office of Archaeological Studies in October 2004 (Fig. 6.1; Cross Cultural Research Systems 1992; Lentz 2004). These activities revealed evidence of an irrigation ditch, a Colonial-period refuse pit, and stratified activity surfaces. Hundreds of lithic, ceramic, and historic artifacts, many of which were diagnostic, were associated with a Hispanic and Anglo/Euroamerican residential community. The components at the site dated to the Spanish Colonial (1605–1821), Mexican (1821–1846), US Territorial, and New Mexico Statehood (1912–present) periods. Several episodes of reconstruction and ground disturbance activities have occurred over its 400+ year history. However, the site is still largely intact, and subsurface deposits are largely undisturbed by the modern world.

LA 101303

LA 101303 is a historic site test excavated by Cross Cultural Research Systems in January 1992 as a result of impending construction. Several late nineteenth-century foundations and earlier lithic debitage and historic trash were identified. These features suggest post–Pueblo Revolt (1692–1821) and US Territorial (1846–1912) period occupation (D. Snow 1993).

LA 103293

The Manuela Baca Property site is owned by Robert Spitz. In 1875 John Schuman purchased the property from the Baca family for a shoe store, and in 1916 he sold the property to Solomon Spitz;

Figure 6.1. OAS excavations on the Santa Fe Plaza in 2004.

Solomon's grandson, Robert Spitz, is the current owner. The Spitz family owned a jewelry business, but it was never in the Schuman Building. In the early 1900s, a grocer, H. S. Kaune & Company, leased the Schuman Building until 1950, when they moved into their present location on Old Santa Fe Trail.

In anticipation of construction, LA 103293 was test excavated by consulting archaeologist Cordelia T. Snow in February 1993 (C. Snow 1993). The test pits were over 1 m in depth. The stratigraphy defined two distinct horizons, with possible evidence of the 1767 flood. It is impossible to know how much of the site is still in existence because it is in an area of intense urban development, and portions of the site are still under adjacent buildings. An apparent wall of the 1880s Schumann Building and a cobble-lined ramada with a posthole were found intact during text excavations, as were small amounts of flaked stone artifacts, seven types of diagnostic ceramics, and thousands of Euroamerican artifact fragments. Based on ceramic types and architectural history, the site was dated to the post–Pueblo Revolt (1767–1810) and Santa Fe Trail to US Territorial (1821–1886) periods. Severe water erosion and construction have impacted the site in recent years.

LA 112663

The 418 Sandoval Street site is owned by a private corporation. Numerous historic features became visible during test excavations in advance of planned construction in 1996. These included three ash or coal pits, an L-shaped house foundation with a concrete floor, an outhouse/privy, a brick and mortar cistern, and a kitchen refuse area. Faunal remains, Euroamerican artifacts, and a few historic ceramics were recorded, but not collected. The single residence is presumed to be of Hispanic origin and dates from the US Territorial period until present (1880+). Remaining portions of the site may still be buried. Excavation was performed by Southwest Archaeological Consultants (Drake 1992; Viklund 1996).

LA 114215

The City of Santa Fe East De Vargas Street Paving site (Overview Project No. 86) is owned by municipal government. It is unknown when and what organization recorded the site. Euroamerican artifacts and prehistoric ceramics were identified, but the ceramic types were not specified. Based on the limited information available, the site was dated between AD 900 and 1880 (Dart 1977).

LA 114216

The Improvement Row College Street site (Overview Project No. 88) is owned by municipal government. A surface collection by an unspecified organization (no date recorded) was performed prior to paving the street. It is not known if features were present. Only an artifact scatter with historic and prehistoric ceramics was recorded. Based on the limited information available, the site was dated between AD 900 and 1880 (Dart 1977).

LA 114218

The College Street Bridge Replacement/Old Santa Fe Trail site (Overview Project No. 144) is owned by municipal government. An artifact collection was performed when artifacts became visible during bridge replacement. The site is thought to be Hispanic in origin, dating between the Spanish Colonial and US Territorial periods (1600–1912) (Dart 1077).

LA 114219

The Old F. Valdez House/De Vargas Street (Overview Project No. 164) is privately owned and was recorded on April 1957 by an unknown organization. The area was mapped and the surface collected before it was impacted by construction. The recorder assumed that a historic adobe structure was on site due to the presence of adobe brick fragments, but this was not proven. The ceramics within the adobe brick fragments were identified as historic Tewa and European wares dating to the post–Pueblo Revolt period (ca. 1720–1821). No further work was undertaken (Dart 1977).

LA 114221

The Chapel of Our Lady of Light/La Castrense (Overview Project No. 62) is owned by Mrs. E. John Greer and Mrs. May Meyers. The site has an extensive history, and it is possible that burials and foundations are still present beneath present-day structures on West San Francisco Street.

During the Spanish Colonial (1605) to Santa Fe Trail (1846) periods, the church was falling into disuse. The roof caved in, and floor burials were robbed and strewn about. By the US Territorial phase (1846–1851), the church was taken over by the military and used as a US government court. Bishop Lamy managed to regain use of the church from 1853 to 1858. In 1859 the church property was sold to Simon Delgado, who demolished the church and replaced it with shops and warehouses.

Complete excavation of the site was undertaken by the Laboratory of Anthropology in April 1955 (Stubbs and Ellis 1955). Features encountered included European adult and child burials recovered from below the adobe floor of the church, a cemetery in front of the church facing San Francisco Street, stone footings, two bell towers and two floors (prepared adobe and adobe brick) from the church, and a structure foundation built over the church foundation. Architectural stone, hundreds of Euroamerican artifacts, and diagnostic prehistoric and historic ceramics were recovered from the site. LA 114221 has been disturbed by urban development and is currently completely built over.

LA 114230

The Alfredo Herrera House site at 461 East Manhattan Avenue (Overview Project No. 146) is owned by Mrs. Alice Herrera. A twentieth-century building occupies much of the site. As a result, only the surrounding area was excavated by the Laboratory of Anthropology in June 1970 in preparation for future construction. Diagnostic ceramics from an prehistoric artifact scatter dated between Coalition and Classic periods (1200–1600), and an assumed Hispanic component was identified based on Euroamerican artifacts and local land-settlement patterns from the Spanish Colonial to World War II periods (1600–1945) (Dart 1977).

LA 114231

The Santa Fe River Bank (Alameda and Cerrillos) site (Overview Project No. 165) is owned by municipal government. Excavation was carried out by the Laboratory of Anthropology in March 1971 during a river channel widening by the City of Santa Fe. A stone block wall was discovered beneath Alameda Street and dates to the twentieth century (Dart 1977).

LA 114239

The 507 Agua Fria Well site (Overview No. 205), owned by Richard Maloney, was recorded and photographed by the City of Santa Fe in May 1989 during a house remodeling project. The well was constructed of 4-inch cedar posts with notched joints (cabin style). It was 22 in wide by 30 in long by 21 feet deep. This style of well was based on similar methods of well construction in the Santa Fe area. According to Linda Tigges of the Santa Fe Land Use Department (NMCRIS Activity No. 53686), wood-cribbed-style wells disappeared by 1940, when city water became available. Diagnostic historic artifacts consisted of a ginger beer crockery bottle and a Lea & Perrins Worchestershire Sauce glass bottle. The site was classified as Hispanic and tentatively dated to the US Territorial period (1870–1889).

LA 114251

The 632 Paseo de Peralta site was recorded by the City of Santa Fe in August 1990 after features became visible during construction by a private contractor. Features identified included an acequia/irrigation ditch, a "U-shaped" cobble alignment, and a 4 ft deep trash dump with artifacts. The acequia is of Hispanic origin dating from the Spanish Colonial to US Territorial periods (1610–1912). The trash dump provided evidence of historic bricks, metal fragments, and linoleum, suggesting an Anglo/Euroamerican component dating to the recent historic period (1945–1960).

LA 114265

The José Alarid House site (Overview Project No. 148) is at 1000 Paseo de Peralta or 338 East

De Vargas Street. The site is privately owned and was excavated by Cross Cultural Research Systems in January 1991 and September 1992. David Snow served as principal investigator. Diagnostic ceramics and other artifacts suggest at least two site components: an Ancestral Puebloan artifact scatter and features dating between the Developmental and Classic periods (AD 600–1400), and a Hispanic artifact scatter and features from Santa Fe Trail to Statehood periods (1835–1945). Several of the diagnostic ceramics also suggest a third, Spanish Colonial component, but this could not be confirmed during archaeological investigations. Features include an adobe or plaster mixing pit and a few human burials. The site was excavated in anticipation of new housing construction.

LA 120279

The Boyle Floral Company site is privately owned. Portions of the site were impacted by adjacent land developing activities in 1997, when several features became visible. These included a concrete floor with limestone footings and a circular brick cistern. In May of that year, Cross Cultural Research Systems excavated the area. They concluded the cistern was probably associated with a previous residence, and the concrete flooring may have been the Boyle Floral Company hothouse, since large quantities of broken window glass were in the vicinity. With the aid of historic documents, these Anglo/Euroamerican features were dated between 1850 and 1930. Hundreds of pieces of Euroamerican artifacts were recorded, as well as some earlier diagnostic indigenous ceramics, which dated from the Coalition to Classic periods (1200–1600) (Snow 1977).

LA 122227

The Denver & Rio Grande Railroad Turntable site was owned by the Zydeco Division of Yates Drilling Company at the time of recording (Moore 1999). The site consists of a 66 ft diameter narrow gauge turntable with 5 1/2 ft high walls built in 1923. The interior works and platform were removed when the turntable was abandoned. Turntables were found only in towns with sizable railroad companies, large engines, and railcar repair shops. The masonry work of the turntable was unique and may have been constructed by the same Italian stone masons who came to Santa Fe to build the St. Francis Cathedral in the 1880s. The only narrow gauge turntable still in operation is in Durango, Colorado.

The site was excavated by Southwest Archaeological Services in March 1998 and February 1999 before it was impacted by construction (Moore 1999). Small amounts of diagnostic historic artifacts were retrieved. From archival research, this Anglo/Euroamerican site dates between 1900 and 1930.

LA 127276

The 60 East San Francisco Street site is owned by a private individual and currently used as an asphalt-covered parking lot. In the early eighteenth century, a building on the site belonged to the Santa Fe Cabildo. It was later owned by Bartólome Baca and willed to Manuel Baca in 1834. This Hispanic component was dated from after the Pueblo Revolt to the US Territorial period (1750–1856). During the nineteenth century, the property was leased to two Santa Fe traders, Henry Connelly and Jacob Amberg (Connell & Amberg), and sold to Henry O'Neill in 1856. The time period for this Euroamerican component was recorded as US Territorial to recent historic (1856+).

Test excavation of the site was initiated by Southwest Archaeological Consultants in April 1999. Features included a depression, a posthole, cobble foundations associated with the Baca house, and a modern concrete structural foundation. Architectural stone, burned adobe, diagnostic ceramics, and more than 10,000 Euroamerican artifacts were recovered from this project (Deyloff 2002).

LA 146402

LA 146402, part of the Santa Fe Railyard Historic District, was owned by the City of Santa Fe at the time of site documentation. Before planned development, backhoe trenches were dug to identify cultural deposits, and excavation was performed by the Office of Archaeological Studies in December 2004 (Wenker 2005a). Based on the cultural materials identified, the site consists

of two components: Hispanic (1821–1880) and Euroamerican (1880–1955). Features identified from both components included an agricultural field, dumps, a hearth, middens, unidentified pits, cinder pits, postholes, several structural foundations (Fig. 6.2), and two water-control devices. Artifacts recovered from these features were Euroamerican items, faunal remains, and architectural stone.

LA 146403

LA 146403 is part of the Historic Santa Fe Railyard and is owned by the city of Santa Fe. Archaeological testing of LA 146403 was performed in December 2004 by the Office of Archaeological Studies in advance of planned development (Wenker 2005a; Wenker and Hannaford 2005). Excavation revealed two railroad-era foundations and two small pits. The foundations represent portions of a windmill/well and water tank complex. All features appear to be associated with Anglo/Euroamerican occupation during the US Territorial period (ca. 1846–1900). However, fewer than ten diagnostic Euroamerican artifacts were collected.

LA 146404

LA 146404 is an extramural use-area associated with the Gross Kelley Warehouse (built in 1913) and other railyard activities during the late nineteenth and early twentieth century (1870–1945). Anglo/Euroamerican in origin, the site was excavated in December 2004 by the Office of Archaeological Studies in advance of development by the Santa Fe Railroad Community Corporation (Wenker 2005a). A hearth and several unidentified pits were identified. Diagnostic historic ceramics, faunal remains, and Euroamerican artifacts were collected.

LA 146405

LA 146405 is part of the Santa Fe Rail Yard Historic District and is owned by the City of Santa Fe. In advance of on-site development, excavation was initiated by the Office of Archaeological Studies

Figure 6.2. Excavation of the Structure 8, the 1880s Atchison, Topeka & Santa Fe Railway Depot, in the Santa Fe Railyard Historic District.

in December 2004 (Wenker 2005a; Wenker and Hannaford 2005). A large historic refuse pit and two superimposed historic building foundations were identified. One was a portion of the basement or root cellar of the pre-1904 depot built by the Santa Fe Railroad, and the other represented part a 1930s beer-distributing building. The refuse pit was probably associated with the latter structure. Artifacts associated with these features included burned adobe, faunal remains, and diagnostic Euroamerican artifacts. Based on these materials the site was identified as Anglo/Euroamerican in origin, dating from 1903 to 1955.

LA 146406

LA 146406 is part of the Santa Fe Rail Yard Historic District and is owned by the City of Santa Fe. In advance of development by the Santa Fe Railroad Community Corporation, excavation was conducted by the Office of Archaeological Studies in December 2004 (Wenker 2005a). Two features were identified: a large pit that cut through the railroad bed, and a section of the Santa Fe Central railroad track along the eastern margin of the rail yard. Only a few Euroamerican artifacts were found in association with these features. This Anglo/Euroamerican site is thought to date between 1903 and 1955.

LA 146407

LA 146407, the Acequia de Analco, was excavated in December 2004 by the Office of Archaeological Studies in advance of planned development by the Santa Fe Railroad Community Corporation (Wenker 2005a; Wenker and Hannaford 2005). The Acequia de Analco was in use between 1846 and 1912 and is Hispanic in origin. Hundreds of Euroamerican artifacts and faunal remains, and a few lithics were retrieved from the feature.

LA 146409

LA 146409, part of the Santa Fe Rail Yard, was excavated in December 2004 by the Office of Archaeological Studies in advance of planned development by the Santa Fe Railroad Community Corporation (Wenker 2005a). The demolished remains of the Wholesale Building Supply warehouse, a small structure which may have been a loading dock or freight scale, a cluster of thermal features, refuse pits, and a few utility trenches were identified. Anglo/Euroamerican in origin, these features dated from the US Territorial period to recent historic times (1879–1955). Hundreds of Euroamerican artifacts along with some diagnostic historic ceramics and faunal remains were retrieved.

LA 149909

LA 149909 represents a portion of the Acequia de los Pinos in the Santa Fe Rail Yard. In advance of area redevelopment, the Office of Archaeological Studies excavated the acequia in September 2005 (Wenker 2005b, 2006). The channel was basin-shaped and measured 19 ft wide by 3 1/2 ft deep with several layers of postabandonment fill. Artifacts associated with the feature included faunal remains and a few fragments of Euroamerican artifacts. According to historic records, this Hispanic features dates from the post–Pueblo Revolt (1692) to US Territorial (1912) periods.

LA 149910

LA 149910 is owned by the City of Santa Fe and was excavated by the Office of Archaeological Studies in September 2005 in advance of construction activities (Wenker 2005b). A deeply buried, form-poured concrete foundation for an unknown structure was identified. No artifacts were recovered, but it is believed to be of Anglo/Euroamerican origin dating to the New Mexico Statehood period (1912–1960).

LA 149913

LA 149913 is part of the Santa Fe Rail Yard Historic District and is owned by the City of Santa Fe. In response to planned development by the Santa Fe Railyard Community, the Office of Archaeological Studies tested LA 149913 in September 2005 (Wenker 2005b). A buried acequia was discovered. Within the acequia, layers of alluvial sediments were observed, and at the base, extreme gravels with coarse sands and abundant artifacts were present. Based on historic artifacts, the acequia was occupied during the Mexican and US Territorial periods (1821–1912) and was

Anglo/Euroamerican in origin.

LA 149914

LA 149914 is part of the Santa Fe Rail Yard Historic District and is owned by the City of Santa Fe. In advance of planned development by the Santa Fe Railyard Community, the Office of Archaeological Studies tested the southeastern corner of the site in September 2005 (Wenker 2005b). Portions of a deeply buried concrete foundation and a rock wall were identified. The foundation may have been associated with the Santa Fe Creamery and Ice Company, dated from 1912 to 1999. The rock wall appears to be a modern feature made of small river-worn cobbles mortared with concrete. It was built in a footer trench and installed as part of the landscape. No artifacts were recovered.

LA 156207

LA 156207, owned by Santa Fe County, dates to the Coalition, Spanish Colonial, Mexican, American Territorial and New Mexico Statehood periods. In April 2007 the Office of Archaeological Studies initiated nine backhoe trenches across the 2.4-acre site to expose subsurface features (Hannaford 2007), including an ash and charcoal stain, a cobble hearth, an outhouse/privy (Fig. 6.3), several refuse pits, and a poured-concrete basement foundation. Further work in the spring 2008 identified several irrigation features and a Native American pithouse (Lakatos 2011). Artifacts collected include a wide array of Euroamerican artifacts and indigenous objects. The site is currently under construction to house the new Santa Fe County First Judicial District Courthouse Complex.

Previous Archaeological Investigations at LA 158037

The only previous archaeological investigation at LA 158037 was archaeological testing. Seventeen backhoe trenches, representing a 2 percent sample of the area, were used to test archaeological

Figure 6.3. Feature 2, a self-contained vault privy discovered at LA 156207, at the site of the Santa Fe County First Judicial District Courthouse Complex.

deposits to be impacted by construction of the State Capitol Parking Facility in late November 2007 (Barbour 2008a). Backhoe trenches were placed where intact subsurface deposits were most likely to occur based on an archival records search and in areas free of utility line disturbance. Each trench was 15.3 m (50 ft) long), 1 m (3 ft) wide, and 1.4 m (4 ft 6 in) deep.

Backhoe excavation resulted in the documentation of 11 site strata, 29 archaeological features, 91 artifacts, and 12 historic utilities. These archaeological features and deposits reflected changing land use in the Capitol Complex Historic Neighborhood during the nineteenth and twentieth centuries and were registered in NMCRIS as LA 158037.

The majority of features (n = 23), utilities (n = 12), and cultural strata represent demolition and use associated with a late nineteenth- and early twentieth-century residential neighborhood. Archival research supported these findings: historic maps dating from AD 1885 and later showed residential structures appearing on the landscape. The foundations of these structures were not found, and it appeared likely that a rapid mechanical leveling of the project area occurred in the mid to late twentieth century, and the majority of construction refuse was hauled off-site and deposited elsewhere.

Domestic-refuse pits were the most commonly found feature in association with the residential neighborhood. Artifacts recovered from these pits (n = 10) and three self-contained vault privies appeared to show significant variability in the economic status of the residents, specifically through their use of undecorated ironstone and hand-painted porcelain dishes. *Hudspeth's Santa Fe City Directories* provided a guide to who deposited the domestic refuse. The Alarid and Romero families owned several buildings within the project area.

Archival research on the twentieth-century neighborhood revealed that several businesses were established in the area. Butler & Foley Plumbers (Fig. 6.4), at 120 South Capitol, was likely at least partially responsible for the great quantity of utilities discovered, since they advertised both heating and plumbing services. The Alarid and Romero families also had businesses in the form of Dick's Barber Shop and Ray's Floor Covering Service, respectively. However, the majority of businesses on the site were small mom-and-pop endeavors which lasted at most one or two years, leaving little evidence of their operation.

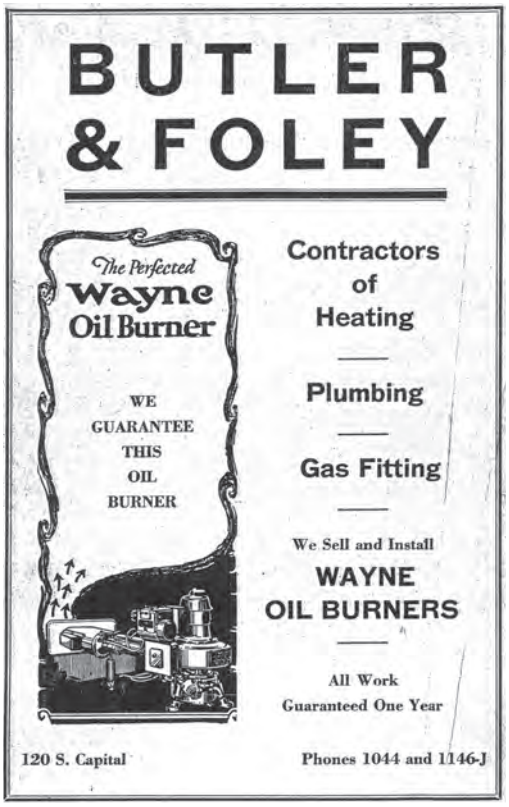


Figure 6.4. Butler & Foley Plumbers advertisement (1930). Palace of the Governors Photo Archives (NMHM/DCA).

The remaining archaeological features found as a result of testing appeared to represent use of the area as agricultural fields during the Spanish Colonial, Mexican, and early Territorial periods; they included a plow zone and five irrigation ditches. One domestic-refuse pit appeared to be the result of residential use during the late Spanish Colonial or early Territorial periods. However, neither the Urrutia map of 1766 nor the Gilmer map of 1846–1847 shows any structures in the investigated area.

Based on these initial findings, the OAS recommended investigation of the features and deposits impacted by construction of the new State Capitol Parking Facility through the implementation of a research design and data recovery plan in conformance with NMAC 4.10.16.13. This research design, along with a more in-depth discussion of testing results, can be found in Barbour (2008a).

Chapter 7
Research Focus

Based on the findings of archaeological testing in November 2007 (Barbour 2008a), LA 158037 had the potential to contribute to our understanding of agricultural systems (Research Domain 1) and contextual variability in occupational patterns and residential material culture (Research Domain 2). These domains and relevant research questions are summarized below. A more detailed discussion of the research questions and data needs is outlined in Barbour (2008a).

Research Domain 1: Agricultural System Studies

Irrigation ditches identified during testing in association with Spanish Colonial and early Territorial fields had the potential to increase our understanding of agricultural systems as they existed within the Santa Fe area between AD 1700 and 1880 (Barbour 2008a). During this period, the majority of population within the city was engaged in a subsistence-based economy that depended on these pivotal agricultural systems.

Work in the past focused primarily on large-scale acequia systems that distributed water throughout the city (Snow 1988; Wenker 2005a). LA 158037 provides the opportunity to acquire information specific to water distribution within an agricultural field south of the river.

Research Question 1: Can we date agricultural systems? Were small management features built for continuous use, or is there evidence of expansion or periodic remaking of the system? If so, how often do such changes occur?

These questions examine agricultural system chronology and sequence from the initial construction to ultimate abandonment of the fields within the project area. Testing revealed a "plow zone," Stratum 4, and several irrigation ditches (Barbour 2008a). These features and others like them will be the key to understanding chronology in agricultural systems. The age of the fields is unknown, although archival evidence suggests that it existed before the Urrutia map of 1766 was drawn.

The Gilmer map of 1846–47 also confirms the presence of fields in this area during the early Territorial period. This pattern of agricultural land use changes with the coming of the railroad in AD 1880, before the Hartmann map, which displays a residential neighborhood.

It is expected that features identified during testing represent the last use of the field, and yearly plowing may have erased evidence of earlier field use. This plowing would presumably cause diagnostic artifacts and chronometric samples to mix during the field's use. However, substantial features such as floodgates or checkdams may have been used for a significant length of time and may provide evidence of changing field-modification practices.

Research Question 2: What do traces of remnant fields and diversion and dispersion features indicate about changes in irrigation, farming, or land tenure? Do technological changes in farming and irrigation correspond to the introduction of the Santa Fe Trail? Do any changes occur after the coming of the railroad?

Research Question 2 deals with methods used to establish and maintain land tenure in a landscape marginal to an urban setting. While only small-scale irrigation ditches were identified as a result of testing, similar contexts have yielded checkdams, floodgates, and other features (Wenker 2005a).

W. H. H. Davis(1938:67–71), a circuit judge who traveled extensively through New Mexico during the nineteenth century, specifies that field systems were composed of numerous agricultural beds. Each bed is characterized as a section of land measuring 60 by 40 ft whose perimeter is surrounded by mounded earth. Adjacent to the bed, a minor irrigation ditch runs upon the highest portion of land within the field. This ditch is fed by a lateral from the *acequia madre*, or mother ditch. When water is needed for the field, the perimeter around the bed is breached, and

water is allowed to flood that specific bed within the field.

In the case of LA 158037, the lateral which fed this minor ditch was the Acequia (or Arroyo) de los Pinos, immediately south of the project area (Snow 1988), and the current location of Paseo de Peralta. The area impacted as a result of construction associated with the proposed State Capitol Building Parking Facility is 9,244 sq m, or a minimum of 40 individual beds within the project area. Because of this, we expected that significant water-dispersion and -diversion features would be evident, including breaches in the bed and the minor irrigation ditches that fed off of the Acequia de los Pinos. It was hypothesized that the same location for the breach was used repetitively over time to cut down on construction and maintenance costs associated with the agricultural system. If so, these breaches could be recognized within the archaeological record as cobble-constructed checkdams or floodgates supported by wooden posts.

Research Question 3: Is there evidence for crops or plant species? Did crop selection change during the life of the field? What evidence is there for crop diversification?

Pollen and flotation samples recovered from similar locales 150 m to the west yielded evidence of plant species associated with agricultural fields (Wenker 2005a:Appendix 3). While corn was the obvious crop of choice throughout New Mexico's history and prehistory, Davis's (1938) account of field division into individual beds hints at crop diversification within the agricultural system. Water to each bed could be regulated individually to meet specific crop needs.

Direct historical evidence of which crops were cultivated at LA 158037 does not exist. Wilson (2008:78) characterizes the periphery of Santa Fe at the time of American conquest as a conglomeration of wheat, corn, chile, and bean fields. This assertion has been proven archaeologically by pollen samples taken from a Mexican-period refuse pit associated with agricultural activities north of the Santa Fe River at LA 1051 (Stephen Lentz, personal communication, 2007).

Expectations were that the majority of the area at LA 158037 contained significant quantities of corn pollen but could also include other subsistence crops such as wheat, chile, and beans. It appeared unlikely that cash crops would be evident given the overland distances and means of conveyance used to transport goods between Santa Fe and major economic centers within central Mexico and the eastern United States before the coming of the railroad in 1880. However, no agricultural products could be ruled out, and even if only corn were recovered, variability within the specific species could be evident.

Research Domain 2: Contextual Variability in Occupation Patterns and Residential Material Culture

The numerous domestic-refuse pits and self-contained vault privies initially discovered during testing (Barbour 2008a) had the potential to increase our understanding of the late nineteenth and early twentieth century. Contextual variability suggested features representing multiple activities produced by numerous family units within a fairly restricted temporal framework. This variability occurs on many different levels at LA 158037.

Hudspeth's Santa Fe City Directories shows significant variability in ethnicity and socioeconomic status of the individuals residing at LA 158037. This variability also appears evident within the material culture collected from the First Baptist privy and domestic refuse associated with the Alarid household (Barbour 2008a). These differences provide opportunities using archival and archaeological resources with which to cross-examine differences in material culture from ethnic and socioeconomic perspectives.

Contextual variability could also be explored between feature types. The presence of domestic-refuse pits and privies allows for a comparative study of differences in discard patterns. Contextual variability in residential material culture, from the perspective of feature type, was used to address the treatment of domestic waste and the consumption of medicine, alcohol, and illicit drugs as laws changed over time. We also examined how feature type correlates to the different consumption patterns of individual domestic households.

Research Question 4: Does recognizable variability occur within the discarded material culture, which may represent different consumption patterns of Hispanic and Anglo-American households within the late nineteenth and early twentieth centuries? Which artifact classes are most sensitive to different consumption patterns as they relate to cultural identity?

While the majority of residential structures at LA 158037 were owned by Richard Alarid Jr. and Ramon Romero Jr. during the early twentieth century, the properties were rented by individuals of Hispanic and Anglo backgrounds (Barbour 2008a), suggesting that questions dealing with ethnicity and identity could be addressed.

Past studies focused on questions concerning New Mexico as a frontier of the Spanish Empire, a Mexican state, and a territory of the United States through shifts in material culture (Boyer 1992; Moore 2001). The arrival of the railroad increased availability and reduced costs of mass-produced products from the eastern United States. This influx of abundant and affordable goods could have resulted in a homogenizing of material culture assemblages left by late nineteenth- or early twentieth-century households and may have allowed for the potential standardization of material culture assemblages.

However, previous studies show that assemblage variability can still be found in some settings. For example, a study of households on the eastern plains showed marked increases in artifacts used in domestic and routine activities associated with Spanish residential settings, as noted by increased quantities of dishware and native-food products (Boyer in Moore et al. 2003). Animal products showed the most variability: Hispanic households consumed primarily sheep and goat meat, and beef was consumed in smaller quantities; whereas more pork, beef, poultry, and fish occurred in assemblages displaying Anglo tastes (Crass and Wallsmith 1992).

The parameters of this study were well established, since all household units occurred on the same block and were approximately contemporaneous. The identities of the household occupants have also been established through archival research. The record reflects a greater homogenizing and melding of cultures as Hispanic and other groups become assimilated into the greater-US macroculture. Addressing the current sample, this may be more conspicuous at a local level than regionally. Further, these differences might be time sensitive; for example, earlier assemblages may tend to display higher quantities of foodstuffs and items traditionally associated with a particular group. As temporal change occurs, it was expected that fewer commodities associated with any particular group would be present. Therefore, it was anticipated that regional variability was not a compelling factor at this level of investigation, and variability between ethnic groups would be difficult, if not impossible, to detect.

Research Question 5: Do consumption patterns vary between low- and middle-class households in the late nineteenth and early twentieth centuries? If so, are these patterns exacerbated or diluted by the Great Depression (AD 1929–1941)?

Hudspeth's Santa Fe City Directories characterizes the majority of occupants at LA 158037 as laborers, drivers, housekeepers, clerks, and ministers. Such jobs are usually associated with low- to middle-income households and allow for limited comparison of consumption patterns within a socioeconomic group.

Models in the past have relied on using material culture to determine the socioeconomic status of individuals. These studies often use a scale based on distance from the manufacturer, availability, and implied intrinsic value of some goods over others (Miller 1991). This study proposes to do exactly the opposite. Using archival research to establish socioeconomic status, cultural material was explored to see if variability within artifact assemblages occurred.

Several potential indicators of differences in social status are food, indulgences, and dishware. The type and cut of meat consumed is often directly related to cost. Oysters cost more than sheep, and loin costs more than a T-bone. Indulgences follow a similar pattern in that specialty liquors and illicit drugs such as opium or cocaine cost more than more readily available items such as beer and whisky. However, such distinctions narrowed during the Prohibition Era of the 1920s, making such assertions somewhat problematic. Dishware is another important indicator. Social status can

be inferred by manufacturer and shipping costs associated with a specific product, but perhaps most important in determining the social status of the individual using that product are construction costs associated with the individual piece, especially its decorative technique. The labor associated with hand-painting increases the cost of a product exponentially over undecorated, mass-produced utility wares.

We expected to find only minor differences within material culture reflecting individual preference. Differences between low- and middle-class households may not even exist, or all households may appear low-income on the basis of a national standard used in studies along the East and West Coasts and American Midwest.

The Great Depression of the 1930s affected a broad spectrum of socioeconomic strata. In rural areas, those hardest hit were small-time subsistence farmers who were unable to claim federal aid until after their land was lost to tax collection (Post 1999). This led to alienation and disenfranchisement of rural populations and ultimately to relocation to urban environments.

In urban environments, both the rich and poor were hit by job loss. Federal government assistance programs of the New Deal implemented in New Mexico included the Work Progress Administration and the Civilian Conservation Corps. The Civilian Conservation Corps in particular had a headquarters and "fly-camps" in Santa Fe and numerous outlying communities (Calkins 1937; Martinez 1996). These measures returned some cash to families and for the poor may have been enough to maintain the status quo. However, it is unlikely that the middle class, if there are visible differences in material culture from that of the poor before 1929, would be able to maintain these distinctions on a fixed income. This could lead to a homogenized urban material culture for both the low and middle classes as the two groups adapted a similar lifestyle to cope with the economic downturn.

Research Question 6: Do discard patterns differ in domestic-refuse pits and self-contained vault privies? If so, what characteristics of consumption patterns are similar?

Excavations of privies and refuse pits in a military setting appear to show substantial variability in discard patterns between the two contexts (Post et al. 2006.) Self-contained vault privies show increasing quantities of goods associated with domestic and routine activities, such as dishes, and personal effects, such as medicinal bottles, whereas a domestic-refuse pit contains marked increases in the quantity of butchered animal bone and canned goods. Both contain high quantities of indulgences such as liquor and tobacco products.

While it is expected that residential and military discard patterns may be similar, a study modeling such behaviors within the context of a residential neighborhood in downtown Santa Fe has never been conducted. Through the analysis of Euroamerican artifacts, this study will look in detail at the treatment of domestic waste; consumption patterns of medicine, alcohol, and illicit drugs; and, overall, what each feature type tells us about the individual domestic household under investigation.

The OAS analysis format and procedures developed over the last 10 years to examine Euroamerican artifacts are ideal for informing on these differences (Boyer et al. 1994). Described in Barbour (2008a), the analysis is designed to accommodate a wide range of variability. The function of each artifact is identified by a hierarchical series of attributes according to functional category, type, and specific function. These attributes are closely related and provide a chain of variables that will specify the exact function of the artifact. This system also allows for general assemblage classifications. When identified, these attributes can be used to describe differences or similarities in discard patterns between features at LA 158037.

Chapter 8
Field and Analytic Methods

Matthew J. Barbour and Jessica A. Badner

Field and analytic methods employed in this study did not deviate from strategies discussed in the data recovery plan (Barbour 2008a). These strategies involved systematic in-field sampling of nineteenth- and twentieth-century features, the creation and maintenance of digital maps, and analysis of all cultural materials recovered during archaeological investigations.

Field Methods

Fieldwork began with the removal of the asphalt, reexcavation of the backhoe trenches from the testing phase, and the identification and marking of all known utility lines within the project area. Mechanical stripping was used in eight large scraping areas (Fig. 8.1) around all known features and cultural deposits recorded during the testing phase (Barbour 2008a). These scraping areas encompassed 3,257 sq m, or 35 percent of the 9,244 sq m of area impacted by construction of the new State Capitol Parking Facility, and extended over all known historic property boundaries, providing for a sample of household units within the area impacted.

Using backhoe trench profiles as a guide, mechanical leveling of the area focused on the removal of Strata 3, 8 and 10, roughly equating to a sediment block extending up to 60 cm below the present ground surface. These strata were characterized during testing as sediments accumulated through late twentieth-century demolition and construction at LA 158037 and were not investigated further.

Removal of this modern fill exposed features and deposits associated with agricultural and residential activities. These features and associated deposits were hand-excavated using feature-based data recovery methods. The application of these methods did not deviate from the approved data recovery plan (Barbour 2008a) and were geared towards addressing the research questions detailed in the previous chapter. Feature types are discussed below.

Bone Pits

Initially described as agricultural pits (Barbour 2008c:9), bone pits were found in exclusive association with 125 West Manhattan, which was occupied by the Romero family. All of the features were roughly 1 m in diameter and between 30 and 50 cm deep. Artifact content consisted primarily of low-yield cranial and lower shank-hoof portions of domesticated cow and sheep/goat. It is further suspected that the animal viscera were also discarded into the pit based on discoloration within the feature fill. These characteristics may reflect butchering or feasting on the property by the Romero family and could be evidence of cottage industry. The charcoal, coal, and cinder which typify a domestic-refuse pit were not encountered. Because these features represented a unique activity which could be linked to only one specific household, all bone pits encountered were excavated in their entirety.

Animal Burial Pits

Deceased pets are often interred in a family's backyard. Pets commonly buried in this way were cats and dogs. Pits which consisted primarily of these skeletal remains were identified as burial pits. These pits were excavated in their entirety to provide information regarding pet preference among the inhabitants of LA 158037.

Construction-Debris Pits

Construction-debris pits can be any shape or size but are always characterized by fill consisting primarily of building debris, such as milled lumber, concrete, pen tile, and fire-hardened and adobe brick fragments. The contents of these pits reflect construction, maintenance, or demolition within the project area. Beyond field

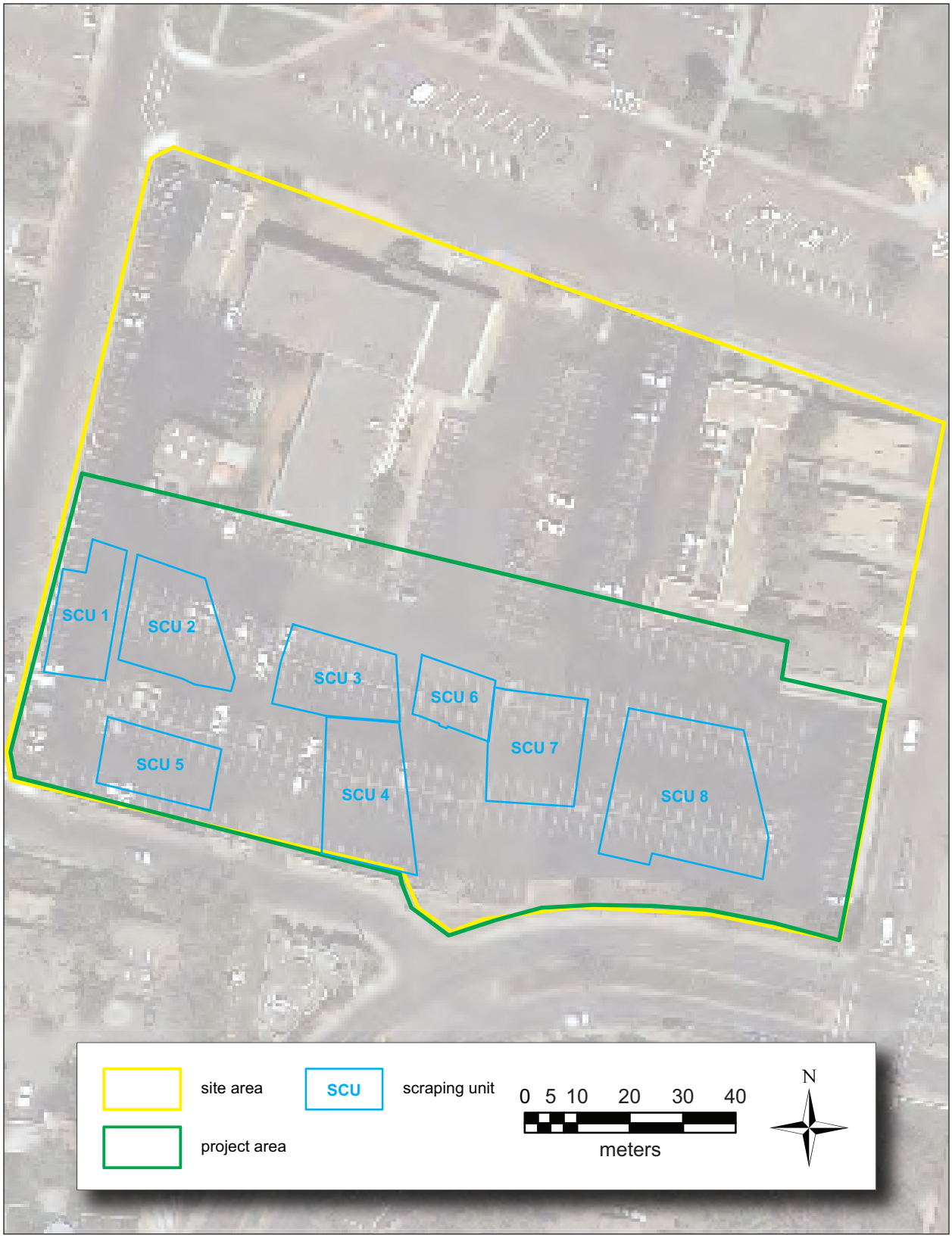


Figure 8.1. Scraping units excavated at the Capitol Parking Facility.

documentation, they were of limited value for addressing project research questions. As a result, many of these features were not systematically excavated during archaeological investigations at LA 158037.

Domestic-Refuse Pits

Domestic-refuse pits can be any shape or size. Fill typically contains of large quantities of coal, charcoal, and cinder presumably related to heating and cooking. Associated artifacts often vary widely in their specific functions but are products consumed and discarded in a residential setting. Examples include toiletry bottles, T-bone cuts of beef, dinnerware pottery, and canning jars.

Cultural materials found within domestic-refuse pits reflect on Research Domain 2. In most instances, these pits were excavated in their entirety to increase their research potential. However, some pits of over 2 by 2 m were sampled in accordance with methods proposed in Barbour (2008a). In these instances, excavations never fell below a 10 percent sample of the total feature.

Irrigation Ditches

Irrigation ditches are linear hydraulic systems used to convey water to and across a field or garden. These features have the potential to address questions associated with Research Domain 1. Unfortunately, no large-scale irrigation systems predating the residential neighborhood were encountered at LA 158037. However, portions of a small-scale garden system were identified. These small ditch segments were sampled using 1 by 1 m excavation units placed at regular intervals along the ditch segment. These excavations resulted in no less than a 10 percent sample of feature fill.

Posthole

Pits of less than 40 cm (1 ft 4 in) in diameter were identified as postholes. These features were mapped but not excavated.

Self-Contained Vault Privy

Self-contained vault privies may be best understood as part of the traditional outhouse system (Barbour 2009a). These sanitation systems work by excavating a pit under a stand-alone structure. Users of the outhouse squat or sit on the toilet, and their excrement falls into the vault below. Such systems often fill up quickly and have the potential to collect other cultural materials intentionally or unintentionally dropped into them.

Because the vaults can fill up rapidly if not maintained, a single outhouse will often be moved on top of a new vault every few years. This allows each self-contained vault privy to provide short, discrete glimpses into the past. The accumulated assemblages can prove ideal for addressing Research Domain 2. All self-contained vault privies were excavated in their entirety.

Straight-Line Cesspit Privy

Straight-line cesspit privies are early forms of septic tanks (Barbour 2009a). These systems work with flush toilets inside or outside the house. Water with the help of gravitational forces flushes human excrement from the toilet through a series of pipes into the cesspit. Often these pipes do not have turns or bends in them to allow easy delivery of the excrement and to prevent clogs, hence the name.

Because these systems operate through the use of plumbing, material culture items are less likely to become deposited in their chambers. Furthermore, these systems, if properly maintained, can last 50 years or more. For these reasons, straight-line cesspits are less likely to provide information relevant to the data recovery plan. Many of the materials found in cesspits are not associated with use but represent fill brought into the feature at the time of abandonment. However, flotation and coprolite samples collected from these features can provide information on diet and on diseases that afflicted the residents. When possible, all straight-line cesspit privies were excavated in their entirety.

Structures and Structural Elements

Foundations, basements, floors, stairwells, and other structural elements were encountered at LA 158037. Whenever possible, these features were excavated in their entirety. However, many

extended outside the project area. If this was the case, only those portions within the area impacted by construction were documented.

Often artifacts associated with these features were not related to use of the feature. For example, artifacts found in the basement of Structure 4 were likely associated with demolition of the structure in the 1960s or 1970s. In these instances, only a judgmental sample of artifacts was recovered to characterize the fill.

Well/Cistern

Wells can be defined as deep cavities excavated into the earth from which water is drawn. These features represented a unique challenge for project archaeologists. Often well/cistern depth goes well below that allowable for hand-excavation by the Occupational Safety and Health Administration without shoring or stepping back the excavations. When necessary, archaeological investigations were limited to systematic recovery of a sample of artifacts found within the upper 1.4 m of the feature. A judgmental sample of materials was then retrieved from lower elevations, which were excavated using a backhoe. While materials from a well/cistern can address questions associated with differential consumption and discard patterns among the residents of the Capitol Complex Historic Neighborhood, these materials are often not ideal, since most if not all the materials within the well were deposited after its abandonment.

Mechanical Trenching and Monitoring

Following hand-excavation of at least a sample of the cultural deposits and features at the base of the scraping unit, 38 backhoe trenches were used to look for more deeply buried features (Fig. 8.2). The majority of trenches were oriented southwest-to-northeast in an attempt to intersect deeper agricultural features and search for prehistoric deposits. No deeply buried agricultural or prehistoric features or deposits were found as a result of these investigations.

Lastly, archaeological monitoring was performed during construction around the eastern, southern, and western limits of the site, where data recovery excavations were not performed, and in areas outside the State Capitol Parking Facility's blueprint to be used for utilities or landscaping. This monitoring was conducted using strategies detailed in the preliminary reports on the east and west halves of LA 158037 (Barbour 2008b, 2008c) and in the amended monitoring plan (Post and Barbour 2008). This monitoring plan called for archaeological oversight of the entire 9,244 sq m of area impacted by construction and for hand-excavation of any exposed agricultural features, prehistoric deposits, and privy vaults, along with limited documentation of twentieth-century domestic-refuse pits, construction-debris pits, and postholes. The results of monitoring were presented in a preliminary report (Barbour 2009b) and are integrated into this final document.

Mapping and Rectification

Creation and management of all digital maps for the State Capitol Parking Facility Project were performed by Jessica Badner. This section describes strategies used to overlay the field map onto current aerial images of the city of Santa Fe and Sanborn Fire Insurance maps.

Rectifying the excavation map on aerial imagery. In accordance with OAS standard field procedure, a scaled excavation map was produced during fieldwork using a Nikon laser transit. In addition to features and excavation units, surrounding buildings, utilities, and sidewalks were mapped. A series of three map points on the field map were then used to reconcile the excavation map with 6-inch RGB aerial imagery projected in UTM NAD 27, Zone 13, using a first-order polynomial rectification. Points were 5DAT, at the corner of Paseo de Peralta and Don Gaspar at the perpendicular sidewalk juncture; the southeast building corner at 414 Don Gaspar; and the southwest property boundary, delineated by a low wall. Features were then digitized using the rectified field map. All rectification points were visible from the air. Datum points previously collected with a Trimble XH and then postprocessed were accurate to between 20 and 40 cm. Rectification using ground-based points visible from the air was likely within the range of those control points collected with the Trimble.

Sanborn Fire Insurance map overlays. In order to clarify relationship between foundations exposed during excavation and their potential relationship to previously documented historic

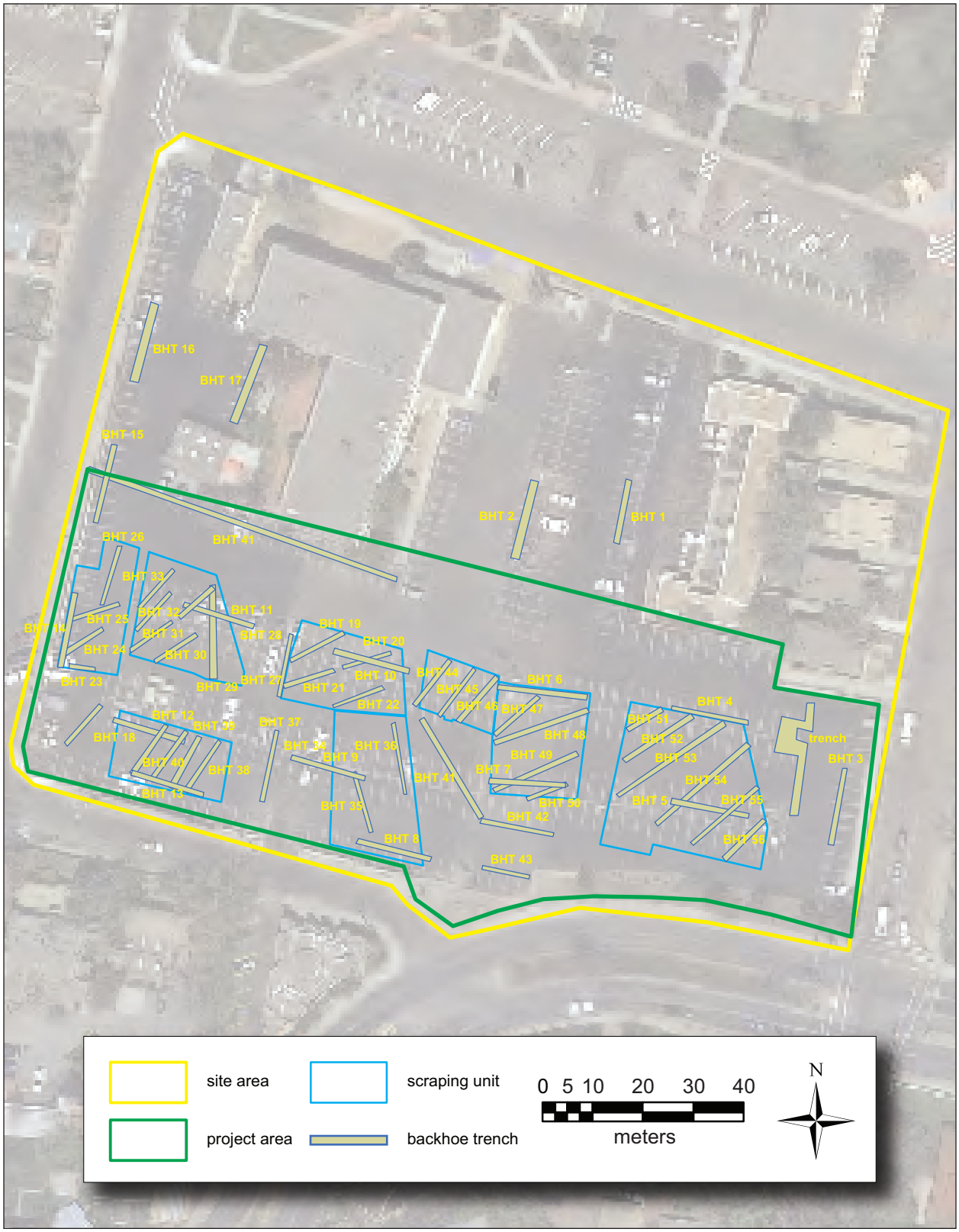


Figure 8.2. Backhoe trenches excavated at the Capitol Parking Facility.

structures, a Sanborn Insurance map (Santa Fe, Sheet 14; January 1930, modified for August 1948) was rectified to the aerial base map using a first-order polynomial rectification. A detailed discussion of map rectification is beyond the scope of this report, but generally, this transformation adjusts the map by stretching, scaling, and rotating X and Y data without bending or curving it (ESRI 2006; Bolstad 2002:117). Finding reliable modern points necessary for rectification, that is, points evenly distributed across the map area, was a challenge. The current landscape in the map's northwest quadrant has been altered, resulting in a lack of original structures and unaltered curbs, good points with which to rectify the Sanborn map to a modern aerial. This was compounded by the Sanborn map's dubious building placement, and error in the aerial caused by parallax, introduced by flight angle and building height.

With these limitations in mind, a series of points derived from a combination of historic buildings and excavated foundations were used to rectify the map (Fig. 8.3). Historic points included northeast and southwest corners of the former "State of New Mexico Capitol Building," and a parapet at 404 Don Gaspar St. Points derived from excavation included foundation stubs in Structures 4, 8, and 7. Residual error, a measure of the distance between the rectification point target and the actual point placement, ranged from 0.98 to 2.7 m with an average RMS (root mean square) of 2.05. This error, calculated by ArcGIS using all rectification points, reflects how close a series of points are plotted to desired placement but does not directly take into account the accuracy of maps involved in the rectification.

The resulting overlay is an approximation, heavily influenced by our choice of rectification points. Though the decision to rectify the map to excavated foundations is not the most robust means of generating the overlay from a methodological perspective, in this case it was the most practical choice given the information available. The resulting overlay is clearly imprecise, and the southwest section of the map is probably the least accurate. Even with these limitations, the resulting product is useful for tracing building histories.

Figure 8.3. Sanborn Fire Insurance map overlay with rectification marks (January 1930, modified August 1948).

Analytic Methods

Euroamerican Artifacts

The OAS Euroamerican artifact analysis format and procedures were developed over the last ten years and incorporate the range of variability found in sites dating from the sixteenth to twentieth centuries 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 (in this case, the Statistical Package for the Social Sciences, or SPSS) for analysis and comparison with similar data bases on file at the OAS.

Functional in nature, the Euroamerican artifact analysis focused on quantifying the utility of various objects. One benefit to this type of analysis is that "various functional categories reflect a wide range of human activities, allowing insight into the behavioral context in which the artifacts were used, maintained, and discarded" (Hannaford and Oakes 1983:70). It also avoids some of the analytic pitfalls associated with frameworks focused on categorizing artifacts strictly by material type (e.g., glass, metal, ceramic, and mineral).

One weakness of material-based analyses is that only a limited number of functional categories are represented in a single material class. For instance, metal, while beneficial for examining construction and maintenance materials such as nails and wire, would not incorporate patent medicines or other bottled goods into the same analysis. In addition, variables such as finish, often chosen to analyze glass artifacts, are appropriate for glass containers, but not for flat glass, decorative glass, or other glass items like light bulbs that can serve different roles within a single spatial and temporal context. As such the OAS analytic framework was designed to be flexible, documenting not only the qualities of each material type but the functional role of particular items. As in all analysis, inherent assumptions require explanation.

In functional analyses, each artifact is assigned a stratified series of attributes that classify an object by assumed functional category, artifact type, and its specific role within that matrix. These attributes are closely related and provide the foundation for additional variables that, with increasingly more detail, strive to specify an artifact's particular function. In this analysis 12 functional categories were used: economy/production, food, indulgences, domestic, furnishings, construction /maintenance, personal effects, entertainment/ leisure, transportation, communication, military/ arms, and unassignable.

Each category encompasses a series of artifacts types whose specific functions may be different, but related. For example, a whiskey bottle and soda bottle are both categorized as indulgences. However, the types of indulgence, in this case liquor and carbonated beverage, represent very different activities or behaviors. Hence, the whiskey bottle would be classified as indulgence (functional category), liquor (artifact type), and whiskey bottle (artifact function).

In essence, this function-based analysis represents an inventory of different artifact attributes in which variables are recorded sequentially to amplify the functional categories and provide a detailed description of each artifact, when possible. Attributes that commonly provide detailed information about individual artifacts and, in turn, functional categories include material type, date and location of manufacture, and artifact form and portion.

Chronometric data are derived from a variety of descriptive and manufacturing attributes, especially the latter. If an artifact retains enough information to derive a begin or an end date, those variables are recorded under the *date* attribute. *Manufacturer* records the name of the company that produced a particular object. Together these data can be used to assign specific date ranges to an artifact based on known manufacture periods or the dates of operation for manufacturing companies. A related attribute is *brand name.* Many brand names also have known production periods that can provide temporal information. The manufacturer or brand name is generally listed as *labeling/lettering* on an artifact and is used

to advertise the product, describe its contents, or suggest its use.

When evident, manufacture *technique*, such as wheel-thrown or forged, was also recorded. Since some manufacturing techniques have changed over time, this attribute can often provide a general period of manufacture. A related attribute is *seams*, which records how sections of an artifact, particularly cans and bottles, were joined together during the manufacturing process. Through time these processes were altered and are reflected in the types of seams used to construct various containers. The type of *finish/seal* was recorded to describe the opening of a container prior to adding the contents and the means of sealing it closed. Like seams, many *finish/seal* types have known manufacturing periods, offering general temporal information. In addition, *opening/closure* records the mechanism used for extracting the contents of a container.

For some artifacts, attributes such as *color*, *ware*, and *dimensions* can also provide information on the period of manufacture. Thus, the current color of an artifact was recorded if determined to have diagnostic value. A good example is glass, where the relative frequency of various colors in an assemblage can provide some temporal information, since the manufacture and preservative processes have changed over time. *Ware* refers to china artifacts and categorizes the specific type of ceramic represented, when known. Because temporal information exists for most major ware types, this attribute provides relatively more refined dating information than seams and color. Dimensions of complete artifacts can also provide chronometric data, especially artifacts like nails or window pane glass, where thickness or length of the object can be temporally sensitive.

In addition to temporal information, the manufacturing process of a particular object can be used to support functional inferences. *Material* records the type of material(s) from which an object was manufactured (e.g., glass, metal, paper, and clay). *Paste* describes the texture of the clay used to manufacture ceramic objects and is further defined by porosity, hardness, vitrification, and opacity. *Decoration* and *design* describe the type of technique used to apply distinctive decorative motifs to an object, such as china or glassware.

In addition to the attributes discussed above, several others were used to quantify an object's condition and use-life. For each item the *fragment/part* variable described what portion of a particular form was represented. However, fragments of objects which refit to complete or partial objects recovered from a single excavation context were recorded together as a *minimum number of vessels* (mnv) of one, and the number of specimens present represented by *count*.

Cultural alteration of an item to extend its use-life was recorded as *reuse*. This variable describes any evidence of a secondary function, and the *condition/modification* variable monitors any physical modifications associated with that secondary use. If environmental conditions have altered the surface of an artifact through glass patination or metal corrosion, it was recorded as *aging*.

The appearance of an artifact was monitored as *shape*. This variable was generally used to describe the physical contours of complete objects. Finally, quantitative data including *volume*, *length/height*, *width/diameter*, *thickness*, and *weight* were recorded for most Euroamerican artifacts. Where appropriate, some measurements were recorded using industry standards (e.g., pennyweight, caliber, and gauge).

Dating. Begin and end artifact dates were based on a number of attributes such as sealing and closure methods for bottles and cans, invention dates, stylistic changes in design, and advances in manufacturing techniques that have known dates. The begin date for an attribute is the earliest possible date that can be documented for its existence. These dates can be from patents, factory inventories, newspapers, and company records. An end date is the last documented date of attribute or artifact production. These dates can be determined through newspapers or magazines and industry newsletters or announcements of the introduction of new manufacturing techniques or inventions. Sometimes a change in production materials or the end of a certain pattern (as in a company's glassware or ceramic ware) will establish an end date for the production of an item or manufacturing technique. This is particularly true for mass-produced items whose attribute changes form a chronological sequence. Examples of datable attributes include the location of seams on bottles, the kinds of seams on cans, identifiable

maker's marks on glass and ceramic vessels, glass color, or the form of nails. Using a combination of the earliest and the last known date, a bracketed time range can be obtained.

Bracketed time ranges based on manufacture dates are often used to develop mean ceramic manufacture and mean bottle glass manufacture dates using a method called "mean ceramic dating." Mean ceramic dating is a method of calculating the date of a deposit based on the frequency of recovered ceramic types. Since a wide variety of ceramic types have been assigned mean manufacture dates, these data can be used to estimate the periods of manufacture for those types and, in turn, for archaeological deposits. Mean ceramic dates can be calculated using the formula in Figure 8.4. Simply put, the mean ceramic date is generated by multiplying the frequency of each type by the specific mean manufacture date for that type, adding those products together, and then dividing that sum by the total number of individual types. Unlike more impressionistic dating methods that call on an analyst to offer a date based on the overall assemblage, this method generates a date that can be independently verified by using the same reported mean manufacture dates for each individual artifact across analytic units.

$$\text{mean ceramic date} = \frac{\sum(d_1 f_1)}{\sum f_1}$$

Figure 8.4. Mean ceramic date formula: d_1 equals the mean manufacture date of a type, and f_1 equals the frequency of the type.

While mean ceramic dating has proved fruitful with Colonial-period assemblages throughout the New World (Noël Hume 1970; South 1977), there are some drawbacks. For example, ceramic dishes can be curated by individuals for significant periods of time. This curation behavior can lead to mean ceramic dates far earlier than the period of occupation. To mitigate this effect, a more acceptable use of mean ceramic dating for nineteenth- and twentieth-century assemblages is to focus on other container material types, such as bottle glass or can fragments, which were most often used and discarded during a site's occupation history. Comparable mean bottle glass or mean can manufacture dates can be generated using the same the formula. The use of bottle glass or cans from late nineteenth- or twentieth-century contexts allows for the greater sample size and truncates curation periods in order to derive a more precise occupation date. These data can then be compared to the mean ceramic date to scale the effects of curation, if any, on the overall assemblage. When possible mean ceramic, mean bottle glass, and mean can manufacture dates were calculated for each Euroamerican artifact assemblage.

However, in most cases, precise manufacture dates could not be ascertained for many of the artifacts due to the highly fragmented nature of the Euroamerican assemblage, or because manufacture dates were too few to be statistically meaningful. In these instances, more impressionistic means were employed to date the Euroamerican artifact assemblage. These involved using presence or absence of machine-made bottle glass to determine if an assemblage dated to the nineteenth or twentieth century, or the examination of the ratio of machine-cut square nails to wire-drawn nails to discuss the likelihood of an assemblage dating to ca. 1880s or 1920s.

One of the most useful impressionistic dating methods is to examine the material from which containers are manufactured. The frequencies of glass, metal, and plastic containers over time can be seriated to form a chronology by which assemblages from various contexts can be ordered temporally. Glass was more heavily used for containers than other material types in the nineteenth century but declined in popularity with the rise of the canning industry in the early twentieth century. Similarly, by the late twentieth century, plastics surpassed metal as the dominant material type for packaging containers (Rathje and Murphy 2001). This method does not provide decade-specific resolution for discussions of chronology within the late nineteenth and early twentieth centuries but can provide base information for gauging the relative age of any assemblage.

Another commonly used method is the use of bottle glass color to ascribe date of manufacture. However, for this project, color dating was avoided wherever possible. Most dates ascribed to specific colors are at best generalizations put forth by the uninformed collector. Furthermore, the assignment of these dates can drastically skew

any statistical attempt to date an assemblage. If, for example, amber glass were given a date of 1860 to present (Fike 1987:13), and there was an assemblage of 100 amber glass bottles with one manufacturer mark dating 1880–1892, the date derived using the mean ceramic date formula would be 1930 (standard deviation [SD] 4 years). This date is misleading. While amber bottle glass manufacture may have been popular from the mid-nineteenth century until the present day, the single manufacture mark is a potentially more precise means of dating the assemblage. In this case, it may be better to say the assemblage dates to the late nineteenth century (ca. 1886) than to use color to date it.

Amethyst bottles do provide a relatively accurate manufacture date range of 1880 to 1925 (Kendrick 1964:39–41), but for a clear-colored bottle to turn amethyst, it must be exposed to sunlight for a considerable period of time. On a pedestrian survey, when you are dealing with a surficial Euroamerican artifact assemblage, this knowledge is incredibly useful for assigning dates. The contents of the bottle had to be consumed and the bottle discarded. After exposure to sunlight, it will become amethyst in color. However, in buried contexts, this is unlikely to occur. If an artifact was not exposed to sunlight for long periods of time before discard, it may not have turned amethyst. Conversely, if a clear glass bottle was manufactured between 1880 and 1925, sat on the surface for an unknown period of time while it changed color, and then came to lie in its current buried context, the amethyst date associated with manufacture would not be useful in determining the date of the assemblage being excavated.

Economic scaling. The socioeconomic status of the residents of the Capitol Complex Historic Neighborhood can be explored through the examination of specific objects within the Euroamerican artifact assemblages. One of the most commonly used forms of economic scaling within historical archaeology is the generation of mean ceramic values for domestic dishware to provide a relative scale by means of which the purchasing power of different consumers can be compared. Although using Euroamerican ceramics to scale socioeconomic status is a relatively new approach in the American Southwest, its validity to infer relative wealth among different historic households has been repeatedly demonstrated elsewhere (Miller 1974, 1991; Otto 1977; Rathje and McCarthy 1977; Shephard 1980; Henry 1996).

For the late nineteenth and early twentieth centuries, the consumer value of domestic dinnerware items can be determined using the ceramic price indices developed by Henry (1996). Her study used mail order catalogues produced between 1895 and 1927 (Montgomery Ward 1895, 1922; Sears, Roebuck 1897, 1900, 1902, 1909, 1927) to produce relative indices on open-stock items sold in the 1890s, 1900s, and 1920s. These indices are applicable across a wide regional network for comparison of economic status because of their utilization of nationally available products to develop average open-stock price indices. In her specific study, these indices were used successfully to gauge socioeconomic status within downtown Phoenix over several decades during the late nineteenth and twentieth centuries (Henry 1996).

Ceramic price indices assume that open-stock or individual set item prices of any given ceramic dinnerware are relative to production costs of a particular vessel form and decorative technique. Open-stock prices for dinnerware listed in the catalogues were aggregated by vessel form and decorative technique, averaged and then ranked hierarchically. The least expensive undecorated wares were assigned a rank of one, while the more expensive wares, such as porcelain and white-bodied earthenwares with decal designs, were assigned a rank relative to their retail cost in relation to undecorated wares (mean ceramic value = p/c where p = price of the tableware and c = price of the cheapest undecorated tableware).

Henry's (1996) indices are shown in Table 8.1. Mean ceramic values generated for specific assemblages from the State Capitol Parking Facility Project were created by averaging all dishware values within a given context. These mean ceramic values were then compared to other assemblages within the Santa Fe area, such as the Santa Fe Railyard (Badner in prep.) and Santa Fe Judicial Complex (Lakatos 2011). The assumption is that the higher the value, the higher one's purchasing value and ultimately social status. A score at or near a 1.00 indicates the context consisted primarily of undecorated white-bodied earthenware and would suggest

poverty-level consumption and discard patterns, whereas a score of 2.00 or above would indicate a wealthy person or persons eating from porcelain dishes almost exclusively.

Because open-stock prices vary through time as technology and taste change, mean ceramic values cannot be utilized unless an assemblage can be accurately dated within one or two decades. Furthermore, comparisons between assemblages can only occur if those materials are roughly contemporaneous. One cannot compare a mean value developed from a 1890s domestic-refuse pit with that of a 1930s privy. However, because the indices are developed using national market prices, the mean ceramic value produced for assemblage dating to 1910 in Santa Fe can be compared to those developed in 1910 Atlanta.

Another method developed as a proxy for examining socioeconomic status in nineteenth-century assemblages is the utilization of prescription medicine bottles to determine access to health care. The nineteenth century and early twentieth century are often viewed as a golden age of patent medicine (Fike 1987:3–5). Patent medicines were often unproven cures for some specific, or in some cases, not-so-specific ailment. These cures were often homeopathic and ranged in scale from the use of ginger to relieve common cold symptoms to patented remedies manufactured for wide-scale distribution. In many instances the medicinal agents within patent remedies were benign, yet consumers did find symptomatic relief since their primary ingredient was typically alcohol or the opiate laudanum. Patent medicines were often purchased and consumed by individuals who had limited or no access to medical professionals due to monetary or social constraints.

Prescription bottles can be distinguished from patent medicine bottles by the presence of measured increments along the side of the bottle to allow accurate doses of its contents (Fig. 8.5). The materials within these products varied but included pharmaceutical drugs we would recognize today, such as acetaminophen, and were often prescribed by a doctor, chemist, and/or pharmacist after medical consultation. As a result, the presence or absence of these materials may reflect access to health care. Professional health care, then as now, was expensive, and access to qualified personnel was often limited,

Figure 8.5. A prescription medicine bottle.

based on ethnicity, perceived race, age, or gender. The consumption and discard of prescription products indicates not only wealth, but also status within society. By comparing the number of prescription and patent medicine bottles within domestic refuse, one can determine the frequency with which any specific household treated illness with costly medical consultation and prescribed products versus folk remedies. The assumption is that the wealthiest members of society choose to treat illness with professional help more frequently than lower income families. Hence a 2:1 ratio of prescription to patent medicine bottles may represent the upper class, whereas a 1:8 ratio may indicate the poor.

Euroamerican artifacts varied across site-specific assemblages. While economic scaling was performed primarily with mean ceramic values and prescription to patent medicine bottle ratios, other methods were employed as necessary. These methods were typically feature specific and are discussed throughout the text. Wherever possible, multiple methods were used.

Faunal Remains

Faunal remains were analyzed at the Office of Archaeological Studies laboratory by M. Maggie Craw under the direction of Nancy J. Akins. Specimens were identified using the OAS comparative collection, supplemented by that at the Museum of Southwest Biology when necessary. Recording followed an established OAS computer-coded format that identified the animal and body part represented, how and if the animal part was processed for consumption or other use, and how taphonomic and environmental conditions affected the specimen. Each data line was assigned a *lot number* that identified a specimen or group of specimens that fit the description recorded in that line. Lot numbers also allowed for retrieving an individual specimen if questions arose concerning coding or for additional study. A *count* was also included to identify how many specimens are described in a data line.

Taxonomic identifications were made as specific as possible. When identification was less than certain, this was indicated in the *certainty* variable. Specimens that could not be identified to species, family, or order were assigned to a range of indeterminate categories based on the size of the animal and whether it was a mammal, bird, other animal, or could not be determined. Unidentifiable fragments often constituted the bulk of any given faunal assemblage. By identifying these as precisely as possible, information from the identified taxa was supplemented.

Each bone (specimen) was counted only once, even when broken into a number of pieces during excavation. If the break occurred prior to excavation, the pieces were counted separately and their articulation noted in a variable that identifies conjoinable pieces, parts that were articulated when found, and pieces that appear to be from the same individual. Animal skeletons were considered single specimens so as not to inflate the counts for accidentally and intentionally buried taxa.

The *skeletal element* was identified then described by *side*, *age*, and *portion* recovered. Side was recorded for the element itself or for the portion recovered when it is axial, such as the left transverse process of a lumbar vertebra. Age was recorded at a general level: fetal or neonate, immature, young adult, and mature. Further refinements based on dental eruption or wear were noted as *comments*. The criteria used for assigning an age were also recorded. This was generally based on size, epiphysis closure, or texture of the bone. The portion of the skeletal element represented in a particular specimen was recorded in detail to allow determination of how many individuals are present in an assemblage and to investigate aspects of consumer selection and preservation.

Completeness refers to how much of each skeletal element is represented by a specimen. It was used in conjunction with portion to determine the number of individuals present. It also provided information on whether a species is intrusive and was used to analyze processing, environmental deterioration, animal activity, and thermal fragmentation.

Taphonomy is the study of preservation processes and how they affect the information obtained by identifying some of the nonhuman processes that affect the condition or frequencies found in an assemblage (Lyman 1994:1). *Environmental alteration* includes degree of pitting or corrosion from soil conditions, sun bleaching

from extended exposure, checking or exfoliation from exposure, root etching from the acids excreted by roots, and polish or rounding from sediment movement, when applicable. *Animal alteration* was recorded by source or probable source and where it occurs.

Burning, when it occurs after burial, is also a taphonomic process. Burning can occur as part of the cooking process, part of the disposal process, when bone is used as fuel, or after it is buried. Here, the color, location, and presence of crackling or exfoliation was recorded. Burn color is a gauge of burn intensity. A light tan color or scorch reflects superficial burning, while bone becomes charred or blackened as the collagen is carbonized. When the carbon is completely oxidized, it becomes white or calcined (Lyman 1994:385, 388). Burns can be gradated over a specimen, reflecting the thickness of the flesh covering portions of the bone when burned. Dry-burned bone is light on the exterior and black at the core or has been burned from the interior. Graded burns can indicate roasting. Completely charred or calcined bone and dry burns do not occur as part of the cooking process. Uniform degrees of burning are possible only after the flesh has been removed and generally indicate a disposal practice (Buikstra and Swegle 1989:256).

Evidence of butchering was recorded as various orientations of cuts, grooves, chops, abrasions, saw cuts, scrapes, peels, and intentional breaks. This type of evidence is much less ambiguous in historic assemblages, where metal knives, axes, and cleavers leave more distinct marks than stone tools. The location of butchering will also be recorded. Additional detail was obtained by indicating the exact location on diagrams of the body parts.

Fauna recovered from historic sites is typically so fragmented that few attempts have been made to collect measurement data. Yet this information has the potential to differentiate varieties of sheep and goat, perhaps beef from draft cattle, and species of equids, along with the social and economic consequences thereof. Because this data has such potential, all possible measurements were taken on domestic fauna. Measurements were taken following von den Driesch (1976), who provides a comprehensive list of measurements for virtually every element. While this project alone may not provide enough data to confidently answer questions concerning the varieties represented, it may contribute to a useful data base for comparisons with earlier and later sites.

Flaked Stone Artifacts

Flaked stone artifacts were analyzed using a standardized format developed by the Office of Archaeological Studies (OAS 1994a). The OAS flaked stone analysis includes a series of mandatory attributes that describe material type, artifact type and condition, cortex, striking platforms, and dimensions. Several optional attributes have also been developed that can be used to examine specific questions. Both mandatory and optional attributes were used in this analysis. Each flaked stone artifact was examined using a binocular microscope to aid in defining morphology and material type, examine platforms, and determine whether it was used as a tool. The level of magnification used to examine artifacts varied between 10x and 80x, with higher magnification used to identify wear patterns and platform modifications. Utilized and modified edge angles were measured with a goniometer; other dimensions were measured with a sliding caliper. Flaked stone artifacts were weighed on a digital or balance beam scale.

Four general classes of flaked stone artifacts were recognized in this analysis: flakes, angular debris, cores, and tools. Flakes were debitage that exhibited one or more of the following characteristics: definable dorsal and ventral surfaces, bulb of percussion, and striking platform. Angular debris were debitage that lacked these characteristics. Cores were nodules from which debitage were struck and on which three or more negative flake scars originating from one or more platforms were visible. Tools were debitage or cores whose edges were damaged during use or were modified to create specific shapes or edge angles for use in certain tasks.

Attributes recorded for all artifacts included material type and quality, artifact morphology and function, amount of surface covered by cortex, portion, evidence of thermal alteration, edge damage, and dimensions. Platform information was recorded for flakes only, and included platform type, width, and any evidence of lipping.

Two attributes were used to record information on the various materials used in flaked stone reduction. *Material type* was coded by gross category unless specific sources or distinct varieties were recognized. Codes were arranged so that major material groups fell into specific sequences of numbers, progressing from general material groups to specific varieties. *Material texture and quality* provided information on the basic flakeability of materials. Texture subjectively measured grain size *within* rather than *across* material types and was scaled from fine to coarse for most materials, with fine textures exhibiting the smallest grains and coarse the largest. Obsidian was classified as glassy by default, and this category was applied to no other material. Quality recorded the presence of flaws that could affect flakeability and included crystalline inclusions, fossils, visible cracks, and voids. Inclusions that did not affect flakeability, such as specks of different colored material or dendrites, were not considered flaws. Material texture and quality were recorded together as a single attribute.

Two attributes were used to provide information about artifact form and use. The first was *artifact morphology*, which categorized artifacts by general form such as flake or early-stage biface. The second was *artifact function*, which categorized artifacts by inferred use such as utilized debitage or scraper. These attributes were coded separately.

Cortex is the chemically or mechanically weathered outer rind on nodules; it is often brittle and chalky and does not flake with the ease or predictability of unweathered material. The amount of cortical coverage was estimated and recorded in 10 percent increments for each artifact. For flakes, the percentage of dorsal surface covered by cortex was estimated, while for all other artifact classes, the percentage of the total surface area covered by cortex was estimated, since other artifact classes lacked definable dorsal surfaces. *Cortex type* can be a clue to the origin of an artifact. Waterworn cortex indicates that a nodule was transported by water and that its source was probably a gravel deposit. Nonwaterworn cortex suggests that a material was obtained where it outcrops naturally. Cortex type was identified for artifacts on which it occurred; when identification was not possible, cortex type was coded as indeterminate. Dorsal cortex coverage and cortex type were recorded separately.

All artifacts were coded as whole or fragmentary; when broken, the *portion* was recorded if it could be identified. Artifact portions can provide important functional information for sites. The presence of mostly complete tools on a site can suggest an entirely different function than that of predominantly broken tools. Proportions of flake sections can also provide data on postreduction impacts to an assemblage. If most flakes in an assemblage are broken, and proximal and distal fragments are represented by similar percentages, the assemblage may have been exposed on the surface for a significant period of time and damaged by traffic across the site. In this case, any wear patterns observed on debitage edges could have been caused by noncultural impacts rather than cultural use. Thus, an examination of the condition and distribution of artifact portions can provide critical interpretive information.

Three attributes were examined for flake platforms, when present. *Flake platform type* recorded the shape of and modifications to the striking platform on whole flakes and proximal fragments. *Platform lipping* recorded the presence or absence of a lip at the ventral edge of a platform. This attribute provides information on reduction technology and can often be used to help determine whether a flake was removed from a biface or core. Platform lipping was coded as either present or absent. *Platform width* was the maximum distance between the ventral and dorsal edges of platforms.

Thermal alteration was recorded for all artifacts on which it occurred. Nearly all evidence for thermal alteration is found on artifacts made from cherts, which can be modified by heating at high temperatures, improving their flaking characteristics. This process can realign the crystalline structure and sometimes heals minor flaws like microcracks. Heat treatment can be difficult to detect unless mistakes were made during processing. When present, the type and location of evidence for thermal alteration was recorded to determine whether an artifact was purposely altered.

Two attributes were used to record edge damage caused by cultural use. The first described

the types of *wear patterns* observed. Use of a piece of debitage or core as an informal tool can result in edge damage, producing patterns of scars that may be indicative of the way in which it was used. Cultural edge damage denoting use as an informal tool was recorded and described when present on debitage. A separate series of codes was used to describe formal tool edges, and was much more general in nature. The utilized *edge angles* of all formal and informal tools were also measured and recorded separately; edges lacking cultural damage were not measured.

Maximum length, width, and *thickness* were measured for all flaked stone artifacts. On angular debris and cores, length was the largest measurement, width was the longest dimension perpendicular to the length, and thickness was perpendicular to the width and was the smallest measurement. On flakes and formal tools, length was the distance between the platform (proximal end) and termination (distal end), width was the distance between edges paralleling the length, and thickness was the distance between dorsal and ventral surfaces. *Weight* was obtained for all flaked stone artifacts recovered from LA 158037.

Ground Stone Artifacts

Ground stone artifacts recovered from LA 158037 were examined using a standardized methodology (OAS 1994b), which was designed to provide data on material selection, manufacturing technology, and use. Artifacts were examined macroscopically, and results were entered into a computerized data base for analysis and interpretation. Several attributes were recorded for each ground stone artifact, while others were recorded for certain tool types. Attributes that were recorded for all ground stone artifacts include *material type*, *material texture and quality*, *function*, *portion*, *preform morphology*, *production input*, *plan view outline*, *ground surface texture and sharpening*, *shaping*, *number of uses*, *wear patterns*, *evidence of heating*, *presence of residues*, and *dimensions*. Specialized attributes that were recorded in this assemblage include information on *mano cross-section form* and *ground surface cross section*.

Artifact function was examined to define the range of activities in which ground stone tools were used in nineteenth- and twentieth-century contexts. Because these tools are usually large and durable, they may undergo a number of different uses during their lifetime, even after being broken. Several attributes used were designed to provide information on the life history of ground stone tools, including dimensions, evidence of heating, portion, ground surface sharpening, wear patterns, alterations, and the presence of adhesions. These measures help identify postmanufacturing changes in artifact shape and function, and describe the value of an assemblage by identifying the amount of wear or use. Such attributes as material type, material texture and quality, production input, preform morphology, plan view outline form, and texture provide information on raw material choice and the cost of producing various tools.

Because ground stone artifacts represent less than 1 percent of the total artifact assemblage and because the presence of ground stone may simply reflect the collection curiosities by inhabitants of LA 158037 from other locales, no intensive microscopic or residue analysis was performed on materials collected.

Archaeobotanical Samples

Flotation. Flotation processing was conducted by Alfides Chavez, Lynette Etsitty, and Theresa Fresquez. The 55 soil samples collected during excavation were processed at the Museum of New Mexico's Office of Archaeological Studies by the simplified bucket version of flotation (Bohrer and Adams 1977). Volumes of flotation soil samples ranged from 0.5 to 5.0 liters. Each sample was immersed in a bucket of water and a 30–40-second interval allowed for settling out of heavy particles. The solution was then poured through a fine screen (about 0.35 mm mesh) lined with a square of chiffon fabric, catching organic materials floating or in suspension. The squares of fabric were lifted out and laid flat on coarse-mesh screen trays until the recovered material had dried.

A full-sort analysis was then conducted. Each of the 55 flotation samples was sorted using a series of nested geological screens (4.0, 2.0, 1.0, 0.5 mm mesh) and then reviewed by Theresa Fresquez, Pamela McBride, or Mollie Toll under a binocular microscope at 7–45x. Charred and uncharred reproductive plant parts (seeds and

fruits) were identified and counted. Flotation data are reported as a standardized count of seeds per liter of soil, rather than an actual number of seeds recovered. Relative abundance of nonreproductive plant parts such as monocot stems and juniper twigs was estimated per sample.

To aid in distinguishing between botanical occurrences of cultural significance and those resulting from considerable postdepositional intrusion, it was assumed that all carbonized material was the result of cultural processes, and unburned material—especially taxa not economically useful, or found in disturbed contexts together with modern roots, insect parts, scats, or other signs of recent biological activity—was the result of noncultural processes unrelated to feature use. However, in some instances this dichotomy is not clearly expressed, and therefore items such as unidentifiable seeds and plant parts or unburned remains that have known economic use that were recovered in privy samples were considered possibly cultural. Data tables divide the results of the analysis into the categories of cultural, possibly cultural, and noncultural.

Charcoal identification. From each flotation sample that contained a minimum of 20 pieces of wood charcoal, a sample of 10 pieces was identified from the 4 mm screen and 10 pieces from the 2 mm screen. In smaller samples, all charcoal from the 4 mm and 2 mm screens was analyzed. Each piece was snapped to expose a fresh transverse section and then examined at 45x. Each identified taxon was weighed on a top-loading digital balance to the nearest 0.1 g and placed in plastic bags labeled with the corresponding taxon. Low-power, incident-light identification of wood specimens does not often allow species- or even genus-level precision but can provide reliable information useful for distinguishing broader patterns in the utilization of resources derived from different environmental settings (e.g., subalpine, riparian, and woodland).

Macrobotanical specimens. Macrobotanical samples consist of specimens fortuitously collected in the field during excavation. For this project, peach pits were submitted for analysis and measured by length, width, and thickness with dial calipers to the nearest 0.1 mm. Specimens were weighed on a digital, top-loading balance with .01 g accuracy. When necessary, fragile specimens were wrapped in acid-free tissue or polyester fiber and placed in rigid containers to protect them from any further breakage.

Native American Ceramics

Pueblo-made ceramics recovered during the excavations were analyzed at the Office of Archaeological Studies laboratory under the direction of C. Dean Wilson. Both historic and smaller amounts of prehistoric Native American–made pottery were recovered, in addition to a range of Euroamerican ceramics. Euroamerican ceramics were analyzed as part of the Euroamerican artifact analysis.

Detailed and systematic examination of various attributes was needed to fully determine the timing and nature of the deposits and features that were exposed during the excavations. Ceramic studies can contribute to these studies by using distributions of ceramic types and attribute classes from dated contexts to examine patterns related to ethnic affiliation, place of origin, form, and use of ceramic vessels. In order to examine these issues, it was necessary to record a variety of data in the form of both attribute classes and ceramic type categories. These technological and stylistic attributes apply to pottery from all periods.

Attribute categories used in this study are similar to those employed in recent OAS projects in the Northern Rio Grande (Wilson 2004). All sherds were examined and recorded for temper type, paint type, surface manipulation, modification, and vessel form, and the results entered into a computerized data base for analysis and interpretation.

Traditional typologies were used to classify sherds where possible. Examples of known typologies for ancestral Pueblo pottery include the Rio Grande, Jemez, Pajarito, Galisteo, and Pecos series (as defined by Habicht-Mauche 1993) for matte-paint pottery. For Ancestral Pueblo and early historic Pueblo glaze-paint pottery, the Rio Grande glaze ware series as defined by Mera (1940) and refined by Warren (1979b) were employed. For the late Ancestral Pueblo and historic Pueblo matte paint pottery traditions, the Tewa series as defined by Harlow and revisited by McKenna and Miles (1990) were used. In addition, recent efforts by Office of Archaeological Studies analysts were incorporated into both prehistoric

and historic pottery-based dating (Wilson 2000).

Trends that reflect chronology and economic patterns were also examined using ceramic type categories. *Ceramic types*, as used here, refers to groupings identified by various combinations of paste and surface characteristics with known temporal, spatial, and functional significance. Sherds are initially assigned to specific traditions based on probable region of origin as indicated by paste and temper. They are then placed in a ware group on the basis of general surface manipulation and form. Finally they are assigned to temporally distinctive types previously defined within various tradition and ware groups.

While a number of historic Tewa ceramic types have been formally defined and described (Batkin 1987; Frank and Harlow 1990; Harlow 1973; Mera 1939), most of these type definitions are based on whole vessels and tend to emphasize decorated types. Historic Tewa decorated types are often distinguished from each other by characteristics such as overall design field or shape that are only observable in complete vessels. Such distinctions are of limited use in studies of pottery from archaeological assemblages, which tend to be dominated by plain-ware sherds. Thus, this analysis focused on the definition and use of sherd-based categories more suitable for sherd collections.

Sherd-based definitions of historic Tewa types have been used to examine historic archaeological assemblages (Dick 1968; Lang 1997a; Snow 1982). In addition, a number of descriptive categories have been proposed for sherds that exhibit ranges of characteristics that differ from those used to define types from whole vessels. These categories are defined by a range of characteristics that may be ultimately connected to but are not necessarily equivalent to types previously defined for whole vessels. The degree of correlation between vessel- and sherd-defined categories varies for sherds from vessels of the same type, and depends on how much stylistic or decorative information is present. For example, unpainted sherds from a Powhoge Polychrome vessel would be placed into an unpainted historic slipped category, while sherds exhibiting some paint but without distinct decorations would be classified as "Tewa" Black-on-cream undifferentiated. In such cases, the assignment of sherds to Powhoge Polychrome would be limited to examples with distinct design styles indicative of that type. Still, a broken vessel of a specific pottery type should produce a recognizable pattern of sherds assigned to various formal and informal types. Information on this type of patterning may be derived from looking at how types are assigned to sherds that are eventually reconstructed into whole or partial vessels.

Most informal types reflect a range of characteristics indicative of sherds derived from vessels of previously defined types or groups of types. These characteristics are often self-evident in the type name. They are not described in detail here because of the relatively small number of sherds examined. The ceramic report from this study will include detailed descriptions of all sherd-based historic types recognized during the project, as well as illustrations and discussions of combinations of characteristics observed for each type. These descriptions will be presented in a manner that should serve as an important source of information for future analysis of historic Northern Rio Grande pottery.

Examination of very basic ceramic patterns was most efficiently served by creating a small number of ceramic ware groups by lumping types that share characteristics. Such groups include Decorated "Tewa" Polychrome, red-slipped utility, plain utility, black utility, micaceous utility, and a nonlocal group. The use of these basic broad categories permitted the determination of coarse-grained patterning in ceramic assemblages, as opposed to the more basic patterning available from type distributions.

Pollen Samples

A chemical extraction technique based on flotation is the standard preparation technique used in this laboratory for the removal of the pollen from the large volume of sand, silt, and clay with which they are mixed. This particular process was developed for extraction of pollen from soils where preservation has been less than ideal and pollen density is lower than in peat. It is important to recognize that it is not the repetition of specific and individual steps in the laboratory, but rather mastery of the concepts of extraction and how the desired result is best achieved, given different sediment matrices, that results in successful recovery of pollen for analysis.

Hydrochloric acid (10 percent) is used to remove calcium carbonates in the soil, after which the samples are screened through 250-micron mesh. The samples are rinsed until neutral by adding water, letting the samples stand for two hours, then pouring off the supernatant. A small quantity of sodium hexametaphosphate is added to each sample once it reaches neutrality, then the samples are allowed to settle according to Stoke's Law in settling columns. This process is repeated with ethylenediaminetetraacetic acid (EDTA). These steps remove clay prior to heavy-liquid separation. The samples are then freeze dried. Sodium polytungstate (SPT), with a density of 1.8, is used for the flotation process. The samples are mixed with SPT and centrifuged at 1500 rpm for 10 minutes to separate organic from inorganic remains. The supernatant containing pollen and organic remains is decanted. Sodium polytungstate is again added to the inorganic fraction to repeat the separation process. The supernatant is decanted into the same tube as the supernatant from the first separation. This supernatant is then centrifuged at 1500 rpm for 10 minutes to allow any silica remaining to be separated from the organics. Following this, the supernatant is decanted into a 50 ml conical tube and diluted with distilled water. These samples are centrifuged at 3,000 rpm to concentrate the organic fraction in the bottom of the tube. After rinsing the pollen-rich organic fraction obtained by this separation, all samples receive a short (20–30 minute) treatment in hot hydrofluoric acid to remove any remaining inorganic particles. The samples are then acetylated for 3–5 minutes to remove any extraneous organic matter.

A light microscope is used to count pollen at a magnification of 500x. Pollen preservation in these samples varied from good to poor. Comparative reference material collected at the Intermountain Herbarium at Utah State University and the University of Colorado Herbarium was used to identify the pollen to family, genus, and species, where possible.

Pollen aggregates were recorded during identification of the pollen. Aggregates are clumps of a single type of pollen and may be interpreted to represent pollen dispersal over short distances or the introduction of portions of the plant represented in an archaeological setting. Aggregates were included in the pollen counts as single grains, as is customary. The presence of aggregates is noted by an A next to the pollen frequency on the pollen diagram. A plus (+) on the pollen diagram indicates that the pollen type was observed outside the regular count while scanning the remainder of the microscope slide. Pollen diagrams are produced using Tilia 2.0 and TGView 2.0.2. Total pollen concentrations are calculated in Tilia using the quantity of sample processed in cubic centimeters, the quantity of exotics (spores) added to the sample, the quantity of exotics counted, and the total pollen counted and expressed as pollen per cubic centimeter of sediment.

Indeterminate pollen includes pollen grains that are folded, mutilated, and otherwise distorted beyond recognition. These grains are included in the total pollen count since they are part of the pollen record. The microscopic charcoal frequency registers the relationship between pollen and charcoal. The total number of microscopic charcoal fragments was divided by the pollen sum, resulting in a charcoal frequency that reflects the quantity of microscopic charcoal fragments observed, normalized per 100 pollen grains.

Pollen analysis also includes examination for and identification of starch granules to general categories, if they are present. Starch granules are a plant's mechanism for storing carbohydrates. Starches are found in numerous seeds, as well as in starchy roots and tubers. The primary categories of starches include the following: with or without visible hila, hilum centric or eccentric, hila patterns (dot, cracked, elongated), and shape of starch (angular, ellipse, circular, eccentric). Some of these starch categories are typical of specific plants, while others are more common and tend to occur in many different types of plants.

Parasite eggs are extracted using the pollen extraction technique. Parasite eggs are counted while examining the sample for pollen and any starches that might be present. Results of the parasite counts are presented on the pollen diagrams, when they occur.

Chapter 9
Site Stratigraphy

Eleven site strata were defined as a result of archaeological investigations. These strata represent a relatively consistent stratigraphic block varying primarily in depth below modern ground surface and thickness across LA 158037. In general, the upper 50 to 60 cm (1 ft 8 in to 2 ft) of fill represents strata associated with mechanical leveling, base course, and asphalt accumulation. Archaeological phenomena could be observed only below this overburden (Fig. 9.1).

For ease of discussion, stratigraphy is presented in order of deposition, beginning with the most recent, not in order of assignment. The summaries provided in this chapter present a general description of soil composition and the relationship of certain sediments to each another. These relationships are described from an archaeological perspective, which seeks to interpret the features discovered in relationship to the natural and man-made sediments. Additional detailed description of soil composition and deposition performed by a geomorphologist, Jeffrey L. Boyer, can be found in Chapter 27.

Stratum 1

Stratum 1 represents the asphalt parking lot cap, which covered the area prior to archaeological investigations. The asphalt averages 8 cm (3 in) thick.

Stratum 9

Stratum 9 represents earlier asphalt found immediately under Stratum 1. It occurs sporadically across the southwest portion of LA 158037 and appears to represent use of the vicinity as a parking lot prior to acquisition of LA 158037 by the State of New Mexico in the late twentieth century. On average, the stratum is 5 cm (2 in) thick and extends 13 cm (5 in) below the modern ground surface.

Stratum 2

Stratum 2 is a 10YR 4/4 (dry) dark yellowish brown base course of sand and gravel. The stratum is on average 12 cm (5 in) thick and extends to a depth of between 20 and 25 cm (8 and 10 in) below the present ground surface.

Strata 3, 8, and 10

Strata 3, 8, and 10, deposited in reverse order, represent a rapid mechanical leveling of the area just prior to placement of the asphalt. All exhibit a similar color and composition of 5YR 5/2 (dry) reddish gray sandy loam. The strata occur between 20 and 60 cm (8 in and 2 ft) below the present ground surface. However, each could be distinguished through field investigation. Stratum 3 had significantly less gravel than Stratum 8, and Stratum 10 possessed higher quantities of brick fragments and other construction debris.

Given this variability, it is likely that Stratum 10 denotes the demolition of structural elements during the later half of the twentieth century. Then Stratum 8 was placed on top to cover up these components, hide jagged edges, and prepare the area. Stratum 3 was then created when the top of Stratum 8 was rolled smooth to form a level ground upon which a parking lot could be constructed.

Because Strata 3, 8, and 10 represent activities that occurred in the latter half of the twentieth century, these three strata were removed mechanically during the course of archaeological investigation. A grab sample of artifacts was recovered, with artifact dates ranging from the early nineteenth to late twentieth centuries. This broad temporal range suggests that demolition activities intruded upon the upper levels of Territorial and Early Statehood proveniences.

Stratum 18

Stratum 18 was initially encountered in Backhoe Trench 14 during testing (Barbour 2008a). It

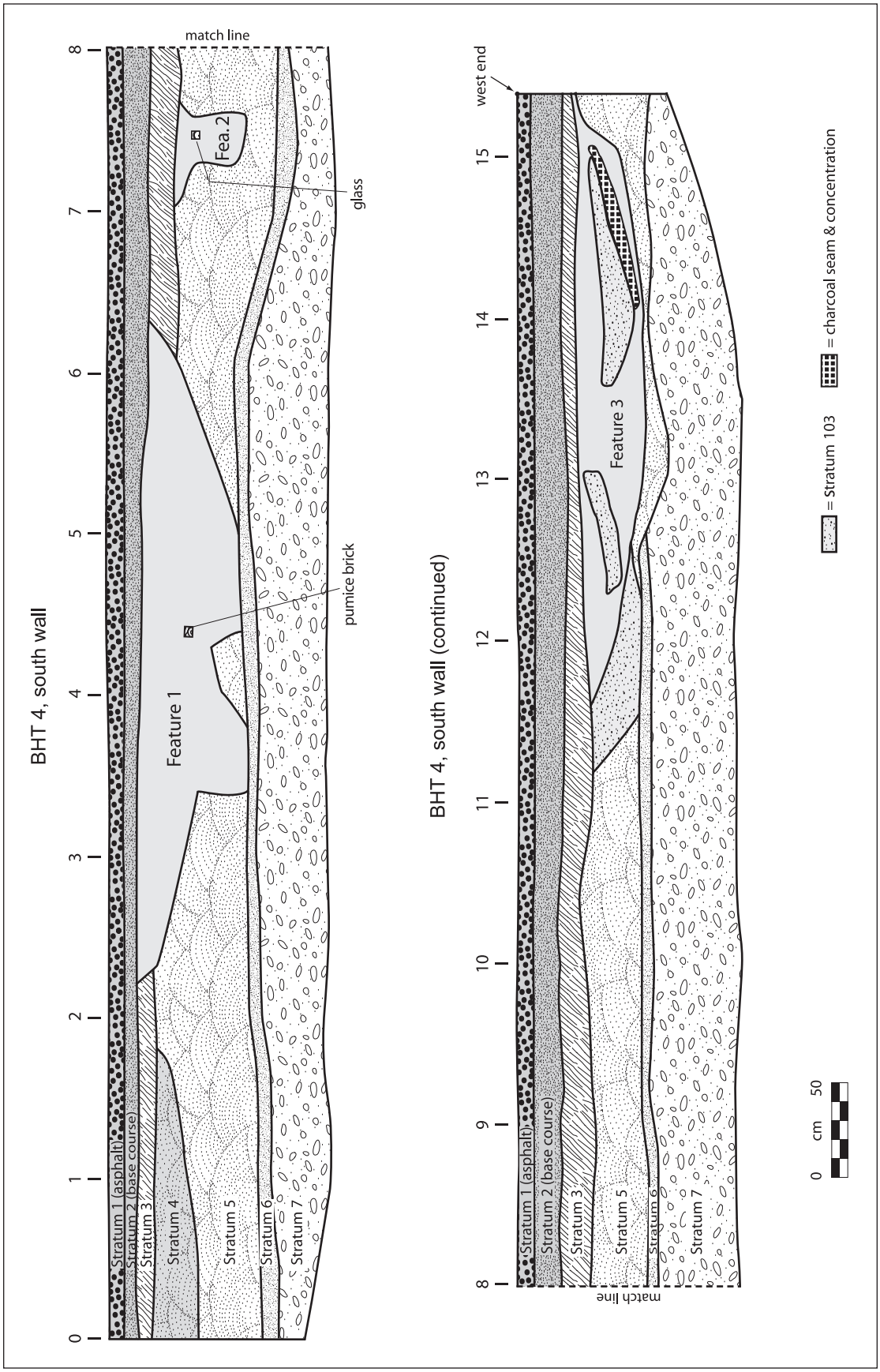


Figure 9.1. Profile of Features 1, 2, and 3, Backhoe Trench 4.

seemed important because of its placement above Strata 4 and 5, representing agricultural fields, and below Strata 3, 8, and 10, representing twentieth-century demolition. It was characterized as a 7.5YR 4/8 (dry) red coarse sand and clay mix indicative of adobe melt and was thought to represent in situ deterioration of architectural elements over time.

These assertions were tested during excavation of Scraping Unit 1 during the data recovery phase. As a result of the excavations, Stratum 18 was found to be comprised of heavier construction elements, typically a 10 cm (4 in) thick lens, within Stratum 10 and not in situ deterioration of architecture. Since Stratum 10 was associated with demolition activities in the latter half of the twentieth century, no systematic data recovery was performed on Stratum 18.

Strata 4 and 5

Strata 4 and 5, together, represent the same natural stratum of a 10YR 6/4 (dry) light yellowish brown eolian and alluvial mix of silty clay and was most frequently encountered between 35 and 95 cm (1 ft 2 in and 3 ft 1 in) below the modern day ground surface. The stratum, in its natural state, was assigned Stratum 5. However, in many instances, the uppermost 5 to 10 cm (2 to 4 in) of the stratum exhibited the signs of human alteration by the presence of 1 to 2 percent charcoal inclusions and a less compact nature, similar to what would be expected in a plow zone. This modified Stratum 5 was designated Stratum 4. It was hypothesized that Stratum 4 was indicative of agricultural use of LA 158037 during the seventeenth, eighteenth, and nineteenth centuries. To test these claims, 26 1 by 1 m units were excavated into the stratum in an attempt to acquire information on agricultural use of the land. Unfortunately, recovery of material culture items from the stratum was miniscule, and flotation and pollen samples were inconclusive for addressing questions of agricultural land use before the 1880s.

All features were dug into Stratum 4. However, the top of this human-modified soil does not represent a ground surface. The abrupt break which occurs between Strata 4 and 5 and Strata 3, 8, and 10 is the result of demolition of the residential neighborhood in the late twentieth century. It is suspected, but cannot be proven, that the early twentieth-century ground surface was 30 cm below the present grade and was destroyed by later twentieth-century demolition activities. If so, feature depth would increase by between 10 and 15 cm (4 and 6 in) over recorded archaeological depths.

Stratum 6

Stratum 6 is characterized as a 5YR 5/2 (dry) reddish gray silty clay infused with caliche. On average it is between 95 and 120 cm (3 ft 1 in and 3 ft 11 in) below the modern ground surface. The stratum is 25 cm (10 in) thick on average and appears alluvial in origin. It may be associated with low-energy deposition along the Santa Fe River terrace. No cultural materials were found in association with this stratum.

Stratum 7

Stratum 7 lacks cultural material and is a 10YR 5/3 (dry) light brown coarse alluvial sand matrix containing abundant gravel and cobbles ranging in size from 5 by 5 cm (2 by 2 in) up to 30 by 30 cm (1 by 1 ft). Found throughout the downtown area, Stratum 7 represents an old alluvial deposit that is the foundation of the Panky and Pojoaque series soils in the immediate vicinity of Santa Fe (see Chapter 27). At LA 158037, the layer was encountered consistently at depths of 1 to 1.2 m (3 ft 3 in to 3 ft 11 in) below the present ground surface. The thickness of the stratum is not known because the stratum goes below depths reached through archaeological investigation (3+ m or 10+ ft).While several wells (Features 47, 170 and 213) and privies (Features 7, 44, 62, 73, 74, 78, 93, 192, 219, 224, 231, 232, 233, 234, and 235) were excavated into the stratum, no cultural materials were found in association with Stratum 7 across the site.

Summary

No historic ground surfaces were identified as a result of investigations at LA 158037 due to recent ground-disturbing activities which have occurred in the later half of the twentieth century. These disturbances are represented archaeologically by the presence of Strata 1, 2, 3, 8, 9, 10, and 18. Below these mixed deposits, Stratum 4/5, which

may represent the base of an agricultural field, can be identified. This is followed by Stratum 6, a caliche-infused layer of clay, and Stratum 7, a coarse alluvial sand.

The lack of historic surfaces limits the ability to answer questions related to Research Domain 1 because field features have been largely removed through twentieth-century earth-moving activities. Furthermore, this disturbance has caused visible features to only appear at lower archaeological depths.

All features encountered at LA 158037 were excavated into Stratum 4/5, and many of the larger features (wells and privies) extended down into Strata 6 and 7. However, no prehistoric or Spanish Colonial features were identified in any of the strata investigated.

Chapter 10
Agricultural Fields

Systematic excavation was conducted on all features to determine if they were associated with agriculture and dated before the establishment of the Capitol Complex Historic Neighborhood in the 1880s. While in-field excavations left some of these issues open to question, Euroamerican artifact analysis revealed that no feature could be confidently linked to agricultural use of the area prior to the establishment of the neighborhood.

The irrigations ditches that were found (Features 14, 17, 120, 121, 122, and 123) appear to be associated with gardens residing behind Structure 4, 125 West Manhattan Avenue, and are not indicators of land use prior to the establishment of the residential neighborhood based on material culture content. Similarly, Features 13, 22, 118, 125, 126, 127, 128, 130, 135, 136, 140, 142, 157, 166, and 171, initially termed "agricultural pits" (Barbour 2008c:9), appear to be associated with feasting activities at LA 158037 during the first two decades of the neighborhood (ca. 1890 or 1900), presumably by a member of the Romero family. These pits are referred to below as "bone pits."

In addition to feature investigation, 26 1 by 1 m test units were excavated into Stratum 4, which was believed to be agricultural fields, to the base of the deposit. These investigations resulted in the recovery of 42 artifacts, all found within the upper 10 cm (4 in). Artifacts included nineteenth- and twentieth-century bottle glass, square machine-cut nails, and bones of domesticated fauna (cow and sheep/goat). No Colonial or prehistoric artifacts were recovered.

Geomorphological studies suggest the upper portions of the fields were removed mechanically, on top of which was deposited Stratum 3. No A-horizon was found. Stratum 4 does not represent the plow zone, as initially believed (Barbour 2008a), but instead may indicate the area just below it, based on the limited number of artifacts recovered in the upper 10 cm (4 in). A buildup of calcium carbonate (Stratum 6), associated with agricultural intensification at the base of Stratum 5, lends some support to this hypothesis. However, the lack of colonial artifacts is somewhat puzzling, since historic documents suggest the area was exploited for agricultural purposes well before the beginning of the nineteenth century.

Without archaeological evidence, it is impossible to properly address the questions proposed in Research Domain 1 (Barbour 2008a). While material culture from the base of the fields appears to date the agricultural systems to the late nineteenth or twentieth century, archival evidence suggests otherwise, and our information is constrained by the lack of an identifiable A-horizon. No water-diversion features dating prior to residential use were uncovered, and without field deposits, it was impossible to determine what plant species were being grown.

Chapter 11

Structure 1 (141 West Manhattan Avenue)

Matthew J. Barbour and Susan M. Moga

Stoner's *Birdseye View of Santa Fe* appears to depict a structure at the northeast corner of Galisteo and West Manhattan in 1882. However, this structure is not illustrated in the slightly later *Hartmann Map of Santa Fe*. Conversations in 2009 with Juan Pedro "Pete" Alarid, owner of 141 West Manhattan Avenue during the mid-twentieth century, suggests his grandfather, Ricardo Alarid Sr., had the structure built in the early twentieth century. This oral account of construction fits well with the Sanborn Fire Insurance maps, which first depict the building in 1908. If there was an earlier building on the property, as depicted in the 1882 Stoner's *Birdseye View of Santa Fe*, no archival or archaeological evidence of this structure was found.

Table 11.1 lists residents and businesses which occupied 141 West Manhattan Avenue after 1928 until the building was condemned in 1957. From its inception until its condemnation, the ownership of the building never left Alarid hands. During the Great Depression, the building was used as rental property to supplement household incomes. Both known renters of the structure during the 1930s were clerks at state agencies. In 1940 Ricardo "Richard" Alarid Jr. moved into the building. He later left this building to his son, Pete, who owned and operated Pete's Super Market out of the structure between 1947 and 1957. In 1957 the State of New Mexico condemned the property in anticipation of building a parking lot. The Alarid family was paid $40,000.

Structure

From information gathered through examination of the Sanborn Fire Insurance maps and interviews with the Alarid family, the building at 141 West Manhattan was one story high and constructed of brick. Like many structures in the neighborhood, the building experienced accretional growth in size and shape throughout its use-life. As depicted on the 1948 Sanborn Fire Insurance map, the structure's maximum dimensions were 20.1 m (66 ft) north–south and 18.9 m (62 ft) east–west, an area of 288 sq m (3,100 sq ft) (Fig. 11.1). No porches, covered patios, carports, or other outbuildings are illustrated on the map.

Physical remains of the structure included several foundation segments (Features 32, 37, 41, 42), a basement (Feature 225), and a stairwell (Feature 226). Based on Features 32, 37, 41, and 42, foundations to the building were constructed of concrete, using river cobbles as aggregate (Fig. 11.2). These foundations varied between 30 and 40 cm (1 ft and 1 ft 4 in) wide and were uniformly 21 cm (8 in) high. All foundation segments were found along or near the former north side of the building. In the case of Feature 37, the foundation appears out of line with the building's blueprint and was likely moved during twentieth-century demolition activities.

The basement was comprised of one room (Feature 225) and measured 7.2 m (23 ft 7 in) east–west by 4.6 m (15 ft 1 in) north–south and at least 1.62 m (5 ft 4 in, 6.75–5.13 mbd) deep (Figs. 11.3 and 11.4). It encompassed 33.1 sq m (356 sq ft) of area. Like the foundations, the basement walls were constructed of concrete with river cobbles as aggregate and were 32 cm (1 ft) wide. The floor was a simple concrete slab 15 cm (6 in) thick. A concrete stairwell (Feature 206) was situated in the northeast corner. This stairwell measured 2.2 m (7 ft 3 in) east–west and 1 m (3 ft 3 in) north–south.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map onto the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given

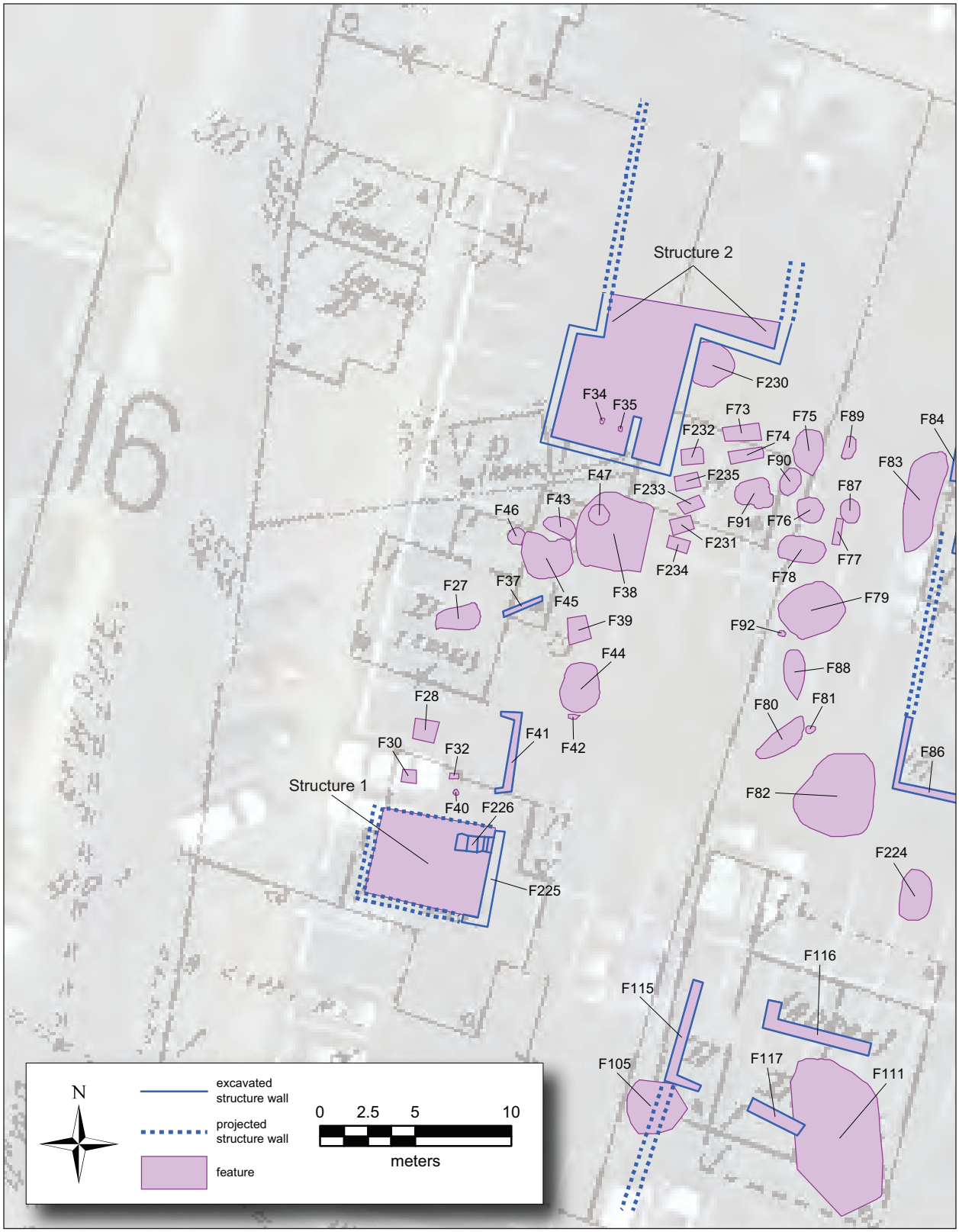


Figure 11.1. Location of Structure 1 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

Figure 11.2. Foundation remnants, Structure 1 (141 West Manhattan Avenue).

Figure 11.3. The basement of Structure 1 as found during archaeological monitoring.

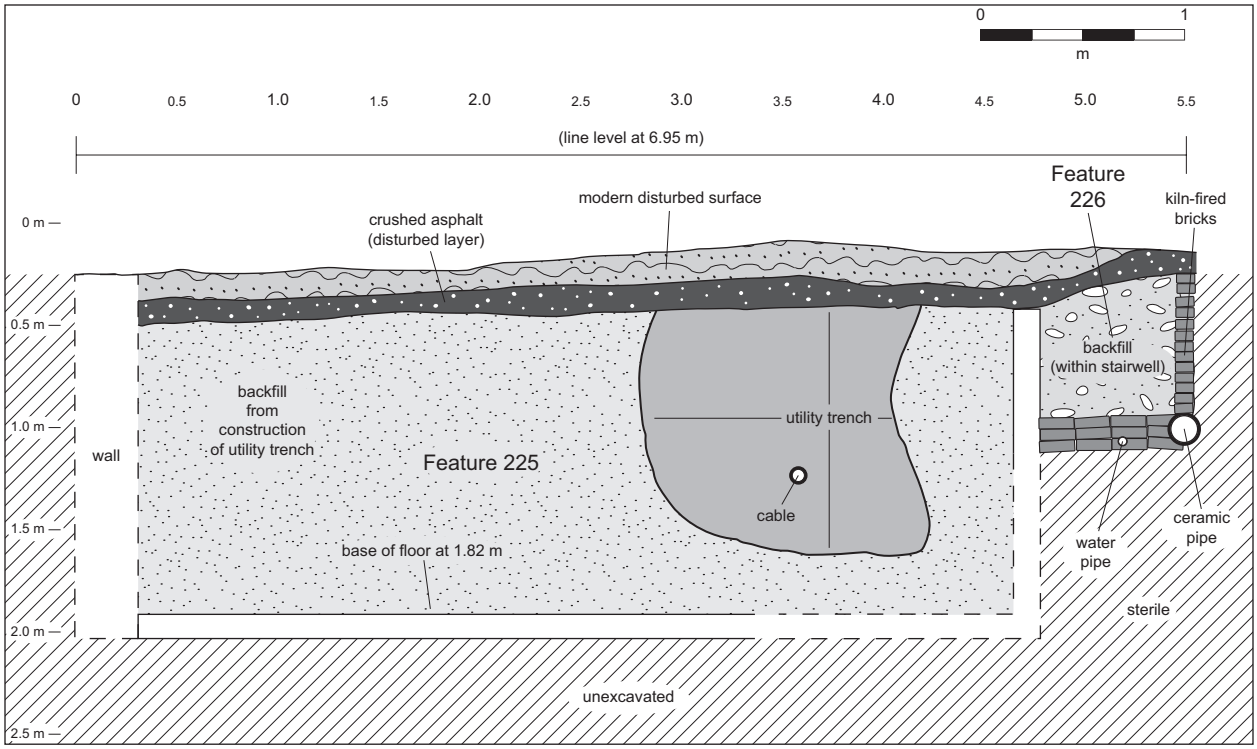


Figure 11.4. Profile of basement and stairwell of Structure 1.

structure were then examined to see if material culture in the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property boundaries, the feature was then linked with the inhabitants of a given structure.

Twenty-four extramural features were associated with Structure 1 (Table 11.2). These features included domestic-refuse pits (n = 13), self-contained vault privies (n = 8), a construction-debris pit, a posthole, and a straight-line cesspit privy.

Feature 27

Feature 27, behind Structure 6 (centerpoint 1034.44N/845.68E), was identified as a domestic-refuse pit based on the high frequency of coal, charcoal, and artifacts. The pit measured 1.76 m (5 ft 9 in) east–west by 92 cm (3 ft 2 in) north–south by 34 cm (1 ft 1 in, 6.1–5.76 mbd) deep. The pit fill consisted of a 10YR 4/2 (dry) dark grayish brown clayey sand with ash and charcoal lenses. The feature was excavated in its entirety. These investigations resulted in the recovery of relatively high counts of artifacts. Material classes (n = 691) included animal bone (n = 223), glass (n = 123), metal (n = 188), macrobotanical samples (n = 18), miscellaneous items (n = 42), Native ceramics (n = 16), and Euroamerican ceramics (n = 81). Manufacturer marks on bottle fragments offer a glass mean date of 1897 (SD 19.11 years). Euroamerican ceramics provide a mean date of 1891 (SD 16.97 years). However, the presence of wire-drawn nails and machine-manufactured bottles places the feature in the early twentieth century.

Feature 28

Feature 28 was a domestic-refuse pit behind Structure 1 (centerpoint 1028N/844.5E). The pit measured 1.30 m (4 ft 3 in) east–west by 70 cm (2 ft 4 in) north–south and was 8 cm (3 in, 6.36–6.28) deep. The feature fill was 10YR 3/3 (dry) dark brown silty loam with 5 to 10 percent charcoal and coal inclusions. A total of 34 artifacts were recovered including domesticated faunal remains (n = 28), diagnostic glass artifacts (n = 5), and one whole glass marble. Wine and beer bottle fragments indicate a mean bottle glass

manufacture date of 1921 (SD 20.8 years) for this feature. The presence of substantial fauna, coal, and cinder inclusions and alcohol products suggests residential discard. From the bottle glass date, it seems reasonable to assume this discard occurred in the early twentieth century.

Feature 30

Feature 30 consisted of a construction-debris pit behind Pete's Super Market during the mid-twentieth century (centerpoint 1025.5N/844E). The pit measured 80 cm (2 ft 7 in) east–west by 60 cm (2 ft) north–south and 10 cm (4 in, 6.26–6.16 mbd) deep. The pit was filled with a 10YR 4/2 (dry) brown clayey sand with crushed concrete and brick fragments. The few artifacts (n = 4) retrieved from excavation of the feature include two drawn-wire nail fragments and a piece of a rubber comb.

Feature 38

Feature 38 was a domestic-refuse pit behind 141 West Manhattan (centerpoint 1040.75N/852.5E). Only a 20 percent sample of the feature was excavated due to its size. The surface measurement of the entire pit was 4.5 m (14 ft 9 in) north–south by 3 m (9 ft 10 in) east–west. It was 70 cm (2 ft 4 in, 6.1–5.4 mbd) deep in the sampled area. The upper 50 cm (1 ft 8 in, 6.1–5.6 mbd) of the pit fill consisted of 7.5YR 3/7 (dry) dark brown sandy loam with 1 percent gravels, large cobbles, ash lenses, charcoal chunks, and artifacts. This was followed by a 10YR 4/4 (dry) brown sandy loam, 20 cm (8 in, 5.6–5.4 mbd) thick, with 1 percent gravels and cobbles.

The lower fill was void of cultural materials. However, artifacts recovered from the upper portions of the pit were numerous. A broad range of material types (n = 543) were found: metal (n = 189), animal bone (n = 132), glass (n = 115), Euroamerican ceramics (n = 58), Native ceramics (n = 29), miscellaneous items (n = 16), and macrobotanical samples (n = 4). Objects identified included numerous patent medicine bottles, silverware, several military buttons, a bean pot, and a portion of a child's tea set. Bottled products produced a mean manufacture date of 1890 (SD 29 years). This suggests Feature 38 dates to the late nineteenth century or early twentieth century. While Feature 38 is close to Structure 2 (built in 1938), these materials preclude its association with this later structure, and it is likely, based on artifact analysis, that the feature was used by residents of 141 West Manhattan. However, this distinction is somewhat a moot point. Both structures were on property owned by the Alarid family.

Feature 39

Feature 39, behind 141 West Manhattan Avenue (centerpoint 1034.5N/851.4E), was a domestic-refuse pit measuring 1.43 m (4 ft 8 in) north–south, 1.36 m (4 ft 6 in) east–west, and 40 cm (1 ft 4 in, 6.12–5.72 mbd) deep (Fig. 11.5). Feature fill was characterized as a 10YR 2/2 (dry) very dark brown silty loam with 35 percent charcoal, coal, and ash inclusions (Fig. 11.6). A total of 604 artifacts and samples were recovered from a 50 percent sample of feature fill. These artifacts consist primarily of glass (n = 210), metal (n = 188), and Euroamerican ceramics (n = 121) fragments. Lesser amounts of animal bone (n = 48), miscellaneous items (n = 31), and Native ceramics (n = 5) were also found. Mean manufacture dates for glass (1924, SD 18.08 years) and ceramic (1917, SD 21.60 years) artifacts suggest deposition in the early twentieth century. While a substantial number of Euroamerican ceramics were uncovered, a mean ceramic index value for the feature could not be calculated due to the lack of identifiable vessel forms.

Feature 40

Feature 40 was a posthole behind or inside 141 West Manhattan (centerpoint 1025.12N/846.55E). The posthole measured 20 cm (8 in) in diameter. The exact function of the post could not be ascertained.

Feature 44

Feature 44 was a twentieth-century straight-line cesspit privy behind Structure 1 (centerpoint 1031.74N/806.75E). Oval in shape, the privy measured 2.7 m (8 ft 10 in) north–south, 1.8 m (5 ft 11 in) east–west, and 1.75 m (5 ft 9 in, 6.24–4.59 mbd) deep (Fig. 11.7). The cesspit was constructed of firebricks, following the same design as Feature 224, behind Structure 5. The firebricks, measuring

Figure 11.5. Feature 39, a domestic-refuse pit, before excavation.

Figure 11.6. Feature 39 after excavation.

20 by 10 by 6 cm (8 by 4 by 2 in), were dry-laid and stacked sideways as opposed to lengthwise to build thicker walls, a configuration known as a header bond (Fig. 11.8). Neither of the features possessed any formal floor, allowing seepage into the water table. Their only differences were in size and fill. Size differences were likely a result of the number of people they served, and differences in fill suggest disparity in postdepositional process. The similarities between the cesspits are not surprising. Both structures were owned by the same family, the Alarids, during much of the early twentieth century, indicating that they built both or hired the same contractor for both jobs.

Five different stratigraphic layers were encountered within Feature 44 (Fig. 11.9). These strata are described in order from the uppermost layer to the base of the feature. The top stratum was a 10YR 5/6 (dry) brown clayey sand 58 cm (1 ft 11 in, 6.24–5.66 mbd) thick. Next was a 10YR 4/2 (dry) black silty sand with charcoal and cobble inclusions, 40 cm (1 ft 4 in, 5.66–5.26 mbd) thick, then a 10YR 5/4 (dry) yellowish brown clayey sand, 15 cm (6 in, 5.26–5.09 mbd) thick. This was followed by a 10YR 3/3 (dry) dark brown clayey sand with charcoal, coal, and cinder inclusions 20 cm thick (8 in, 5.09–4.89 mbd). Last was a 10YR 2/1 (dry) black layer of organic material with small coal inclusions 30 cm (1 ft, 4.89–4.59 mbd) thick.

An abundance of artifacts (n = 1,763) were retrieved from the cesspit, which was excavated in its entirety. Material types included metal (n = 672), glass (n = 498) animal bone (n = 322), Euroamerican ceramics (n = 182), miscellaneous items (n = 45), Native ceramics (n = 42), and macrobotanical samples (n = 2). Diagnostic glass objects produced a mean manufacture date of 1898 (SD 18.60 years). This date is somewhat problematic, since the cesspit was likely a twentieth-century modification to Structure 1. It is possible that the feature was used for only a short period of time or that artifacts within the privy were not associated with use and abandonment, but fill brought in from another location. Dinnerware fragments provided a 1.69 (SD .68) mean ceramic value. If materials in the privy are associated with early occupation at Structure 1, these artifacts would indicate a middle-income family.

Feature 45

Feature 45 (centerpoint 1038.39/N848.84E) was a nineteenth-century domestic-refuse pit between Dick's Barber Shop (Structure 2) and Pete's Super Market (Structure 1). It measured 3 m (9 ft 10 in) east–west by 2 m (6 ft 7 in) north–south and was 10 cm (4 in, 5.98–5.88 mbd) deep. Feature fill was a 7.5YR 4/4 (dry) brown sand with lenses of charcoal and ash, presumably associated with discard from a stove.

A 1 by 1 m test pit was placed along the northwest interior edge of the refuse pit to sample artifact content. This sample yield 99 artifacts: 6 Native ceramics, 34 animal bone, 25 glass, 11 Euroamerican ceramics, 20 metal, and 3 miscellaneous. Identifiable objects included dish fragments, doll parts, an intact marble, leather boot and shoe fragments, and a shell button. Most of these artifacts were not diagnostic, except for the base of a ceramic saucer from the Peoria Pottery Company, which was manufactured between 1873 and 1902. It appears likely based on the date of the structure that the ceramic saucer was a curated object handed down to the inhabitants of Structure 1 by an earlier generation.

Feature 46

Feature 46, a domestic-refuse pit, was behind 141 West Manhattan (centerpoint 1038.84N/847.21E). The pit measured 1 m (3 ft 3 in) east–west, 86 cm (2 ft 10 in) north–south, and 3 cm (1 in, 5.91–5.88 mbd) deep. Feature fill consisted of 7.5YR 4/4 (dry) brown silty loam with 1 to 3 percent ash, charcoal, coal, and small cobble inclusions. Excavated in its entirety, the pit yielded only 82 artifacts and samples. These artifact types included Native ceramics (n = 26), Euroamerican ceramics (n = 2), animal bone (n = 40), glass (n = 1), metal (n = 1), a macrobotanical sample, and miscellaneous items (n = 11). Artifacts were insufficient to provide an accurate date of deposition.

Feature 73

Feature 73 was a twentieth-century self-contained vault privy north of Structure 1 near the eastern property boundary (centerpoint 1046.50N/858.00E). The privy was hand-excavated in its entirety and may have been lined

Figure 11.7. Feature 44, a straight-line cesspit privy, before excavation.

Figure 11.8. Feature 44 after excavation, showing header brick bond construction.

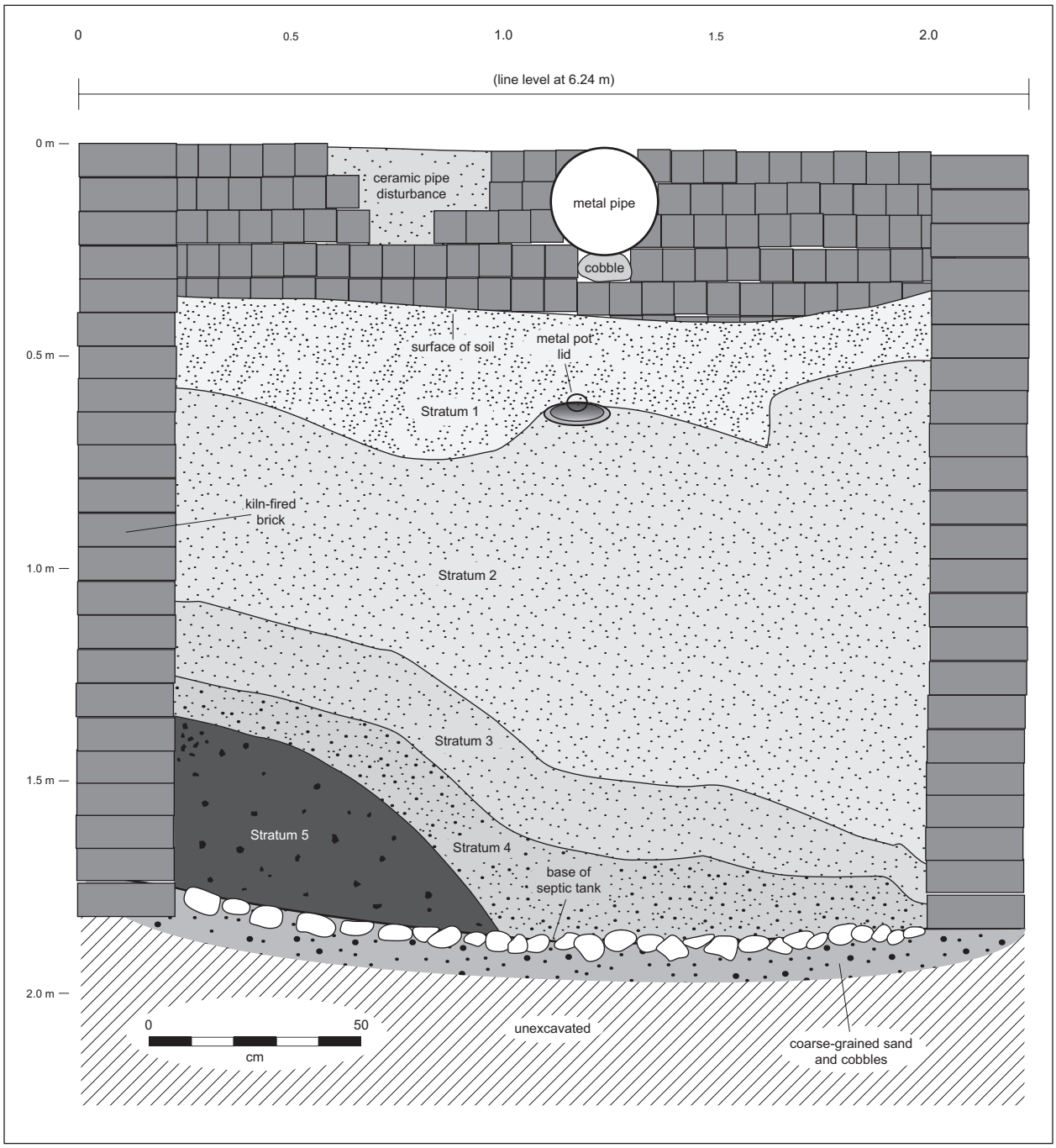


Figure 11.9. Profile of south wall of Feature 44.

with puddled adobe. It measured 1.40 m (4 ft 8 in) east–west by 62 cm (2 ft) north–south by 66 cm (2 ft 2 in, 6.36–5.7 mbd) deep. Feature 73 displayed three stratigraphic layers of a 7.5YR 3/4 (dry) brown clayey sand. Each layer was distinguished by the addition of pebbles (Stratum 1, 6.36–6.21 mbd), metal fragments, cobbles, and fecal matter (Stratum 2, 6.21–5.96 mbd), or coal with fewer artifacts (Stratum 3, 5.96–5.7 mbd).

The 944 artifacts retrieved from Feature 73 included abundant metal (n = 527) and glass (n = 335). Glass products consisted primarily of soda bottles. Bottle manufacture marks provided a mean manufacture date of 1932 (SD 11 years).

Feature 74

Feature 74 was a twentieth-century self-contained vault privy (centerpoint 1044.60N/858.10E). It was 2 m (6 ft 7 in) south of Feature 73 and was similar to it in size and shape. Although in the immediate vicinity of Dick's Barber Shop (Structure 2), the privy predates the establishment of this building and is likely associated with Structure 1.

The privy measured 1.6 m (5 ft 2 in) east–west by 70 cm (2 ft 4 in) north–south and was 82 cm (2 ft 8 in, 6.52–5.8 mbd) deep (Fig. 11.10). Like Feature 73, Feature 74 was excavated in its entirety. Two stratigraphic layers were present. The upper layer was a 7.5YR 3/3 (dry) dark brown clayey sand with coal, artifacts, and numerous fragmented pieces of concrete with the fill. It extended 40 cm (1 ft 4 in, 6.52–6.12 mbd) below the top of the feature. The lower layer was a 7.5YR 3/1 (dry) very dark gray clayey sand consisting largely of human excrement. This stratum was 42 cm (1 ft 5 in, 6.12–5.8 mbd) deep.

The artifacts and samples (n = 1,078) retrieved from Feature 74 included Native ceramics (n = 6), bone (n = 183), flaked stone (n = 1), glass (n = 363), Euroamerican ceramics (n = 38), metal (n = 316), flotation (n = 4), pollen (n = 4), macrobotanical (n = 12), and miscellaneous (n = 151) items. Most were collected from the lower layer of human excrement. The mean bottle glass manufacture date for Feature 74 is 1930 (SD 11 years). It is not known which of the two privies (Feature 73 and 74) was used first. The standard deviation

Figure 11.10. Feature 74, a self-contained vault privy, after excavation.

in both features' mean bottle glass manufacture dates substantially overlaps. However, it appears likely that both privies were used during the Prohibition or Depression eras.

Euroamerican ceramic dinnerware was examined to infer the socioeconomic status of the individuals within the house during the 1930s. The mean ceramic value was 1.47 (SD .74). This suggests a low- to middle-income family used the feature.

Feature 75

Feature 75 was a domestic-refuse pit north of 141 West Manhattan (centerpoint 1045.5N/860.00E). The pit measured 1.62 m (5 ft 4 in) north–south by 1.43 m (4 ft 8 in) east–west and was 16 cm (6 in, 6.59–6.43 mbd) deep. It was excavated in its entirety, and one stratum, a 10YR 3/4 (dry) dark yellowish brown clay with charcoal bits, was present. A substantial number of artifacts (n = 726) were recovered from Feature 75, considering its shallow depth. Artifact material types included Native ceramics (n = 1), animal bone (n = 25), glass (n = 298), metal (n = 326), Euroamerican ceramics (n = 42), and miscellaneous (n = 34). Several soda and beer glass bottles were found intact with manufacturer dates. These produced a mean date of 1928 (SD 10 years). Interestingly, dinnerware fragments produced a mean ceramic value of 2.18 (SD 1.02). This is among the highest scores calculated for LA 158037 and suggests a high-income household. However, the score also has one of the highest standard deviations and may simply be a statistical fluke.

Feature 76

Feature 76 was a domestic-refuse pit (centerpoint 1042.00N/861.00E) 20 cm (8 in) east of Feature 78, a privy. The pit measured 2.45 m (8 ft) east–west by 2.3 m (7 ft 7 in) north–south by 15 cm (6 in, 6.64–6.59 mbd) deep (Fig. 11.11). The north half of the feature was excavated in three 1 by 1 m units, resulting in a 50 percent sample. Two strata were encountered. The first was a 20 cm (8 in) thick layer of silty sand followed by a 9 cm (4 in) thick clayey fill. Both were 10YR 3/4 (dry) dark yellowish brown.

A total of 160 artifacts were recovered. Material types retrieved from the sample area

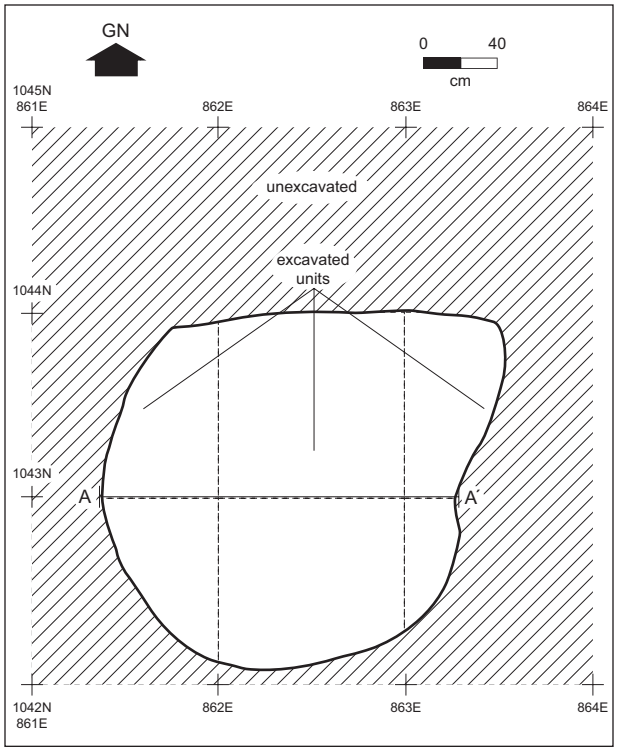


Figure 11.11. Plan of Feature 76, a domestic-refuse pit.

included Native ceramics (n = 2), animal bone (n = 21), glass (n = 77), metal (n = 30), Euroamerican ceramics (n = 27), and miscellaneous items (n = 3). Several types of glass whiskey, ink, and medicine bottles and canning jars displayed maker's marks yielding a mean bottle glass date of 1927 (SD 13 years). The mean ceramic value was 1.40 (SD .61), much lower than that of Feature 75, which is relatively contemporaneous. These statistics suggest deposition in the early twentieth century by a lower- or middle-income family.

Feature 77

Feature 77, a domestic-refuse pit, was excavated in its entirety (centerpoint 1041.72N/863.48E). It measured 1.8 m (5 ft 11 in) north–south by 1.1 m (3 ft 7 in) east–west and was 42 cm (1 ft 5 in, 6.66–6.24 mbd) deep. Pit fill consisted of a 10YR 3/3 (dry) dark brown sandy loam with coal. A utility trench, 50 cm (1 ft 8 in) wide, exited the south side of the feature and then ran from Feature 77 through Feature 79 and terminated as it entered Feature 88. A large water heater was also dumped into the middle of the pit. These observations suggest that Features 77, 79, and

88 may have been associated with plumbing utilities, or the utility may have been installed after abandonment. Material culture within the pit is largely indicative of domestic refuse. The trash appeared to have been burned, and coal must have attributed to dark color of the soil. Cultural materials (n = 45) consisted of ceramic (n = 1), animal bone (n = 5), glass (n = 14), metal (n = 11), Euroamerican ceramics (n = 10), and miscellaneous items (n = 4). These artifacts provided a mean bottle glass manufacture date of 1932 (SD 9 years) and a mean ceramic manufacture date of 1938 (SD 4 years). Dishware fragments produced a mean ceramic value of 1.8 (SD .76), suggesting that those discarding materials into Feature 77 were from the middle class.

Feature 78

Feature 78 was a self-contained twentieth-century vault privy behind Structure 1 (centerpoint 1040.95N/861.89E). The privy measured 2 m (6 ft 7 in) east–west by 1 m (3 ft 3 in) north–south by 1.1 m (3 ft 7 in, 6.69–5.59 mbd) deep (Fig. 11.12). It was hand-excavated into the native soil and then lined with adobe. The unlined base allowed liquids to percolate down into the underlying water table. Six stratigraphic layers were encountered (Figs. 11.13 and 11.14). Each stratum is described below, starting at the uppermost layer down to the base of the privy.

- 7.5YR 5/4 (dry) brown sandy loam 30 cm (1 ft) thick with charcoal, coal, and wood.
- 7.5YR 2/5 (dry) very dark gray sandy loam 10 cm (4 in) thick mottled with ash and charcoal.
- 7.5YR 4/1 (dry) black silty sand 12 cm (5 in) thick with charcoal, coal, and 10 percent gravels.
- 5YR 4/6 (dry) reddish brown sandy loam 25 cm (10 in) thick mottled with rusty stained soil and 1 percent gravels.
- No Munsell. Light green sandy loam 10 cm (4 in) thick with decomposed fecal matter.
- 7.5YR 4/4 (dry) brown sandy loam 23 cm (9 in) thick with some fecal matter, lime, charcoal flecks, and coal.

An abundance of artifacts (n = 1,404) were recovered from the privy. Artifact types include Native ceramics (n = 14), animal bone (n = 268), glass (n = 449), metal (n = 488), Euroamerican ceramics (n = 139), miscellaneous (n = 41), and macrobotanical samples (n = 5). Glass bottles of whiskey, soda, beer, wine, and ink, and canning jars produced a mean bottle glass manufacture date of 1919 (SD 23 years). This would place final use of the privy just before the Prohibition era. Dishes collected from the feature produced a mean ceramic value of 1.93 (SD .74) and suggest use by a middle- or upper-class family.

Feature 79

Feature 79 was a domestic-refuse pit 1 m (3 ft 3 in) north of Feature 88 and 2 m (6 ft 7 in) south of Feature 77 (centerpoint 1892.06N/863.12E). The oval pit measured 3.5 m (11 ft 6 in) east–west by 2.75 m (9 ft) north–south and was 28 cm (11 in, 6.65–6.37 mbd) deep (Fig. 11.15). Due to its large size, only the northern portion of the feature was excavated within four 1 by 1 m units. This equated to a roughly 25 percent sample of the entire feature fill. A utility trench, 50 cm (1 ft 8 in) wide, transected the entire central portion of the feature on a north–south axis running from Feature 77 through Feature 79 to Feature 88 (Fig. 11.16). This pit may initially have been tied to some sort of utility which was later decommissioned and replaced with domestic refuse.

The pit was relatively shallow, and feature fill was consistent throughout. Fill was characterized as a 7.5YR 3/2 (dry) dark brown silty loam with charcoal flecks, ash lenses, artifacts, and 1 percent gravels and small cobbles. Artifacts (n = 734) retrieved from Feature 79 included Native ceramics (n = 43), animal bone (n = 276), metal (n = 166), glass (n = 119), Euroamerican ceramics (n = 75), and miscellaneous (n = 55) material types. Manufacturing dates derived from ceramic dishes yielded a date of 1917 (SD 29 years), and bottles of whiskey, beer, soda, and medicine yielded a date of 1891 (SD 10 years). These statistics vary dramatically from those from Features 77 and 88. While Features 77, 79, and 88 are thought to be contemporaneous, Features 77 and 88 solidly date to the Great Depression. It is unclear what can account for the disparity in Feature 79. The mean ceramic value was 1.46 (SD .59).

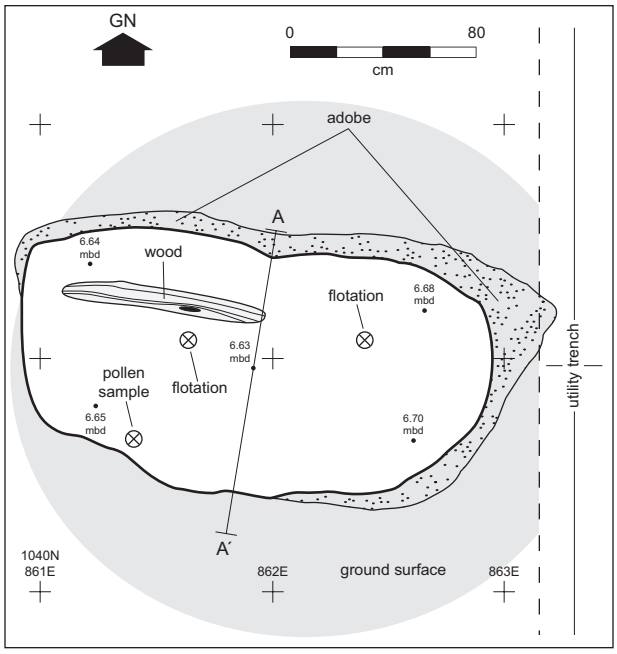


Figure 11.12. Plan of Feature 78, a self-contained vault privy.

Figure 11.13. Feature 78.

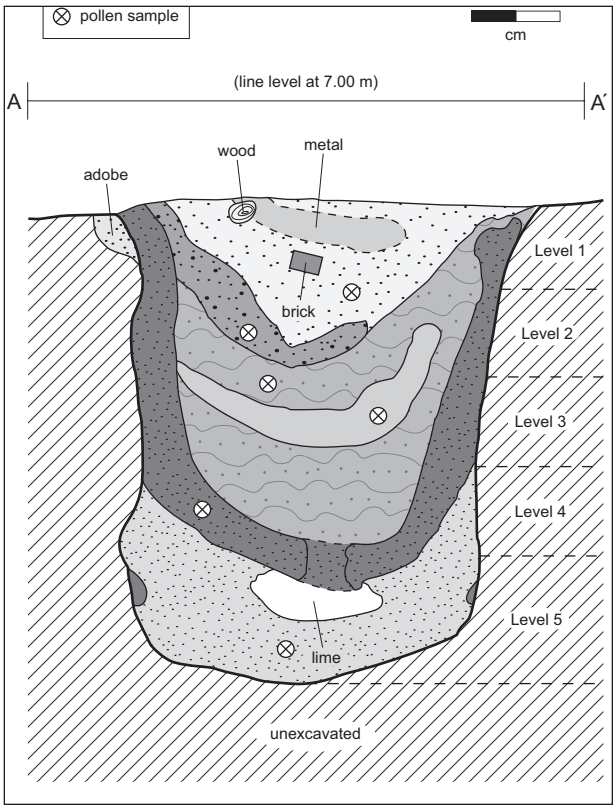


Figure 11.14. Profile of east wall of Feature 78.

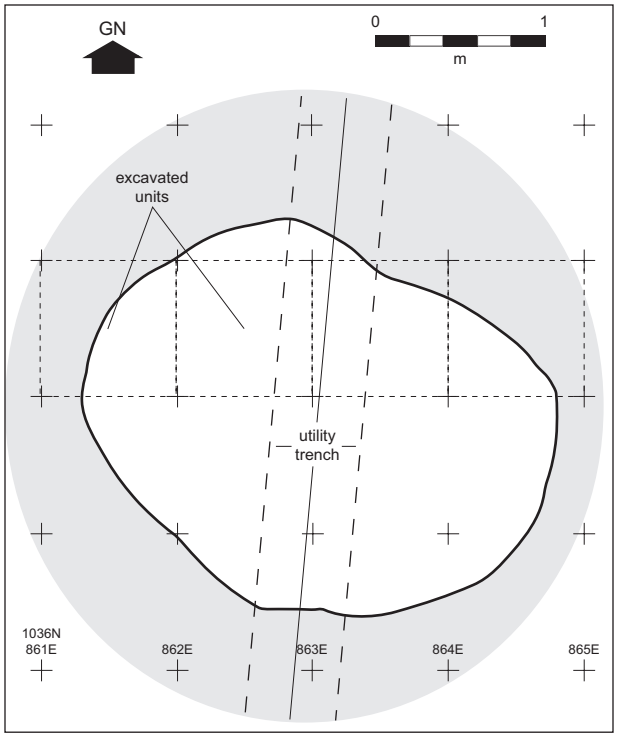


Figure 11.15. Plan of Feature 79.

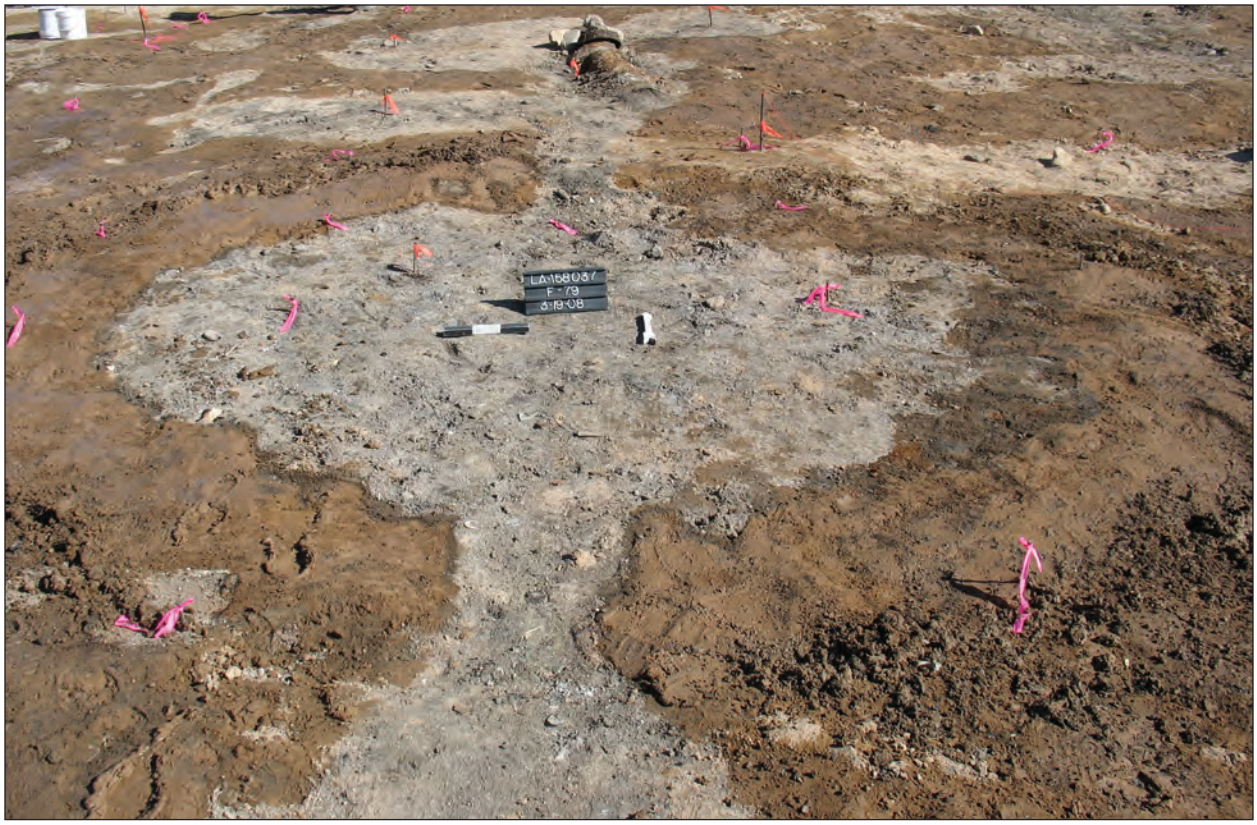


Figure 11.16. Feature 79 before excavation.

Feature 81

Feature 81 was a small domestic-refuse pit with very few artifacts (n = 16). The pit (centerpoint 1031.85N/863.70E) was northeast of Structure 1 and was excavated in its entirety. It measured 41 cm (1 ft 4 in) east–west by 35 cm (1 ft 2 in) north–south and was 7 cm (3 in, 6.73–6.66 mbd) deep. The fill consisted of 10YR 4/2 (dry) dark grayish brown silty sand. A total of 16 artifacts were recovered. Artifact categories include animal bone (n = 1), glass (n = 12), and metal (n = 3). A fragment of a whiskey bottle, nails, and cartridges were some of the types of artifacts collected. All bottle glass appears to have been manufactured using an automatic bottling machine, suggesting deposition in the twentieth century.

Feature 89

Feature 89 was a twentieth-century domestic-refuse pit (centerpoint 1046.50N/868.40E) northeast of 141 West Manhattan. The pit measured 70 cm (2 ft 4 in) north–south by 50 cm (1 ft 8 in) east–west and was 24 cm (9 in, 6.74–6.5 mbd) deep. It was excavated in its entirety. Feature fill consisted of a 10YR 3/1 (dry) very dark gray silty clay with large quantities of coal. A total of 121 artifacts were recovered. Material types included ceramic (n = 3), animal bone (n = 10), glass (n = 80), metal (n = 14), Euroamerican ceramics (n = 13), and miscellaneous items (n = 1). Wine and beer bottles were identified in the assemblage, and the mean glass manufacture date is 1916 (SD 16 years), which suggests deposition during World War I. A mean ceramic value of 1.96 (SD .89) was computed based on the dinnerware fragments, which could possibly indicate an upper- or middle-income family.

Feature 229

Feature 229 was a large domestic-refuse pit behind Structure 1 (centerpoint 1037N/855.3E). The pit measured 2 m (6 ft 7 in) north–south by 1 m (3 ft 3 in) east–west and was 40 cm (1 ft 4 in, 6.24–5.84 mbd) deep. Feature fill consisted of a 10YR 3/3 (wet) dark brown sandy loam with coal and cinder inclusions.

The feature was identified during archaeological monitoring and was not excavated. However, a judgmental sample of artifacts (n = 32) was collected to infer the date of deposition. Artifact types collected in the sample included glass (n = 12), Euroamerican ceramics (n = 13), and metal (n = 3). Bottle manufacture marks provided a mean bottle glass date of 1931 (SD 7.5 years), and Euroamerican ceramic dish fragments indicated a mean ceramic value of 1.56 (SD .56). These statistics appear to indicate that consumption occurred in the late 1920s or 1930s by a low- to middle-income household. Occupants during this time included Mr. H. P. Hensley and Mrs. A. M. Velarde, both clerks at State of New Mexico offices.

Features 231–235

Features 231–235 are a line of twentieth-century self-contained vault privies identified during the monitoring phase, buried underneath the primary electric line once feeding the Concha Torres y Pino Building (Fig. 11.17). The privies were situated immediately to the east of Structure 2 but predate the structure by several years and appear to be related to Structure 1 to the southeast. When one privy became full, another privy appears to have been dug within the same vicinity, so that the wooden outhouse structure needed only to be moved a short distance. Hence, Features 231–234 appear to represent a continuous sequence of human waste disposal by residents of 141 West Manhattan during the Prohibition and Depression eras.

While each vault varied somewhat in size, each was hand-excavated, had no visible lining, and was roughly rectangular. Accurate feature depths were not possible because the utility line appears to have removed at least the upper 50 cm of fill from each vault. However, the remaining fill was excavated in its entirety.

Based upon Euroamerican artifact manufacture dates, it was possible to develop a sequence of use. Feature 231 was used first and appears to represent the period just after the World War I. Features 232 and 234 follow and, with their shouldered jugs and foreign liquor products, are associated with Prohibition. Features 235 and 233 follow, both Depression-era assemblages.

Juan Pedro "Pete" Alarid (interview, 2009) said that his father Ricardo "Richard" Alarid Jr. had been a bootlegger and distributor during the

Figure 11.17. Archaeologists working on Features 231, 232, 233, 234, and 235 during the monitoring phase of the Capitol Parking Facility Project.

Prohibition era (1920–1933). The property was owned by the Alarid family during this time, and it is believed, given the presence of the large shouldered jugs and foreign liquor bottles, that the artifact assemblages from Features 232 and 234 are associated with this illicit business.

Each privy is described below.

Feature 231

Feature 231 was a twentieth-century self-contained vault privy (centerpoint 1040.80N/855.24E) measuring 1.5 m (4 ft 11 in) north–south by 1.4 m (4 ft 7 in) east–west and 69+ cm (2 ft 3 in, 5.2–4.51 mbd) deep (Fig. 11.18). Three stratigraphic layers were present (Fig. 11.19). These layers are described from the uppermost fill to the base of the feature.

- 10YR 3/2 (dry) very dark grayish brown sandy loam 15 cm (6 in, 5.2–5.05 mbd) thick with charcoal, gravels, and small cobbles.
- 10YR 5/2 (dry) grayish brown sandy loam 15 cm (6 in, 5.05–4.9 mbd) thick with a light green fecal matter, a lens of lime, charcoal, gravels, and small cobbles.
- 10YR 3/6 (dry) dark red sandy loam 39 cm (1 ft 3 in, 4.9–4.51 mbd) thick with human waste, gravels, and small cobbles.

A total of 271 artifacts were recovered from the feature. Artifact types included: Native ceramics (n = 6), animal bone (n = 51), glass (n = 67), metal (n = 27), Euroamerican ceramics (n = 88), miscellaneous items (n = 30), and macrobotanical samples (n = 2). Several objects within these categories were diagnostic, such as a Euroamerican ceramic plate from the East Palestine Pottery Co. of Ohio and a broken bowl with a maker's mark, "Petrius Regout" of Holland. In addition, manufacture marks were obtained from several glass bottles. Glass bottles provided a mean manufacture date of 1919 (SD 19 years), suggesting deposition just prior to Prohibition. A mean ceramic value of 2.17 (SD .77) suggests the family was relatively wealthy at this time.

Figure 11.18. Feature 231, a self-contained vault privy, after excavation.

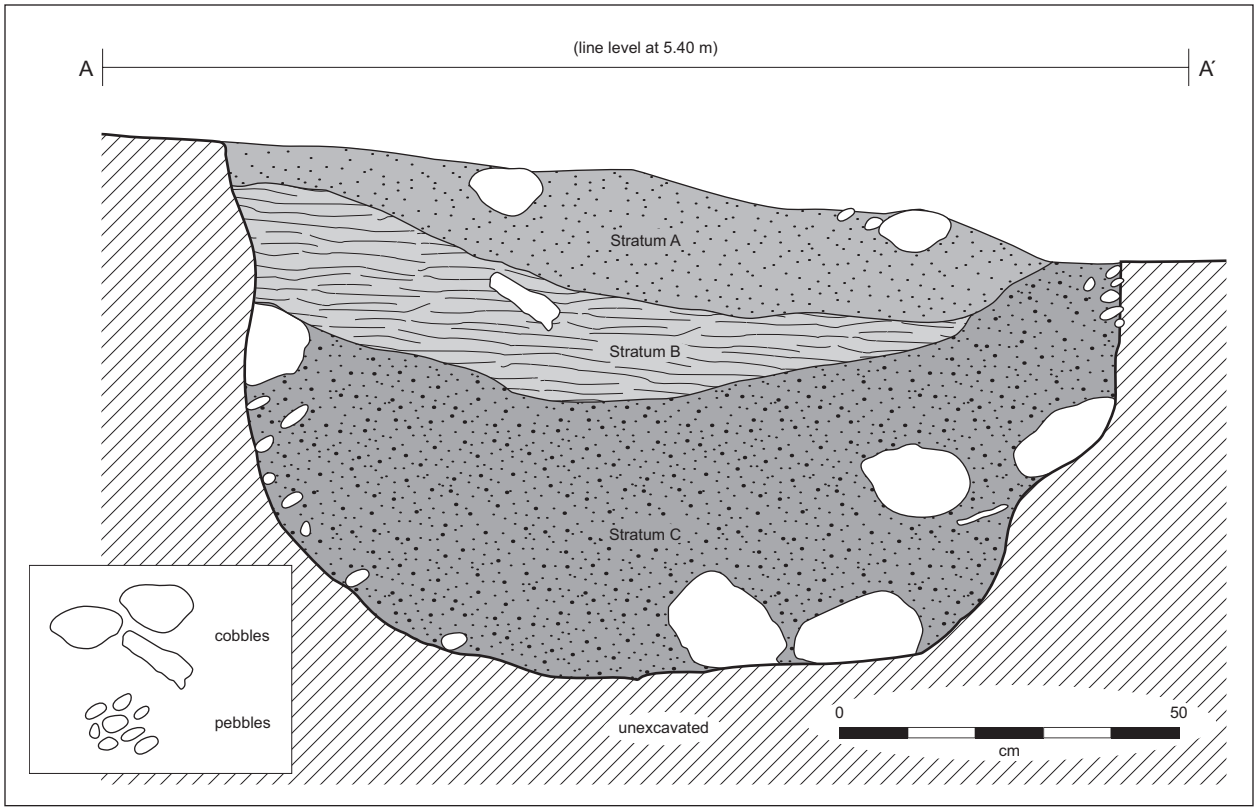


Figure 11.19. Profile of north wall of Feature 231.

Feature 232

Feature 232 was a twentieth-century self-contained vault privy (centerpoint 1042.40N/855.89E) measuring 1.3 m (4 ft 3 in) north–south by 1 m (3 ft 3 in) east–west and 1.16+ m (3 ft 10 in, 5.1–3.94 mbd) deep (Fig. 11.20). Three stratigraphic layers were present (Fig. 11.21). These layers are described from the uppermost fill to the base of the feature.

- 10YR 5/2/ (dry) grayish brown sandy loam 20 cm (8 in, 5.1–4.9 mbd) thick with some fecal matter and waterworn river cobbles.
- 10YR 3/6 (dry) reddish-brown sandy loam 50 cm (1 ft 8 in, 4.9–4.4 mbd) thick with some human waste, charcoal, a lens of lime 5 cm thick, and a few medium to large cobbles.
- 7.5YR 4/4 (dry) brown sandy loam mixed 46 cm (1 ft 6 in, 4.4–3.94 mbd) thick with fecal matter and medium to large cobbles.

A total of 547 artifacts were recovered from the feature. The artifact types recovered included Native ceramics (n = 20), animal bone (n = 85), glass (n = 200), metal (n = 116), Euroamerican ceramics (n = 89), miscellaneous items (n = 34), and macrobotanical samples (n = 3). Maker's marks on the bottles could be traced to a variety of manufacturers and provided a mean bottle glass manufacture date of 1922 (SD 16 years). This would place final use of the privy during the Prohibition era (1920–1933), which matches well with the presence of three large stoneware shouldered jugs (Fig 11.22). These jugs are believed to be associated with bootlegging that occurred at the residence during this time. The mean ceramic value (1.56, SD .68) was significantly lower than the value derived for Feature 231 and suggests that a middle-income family used the privy during this period. Based on archaeological evidence and ethnographic interviews, this was the Alarid family.

Feature 233

Feature 233 was a twentieth-century self-contained vault privy (centerpoint 1047.20N/856.48E) measuring 1.6 m (5 ft 3 in) north–south by 62 cm (2 ft) east–west and 73+ cm (2 ft 5 in, 4.79–4.06 mbd) deep (Fig. 11.23). Two stratigraphic layers were visible in the remaining portion of the privy (Fig. 11.24). The majority of the fill consisted of a 10YR 2/1 (dry) black sandy loam with large quantities of ferrous metal interspersed with layers of human waste. At the base of the privy was a 2 to 5 cm thick (1 to 3 in) lens of 10YR 5/2 (dry) grayish brown sandy loam. This lens extended across the entire length of the privy's base and may represent decomposed lumber which was part of a vault's lining or superstructure.

A total of 503 artifacts were recovered from the feature. The artifact types recovered from the privy fill included Native ceramics (n = 5), animal bone (n = 118), glass (n = 251), metal (n = 21), Euroamerican ceramics (n = 97), and miscellaneous items (n = 11). Several items were diagnostic and datable. Broken dish fragments had maker's marks from Homer Laughlin and Edwin M. Knowles of East Liverpool, Ohio; and Shenango China of New Castle, Pennsylvania,. These fragments provided a mean ceramic date of 1930 (SD 11 years) and a mean ceramic value of 1.8 (SD .79). Intact bottles (n = 4) of perfume, whiskey, and liniment were also collected. In conjunction with broken bottles, these products produced a mean bottle glass manufacture date of 1932 (SD 13 years). Together, these statistics suggest deposition during the Great Depression (ca. 1930–1941) by a middle-income family.

Feature 234

Feature 234 was a self-contained vault privy (centerpoint 1039.70N/855.00E) measuring 1.26 m (4 ft 2 in) north–south by 1 m (3 ft 3 in) east–west and 69 cm (2 ft 3 in, 5.35–4.66 mbd) deep (Fig. 11.25). Two stratigraphic layers were present in the feature. The upper stratum was a 39 cm (1 ft 3 in, 5.35–4.96 mbd) thick 7.5YR 4/4 (dry) brown sandy loam with some human waste, gravels, and waterworn river cobbles. The lower stratum was a 30 cm (1 ft, 4.96–4.66 mbd) thick 10YR 3/6 (dry) reddish brown sandy loam with charcoal, gravels, cobbles, and lime. Waterworn river cobbles found in both strata likely did not line the pit but instead represent portions of Stratum 7, the native soil composed primarily of river rock, which collapsed into the vault during use.

A substantial number of artifacts (n = 85) were recovered from archaeological investigations. Material types included animal bone (n = 17),

Figure 11.20. Feature 232, a self-contained vault privy, after excavation.

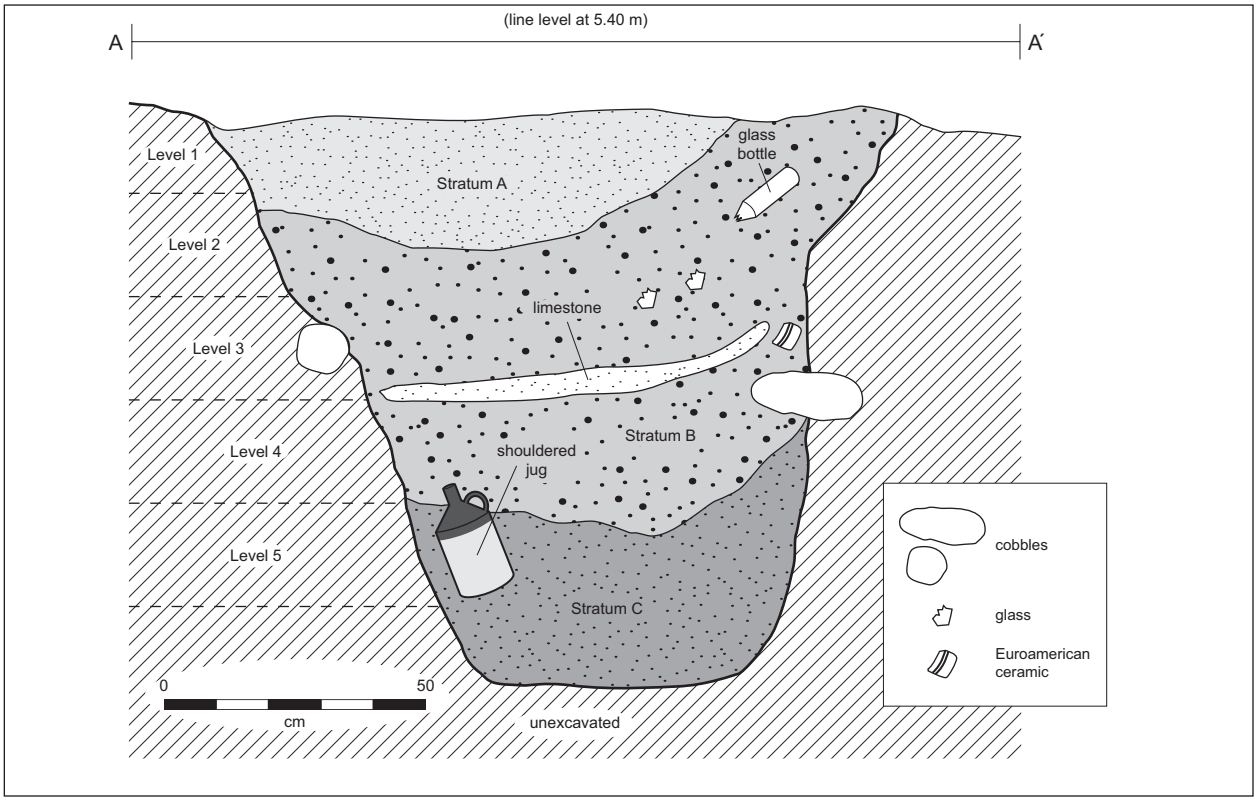


Figure 11.21. Profile of north wall of Feature 232.

Figure 11.22. A shouldered jug found in Feature 232, a self-contained vault privy.

Figure 11.23. Feature 233, a self-contained vault privy, before excavation.

Figure 11.24. Feature 233 after excavation.

Figure 11.25. Feature 234, a self-contained vault privy, after excavation.

metal (n = 8), Euroamerican ceramics (n = 20), miscellaneous items (n = 7), and glass (n = 33). The mean bottle glass manufacture date of 1929 (SD .20 years) suggests deposition during the Prohibition era. This assertion is further reinforced by the presence of only international liquor products, such as Mexican and Canadian whiskey bottles. The majority of Euroamerican ceramics were from a fragmented chamber pot from the East End Pottery Company of East Liverpool, Ohio. This one vessel could not provide reliable information on the social status of the household using the privy during this period.

Feature 235

Feature 235, a twentieth-century self-contained vault privy (centerpoint 1043.50N/856.00E), measured 1.6 m (5 ft 3 in) north–south by 1.14 m (3 ft 9 in) east–west and 41 cm (1 ft 4 in, 4.73–4.32 mbd) deep (Fig. 11.26). One stratum, a 10YR 2/1 (dry) black sandy loam mottled with decomposing metal fragments and human waste, was present.

Material types collected from the privy (n = 120) included animal bone (n = 30), metal (n = 24), Euroamerican ceramics (n = 2), macrobotanical samples (n = 2), miscellaneous (n = 1), and glass (n = 61). Among the glass were 17 intact bottles, most of which could be dated by their manufacture marks. These manufacture marks provided a mean bottle glass manufacture date of 1931 (SD 9 years), suggesting use during the Great Depression. Unfortunately, Euroamerican ceramic dinnerware vessels were too few in number to provide information regarding the socioeconomic status of the privy's users during this time.

Artifacts

A total of 10,812 artifacts and samples were recovered from features associated with Structure 1. These artifacts included 224 Native ceramics, 1,945 bone, 3 flaked stone, 1 ground stone, 3,517 glass, 1,144 Euroamerican ceramics, 3,345 metal, 27 flotation samples, 47 macrobotanical samples, 29 coprolite/pollen samples, and 530 miscellaneous

Figure 11.26. Feature 235, a self-contained vault privy, after excavation.

artifacts. Most of the structure's inhabitants were Hispanic families, and Features 231–235 represent a continuous sequence of use during the 1910s, 1920s, and 1930s. These attributes make material culture associated with the structure ideal for addressing research questions on differences in consumption and discard patterns.

When viewed collectively, inhabitants of the structure appear to have been from the middle class. Dinnerware collected from the structure has a mean ceramic value of 1.66 (SD .71). However, as discussed in the individual feature descriptions, the relative wealth of the family or families occupying the structure appears to have fluctuated over time. Materials collected from features dating to 1910s have some of the highest scores, whereas scores from later features tend to decline.

There are several ways to interpret this information. Archival evidence suggests the Alarid family wielded power both politically and financially in early twentieth-century Santa Fe (see Snow, this report). The earliest proveniences may reflect the occupancy of the Alarid family and the wealth associated with these inhabitants. In the 1920s and 1930s, the mean ceramic index values decline. This coincides with the building's being used as a rental and could reflect the lower socioeconomic status of the renters.

Alternatively, when the house was built the neighborhood may have been fairly affluent. The high ceramic value of features dating to the 1900s and 1910s could confirm in the archaeological record what is known through the archival records. At the same time that these high scores appear, inhabitants of the neighborhood, besides Ricardo Alarid Jr., included New Mexico justice Frank Parker and a war hero and respected businessman, Fritz Muller. These men appear to have had jobs that paid well and exercised substantial political power (see Snow, this report). In the 1920s and 1930s, their financial fortunes begin to decline. Alarid took to bootlegging. Muller retired. Parker passed away. Residents of the neighborhood began to live off reduced retirement incomes or practiced illicit activities. Their ability to maintain an affluent lifestyle declined, and as a result, ceramic index values decline.

Both of these interpretations have merit,

and neither is mutually exclusive. The Alarid family may have needed supplementary income from renters. If the financial fortunes of the family had declined, this would result in a lower ceramic value, which was then accentuated by the presence of the renters, who were potentially less affluent and presumably used cheaper dinnerware to begin with.

Meat cuts from Structure 1 are primarily from cattle (n = 766) and sheep or goat (n = 561). More sheep and goat are consumed earlier on, suggesting a trend towards more and more beef consumption during the twentieth century. However, the Alarid household does not appear to have consumed cow brains, represented by butchered cow skulls, as frequently as the Romero family in Structure 4 during the nineteenth century. Only one cow skull was found with the top of the cranium sawed off in association with Structure 1 (Feature 234). Instead, some residents of Structure 1 may have been avid game hunters and fishermen. In addition to domestic fauna, several game species, such as deer (n = 3), green-winged teal (n = 13), and drum (n = 1), were identified in the assemblage.

Summary and Interpretations

Based on archival information, Structure 1, 141 West Manhattan Avenue, was built in the early twentieth century (ca. 1908). The building was fabricated of brick on a concrete foundation. Throughout the structure's life, the building was owned by the Alarid family. Juan Pedro "Pete" Alarid, the last owner, served as an informant throughout the archaeological investigations. During Pete's lifetime, the building was utilized as Pete's Super Market, which he owned until the State of New Mexico condemned the property in 1957.

Direct archaeological evidence of the building was limited to a one-room basement, a stairwell, and several foundation segments. In addition, 24 extramural features were encountered. The majority of these extramural features were domestic-refuse pits (n = 13) and self-contained vault privies (n = 8). The presence of so many privies on the property within the early twentieth century suggests these outbuildings were not cleaned. Instead, once a vault was filled, another was excavated, and the superstructure was moved. Based upon the dates associated with the self-contained vault privies, indoor plumbing was not added to Structure 1 until the late 1930s or early 1940s. This is reflected by the installation of Feature 44, a straight-line cesspit. However, materials found in the abandoned feature date much earlier, suggesting that when the cesspit was decommissioned, presumably the 1950s, it was filled in with surrounding site sediments.

Artifacts recovered from the features are used to address questions regarding consumption and discard differences along ethnic boundaries and across time. Based on ceramic values derived from dinnerware vessels collected from Structure 1, it appears that inhabitants of the structure may have been relatively wealthy in the 1900s and 1910s. Later, some socioeconomic decline is suggested by the ceramic values from dinnerware vessels collected from features dating to the Prohibition and Depression eras. This decline in mean ceramic values begins before the stock market crash of 1929 and suggests that the neighborhood may have been in decline prior to the start of the Great Depression.

Chapter 12
Structure 2 (451 Galisteo Street)

Matthew J. Barbour and Susan M. Moga

As in the case of Structure 1, Stoner's *Birdseye View of Santa Fe* appears to depict a structure at 451 Galisteo Street in 1882. However, this structure is not illustrated in the slightly later *Hartmann Map of Santa Fe*. *Hudspeth's Santa Fe City Directories* indicates the structure at 451 was built in 1938 by the Alarid family on the same lot as 141 West Manhattan Avenue (Structure 1). The building is depicted on the January 1930 (modified August 1948) Sanborn Fire Insurance map. The building was condemned by the State of New Mexico in 1967.

Between 1938 and 1967, the structure served several functions: residential house, barbershop and beauty parlor, and rental apartments. Table 12.1 lists occupants of the structure during its almost 30 years in existence. Ricardo (Richard) Alarid Jr., who owned many of the properties within the project area during the 1920s and 1930s, lived at the property between 1938 and 1943. He later used the property as his own personal barbershop (Dick's Barbershop) in 1957, and then as his wife's beauty parlor in 1958 (Ethel's Beauty Shop).

Structure

As documented on the 1948 Sanborn Fire Insurance map, the structure was one story high and built of adobe bricks. Its maximum dimensions were 12.19 m (40 ft) north–south and 12.19 m (40 ft) east–west (Fig. 12.1). It encompassed 95.23 sq m of area (1,025 sq ft). No visible porches are depicted on the map. The structure appears to have shared a wood-framed garage with 141 West Manhattan, another building on the same property. The garage measured 7.62 m (25 ft) east–west by 4.57 m (15 ft) north–south.

Direct archaeological evidence of Structure 2 is limited to portions of the unreinforced concrete footings of the structure (Feature 33) found in Scraping Unit 1 (Fig. 12.2). However, several postholes, specifically Features 34 and 35, may also have been part of the building. The documented portion of the structure's foundation encompassed the southwestern corner of the building and measured 7+ m (23+ ft) north–south and 7+ m (23+ ft) east–west. The concrete foundation was 60 cm (2 ft) wide and 28 cm (11 in, 6.41 to 6.13 mbd) deep. It included some substantially sized, 20+ cm (8+ in) in diameter, waterworn cobbles used as filler, but not enough to suggest the foundation was constructed of river cobbles; concrete was poured on top. No evidence of the structure's floors or aboveground walls were found during archaeological investigations.

Confusingly, the actual location of the structure is off from the position plotted on the 1948 Sanborn Fire Insurance map. This is one of several discrepancies in the Sanborn Fire Insurance maps documented during archaeological investigations at LA 158037 and perhaps the most substantial. The likely reason for this discrepancy is the fact that the building was built after 1930. The 1930 Sanborn Fire Insurance map is the last detailed survey conducted by the company of the Capitol Complex Historic Neighborhood. The 1948 map is a modification of the older map. In fact, if you look closely at the scale on the 1948 depiction of the neighborhood (Sheet 14), it still has the 1930 copyright and is pressed with the 1930 seal in the upper right hand corner. Buildings such as 451 Galisteo may have been added or erased based on legal descriptions or word of mouth. It is possible these buildings were never ground-truthed by the individuals making the map, or that because it was an addition, the structure was scaled off what were mistakenly believed to be unchanged features on the landscape.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance

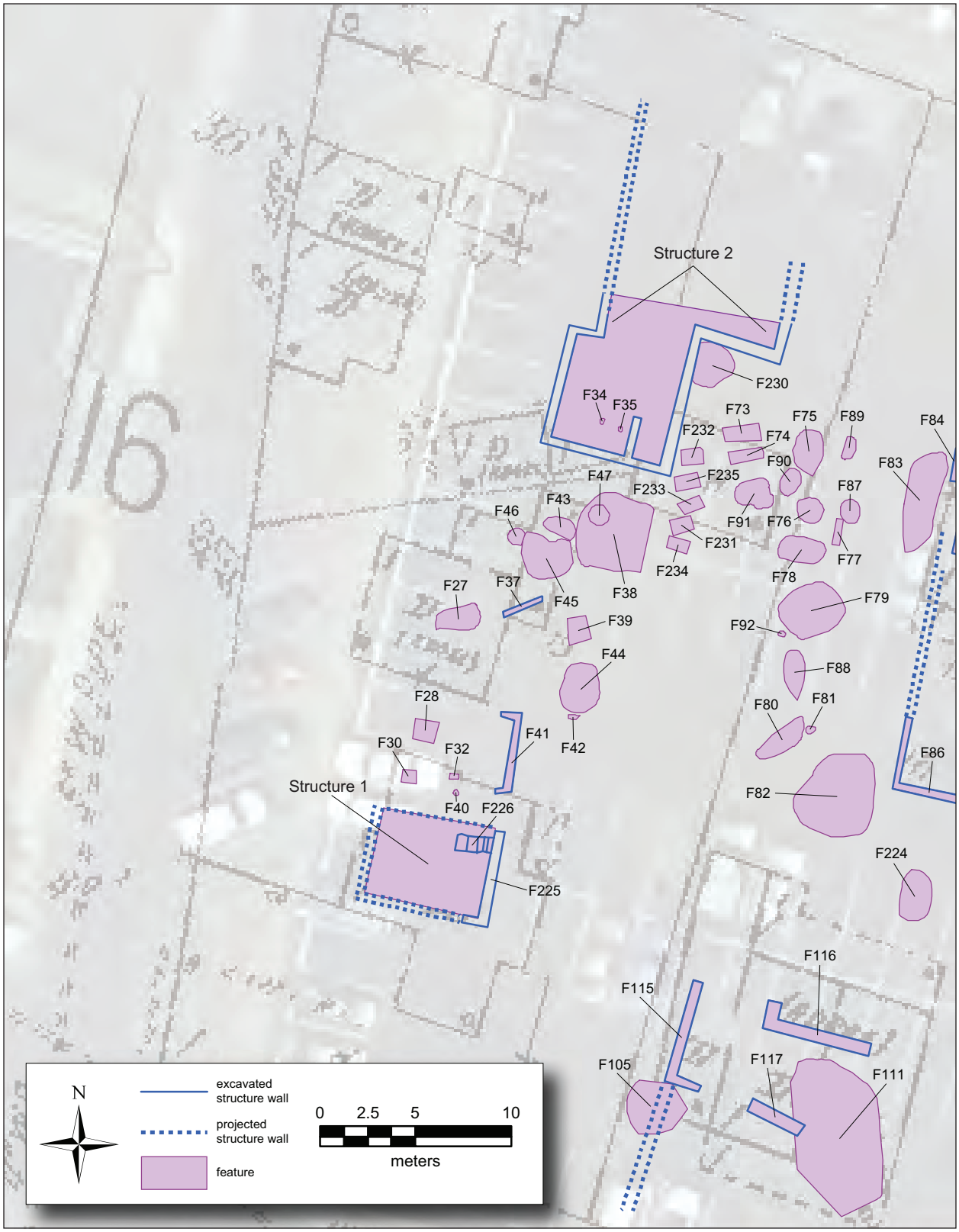


Figure 12.1. Location of Structure 2 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

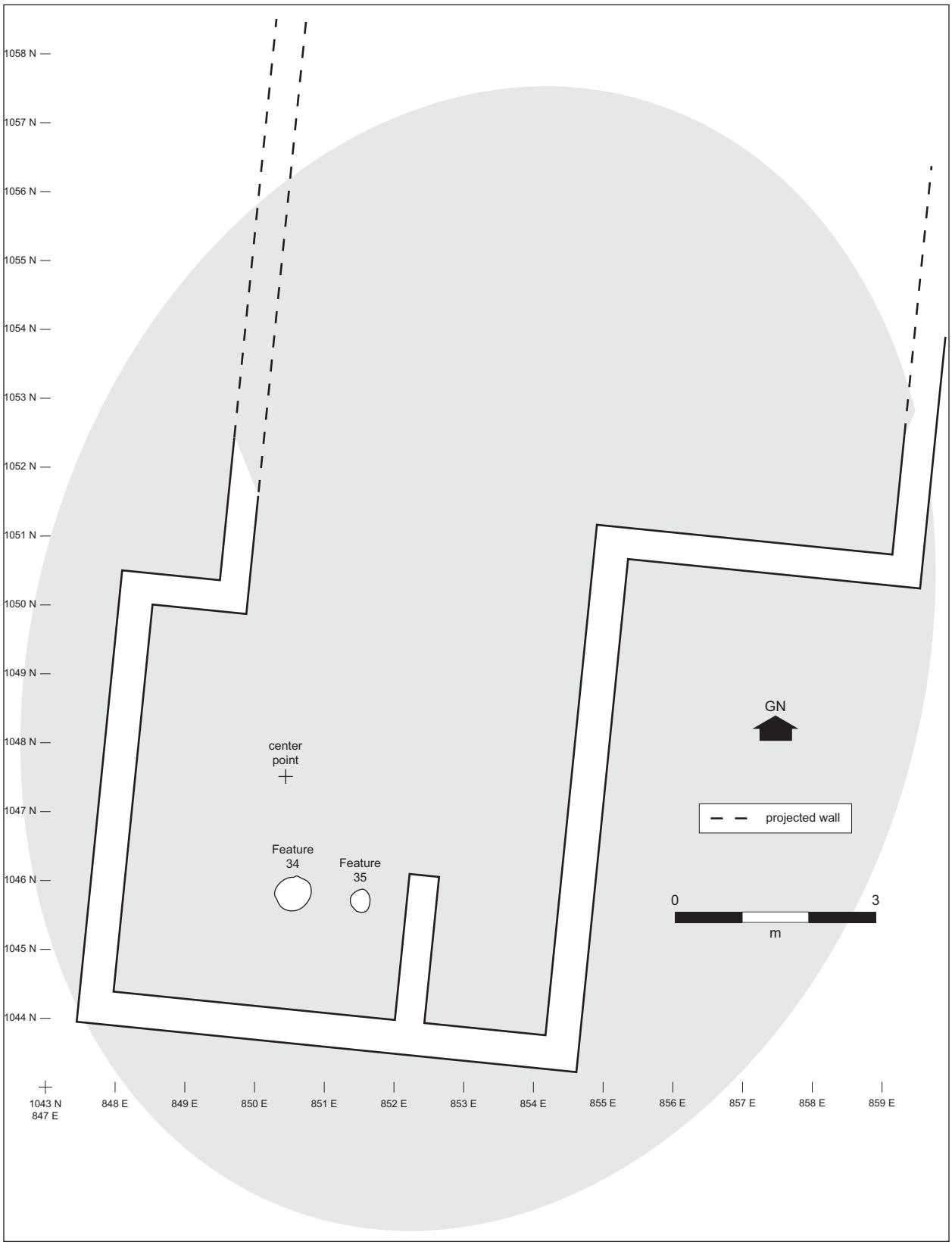


Figure 12.2. Structure 2 (451 Galisteo Street).

map on the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and within the known property boundaries, the feature was then linked with the inhabitants of a given structure.

In addition to the structure's footing, ten other features were identified as potentially associated with occupation of the structure: three postholes, six domestic-refuse pits, a construction-debris pit, and a well or cistern (Table 12.2).

Feature 34

Feature 34 was a twentieth-century posthole within Structure 2 (centerpoint 1047.5N/850.5E). It was 40 cm (1 ft 4 in) in diameter and was recorded but not excavated. It likely functioned as some sort of structural support. However, it is also possible that the posthole predates the structure.

Feature 35

Feature 35 was a twentieth-century posthole within Structure 2 (centerpoint 1045.68N/851.59E). It was 15 cm (6 in) diameter and was recorded, but not excavated. It likely functioned as some sort of structural support. However, it is also possible that the posthole predates the structure.

Feature 36

Feature 36 was a twentieth-century posthole south of Structure 2 (centerpoint 1041.19N/852.1E). It was 10 cm (4 in) diameter and was recorded, but not excavated. The diameter of the posthole is relatively small. It is unclear what purpose it served.

Feature 43

Feature 43 was a twentieth-century domestic-refuse pit south of 451 Galisteo Street (centerpoint 1039.82N/849.33E). Due to size and depth of the pit, it was excavated in its entirety instead of being sampled. The feature measured 1.36 m (4 ft 6 in) east–west by 90 cm (2 ft 11 in) north–south and 7 cm (3 in, 6.05–5.98 mbd) deep (Fig. 12.3). Only one stratum was recognized, a 7.5YR 4/4 (dry) clayey sand lensed with charcoal and ash.

A considerable number of artifacts were retrieved from this shallow pit, including animal bone (n = 174), metal (n = 71), glass (n = 61), Euroamerican ceramics (n = 12), miscellaneous items (n = 6), macrobotanical samples (n = 4), and a Native ceramic sherd. The glass category consisted of fragments from machine-manufactured beer, soda, and medicine bottles, indicating deposition in the twentieth century, but the artifacts lacked manufacture or brand information from which a more definitive date could be derived.

Feature 47

Feature 47 was a twentieth-century well behind 141 West Manhattan and just to the south of 451 Galisteo (centerpoint 1041.78N/851.08E). The well appears to have been hand-excavated, with an upper diameter of 1.2 m (3 ft 11 in), a base diameter of 70 cm (2 ft 4 in), and a depth of at least 2.12+ m (6 ft 11 in+; 6.48–4.36 mbd). The upper portion of the well appears to have been demolished as a result of the excavation of Feature 38 and the creation of Stratum 3. Feature fill consisted of a 7.5YR 3/3 (dry) dark brown sandy loam with 1 percent gravels, small cobbles, charcoal, coal, ash, and brick fragments.

The well was excavated in entirety and yielded a total of 194 artifacts. Cultural material included miscellaneous (n = 6), ceramic (n = 4), animal bone (n = 36), glass (n = 37), metal (n = 85), Euroamerican ceramics (n = 24), and macrobotanical samples (n = 2). Two glass artifacts were the only diagnostic items. A condiment jar fragment was from the Hazel Atlas Glass Company, and the other was an intact Murine medicine bottle. These artifacts suggest deposition in the late nineteenth or early twentieth century. In addition, a portion of a large sign read "Plumbing & Heating . . . Cartwright." It was recovered from the well (Fig. 12.4). It was photographed but not collected. It is unclear if the feature served 141 West Manhattan (Structure 1), 451 Galisteo (Structure 2), or both.

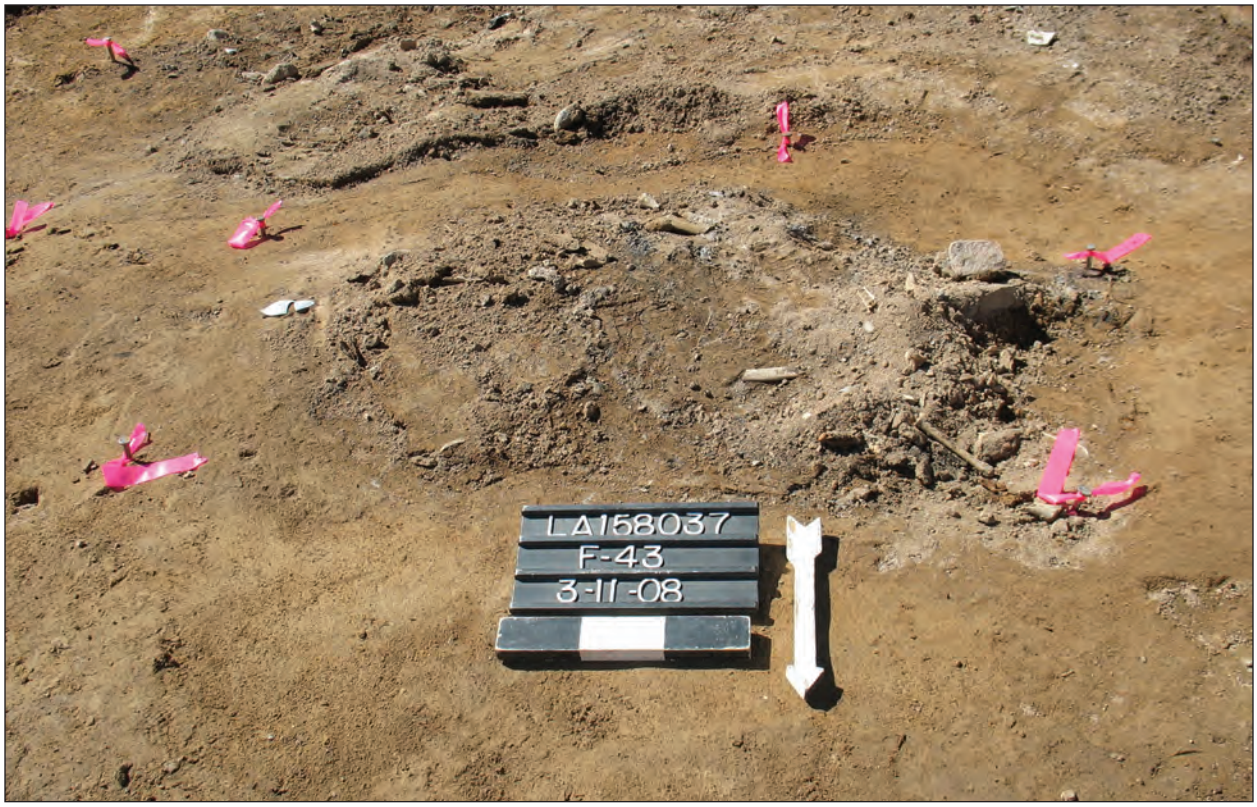


Figure 12.3. Feature 43, a domestic-refuse pit, before excavation.

Figure 12.4. Business sign tossed into Feature 47, a well or cistern, shortly after its abandonment.

Feature 80

Feature 80 was a twentieth-century domestic-refuse pit (centerpoint 1031.00N/862.00E) behind Structure 2. The pit measured 3 m (9 ft 10 in) north–south by 1.66 m (5 ft 5 in) east–west by 27 cm (11 in, 6.75–6.48 mbd) deep (Fig. 12.5). Due to its large size, only the central one-third of the pit was excavated in three 1 by 1 m grid units (Fig. 12.6). Two stratigraphic layers were identified. The upper layer was a 10YR 3/4 (dry) dark yellowish brown silty loam 18 cm (7 in) deep; the lower layer was a 7.5YR 4/3 (dry) brown mottled sandy loam 9 cm (4 in) deep.

A moderate number of artifacts (n = 329) were recovered from the three grid units within the feature. Material types included Native ceramics (n = 103), animal bone (n = 22), glass (n = 29), metal (n = 31), Euroamerican ceramics (n = 132), miscellaneous items (n = 11), and macrobotanical samples (n = 1). A variety of intact glass bottles (n = 9) were present, and several displayed maker's marks with diagnostic dates, providing a mean manufacture date 1929 (SD 9 years). A few examples include Anheuser Busch beer bottles, Kerr canning jars, and a Whitall-Tatum jam jar. A Noritake porcelain saucer fragment and a Bakelite smoking pipe were also collected from the refuse pit. Conversations with Juan Pedro "Pete" Alarid indicated that the porcelain dish was part of his mother's set and likely dates to the late 1930s or early 1940s. Pete's mother (Ethel) and father (Richard) lived at Structure 2 between 1938 and 1943.

Feature 87

Feature 87 was a twentieth-century domestic-refuse pit (centerpoint 1042.30N/866.00E) east of Structure 2. It measured 1.38 m (4 ft 6 in) north–south by 1.30 m (4 ft 3 in) east–west and was 17 cm (7 in, 6.75–6.58 mbd) deep. It was excavated in its entirety. Feature fill was a 10YR 3/4 (dry) dark yellowish brown clayey sand with 10 percent charcoal. A total of 109 artifacts were collected from the feature fill. Material types included ceramic (n = 5), animal bone (n = 23), glass (n = 33), metal (n = 29), Euroamerican ceramics (n = 17), 1 miscellaneous item, and 1 macrobotanical sample. Whiskey and medicine bottle fragments had been produced with an automatic bottling machine, suggesting deposition in the twentieth century.

Feature 88

Feature 88 was a twentieth-century domestic-refuse pit (centerpoint 1035.00N/862.8E) 2 m south of Feature 79. Feature 88 measured 1.95 m (6 ft 5 in) north–south by 85 cm (2 ft 9 in) east–west and was 62 cm (2 ft, 6.7–6.18 mbd) deep (Fig. 12.7). It was excavated in its entirety. Five stratigraphic layers were encountered. These layers are presented from the uppermost to the deepest buried deposit.

- 7.5YR 6/4 (moist) light brown sandy loam with ash 10 cm (4 in) thick.
- 7.5YR 5/2 (moist) very dark brown sandy loam 37 cm (1 ft 3 in) deep on the east side.
- 7.5YR 4/6 (moist) strong brown clayey sandy loam 37 cm (1 ft 3 in) deep on the west side.
- 5YR 4/6 (moist) yellowish red ash mixed with rusted metal 10 cm (4 in) thick.
- 5YR 4/4 (moist) reddish brown clayey sand 5 cm (2 in) thick.

The artifacts (n = 764) recovered from these strata included ceramics (n = 18), animal bone (n = 111), glass (n = 153), metal (n = 301), Euroamerican ceramics (n = 157), and miscellaneous items (n = 24). Glass included examples of beer, whiskey, condiment, ink, perfume, and laxative bottles found in the fill. The manufacture marks provided mean glass date of 1930 (SD 11 years). The mean ceramic value was 2.01 (SD .7). These statistics suggest deposition during the Great Depression by a middle-income household.

Feature 90

Feature 90 was a domestic-refuse pit (centerpoint 1044.6N/862.00E) east of 451 Galisteo. The pit was hand-excavated into the native soil and measured 1.60 m (5 ft 3 in) east–west by 80 cm (2 ft 7 in) north–south by 9 cm (4 in, 6.59–6.50 mbd) deep. It was excavated in its entirety. Feature fill was a 10YR 3/4 (dry) dark yellowish brown clay with charcoal. Artifact frequencies were relatively low compared to other domestic-refuse pits (n = 90). Material types included Native ceramics (n = 2), animal bone (n = 10), glass (n = 56), metal (n = 12),

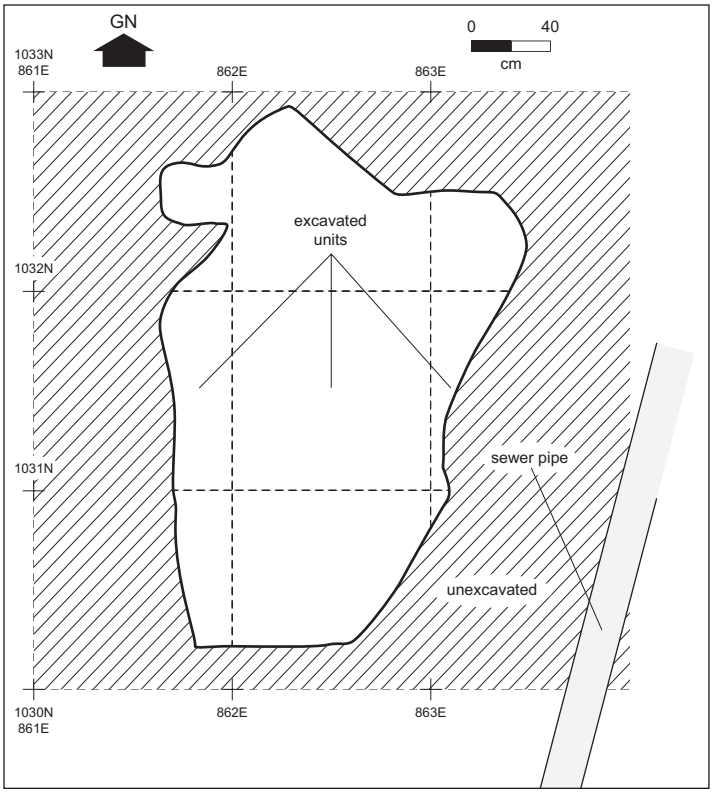


Figure 12.5. Plan of Feature 80, a domestic-refuse pit.

Figure 12.6. Feature 80 after sampling.

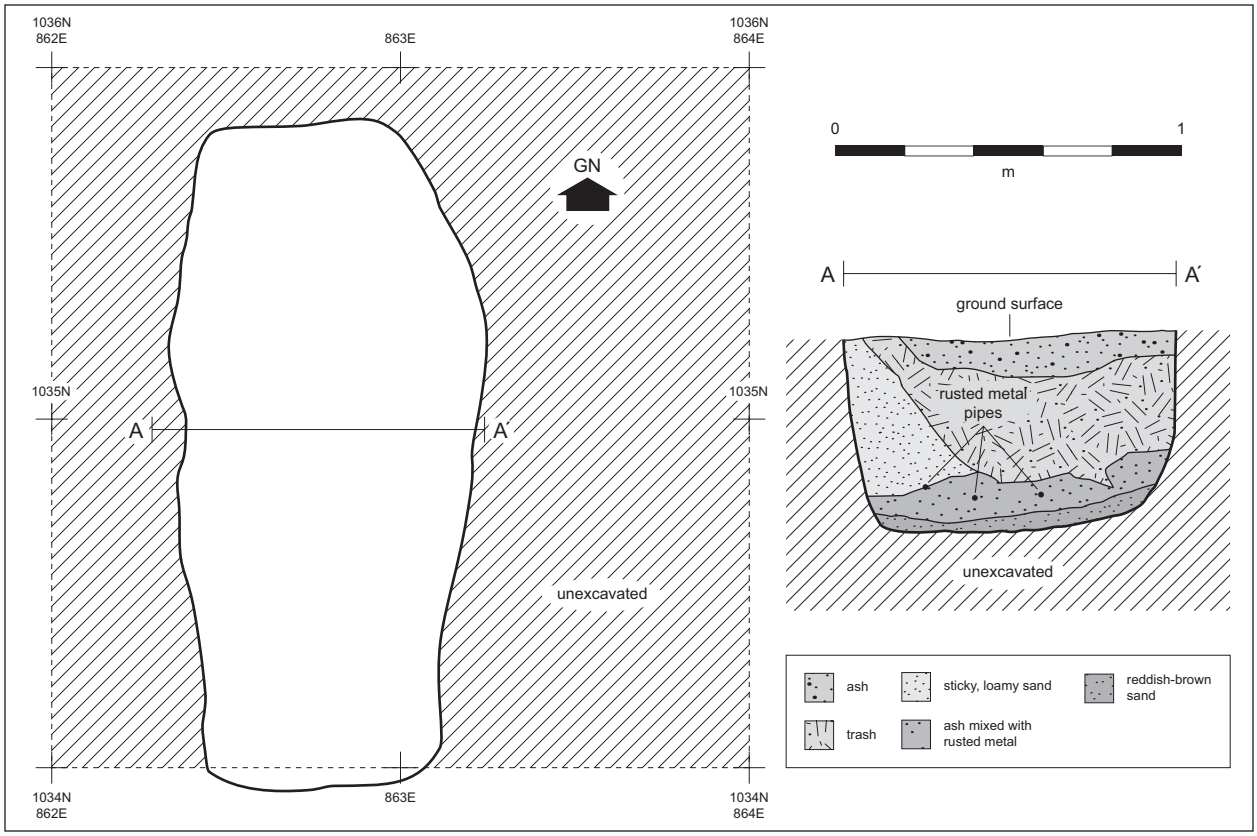


Figure 12.7. Plan (left) and profile, facing north, of Feature 88, a domestic-refuse pit.

and Euroamerican ceramics (n = 10). Bottle glass was produced with twentieth-century technology but could not be linked with a particular decade.

Feature 91

Feature 91 was a domestic-refuse pit east of 451 Galisteo (centerpoint 1043.38N/858.60E). The pit measured 2 m (6 ft 7 in) north–south by 90 cm (2 ft 11 in) east–west and was 11 cm (4 in, 6.55–6.44 mbd) deep (Fig. 12.8). The western edge of the pit was destroyed by a north–south utility trench. Most of the pit matrix and artifacts were burned, and an ash lens was present in the eastern section. Pit fill was a 7.5YR 3/2 (dry) dark brown sandy loam with charcoal, gravels (10 percent), and orange brick fragments. The artifact count was relatively high (n = 935); half of the count was burned animal bones (n = 485). The remaining material types were lithics (n = 4), Native ceramics (n = 139), glass (n = 106), metal (n = 67), Euroamerican ceramics (n = 127), miscellaneous items (n = 5), and macrobotanical samples (n = 2). None of the artifacts in these categories were particularly diagnostic. However, much of the glass was produced with an automatic bottling machine, indicating deposition in the twentieth century.

Feature 230

Feature 230 is a construction-debris pit (centerpoint 1046.00N/859.50E) identified during the monitoring phase. The pit measured 2.75 m (9 ft) east–west by 2.5 m (8 ft 2 in) north–south and was 30 cm (1 ft, 6.24–5.94 mbd) deep. Fill was characterized as a 7.5YR 3/2 (dry) dark brown sandy loam. A judgmental sample of diagnostic artifacts (n = 6) was recovered from the feature. These included a ceramic bowl fragment, two saw-cut cow bones, an unidentifiable Euroamerican ceramic dish sherd, and two bottles—a Hazel-Atlas syrup bottle and a patent medicine bottle. Many of these artifacts were produced using twentieth-century technologies but were too few in number to assign an accurate date of deposition. In addition, construction items such as concrete fragments, plaster, wall fragments, metal, and nails were noted in the fill but not collected.

Figure 12.8. Feature 91, a domestic-refuse pit, after excavation.

Artifacts

A total of 2,655 artifacts and samples were collected in association with Structure 2, including 170 Native ceramics, 850 bone, 4 flaked stone, 569 glass, 438 Euroamerican ceramics, 550 metal, 4 flotation samples, 12 macrobotanical samples, and 58 miscellaneous artifacts. During most of the building's history, Hispanic families occupied the structure, and artifacts associated with Structure 2 can be used for comparisons between Euroamerican and Hispanic consumption and discard patterns during the early and mid-twentieth century.

Peter Alarid (interview, 2009) said that many of the dinnerwares collected from the features had been owned by his mother. When economic scaling is performed by using price indices developed by the Sears and Roebuck catalogues of the early twentieth century, the assemblage provides a mean ceramic value of 1.73 (SD .66). This value is relatively high and portrays the Alarid family during the late 1930s and early 1940s as an upper middle class family, an assertion that seems likely given archival documents.

Meat cuts were primarily from sheep or goat (n = 458). A substantially smaller number of cattle bones (n = 179) were also collected from features associated with the Alarid family. The preference for sheep/goat even into the mid-twentieth century appears to follow the general assumption that Hispanic families living in the Northern Rio Grande ate more mutton than beef.

Summary and Interpretation

Structure 2 (451 Galisteo) is one of several structures constructed and owned by the Alarid family during the early twentieth century and shares its lot with Structure 1 (141 West Manhattan). Along with Structures 1 (141 West Manhattan), 3 (135 1/2 West Manhattan) and 5 (135, 137, and 139 West Manhattan), this building was used as a rental for substantial periods of time during the 1940s and 1950s.

Archaeological evidence for the structure is limited to the southwest corner of the building.

However, from the available data, it is apparent that the 1948 Sanborn Fire Insurance map does not accurately locate the structure in relation to other buildings in the neighborhood. It is unclear exactly why this is the case, but it is important to note that the 1948 map is not a resurvey of the neighborhood. Instead, it appears that the 1930 Sanborn Fire Insurance map was simply refurbished with 1948 data.

Features associated with the structure included three postholes, six domestic-refuse pits, a construction-debris pit, and a well or cistern. The well may have served both Structure 1 and 2. The presence of a Cartwright Plumbing sign within the fill suggests water fixtures were added to the structure by this company. Other features such as domestic-refuse pits yielded high quantities of artifacts. These artifacts suggest a middle-class household and a preference for mutton over beef. Cultural materials collected in association with Structure 2 provide a basis for comparing Euroamerican and Hispanic consumption and discard patterns during the early and mid-twentieth century.

Chapter 13

Structure 3 (135 1/2 West Manhattan Avenue)

Based upon Sanborn Fire Insurance maps dating to the early twentieth century, Structure 3 (135 1/2 West Manhattan Avenue) was constructed between 1921 and 1930. The building is on the same residential lot as Structure 5 (135, 137, and 139 West Manhattan Avenue). Like Structure 5, the building appears to have been acquired by the state and demolished in 1967.

Throughout much of its existence, Structure 3 appears to have been used as a rental property by its two owners—Ricardo (Richard) Alarid Jr. (ca. 1921–1945) and Juan (John) Ortiz (ca. 1945–1966). Interestingly, while the building appears on the 1930 Sanborn Fire Insurance map, *Hudspeth's City Directory* does not list anyone living in the structure until 1936. Table 13.1 documents known residents of the structure between 1936 and 1966. During this time the structure housed a diverse array of tenants with both white- and blue-collar middle-class jobs, and most appear to have been Hispanic in ethnic origin.

Structure

Sanborn Fire Insurance maps suggest the structure at 135 1/2 West Manhattan was built in a single construction episode. According to the 1948 Sanborn Fire Insurance map, the building was a single story and constructed of adobe bricks (Fig. 13.1). Maximum dimensions were 15.24 m (50 ft) north–south and 7.32 m (24 ft) east–west; the building's blueprint encompassed 98.11 sq m (1,056 sq ft). In addition, the structure had both a front and back porch. The front porch measured 7.32 m (24 ft) east–west and 1.52 m (5 ft) north–south. The back porch was 4.57 m (15 ft) north–south and 4.57 m (15 ft) east–west.

Physical remains of the structure encountered during archaeological investigations include foundation remnants of the south (Feature 86) and west (Feature 84) wall foundations of the structure, a small utility basement (Feature 94), and portions of a limestone foundation thought to be associated with a well house (Feature 212).

South and west wall foundations were constructed of unreinforced concrete (Fig. 13.2). They measured 20 cm (8 in) wide and 33 cm (1 ft 1 in, 7.22–6.89 mbd) deep. The south wall, 9 m (29 ft 6 in) long, was broken into two sections, between which a 1 m (3 ft 3 in) gap appeared to signify the front doorway (Fig. 13.3). The west wall, 18 m (59 ft 1 in) long, was also heavily fragmented with a gap of 12 m (39 ft 4 in), which appeared to be the result of twentieth-century demolition. These dimensions are slightly more robust than the dimensions reported on the Sanborn Fire Insurance maps but are within the realm of perceivable error. No evidence of the structure's floor was identified.

The small utility basement was 2.45 m (8 ft) north–south, 2.45 m (8 ft) east–west, and 31 cm (1 ft, 6.24–5.93 mbd) deep (Fig. 13.4). Like the foundations, the walls to the basement were rough, 30 cm (1 ft) wide, and constructed of poured concrete without rebar for reinforcement. The floor to the basement was similarly constructed of poured concrete and was 2 cm (1 in) thick.

The limestone foundations thought to represent a well house were encountered during archaeological monitoring north of Structure 3. The well inside the structure was designated Feature 213 (discussed below). The foundations were constructed of roughly cut sandstone blocks joined with an early concrete mortar. The foundations were 64 cm (2 ft 1 in) wide and 28 cm (11 in, 8.83–8.55 mbd) deep. Portions of both the east and south wall of the well house were encountered. The south wall portion measured 6 m (19 ft 8 in) long, and the east wall portion was 3 m (9 ft 10 in) long. The well house does not appear on the Sanborn Fire Insurance maps, and its date of construction is unknown. However, it seems likely that the well functioned for both Structure 3 (135 1/2 West Manhattan) and Structure 5 (135, 137, and 139 West Manhattan), since the buildings were on the same property.

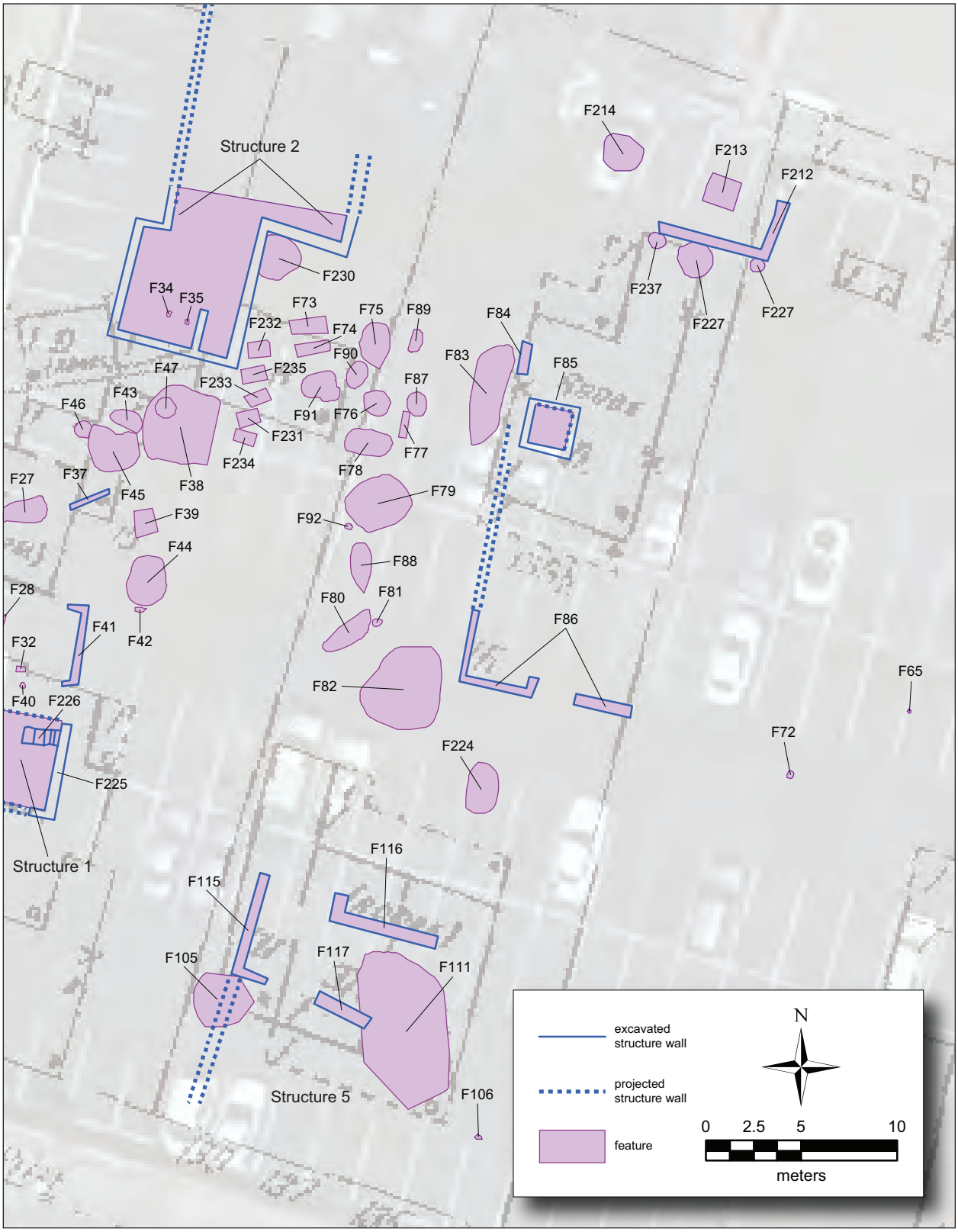


Figure 13.1. Location of Structure 3 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

Figure 13.2. Structure 3 (135 ½ West Manhattan Avenue).

Figure 13.3. Possible doorway found in south wall foundation of Structure 3.

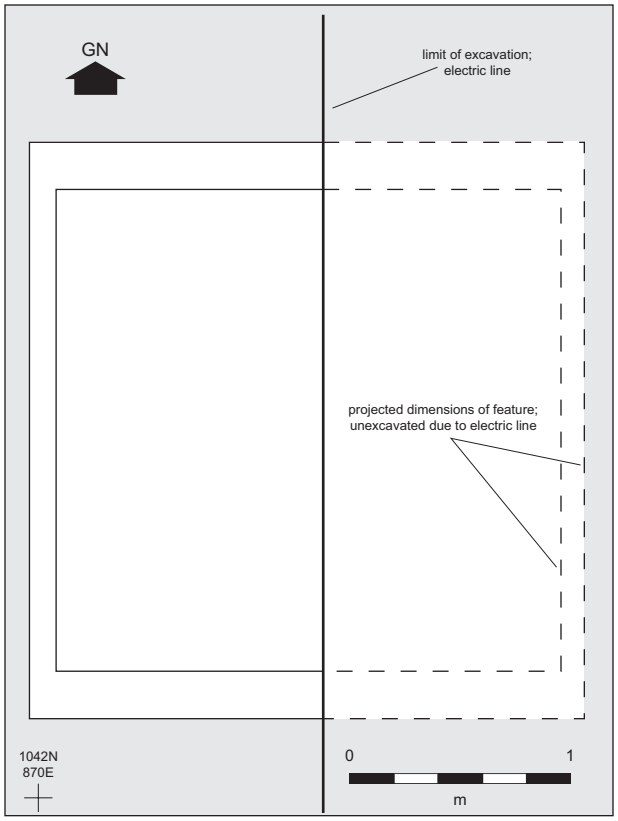


Figure 13.4. Plan of Feature 94, a small utility-access basement.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map on the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property boundaries, the feature was then linked with the inhabitants of a given structure.

In addition to the structural elements, seven other archaeological features were encountered in association with Structure 3. Table 13.2 lists these features and provides general information regarding their size. Most of the features were discovered during monitoring, and little or no excavation was performed. They include four domestic-refuse pits, a construction-debris pit, and a posthole.

Feature 83

Feature 83 was a shallow pit filled with twentieth-century domestic refuse (Fig. 13.5) west of Structure 3 (centerpoint 1044N/868E). This pit measured 5.3 m (17 ft 5 in) north–south by 3.3 east–west and was 26 cm (10 in, 6.76–6.5 mbd) deep. Thirty percent of the pit was hand-excavated to provide an artifact sample (Fig. 13.6). Two stratigraphic layers were encountered during excavation. The upper fill was a 10YR 2/2 (dry) very dark silty loam, and the lower fill was a 10YR 4/4 (dry) dark yellowish brown clay. At the base of the pit was a large metal plate. This plate may have served as a level surface on which a power box and a swamp cooler or air conditioning system sat at one time. After this function ended, the pit was filled with domestic refuse.

Roughly 450 artifacts were collected from excavation. Material types included Native ceramics (n = 4), animal bone (n = 86), glass (n = 122), Euroamerican ceramics (n = 122), metal (n = 92), and miscellaneous items (n = 28). The bottle glass manufacture dates provided a mean of 1929 (SD 10 years), and ceramic dishware price values indicated a mean ceramic value of 1.85 (SD .65), among the highest scores given to any assemblage encountered at LA 158037. This suggests someone of fairly high economic status. While the building is present on the 1930 Sanborn Fire Insurance map, no one is listed at the residence during this period in *Hudspeth's Santa Fe City Directories*. The property was owned by Ricardo Alarid Jr., and it is possible that his family deposited the refuse.

Feature 213

Feature 213 was an abandoned well containing substantial quantity of domestic refuse. While behind 135 1/2 West Manhattan (centerpoint 1058.00N/878.00E), it is probable that the well served both Structures 3 (135 ½ West Manhattan) and 5 (135, 137, and 139 West Manhattan). It measured 1.60 m (5 ft 3 in) diameter and was at least 1.12+ m (3 ft 8 in, 8.81–7.69+ mbd) deep. Fill was 10YR 4/2 (dry) dark grayish brown silty sand.

Backhoe Trench 41 bisected the feature during installation of an electrical line north of the State Capitol Parking Facility. No excavation was undertaken, and the feature continued

Figure 13.5. Feature 83, a domestic-refuse pit, before excavation.

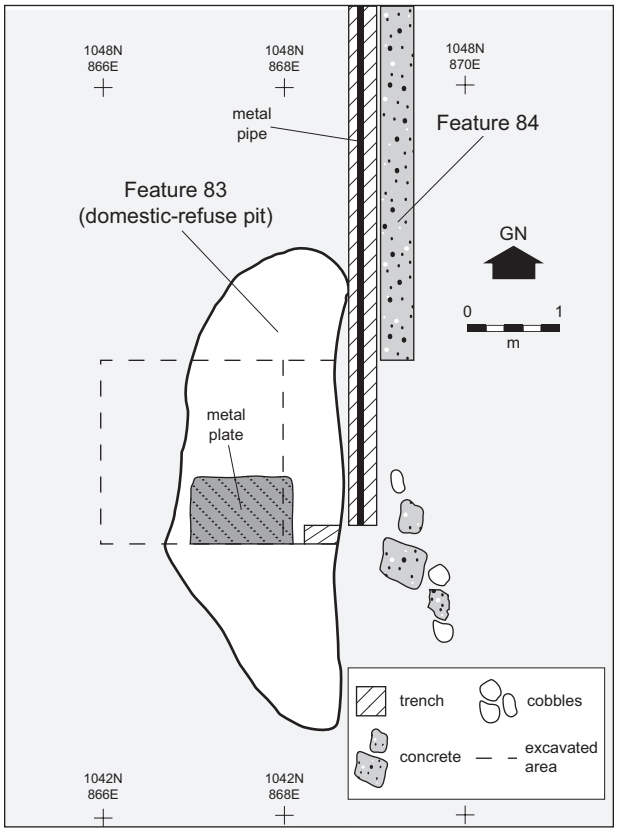


Figure 13.6. Plan of Feature 83, a domestic-refuse pit.

below the utility line. Artifacts collected from the trench wall and backdirt pile included whiskey, condiment, ketchup (Heinz), laxative (Pluto Water), and liniment bottles and a Dr. West plastic toothbrush handle. The mean bottle glass manufacture date derived from the seven bottles was 1926 (SD 13 years), suggesting plumbing was added to the property in the 1920s or 1930s, perhaps even before construction of Structure 3.

Feature 214

Feature 214 was a domestic-refuse pit north of 135 1/2 West Manhattan (centerpoint 1059.00N/873.00E). The pit had a 1.6 m (5 ft 3 in) diameter, was 66 cm (2 ft 2 in, 8.95–8.29 mbd) deep, and was partially destroyed by utility installation north of the State Capitol Parking Facility. Feature fill was a 10YR 4/2 (dry) dark grayish silty sand. Artifacts were not collected from Feature 214, and no excavation was undertaken. However, machine-manufactured bottle glass and wire nails in the profile indicated the pit dated to the twentieth century.

Feature 227

Feature 227 was a construction-debris pit partially destroyed by construction activities before it was discovered during the monitoring phase (centerpoint 1054.00N/877.00E). The feature is presumed to have been 2 m (6 ft 7 in) diameter and 20 cm (8 in, 6.76–6.56 mbd) deep. Soil was a 10YR (dry) brown sand with fragments of red brick, glazed brick, concrete, wood, and plastic. No excavation was undertaken, and no artifacts were collected. Feature 227 was classified as a twentieth-century feature because of the high concentrations of concrete and plastic within the fill.

Feature 228

Feature 228 was a domestic-refuse pit behind 135 1/2 West Manhattan and was identified during mechanical excavation of the State Capitol Parking Facility (centerpoint 1054.30N/880.40E). The feature measured 44 cm (1 ft 5 in) in diameter and 44 cm (1 ft 5 in, 6.76–6.32 mbd) deep and consisted primarily of broken bottle glass (Fig. 13.7). Fill was a 7.5YR 4/4 (moist) brown sandy loam with charcoal and gravels. Three intact bottles, one wine and two soda, were collected. These objects suggested deposition in the mid-twentieth century and included Pepsi and Sparkle brand soda pop.

Feature 236

Feature 236 was a posthole (centerpoint 1049.60N/907.00E). It had a diameter of 20 cm (8 in) and was discovered during mechanical excavations of the State Capitol Parking Facility. No excavation was undertaken. It may have been related to aboveground utilities behind Structure 3 in the early twentieth century.

Feature 237

Feature 237 was a domestic-refuse pit (centerpoint 1054.40N/875.00E) discovered during monitoring activities behind Structure 3. It measured 1 m (3 ft 3 in) in diameter and 50 cm (1 ft 8 in, 6.72 to 6.22 mbd) deep. Feature fill was 10YR 2/1 (dry) blackish gray sandy loam with burned artifacts including a tire. Burning of the tire caused the interior of the pit to oxidize. Because the feature was found during testing, no excavation or artifact collection was undertaken. The presence of the tire suggests that deposition occurred in the twentieth century.

Artifacts

Given that very few features associated with Structure 3 were found during data recovery, artifact counts (n = 639) are relatively low. Material classes include fragments of Native ceramics (n = 23), bone (n = 129), glass (n = 168), Euroamerican ceramics (n = 136), metal (n = 149), and miscellaneous (n = 34). Euroamerican ceramics yielded a mean ceramic value of 1.92 (SD .7). This is among the highest scores for any residence in the project area. While many of the residents had middle-class professions, this number seems a bit high and may be the result of a small sample size (mnv = 17).

Faunal remains (n = 129) consist of at least 36 distinct cuts of meat, mostly beef (n = 14) or mutton (n = 7). Residents of Structure 3 were largely Hispanic, and their preference for cattle

Figure 13.7. Feature 228, a domestic-refuse pit.

defies traditional beliefs that Hispanic families preferred sheep or goat. General project-wide trends suggest more consumption of beef than sheep/goat over time, but other archaeological investigations (Akins 2010) have shown a preference for sheep/goat over cattle by Hispanic residences. As with the mean ceramic value, this pattern may be the result of an inadequate sample size, but it may also suggest that the consumption of greater quantities of beef is directly associated with higher socioeconomic status.

Summary and Interpretation

Structure 3 was built between 1921 and 1930. The property was used as a rental and had numerous occupants. However, all of these occupants had professions which could be described as middle-class jobs, and most had Hispanic surnames.

Very little of the structure has survived archaeologically, with the exception of portions of the foundation, a small basement, and portions of a well house. Archival sources suggest the building was one story high and constructed of adobe bricks. The surviving foundation remnants neither confirm nor deny these assertions. Based on dimensions of the building from surviving foundation fragments, the structure appears to have been larger than depicted on the 1948 Sanborn Fire Insurance map. Furthermore, the well house is not depicted on any known archival map. These discrepancies, while not major, draw into question the reliability of the Sanborn Fire Insurance maps.

Features included several domestic-refuse pits, a posthole, and a well. Artifacts from these contexts suggest the occupants were of relatively high socioeconomic status. However, the majority of features associated with Structure 3 were found during monitoring activities, and very few were systematically excavated. Sample size is problematic. Material culture from Structure 3, when combined with data sets from other structures, can be used to examine differences in discard and consumption patterns among residents of the Capitol Complex Historic Neighborhood through time.

Chapter 14

Structure 4 (125 West Manhattan Avenue)

Matthew J. Barbour and Susan M. Moga

Structure 4, 125 West Manhattan Avenue, was first depicted on Stoner's *Birdseye View of Santa Fe* (1882) and was likely constructed just after the coming of the railroad (ca. 1880–1882). The property was originally owned by the Romero family, who later sold the property to Frank W. Parker (Fig. 14.1), presumably at or near the time he was elected a justice of the New Mexico Supreme Court in 1911 (Twitchell 1963:525). The Parker family is depicted as occupying the residence on the 1912 *King's Official Map*. After Parker's death in 1932, the property was used as a rental and then converted in 1946 for use as an apartment complex.

Table 14.1 lists residents identified in *Hudspeth's Santa Fe City Directories* who occupied the structure beginning in 1928 until its transfer to the State of New Mexico in 1970. The initial owners of the house, the Romeros and Parkers, were relatively wealthy. The Romeros, early settlers of the Barrio de Analco and Barrio de Guadalupe, owned multiple parcels of land including 125 West Manhattan during the 1880s, 1890s, and 1900s. Frank W. Parker, who was chief justice from 1919 to 1920 and 1922 to 1928, was a freemason and a member of the Elk's lodge. The Parker family lived at the structure during the 1910s, 1920s, and early 1930s. The vast majority of archaeological features encountered can be identified with one of these two families.

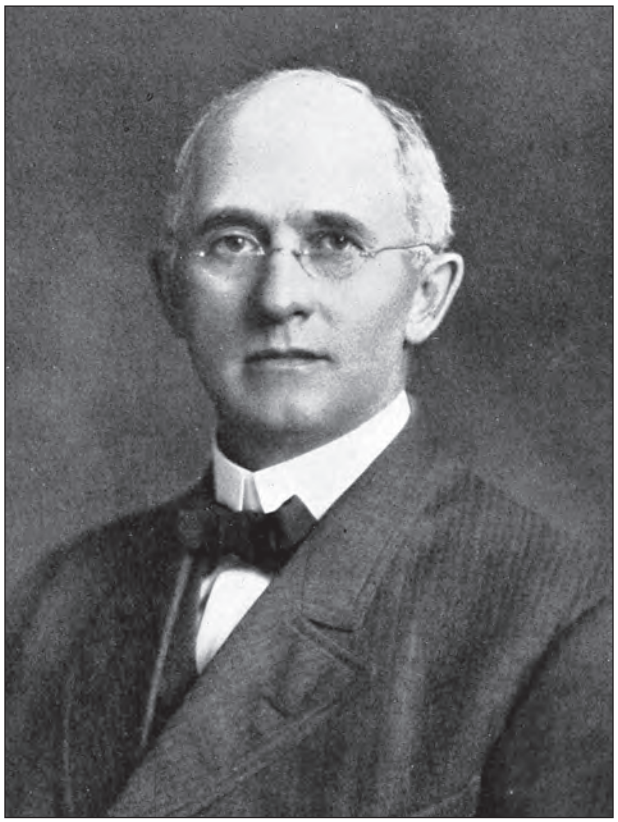


Figure 14.1. New Mexico Supreme Court Justice Frank W. Parker.

Later occupants list middle-class white- and blue-collar jobs. Reverend W. P. Bell is listed at the residence in 1938. However, he is not listed as a pastor at the First Baptist Church, less than a block to the east, and he may have served in another church.

Structure

From information gathered from archival maps of Santa Fe dating to the late nineteenth and early twentieth century, the structure at 125 West Manhattan experienced accretional growth, both in size and shape. It appears that the structure reached its maximum size in the early 1930s. As depicted on the 1948 Sanborn Fire Insurance map (Fig. 14.2), the building was one story high and contained both adobe and stucco wood-framed elements in its construction. The structure's maximum dimensions were 19.81 m (65 ft) east–west and 18.29 m (60 ft) north–south, and the building encompassed 260.13 sq m (2,800 sq ft). The building also had a front porch and two backyard patios. The front porch measured 6.1 m (20 ft) east–west and 2.44 m (8 ft) north–south. The larger of the two back porches measured 12.19 m (40 ft) east–west and 4.57 m (15 ft) north—south; the smaller was 4.57 m (15 ft) east–west by 1.52 m (5 ft) north–south.

Figures 14.3 and 14.4 depict Structure 4 as it

Figure 14.2. Location of Structure 4 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

Figure 14.3. Structure 4 (125 West Manhattan Avenue).

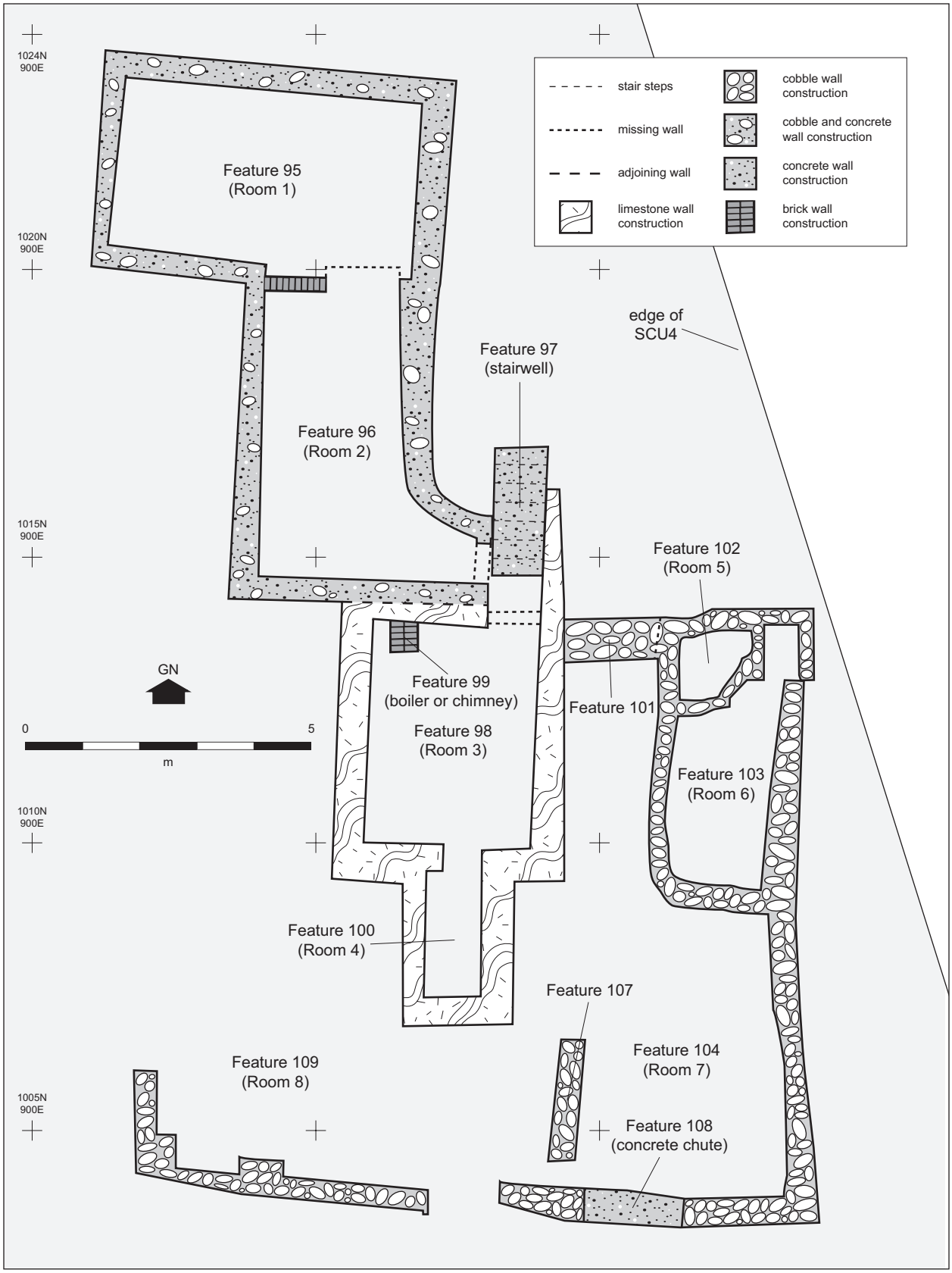


Figure 14.4. Plan of Structure 4.

was observed in the archaeological record. From the foundation remnants existing at the time of archaeological investigation, at least eight rooms are identifiable. These rooms vary in construction methods that can be tied to specific renovation episodes in the building's history.

As depicted in the Hartmann map, the building was initially constructed for the Romero family in a U-shaped floor plan partially enclosing an interior plaza. Rooms 5, 6, 7, and 8 appear to be associated with this initial construction episode. This earliest incarnation of the structure, according to Sanborn Fire Insurance maps, was built of adobe bricks on a river cobble foundation joined with packed earth. However, Peter Alarid (interview, 2009) remembers that the structure was built of brick. It is possible that either the Sanborn map is wrong or that the building was modified to include brick construction or a brick façade. Archaeological evidence does suggest the use of bricks, but while the foundations varied significantly in width and thickness, they were constructed of river cobbles. On average the foundations measured 60 cm (2 ft) wide and 30 cm (1 ft) deep. No archaeological evidence of floors was found associated with these rooms. It is likely these floors were made of wood that subsequently decomposed.

By 1912, the interior plaza had been excavated to provide a basement for the structure. Rooms 3 and 4 represent subterranean basement rooms associated with this construction phase. It is unclear if this renovation occurred before or after the building passed into the hands of Frank Parker in 1911. The basement was constructed of roughly cut limestone blocks for walls and an unreinforced concrete pad for the floor. Subterranean walls were 55 cm (1 ft 10 in) wide and at least 1.45 m (4 ft 9 in) tall. It appears based on later Sanborn Fire Insurance maps that the ground-floor rooms above this basement were constructed of adobe, but no evidence of these rooms was encountered.

The last major renovation occurred between 1913 and 1921, when a stucco wood-frame addition appears to have been added to the back of the building. This addition was clearly undertaken by the Parker family and correlates with archaeological evidence of the addition of two more subterranean rooms, Rooms 1 and 2, abutting earlier portions of the basement. The exterior walls to these rooms were constructed of river cobbles joined with a concrete mortar. Then a stucco façade was added to make the renovation more visually appealing. These walls were on average 40 cm (1 ft 4 in) wide and at least 1.5 m (4 ft 11 in) high. Floors were of unreinforced concrete 15 cm (6 in) thick. An interior wall 20 cm (8 in) thick and constructed of brick separated Rooms 1 and 2. This wall also had the stucco façade but may have been a later addition. Bricks were arranged in a header bond pattern.

Rooms

Room 1

Room 1 (Feature 95), in the basement of Structure 4, was associated with the 1910s renovation of 125 West Manhattan Avenue (Figs. 14.4 and 14.5). Given its relationship to other rooms within the building, it appears that Room 1 was beneath the larger of the two back porches. It measured 6 m (19 ft 8 in) east–west and 3.9 m (12 ft 10 in) north–south. Walls to the room were at least 1.28

Figure 14.5. Room 1, Structure 4.

m high (4 ft 2 in, 7.44–6.16 mbd) and 40 cm (1 ft 4 in) wide. Exterior walls were constructed of river cobbles joined with a concrete mortar. At or after the time of construction, a white stucco façade was added to make the wall visually appealing. The floor was fabricated of unreinforced concrete 15 cm (6 in) thick.

Room 1 abutted Room 2, and while the two rooms are thought to be contemporaneous, Room 1 was 20 cm (8 in) higher than Room 2 (i.e., you must take a step up to enter Room 1 from Room 2). The two rooms are separated by brick wall 20 cm (8 in) wide. This wall has the same stucco façade, but it may be a later addition. Bricks within the wall are arranged in a header bond pattern.

Room 2

Room 2 (Feature 96), in the basement of Structure 4, was associated with the 1910s renovation of 125 West Manhattan Avenue (Figs. 14.4 and 14.6). The room was 5.3 m (17 ft 5 in) north–south by 4 m (13 ft 1 in) east–west. Walls to the room were at least 1.46 m high (4 ft 9 in, 7.44–5.98 mbd) and 40 cm (1 ft 4 in) wide. Exterior walls were constructed of river cobbles joined with a concrete mortar. At or after the time of construction, a white stucco façade was added to make the wall visually appealing. The floor was fabricated of unreinforced concrete 15 cm (6 in) thick.

Room 1 abutted Room 2, and while the two rooms are thought to be contemporaneous, Room 2 was 20 cm (8 in) lower than Room 1 (i.e., you must take a step down to enter Room 2 from Room 1). The two rooms are separated by a brick wall 20 cm (8 in) thick. This wall has the same stucco façade, but it may be a later addition. Bricks within the wall are arranged in a header bond pattern.

Room 3

Room 3 (Feature 98), in the basement of Structure 4, was associated with a late nineteenth- or early twentieth-century renovation of 125 West Manhattan Avenue (Figs. 14.4 and 14.7). The room measured 3.8 m (12 ft 6 in) north–south and 3 m (9 ft 10 in) east–west. Walls to the room were constructed of roughly cut quarried limestone. These walls are 55 cm (1 ft 10 in) thick and at least

Figure 14.6. Room 2, Structure 4.

Figure 14.7. Room 3, Structure 4.

1.45 m (4 ft 9 in, 7.36–5.91 mbd) tall. A stucco façade, painted yellow, was later applied to the walls. This may have occurred at or near the time Rooms 1 and 2 were added to the structure. The floor was an unreinforced concrete slab 15 cm (6 in) thick.

Along the north wall of Room 3 was a stairway (Feature 97) leading up to the ground floor and a brick boiler or chimney (Feature 99). The stairway was 2.4 m (7 ft 10 in) long and 90 cm (2 ft 11 in) wide. It extended from the top of foundations down 1.49 m (4 ft 11 in, 7.47–5.98 mbd). The stairs were initially constructed of quarried limestone that was later plastered over with a layer of concrete. Even later in the occupation sequence, the stairs were painted green. The boiler or chimney was held together with fire-hardened bricks arrayed in a stretcher bond pattern and fused together with a concrete mortar. Each brick measured 20 cm (8 in) by 10 cm (4 in) by 6 cm (2 in). The feature was 54 cm (1 ft 9 in) north–south, 44 cm (1 ft 5 in) east–west, and at least 1.45 m (4 ft 9 in, 7.36–5.91 mbd) high (Fig. 14.8). Between about 91 cm (3 ft) and 1.22 m (4 ft) above the floor of Room 3, a small opening for feeding the boiler was present along the eastern side of the feature. This hole was initially found plugged with additional concrete and brick, suggesting the boiler was decommissioned while the building was still in use. Archaeomagnetic samples of the burned brick proved unsuccessful in determining when this feature was last used.

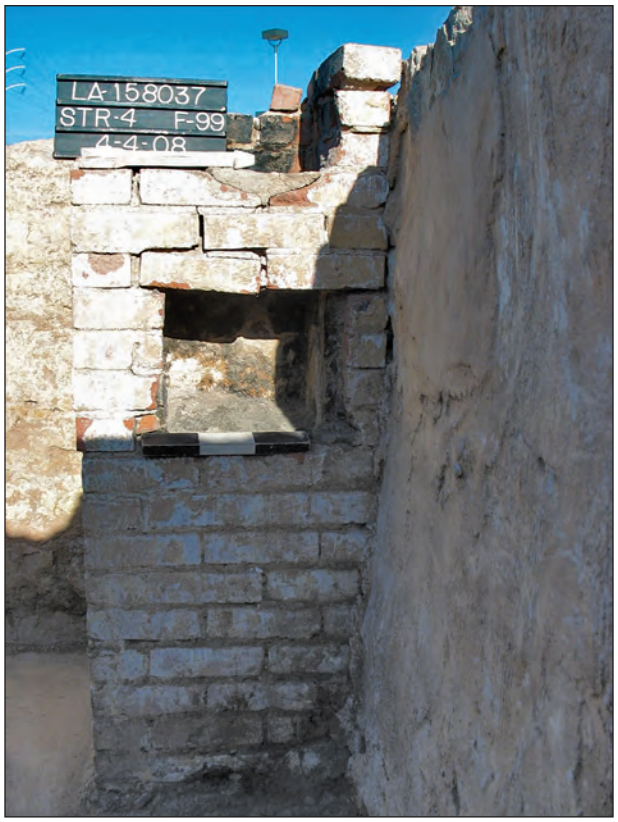


Figure 14.8. Feature 99, a boiler or chimney, after excavation.

Room 4

Room 4 (Feature 100) was south of Room 3. Like Room 3, it was in the basement of Structure 4 and is believed to be associated with a late nineteenth- or early twentieth-century renovation of 125 West Manhattan Avenue (Figs. 14.4 and 14.9). The room measured 2.6 m (8 ft 6 in) north–south and 1 m (3 ft 3 in) east–west. The walls of the room were constructed of roughly cut quarried limestone 55 cm (1 ft 10 in) thick and at least 1.45 m (4 ft 9 in, 7.36–5.91 mbd) tall. A stucco façade, painted yellow, was later applied to the walls. This may have occurred at or near the time Rooms 1 and 2 were added to the structure. The floor was an unreinforced concrete slab 15 cm (6 in) thick.

Figure 14.9. Room 4, Structure 4.

Room 5

Room 5 (Feature 102) was a relatively small room in the northeast portion of the structure, possibly used for storage on the ground floor (Figs. 14.4 and 14.10). It measured 1.7 m (5 ft 7 in) north–south and 1.6 m (5 ft 3 in) east–west. The room's foundations were constructed of river cobbles joined together with packed earth. These foundations were 30 cm (1 ft) thick and 29 cm (1 ft, 7.45–7.16 mbd) deep. It is likely that the floor was constructed of milled wood that subsequently rotted away.

Archival evidence from the 1948 Sanborn Fire Insurance map suggests the walls were constructed of adobe bricks. However, the west and east walls of the room also incorporate some fire-hardened bricks. Pete Alarid (interview, 2009), born in 1927, remembers that the Frank W. Parker home on West Manhattan Street was constructed of bricks. It is possible that the Sanborn map is wrong or that the building was modified to include brick construction or a brick façade.

Room 6

Room 6 (Feature 103) was a moderately sized room, possibly the kitchen, within Structure 4. This room was part of the initial building and was in the northeast portion of the structure (Figs. 14.4 and 14.11). Its maximum dimensions were 4.5 m (14 ft 9 in) north–south and 1.75 m (5 ft 9 in) east–west. Like Room 5, foundations for the room were fabricated from river cobbles fused together with packed earth. Interior wall foundations were similar in size to those encountered in Room 5. They were 30 cm (1 ft) wide and 30 cm (1 ft, 7.50–7.20 mbd) deep. However, the exterior wall was significantly more robust, measuring 60 cm (2 ft, 7.80–7.20 mbd) wide and thick. It is likely that the floor was constructed of milled wood that subsequently rotted away. Archival evidence from the 1948 Sanborn Fire Insurance map suggests the walls were constructed of adobe bricks. However, archaeological evidence suggests the south and west walls may have been renovated to include a brick façade thereafter.

Room 7

Room 7 (Feature 104) was a relatively large room measuring 9 m (29 ft 6 in) north–south and 3.5 m (11 ft 6 in) east–west (Figs. 14.4 and 14.12). Located on the ground level, the oldest sections of foundation appeared to be constructed of river cobbles joined with packed earth. These portions were 60 cm (2 ft) thick and 59 cm (2 ft, 7.84–7.25 mbd) deep. In some areas, specifically along the east foundation wall, layers of fire-hardened brick extended several courses on top of these cobble foundations. While historical records, such as the 1948 Sanborn Fire Insurance map, suggest that the portion of the building containing Room 7 had adobe walls, the presence of the bricks could suggest the wall was renovated to include a brick façade in the mid-twentieth century.

In addition, a section of the south wall foundation appeared to have been augmented with a concrete chute, designated Feature 108 (Fig. 14.13). The chute measured 1.7 m (5 ft 7 in) long and 60 cm (2 ft) wide. It is unclear what function this chute performed, since there was no basement beneath this portion of the structure. Like the brick façade, this renovation likely occurred in the mid-twentieth century. It is unclear if these modifications represent a single concerted renovation effort or accretional change in the building's fabric over time. Floors were presumably constructed of milled wood that has since deteriorated or was removed prior to the structure's demolition. No archaeological evidence of the floors was encountered.

Room 8

Room 8 was a ground-level room in the southwest corner of 125 West Manhattan Avenue. However, only portions of the south and west wall foundations have survived archaeologically, and the exact dimensions of the room cannot be inferred (Figs. 14.4 and 14.14). The south wall foundation measured 5.2 m (17 ft 7 in) long. The easternmost 3 m (9 ft 10 in) of this foundation were constructed of river cobbles joined with earth mortar. This foundation was 45 cm (1 ft 6 in) wide and 43 cm (1 ft 5 in, 7.45–7.02 mbd) deep. The remaining 2.2 m (7 ft 3 in) of the south wall foundation and all 1.7 m (5 ft 7 in) of the west wall were constructed of unreinforced concrete.

Figure 14.10. Room 5, Structure 4.

Figure 14.11. Room 6, Structure 4.

Figure 14.12. Room 7, Structure 4.

Figure 14.13. Feature 108, a concrete chute, in the south wall foundation of Room 7.

Figure 14.14. Room 8, Structure 4.

This concrete foundation was heavily fragmented but appeared to be 40 cm (1 ft 4 in) wide and 35 cm (1 ft 2 in, 7.29–6.94 mbd) deep. The concrete foundation abutted the cobble portions, and it is likely that the concrete was a later addition to the building. However, this modification cannot be tied to any specific renovation known through archival materials.

Like Rooms 5, 6, and 7, Room 8 was in a portion of the house with adobe walls, according to the 1948 Sanborn map. However, no archaeological evidence of these aboveground walls remained. As with all the ground-level rooms, the floor of Room 8 was likely constructed of milled wood planks that have since rotted away.

In addition to the primary building, an automobile garage, perhaps used earlier as a barn or shed, is also depicted on the 1948 Sanborn map (Fig. 14.2). This structure included adobe (built before 1921) and wood-framed (built before 1930) components, indicating accretional growth of the structure through time. The structure's maximum dimensions as depicted the 1948 map were 27.43 (90 ft) east–west by 7.62 (25 ft) north–south. It encompassed 178.84 sq m (1,925 sq ft) of area. However, no evidence of this structure was found during archaeological investigations.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map onto the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property boundaries, the feature was then linked with the inhabitants of a given structure.

A total of 68 extramural features were identified in association with the use of 125 West Manhattan during the late nineteenth and early twentieth centuries (Table 14.2). These features consist of 16 bone pits, 3 construction-debris pits, 5 domestic-refuse pits, 7 irrigation ditches,

35 postholes, a self-contained vault privy, and a straight-line cesspit privy.

Feature 13

Feature 13 was a bone pit at the eastern edge of Backhoe Trench (BHT) 8 (centerpoint 999.20N/920.20E). The feature was excavated in its entirety and measured 70 cm (2 ft 4 in) east–west by 60 cm north–south and was 18 cm (7 in, 6.38–6.2 mbd) deep (Fig. 14.15). Feature fill was a 10YR 3/3 (dry) dark brown clayey sand with small quantities of pea gravel.

It appears the pit was specifically dug to house the unwanted remains of butchered animals. A cow skull and mandible, which have low meat volume, were recovered along with sheep/goat foot bones. Besides animal bones (n = 50), ceramic (n = 2), glass (n = 2), Euroamerican ceramics (n = 1), and metal (n = 12) artifacts were collected from the refuse pit (total = 77). None of these items were diagnostic. However, the bone pit identified on the property of 125 West Manhattan could be associated with a cottage industry undertaken by members of the Romero household in the late nineteenth or very early twentieth century, or with feasting activities.

Feature 14

Feature 14, believed to be an irrigation ditch, was behind 125 West Manhattan (centerpoint 1034.20N/930.58E). It measured 1.48 m (4 ft 10 in) north–south by 42 cm (1 ft 5 in) east–west and was 47 cm (1 ft 7 in, 7.77–7.3 mbd) deep. It was completely excavated because it was unclear if Feature 14 was a ditch or a utility line. Feature fill was a 10YR 3/6 (dry) dark yellowish brown silty sand with charcoal flecking. A minor amount of artifacts (n = 24) were collected. Material types included Native ceramics (n = 1), animal bone (n = 16), glass (n = 3), Euroamerican ceramics (n = 1), and metal (n = 3). None of these were temporally or functionally sensitive.

Feature 17

Feature 17 was a north–south irrigation ditch (centerpoint 1038.00N/897.40) transected east–west by another irrigation ditch (Feature 49) in

Figure 14.15. Feature 13, a bone pit, before excavation.

the backyard of 125 West Manhattan (Fig. 14.16). Feature 17 was dug into the Stratum 4. The ditch was very shallow, 4 cm (2 in, 7.36–7.32 mbd) deep, presumably because the area had been bladed down in the twentieth century. Only a portion (50 percent) of the existing ditch, which measured 6 m (19 ft 8 in) north–south and ranged from 40 to 80 cm wide (1 ft 4 in to 2 ft 8 in), was excavated. Feature fill consisted of a 7.5YR 3/3 (dry) brown clayey sand with charcoal, coal, and small pebble inclusions. Artifacts included animal bone (n = 1), glass (n = 3), metal (n = 4), and Euroamerican ceramics (n = 1). None of the artifacts were diagnostic. However, it is likely that Feature 17 dates to the late nineteenth or early twentieth century and is associated with the Romero family.

Feature 22

Feature 22 was a small nineteenth-century bone pit (centerpoint 1015.60N/935.17E) discovered during testing in the southwestern portion of BHT 7. The pit was completely excavated, and only eight animal bones, primarily sheep and goat, and one brick fragment were recovered. Feature fill was a 10YR 3/3 (dry), dark brown clayey sand with green and yellow discolorations mottled throughout. This stained soil may indicate the decomposed visceral organs of a cow or goat. The pit measured 84 cm (2 ft 9 in) east–west by 46 cm (1 ft 6 in) north–south and 48 cm (1 ft 7 in, 8.60–7.58 mbd) deep.

Feature 49

Feature 49 was an east–west irrigation ditch behind Structure 4 (centerpoint 1038.50N/898.00E). The ditch measured 11 m (36 ft) east–west by 46 cm (1 ft 6 in) north–south and 6 cm (2 in, 7.38–7.32 mbd) deep (Fig. 14.16). Four 1 by 1 m grids were alternately placed along the 11 m (36 ft) segment to investigate the feature. Fill consisted of a 7.5YR 3/3 (dry) dark brown clayey sand with charcoal and small to medium gravels. One artifact was found, a small piece of mica. Analysis revealed that the piece was not culturally modified. The feature was presumably deeper than observed because upper deposits were likely removed during demolition activity in the mid-twentieth century.

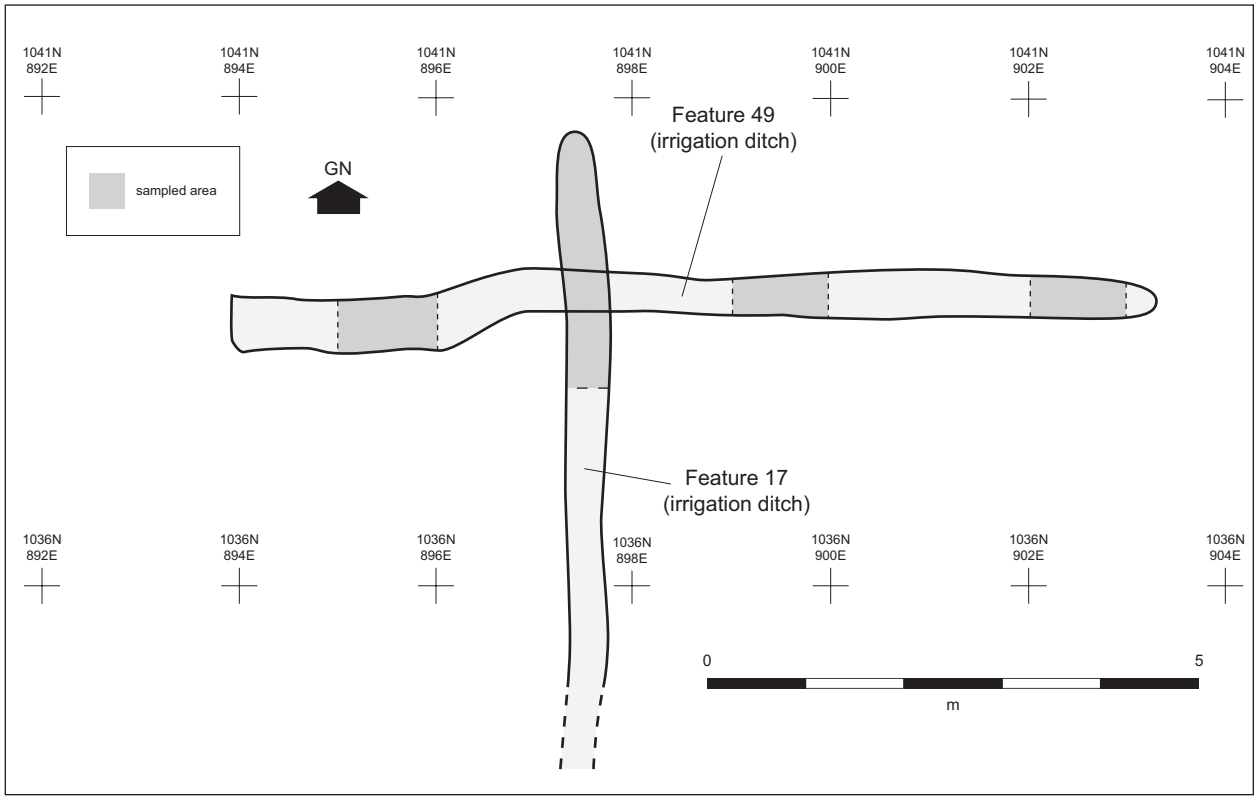


Figure 14.16. Plan of Features 17 and 49, irrigation ditches.

Feature 50

Feature 50 was a domestic-refuse pit (centerpoint 1037.54N/905.41E) centrally located behind Structure 4. It measured 95 cm (3 ft 1 in) east–west by 93 cm (3 ft 1 in) north–south and 45 cm (1 ft 6 in, 6.51–6.06 mbd) deep. Feature fill was a 7.5YR 4/1 (dry) dark gray silty sand with charcoal, coal, ash, and gravel inclusions. The feature was excavated in its entirety, and a total of 382 artifacts were collected. Material types included glass (n = 258), metal (n = 101), Euroamerican ceramics (n = 9), and miscellaneous items (n = 14). Bottle glass provided a mean manufacture date of 1941 (SD 10 years) and could suggest association with the Reverend W. P. Bell or the Parker family.

Feature 51

Feature 51 was a posthole in the north central portion of 125 West Manhattan (centerpoint 1036.87N/901.96E). The posthole was 40 cm (1 ft 4 in) in diameter. It was not along any known property lines, and the function of the post is unknown. However, given their proximity to one another, it is likely Features 51, 52, and 53 are related in some way.

Feature 52

Feature 52 was a posthole in the north central region of 125 West Manhattan (centerpoint 1036.74N/898.07E). It measured 30 cm (1 ft) north–south by 25 cm (10 in) east–west. The posthole is not along any known property lines, and the function of the post is unknown. However, given their proximity to one another, it is likely Features 51, 52, and 53 are related in some way.

Feature 53

Feature 53 was a posthole in the north central region of 125 West Manhattan (centerpoint 1034.88N/897.40E). The posthole measured 30 cm (1 ft) north–south by 25 cm (10 in) east–west. The posthole was not along any known property lines, and the function of the post is unknown. However, given their proximity to one another, it is likely Features 51, 52, and 53 are related in some way.

Feature 55

Feature 55 was a bone pit to the north of Structure 4 (centerpoint 1033.40N/900.50E). It measured 1.10 m (3 ft 7 in) east–west by 1.00 m (3 ft 3 in) north–south and 35 cm (1 ft 2 in) deep. The pit was excavated in its entirety. Fill was a 10YR 4/4 (dry) dark yellowish brown silty sand and appeared to represent the deteriorated remains of animal offal. No large intact cow skulls were encountered. Artifact counts (n = 15) were small but included a few Native ceramics and square nails. These materials suggest deposition in the late nineteenth century.

Feature 56

Feature 56 was a domestic-refuse pit discovered in the northwest of 125 West Manhattan (centerpoint 1030.70N/905.80E). It measured 2.50 m (8 ft 2 in) east–west by 1.50 m (4 ft 11 in) north–south and 45 cm (1 ft 6 in, 7.54–7.09 mbd) deep (Figs. 14.17 and 14.18). Due to its large size and high frequency of artifacts, only 50 percent of the pit was excavated. Fill was a 7.5YR 5/6 (dry) strong brown clayey sand with 30 to 40 percent charcoal. The large quantities of charcoal suggest domestic refuse burned in situ. Artifacts (n = 646) were numerous. Material types included animal bone (n = 404), Native ceramics (n = 3), lithic (n = 1), glass (n = 93), metal (n = 100), Euroamerican ceramics (n = 34), and miscellaneous artifacts (n = 11). A few items were diagnostic: a Homer Laughlin ceramic plate, food cans, nails, glass medicine bottle fragments, and glass canning jars. The mean bottle glass manufacture date for Feature 56 was 1895 (SD 24 years). This suggests deposition in the early twentieth century, and it is likely that the pit was associated with use of Structure 4 by the Romero family. The mean ceramic value was 1.28 (SD .36).

Feature 58

Feature 58 was a domestic-refuse pit (centerpoint 1030.31N/906.58E) that was excavated in its entirety. It was behind Structure 4 and situated northeast of Feature 59 (domestic-refuse pit). The pit measured 87 cm (2 ft 10 in) east–west by 70 cm (2 ft 4 in) north–south and was 2 cm (1 in, 7.52–7.5 mbd) deep. The feature fill contained

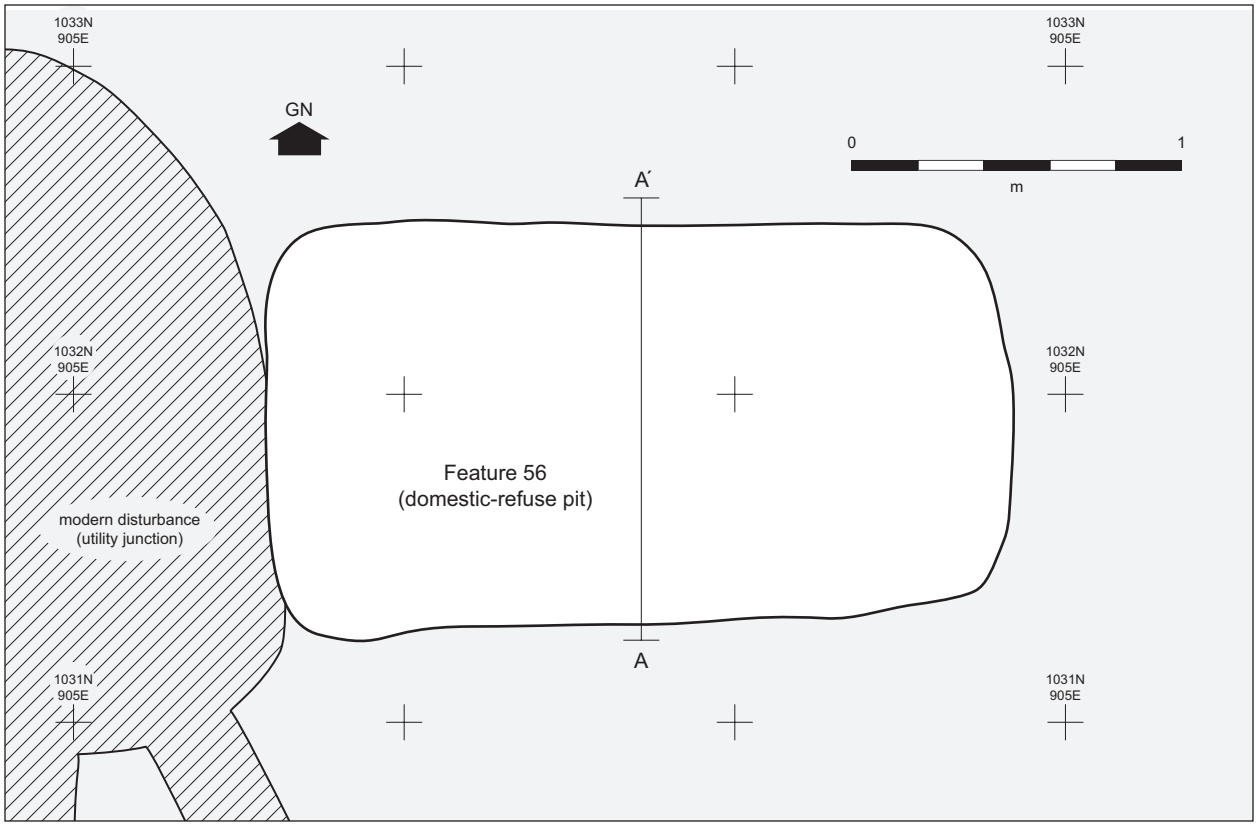


Figure 14.17. Plan of Feature 56, a domestic-refuse pit.

Figure 14.18. Feature 56, a domestic-refuse pit.

a 5YR 4/4 (moist) reddish brown clayey sand with small quantities of charcoal and ash. One artifact, an unidentifiable glass bottle fragment, was recovered. The majority of the pit was presumably removed by mechanical demolition in the mid-twentieth century, since only the base of the feature was present. Since there were no diagnostic artifacts, Feature 58 could not be definitely associated with either the nineteenth or twentieth century.

Feature 59

Feature 59 was a twentieth-century construction-debris pit (centerpoint 1029.76N/906.20E) 0.5 m (1 ft 8 in) southwest of Feature 58 (domestic-refuse pit). Feature 59 measured 1.2 m (3 ft 11 in) east–west by 80 cm (2 ft 7 in) north–south and 2 cm (1 in, 7.61–7.59 mbd) deep. The pit also appeared to have been bladed away by mid-twentieth-century demolition activities, leaving only a shallow remnant. The feature fill was a 5YR 4/4 (moist) reddish brown sandy loam with charcoal flecks and few artifacts (n = 21). A fragmented concrete pedestal was situated just off center inside Feature 59. The pedestal measured 60 cm (2 ft) by 40 cm (1 ft 4 in) and averaged 3 cm (1 in) thick. Artifact material types included Native ceramics (n = 1), animal bone (n = 16), and Euroamerican ceramics (n = 4). The Euroamerican ceramics consisted of unidentified dish fragments without maker's marks, and no date could be accurately assigned to the deposit.

Feature 60

Feature 60 was a twentieth-century posthole (centerpoint 1028.71 903.71E) 1 m (3 ft 3 in) directly south of Feature 61 (posthole). It measured 36 cm (1 ft 2 in) in diameter. The two features may have combined to support a short clothesline.

Feature 61

Feature 61 was a twentieth-century posthole (centerpoint 1029.61N/903.33E) 1 m (3 ft 3 in) directly north of Feature 60 (posthole). The posthole measured 32 cm (1 ft 1 in) north–south by 38 cm (1 ft 3 in) east–west. Features 60 and 61 may have combined to support a short clothesline.

Feature 62

Feature 62 was a self-contained vault privy (centerpoint 1029.20N/900.35E) discovered in BHT 22 and situated 6 m (19 ft 8 in) north of Structure 4, 125 West Manhattan (Fig. 14.19). It measured 2.4 m (7 ft 10 in) east–west by 1.3 m (4 ft 3 in) north–south and was 1.7 m (5 ft 7 in, 7.48–5.81 mbd) deep. It was excavated in its entirety and produced a large number of nineteenth- to twentieth-century artifacts (n = 869). During excavation seven stratigraphic layers were encountered (Fig. 14.20).

- Stratum 1: 7.5YR 5/4 (dry) brown coarse sand in the upper southern portion 30 cm (1 ft) thick.
- Stratum 2: 7.5YR 3/4 (dry) dark yellowish brown sandy clay with charcoal flecks found in the upper northern portion of the feature 40 cm (1 ft 4 in) thick.
- Stratum 3: 5YR 2.5/1 (dry) black coal lens 4 cm (2 in) thick was in the upper southern portion of Stratum 4.
- Stratum 4: 10YR 4/4 (dry) dark yellowish brown sandy loam 60 cm (2 ft) thick.
- Stratum 5: 5YR 8/1 (dry) pocket of white lime 8 cm (3 in) thick situated in the upper northern section of Stratum 6.
- Stratum 6: 5YR 3/4 (dry) pale olive fecal matter 62 cm (2 ft) thick.
- Stratum 8: 10YR 4/4 (dry), a dark yellowish brown adobe layer 2 to 4 cm (1 to 2 in) thick which lined the privy walls and the corners of the feature base.

A variety of artifact material types were retrieved from the various stratigraphic layers of Feature 62: Native ceramics (n = 9), animal bone (n = 124), glass (n = 244), metal (n = 300), Euroamerican ceramics (n = 129), miscellaneous items (n = 52), and macrobotanical samples (n = 11). Many artifacts were diagnostic. Ceramics had a variety of broken dishes with maker's marks from several potteries. These included Johnson Brothers, J. G. Meakin, Colonial Pottery, Keller and Everin, Peoria Pottery, and Henry Alcock; a portion of a ceramic chamber pot was made by John Maddock. Ceramic manufacturer marks provided a mean manufacture date of 1906 (SD 22 years), and glass manufacturer marks

Figure 14.19. Feature 62, a self-contained vault privy, after excavation.

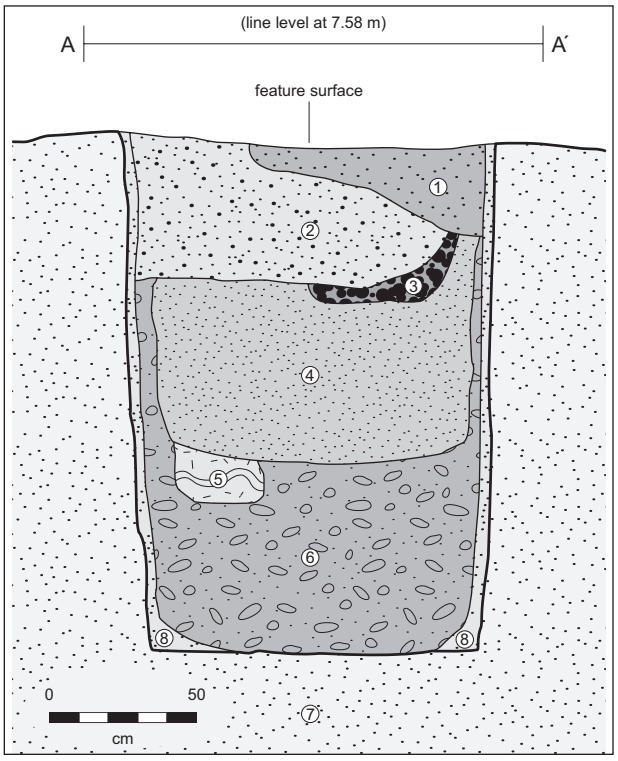


Figure 14.20. Profile of Feature 62, facing east.

indicated 1891 (SD 26 years). These dates suggest deposition in the early twentieth century. A mean ceramic value of 1.78 (SD .54) suggests the family was middle class.

Feature 63

Feature 63 was a posthole (centerpoint 1031.52N/897.56E) behind Structure 4. It was 40 cm (1 ft 4 in) in diameter. The function of the post is not known.

Feature 65

Feature 65 was a posthole (centerpoint 1032.23N/892.39E) behind Structure 4. It measured 41 cm (1 ft 4 in) north–south by 31 cm (1 ft) east–west. The function of the post is not known.

Feature 67

Feature 67 was a posthole (centerpoint 1030.43N/896.83E) measuring 24 cm (10 in) diameter. Features 67, 68, 69, 70, and 71, all postholes, created a V-shaped pattern behind Structure 4. The postholes were spaced 1.25 m (4 ft 1 in) apart and were 20 to 30 cm (8 to 12 in) in diameter. The function of the posts is not known.

Feature 68

Feature 68 was a posthole (centerpoint 1028.86N/897.47E) measuring 20 cm (8 in) east–west by 14 cm (6 in) north–south. Features 67, 68, 69, 70, and 71, all postholes, created a V-shaped pattern behind Structure 4. The postholes were spaced 1.25 m (4 ft 1 in) apart and were 20 to 30 cm (8 to 12 in) in diameter. The function of the posts is not known.

Feature 69

Feature 69 was a posthole (centerpoint 1027.18N/898.70E). It appeared to be 32 cm (1 ft 1 in) in diameter. Features 67, 68, 69, 70, and 71, all postholes, created a V-shaped pattern behind Structure 4. The postholes were spaced 1.25 m (4 ft 1 in) apart and were 20 to 30 cm (8 to 12 in) in diameter. The function of the posts is not known.

Feature 70

Feature 70 was a posthole (centerpoint 1027.44N/896.83E). It measured 34 cm (1 ft 1 in)

north–south by 30 cm (1 ft) east–west. Features 67, 68, 69, 70, and 71, all postholes, created a V-shaped pattern behind Structure 4. The postholes were spaced 1.25 m (4 ft 1 in) apart and were 20 to 30 cm (8 to 12 in) in diameter. The function of the posts is not known.

Feature 71

Feature 71 was a posthole (centerpoint 1028.15N/894.94E). The surface dimensions of the posthole measured 28 cm (11 in) north–south by 24 cm (9 in) east–west. Features 67, 68, 69, 70, and 71, all postholes, created a V-shaped pattern behind Structure 4. The postholes were spaced 1.25 m (4 ft 1 in) apart and were 20 to 30 cm (8 to 12 in) in diameter. The function of the posts is not known.

Feature 72

Feature 72 was a posthole (centerpoint 1027.94N/886.60E) along the western property boundary of 125 West Manhattan. It measured 42 cm (1 ft 5 in) north–south by 31 cm (1 ft) east–west and likely represented part of the fenceline separating the property from 135 West Manhattan.

Feature 93

Feature 93 was a straight line cesspit privy (centerpoint 1030.70N/905.80E) behind Structure 4 (Fig. 14.21). The privy was circular and measured 2 m (6 ft 7 in) in diameter and 1.5 m (4 ft 11 in, 7.81–5.31 mbd) deep. It was constructed of red bricks in a stretcher bond pattern without the use of mortar. Ceramic sewer pipes entered the vault from the south, southeast, and northwest. Pipes from the south and southeast likely originated within Structure 4 (Fig. 14.22). The pipe to the northwest may have led to a leach field. Sections of wood were situated on the top of the brick wall. These wood sections were evenly spaced, probably to support the roof of the privy. When the feature was abandoned, it was filled with a sterile sand and large amounts (30 percent) of cobbles. This fill was consistent with Site Stratum 7.

Very few artifacts (n = 8) were recovered from Feature 93. Material types included glass (n = 2), metal (n = 3), animal bone (n = 2), and miscellaneous items (n = 1). The metal artifact types were a food can, a common nail, and a plumbing pipe. Glass artifacts included a fragmented ink bottle and an unidentifiable broken bottle. Artifacts were too few in number to provide an accurate date of deposition.

Feature 118

Feature 118 was a bone pit (centerpoint 1038.10N/918.68E) behind Structure 4. The pit measured 1.15 m (3 ft 9 in) north–south by 90 cm (2 ft 11 in) east–west and 31 cm (1 ft, 7.54–7.23 mbd) deep (Figs. 14.23 and 14.24). The feature was completely excavated. Fill was characterized as a 7.5YR 4/4 (moist) brown sandy loam with some gravels, charcoal flecks, root disturbance, and artifacts (n = 74).

A total of 73 artifacts were recovered from the feature. Material types included Native ceramics (n = 3), animal bone (n = 63), Euroamerican ceramics (n = 1), and miscellaneous items (n = 6). None of these items were particularly diagnostic. Three animal skulls, possibly cow, were associated with the animal bone category. They were nearly intact, but their mandibles were not present, and the tops of the skulls have been removed to access the animals' brains. The pit appears to have been dug to dispose of these large bones, which suggests feasting or cottage-industry butchering.

Feature 119

Feature 119 was a twentieth-century domestic-refuse pit (centerpoint 1038.10N/918.68E) north of 125 West Manhattan. The small pit was excavated in its entirety and measured 51 cm (1 ft 8 in) north–south by 48 cm (1 ft 7 in) east–west by 26 cm (10 in, 7.76–7.5 mbd) deep. Feature fill consisted of a 10YR 5/4 (dry) yellowish brown sandy loam with charcoal, coal chunks, pea-sized gravels (10 percent), and artifacts (n = 41). Material types included lithic (n = 1), animal bone (n = 16), glass (n = 3), metal (n = 2), Euroamerican ceramics (n = 3), and macrobotanical samples (n = 16). There were too few datable artifacts to produce an accurate date. However, decorative styles and manufacture processes were consistent with early twentieth-century products. Much of

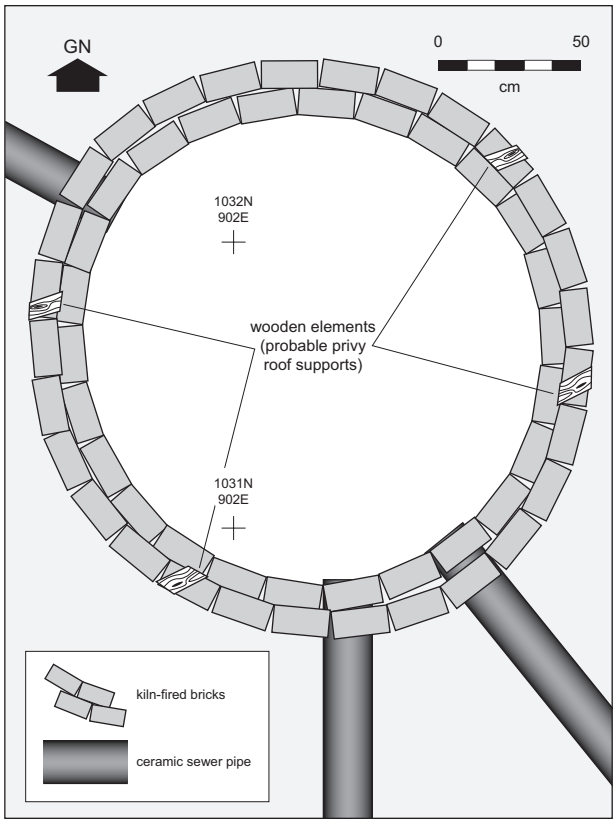


Figure 14.21. Plan of Feature 93, a straight-line cesspit.

Figure 14.22. Sewer pipes entering Feature 93 from Structure 4.

Figure 14.23. Feature 118, a bone pit, before excavation.

Figure 14.24. Feature 118 after excavation.

the refuse was blackened, suggesting burning before disposal.

Feature 120

Feature 120 was an irrigation ditch (centerpoint 1037.46N/925.69E) oriented along an east–west axis in the northeast corner 125 West Manhattan's backyard. Another irrigation ditch, Feature 122, is 1 m (3 ft 3 in) directly south of Feature 120 and is also oriented on an east–west axis. Feature 120 is an elongated channel with sloping sides and a flat base. It measured 2.16 m (7 ft 1 in) east–west by 34 cm (1 ft 4 in) north–south by 22 cm (9 in, 7.81–7.59 mbd) deep. It was excavated in two stratigraphic layers. The upper layer was 5 cm (2 in) thick and was a 5YR 6/3 (dry) light reddish brown sandy loam with gravels. The lower layer was 17 cm (7 in) thick and was a 7.5YR 5/3 (dry) brown sandy loam with lesser gravels. Only five artifacts were retrieved from the irrigation ditch. They included a lithic, one animal bone, one glass bottle fragment, a Native ceramic fragment, and a metal nail. None of these items were diagnostic. A mean date for Feature 120 was unattainable.

Feature 121

Feature 121 was a north–south irrigation ditch (centerpoint 1037.20N/925.50E) connecting two east–west irrigation ditches (Features 120 and 122). It measured 80 cm (2 ft 7 in) north–south by 40 cm (1 ft 4 in) east–west by 13 cm (5 in, 7.78–7.65 mbd) deep. Feature fill was a 10YR 4/3 (dry) brown silty sand. Very few artifacts (n = 19) were collected from the irrigation ditch, all metal, including fragments of flat sheet metal (n = 16) and machine-cut square nails (n = 3). None of these objects was temporally sensitive, but the presence of machine-cut square nails suggests deposition in the nineteenth century.

Feature 122

Feature 122 was an irrigation ditch (centerpoint 1036.20N/925.50E) parallel with and 1 m (3 ft 3 in) south of Feature 120 (irrigation ditch). Feature 122 measured 1.50 m (4 ft 11 in) east–west by 40 cm (1 ft 4 in) north–south and 10 cm (4 in, 7.8–7.7 mbd) deep. Excavated in its entirety, the ditch fill was a 10YR 4/3 (dry) brown silty loam. The artifact content included animal bones (n = 8), metal (n = 2), and glass (n = 1). A fragment of an automatic bottle, the only diagnostic artifact, places abandonment of the feature after 1904.

Feature 123

Feature 123 was an irrigation ditch (centerpoint 1034.83N/925.41E) in the northeast corner of 125 West Manhattan's backyard. The ditch measured 1.64 m (5 ft 5 in) east–west by 40 cm (1 ft 4 in) north–south and 18 cm (7 in, 7.77–7.59 mbd) deep. Feature fill consisted of a 5YR 6/3 (dry) light reddish brown sandy loam with charcoal flecks, coal fragments, and gravels (5 percent). Ten artifacts were collected: Native ceramics (n = 1), lithic (n = 1), animal bone (n = 3), Euroamerican ceramics (n = 3), a glass bottle fragment (n = 1), and a piece of a blackboard slate (miscellaneous item). None of the artifacts were temporally sensitive.

Feature 124

Feature 124 was a posthole (centerpoint 1035.12N/919.16E) 4 m (13 ft) northeast of Feature 129, another posthole, behind Structure 4. It was 40 cm (1 ft 4 in) diameter.

Feature 125

Feature 125 was a bone pit (centerpoint 1037.10N/914.80E) in the backyard of 125 West Manhattan. It measured 1.2 m (3 ft 11 in) north–south by 85 cm (2 ft 9 in) east–west and 44 cm (1 ft 5 in, 7.51–7.07 mbd) deep. Feature fill consisted of 7.5YR 4/6 (moist) strong brown sandy loam with small amounts of charcoal flecks, caliche, roots, and gravels. Thirteen artifacts were collected: Native ceramics (n = 1), animal bone (n = 8), metal (n = 2), and Euroamerican ceramics (n = 2). Interestingly, no large cranial fragments, typical of many of these bone pits, were found in this feature. It is believed that only the offal was discarded. No diagnostic artifacts were present.

Feature 126

Feature 126 was a bone pit (centerpoint 1034.53N/914.57E) in the backyard of 125 West Manhattan. It measured 1.15 m (3 ft 9 in) north–

south by 78 cm (2 ft 7 in) east–west and 40 cm (1 ft 4 in, 7.49–7.09 mbd) deep. Excavated in its entirety, feature fill consisted of a 7.5YR 4/4 (moist) brown sandy loam with gravels, roots, coal fragments, slag, mica flakes, and small orange brick fragments. A small quantity of artifacts (n = 26) was collected from the fill: Native ceramics (n = 2), animal bone (n = 13), glass (n = 2), metal (n = 8), and Euroamerican ceramics (n = 1). None of the artifacts within these categories was temporally diagnostic. However, decorative styles and manufacture techniques suggest deposition in the nineteenth century. Like Feature 125, no large cranial fragments were found in this pit, and it is believed that only the offal was discarded.

Feature 127

Feature 127 was a small, rectangular bone pit (centerpoint 1032.85N/918.79E) northeast of Structure 4. The pit measured 87 cm (2 ft 10 in) north–south by 72 cm (2 ft 4 in) east–west and 25 cm (10 in, 7.56–7.31 mbd) deep. The fill consisted of 10YR 5/4 (dry) yellowish brown sandy loam with pea-sized gravels (10 percent). More than 100 animal bone fragments were found within the fill and represented at least four different cow skulls. Very few other artifacts were encountered. These included Native ceramics (n = 1), metal (n = 2), and an intact glass milk bottle. The milk bottle was hand-blown in a two-piece mold, suggesting manufacture in the nineteenth century.

Feature 128

Feature 128 was a bone pit (centerpoint 1033.17N/924.06E) used to discard the processed bone element and offal. It was northeast of Structure 4 and measured 1.40 m (4 ft 7 in) north–south by 74 cm (2 ft 5 in) east–west by 34 cm (1 ft 1 in, 7.74–7.4 mbd) deep. The fill of 10YR 5/4 (dry) yellowish brown sandy loam with 1 to 3 percent charcoal flecking. Aside from the animal bones (n = 169), a small number of other material types were present: ceramic (n = 3), lithic (n = 2), glass (n = 1), metal (n = 2), and Euroamerican ceramics (n = 2). Feature 128 was dated to the nineteenth century, but this assertion is based largely on context and not on diagnostic items.

Feature 129

Feature 129 was a posthole (centerpoint 1033.41N/915.39E) 4 m (13 ft) southwest of Feature 124, another posthole. It is not known what the two postholes were associated with. Feature 129 was 25 cm (10 in) in diameter.

Feature 130

Feature 130 was a bone pit (centerpoint 1032.80N/914.60E) in the northeast corner of 125 West Manhattan. It was excavated in its entirety and measured 95 cm (3 ft 1 in) north–south by 75 cm (2 ft 6 in) east–west and 24 cm (10 in, 7.5–7.26 mbd) deep. Feature fill was a 7.5YR 4/6 (dry) strong brown sandy loam with small–medium gravels, mica, caliche, and charcoal flecks. Artifact quantity was low (n = 32). Material types included ceramic (n = 1), lithic (n = 1), animal bone (n = 18), glass (n = 8), metal (n = 3), and Euroamerican ceramics (n = 1). None of these artifacts was particularly diagnostic, but they suggested deposition in the nineteenth century. Like Feature 125, no large cranial fragments were found in this pit. It is believed only the offal was discarded.

Feature 131

Feature 131 was a construction-debris pit (centerpoint 1030.00N/914.42E) north of Structure 4. The pit measured 2.78 m (9 ft 1 in) north–south by 1.12 m (3 ft 8 in) east–west and 1.4 m (4 ft 7 in, 7.5–6.1 mbd) deep. Only the north half was excavated. Feature fill was 10YR 3/6 (dry) dark yellowish brown very fine sand with charcoal flecks and building debris such as brick and concrete fragments, tile, and milled wood. Artifacts (n = 250) retrieved from the feature fill were from a diverse array of material types, including Native ceramics (n = 21), lithic (n = 1), animal bone (n = 80), glass (n = 40), metal (n = 82), Euroamerican ceramics (n = 24), and miscellaneous items (n = 2). Identifiable objects included a ceramic ale bottle, beer and soda bottles, wire nails, and a brass shotgun shell, but most were highly fragmented, and specific manufacture dates could not be determined.

Feature 132

Feature 132 was a posthole (centerpoint 1030.48N/913.95E) 1 m (3 ft 3 in) west of Feature 133, another posthole. The function of the post is not known. The surface diameter was 30 cm (1 ft).

Feature 133

Feature 133 was a posthole (centerpoint 1030.47 N/913.07E) 1 m (3 ft 3 in) east of Feature 132. The function of the post is not known. The surface diameter measured 40 cm (1 ft 4 in).

Feature 134

Feature 134 was a construction-debris pit (centerpoint 1029.40N/912.20E) northeast of Structure 4. It measured 2.80 m (9 ft 2 in) east–west by 2.40 m (7 ft 10 in) north–south and was at least 20 cm (8 in, 7.47–7.27 mbd) deep. Due to the large size of the pit, a 1 m by 1 m (3 ft by 3 ft) test pit was placed on the east side of the feature. This test unit was halted after only 20 cm (8 in) of excavation due to large quantities of asphalt within the fill, which made it impossible to continue with hand-excavation. Fill was a 10YR 3/6 (dry) dark yellowish brown sand interspersed with small brick fragments and large chunks of asphalt. Some artifacts including Euroamerican ceramics and window glass were observed, but none was collected. Based on the large quantity of asphalt within the feature, it is believed that Feature 134 dates to the later half of the twentieth century.

Feature 135

Feature 135, a bone pit (centerpoint 1028.18N/918.75E), contained four cow skulls and a few other artifacts (n = 53). The pit measured 1.06 m (3 ft 6 in) north–south by 71 cm (2 ft 4 in) east–west and 30 cm (1 ft, 7.56–7.26 mbd) deep (Fig. 14.25). Feature fill was a 7.5YR 5/4 (dry)

Figure 14.25. Feature 135, a bone pit, after excavation.

brown sandy loam with charcoal flecks, pieces of calcium carbonate, mica, and some gravels. A total of 53 artifacts were recovered from Feature 135. Material types included animal bone (n = 42), glass (n = 2), Euroamerican ceramics (n = 2), metal (n = 2), and miscellaneous items (n = 5). None of the artifacts was particularly diagnostic, but based on composition, deposition in the nineteenth century was suggested. The pit appears to have been dug to dispose of these large skulls after the brain had been removed for consumption (Fig. 14.25).

Feature 136

Feature 136 was a bone pit (centerpoint 1028.50N/923.94E) behind 125 West Manhattan. It contained three nearly intact cow skulls with brains removed, in addition to long-bone and hoof segments. The pit measured 95 cm (3 ft 1 in) north–south by 72 cm (2 ft 4 in) east–west and 15 cm (6 in, 7.62–7.47 mbd) deep. The feature was excavated in its entirety. Fill consisted of a 7.5YR 4/4 (dry) brown coarse sand with charcoal, caliche fragments, gravels, cobbles, and artifacts.

The artifacts (n = 130) came from a variety of material categories: ceramics (n = 3), animal bone (n = 103), lithic (n = 2), glass (n = 9), Euroamerican ceramics (n = 4), and metal (n = 9). The artifact types within these categories were typical of LA 158037 material culture and included beer bottles, nails, window glass, and glass canning jars. One of the canning jar fragments was produced with an automatic bottling machine, suggesting deposition after 1904.

Feature 137

Feature 137 was an unexcavated posthole (centerpoint 1031.27N/931.21E). It measured 9 cm (4 in) in diameter and was 2 m (6 ft 7 in) east of Feature 138, another posthole. It is possible these two posts supported a clothesline.

Feature 138

Feature 138 was an unexcavated posthole (centerpoint 1030.22N/929.56E) 2 m (6 ft 7 in) to the west of Feature 137, another posthole. It measured 8 cm (3 in) in diameter, and it is possible that Features 138 and 139 supported a clothesline.

Feature 139

Feature 139 was an unexcavated posthole (centerpoint 1032.28N/927.63E) behind Structure 4. It was 28 cm (11 in) in diameter.

Feature 140

Feature 140 was a bone pit (centerpoint 1033.20N/929.00E) northeast of Structure 4. The pit measured 1.30 m (4 ft 3 in) north–south by 1.20 m (3 ft 11 in) east–west and 29 cm (11 in, 7.77–7.48 mbd) deep. Feature fill was a 10YR 3/6 (dry) dark yellowish brown fine grained silty sand with charcoal flecks. Most of the artifacts (n = 323) collected were animal bones and skull fragments (n = 300). However, ceramics (n = 4), lithic (n = 1), glass (n = 5), Euroamerican ceramics (n = 3), metal (n = 9), and a miscellaneous item manufactured from vulcanized rubber were also encountered. Metal objects included machine-cut and drawn-wire nails, and an unidentifiable glass bottle had been manufactured with a turn mold, suggesting deposition in the very late nineteenth or early twentieth century.

Features 141, 143–154, 156, and 160

Features 141, 143–154, 156, and 160 represented a series of postholes discovered in association with Structure 4. These postholes were not excavated. Along the eastern periphery of 125 West Manhattan, they may reflect positions of the property fence(s) during the late nineteenth and early twentieth centuries. A list of these features by centerpoint and surface diameter follows:

Feature 141, 1026.97N/930.31E, 31 cm (12 in)
Feature 143, 1027.01N/931.21E, 15 cm (6 in)
Feature 144, 1025.97N/931.43E, 11 cm (4 in)
Feature 145, 1024.83N/931.22E, 10 cm (4 in)
Feature 146, 1023.47N/931.38E, 18 cm (7 in)
Feature 147, 1020.94N/931.50E, 16 cm (6 in)
Feature 148, 1018.42N/931.50E, 18 cm (7 in)
Feature 149, 1018.85N/932.32E, 28 cm (11 in)
Feature 150, 1018.28N/934.35E, 32 cm (13 in)
Feature 151, 1019.38N/935.57E, 33 cm (13 in
Feature 152, 1025.31N/929.97E, 25 cm (10 in)
Feature 153, 1015.88N/931.96E, 12 cm (5 in)
Feature 154, 1030.37N/936.39E, 53 cm (21 in)

Feature 156, 1028.74N/934.08E, 17 cm (7 in)
Feature 160, 1023.01N/935.29E, 50 cm (20 in)

Feature 142

Feature 142 was a bone pit (centerpoint 1028.28N/929.02E) northeast of Structure 4. It measured 90 cm (2 ft 11 in) north–south by 74 cm (2 ft 5 in) east–west and 20 cm (8 in, 7.72–7.52 mbd) deep. The pit fill was a dry brown (7.5YR 4/4) fine-grained silty clay interspersed with a calcium carbonate inclusions. Feature 142 was used for the immediate disposal of processed animal bones (n = 47) and a few pieces of metal (n = 2). The bone consisted primarily of large mammal; the metal objects were a drawn-wire nail and a piece of molded lead. The nail suggests deposition in the very late nineteenth or twentieth century.

Feature 157

Feature 157 was a refuse pit (centerpoint 1032.41N/935.44E) northeast of Structure 4. It measured 1.02 m (3 ft 4 in) north–south by 96 cm (3 ft 2 in) east–west and 15 cm (6 in, 7.95–7.7 mbd) deep. Feature fill consisted of a 7.5YR 5/4 (dry) brown semicompacted sandy loam with some clay and gravels, and flecks of charcoal. Large cobbles were encountered in the northeast base of the feature. The frequency of artifacts was low. Only six animal bones recovered, saw-cut portions of cow.

Feature 158

Feature 158 was a domestic-refuse pit (centerpoint 1020.62N/931.60E) in the northeast corner of 125 West Manhattan. The pit was roughly triangular and measured 1.76 m (5 ft 9 in) east–west by 1.38 m (4 ft 6 in) north–south by 15 cm (6 in, 7.95–7.8 mbd) deep. The feature fill was a 10YR 4/4 (dry) dark yellowish brown silty clay with few artifacts (n = 7). The material types included animal bone (n = 4), glass (n = 2), and Euroamerican ceramics (n = 1). Glass fragments are two shards of whiskey bottle. No maker's mark was identified.

Feature 166

Feature 166 was a bone pit (centerpoint 1031.20N/925.80E) northeast of 125 West Manhattan. The pit measured 70 cm (2 ft 4 in) north–south by 60 cm (2 ft) east–west and 28 cm (11 in, 7.73–7.45 mbd) deep. Feature fill was a 10YR 3/6 (dry) dark yellowish brown fine grained silty sand with charcoal flecks. Discoloration in the soil suggested the deposition of offal. Six bones and one machine-cut nail were identified. The nail tentatively dates the feature to the nineteenth century.

Feature 171

Feature 171 was a bone pit (centerpoint 1027.61N/935.40E) in the backyard of Structure 4. It measured 96 cm (3 ft 2 in) north–south by 93 cm (3 ft 1 in) east–west and 31 cm (1 ft, 8–7.69 mbd) deep. Feature fill consisted of a 7.5YR 5/3 (dry) brown slightly compacted clayey loam with some gravel, charcoal flecking, and few artifacts (n = 16). The material types included ceramic (n = 2), lithic (n = 2), animal bone (n = 8), glass (n = 1), metal (n = 1), and Euroamerican ceramics (n = 2). Artifact counts were too low and types too generic to provide clues to the date of deposition.

Artifacts

A total of 3,348 artifacts and samples were collected in association with Structure 4 (125 West Manhattan Avenue). These artifacts included 1,501 bone, 68 Native American ceramics, 13 lithic, 658 metal, 660 glass, 227 Euroamerican ceramics, 21 flotation samples, 31 pollen samples, 27 macrobotanical samples, and 142 miscellaneous artifacts. A total of 1,047 artifacts were associated with the Hispanic Romero family. The remaining 2,301 were associated with the Parkers and later Euroamerican occupation of the residence.

While archival evidence suggests both families were wealthy, Euroamerican dinnerware products associated with the Romero family yielded a very low mean ceramic value (1.19 SD .329), likely the result of small sample size (mnv = 3). The Parker family dinnerware (mnv = 46) yielded a score of 1.65 (SD .548). This number, while higher than that of the Romero family, is only average when compared to other households in and around the project area. This suggests only a middle-class lifestyle for the Parker family.

Most of the faunal bone was recovered from bone pits associated with the Romero family in the late nineteenth and early twentieth century. The bone from these pits consisted largely of domesticated sheep/goat (n = 240) and cattle (n = 73) elements. All of the cow skulls had been saw-cut along the top of the cranium to allow removal of the brain. With the exception of one cow skull found in an Alarid privy (Feature 234), this behavior is distinctive to the Romero residence and suggests that feasting or butchering activities occurred on the property.

Summary and Interpretation

Structure 4 (125 West Manhattan Avenue) was one of the oldest structures in the project area. Built shortly after the coming of the railroad in 1880, the structure was built of adobe bricks on top of a river cobble foundation. At least two major renovations occurred to the structure. Both of these renovations are visible within the archaeological record. The first renovation occurred in ca. 1912 and included the addition of a basement built of quarried limestone (Rooms 3 and 4). The second occurred between 1913 and 1921 and included the addition of Rooms 1 and 2, which were built of concrete-mortared cobbles. In addition, all of the rooms (Rooms 5, 6, 7, and 8) created in ca. 1880 show later alterations. However, it is unclear when these modifications were made relative to the major renovations.

The Romero family occupied the residence during the late nineteenth and very early twentieth century. The irrigation ditch (n = 7) and bone pit (n = 16) features appear to be associated with this family. Many of the bone pits contain butchered cow skulls in which the top of the cranium appears to have been removed to access the brain. Consumption of the brain in the form of head cheese, or *queso de cabeza*, is not uncommon in many Latin American countries even today. However, it is interesting that the phenomenon as witnessed at LA 158037 was almost exclusively in association with one family. It is possible that Anastacio Romero viewed the dish as a delicacy and it was consumed regularly during festive occasions. It is also possible, based on the number of these pits, that a member of the Romero butchered animals for sale or consumption.

Later occupation by the Parker family is also clearly visible within the archaeological record. However, occupation by the Parker family appears typical of the neighborhood as a whole. Feature types such as domestic-refuse pits (n = 5), construction-debris pits (n = 3), and outhouses (n = 2) are commonly found on all properties. Red bricks used in the construction of Feature 93, a straight-line cesspit privy, are identical to those used in remodeling of Rooms 5, 6, and 7. It is possible that flushable toilets were added to the interior of the building during the large-scale renovations that occurred between 1913 and 1921.

Mean ceramic values suggest the Romeros were poor and the Parkers were middle income. This is almost certainly incorrect. Archival evidence (Snow, this report) suggests the Romero family was among the most influential south of the Santa Fe River, and Frank Parker served as a justice of the New Mexico Supreme Court. This could suggest that the mean ceramic values are not an accurate predictor of wealth or that both families, despite their backgrounds, chose to live rather frugally, at least as far their dinnerware was concerned.

Most interestingly, this study revealed that the Sanborn Fire Insurance maps may not be as reliable a source of information on the construction of houses in the late nineteenth and twentieth century, as previously believed. In this case, the Sanborn maps from 1913–1948 state that the front portion of the 125 West Manhattan was an adobe structure. Archaeological evidence from Rooms 5, 6, and 7 and the interview with Pete Alarid indicate that portions of this structure were made of brick or at least incorporated a brick facade. This contradiction has serious implications for architectural historians, ethnohistorians, and archaeologists working in early twentieth-century urban contexts.

Chapter 15

Structure 5 (135, 137, and 139 West Manhattan Avenue)

Based upon Sanborn Fire Insurance maps dating to the early twentieth century, Structure 5 (135, 137, and 139 West Manhattan Avenue) was constructed between 1908 and 1913. Initially designated 135 West Manhattan, Ricardo (Richard) Alarid Jr. restructured the property in 1940 into an apartment complex consisting of three residences—135, 137, and 139 West Manhattan.

Using *Hudspeth's Santa Fe City Directories*, Tables 15.1, 15.2, and 15.3 present lists of residents who occupied the structure from 1928 until abandonment in 1967. During this time, the structure housed a relatively transient population with a diverse array of jobs and ethnic backgrounds. However, the two owners of the structure during this period, Ricardo (Richard) Alarid Jr. (ca. 1928–1945) and Juan (John) Ortiz (ca. 1945–1966), were both Hispanic.

Structure

Information gathered from the Sanborn Fire Insurance maps indicates that the structure at 135 West Manhattan exhibited accretional growth in size and shape throughout its lifetime but was always a single-story structure fabricated from adobe bricks. As depicted on the 1948 Sanborn Fire Insurance map (Fig. 15.1), the structure's maximum dimensions were 14.02 m (46 ft) north–south and 12.19 m (40 ft) east–west, and the building encompassed 131.92 sq m (1,420 sq ft). The structure had both a front and back porch. The front porch measured 9.75 m (32 ft) east–west by 2.44 m (8 ft) north–south. The back porch measured 10.36 m (34 ft) east–west by 8.53 m (28 ft) north–south. Unlike many other structures investigated at LA 158037, Structure 5 lacked a basement.

Physical remains of the structure encountered during archaeological investigations were limited to several foundation fragments representing the west and north sides of the structure and an interior wall stub. As if to provide complimentary physical evidence of accretional growth, each of these features varies in construction methods, materials used, and overall dimensions (Fig. 15.2). The west wall, Feature 115, was built of unreinforced concrete with limited cobble filler. This fragment measured 5.87 m (19 ft 3 in) long, 40 cm (1 ft 4 in) wide, and 34 cm (1 ft 1 in) deep. The north wall fragment, Feature 116, was 6.73 m (22 ft 1 in) long, 53 cm (1 ft 9 in) wide, and 23 cm (9 in) deep. It was constructed of river cobbles fused with concrete mortar. The interior wall stub, Feature 117, was fabricated from river cobbles fused with adobe. It measured 3 m (9 ft 10 in) long, 53 cm (1 ft 9 in) wide, and 24 cm (9 in) deep. Based on differences in building techniques, it would appear likely that the now interior wall-stub foundation, built of cobbles, was constructed first; followed by the north wall, of cobbles with concrete mortar; and then the west wall, of concrete. This sequence of events matches very well with the alterations documented on the Sanborn Fire Insurance maps.

Unfortunately, the remaining foundation of the house, which may have provided a complete narrative of the building sequence, has been lost to time. This large-scale destruction of the structure appears to be the result of several construction-debris pits likely associated with demolition of the structure in the mid-twentieth century and the numerous utilities installed to service government facilities thereafter.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map onto the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property

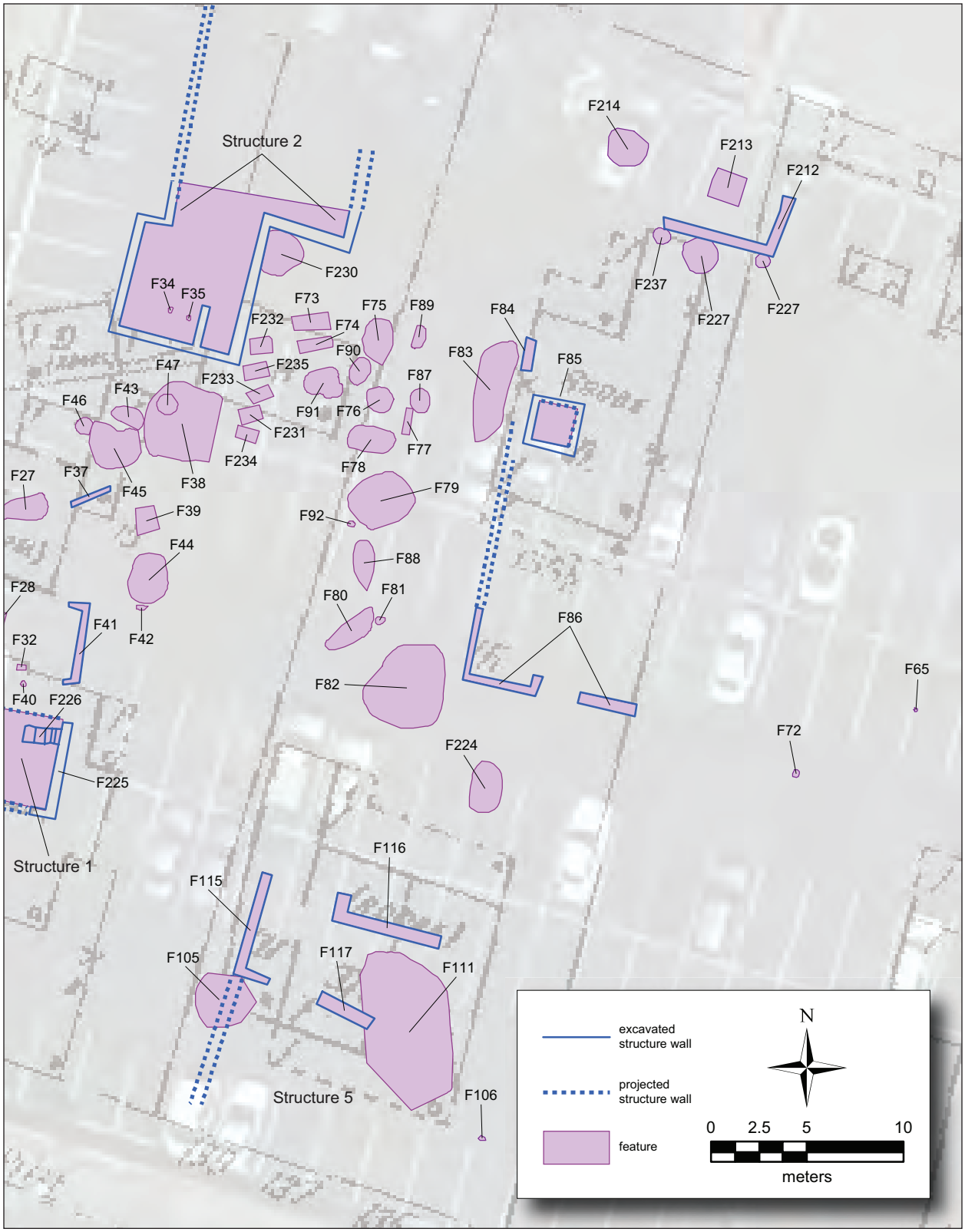


Figure 15.1. Location of Structure 5 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

Figure 15.2. Structural remnants, Features 115, 116, and 117, Structure 5.

boundaries, the feature was then linked with the inhabitants of a given structure.

Six additional features were linked to Structure 5, based on their proximity to the structure and known property boundaries (Table 15.4). These features included two construction-debris pits, two postholes, one domestic-refuse pit, and one straight-line cesspit.

Feature 82

Feature 82 was a large domestic-refuse pit based on the high quantities of coal clinkers and residential debris. Behind Structure 5 (centerpoint 1030N/866E), the majority of the pit extended underneath areas harboring high voltage electrical lines and could not be investigated. The pit was a minimum 3.83 m (12 ft 7 in) east–west, 3.2 m (10 ft 6 in) north–south, and 29 cm (1 ft, 6.81–6.52 mbd) deep. Fill within the pit was characterized as a 5YR 5/2 (dry) reddish gray sandy loam interspersed with 50 percent coal inclusions. From a 30 percent sample, 159 artifacts were collected. From these artifacts, bottle glass produced a date of 1897 (SD 30 years), and a single manufacturer mark on a Euroamerican tableware produced a date of 1906. These dates suggest that refuse within the pit was relatively early in the occupation sequence at 135 Don Gaspar Avenue. The nine Euroamerican vessels provided a mean ceramic value of 2.08 (SD .89) and suggest that occupants during the 1900s and 1910s were of relatively high social standing compared to other residents in the neighborhood.

Feature 92

Feature 92 was a posthole along the property boundary between Structure 5 and Structure 2 (centerpoint 1036.1N/861.93E). The posthole was 30 cm (1 ft) in diameter and was not excavated. Based on the dimensions of the posthole, it is possible that the feature functioned as part of a larger fenceline or an aboveground utility.

Feature 105

Feature 105 (centerpoint 1010.75N/859.35E) was a large construction-debris pit beneath Structure 5 adjacent to the westernmost portions of intact foundation, Feature 115. The pit is filled with

a small portion of concrete and is most likely the result of demolition activities. Feature 105 measures 3.2 m (10 ft 6 in) east–west by 2.65 m (8 ft 8 in) north–south and 64 cm (2 ft 1 in, 6.33–5.69 mbd) deep. Fill consisted of a single depositional episode characterized as a 7.5YR 4/2 (dry) brown sandy loam. The excavation of nearly 70 percent of this fill resulted in the recovery of 271 artifacts, primarily glass (n = 110) and metal (n = 72). Two coins, a quarter and a nickel, possessed mint dates of 1945 and 1947, respectively.

Feature 106

Feature 106 was a posthole underneath Structure 5 (centerpoint 1006N/973.8E). While the exact function of this posthole is unknown, it may have functioned to house a central beam to support the roof. It measured 20 cm (8 in) in diameter.

Feature 111

Feature 111 was a construction-debris pit centrally located under 135, 137, and 139 West Manhattan Avenue (centerpoint 1011N/869E). The feature was 8 m (26 ft 4 in) north–south by 5 m (16 ft 6 in) east–west and 46 cm (1 ft 6 in) deep. Fill consisted of a 10YR 3/3 (dry) dark brown clayey silt with large quantities of adobe brick fragments within the matrix (Fig. 15.3). A 30 percent sample of this fill resulted in the collection of 502 artifacts. Major material types included bone (n = 227), glass (n = 119), and metal (n = 84). One of the artifacts was a penny dating to 1949, suggesting the feature is roughly contemporaneous with Feature 105 and, like Feature 105, associated with demolition. If this was the case, the adobe bricks are likely from the walls of the structure. While no complete adobe brick was uncovered, inferred dimensions based on broken fragments indicate bricks 60 by 30 by 12 cm (2 ft by 1 ft by 5 in).

Feature 224

Feature 224 was a straight-line cesspit in the backyard of Structure 5 (centerpoint 1024N/871E). The cesspit was constructed of firebricks in a design identical to that of Feature 44, behind Structure 1 (Fig. 15.4). Both were constructed in an oval. The firebricks, 20 by 10 by 6 cm (8 by

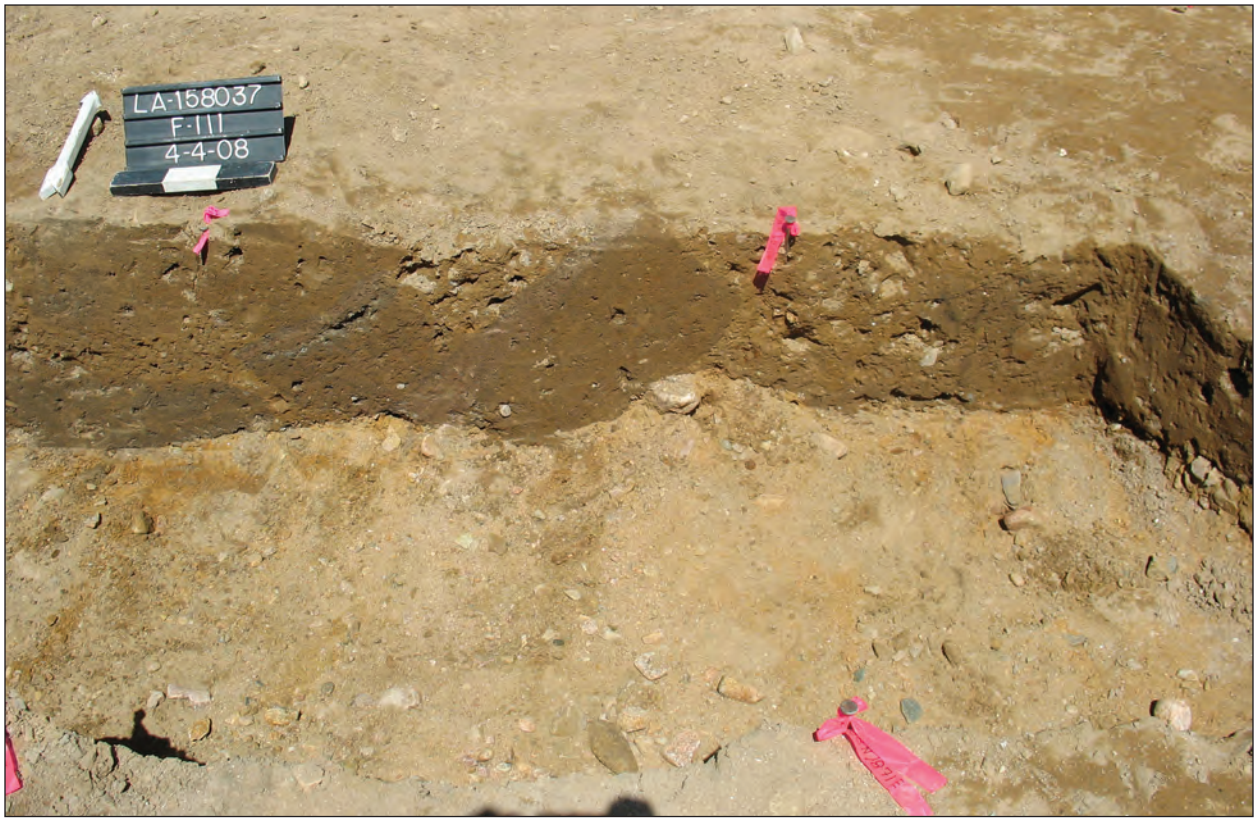


Figure 15.3. Adobe bricks in Feature 111, a construction-debris pit.

4 by 2 in), were dry laid and stacked sideways, creating a thicker wall (also known as a header bond). In addition, the absence of a prepared floor allowed seepage into the water table. Their only differences were in size and fill. Whereas Feature 44 is 2.7 m (8 ft 10 in) north–south by 1.8 m (5 ft 11 in) east–west and 1.75 m (5 ft 9 in, 6.76–4.76 mbd) deep with multiple strata, Feature 224 is 2.25 m (7 ft 5 in) north–south by 1.5 m (4 ft 11 in) east–west and 2 m (6 ft 7 in, 6.76–4.76 mbd) deep with a single strata characterized as a 5YR 5/2 (dry) reddish gray sandy loam. Size differences are likely a result of the size of the household which they served, and differences in fill suggest different postdepositional process. The similarities between cesspits are not surprising. Both structures were owned by the same family, the Alarids, during much of the early twentieth century. Either the Alarids manufactured both or hired the same contractor for both jobs.

Even though the feature was excavated in its entirety, feature fill was relatively sterile. Artifacts (n = 52) within Feature 224 were limited largely to whole bottles (n = 27), with much lower counts of bone (n = 9), metal (n = 5), and Euroamerican ceramics (n = 5). These bottles provide for a mean glass date of 1916 (SD 14 years). The low counts of ceramic tableware provide for a mean ceramic date of 1910 (SD 43 years) and a mean ceramic value of 1.74. These temporal and economic status indicators differ somewhat from those noticed in Feature 82. Mean ceramic and bottle glass dates suggest a period of somewhat later deposition. However, both features overlap in their standard deviations, and it is possible that the features are contemporaneous. If it is interpreted that Feature 224 is a slightly later deposit, the overall mean ceramic value appears to decrease over time, but because so few artifacts were collected, these differences could be the result of small sample sizes.

Artifacts

A total of 995 artifacts and samples were collected in association with Structure 5 (135, 137, and 139 West Manhattan Avenue): 293 bone, 40 Native American ceramics, 1 lithic, 177 metal, 300 glass, 115 Euroamerican ceramics, 8 flotation samples, 3 macrobotanical samples, and 58 miscellaneous artifacts. While this is a relatively large sample size for comparison with other residential structures in the neighborhood, the vast majority of artifacts (n = 773) were collected from construction-debris pits (Features 105 and 111) and could not be tied to residential occupation.

Artifacts from the domestic-refuse pit (Feature 82) and the straight-line cesspit (Feature 224) suggest contemporaneous use but tell different stories about the economic status of people residing in the house. In Feature 82, the mean ceramic value is much higher than in Feature 224. This rapid fluctuation in personal wealth may make some sense given the numerous renters listed in *Hudspeth's Santa Fe City Directories,* which identifies an attorney and a kitchen helper residing at the residence at different times in the twentieth century. If you had occupants staying at the residence for a year or a couple of years at a time, features could appear relatively contemporaneous but represent different individuals with widely varying incomes.

Based on fauna recovered, domestic sheep or goat (n = 116) was the protein of choice, followed by cattle (n = 85). Since the owners and many of the renters of Structure 5 were Hispanic, the higher quantities of sheep/goat relative to cattle follow traditional assumptions that Hispanics preferred mutton to beef. Portions of a cat were found in Feature 111, suggesting one of the occupants may have had a cat or that a stray cat was living in the domicile when it was demolished in 1967.

Summary and Interpretation

Structure 5 (135, 137, and 139 West Manhattan Avenue) represents one of the few structures within LA 158037 built of adobe bricks, a technique that was antiquated by the time the structure was built in ca. 1911. Perhaps even more interesting, no self-contained vault privies were identified on the lot, suggesting that when the structure was built it had a "water closet" within the structure that was connected with the straight-line cesspit. This mixture of old and new suggests an ad hoc style of building, also seen in the structure's foundations, which vary widely in the construction methods used.

The construction of the straight-line cesspit mimics Structure 1's cesspit in construction

methods and shape. These methods may be unique to LA 158037, and they have not been witnessed elsewhere within the Downtown Santa Fe Archaeological District. Both Structure 1 and Structure 5 were owned by the Alarids, and it is possible that the Alarid family installed these systems themselves or used the same plumber.

Very few artifacts could be directly tied to residential occupation of the structure. Those that could suggest different individuals of varying social standing residing at the property. This coincides well with historic evidence that the property was used as a rental by the Alarids and, later, the Ortiz family during the twentieth century. Unfortunately, the use of the property as a rental, with occupants from very different social classes and ethnic backgrounds, limits its usefulness for comparison to other households to identify differences in social status or ethnicity.

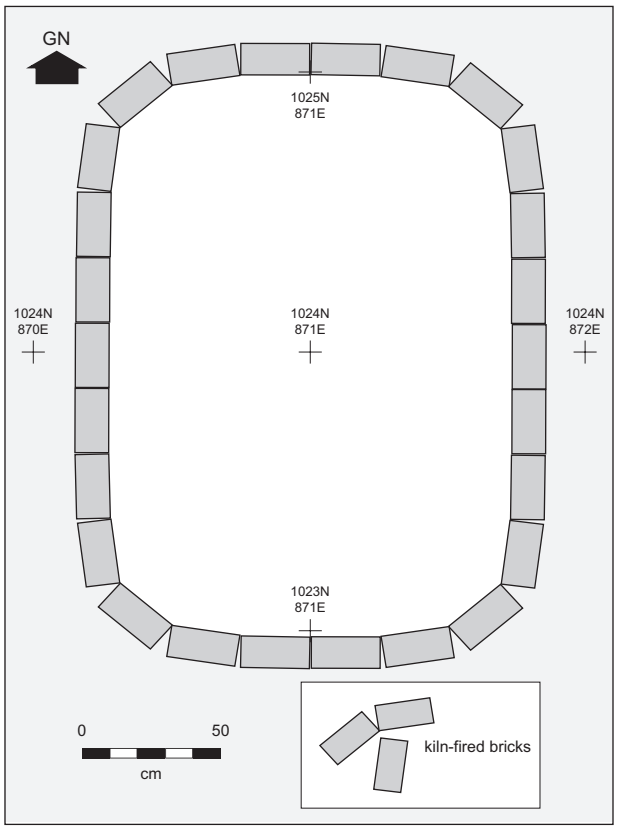


Figure 15.4. Plan of Feature 224, a straight-line cesspit privy.

Chapter 16
Structure 6 (111 West Manhattan Avenue)

Matthew J. Barbour and Barry Kirschbaum

Based on Stoner's *Birdseye View of Santa Fe* (1882) and Hartmann's map of Santa Fe (1885–86), Structure 6, 111 West Manhattan, was constructed between 1882 and 1885. The original building was owned by the García family, but it is unclear how long they occupied the structure. Table 16.1 shows the list of residents who occupied the structure after 1928 until abandonment in the 1960s. Beginning in the 1940s, outbuildings behind the structure—111 1/2 West Manhattan and 111 Rear West Manhattan—were also rented out, presumably to supplement household income. Renters for these buildings are listed in Table 16.2 and Table 16.3, respectively.

Ownership of 111 West Manhattan during much of the twentieth century was by the Muller family (ca. 1928–1954). Frederick "Fritz" Muller was listed as an insurance and real estate agent. Born in Wurtemberg, Germany, Frederick Muller immigrated to the US in 1879 (Snow, this report). Enrolling in the military in 1882, Muller served with Generals Crook and Miles against Geronimo and then later volunteered for additional service in the 1st United States Cavalry, also known as the Rough Riders. Frederick died in 1934. Adella Muller, his wife, continued to live in 111 West Manhattan Avenue until 1954. Later in 1961, Marion "Chick" Evans, innovator in the use of polyester film to cover drumheads and owner of Evans Drumheads (http://evansdrumheads.com), rented the property for one year. Today, Evans Drumheads is among the top drumhead suppliers around the world.

Structure

A survey of the Sanborn Fire Insurance maps between 1913 and 1948 suggests 111 West Manhattan Avenue was modified often during the early twentieth century. Based on the 1948 Sanborn Fire Insurance map, the residence was 13.4 m (44 ft) north–south by 13.4 m (44 ft) east–west and encompassed 129 sq m (1,386 sq ft) of area (Fig. 16.1). The building was wood framed and a single story high with a porch in the front and patio in the back. The front porch was 4.2 m (14 ft) east–west and 2.1 m (7 ft) north–south. The backyard covered patio was 4.5 m (15 ft) east–west and 2.4 m (8 ft) north–south.

Ancillary rental buildings, 111 1/2 West Manhattan and 111 Rear West Manhattan, were constructed of adobe. The building at 111 1/2 West Manhattan measured 15.9 m (52 ft) north–south by 4.9 m (16 ft) east–west and encompassed 77 sq m (832 sq ft) of space. The building at 111 Rear West Manhattan measured 24.4 m (80 ft) north–south by 5.5 m (18 ft) east–west and encompassed 134 sq m (1,440 sq ft) of space. Neither of the structures had a porch or patio. A two-car, wood-framed garage northwest of 111 1/2 West Manhattan measured 6.6 m (22 ft) east–west by 4.8 m (16 ft) north–south.

No archaeological evidence of the car garage or ancillary rental buildings was uncovered during archaeological investigations. However, the basement to 111 West Manhattan (Feature 209) was investigated in its entirety (Fig. 16.2). This basement consisted of two rooms and a stairwell. The larger of the two rooms (Room 1) measured 4.8 m (15 ft 8 in) north–south and 4.8 m (15 ft 8 in) east–west. The smaller (Room 2) measured 5 m (16 ft 4 in) north–south and 1.5 m (5 ft) east–west. Combined, the two rooms provided 30.5 sq m (328 sq ft) of living/storage space with a ceiling at least 1.5 m (5 ft) high.

The walls to both rooms were 60 cm (2 ft) wide. These walls were constructed using quarried sandstone for the façade and river cobbles as filler. Badly decomposed milled-lumber planks were visible on the floor. Their layout and dimensions could not be accurately ascertained. The similarity in assembly methods of the two rooms suggests the construction of the rooms was contemporaneous and presumably associated with initial building fabrication in the 1880s.

Figure 16.1. Location of Structure 6 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

Figure 16.2. Room 1, Structure 6.

The stairwell (Feature 208) appears to have been a later addition to the east wall (Fig. 16.3). Constructed of fire-hardened bricks joined with cement mortar, the stairwell abutted the sandstone design. It measured 2.5 m (8 ft 2 in) long and 1.5 m (5 ft) wide. Each stair measured 30 cm (1 ft) wide and 20 cm (8 in) high.

A water spigot is also visible along the east wall (Fig. 16.4). It is unclear if the spigot was installed when the building was initially constructed or if it was a later addition, threaded through a hole in the wall, which was then remortared.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map onto the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property boundaries, the feature was then linked with the inhabitants of a given structure.

A total of 46 extramural features were identified in association with use of 111 West Manhattan during the late nineteenth and early twentieth centuries (Table 16.4). These features consist of 2 dog burials, 5 construction-debris pits, 7 domestic-refuse pits, 28 postholes, a root cellar, a self-contained vault privy, a straight-line cesspit privy and a well.

Feature 1

Feature 1 was initially identified as a domestic-refuse pit during testing in November 2007 (Barbour 2008a) and is along the northern property line of 111 West Manhattan (centerpoint 1036.4N/963.5E). Roughly oval, the pit measured 3.4 m (11 ft 2 in) north–south by 3.2 m (10 ft 6 in) east–west and was 33 cm (1 ft 1 in, 8.53–8.2 mbd)

Figure 16.3. Stairwell and portion of intact milled-wood floor, Structure 6.

Figure 16.4. Water spigot installed in the east wall of Room 1, Structure 6.

deep. Feature fill consisted of two soils (Fig. 16.5). The first stratum was 20 cm (8 in, 8.53–8.33 mbd) thick and consisted of a 10YR 4/2 dark grayish brown silty compacted loam containing large quantities (20 percent) of coal and cinders. The other was similar to Stratum 5 but possessed small quantities of coal and cinder (<10 percent). This stratum was 13 cm (4 in, 8.33–8.2 mbd) thick and characterized as a 10YR 6/3 pale brown silt. Both strata contained twentieth-century debris. A total of 507 artifacts were collected from a 25 percent sample of feature fill. From these artifacts, bottle glass (n = 94) produced a mean manufacture date of 1920 (SD 20 years), and single manufacture mark from a Euroamerican tableware produced a mean date of 1922. These dates suggest deposition in the early twentieth century. This date, coupled with the lower stratum, which appears to have been an amalgamation of natural soil and twentieth-century artifacts, suggests this pit may have been used as a borrow pit prior to the accumulation of household refuse. If this is true, Feature 1 may be associated with the construction of 111 1/2 West Manhattan and 111 Rear West Manhattan in the 1910s and 1920s.

Feature 6

Feature 6 was a construction-debris pit to the northeast of Structure 6 (centerpoint 1019.71N/971.65E). The pit measured 1.31 m (4 ft 3 in) north–south, 1.15 m (3 ft 8 in) east–west, and 42 cm (1 ft 4 in, 8.62–8.2 mbd) deep. Just above base of the pit was a 2 inch (5 cm) water or gas line onto which a shutoff valve had been installed. Fill within the pit was a 7.5YR 5/4 (dry) brown sand with less than 1 percent coal and charcoal inclusions. The feature was excavated in its entirety, and 95 artifacts were collected. These artifacts consisted of 65 metal, 16 bone, 14 glass, 2 Native ceramics, and a single Euroamerican ceramic. Bottle glass manufacturer marks provided a mean manufacture date of 1914 (SD 25 years). However, it is unclear how these artifacts relate to the use-life of the shutoff valve.

Feature 155

Feature 155 was a posthole in the backyard of Structure 6 (centerpoint 1033.72N/937.73E). The posthole was 28 cm (11 in) in diameter.

Figure 16.5. Feature 1, a domestic-refuse pit.

Based on the dimensions of the posthole, it may have functioned as part of a fenceline or an aboveground utility.

Feature 159

Feature 159 was the burial pit of a small lap dog, possibly a dachshund, in the backyard of 111 West Manhattan (centerpoint 1019.16N/937.52E, Fig. 16.6). The pit was roughly basin-shaped and measured 56 cm (1 ft 9 in) long, 30 cm (1 ft) wide, and 12 cm (4 in, 8.06–7.94 mbd) deep. Feature 159 fill was characterized as a 10YR 3/6 (wet) dark yellowish brown silt with no visible coal or cinder inclusions. A single piece of unidentifiable metal was found in association with the dog.

Feature 161

Feature 161 was near the west fenceline of Structure 6. Identified as a construction-debris pit, the feature was roughly rectangular. It measured 2.36 m (7 ft 8 in) north–south, 1.06 m (3 ft 6 in) east–west, and 47 cm (1 ft 6 in, 8.14–7.67 mbd) deep. Pit fill was characterized as a 7.5YR 4/6 (wet) sand with coal (2 percent) and cobble (20 percent) inclusions. All soil from the feature was sifted through 1/4-inch screen. This resulted in the collection of 194 artifacts, the majority of which were metal (n = 112). Bottle glass provided mean manufacture date of 1923 (SD 20 years). The standardized shape of the feature suggests construction was intentional, but use prior to being filled with cobbles cannot be inferred. While the shape of the feature is similar to many self-contained vault privies encountered at LA 158037, no human waste was found in the feature.

Feature 162

Feature 162 was a posthole in the northwest part of the backyard of Structure 6 (centerpoint

Figure 16.6. Feature 159, the Muller family dog, may have been a dachshund.

1033.36N/941.34E). The posthole measured 16 cm (6 in) in diameter. The function of the post could not be determined.

Feature 163

Feature 163 was a posthole in the backyard of 111 West Manhattan (centerpoint 1026.1N/940.42E). The posthole was 25 cm (10 in) in diameter. Based on its similarity in size and shape to Feature 164, another posthole 2.8 m (9 ft) to the south, it may have functioned as part of a clothesline.

Feature 164

Feature 164 was a posthole in the backyard of 111 West Manhattan (centerpoint 1022.75N/940.42E), 2.8 m (9 ft) north of Feature 163. Its diameter measured 31 cm (12 in). In conjunction with Feature 163, this feature may have functioned as a clothesline behind Structure 6 in the early twentieth century.

Feature 167

Feature 167 was a posthole near the west fence of Structure 6 (centerpoint 1029.12N/943.17E). The posthole was 40 cm (16 in) and may have supported a large aboveground telephone or electric line.

Feature 168

Feature 168 was a posthole in the backyard of Structure 6 (centerpoint 1021.12N/944.27E) near the Muller family well (Feature 170). Measuring 25 cm (10 in) in diameter, it appears likely that the posthole was somehow associated with the well's superstructure. However, its exact function could not be discerned from the archaeological record. Features 168 and 169 were spaced exactly 60 cm (2 ft) apart from one another and likely contemporaneous.

Feature 169

Feature 169 was a posthole in the backyard of Structure 6 (centerpoint 1020.58N/944.59E) near the Muller family well (Feature 170). Measuring 26 cm (10 in) in diameter, it appears likely that the posthole was somehow associated with the well's superstructure. However, its exact function could not be discerned from the archaeological record. Features 168 and 169 were spaced exactly 60 cm (2 ft) apart from one another and likely contemporaneous.

Feature 170

Feature 170 was a well along the west fence of 111 West Manhattan (centerpoint 1020.1N/943.94E). The well was square and measured 1.92 m (6 ft 3 in) north–south, 1.8 m (5 ft 11 in) east–west, and 2.5 m (8 ft 2 in, 8.2–5.7 mbd) deep (Fig. 16.7). Fragments of wood were visible along the exterior of the well, suggesting the feature was walled with milled lumber at the time of construction, but subsequently the wood had rotted out. Features 168 and 169 were the only visible remnants of the well's superstructure. Fill consisted primarily of coal and cinder, and soil was characterized as a 10YR (dry) very dark brown sandy silt. A total of 1,815 artifacts were collected from a 50 percent sample of feature fill. Artifacts types included metal (n = 1,327), glass (n = 154), bone (n = 203), Euroamerican ceramics (n = 20), Native ceramics (n = 4), and miscellaneous (n = 105). Bottle glass makers' marks provided a mean manufacture date of 1930 (SD 11 years). Interestingly, Feature 170 is likely contemporaneous with Feature 219, a straight-line cesspit privy only 9 m (29 ft 6 in) away. It is unknown what effect, if any, this had on the on the quality of drinking water.

Feature 173

Feature 173 was a posthole 12 m (40 ft) north of the basement of Structure 6 (Feature 209, centerpoint 1020.48N/955.46E). The posthole was oval and measured 41 cm (1 ft 4 in) east–west by 32 cm (1 ft 1 in) north–south. The function of the posthole remains undetermined.

Feature 174

Feature 174 (centerpoint 1016.77N/956.49E) was a posthole 3.2 m (10.5 ft) directly north of Structure 6 and 2.8 m (9 ft 2 in) west of Feature 175, another posthole. The feature measures 25 cm (10 in) east–west by 20 cm (8 in) north–south. Given its location, the post may have functioned as a roof support for the backyard patio depicted

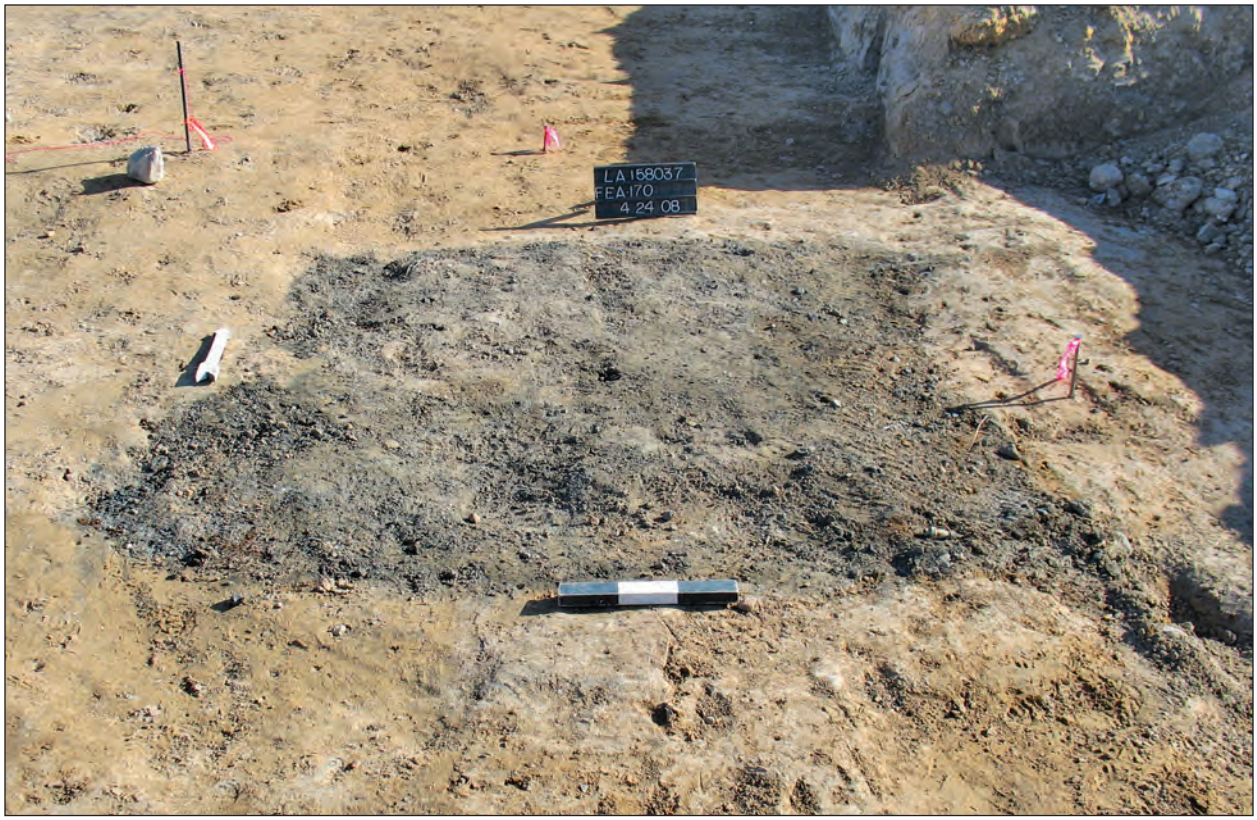


Figure 16.7. Feature 170, a well, before excavation.

on the 1948 Sanborn Fire Insurance map.

Feature 175

Feature 175 (centerpoint 1016.72N/958.3E) was a posthole 3.2 m (10.5 ft) directly north of Structure 6 and 2.8 m (9 ft 2 in) east of Feature 174, another posthole. The feature measures 35 cm (14 in) in diameter. Given its location, the post may have functioned as a roof support for the backyard patio depicted on the 1948 Sanborn Fire Insurance map of Santa Fe.

Feature 177

Feature 177 was a posthole in the backyard of 111 West Manhattan (centerpoint 1026.58N/953.35E). The diameter of the posthole was 42 cm (1 ft 5 in). Its purpose could not be ascertained.

Feature 178

Feature 178 was a partially subterranean root cellar in the backyard of Structure 6 (centerpoint 124.45N/960.07E). The superstructure of the cellar had been removed by twentieth-century construction activities. However, the subterranean portion was found to be intact and was excavated in its entirety (Figs. 16.8, 16.9). Archaeological investigations revealed the subterranean portion measured 4.14 m (13 ft 7 in) north–south, 1.92 m (6 ft 3 in) east–west, and 54 cm (1 ft 9 in, 8.84–8.3 mbd) deep. Access into the structure was by two concrete steps on the eastside structure. Walls to the cellar were also constructed of concrete with river-cobble and brick-fragment filler. Walls on the north, south, and west boundaries of the feature were 20 cm (8 in) wide. The east wall was slightly thicker, 30 cm (1 ft) wide. No evidence of the floor remained at time of excavation. It appeared likely that floor was constructed of milled wood that had deteriorated beyond the point of recognition.

Feature fill was characterized by a single episode of deposition of 10YR 4/2 dark grayish brown silty compacted loam containing large quantities (20 percent) of coal and cinders. Archaeologists collected a judgmental sample of temporally and functionally sensitive diagnostic artifacts (n = 150) from the fill. These artifacts

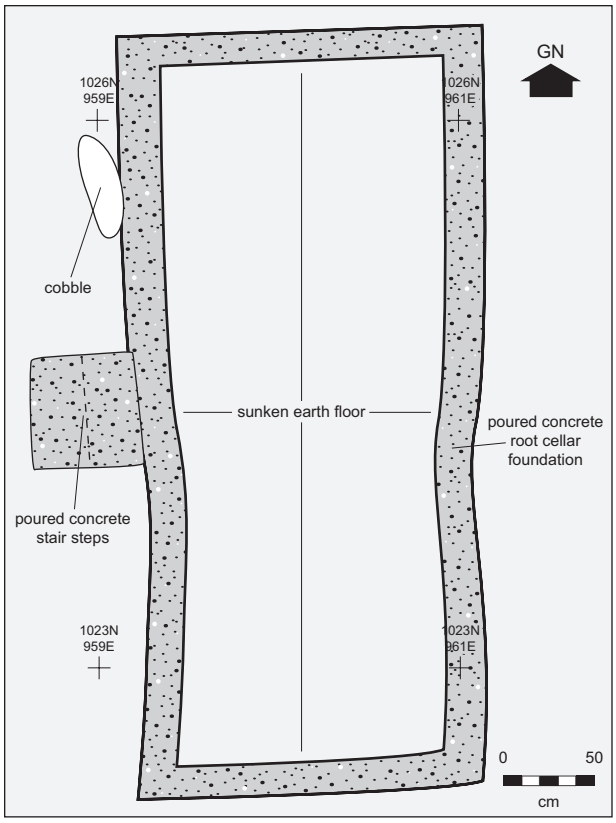


Figure 16.8. Plan of Feature 178, a root cellar.

Figure 16.9. Feature 178 after excavation.

consisted largely of complete beer (mnv = 78) and wine (mnv = 25) bottles. Manufacturer marks on these and other glass vessels produced a mean glass date of 1936 (SD 12 years) and place abandonment of the feature during or just after the Great Depression. Root cellars can have many uses. Often such structures are used in association with the storage of canned goods, and Feature 178 may have functioned as such for the Muller family.

Feature 179

Feature 179 was a posthole in the backyard of 111 West Manhattan (centerpoint 1024.45N/953.56E). The diameter of the posthole was 16 cm (6 in). Its function could not be ascertained.

Feature 180

Feature 180 was a posthole in the backyard of 111 West Manhattan (centerpoint 1023.39N/967.78E) near the eastern property line, but it was not on the fenceline. It is unclear what function the post served. However, it may be associated with 111 West Manhattan Rear, an adobe building depicted on the 1948 Sanborn Fire Insurance map. If so, Feature 180 may have housed a post used to support the ceiling of the adobe structure. The posthole was 30 cm (1 ft) in diameter.

Feature 181

Feature 181 was a posthole in the backyard of 111 West Manhattan (centerpoint 1025.13N/968.86E) near the eastern property line, but it was not on the fenceline. It is unclear what function the post served. However, it may be associated with 111 West Manhattan Rear, an adobe building depicted on the 1948 Sanborn Fire Insurance map. If so, Feature 181 may have housed a post used to support the ceiling of the adobe structure. The posthole was 20 cm (8 in) in diameter.

Feature 182

Feature 182 was a posthole in the backyard of 111 West Manhattan (centerpoint 1023.13N/969.81E) near the eastern property line, but it was not on the fenceline. The posthole measured 50 cm (1 ft 8 in) in diameter. A post in the feature may have supported an aboveground utility (e.g., an electric or telephone line) at one time.

Feature 183

Feature 183 was a posthole along the eastern property line of 111 West Manhattan (centerpoint 1024.97N/972.52E). It measured 26 cm (10 in) in diameter. The posthole likely represents part of a fence which separated the Muller house from the First Baptist Church.

Feature 184

Feature 184 was a posthole in the backyard of 111 West Manhattan (centerpoint 1028.54N/969.86E) near the eastern property line, but it was not on the fenceline. It is unclear what function the post served. However, it may be associated with 111 West Manhattan Rear, an adobe building depicted on the 1948 Sanborn Fire Insurance map. If so, Feature 184 may have housed a post used to support the ceiling of the adobe structure. The posthole was 16 cm (6 in) in diameter.

Feature 185

Feature 185 was a posthole in the backyard of 111 West Manhattan (centerpoint 1028.54N/969.86E) near the eastern property line, but it was not on the fenceline. It is unclear what function the post served. However, it may be associated with 111 West Manhattan Rear, an adobe building depicted on the 1948 Sanborn Fire Insurance map. If so, Feature 185 may have housed a post used to support the ceiling of the adobe structure. The posthole was 28 cm (11 in) in diameter.

Feature 186

Feature 186 was a posthole along the eastern property line of 111 West Manhattan (centerpoint 1028.07N/972.95E). It measured 30 cm (1 ft) in diameter. The posthole likely represents part of a fence which separated the Muller house from the First Baptist Church.

Feature 187

Feature 187 was a posthole along the eastern property line of 111 West Manhattan (centerpoint

1029.8N/973.07E). It measured 24 cm (10 in) in diameter. The posthole likely represents part of a fence which separated the Muller house from the First Baptist Church.

Feature 188

Feature 188 was a posthole along the eastern property line of 111 West Manhattan (centerpoint 1029.8N/973.07E). It measured 20 cm (8 in) in diameter. The posthole likely represents part of a fence which separated the Muller house from the First Baptist Church.

Feature 189

Feature 189 was a posthole along the eastern property line of 111 West Manhattan (centerpoint 1033.7N/973.07E). It measured 28 cm (11 in) in diameter. The posthole likely represents part of a fence which separated the Muller house from the First Baptist Church.

Feature 190

Feature 190 was a posthole along the eastern property line of 111 West Manhattan (centerpoint 1028.77N/973.74E). It measured 16 cm (6 in) in diameter. The posthole likely represents part of a fence which separated the Muller house from the First Baptist Church.

Feature 192

Feature 192 was a self-contained vault privy in the backyard of 111 West Manhattan Avenue near 111 1/2 West Manhattan and possibly underneath or adjacent to 111 Rear West Manhattan (centerpoint 1036.05N/970.1E). The privy was 2.3 m (7 ft 6 in) north–south, 1.9 (6 ft 2 in) m east–west, and 1.03 m (3 ft 4 in, 8.67–7.64 mbd) deep (Fig. 16.10). No evidence of the superstructure was visible. However, the vault was constructed by placing wood posts, 6 inches in diameter, in each corner of the vault. Milled-wood planks were then run across the beams and secured with wire nails.

Figure 16.10. Feature 192, a self-contained vault privy, after excavation.

The exact dimensions of the planks could not be inferred due to deterioration. Vault fill was a 10YR 4/3 (dry) dark grayish brown silt filled with large pieces of concrete and plastic fencing material. Small quantities of human waste were visible in puddles at the base of the pit but could not be followed as a distinctive stratum. This suggests the vault was cleaned of human waste prior to abandonment and then used as a receptacle for construction debris, perhaps at the time of structure demolition in the 1960s. Very few artifacts (n = 30) were collected in association with a few puddles of human waste. These included fragments of a yellow terrier figurine (n = 20) and tea saucer (n = 5) produced by the East End Pottery Co. of East Liverpool, Ohio (ca. 1894–1907; Kovel and Kovel 1986). The dog buried in Feature 159, also associated with 111 West Manhattan, was similar in size and shape to a small terrier. It is conceivable that the figurine was a likeness of the dog owned by the Mullers or other occupants during the early twentieth century. However, it appears likely, given the close proximity of Feature 192 to 111 1/2 and Rear West Manhattan Avenue, that the privy served the rental properties and not the Muller's household.

Feature 193

Feature 193 was identified as a domestic-refuse pit behind Structure 6 (centerpoint 1031.84N/964.7E). The pit consisted of a shallow depression filled with burned refuse, primarily clinkers, from a coal stove. It measured 72 cm (2 ft 4 in) east–west by 66 cm (2 ft 2 in) north–south and 21 cm (8 in, 8.5–8.37 mbd) deep. Feature fill likely represented a single episode of deposition. Soil was characterized as a 10YR 3/6 (dry) dark yellowish brown fine silty clay.

The feature was excavated in its entirety but yielded only seven artifacts: one large mammal bone fragment, part of a rubber comb, and five nails. The nails were a mix of machine-manufactured square-cut (n = 4) and wire (n = 1), suggesting the pit dates to the late nineteenth or early twentieth century. Features 1, 193, 194, 195, and 196, all domestic-refuse pits, are close together, which indicates that the area was used as a household midden during this period.

Feature 194

Like Feature 193, Feature 194 was identified as a domestic-refuse pit behind Structure 6 (centerpoint 1033.4N/966E). The pit was oval and comprised largely of coal and charcoal cinders (30 percent) associated with an oven or hearth. Feature 194 measured 1.3 m (4 ft 3 in) east–west by 1.2 (3 ft 11 in) north–south and 13 cm (4 in, 8.5–8.37 mbd) deep. Fill was characterized as a 10YR 3/3 (dry) dark brown silty loam.

From the complete excavation of the feature, 48 artifacts and samples were collected. Major material types found include bone (n = 5), glass (n = 3), Euroamerican ceramics (n = 4), and metal (n = 33). Metal artifacts consisted primarily of machine-drawn wire (n = 6) and machine-cut square (n = 13) nails and may represent the use of decommissioned building elements as fuel. The presence of both wire and square nails suggests that deposition occurred in the late nineteenth or early twentieth century. Features 1, 193, 194, 195, and 196, all domestic-refuse pits, are close together, which indicates that the area was used as a household midden during this period.

Feature 195

Feature 195 was identified as a shallow basin-shaped domestic-refuse pit behind 111 West Manhattan (centerpoint 1033.06N/967.04E). The feature measured 1.76 (5 ft 9 in) north–south by 1.7 m (5 ft 7 in) east–west and was 28 cm (11 in, 8.57–8.29 mbd) deep (Fig. 16.11). Feature fill comprised of a 10YR 3/3 (wet) dark brown silty loam with 20 percent charcoal, coal, and cinder inclusions.

A 100 percent sample of the feature yielded 226 artifacts. Major material types include bone (n = 122) and metal (n = 70). Like Feature 194, metal artifacts consist largely of machine-drawn wire (n = 6) and machine-cut square (n = 26) nails and may represent the use of decommissioned building elements as fuel. The presence of both wire and square nails suggests deposition occurred in the late nineteenth or early twentieth century. Features 1, 193, 194, 195, and 196, all domestic-refuse pits, are close together, which indicates that the area was used as a household midden during this period.

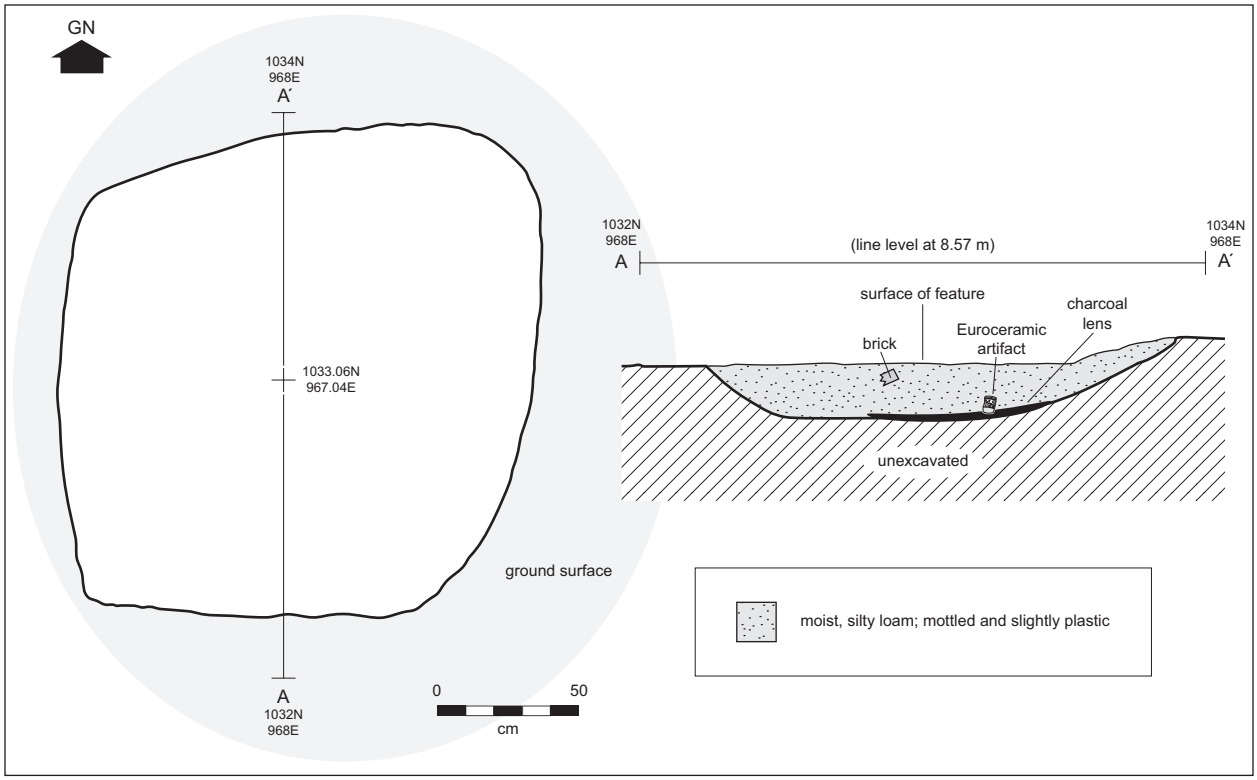


Figure 16.11. Plan (left) and profile of Feature 195, a domestic-refuse pit.

Feature 196

Feature 196 was identified as a shallow basin-shaped domestic-refuse pit behind 111 West Manhattan (centerpoint 1032N/971E). The feature measured 1.24 (4 ft 1 in) north–south by 1.2 m (3 ft 11 in) east–west and 7 cm (3 in, 8.53–8.46 mbd) deep. Feature fill comprised of a 10YR 3/4 (wet) dark yellowish brown silty loam with 1 percent charcoal, coal, and cinder inclusions. From the complete excavation of the feature, only 12 artifacts and samples were collected. These included eight pieces of fauna, two metal fragments, a glass shard, and a flotation sample. Features 1, 193, 194, 195, and 196, all domestic-refuse pits, are close together, which indicates that the area was used as a household midden during this period.

Feature 198

Feature 198 (centerpoint 1021.77N/961.62E) was a posthole immediately east of Feature 178, the root cellar. The posthole pit was roughly oval and measured 90 cm (2 ft 11 in) north–south and 55 cm (1 ft 10 in) east–west. Inside the hole was a square metal post measuring 10 cm (4 in) wide. The post likely supported the superstructure of the root cellar or an adjacent building or carport.

Feature 199

Feature 199 (centerpoint 1025N/963.53E) was a large construction-debris pit east of Feature 178, the root cellar. The pit was roughly rectangular and measured 2.54 m (8 ft 4 in) north–south, 1.51 m (4 ft 11 in) east–west, and 13 cm (5 in) deep. Fill consisted of a 10YR 3/6 (dry) dark yellowish brown silty clay with large modern concrete and asphalt inclusions. These inclusions suggest a post-1960 deposition date. While 50 percent of the feature was excavated to provide information regarding feature depth and composition, no artifacts were collected.

Feature 200

Feature 200 (centerpoint 1026.38N/965.11E) was a posthole immediately east of Feature 178, the root cellar. The posthole pit was roughly circular and measured 15 cm (6 in) in diameter. Inside the hole was a square metal post measuring 10

cm (4 in) wide. The post likely supported the superstructure of the root cellar or an adjacent building or carport.

Feature 201

Feature 201 (centerpoint 1022.83N/965.3E) was a posthole immediately east of Feature 178, the root cellar. The posthole pit was roughly circular and measured 15 cm (6 in) in diameter. Inside the hole was a square metal post measuring 10 cm (4 in) wide. The post likely supported the superstructure of the root cellar or an adjacent building or carport.

Feature 206

Feature 206 was a construction-debris pit behind Structure 6 (centerpoint 1011.1N/968.88E). The feature was oval in plan and basin-shaped in profile. It measured 2.8 m (9 ft 2 in) east–west, 1.2 m (3 ft 11 in) north–south, and 42 cm (1 ft 5 in, 8.65–8.33 mbd) deep. Fill inside the feature was a 10YR 6/2 (dry) light brownish grey silty loam with 1 to 2 percent pipe, brick, and concrete fragments. To achieve a 60 percent sample of the feature, two 1 by 1 m units were excavated into the feature, resulting in the collection of 88 artifacts. Artifact types included bone (n = 28), metal (n = 34), glass (n = 12), European ceramics (n = 9), and Native ceramics (n = 4). The presence of purple bottle glass suggests manufacture between 1880 and 1920, and it is possible that the feature was created during construction of Structure 6 (ca. 1885).

Feature 207

Feature 207 was classified as a domestic-refuse pit behind 111 West Manhattan (centerpoint 1011.64N/966.64E). The feature was oval in plan and basin-shaped in profile. It measured 1.2 m (3 ft 11 in) east–west, 90 cm (2 ft 11 in) north–south, and 24 cm (9 in, 8.66–8.42 mbd) deep. Fill inside the pit was a 10YR 6/2 (dry) light brownish gray with 2 percent charcoal and coal cinder inclusions. Excavated in its entirety, the feature yielded 472 artifacts. Major material types included bone (n = 200) and metal (n = 200). The absence of machine-manufactured bottles and wire-drawn nails indicates the feature likely dates prior to the twentieth century. However, the absence of large quantities of Euroamerican dinnerware makes it difficult to ascertain the socioeconomic status of those who discarded refuse there.

Feature 210

Feature 210 (centerpoint 1016.21N/961.58E) was a posthole immediately north of Structure 6. The feature measured 15 cm (6 in) in diameter and given its location, the post may have functioned as a roof support for the backyard patio depicted on the 1948 Sanborn Fire Insurance map.

Feature 217

Feature 217 was comprised of a shallow pit inundated with coal cinder. The pit was northwest of Structure 6 and measured 1.4 m (4 ft 7 in) east–west, 1.3 m (4 ft 3 in) north–south, and 30 cm (1 ft, 8.75–8.45 mbd) deep. Fill was made a 10YR 4/1 (moist) black by the 50 percent coal and cinder inclusions. Milled wood, possibly representing construction debris burned with the coal, was also visible albeit in much smaller quantities (2 percent). As per monitoring guidelines, no excavation was undertaken. However, a judgmental sample of artifacts (n = 2) was collected to determine feature function and date of deposition. These artifacts included an enameled bucket or pail and the base and body of a stoneware mug. Both of these products can be indicative of household activities. Along with the abundance of coal cinder, these artifacts reflect use of Feature 217 as a domestic-refuse pit during the early twentieth century.

Feature 219

Feature 219 was a straight-line cesspit privy servicing a water closet inside the Muller house (centerpoint 1013.21N/938.55E). The cesspit was fed by an 8 in ceramic sewer pipe leading out of the building and was constructed of unmortared bricks laid out in a stretcher bond (Figs. 16.12, 16.13). Each brick measured 20 by 10 by 10 cm (8 by 4 by 4 in). The bricks formed a cylinder 1.05 m (3 ft 5 in) in diameter. Together they formed a cesspit which was 2.53 m (8 ft 4 in, 8.11–5.77 mbd) deep. Fill within the feature was relatively devoid of artifact content and was characterized

Figure 16.12. Feature 219, a straight-line cesspit privy, before excavation.

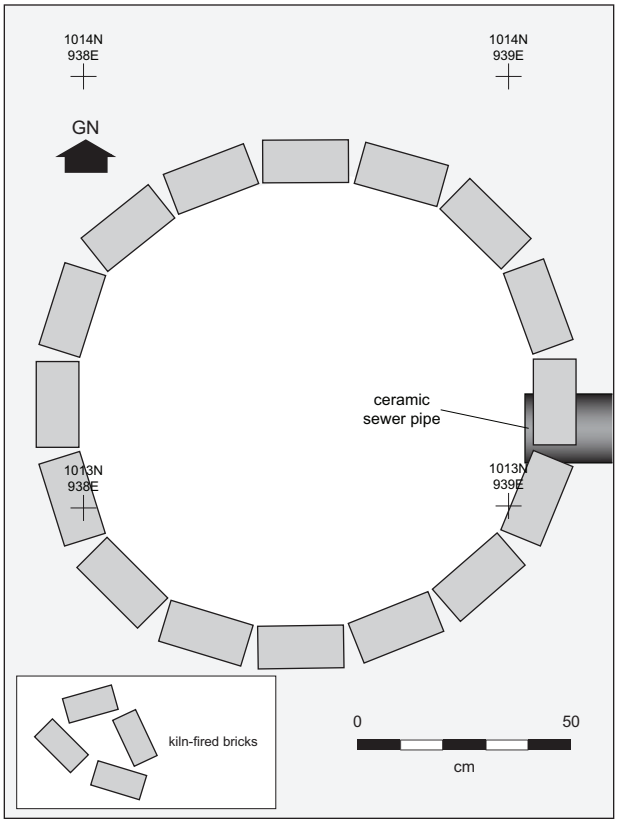


Figure 16.13. Plan of Feature 219.

as a 10YR 4/4 (moist) dark yellowish brown sand with no visible charcoal, coal, or building material inclusions. Excavation of the feature in its entirety yielded only 14 artifacts. These included one bone, three glass, seven metal, and three miscellaneous objects. A wire nail and the crown-top finish to a machine-made bottle suggest deposition in the twentieth century but offer no specific information regarding the time of abandonment. While many of the straight-line cesspit privies documented at LA 158037 are constructed of unmortared bricks, the layout, size, and shape of Feature 119 differ radically from those of other features. It is unlikely the same plumber who constructed Features 82 and 224 fabricated the Muller's cesspit.

Feature 220

Feature 220 was a small dog burial in the northwest corner of 111 West Manhattan (centerpoint 1043.61N/940.93E). The pit measured 61 cm (2 ft) north–south by 45 cm (1 ft 6 in) east–west and 43 cm (1 ft 5 in, 8.2–7.77 mbd) deep. Feature fill was characterized as a 10YR 6/6 (moist) brownish yellow sandy loam with 1 percent charcoal and gravel. Between 30 and 32 cm (1 ft) below the top of the feature, a wooden board cut across the stratum. Below this, portions of a small dog, possibly a terrier or a dachshund, rested on the bottom of the pit.

Feature 220 was found during archaeological monitoring, and no systematic excavation of the feature was undertaken. It appears likely that most of the dog was removed by the backhoe before the feature was properly identified. However, three artifacts and a flotation sample were collected as part of a judgmental sample to provide information on the date of deposition. Artifacts included a single machine-made toiletry bottle, the blade of a butter knife, and a body sherd from a white-bodied earthenware casserole dish. Manufacture technologies used to create these artifacts suggest the dog was owned by the Muller family during the early to mid-twentieth century.

Feature 221

Feature 221 was a posthole northwest of 111 West Manhattan (centerpoint 1044.2N/941.5E). The posthole measured 20 cm (8 in) in diameter and could not be tied to a specific function.

Feature 223

Feature 223 was a large construction-debris pit along the back property line of the Muller property in the early twentieth century. The pit was roughly circular and measured 3.2 m (10 ft 6 in) in diameter and 1 m (3 ft 3 in, 8.85–7.85 mbd) deep. Fill inside the pit was characterized by four different strata. The uppermost stratum was a 2.5YR 2.5/1 (dry) black consisting primarily of asphalt chunks and extended 0 to 30 cm (1 ft, 8.85–8.55 mbd) below the ground surface. The second stratum was a 7.5YR 5/4 (dry) brown silty sand with 20 percent asphalt fragments. This layer extended from 30 to 40 cm (1 ft–1 ft 4 in, 8.55–8.45 mbd) below the top of the feature. Next was a 7.5YR 4/4 (dry) brown sandy loam with 10 percent brick fragments that ranged between 40 and 80 cm (1 ft 4 in and 2 ft 7 in, 8.45–8.05 mbd) below the top of the feature. Last, the base of the feature was a 7.5YR 4/3 (dry) brown sand with 1 percent brick and asphalt fragments. It was documented from 80 cm to the base the feature (2 ft 7 in to 3 ft 3 in, 8.05–7.85 mbd).

No excavation was undertaken. However, a judgmental sample of nine artifacts was collected from the feature profile. All of these artifacts were found within the third layer of fill and included three pieces of saw-butchered cow, a piece of window glass, a rim sherd to a white-bodied earthenware casserole dish, a machine-cut square nail, a fuse, and a small strip of ferrous metal. None of these artifacts were particularly diagnostic, but asphalt found throughout the feature suggests deposition in the mid-twentieth century.

Artifacts

A total of 4,093 artifacts and samples were collected in association with Structure 6, 111 West Manhattan Avenue: 58 Native American ceramics, 1,068 faunal bone, 2 flaked stone, 527 glass, 103 Euroamerican ceramics, 2,141 metal, 13 flotation samples, 1 pollen sample, 4 macrobotanical samples, and 176 miscellaneous artifacts. The majority of artifacts (n = 3,621) are associated with twentieth-century Euroamerican occupation by the Muller family, and many of these were collected from domestic-refuse pits and privies.

The relatively large sample size provided ample information on the socioeconomic status of the household. The combined mean ceramic value (1.41, SD 0.54) derived from all Euroamerican dinnerware vessels associated with Structure 6 is relatively low when compared to other residences within the study area and suggests a relatively poor household. This information conflicts with what is known from historical data. The Mullers appear, at least from archival records, to have been a middle-income family. One possible reason for such a low score is the presence of renters who occupied the rental properties of 111 1/2 West Manhattan and 111 Rear West Manhattan. The vast majority of these occupants did not list a job in *Hudspeth's Santa Fe City Directories*, and it is likely many were seasonal laborers or unemployed. The waste produced by these lower-income occupants likely contributed to the low ceramic value.

Analyzed faunal bone indicates that occupants at 111 West Manhattan dined almost exclusively on domesticated animals such as cattle (n = 276) and domestic sheep/goat (n = 173). The primary occupants of the building, the Muller family, were of German decent. However, pig (n = 20) does not appear to have been a mainstay of the family diet. Instead, the family appears to have eaten similarly to its Hispanic neighbors. This may or may not have been the Muller family's preference. As with ceramic dinnerware, the numbers presented likely represent a conglomeration of the property's owners and back-building renters. Hence, it is possible that the reason that dietary trends associated with the Mullers look like those of a local Hispanic family is that much of the waste generated was by Hispanic renters.

Summary and Interpretations

Built in the late nineteenth century, Structure 6, 111 West Manhattan Avenue, was a substantial wood-framed building with a sandstone-walled basement. The 1885 *Hartmann Map of Santa Fe* lists a family by the name of García occupying the building. Later in the 1920s, the Muller family purchased the property and occupied the structure until the mid-1950s. During this time, the Muller family took in renters who occupied

structures, 111 1/2 West Manhattan and 111 Rear West Manhattan, near the back of the lot. These smaller buildings were built of adobe, and their use as rental properties provided the Muller family with additional income during the Depression, World War II, and Postwar eras.

Direct archaeological evidence for the primary building is limited to a two-room basement (Feature 209) and stairwell (Feature 208). However, posthole Features 174, 175, and 210 may represent a rear covered patio. Other rental properties (111 1/2 West Manhattan and 111 Rear West Manhattan) and carports in the rear of the property may also be represented by posthole features. In addition, Feature 178 represents a root cellar, presumably used by the occupants of the Muller residence.

Sanitation systems vary across the property. The primary building, occupied by the Mullers in the twentieth century, was serviced by a water closet (i.e., a flush toilet) inside the structure. This toilet connected with a straight-line cesspit (Feature 219) to the west of the building. The rental properties had no such luxuries and instead appear to have used a self-contained vault privy (Feature 192) to deposit waste. While it is clear based on feature construction and location that the vault was tied to the stand-alone structure, it is unclear if this feature had running water. Cultural materials from neither waste management system provide a concise date of abandonment, and it is uncertain if any of the buildings were ever connected to a city sewer line.

Cultural materials collected with 111 West Manhattan Avenue were plentiful and reflect use of the property by occupants of the primary household and rear rental buildings. With the exception of the privies, it is often unclear which inhabitants used which features. This proves to be a problem when attempting to infer social status and consumption patterns through the archaeological record. However, it reinforces the argument that archaeology is both collective and cumulative. Materials associated with Structure 6 represent not only the owners of the property but all occupants. As a result the materials found have as much to say about the unemployed family in the back house as they do about the middle-class family in the front.

Chapter 17

Structure 7 (424, 428, or 430 Don Gaspar Avenue)

Structure 7 was identified as 424, 428, and 430 Don Gaspar Avenue at different times in past (Sanborn Fire Insurance maps, 1921, 1948; *Hudspeth's Santa Fe City Directories*, 1928–1960) and functioned as the First Baptist Church. The church was first built in 1921 and was closed in 1960 when the congregation moved to its current location at 1605 Old Pecos Trail. Before this time, an earlier residential structure was on the premises. This structure may have housed the Baptist pastor, Reverend Jonathan F. Measells. From a large tent on the property the pastor conducted ceremonies and collected funds for building the church. The tent and early residential structure are both drawn on the 1908 Sanborn Fire Insurance map (Fig. 17.1). It is unclear when the tent and residential structure were built, but neither appears on the Hartmann map of 1885–1886.

After construction of the First Baptist Church, it is unknown how many pastors lived in the structure during its 49 years of service (Table 17.1). Reverend Buren Sparks was listed on the 1924 *King's Official Map* as a resident of the church, and Pastor Clint Irvin was documented as living at the structure between 1947 and 1948 (*Hudspeth's Santa Fe City Directories*, 1947, 1948), but these are the only two cases encountered in which clergy were listed as inhabiting the structure.

Structure

Based on the 1908 Sanborn Fire Insurance map (Fig. 17.1), the earlier residential structure consisted of a single-story wood-framed building with two rooms. This structure measured 11.58 m (38 ft) east–west and 4.88 m (16 ft) north–south, encompassing 46.45 sq m (500 sq ft) of area. Coincidently, while historic records do not indicate the building was used as a church, the floor plan of this building had a T-shape. T-shape plans are typically used to construct Christian religious structures, and it is possible this building was used for ceremonies in the past. The tent in which the Baptist congregation met was 4.27 m (14 ft) east–west and 4.27 m (14 ft) north–south, equating to 18.21 sq m (196 sq ft) of surface area. Unfortunately, all physical evidence of these two structures appears to have been destroyed during construction of the First Baptist Church.

The First Baptist Church, built on the grounds in 1921, was substantially larger than the previous buildings and possessed a basement, which the initial structure and tent lacked. The 1948 Sanborn Fire Insurance map indicates the structure was built of brick and possessed two aboveground stories and a partially subterranean basement (Fig. 17.2). This basement is depicted in a photo showing stairs leading up to the church doors on the ground floor and what appear to be windows on the south side of the building at a lower level (Fig. 17.3). However, the stairs leading to the doorway are not more than 1.2–1.5 m (4–5 ft) high suggesting that 0.6 m (about 2 ft) of the lower level was below the ground surface.

As depicted on the 1948 Sanborn Fire Insurance map, maximum dimensions for the building were 29.87 m (98 ft) east–west and 24.99 m (82 ft) north–south. The three levels, two above the ground and one below, combine to provide a floor plan encompassing 829.81 sq m (8,932 sq ft). In addition, a U-shaped porch extended out from the front doors of the structure. This porch measured 7.32 m (24 ft) northeast–southwest and 2.44 m (8 ft) northwest–southeast. No outbuildings are identified on the 1948 map.

Archaeological evidence for the structure is limited to the partially subterranean basement, which extended down 60 cm (2 ft, 9.23 to 8.63 mbd) below the top of its rebar-reinforced concrete walls/foundations, which were 30 cm (1 ft) thick. The floor of the basement was a simple, unreinforced, concrete pad 15 cm (6 in) thick (Fig. 17.4). The church's basement consisted of four rooms. Room 1 was in the southwest corner of the basement. It measured 9 m (29 ft 6 in) east–west by 5.75 m (18 ft 10 in) north–south. Room 2 was in the northwest region and measured 6.5 m (21 ft 4 in) north–south by 4.5 m (14 ft 10 in) east–

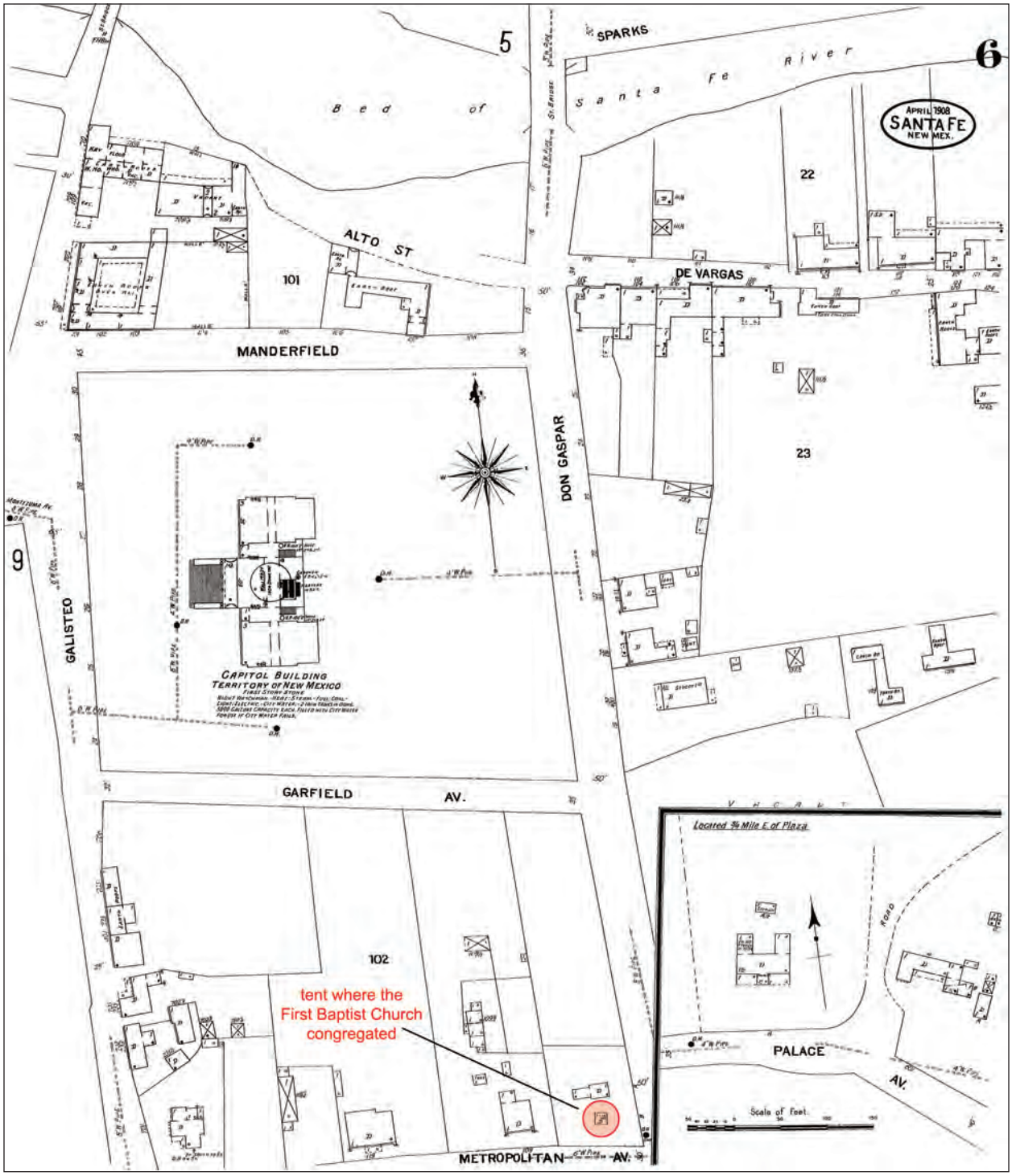


Figure 17.1. Detail of the April 1908 Sanborn Fire Insurance map, with the location of the tent where the First Baptist Church congregated.

Figure 17.2. Location of Structure 7 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

Figure 17.3. The First Baptist Church, ca. 1949. Palace of the Governors Photo Archives (NMHM/DCA), Neg. No. 73834.

Figure 17.4. The First Baptist Church basement floor during archaeological monitoring, spring 2009.

west. Room 3, in the northeast corner, measured 4.5 m (14 ft 10 in) north–south by 4.5 m (14 ft 10 in) east–west. Room 4 was in the southeast corner of the basement. Seemingly identical to Room 1, it measured 9 m (29 ft 6 in) east–west by 5.75 m (18 ft 10 in) north–south. All four rooms combined to provide 153 sq m (1,650 sq ft) of interior space. However, this represents only a fraction of the total basement's size. Based on the Sanborn Fire Insurance map, the remainder of the building is currently underneath Paseo de Peralta.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map onto the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property boundaries, the feature was then associated with the inhabitants of a given structure.

Seven extramural features were linked to Structure 7 (Table 17.2). These features included four construction-debris pits, a posthole, a domestic-refuse pit, and a self-contained vault privy. Each of these features was excavated in its entirety.

Feature 7

Feature 7 was a self-contained vault privy or "earth closet" discovered during initial testing at LA 158037 (centerpoint 1021.31N, 976.29E). The privy was rectangular and measured 1.43 m (4 ft 8 in) north–south by 1.1 m (3 ft 7 in) east–west and 0.75 m (2 ft 6 in, 8.75 to 8.00 mbd) deep. The feature was excavated in its entirety and found to be a simple hand-dug pit with no brick or adobe lining. Fill within the privy was a 5YR 4/8 (wet) red silt with less than 1 percent gravel and charcoal and copious quantities of artifacts (n = 230). Artifacts included ceramic sherds of German porcelain, Lucky Strike tobacco tins, and assorted fragments of bottle glass. The mean ceramic date of the feature was 1903 (SD 2 years), and the mean bottle glass date was 1908 (SD 34 years).

At the time of unearthing, the feature was determined to be associated with the First Baptist Church, built in 1921 (Barbour 2008a). However diagnostic artifacts suggest that the feature predates the construction of the church by 13 years. It is more likely that the privy is associated with the earlier structure and tent depicted on the 1908 Sanborn Fire Insurance map. This does not mean that artifacts from the privy are not associated with the Baptist congregation. Members of the church regularly held their meetings in the tent prior to 1921 and likely contributed to the materials found in the privy.

Feature 176

Feature 176 was behind Structure 7, the First Baptist Church (centerpoint 1021.31N, 976.29E). The feature appeared to represent a posthole. This posthole was 28 cm (11 in) in diameter.

Feature 202

Feature 202 was identified as a construction-debris pit in the northwestern portion of the property behind the church (centerpoint 1018.7N/981.07E). Irregular in shape, the pit measured 2.35 m (7 ft 9 in) north–south by 1 m (3 ft 3 in) east–west and 0.07 m deep (3 in, 8.94 to 8.87 mbd) deep (Fig. 17.5). Fill inside the pit was a 7.5YR 4/4 (dry) brown sandy loam with high quantities of brick and brick fragments, similar to Stratum 10. Structure 7 was built of brick, and the presence of large quantities of these materials in Feature 202 suggests the feature may be related to construction, renovation, or demolition occurring at the structure. However, the 58 artifacts, primarily glass shards (n = 39), collected from the feature lacked diagnostic characteristics, and we could not assign an exact date of deposition.

Feature 203

Feature 203 was in the northwestern portion of 424 Don Gaspar, either underneath or behind the church (centerpoint 1015.80N/982.63E). The feature was irregular in shape and was designated a construction-debris pit based on the presence of tarpaper and brick and concrete fragments (not collected). The pit measured 1.05 m (3 ft 5 in)

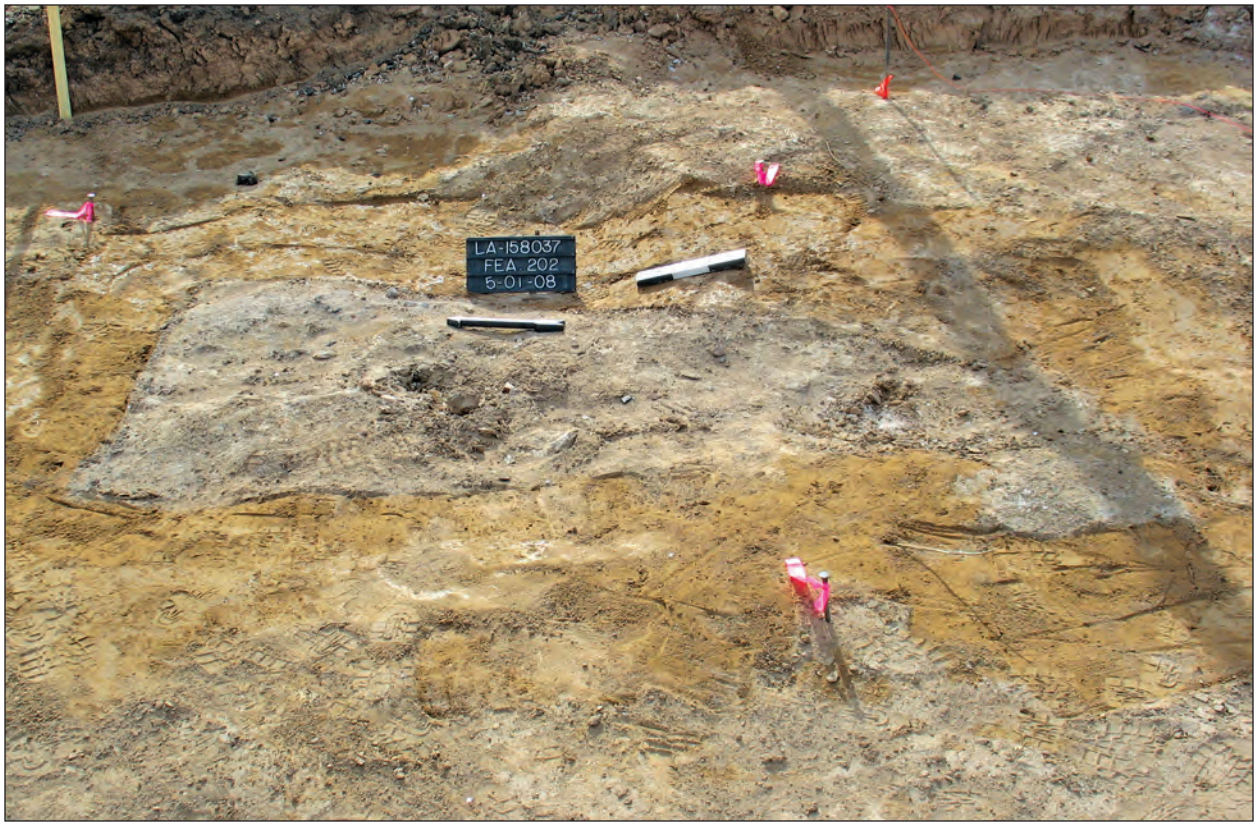


Figure 17.5. Feature 202, a construction-debris pit, before excavation.

east–west by 0.71 m (2 ft 4 in) north–south and 0.08 m (3 in, 9.07 to 8.99 mbd) deep. Fill was a 7.5YR 4/4 (dry) brown sandy loam. Artifacts included 15 pieces of glass, 6 pieces of metal, a leather fragment, and a Euroamerican sherd. Like Feature 202, these artifacts lacked diagnostic attributes, and the pit may have been constructed at any time during the twentieth century.

Feature 204

Irregular in shape, Feature 204 was yet another construction-debris pit in the northwest corner of 424 Don Gaspar Avenue, either underneath or behind the church (centerpoint 1015.37N/980.45E). It measured 1.5 m (4 ft 11 in) east–west by 1.1 m (3 ft 7 in) north–south and 0.09 m deep (4 in, 9.04–8.95 mbd). Fill was a 7.5YR 5/3 (dry) brown sand inundated with brick, concrete, and asphalt fragments. Fifteen artifacts, primarily glass and metal, were collected from the feature. None were diagnostic. However, the asphalt suggests that the feature dates to the later half of the twentieth century.

Feature 205

Feature 205, a domestic-refuse pit, was found close to what would have been the property boundary between 424 Don Gaspar and 111 West Manhattan (centerpoint 1013.84N/977.91E). The pit was shallow, 0.02 m deep (1 in, 9.09–9.07 mbd), and roughly circular. It measured 0.88 m (2 ft 10 in) north–south by 0.78 m (2 ft 7 in) east–west, and fill was characterized as a 7.5YR 5/4 (wet) brown sand with lenses of ash and charcoal. It seems likely that the shallow nature of the pit is a result of twentieth-century demolition which occurred in Strata 3, 8, and 10. Only seven artifacts were uncovered. The small assemblage size precludes the ability to assign a definitive date to the assemblage. However, a small piece of tarpaper documented in the fill, but not collected, suggests the pit dates to the late nineteenth or early twentieth centuries.

Feature 211

Feature 211 is a construction-debris pit either

behind or underneath the church (centerpoint 1013.8N/980.92E). Rectangular in shape, the pit measured 1.2 m (3 ft 11 in) east–west by 0.97 m (3 ft 2 in) north–south and 0.19 m deep (7 in, 9.08–8.89 mbd). Fill was a 7.5YR 5/3 (dry) brown sand filled with concrete and brick fragments. At the base of the pit was a substantial fragment of concrete running along a north–south trajectory. This fragment was 0.98 m (3 ft 3 in) long, 0.43 m (1 ft 5 in) wide, and 0.02 m (1 in) thick and may potentially represent the base of the church's foundation left clinging to subsurface deposits. The bone (n = 5), glass (n = 10), and metal (n = 22) recovered do not definitively date the feature to any specific decade in the twentieth century.

Artifacts

A total of 380 artifacts and samples were collected in association with Structure 7 (224 and 228 Don Gaspar Avenue). They include 34 bone, 3 Native American ceramics, 1 lithic, 173 metal, 91 glass, 60 Euroamerican ceramics, 7 flotation samples, a pollen sample, and 8 miscellaneous artifacts. However, the overwhelming majority (n = 234) was collected from a single feature (Feature 7), which may have been used by the First Baptist congregations in the 1910s or 1920s. German-manufactured dishes within Feature 7 suggest a relatively affluent user base (mcv = 2.22). Butchered animal bone sample was relatively small but contained both axe-butchered goat (n = 5) and saw-cut cattle (n = 5) pieces.

Summary and Interpretation

Throughout the early twentieth century, Structure 7 (424, 428, and 430 Don Gaspar Avenue) was the center for the Baptist faith in Santa Fe. Unfortunately, clear archaeological evidence of Structure 7 is limited to the church basement, but this may not be the only information regarding the structure size and shape available in the archaeological record. If Features 202, 203, 204, and 211 are viewed macroscopically against the basement of Structure 7, it is clear that these features run along the same trajectory as known basement walls and may represent demolition performed in removing the structure's foundation in the 1960s. If this were the case, then Features 202, 204, and 211 represent additional evidence of the church's westernmost wall.

The majority of artifacts were collected in association with a self-contained vault privy dating ca. 1908. Materials from this feature suggest a rather wealthy congregation. However, no religious materials were encountered. In fact, no evidence of funerary, ceremonial, or religious activities of any kind was encountered during archaeological investigations of 424, 428, and 430 Don Gaspar Avenue. Use of the structure and the area by the First Baptist Church of Santa Fe comes exclusively from the historic record. If explored without access to written documents, the function of the building as a church would have been lost.

Chapter 18
Structure 8 (420 Don Gaspar Avenue)

From Sanborn Fire Insurance maps dating to the early twentieth century, Structure 8, 420 Don Gaspar Avenue, was constructed between 1913 and 1921. The building shared the same lot as Structure 9, 416 Don Gaspar Avenue, and no fence separated the two structures, which shared a two-car garage.

Table 18.1 lists the occupants of 416 Don Gaspar as described by *Hudspeth's Santa Fe City Directories* (1929–1992). From the 1940s until the 1970s, both Structure 8, 420 Don Gaspar, and Structure 9, 416 Don Gaspar Avenue, were owned by William E. Rutherford, a station agent for the Atchison, Topeka & Santa Fe Railway. During the 1970s, Rutherford sold 416 Don Gaspar to the Dominic family but continued to live in 420 Don Gaspar until his death in 1987. No owner or renter is specified for 1988–1991, and the structure was demolished in 1992.

Structure

Based on the 1948 Sanborn Fire Insurance map, Structure 8 measured 7.32 m (24 ft) north–south and 12.19 m (40 ft) east–west, encompassing 83.24 sq m (896 sq ft) of area (Fig. 18.1). The structure was a single story high and fabricated from wood with a stucco exterior. A porch 4.2 m by 1.8 m (14 ft by 6 ft) was attached to the front of the house, and a freestanding two-car garage 7.3 m by 6.1 m (24 ft by 20 ft), shared with 416 Don Gaspar, was in the backyard.

No archaeological evidence for the structure, such as foundations or a basement, was encountered during the investigation.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map onto the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property boundaries, the feature was then linked with the inhabitants of a given structure.

Four extramural features were encountered near Structure 8 (Table 18.2): a domestic-refuse pit, a posthole, and two construction-debris pits.

Feature 191

Feature 191 was on the fenceline between Structure 8 and Structure 7, the First Baptist Church (centerpoint 1028.68N, 977.14E). The feature was circular and 36 cm (1 ft 2 in) in diameter. Based on its size and shape, the feature was designated a posthole. However, this posthole does not line up with any property boundaries shown on the Sanborn Fire Insurance maps. Its large diameter suggests it supported an aboveground electrical or cable line.

Feature 197

Feature 197 was underneath or near the two-car garage in the northwest portion of the backyard (centerpoint 1029.34N, 977.64E). The rectangular feature was designated a construction-debris pit because of the large quantities of plaster of Paris removed from its confines, but the regular shape of the feature suggests it may have had a more distinct function in its past (Fig. 18.2). Excavated in its entirety, Feature 197 measured 1.75 m (5 ft 9 in) east–west by 1.45 m (4 ft 9 in) north–south and 0.2 m (8 in, 8.79 to 8.59 mbd) deep. Fill was divided into three strata. The upper fill was a 7.5YR 4/6 (dry) strong brown sand with concrete and brick fragments. It extended from the top of the feature 10 cm (4 in, 8.79 to 8.69 mbd). This was followed by a layer of plaster of Paris, 7.5YR 8/2 (dry) pink, 5 cm thick (2 in, 8.69–8.64 mbd), then by a second layer of loosely consolidated sand, 7.5YR 6/4 (dry) light brown, also 5 cm thick (2 in, 8.64–8.59 mbd). A total of 29 artifacts and samples

Figure 18.1. Location of Structure 8 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

Figure 18.2. Feature 197, a construction-debris pit, after excavation.

were collected from the feature. These artifacts included nondiagnostic bottle glass (n = 5) and wire nails (n = 8). The abundance of wire nails suggests a deposition date after 1890 (Nelson 1968:10). However, an exact date for the feature could not be determined, and the feature could very well date to the structure's demolition in 1992.

Feature 215

Feature 215 was either underneath or adjacent to the back wall of 420 Don Gaspar Avenue (centerpoint 1030N, 981.3E). The feature was irregular in shape and measured 1 m (3 ft 3 in) north–south by 0.6 m (2 ft) east–west and 0.2 m (8 in, 8.55 to 8.35 mbd) deep. Fill within the feature was similar to Stratum 3 in color and in texture, a 10YR 4/2 (dry) dark grayish brown silty sand. Examination of the feature was performed during the monitoring phase, and only coal clinkers were found.

Feature 216

Feature 216 was underneath the presumed location of Structure 8 (centerpoint 1035N, 985E). The pit measured 7.2 m (23 ft 7 in) north–south by 5.5 m (18 ft) east–west and 0.6 m (2 ft, 8.55 to 7.95 mbd) deep and was filled with a Stratum 10–like soil inundated with construction debris. While no artifacts were collected to directly confirm the date of deposition, it is likely that the feature is associated with demolition of the structure in 1992.

Artifacts

Cultural materials were collected only from Feature 197, which yielded 23 metal fragments,

5 glass sherds, a single bone, one ceramic, and a flotation sample. These quantities are insufficient to accurately assess consumption and discard patterns of occupants residing at Structure 8, 220 Don Gaspar Avenue.

Summary and Interpretation

Historical evidence gleaned from Sanborn Fire Insurance maps and *Hudspeth's Santa Fe City Directories* suggests Structure 8, 220 Don Gaspar Avenue, was wood-framed, stucco-sided, lacked a basement, and was owned by a Euroamerican family throughout most of its use. However, no archaeological evidence of the structure was uncovered during archaeological investigations. Four extramural features included a domestic-refuse pit (Feature 215), a posthole (Feature 191), and two construction-debris pits (Features 197 and 216), but artifact counts were insufficient to assess consumption and discard patterns of the structure's occupants.

Chapter 19
Structure 9 (416 Don Gaspar Avenue)

From Sanborn Fire Insurance maps dating to the early twentieth century, Structure 9, 416 Don Gaspar Avenue, was constructed between 1913 and 1921. The building shared the same lot as Structure 8, 420 Don Gaspar Avenue, and no fence separated the two structures, which shared a two-car garage.

Table 19.1 lists the occupants of 416 Don Gaspar as described in *Hudspeth's Santa Fe City Directories* (1929–1992). From the 1940s until the 1970s, both Structure 8, 420 Don Gaspar, and Structure 9, 416 Don Gaspar Avenue, were owned by William E. Rutherford, a station agent for the Atchison, Topeka & Santa Fe Railway. During this period, 416 Don Gaspar Avenue appears to have been used primarily as a rental property to derive a secondary income. In 1976, Rutherford sold 416 Don Gaspar to the Dominic family. Various occupants continued to stay at the house until 1991, when the property was acquired by the State of New Mexico and demolished.

Structure

Based on the 1948 Sanborn Fire Insurance map, Structure 9 was 7.32 m (24 ft) north–south and 10.97 m (36 ft) east–west, encompassing 80.27 sq m (864 sq ft) of area (Fig. 19.1). The structure was a single story high and fabricated from wood with a stucco exterior. A porch 4.2 m by 1.8 m (14 ft by 6 ft) was attached to the front of the house, and a freestanding two-car garage 7.3 m by 6.1 m (24 ft by 20 ft), shared with 420 Don Gaspar, was in the backyard.

No archaeological evidence for the structure, such as foundation or a basement, was encountered.

Features

Extramural features were tied to the structure by overlaying the 1948 Sanborn Fire Insurance map onto the archaeological record and examining the spatial distribution of the features. Features within the property boundaries of a given structure were then examined to see if material culture within the feature dated to the time of the occupancy. If artifact manufacture dates were contemporaneous with the known occupation of the building and were within the known property boundaries, the feature was then linked with the inhabitants of a given structure.

One feature is believed to be associated with Structure 9 based on its location within the 1948 property boundaries.

Feature 222

Feature 222 would have been behind Structure 9 in the northwest corner of the property (centerpoint 1046N, 981E). The pit measured 7 m (23 ft) north–south by 6 m (19 ft 8 in) east–west and 1.4 m (4 ft 7 in, 8.65 to 7.25 mbd) deep. Fill within the feature was similar to materials identified in Stratum 10, a 5YR 5/2 (dry) reddish gray sandy loam. Concrete, brick, and other construction related materials within this fill suggest the pit was used to deposit debris associated with demolition of Structure 9 in the 1990s. However, no artifacts were collected to directly confirm the date of deposition.

Artifacts

No artifacts were collected in association with Structure 9.

Summary and Interpretation

The lack of features and artifacts associated with residential occupation of the structure makes it difficult to ascertain much regarding early twentieth-century life at 416 Don Gaspar Avenue. However, historical evidence gleaned from Sanborn Fire Insurance maps and *Hudspeth's Santa Fe City Directories* is revealing. The structure, owned by a Euroamerican family through most

Figure 19.1. Location of Structure 9 features on the Sanborn Fire Insurance map (January 1930, modified August 1948).

of its life, was wood-framed, stucco-sided, and lacked a basement. This lack of basement is somewhat perplexing, since the use of basements is often identified as an Anglo practice brought to New Mexico by easterners. However at LA 158037, most buildings, Anglo and otherwise, have underground rooms.

The lack of archaeological evidence is also telling. The absence of a straight-line cesspit or self-contained vault privies behind the house suggests that the structure was connected to a main sewer line when it was built. This would make Structure 9 among the earliest structures in the area to be connected to municipal utilities. Furthermore, the absence of domestic refuse suggests potentially a tidy yard and an attempt to practice waste disposal in areas outside the residential unit (such as arroyos and town dumps). Unfortunately, such conclusions are speculative. The 416 Don Gaspar Avenue lot was not investigated in its entirety. It is possible that inhabitants of Structure 9 used outhouses and threw their refuse in domestic-refuse pits, but these features were not found during excavation or monitoring.

Chapter 20
Euroamerican Artifact Analysis

Matthew J. Barbour and Susan M. Moga

Euroamerican artifacts are 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.

Collected and analyzed Euroamerican artifacts from LA 158037 (n = 12,392) represent just under 53.4 percent of the total artifact assemblage (n = 23,200) recovered during data recovery investigations. Euroamerican artifact analysis was conducted by Matthew Barbour, Isaiah Coan, Susan Moga, and Virginia Prihoda of OAS, assisted by Friends of Archaeology volunteers Barry Kirschbaum and Robert Mizerak. Collected materials were analyzed following the standards and methodology outlined in Boyer et al. (1994), specifically created to analyze Euroamerican assemblages. General descriptive attributes such as material type, manufacturing technique, and color were recorded for each artifact. In order to address the questions presented in the data recovery plan, analysis focused on a function-based analytical framework for determining site activities, the socioeconomic status of site occupants, and site chronology through the quantification of manufacture dates associated with artifact deposition. These methods are described in detail in "Field and Analytic Methods" (this report).

This chapter is organized into three sections. First, the Euroamerican artifact assemblage is categorized, detailing items recovered, their diagnostic attributes, and their inferred function. Based on the data, the assemblage is then sequenced chronologically and divided into specific temporal and spatial units. Lastly, temporal and spatial controls are used to inform on site use, specifically in regards to residential consumption and discard behaviors in the late nineteenth and early twentieth centuries, dealing particularly with the ethnic complexion and socioeconomic status of the household units (Barbour 2008a).

Analysis Results

The 12,392 Euroamerican artifacts recovered from the LA 158037 included a diverse array of products that encompassed 11 of the 12 broad functional categories used in the OAS Euroamerican artifact analysis (Table 20.1). Communication items were not recovered from the site. Analysis suggests that many of the artifacts relate largely to the residences that occupied the site during the early twentieth century. The artifacts 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/Unidentifiable

In all, 2,060 artifacts or 16.6 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 unidentifiable category is comprised primarily of highly fragmented bottle glass (n = 1,205) and metal can (n = 280) fragments that did not retain enough diagnostic attributes to assign a specific function to them. Some of these objects, such as machine-made bottle glass, provide temporal indicators of the late nineteenth and early twentieth century. They also reflect the participation by LA 158037 residents within the national economy of the time. Table 20.2 presents bottle manufacturing methods, period of use, and characteristic marks. Table 20.3 presents the same data for canned products. Manufacturing processes for glass bottles and cans are discussed

at considerable length in other OAS publications (Grochowski et al. 2004; Lentz and Barbour 2011) and will not be reiterated here.

Economy and Production

Economy and production items include objects associated with subsistence, industrial, and commercial endeavors. LA 158037 was formerly in a residential neighborhood, and contributions to this category were expectedly low (n = 16, 0.1 percent). The objects included the heads of two garden hoes and 14 indeterminate machine parts. Hoes presumably represent gardening pursuits by the local inhabitants, and the machine parts may be associated with a variety of household appliances. Both of the hoe blades are cast steel welded onto the socket (Fig. 20.1) and are similar if not identical to Item No. 1652 in Sears, Roebuck (1897:49), which retailed for $3.00.

Food

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 158037, 559 Euroamerican artifacts were identified as food related. These artifacts comprised only 4.5 percent of the total Euroamerican artifact assemblage.

The 559 artifacts in the food category were further segregated by container type into canned goods (n = 316), bottled goods (n = 229), and miscellaneous (n = 14). The majority of can fragments were identified as vegetable or fruit containers (n = 239) based on their cylindrical shape and proportions. While very few of the objects were complete, diameters and partial heights suggest these objects are fragments of No. 303, 2, or 2 1/2 cans, typically used for packaging vegetables, fruits, or soups (Duran and McKeown 1980:1044–1045). The remaining 77 canned good artifacts were fragments of an assortment of can types such as square or tapered cans, which may have contained different types of packaged meat products and lard buckets.

Bottled food items consisted of a wide assortment of condiments, such as ketchup, mustard, and pepper sauce. These condiments

Figure 20.1. Garden hoe.

included French's Mustard (mnv = 2), Heinz Ketchup (mnv = 1), Dr. Price's Delicious Flavoring Extracts (mnv = 1), and Best Foods Mayonnaise (mnv = 5). Dairy product bottles were among the most common (n = 50) and included a minimum of 29 half-pint milk or cream bottles with labels such as Fred Harvey (mnv = 1), Cash-Carry Grocery Store (mnv = 1), Ferguson Brothers Dairy (mnv = 3), White Star Dairy (mnv = 1), Del Rico (mnv = 1), and Nob Hill Milk (mnv = 1, Fig. 20.2). The Fergusson Dairy was on Alto Street, roughly three blocks west of LA 158037. It was owned and operated by the Fergusson family between 1931 and 1947 (*New Mexico State Business Directory* 1931, 1947).

Indulgences

Indulgences (n = 1,701) represent items that are not a necessity for human subsistence but are consumed for pleasure or recreation. At LA 158037, these types of items represent 13.7 percent of the total Euroamerican assemblage. The vast majority (n = 1196, 70.30 percent) of products identified within this functional category were related to the consumption of alcoholic beverages. These items include beer bottles (n = 621, mnv = 257), wine (n = 250, mnv = 122) and whiskey (n = 216, mnv = 99) and were represented by complete bottles and bottle fragments (Fig. 20.3).

The vast majority of these items had paper labels which have deteriorated and could not be assigned to a specific brand. Bottles with embossed labels included Budweiser Beer (mnv = 8), Blatz Beer (mnv = 6), Coors Beer (mnv = 1), Falstaff Beer (mnv = 5), Lemp Beer (mnv = 1), Schlitz Beer (mnv = 1), Spañada Wine (mnv = 1), Benedictine Brandy (mnv = 1), Paul Jones Whiskey (mnv = 1), Canadian Club Whiskey (mnv = 1), Taylor Williams Whiskey (mnv = 1), Juarez Whiskey (mnv = 1), Chenley Whiskey (mnv = 1), Bacardi Rum (mnv = 1), Fleischmann's Vodka (mnv = 1), and Avor (mnv = 1). A complete list of brand name indulgence items is presented in Table 20.4.

Among the more interesting brands identified was Avor (Fig. 20.4). The Avor brand was started by German immigrants residing in Australia in 1945. The business produced cordials, beer, and ginger beer products before it closed in 1965. Avor products are rarely found on American soil.

Small quantities of other types of indulgences were recovered in lower frequencies (n = 505, 29.7 percent) compared to alcoholic beverages (Table 20.1). These included soda bottles (n = 356; mnv = 110), most of which could not be assigned to specific brands. Those soda bottle brands which could be identified included Coca-Cola (mnv = 3), Pepsi (mnv = 1), and Nifty (mnv = 1). Tobacco products were also present, including pipes (n = 4), tins (n = 8), and a cuspidor. Labels could not be discerned on any of the tobacco can fragments, but they were similar in shape to the Prince Albert Tobacco Can, introduced by the R. J. Reynolds Company in 1907 (*International Directory of Company Histories* 2006).

In addition to brand information, many bottled indulgence products possess manufacture marks. Table 20.5 presents manufacture trademarks on all bottled products, indulgence items and otherwise, recovered from LA 158037, with manufacture dates based on Toulouse (1971). Manufacturer trademarks often give precise product fabrication dates and were used heavily in statistical methods, specifically mean bottle glass manufacture dates used to date many of the features found at LA 158037.

Domestic Items

Domestic items include products used in food service, preparing or preserving food, child care, and/or the care of household furnishings. Items within this category represented 21.1 percent (n = 2,618) of the total Euroamerican assemblage (n = 12,392). The highest frequency of domestic artifacts consisted of ceramic dinnerware (n = 1,765, mnv = 659).

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 counts are presented in Table 20.6 by ware, vessel form, and aesthetic design. Numbers follow logical patterns of consumption and discard. Semivitreous bodied earthenware (n = 1,063, 60.2 percent) is the most common ware encountered. This holds true today. Most of what is sold in Sears, Target, and Walmart can be classified as semivitreous white-bodied earthenware.

Unfortunately, a substantial portion of the dinnerware fragments were too small and cannot

Figure 20.2. Whole dairy bottles: (a) Fergusson Brothers Dairy; (b) Nob Hill Milk; (c) Del Rico; D) Fred Harvey; (e) Cash-Carry Grocery.

Figure 20.3. A selection of whole indulgence bottles: (a) Benedictine Brandy; (b) Spañada Wine; (c) Canadian Whiskey; (d) Falstaff Beer; (e) Juarez Whiskey; (f) Budweiser Beer.

Figure 20.4. Avor bottle.

be linked to a specific vessel form (n = 399, 22.6 percent). However, of those that can, bowl (n = 365, 20.7 percent), plate (n = 327, 18.5 percent), and cup (n = 284, 16.1 percent) forms are most common. This makes sense, since most table sets are composed primarily of tea cups, plates, and bowls.

Lastly, it is unsurprising that the majority of fragments with artistic expression exhibit traditional design elements (n = 332, 18.8 percent) as opposed to more temporally significant high-art styles (e.g., Art Nouveau) of the late nineteenth and early twentieth centuries. High-art styles, while useful as chronological indicators, were typically not mass-produced in the same quantities as simple traditional designs, which have never faded in popularity. Among the high-art styles represented in the assemblage, Art Nouveau (n = 184, 10.4 percent; Fig. 20.5) and Art Deco (n = 169, 9.6 percent; Fig. 20.6) are the most common. These styles were in vogue during the early twentieth century, the apex of affluence within the Capitol Complex Historic Neighborhood.

In addition, dinnerware was examined intensively for manufacture marks (Table 20.7). These marks were then used to date deposits found throughout the site using mean ceramic dating methods.

Other domestic items discarded at LA 158037 include cutlery and silverware (n = 27), pots and pans (n = 45), glassware (n = 380), canning and storage jars (n = 386), cleaning products (n = 3), sewing items (n = 3), and child care goods (n = 11). The presence of canning jars (n = 357, mnv = 97) reflects the practice of home food preservation. While home canning was commonplace in the late nineteenth and early twentieth century, residents of the Capitol Complex Historic Neighborhood may have more intensively pursued this cottage industry in the 1930s, during the Great Depression. Canning jar manufacture names included Ball (n = 5, mnv = 2), Kerr (n = 58, mnv = 12), and Mason Fruit Jar Co. (n = 53, mnv = 3). One of the three sewing items was a Singer sewing machine recovered from Feature 234.

Furnishings

Furnishing items are typically represented by nonconsumptive consumer products that occur within a domestic structure or dwelling such as fragments from furniture, light fixtures, or appliances. Typically these artifacts are underrepresented in the archaeological record. This absence could be the result of burning of domestic refuse or municipal trash pickup. However, as stated by Rathje and Murphy (2001), the primary reason that objects such as major appliances and furniture do not appear in the archaeological record has to do with their long-lasting value and a cultural commitment on the part of human groups to recycle these objects back into the community through garage sales, collection drives, and gifting.

When present, this category is generally represented, not by major appliances and furniture, but by the fasteners, hardware, or decorative items that were once attached to these larger objects. These types of artifacts, however, are problematic in a functional analysis since most hardware and fasteners are recorded as

Figure 20.5. Art Nouveau teacup.

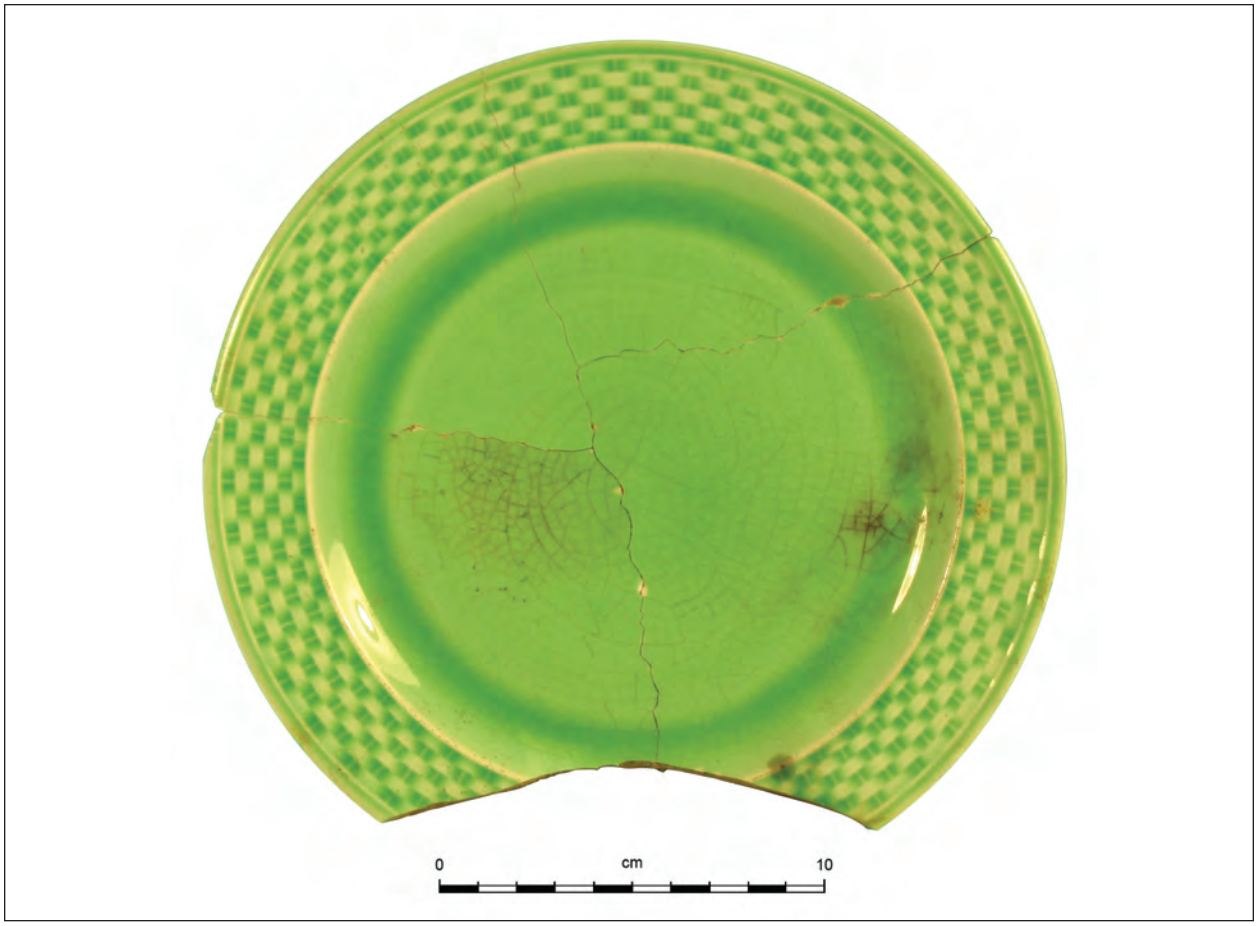


Figure 20.6. Art Deco plate.

construction and maintenance items, not as furnishing items, which can further diminish the frequency of furnishing items within the greater Euroamerican assemblage.

At LA 158037 furnishing artifacts (n = 371) accounted for 3.0 percent of the total Euroamerican artifact assemblage. The majority of artifacts recorded as furnishing items were associated with heating, cooking, or lighting. Lampshade fragments (n = 222, mnv = 9) were the most frequent. These items were made of glass and situated on the upper portion of a light fixture, and breakage was very common. Some evidence of wood or coal stoves (n = 12), kerosene lamps (n = 13), fire pokers (n = 2), cooking grills (n = 2), a candlestick, and a wick fragment were also present.

Furniture items were represented less frequently in the archaeological record. They included chair (n = 1), flower pot (n = 10, mnv = 4), vase (n = 9, mnv = 1; Fig. 20.7), knob (n = 6), and figurine fragments (n = 88, mni = 9). For the most part, these materials were too few to accurately discern patterns of consumption and discard.

The figurines were among the most visually stunning of the Euroamerican artifacts identified (Fig. 20.8). It is perhaps not surprising that in an assemblage contributed by the Muller family living at Structure 6, we see the figure of a small terrier or wire-haired dachshund. Dog burials associated with this specific structure yielded small terrier- or dachshund-like dogs, suggesting that the family had a particular affinity for a specific breed. Similarly, the figure of a young boy collected from Structure 2 was handmade and could have been produced by Juan Pedro "Pete" Alarid in the 1930s.

Figure 20.7. Amphora vase collected from Structure 6, the Muller House.

Construction and Maintenance

A substantial portion of all Euroamerican artifacts fall within the construction and maintenance category (n = 3,381, 27.3 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 158037 these items were represented primarily by hardware (n = 1,481) used in the manufacture and maintenance of buildings. Hardware items include objects such as bolts, hinges, brackets, screws, nails, and chains. Nails tend to be the most common hardware found. Their manufacturing technique can be used to determine building age and/or different phases of construction in a specific building. Wire-drawn nails surpassed machine-cut nails in popularity in the last decade of the nineteenth century (Gillio et al. 1980). Hence, an assemblage consisting exclusively of machine-cut nails would date firmly to the nineteenth century,

Figure 20.8. Three figurines: (a) a painted gypsum terrierlike dog from Structure 6; (b) a porcelain hippo from Structure 4; (c) a ceramic boy from Structure 2.

whereas an assemblage of wire-drawn nails would date to the twentieth.

Table 20.8 illustrates whole nails by pennyweight (d) and manufacturing technique (machine-cut or wire-drawn). "Pennyweight" originally referred to the number of pounds per 1,000 nails, although today (and in this instance) it refers to length (Fontana and Greenleaf 1962:55). Immediately obvious from the table is the diversity of nail size. However, the higher frequency of wire-drawn (n = 766) nails than of square-cut nails (n = 205) suggests the majority of buildings in and around LA 158037 were constructed in the early twentieth century. This matches well with archival evidence, which suggests most structures identified within the project area were constructed between 1880 and 1940.

A large number of window glass fragments (n = 766) were also present at LA 158037. The manufacturing technique used on most of the window pane glass fragments appears to have been machined sheet/plate glass (n = 761), specifically either flat-drawn sheet or polished plate glass. Both of these techniques were developed in the early twentieth century. Visually plate glass can be collectively differentiated from other forms of window pane glass by striations or fine lines, visible in cross section, running parallel to the polished surface, an effect created by the manufacture process (Roenke 1978:24). Earlier nineteenth-century cylinder glass has ovular bubbles, and it appears in almost insubstantial quantities (n = 5) within the project area. However, these numbers may not be an accurate reflection of the Euroamerican flat glass assemblage. Many of the glass fragments are relatively small. If a piece of window glass was too small to have any bubbles it could be easily misidentified as plate glass. It is also important to note that while in some instances the thickness of window pane glass has been used to date an archaeological assemblage (Roenke 1978); because of questions of reliability (Deiss 1981), no attempt was made to derive temporal data from flat glass from any archaeological site within the current study.

Hand tools, shovels, rakes, and axes are a few examples of the tool types (n = 30) identified at the site. Building materials, other than glass windows, include linoleum (n = 36), which became a popular and inexpensive flooring technique from as early as 1860 through the 1950s. Screening (n = 17) for doors and windows, paint cans (n = 22), and tile fragments (n = 4) were also available.

Electrical items (n = 168) were varied in type but low in number. Light bulb remnants (n = 58) were the most frequent type, including six National Mazda bulb fragments. General Electric started using the name Mazda on their lamps on December 21, 1909 (Fig. 20.9). The name was derived from the Zoroastrian faith of ancient Persia; Ahura Mazda was the god of light, and the name was selected to represent the best American lighting industry of the time. Carbon filaments were replaced with tungsten filaments, producing a brighter and whiter light output. By 1920, the Christmas lighting industry was completely converted to tungsten, and in that year General Electric commissioned artist Maxfield Parrish to create a series of calendars based on the history of lighting. Today, these calendars are highly sought collector's items. Other electrical items in

Figure 20.9. Mazda light bulb ad. **Popular Science Monthly,** ***October 18, 1917.***

the LA 158037 assemblage include clips, batteries, fuse and switch boxes, insulators, wires, cleats, fuses, and toggle switches.

Fencing materials (n = 19), gas and plumbing objects (n = 86), lubricants (n = 1), and tent-related artifacts (n = 12) were also encountered in small numbers.

Personal Effects

Personal effects are portable items belonging to individuals who presumably lived, worked, or visited a site. These items usually include clothing, footwear, jewelry, medicine, objects of personal hygiene, money, devotional paraphernalia, and miscellaneous possessions. At LA 158037, numerous personal effects (n = 1,395) were collected, accounting for 11.3 percent of the total Euroamerican artifact assemblage.

Footwear (n = 393, mnv = 172), including shoes, boots, slippers, and sporting shoes, were most frequently recovered from the site. Their preservation is a direct result of their having been discarded in self-contained vault privies, which provided ideal conditions for the preservation of leather and cloth. All portions of footwear were recovered—soles, heel grips, tongues, eyelets, shanks, and even heavily deteriorated intact shoes and boots. Supplies to maintain the footwear were minimal. One can of shoe polish and seven bottles of boot dressing were identified, including a bottle of Vici Leather Dressing from Philadelphia and four bottles of Barton Dynashine. Barton Dynashine was the world's largest shoe polish manufacturer in the mid-twentieth century. The company was formed in 1919 by two World War I veterans living in Waco, Texas. In 1927 the Barton Dynashine factory moved to St. Louis, and by 1965 the name was shortened to Dynashine.

Artifacts associated with the clothing category (n = 174) usually consist of fragments from garments that will endure the ravages of time. Occasionally, pieces of fabric survive, but metal and shell clothing accessories are more often preserved. These objects included belt fragments (n = 5), suspender buckles (n = 11), buttons (34 two-hole and 23 four-hole), rivets (n = 13), snaps (n = 1), and other unidentifiable clothing accoutrements. Pieces of a necktie (n = 1) and a hose stocking (n = 1) were also collected.

Small amounts of jewelry (n = 11) were identified by type, which included several watch pieces (n = 5; Fig. 20.10), beads (n = 2), a brooch, and a bauble or small trinket. None of these artifacts was identified by a specific brand name or manufacturer.

Figure 20.10. Pocket watch.

Numerous items of personal hygiene and grooming (n = 257) have been recovered from LA 158037. Not surprisingly, since many of the contexts investigated archaeologically were privies, chamber pot fragments (n = 72, mnv = 11) were the most frequent object assigned to this category (Fig. 20.11). Both male and female belongings were present: combs (Dulco and Chattanooga Medicine Co.), hairpins, a barrette, a lipstick tube (Tangee Theatrical), razor blades, perfume and cologne bottles (E. Coudray and Yardley), shaving brushes, toothbrushes (Dentabest and Dr. West), a toothpaste tube, wash basins, a lice comb (Doghead), make-up compacts, a nail polish bottle (Cutex), toiletry bottles (Bonheur Co., Chattanooga Medicine Co., Penslar, F. W. Fitch Co., Rawleigh's, Krushen Salts, Hinds Honey and Almond Cream, and Royal Quality), mouthwash bottles (Lambert Pharmaceutical and Listerine), lotion (Avon),

Figure 20.11. A selection of chamber pots.

a bedpan (Fig. 20.12), a sponge, a dentifrice bottle, and douches (Lysol). Interestingly, while marketed as a household cleaner today, Lysol was advertised as an effective countermeasure to the influenza virus during the Spanish flu pandemic of 1918. In the late 1920s, Lysol was introduced as a feminine hygiene product advertised to prevent odor, infections, and pregnancy (Fig. 20.13). These uses were later discouraged by the medical community.

Health and medicine objects (n = 532, mnv = 379) reflect a wide array of wellness-product containers: tinctures (n = 2, mnv = 2), liniments (n = 12, mnv = 12), bitters (n = 6, mnv = 2), laxatives (n = 30, mnv = 21), pills (n = 36, mnv = 25), syrups (n = 3, mnv = 3), and ointments (n = 54, mnv = 49). However, a specific medicinal benefit could not be identified for a large number (n = 323, mnv = 208) of these bottles. These were recorded simply as patent medicine bottles. Patent medicines were often unproven cures for some specific, or in some cases, not-so-specific ailments. These cures were often homeopathic and ranged in scale from the use of ginger to relieve common cold symptoms to patented remedies manufactured for wide-scale distribution. In many instances, the medicinal agents within patent remedies were benign, yet consumers did find symptomatic relief, since their primary ingredient was typically alcohol or the opiate laudanum. Patent medicines were often purchased and consumed by individuals who had limited or no access to medical professionals due to monetary or social constraints. The numerous brand names visible on all medicine bottles identified at LA 158037 are listed in Table 20.9.

Prescription medications (n = 37, mnv = 28) were insignificant in numbers, but a few brand name bottles were recovered. They included Murine Eye Remedy Co., Red Cross, and Kellogg's. To the populace, Kellogg's has always been associated with dried cereals, but in 1876, Dr. John Harvey Kellogg was a staff physician at the Battle Creek Sanitarium, where he performed over 20,000 colon surgeries. He believed that 90 percent of all illnesses originated in the stomach and bowels. An intact clear glass prescription bottle found at LA 158037, with Kellogg's

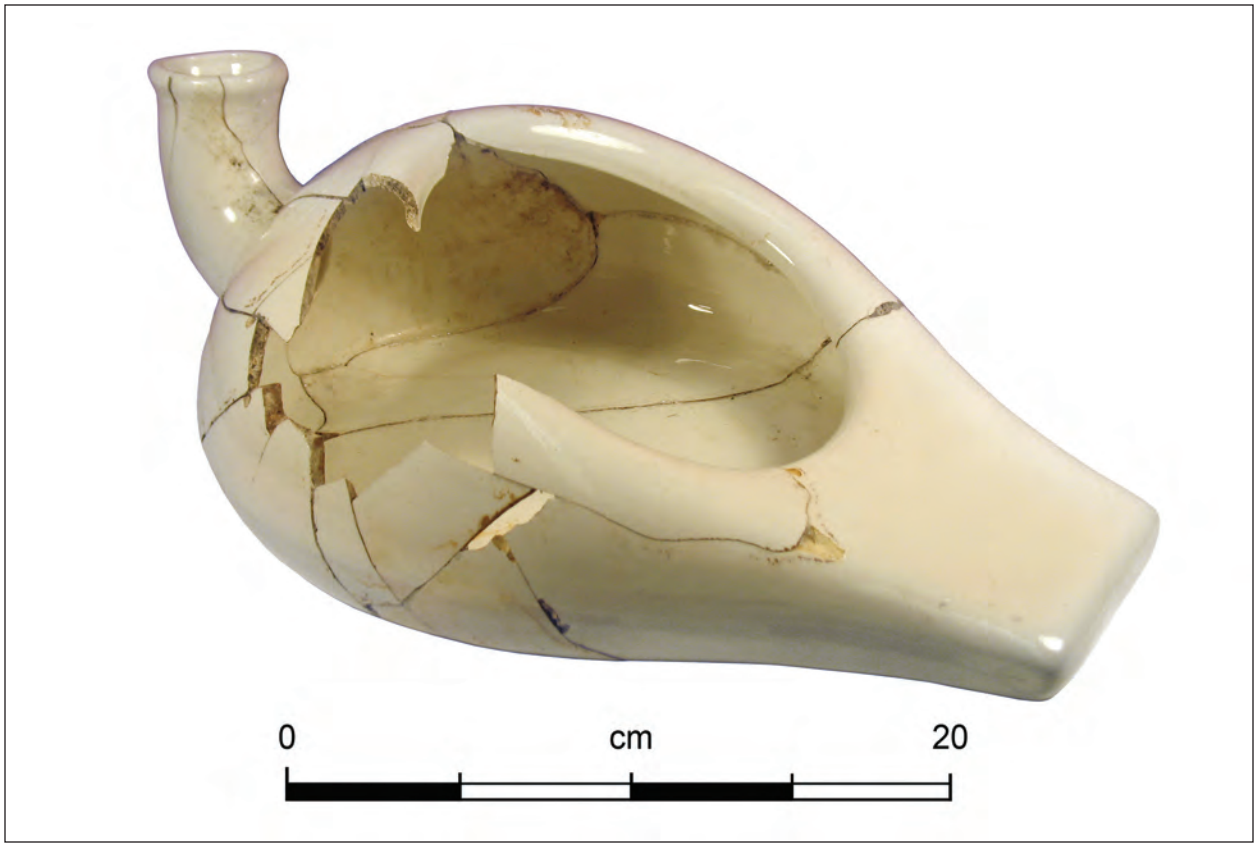


Figure 20.12. Reconstructed bedpan.

Figure 20.13. Lysol douche ads: (a) **Pictorial Review,** *June 1926; (b) unknown, ca. 1930s; (c) unknown, ca. 1950s.*

embossed on the base, may have contained a colon or detox concoction for his patients.

Other personal items collected from the site included a diverse array of objects. One State of New Mexico School Tax token, three pennies (1944, 1949, and indecipherable), and an unidentified token were identified under the money/tokens heading. Religious objects included a rosary fragment (Fig. 20.14) and a devotional medal. One unidentified political promotional button and a few miscellaneous items consisting of pocket knifes (n = 3), a change purse, a wallet (Fig. 20.15), and two eyeglass lenses were found. In association with Structure 3, the wallet is handmade and depicts a fishing scene.

Entertainment, Leisure, and Education

Artifacts in the entertainment, leisure, and education category (n = 195) indicate activities intended to entertain, amuse, provide relaxation or recreation, or educate. Similar to indulgences, these items are not essential to human existence, but they provide a glimpse into pastime and recreational activities performed by inhabitants of the Capitol Complex Historic Neighborhood.

Some of these artifacts pertained to music, since fragments of harmonicas (n = 6) and records (n = 33) were available. There was also evidence of arts and crafts: chalk (n = 2), a paint tube, a colored pencil, a rubber-cement tube, and stencils (n = 11). Two sportsman's licenses suggest hunting or fishing activities, and two animal collars indicate the presence of household pets.

Children are also clearly indicated through games and toys (n = 77; Fig. 20.16). These included balls (n = 11), bicycle parts (n = 9), a roller skate, trucks (n = 2), doll parts (n = 24), miniature cups (n = 5), a miniature anvil, a miniature swan, 3-D glasses (n = 2), a duck, marbles (n = 16), and a jack.

Educational and reading materials consisted of tattered pages from a book (n = 18), a piece of weathered newspaper, a few pencils (n = 3), a pen, numerous ink bottle fragments (n = 24, mnv = 11), and pieces of slate (n = 12) presumably representing chalk board(s). Identified ink bottle

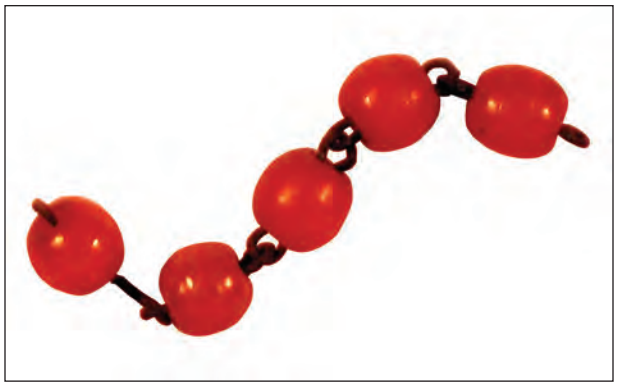


Figure 20.14. Rosary fragment.

Figure 20.15. Sportsman's wallet: (a) front; (b) back.

brands included Little Boy Blue (n = 1, mnv = 1) and Sanford Ink Co. (n = 14, mnv = 2).

Transportation

Transportation items are used in travel or conveyance of people or freight from one destination to another. Less than 1 percent (n = 48) of the total Euroamerican artifact assemblage was identified as transportation items. However, these few artifacts included a mix of items associated with wagons and buggies (n = 1), cars and trucks (n = 21), animal/human power, and the railroad (n = 1). The presence of this diverse array of artifacts, which includes horseshoes (n = 3) and battery cables (n = 2), illustrates the dynamic shift in transportation during the early twentieth century. In 1920, only one out of three households owned an automobile. By 1930, 80 percent of American families owned at least one car or truck (Kyvig 2002:27). This shift was brought on by the declining cost of a Ford Model T and the introduction of the Ford Model A in 1927. Both of these cars were among the most popular to enter US markets. Unfortunately, the unidentifiable automobile parts (n = 3), license plates (n = 3), suspension springs (n = 10), engine valves (n = 2), battery cables (n = 2), tire iron (n = 2), a jack, and brakes (n = 1) could not be linked to a specific manufacturer or model.

Earlier forms of transportation systems are only minimally represented in the archaeological record. However, the presence of both riding (n = 2) and draft (n = 1) horseshoes suggests the use of both buggies and saddled horses in the project area during the late nineteenth and early twentieth centuries. In addition, bicycles and the railroad, only four blocks to the west, would have been viable transportation options and are represented archaeologically by bicycle tire fragments (n = 14) and a railroad spike. The railroad spike, in this context, might represent railroad ties being used for landscaping or as a curio.

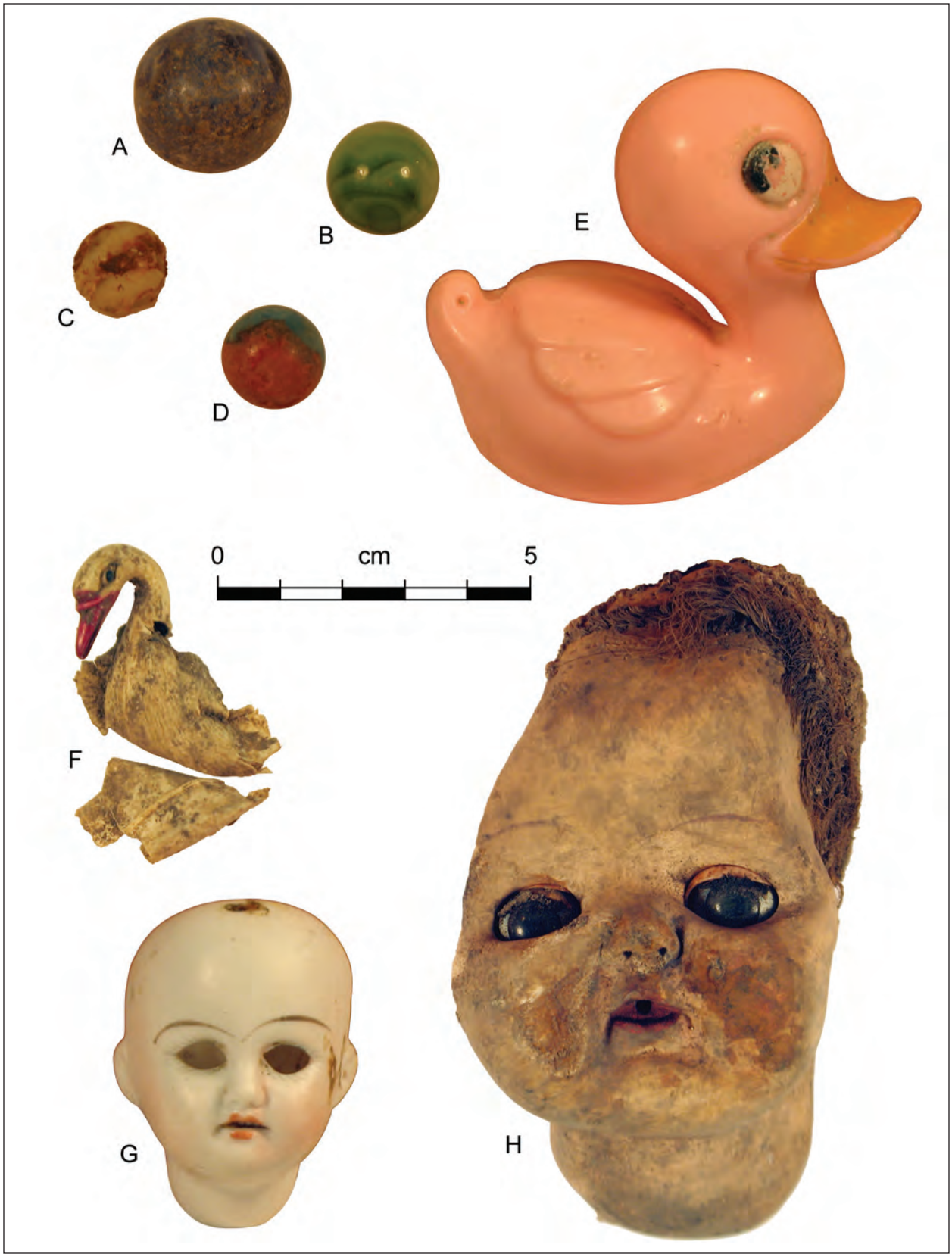


Figure 20.16. Children's toys and game pieces: (a–d) marbles; (e) rattling duck; (f) miniature swan; (g–h) dolls' heads.

Military and Arms

Military and arms items represent objects associated with or used in warfare, self-protection, or hunting. These objects include firearms, ammunitions, explosive devices, military clothing and insignias, and a variety of unidentifiable associated items. At LA 158037, military and arms artifacts represent less than 1 percent (n = 48) of the total Euroamerican artifact assemblage. Although LA 158037 was not within a military setting, army and navy military insignias (n = 7) and coat (n = 5) and sleeve (n = 1) buttons were identified (Fig. 20.17). These objects suggest that active or retired military personnel resided at LA 158037 during the late nineteenth and early twentieth centuries, which can be confirmed through archival evidence.

In addition, 11 unidentified centerfire cartridges, 6 rimfire cartridges, 9 shotgun shells, and 1 heavily encrusted pistol handle were recorded. Most of these objects could not be identified by manufacturer and brand information, with the exception of several Bullard (n = 7) and Winchester (n = 1) centerfire cartridges. The munitions represent a variety of different calibers and gauges. Cartridge sizes included the following calibers: .22, .33, .32, .38, .40, .45, and .46. Shotgun shells are 8 and 12 gauges. This diverse assortment of munitions represents a minimum of nine different firearms at LA 158037.

Contextual Assemblage Summaries

Euroamerican artifacts were collected and analyzed in association with eight historic structures at LA 158037. Euroamerican artifacts recovered from each structure can be used to study ethnic and social characteristics, consumption and discard patterns, and land use associated with each residence. While the date of deposition for each feature and the general socioeconomic standing of the individual who discarded the artifacts in each feature has been discussed previously in this report, this section deals with the Euroamerican artifacts retrieved from these structures collectively and provides base-line data used in the analytical sections, which follow.

Figure 20.17. US armed forces coat buttons: (a) army; (b) navy.

Structure 1 (141 West Manhattan Avenue)

In the early twentieth century, Ricardo Alarid Sr. built Structure 1 on the northeast corner of Galisteo and West Manhattan. Residents and businesses occupied the building until 1957, when the State of New Mexico condemned the property for use as a parking lot. Features associated with Structure 1 included domestic-refuse pits (n = 13), a straight-line cesspit privy, a well, self-contained vault privies (n = 8), a construction-debris pit, and a structural foundation. A total of 6,785 Euroamerican artifacts were retrieved from these features (Table 20.10). In this discussion, artifacts from similar feature types will be discussed as a unit.

Four features were identified as domestic-refuse pits dating to the late nineteenth or very early twentieth century. These features may predate Structure 1 but are all associated with the Alarid family: Feature 27 (n = 340), Feature 38 (n = 375), Feature 45 (n = 58), and Feature 46 (n = 6). Indulgence items (n = 77) were the most frequent in Features 27 and 38. Two crown caps from soda or beer bottles were collected, as well as bottles of soda (n = 3, mnv = 1), wine (n = 11, mnv = 5), beer (n = 52, mnv = 14), and whiskey (n = 9, mnv = 5).

A variety of dinnerware items (n = 135) were also scattered among the refuse pits in substantial frequencies. The highest frequencies came from broken bowls (n = 40, mnv = 14), saucers (n = 26, mnv = 6), and unknown vessel types (n = 38, mnv = 23). Maker's marks from several potteries were discovered, including Mercer Pottery Company of Trenton, New Jersey (1868–1937; Kovel and Kovel 1986:22); Peoria Pottery of Illinois (1873–1902; Kovel and Kovel 1986); Collingwood & Greatbatch of England (1870–present; Kovel and Kovel 1986:81); and Henry Alcock & Company of England (1880–1910; Kovel and Kovel 1986:116). Most of the dinnerware was made of refined white-bodied earthenware, but some porcelain was also collected. White-bodied earthenware was durable, inexpensive, and mass-produced in the eastern United States and Great Britain during late nineteenth and twentieth centuries.

Personal effect items (n = 117) consisted mostly of indeterminate shoe fragments (n = 53, mni = 16), with the greatest amount retrieved from Feature 27. A Vici Leather Dressing shoe polish bottle manufactured in Philadelphia and objects of clothing such as buttons, snaps, and suspender buckles were also collected. Personal hygiene items (n = 2) were scarce, along with an unidentified toiletry bottle and a mouthwash bottle. An intact Lambert Pharmaceutical clear glass mouthwash bottle was the famous Listerine, marketed to the public in 1921. It was advertised to eliminate chronic halitosis, commonly known as bad breath (Fig. 20.18). Lambert Pharmaceutical bottles were manufactured by the Obear-Nestor Glass Company of East St. Louis, Illinois (1894–1980; Toulouse 1971:373–375). The mouthwash bottle was collected from the refuse pit of Feature 38. There were several patent medicine bottles (n = 17, mnv = 8), but only one had a brand name of Whittemore. The name and "Boston U.S.A." were embossed on the front or back panel of an aqua bottle. Whittemore was advertised in 1851 as an "eye water" and in 1854 as a "vegetable syrup for diarrhea."

A twentieth-century straight-line cesspit privy (Feature 44) was behind Structure 1. Many artifacts (n = 1,009) were recovered from the fully excavated privy. The high volume of artifacts may represent late nineteenth- or very early twentieth-century domestic refuse that was

Figure 20.18. Listerine ad from 1921.

mechanically pushed into the feature during demolition of Structure 1 in the 1960s. While the artifacts recovered from the cesspit have the potential to yield information regarding social status and consumption patterns, it is difficult to tie these materials to a specific inhabitant of the project area.

The domestic refuse included 39 food items: pieces from a lard bucket (n = 3, mnv = 1), a sardine can (n = 1), crushed fruit or vegetable cans (n = 24, mnv = 7), several condiment bottles (n = 3), a broken milk bottle (n = 6, mnv = 1), and an olive oil bottle (n = 2, mnv = 1). Indulgences (n = 105) included bottles of soda (n = 11, mnv = 4), ginger beer (n = 1), wine (n = 21, mnv = 9), beer (n = 61, mnv = 11), and whiskey (n = 7, mnv = 3). Falstaff was the only brand name identified among the indulgence bottles.

Falstaff Beer was brewed in St. Louis, Missouri, and originally was associated with Lemp Brewery in 1838. The company was renamed after a Shakespearean character, Sir John Falstaff, in 1903. In 1933, when Prohibition was repealed, the company expanded by purchasing several plants in different states. By the 1960s Falstaff was the third largest brewery in the country. A decline started in the 1970s, and plants started closing down. The final closure occurred in 1990, when the brand name became the licensed property of Pabst Brewing Company. Sales continued to decline, and by 2005 Pabst permanently stopped production of Falstaff beer (Wikepedia.org; Falstaff Brewing Corporation 2010).

Dinnerware items (n = 151, mnv = 81) consisted of almost every dish type available in a set. Other household products included glassware (n = 90, mnv = 21) and canning jars manufactured by the Ball (1880 to present) and Mason Fruit Jar (1885–1900) companies. The personal effects (n = 127) category had several items of clothing, such as buttons, buckles, and a belt, but portions of a leather boot (n = 9, mni = 1) and several shoes (n = 12, mni = 8) were more common.

Feature 47, a twentieth-century well behind 141 West Manhattan, also contained a mix of late nineteenth- and early twentieth-century Euroamerican artifacts. However, artifact counts were noticeably smaller, with only 53 Euroamerican artifacts collected. These artifacts included a shattered condiment jar manufactured by Hazel-Atlas Glass Company (1902–1964) of Wheeling, West Virginia, a tablespoon and a few broken cups (n = 3, mnv = 2), canning jars (n = 8, mnv = 2), and a patent medicine bottle associated with the Murine Eye Remedy Co. (1890 to present).

There were nine twentieth-century domestic-refuse pits. While the pits varied in size, all contained large quantities of household trash. These pits included Feature 28 (n = 5), Feature 39 (n = 528), Feature 75 (n = 445), Feature 76 (n = 143), Feature 77 (n = 48), Feature 79 (n = 326), Feature 81 (n = 3), Feature 89 (n = 88), and Feature 229 (n = 26). Euroamerican artifacts from each pit are displayed individually by feature number but discussed below collectively.

Unassignable objects (n = 221) collected from these pits included a moderate number of unknown bottle types (n = 116, mnv = 40), metal can fragments (n = 65), plugs or caps (n = 3), and unknown objects (n = 37). Food items (n = 83) were collected primarily from Feature 54, which had the highest count of fruit or vegetable can fragments (n = 54, mnv = 5), along with a few condiment jars (n = 15, mnv = 4). Other food items within the collective assemblage were meat cans (n = 2), a pepper sauce bottle, a pickle jar, milk bottles (n = 4, mnv = 3), and a Dr. Price's Delicious extract bottle (n = 1). The pepper sauce bottle was manufactured at the Three Rivers Glass Company in Texas (1927–1937). Three Rivers was Texas's first mass-production glass facility, and by 1929 it manufactured 75 percent of Texas's milk, beverage, and food bottles. A period of economic chaos occurred during the Depression, and their "old arch rival," the Ball Brothers Glass Manufacturing Company, took advantage of Three Rivers' dire situation and purchased the company (Simmons-Smith 1996:1–3).

The types and frequencies of indulgences (n = 236) varied widely between the pits. Beer bottle frequencies were recovered in the highest concentrations from Features 79 (n = 44, mnv = 4) and 89 (n = 20, mnv = 2). Other indulgences included bottles of soda, wine, whiskey, gin, and a few shoulder jugs. The shoulder jugs may have been associated with bootlegging operations during Prohibition, when large quantities of cheap liquor were produced and sold by the Alarid family (personal communication, Pete Alarid, 2009).

Domestic items (n = 385) consisted primarily

of dinnerware (n = 252, mnv = 112) such as bowls (n = 45, mnv = 16), cups (n = 36, mnv = 19), saucers (n = 26, mnv = 13), and plates (n = 62, mnv = 26); and glassware (n = 102, mnv = 28), including cups (n = 17, mnv = 12), a goblet (n = 6, mnv = 1), and sugar bowls (n = 4, mnv = 2). Canning jar (n = 20, mnv = 13) manufacturer marks included Kerr, Mason, and Metro Glass jars. Furnishing artifact counts were high (n = 197), but represented only nine objects. Two glass lampshades were shattered into 167 pieces, and there was evidence of a broken kerosene lamp, a poker, a cooking grill, and the foot of a chair.

Construction materials (n = 300) consisted primarily of tools, hardware, and building materials. Small frequencies of several different wire-drawn nail types (total = 50) were present along with window glass (n = 47). Electrical, fencing, and plumbing objects were minor occurrences within these features. Fragments of linoleum (n = 25) were recovered from Feature 75. These remnants may represent installation given the small size and quantity of the fragments.

Personal effects accounted for 161 of the Euroamerican artifacts recovered. Clothing (n = 15) included a belt fragment and multiple buttons. Shoe and boot fragments (n = 66) suggested at least 20 pairs of shoes, including at least one slipper and work boot. Grooming items (n = 22) were varied: a chamber pot, a wash basin, a comb, a lipstick, and an unidentified perfume or cologne bottle manufactured by Owens-Illinois Glass Company, Toledo, Illinois (1929–1954). Other items included a few toothbrushes, one with a brand name of Dentabest, a dentifrice bottle, and several generic toiletry bottles. Of the toiletry bottles, one had an Owens Bottle Company (1911–1929) trademark on the base.

A variety of medicinal bottles (n = 52, mnv = 28) were also recovered from the refuse pits. Within this type was a Charles H. Fletcher's laxative bottle manufactured at the Pierce Glass Company in Pennsylvania and a pill bottle manufactured at the Whitall-Tatum Company of Millville, New Jersey (1857–1938). The company mass-produced prescription bottles for hundreds of pharmacies across the country and used interchangeable slug plates within the mold to emboss the names and addresses of the pharmacies (www.myinsulators.com:2010). Patent medicine bottles (n = 33, mnv = 15) were the most frequent type of medicinal artifact. One bottle was manufactured by the W. T. Raleigh Manufacturing Company, which operated from 1925 to 1936 in Freeport, Illinois. In 1936 the Owens-Illinois Glass Company purchased the company, closed the business, and dismantled the plant (Toulouse 1971:444–445).

Items from the entertainment and leisure category (n = 29) consisted of a few doll parts, a marble, a paint tube, pieces from a school slate board (n = 6), and a broken Sanford glass ink bottle (n = 13, mnv = 1). The Sanford Manufacturing Company was founded in 1857 in Massachusetts and moved to Chicago in 1866, to a location where the Great Chicago Fire had occurred just five years earlier. Through various business transactions, Sanford became a major office products supplier. It was acquired by Newell Rubbermaid in 1992.

Within the transportation category (n = 12) were fragments of vehicle suspension springs, brakes, and a horseshoe. Military/arms materials (n = 5) included a few small munitions (one .30 caliber center-fire cartridge and two 12-gauge shotgun shells) and two US Army insignia.

In addition to the domestic-refuse pits, several twentieth-century self-contained vault privies (n = 8) were excavated in association with Structure 1: Feature 73 (n = 497), Feature 74 (n = 689), Feature 78 (n = 850), Feature 231 (n = 199), Feature 232 (n = 580), Feature 233 (n = 357), Feature 234 (n = 58), and Feature 235 (n = 88). A total of 3,318 Euroamerican artifacts were recovered from these features and represent a diverse array of material culture associated with the Alarid household.

Food items (n = 149) varied in numbers and types between the privies. Feature 74 had the most and most variety. Food items collected from all the privies included cans of condensed milk (n = 3, mnv = 1), juice (n = 3, mnv = 1), sardines (n = 1, mnv = 1), and several lard buckets (n = 5, mnv = 5). Condiment jars and bottles (n = 43, mnv = 18) and fruit or vegetable cans (n = 39, mnv = 12) dominated the assemblages. Interesting or unique items included marmalade and jam jars (n = 3, mnv = 3), pickle jars (n = 9, mnv = 3), an olive oil bottle, an extract bottle (n = 1, mnv = 1), a CalPack Corporation salad dressing bottle (1916–1999, n = 1, mnv = 1), and a few Best Foods mayonnaise jars (1905+, n = 2, mnv = 2).

Milk bottles (n = 19, mnv = 5), one of which came from the Ferguson Brother's Dairy on

Alto Street in Santa Fe, were collected, as well as a few baby food jars (n = 4, mnv = 2). One jar was associated with Mellin's Food Company of Boston (1905–unknown). During this era commercial baby food versus mother's milk, the "perfect food," caused quite a stir in the medical world. Healthy, robust babies were shown in Mellin's Food advertisements to promote their products (Fig. 20.19). One of these babies was the future actor, Humphrey Bogart, illustrated by his mother, Maude Humphrey, who was a commercial artist at the time. Milk bottles and baby food jars are fairly good evidence that infants and young children were present at 141 West Manhattan. The presence of baby food jars seems extravagant during the early twentieth century, when most parents would puree infant food at home to save money.

Figure 20.19. Mellin's Baby Food ad from 1914.

Indulgence products (n = 548), especially from privies, always invokes an aura of secrecy. Partaking and discretely disposing of one's favorite beverage was undoubtedly common during the Temperance Movement and Prohibition eras. Beer (n = 140, mnv = 48) and soda (n = 210, mnv = 33) bottles were the most common types of indulgences encountered. However, whiskey bottles (n = 93, mnv = 34) were also encountered in substantial quantities, including a bottle manufactured by the Cartel Vidriera in Juárez, Mexico, found in Feature 233. Other artifacts include fragments of shouldered jugs (n = 44, mnv = 6) believed to have been used to dispense moonshine produced by Ricardo Alarid Jr. during the Prohibition era.

Domestic items (n = 605) included a few pieces of cutlery (n = 8), cooking vessels (n = 9, mnv = 4), dinnerware (n = 360, mnv = 112), glassware (n = 67, mnv = 30), storage vessels (n = 151, mnv = 44), cleaning items (n = 1), sewing materials (n = 2), and objects associated with child care (n = 9). Frequently encountered dinnerware items included bowls (n = 41, mnv = 13), cups (n = 111, mnv = 25), plates (n = 64, mnv = 12), saucers (n = 36, mnv = 7), and indeterminate vessel fragments (n = 49, mnv = 33). Two of the bowls had trademarks, one from the Shenango China Company of Pennsylvania (1900 to present; Kovel and Kovel 1986:32), and the other from Edwin M. Knowles China Company of East Liverpool, Ohio (1900–1963; Kovel and Kovel 1986:7). Glassware found in smaller quantities included portions of cups (n = 23, mnv = 8), several goblets (n = 12, mnv = 4), a mug (n = 4, mnv = 1), a sugar bowl (n = 1, mnv = 1), and a shattered casserole dish (n = 11, mnv = 1).

Household furnishings (n = 26, mnv = 7) were rare among the privy features. A few pieces of a kerosene lamp (n = 3), a broken lampshade (n = 6, mnv = 1), and shattered figurines (n = 17, mnv = 3) were collected. Construction and building materials (n = 681) contained tools (n = 6); hardware objects, most commonly nails (n = 190); window glass (n = 290), and some electrical and plumbing paraphernalia (n = 95). Most of these were relatively small and likely pertain to construction of the outhouses.

A total of 549 personal effects were encountered within the privies. These high counts are not surprising. Grooming and medicinal items are often encountered in large quantities within a lavatory setting. In this instance, grooming items (n = 134) constituted a varied and unique group with pieces of chamber pot fragments (n = 50, mnv = 5), combs (n = 5), straight-edge razor blades (n =

4), a few perfume or cologne bottles (n = 8, mnv = 8), toothbrushes (n = 4), toothpaste tubes (n = 1), a dentifrice bottle, Lysol brand douche (n = 4, mnv = 4), Listerine mouthwash bottles (n = 3, mnv = 3), generic toiletry bottles (n = 18, mnv = 18), and hairbrushes (n = 2). These artifacts represent both genders and all age groups, including female teenagers or premenopausal women, based on the presence of douche and perfume bottles.

Medicinal items (n = 246) were frequent. The most frequently collected items were bottles and jars of laxatives (n = 13, mnv = 11), liniments (n = 7, mnv = 7), ointments (n = 19, mnv = 17), prescriptions (n = 21, mnv = 15), cough syrup (n = 3, mnv = 3), pills (n = 16, mnv = 16), tinctures (n = 2, mnv = 2), and patent medicines (n = 147, mnv = 118). Specific brands included Vicks, Caldwell's Syrup Pepsin, Dr. J. H. McLean, Mentholatum, Charles H. Fletcher's, Ely's Cream Balm, Knoxit Globules, Kellogg's, Dr. Pierce's Anuric, Bayer, Murine Eye Remedy, and Pluto Water.

A New Mexico school tax token (no date visible) and a devotional metal came from the Feature 74 privy. In addition, a small number of toys, records, marbles, and a few sportsmen's licenses, provide an insight into the residents' leisure activities. Several cartridges were also collected, including .32 caliber centerfire cartridges (n = 11), a .22 rimfire cartridge (n = 1), and 12-gauge shotgun shells (n = 3). The handle of a pistol, possibly used for self protection during bootlegging activities, was also found in Feature 231.

As discussed in Chapter 11, the Alarid family appears to have been of the middle socioeconomic class based on economic scaling using mean ceramic values. However, the family fortune appears to have declined through time, which follows a general trend in the Capitol Complex Historic Neighborhood. The diverse array of items indicates the presence of young and old, male and female, and many generations of the Alarid family are reflected in the assemblage.

Collectively, objects recovered from the privies and domestic-refuse pits in the twentieth century are ideal for addressing questions associated with contextual variability in consumption and discard patterns along ethnic and temporal lines. Euroamerican artifacts from Structure 1 were not only plentiful but in many instances can be linked with a specific period of time, such as the Prohibition or Great Depression eras. Furthermore, members of the Alarid family oral history complemented the physical evidence. For these reasons, Euroamerican artifacts tied to Structure 1 form the foundations for addressing the data recovery questions presented later in this chapter.

Structure 2 (451 Galisteo Street)

Structure 2 was built in 1938 by the Alarid family at 451 Galisteo Street. Nine contexts associated with the structure yielded Euroamerican artifacts (n = 1,360) during archaeological investigations. The artifacts from these features are presented by category, type, and function in Table 20.11. The domestic-refuse pits are discussed below.

Feature 43, a large, shallow, domestic-refuse pit, was excavated in its entirety. A significant number of Euroamerican artifacts (n = 143) were collected from the feature, but all were relatively small and lacking in brand or manufacturing information. Unidentifiable bottles (n = 14, mnv = 2), soda (n = 7, mnv = 1), wine (n = 1, mnv = 1), and beer bottles (n = 20, mnv = 4) were present, as well as indeterminate dinnerware (n = 7, mnv = 3) and one glass goblet.

Construction items (n = 70) were relatively common, representing 49 percent of the total Euroamerican assemblage. These included metal straps or bands (n = 50), nails (n = 13), a tile fragment (n = 1), and several pieces of window glass (n = 6). One gaming object, an intact ceramic marble, was also collected.

Personal items were the usual buttons (n = 1), shoe fragments (n = 6), and patent medicine bottles (n = 14, mnv = 2). The medicine bottles were clear glass; one was intact, and the other was shattered. Both were produced by an automatic bottling machine, suggesting deposition during the twentieth century.

Feature 80 was one of the larger domestic-refuse pits behind Structure 2. A one-third excavation sample yielded 179 Euroamerican artifacts. Food items (n = 6,3.4 percent) were slightly varied, including cans of fruit or vegetables (n = 3, mnv = 2), and single occurrences of a condiment jar, a ketchup bottle, and a jam or jelly jar. Indulgences were also represented by a small number of different items, including crown caps (n = 3), wine (n = 1) and beer (n = 2, mnv = 1)

bottles, and a pipe fragment.

Kitchen paraphernalia (n = 118, 65.3 percent) comprised over half of the Feature 80 assemblage, with a high frequency of broken dinnerware. A fragmented coffee pot (n = 4, mnv = 1), a measuring cup, and a gilded porcelain Noritake saucer were found, in addition to shattered whiteware bowls (n = 35, mnv = 5), a cup (n = 6, mnv = 1), plates (n = 46, mnv = 8), saucers (n = 13, mnv = 3), casserole dishes (n = 3, mnv = 2), and a platter (n = 2, mnv = 1). This amount of breakage is not of the typical "daily use-wear" patterns and may have been intentional, perhaps a family fight. The glassware seemed to fare much better, since only five objects, an unknown vessel fragment, a goblet, a sugar bowl, and two Kerr canning jars (1912–present) found their way into the refuse pile.

The construction category (n = 38, 21.2 percent) had a limited number of electrical items and hardware, with nails (n = 8) as the most frequent type. Personal effect artifacts (n = 19, 10.6 percent) did not vary tremendously over the site, with shoes, boots, toiletry, antiseptic, and prescription bottles. In addition, a syringe and an Ingram's Milkweed Cream jar were unique finds. Whether the syringe was medicinal or recreational is unknown. The ointment jar was a small, white milk glass container with the product name embossed on the jar shoulder. The cream was established in 1885 at the Frederick F. Ingram Company in Detroit, Michigan. In 1915 it was advertised in magazines, with popular actresses of the time sponsoring the product (Fig. 20.20). Lastly, children at Structure 2 are indicated by two cast-iron wheels from a toy truck.

Feature 87 was a small twentieth-century domestic-refuse pit excavated in its entirety. It yielded only 51 Euroamerican artifacts. Unidentifiable metal objects (n = 7) and bottle glass fragments (n = 6, mnv = 5) were found, along with one food item, a meat can. Indulgences were crown caps (n = 4), a soda bottle (n = 3, mnv = 1), and several whiskey bottles (n = 4, mnv = 3). Dinnerware included a broken cup (n = 3, mnv = 1), a shattered plate (n = 9, mnv = 1), and an unknown vessel (n = 3, mnv = 1). Three pieces of glassware items were also present.

The construction category had four nails, one electrical cleat, a fence staple, and a piece of tile. Personal items were a patent medicine bottle

Figure 20.20. Ingram's Milkweed Cream ad, 1915.

and a toy ball. The ball was made of vulcanized rubber (Fig. 20.21) and manufactured at the Miller Rubber Company in Akron, Ohio (1906+).

Feature 88 contained the majority of Euroamerican artifacts (n = 494) recovered in association with Structure 2. Artifacts from nearly every category and type were present within the assemblage. These included unassignable items

Figure 20.21. Vulcanized rubber ball.

such as unidentifiable metal objects (n = 21), bottle glass fragments (n = 14), and an unknown machinery part. The food items category (n = 35) was slight in variety, with cans of condensed milk (n = 3), meat (n = 2), and portions of crushed fruit or vegetable cans (n = 26, mnv = 12). The few bottled goods collected were ketchup, condiment, and two jam or jelly jars.

Indulgences included a substantial number of crown caps (n = 25) from soda or beer bottles. However, only two soda and five beer bottle glass fragments were collected, suggesting that many glass indulgence products may have been recycled. This was not an uncommon practice. In addition, there was a wine bottle, seven whiskey bottles, a cone-top beer can (1935–1955), and several crushed tobacco cans (n = 5, mnv = 3) that could not be identified to brand or manufacturer.

Domestic items (n = 113) varied widely in form and were more frequent compared to other domestic-refuse pits associated with Structure 2. However, these items were the same utilitarian wares used in all households throughout the project area. Domestic items included teaspoons (n = 2), baking pans (n = 4), a measuring cup (n = 8, mnv = 1), bowls (n = 5, mnv = 4), cups (n = 17, mnv = 6), plates (n = 18, mnv = 6), saucers (n = 33, mnv = 7), platters (n = 12, mnv = 5), a salt or pepper shaker, and indeterminate vessels (n = 12, mnv = 7). Only two types of glassware were present: a goblet (n = 6, mnv = 1) and broken Kerr canning jars (n = 31, mnv = 3), which date from 1903 to the present.

Household furnishing products included one unidentifiable cast-iron foot to a stove or bath and 46 fragments of a stoneware figurine depicting a young boy (Fig. 20.8). The figure was likely built by Juan Pedro Alarid, who was 10 years old in 1938.

The construction category (n = 121) contained several types of hardware, but wire-drawn nails (n = 39) were the most prominent. Paint cans (n = 19) and window glass fragments (n = 15) were also present. Solitary electrical items occurred as well as some plumbing fixtures.

Personal effects (n = 35) entailed the usual clothing objects, including buttons (n = 6), leather shoe and boot fragments (n = 4), and a bottle of Barton Dyanshine boot polish. Grooming items included perfume or cologne bottles (n = 2), a mouthwash bottle (n = 1), and two intact, clear glass toiletry bottles. One toiletry brand was Hinds' Honey and Almond Cream (1875–1948). This popular product, made at the A. S. Hinds Laboratory in Portland, Maine, was marketed for over 70 years (Fig. 20.22). During the 1930s, a CBS radio program sponsored by Hinds' Honey & Almond Cream featured George Burns and Gracie Allen (Zaharis 2010). The other toiletry bottle was from Rawleigh's, a home remedy company started in 1889 by 18-year-old W. T. Rawleigh (Fig. 20.23). The company is still in existence today. A few medicinal bottles including pill and antiseptic bottles (n = 2), a Pluto laxative bottle (n = 2, mnv = 1), and a shattered, aqua patent medicine bottle (n = 12, mnv = 1) called McElree's Cardui (1879–1920) were also collected. Cardui was a woman's herbal tonic with 19 percent alcohol manufactured at the Chattanooga Medicine Company in Tennessee. Two eyeglass lenses, likely representing a pair of prescription glasses, were identified.

Entertainment and leisure (n = 12) artifacts revealed the presence of children or young adults. These included bicycle parts (n = 8), a roller skate, and two doll parts. A Little Boy Blue ink bottle was listed under stationery supplies. A few objects also related to transportation (n = 3) were collected: a tire iron, a jack, and a draft horseshoe. Whether draft horses pulled carriages as late as the 1930s or 1940s in Santa Fe is not certain. The

Figure 20.22. Hinds' Honey and Almond Cream ad, 1908.

horseshoe could have been a discarded relic.

Features 90 and 91 were twentieth-century refuse pits. Both pits were east of Structure 2, 451 Galisteo Street. Feature 90 was hand dug and excavated in its entirety. The number of artifacts (n = 69) retrieved was minimal when compared to Feature 91 (n = 278). Feature 91 was partially destroyed along the western edge by a utility trench, and the contents of the pit were burned.

Unassignable bottle fragments were frequent in both pits: Feature 90 (n = 23, mnv = 4) and Feature 91 (n = 46, mnv = 7) also had numerous wine bottle shards (n = 17, mnv = 2). Dishes at the latter feature did not seem to fare well. Eleven bowls were found in 46 pieces, and cups (n = 12, mnv = 2) and platters (n = 9, mnv = 2) were also shattered.

Only a few construction items came from Feature 90 (n = 21), whereas three times this amount were recovered from Feature 91 (n = 77). A fair amount of window glass was included in these counts from both features.

Feature 90 was completely lacking in

Figure 20.23. Rawleigh's toiletry bottle.

personal artifacts, and Feature 91 only had a few (n = 10). The most interesting was the base of a brass army coat button manufactured by the Waterbury Button Company in Waterbury, Connecticut. With an increasing interest in brass casting and uniform accessories, the Waterbury Button Company was formed in 1849. When the Civil War began in 1861, the company supplied both the Union and the Confederate armies with buttons. Waterbury brass buttons were also seen on the chests of Generals Ulysses S. Grant and Robert E. Lee. But the company's fame did not end with the Civil War. Captain Smith and his crew of the ill-fated Titanic, which sank in 1912, wore the White Star Line buttons manufactured exclusively for the crew by Waterbury (Geraci 2010). Since the company has been in existence for nearly 200 years, and the button collected from Feature 91 was not intact, it was not possible to date it reliably. However, Anthony Summa, a US Army soldier, is listed as renting the structure between 1944 and 1948.

Combined, these domestic-refuse pits appear more indicative of a residential setting than a commercial barbershop, based on the diversity of material culture, and suggest deposition prior to the 1950s. Listed occupants during the 1930s and 1940s include Richard Alarid Jr. (1938–1943), Anthony Summa (1944–1948), and Vada Richards (1949–1950). Based on the presence of children's toys, one or more of these occupants had small children. Juan Pedro "Pete" Alarid, son of Richard Alarid Jr., was between 11 and 16 years old when he lived on the premises. As discussed in Chapter 12, the types of ceramics encountered suggest a middle-income family. While there is no evidence of extravagance, brand-name products found at the household suggest a mainstream lifestyle focused on purchasing products marketed to the American masses.

Structure 3 (135 1/2 West Manhattan Avenue)

Structure 3, a rental property owned by Ricardo Alarid Jr., was occupied by several affluent Hispanic residents during the early twentieth century. A total of 388 Euroamerican artifacts were collected from five features associated with the structure. Materials from these features are presented by category, type, and function in Table 20.12.

Features 83 and 228 were two twentieth-century domestic-refuse pits behind Structure 3. Feature 228 was relatively small and consisted primarily of bottle glass fragments, most of which were not recovered. Three intact glass bottles (one wine and two sodas) were collected for analysis. The wine bottle was not identified; the soda bottles were a Pepsi (1903–1960) and a Sparkle Flavored Soft Drink (1934–1960). Both bottles were clear glass with crown top finishes, and the Sparkle bottle had an applied color label.

A 30 percent excavation sample from Feature 83 contained 305 artifacts. Most of the unassignable items (n = 38) were small broken bottle fragments (n = 31). Food items (n = 17) were mostly condiments like ketchup, jam, and mayonnaise (Best Foods), with smaller quantities of vegetable, fruit, and meat cans, and a single milk bottle (n = 3, mnv = 1). The lack of canned vegetables may indicate a backyard garden and the home-canning of garden surplus, since canning jars (Kerr 1903–1912; n = 7, mnv = 1) and crockery (n = 3) were present. Indulgence items (n = 63) were the same types as recovered from other features at LA 158037. These include crown caps and glass fragments from soda, beer, wine, and whiskey bottles. Five of the beer bottles displayed trademarks of Obear-Nestor Glass Company (1894–1980), in East St. Louis, Illinois. A variety of domestic wares (n = 122) included a diverse array of products such as silverware, ceramic dishes, and glassware. A baby bottle suggests small children.

Collectively, Features 83 and 228 date to the Great Depression era. The large quantities of bottle glass within Feature 228 may represent a recycling effort on the part of residents of Structure 3. Similarly, the use of Kerr canning products could indicate home-canning of garden surplus. There are very few commercial brand name products in Feature 83, and it is possible that much of what was consumed was grown locally.

Feature 213 was an abandoned well behind 135 1/2 West Manhattan. The feature was not excavated, and only a small amount of Euroamerican artifacts (n = 8) were collected from the upper portions of the well. This judgmental sample included a few food products (n = 4, mnv = 4), one ketchup bottle, and three generic condiment bottles. Two of the three

generic condiment bottles had manufacturing trademarks, one from Hazel-Atlas Glass Co. (1902–1964), another Owens Bottle Co. (1911–1929). The ketchup was manufactured by Heinz.

Other artifacts included one whiskey bottle and three personal effects items. Personal items included a Dr. West toothbrush from WECO Products (1928–1960), a Dr. J. H. McLean liniment bottle manufactured by the Illinois Glass Co. (1916–1929), and Pluto Water, a laxative produced in French Lick Springs, Indiana. Pluto Water was advertised as "America's Laxative," with the slogan "When Nature Won't, PLUTO Will." The bottle and many advertisements featured an image of the devil. It was marketed nationally in the 1920s, 1930s, and 1940s (Fig. 20.24).

Features 84 and 94 are structural foundations associated with the rental unit of Structure 3. Only six artifacts were found with Feature 94. These included portions of at least two ceramic bowls (n = 3, mnv = 2), a fragment from a teapot, a line level, and a wallet. None of these items were identifiable by brand or manufacturer. However, the wallet depicts a sportsman's fishing scene, which could suggest residents of the Structure participated in such activities.

The 66 artifacts collected and analyzed in association with Feature 84 represented a wide array of function-based artifact categories. However, it is unclear if or how any of the materials relate to occupation of the structure. While the presence of indulgence, domestic, and personal effects items are strong indicators of a residential setting, their collection was in association with the building's foundation. Several of the artifacts, such as a broken whiskey bottle (n = 2, mnv = 1) manufactured by the Owen's Bottle Co., clearly predate construction of the building. Many, perhaps all, of these materials may have been deposited prior to construction or bulldozed into the property at the time of its demolition.

In summary, while five features can be associated with Structure 3, Euroamerican artifacts from only three of these features provide information on the inhabitants of the structure. From these artifacts, it seems likely that the household as it existed in the 1930s included an infant or small child. This household likely engaged in bottle recycling and food-preservation activities.

Structure 4 (125 West Manhattan Avenue)

Structure 4, built just after the railroad arrived in Santa Fe (1880–1882), was initially owned by the Romero family. In ca. 1911, the property was sold to a justice of the New Mexico Supreme Court, Frank W. Parker. Later in 1946 the property was converted to a small apartment complex.

Euroamerican artifacts (n = 1,264) from 28 features were analyzed. These features represent activities at the structure during both the nineteenth (n = 17) and twentieth centuries (n = 11). Materials from these features are presented by category, type, and function in Table 20.13.

Features dating to the late nineteenth century included several irrigation ditches and bone pits. These features typically contained very few Euroamerican artifacts (n = 110), making it difficult to ascertain information regarding the Romero family, who occupied 125 West Manhattan Avenue during this period.

The garden irrigation ditches (Features 14, 17, 120, 121, and 123) were in the northeast corner of the backyard. Combined, these features yielded 42 Euroamerican artifacts: small fragments of bottle glass (n = 5), dinnerware (n = 3), and construction and maintenance items (n = 32), including nine square-cut nails. None of the above objects could be identified by brand or manufacturer.

Bone pits included Features 13, 55, 118, 125, 126, 127, 128, 135, 140, 142, 166, and 171. Like the irrigation ditches, Euroamerican artifact counts from these features were low (n = 68). This was to be expected, since these pits appear to have been constructed specifically to house organic debris. Identifiable food items (n = 5) included a milk bottle fragment (n = 1) and sardine cans (n = 4). Indulgences included one unknown brand beer bottle (n = 1). Domestic dinnerware included fragments from a bowl (n = 1) and several unknown vessel types (n = 10). Construction materials were metal straps or bands (n = 3), plates (n = 5), nails (n = 19), a fence staple, and window glass (n = 2). Fragments of shoes (n = 4) were the only evidence of personal effects. None of these materials possessed identifiable brand or manufacture marks.

Features dating to the twentieth century were more varied and overall displayed a dramatic increase in Euroamerican artifact frequencies (n = 1,154). Evidence of specific brand names and

Figure 20.24. Pluto Water ads: (a) **Liberty** *magazine, April 6, 1929; (b) unknown magazine, ca. 1930; (c) unknown magazine, ca. 1940; (d)* **Colliers** *magazine, September 16, 1939; (e)* **Life** *magazine, June 21, 1937; F) unknown magazine, ca. 1937.*

manufacturers can be identified on many of the artifacts, providing dates that allow some of the features to be identified with a specific property owner (Romero, Parker, or other).

Domestic-refuse pits included Feature 50 (n = 253), Feature 56 (n = 169), Feature 58 (a single unidentifiable bottle fragment), Feature 119 (n = 7), and Feature 158 (n = 3). Unassignable items included unidentifiable bottle glass (n = 70, mnv = 55) and unknown metal cans (n = 14). An intact cast-iron head of a gardening hoe accounted for economy and production items. The hoe is a good indicator of backyard gardening and is likely associated with the Romero family.

Food products (n = 22, 1.7 percent) included a meat can, several vegetable or fruit cans (n = 16), and pickle jars (n = 6). Indulgences (n = 90, mnv = 84) were bottles of soda (n = 8, mnv = 4), wine (n = 18, mnv = 1), beer (n = 31, mnv = 3), whiskey (n = 2, mnv = 1), and a shoulder jug (n = 31, mnv = 1). Domestic items (n = 37), present in most of the features, were most dominant in Feature 56. Dinnerware (n = 31, mnv = 15) included cups (n = 7, mnv = 2), bowls (n = 9, mnv = 3), plates (n = 5, mnv = 2), a platter (n = 2, mnv = 1), and indeterminate vessels (mnv = 3), along with some glassware cups (n = 2, mnv = 2) and a platter (n = 1, mnv = 1). One dinner plate fragment had a trademark from the Homer Laughlin Company of East Liverpool, Ohio (1877 to present; Kovel and Kovel 1986:25). Glass canning jars (n = 48, mnv = 36) were also present in the refuse pits, and one was manufactured by Fairmont Glass Works of Indiana (1889–1968; Toulouse 1971:200).

Construction and maintenance materials (n = 86) were primarily found in Features 50 and 56. There were unidentified metal plates, straps, wires, and one tool, a single-bit axe. Small hardware items consisted largely of various nail types (n = 33). Features 50 and 56 were also the only two pits to yield personal effects (n = 38). Clothing-related objects (n = 17) included buckles, a few buttons, an indeterminate piece of clothing, and shoe fragments (n = 9).

Medicine bottles within the personal effects category (n = 21, mnv = 8) were a small lot, but varied in type. A Dr. S. Pitcher's Castoria laxative bottle was recovered—a cathartic patented in 1868 by Dr. Samuel Pitcher of Massachusetts. In 1871 Charles H. Fletcher of New York purchased the formula rights from Dr. Pitcher and created the Centaur Company to manufacture the newly named Fletcher's Castoria. The formula was in existence until 1984, when it was bought out by the Mentholatum Company. In early advertisements, the Centaur Company featured the American boxer, Joe Louis, as a child: "Mother raised me on Fletcher's Castoria." In 1938 Louis became legendary when he beat Germany's Max Schmelling (www.centaur.com) (Fig. 20.25).

Figure 20.25. Dr. S. Pitcher's Castoria ad featuring boxing legend Joe Louis (right), ca. 1938.

Other medicinal items collected from the refuse pits were a syringe, a patent medicine bottle (n = 3, mnv = 1), a bitters bottle (n = 3, mnv = 1), and several pill bottles (n = 13, mnv = 3). The pill bottles had manufacturer trademarks from the Owens-Illinois Glass Company (1929–1971). A broken aqua patent medicine bottle had a brand name of Dr. Busanko Pile Remedy. Unfortunately, no information regarding this brand could be found.

Two twentieth-century construction-debris pits, Feature 59 and 131, were in the vicinity of Structure 4. Feature 59 had four Euroamerican artifacts, all dinnerware fragments, including

indeterminate vessels (n = 2), a plate (n = 1), and a platter (n = 1). Feature 131 had a higher frequency of Euroamerican artifacts (n = 110) and abundant construction debris, such as concrete, brick, tile, and milled wood (not collected). Collected artifacts included unassignable objects (n = 30), indulgences (n = 8), domestic items (n = 19) construction and building materials (n = 49), personal effects (n = 2), and military/arms (n = 1).

Construction and maintenance materials (n = 49) consisted mostly of wire-drawn nails (n = 20) and window glass (n = 14). Several unknown metal plates (n = 9), straps or bands (n = 4), wire (n = 1), and a padlock (n = 1) also came from the pit.

Feature 122 was an irrigation ditch that contained only three artifacts. One of the artifacts was a shard of bottle glass produced with an automatic bottling machine (1904+), placing abandonment of the ditch in the twentieth century. The remaining two artifacts were small indiscriminate pieces of iron wire, associated with the Romero family, who lived at the residence prior to 1911.

Feature 136 was a twentieth-century bone pit behind Structure 4. This too is believed associated with the Romero family. The pit contained three nearly intact cow skulls with some hoof fragments and a few artifacts (n = 19). The artifacts were unknown objects (n = 3), an unidentifiable bottle, and a beer bottle. Dinnerware included a plate and some unknown vessel types (n = 3). Only the finish of a glass canning jar was present; the seams indicate it was made by an automatic bottling machine (1904+). Other artifacts came from the construction and building category, including a few pieces of wire (n = 3), nails (n = 5), and a piece of window glass (n = 1).

Feature 93 was a straight-line cesspit privy situated behind Structure 4. It was a circular feature made of red bricks (see Chapter 14 for architectural details). When the cesspit was abandoned, it was filled with Stratum 7, culturally sterile sand with large quantities of waterworn cobbles. Very few Euroamerican artifacts (n = 6) were found in association with the feature. The artifacts that were collected included an unidentifiable bottle, a metal fruit or vegetable can, a wire-drawn nail, a metal pipe fragment, a pencil, and the finish from an aqua-colored ink . The ink bottle was produced with an automatic bottling machine (1904+).

Feature 62 was a self-contained vault privy. It was over 5 ft deep, with seven stratigraphic layers (see Chapter 14), and was excavated its entirety. A large number of Euroamerican artifacts (n = 579) from practically every category were retrieved from the privy. A good portion of these artifacts were unassignable items (n = 78), including unknown objects (n = 14), unidentifiable bottles (n = 55), cans (n = 8), and a plug or cap. Food items (n = 8) were insignificant in numbers, including one mustard jar and seven vegetable or fruit cans.

The overall number of indulgence items (n = 35) was relatively low considering the size of the privy. This may suggest that inhabitants of the household participated in the temperance movement, or at least law-abiding citizens during Prohibition. A Taylor & Williams (1908–1918) whiskey bottle and a beer bottle manufactured by Reed & Co. of Rochester, New York ((1887–1898; Toulouse 1971:432) were among the identified indulgence products. These also included soda (n = 1), wine (n = 12, mnv = 5), beer (n = 14, mnv = 6), and whiskey (n = 4, mnv = 2) bottle fragments. The only tobacco-related item was a pipestem.

Domestic items, mainly dinnerware (n = 102, mnv = 71), were abundant. Of the dinner plate pieces identified (n = 56, mnv = 35), 1 fragment had a maker's mark from J. G. Meakin of England (1851 to present; Kovel and Kovel 1986: 92), and 19 were manufactured at Johnson Bros. Ltd. of England (1883 to present; Kovel and Kovel 1986:12). Five of the bowl fragments (n = 16, mnv = 11) were also associated with Johnson Bros. Based on the presence of both bowls and plates, it appears likely that one of the families residing on the property may have had a complete dinner set made by this company. Soup plate fragments (n = 7; mnv = 3) came from Henry Alcock & Co. of England (1861–1910; Kovel and Kovel 1986:116). Two of the saucer fragments (n = 10) were from Keller and Everin of Luneville, France (1788–1890), and three were from Peoria Pottery Company of Illinois (1873–1902). One cup and one casserole dish were also identified but could not be linked to specific manufacturers.

Glassware (n = 112, mnv = 21), also quite frequent, included cups (n = 31, mnv = 7), goblets (n = 22, mnv = 6), shot glasses (n = 8, mnv = 4), and indeterminate vessels (n = 24, mnv = 4). Glass canning jars (n = 27, mnv = 22) were also recovered.

Six of these vessels were manufactured by the Kerr Glass Company (1912 to present), and their presence provides strong evidence of household canning in the early twentieth century.

A few furnishing items (n = 5, 0.9 percent) were tossed into the privy. A portion of a wood or coal stove, a knob, and several pieces from a broken porcelain hippo figurine (n = 3; Fig. 20.8) were collected. Construction and maintenance materials (n = 132) consisted of a variety of different functional items, including an axe head (Fig. 20.26). Some window glass (n = 13), one electrical insulated wire, and some plumbing objects (n = 4) of tubing and pipes were also present.

The personal effects (n = 88) category contained some items of clothing, including buttons (n = 3), fragments of indeterminate clothing (n = 21), and numerous pieces of shoes (n = 27). Personal hygiene and grooming items included a small variety of unique items such as a broken white-bodied earthenware chamber pot made by John Maddock and Sons of England, a few hair and lice combs (n = 6), a hairpin, a dentifrice bottle, and perfume or cologne bottles (n = 2). One of the lice combs was black and intact and had "Dogshead" as a logo, but no information on the brand name was found.

A perfume bottle was embossed with "E. Coudray . . . PAR" within an oval design on the lower frontal body. The clear glass bottle was intact and squat in appearance, with a patent finish. Edmond Coudray was a doctor/chemist during the reign of Louis XVIII of France. He supplied the royal family and Queen Victoria of England with colognes, soaps, creams, pomades, and luxurious perfumes. In 1882 M. Maugenet and Dr. Coudray became a public business and opened a small perfume shop in Paris. It remained a family business until 1908, when the business was sold. The perfume manufacturer was revived after World War II. A new owner in 2002 is following the tradition of the House of Coudray by using the old formulas in modern fragrances (www.coudray-parfumeur.com).

Entertainment and leisure artifacts (n = 14, 2.4 percent) were also collected from Feature 62. These items included doll parts (n = 6), miniature toy cups (n = 3), pencils (n = 2), slate fragments (n = 2), and unknown items (n = 2). The small arms

Figure 20.26. Trade axe with blade and hammer heads.

category (n = 5) had a few centerfire cartridges (n = 4) and a shotgun shell.

As discussed in Chapter 14, it is likely that Feature 62 dates to the early twentieth century and may be associated with the Romero or Parker family, but it is also possible that the privy was used during the habitation of 125 West Manhattan by both families. The presence of toy cups and doll parts suggests small children, likely a girl or girls between the ages of 4 and 12. If Feature 62 dates to the 1920s, the absence of large quantities of alcohol may even suggest that the users of the privy tried to abide by Prohibition-era laws. If so, this family is the only household within the current project area to do so. This would not be surprising, given that Frank Parker was a New Mexico Supreme Court judge.

Pottery from the privy is largely white-bodied earthenware dishes produced in English factories. Collectively these dinnerware vessels produce a mean ceramic index value of 1.78 (SD of .54). These data suggest a middle-income household. However, the archival evidence and size of the building at 125 West Manhattan indicate a relatively wealthy family. The relatively low mean ceramic index value produced by the dinnerware is somewhat surprising and draws into question the accuracy of economic scaling using decorative styling on dinnerware products in the early twentieth century. This variation may reflect individual preference or the inability to discern multiple individuals of different financial backgrounds depositing trash into the privy.

In conclusion, Euroamerican artifacts from Structure 4 have the potential to provide information on ethnic differences in consumption and discard patterns. However, it is difficult in some instances (such as Feature 62) to separate which features were associated with which family. Euroamerican artifacts show limited, if any, evidence that cottage industry occurred on the property. Many if not all of the residents performed some sort of wage labor, allowing them to purchase store-bought products. Also, given the size of Structure 4, it is somewhat perplexing that mean ceramic index values suggest a middle-income household.

Structure 5 (135, 137, 139 West Manhattan Avenue)

Structure 5, a rental complex, was initially built between 1908 and 1913 and housed numerous families, primarily of Hispanic ethnicity. Very little of the structure survived the ravages of time. However, five features yielded associated Euroamerican artifacts (n = 573). Materials from these features are presented by category, type, and function in Table 20.14.

Feature 82 was a domestic-refuse pit filled with variety of Euroamerican products (n = 127). Domestic refuse typically consisted of large quantities of food, indulgence, domestic, and personal effects. However, in this instance, only one food item, a Best Foods mayonnaise jar; and one indulgence item, a rim to a stoneware ale bottle, were recovered. Best Food Mayonnaise started in California in 1912 and bought out its eastern competitor, Hellmann's Mayonnaise, in 1932.

Domestic items (n = 68) were the most frequent artifact type recovered, most of which were small fragments of indeterminate white-bodied earthenware vessels (n = 39, mnv = 3). White wares were a common and sturdy dishware for daily use. Other recognized dish fragments were bowls (n = 6, mnv = 4), saucers (n = 13, mnv = 4), and platters (n = 5, mnv = 1). Glassware items included one mug and indeterminate vessel fragments (n = 5, mnv = 4), and several fragments (n = 5) from two glass canning jars were also present. No manufacturer marks were present on any of the domestic products.

Shoe fragments (n = 13), in the personal effects category, suggest at least six separate shoes. Entertainment and leisure artifacts (n = 2) included one marble and a related stationery object—the body of one amethyst glass ink bottle without a brand name.

While the artifacts from Feature 82 reflect a domestic atmosphere, the near absence of indulgence products could suggest that the assemblage was discarded during the Prohibition era. The marble could indicate the presence of children at the residence. However, both of these conclusions are tenuous given the small Euroamerican artifact sample.

Feature 105, a construction-debris pit, yielded the largest number of Euroamerican artifacts (n

= 195) directly tied to Structure 5. Most of these Euroamerican artifacts were construction and maintenance items (n = 92), including window glass (n = 47), metal plates (n = 2), bands or straps (n = 5), roofing nails (n = 8), finish nails (n = 1), wire fragments (n = 3), bolts (n = 2), a hinge, a hook, a bracket, a tack, and a spike, among other bits of hardware. Domestic items (n = 32) included some of the usual array of kitchen items, bowls (n = 6, mnv = 5), plates (n = 13, mnv = 5), and indeterminate vessel fragments (n = 10, mnv = 7). All of these items were made from white-bodied earthenware ceramics. Indeterminate glassware fragments (n = 2, mnv = 1) were also collected, as was a portion from one glass canning jar (n = 1). A flower pot fragment was classified as household furnishing.

Indulgence items (n = 13) were less frequent; they included a can tab, a crown cap, fragments of wine (n = 2) and beer (n = 4) bottles, and two Coors cone-top beer cans. Introduced in September 1935, cone-top beer cans were marketed by the Continental Can Company (Rock 1978:28). The design was successful until the start of World War II, when a metal shortage occurred, and production declined (www.ebeercans.com). The cone-top cans survived until 1960, but in 1959 the aluminum can was invented. In addition, three miniature glass liquor bottles with metal screw tops were collected. One of the bottles was identified as Fleischmann's Vodka. In 1952 attractive miniature liquor bottles came into existence via KLM Royal Dutch Airlines, and they were issued to royal-class passengers and business people. Thus began the rampant tradition of miniature liquor bottle sales in unique shapes and every intoxicant available on the market.

Personal effects items (n = 3) were minor occurrences, including one two-hole button, two fragments from one patent medicine bottle, and an unidentifiable toy fragment. Two coins, a 1945 quarter and a 1947 nickel, were not included in the analyzed data but are noted in the field by the excavator. The coins postdate construction of Structure 5, ca. 1908. Given that Feature 105 is beneath the structure, the pit was likely created during demolition in 1967

Feature 111 was a construction-debris pit similar to Feature 105 in that it was both beneath the structure and contained substantial quantities of domestic refuse in addition to the construction and maintenance materials. A total of 194 Euroamerican artifacts were collected from the feature.

Construction and maintenance materials (n = 75) represented less than 50 percent of the Euroamerican artifact assemblage collected and analyzed. However, this disparity reflects collection strategies, which left adobe brick and concrete fragments on site, not feature function. Artifacts within this category included substantial quantities of nails (n = 25) and window glass (n = 41). Linoleum (n = 6), a hard, inexpensive floor covering, was very popular well into the 1950s. Since it is organic, nonallergenic, and made of renewable materials (mostly linseed oil and wood), it is still used today in many health care facilities and hospitals.

Residential trash included a wide array of Euroamerican artifact types. Food items such as fruit and vegetable cans were common (n = 19), as were indulgences such as wine (n = 12, mnv = 2) and beer (n = 13, mnv = 5) bottles. There was evidence of domestic items, particularly dinnerware items (n = 18), but no glassware. Personal effects items (n = 8) included a suspender buckle, a jewelry fragment, a comb, toiletry bottles (n = 4), and a 1949 penny. A patent medicine bottle and two marbles were also present. The only diagnostic item was the 1949 penny, which suggests the pit was roughly contemporaneous with Feature 105. Both pits were presumably created during demolition of Structure 5 in 1967.

Several artifacts (n = 12) were collected in association with the foundations of Structure 5 (Feature 117). These included unidentifiable fragments of bottle glass (n = 7), a metal plate, a few nails, and two pieces of window glass. All of the artifacts are nondescript and do not provide in-depth information regarding the inhabitants of Structure 5. Most if not all of the materials are likely associated with construction or demolition of the structure in the twentieth century.

Feature 224 was an oval, straight-line cesspit constructed of firebricks in the backyard of Structure 5. It was identical to Feature 44, a cesspit behind Structure 1. Unfortunately, a relatively small amount of Euroamerican artifacts (n = 45) were recovered from Feature 224: a few unidentifiable items (n = 3), canned food items (n = 3), and complete bottles of indulgences (n

= 24, 53 percent), including soda (n = 4), wine (n = 2), beer (n = 13, mnv = 8), and whiskey (n = 5, mnv = 3). Several of these items revealed brand or manufacturer names. One intact aqua glass bottle with a crown finish was Nifty soda, produced between 1904 and 1919. A Lemp beer bottle (1896 to 1903) was present, along with eight aqua Budweiser beer bottles with tooled lip crown finishes. Budweiser was bottled by the American Bottle Company in Chicago, Illinois, between 1905 and 1929. An unknown beer brand, also in an aqua bottle, was manufactured at William Franzen & Son of Milwaukee, Wisconsin, between 1900 and 1929.

Domestic items (n = 12), such as ceramic dinnerware and glassware, were present, but in minimal frequencies. Bowl fragments (n = 8, mnv = 2), a plate, an unknown vessel type, an indeterminate glass vessel, and a portion of a ceramic pitcher were collected. The base and body portion of the molded ceramic pitcher were present and revealed a maker's mark from Goodwin Pottery of East Liverpool, Ohio (1844 to 1913).

The near absence of artifacts from Feature 224 is not surprising. Given that it was connected to flush toilets, it would have been difficult if not impossible for Feature 224 to accumulate Euroamerican cultural debris. Most if not all of the artifacts found within the privy were tossed in after its abandonment. This may have occurred in the late 1910s or early 1920s, when the house was connected to the city sewage system.

In summary, while three of the five features were associated with demolition or construction activities, a substantial quantity of Euroamerican domestic refuse was collected. Unfortunately, while it is likely materials found in these two construction-debris pits in connection with the structure's foundations are associated with residential occupation of the household, this cannot be proven. The remaining two features do provide data directly reflecting consumption and discard patterns during residential occupation of the structure. Residents in the early twentieth century were almost exclusively of Hispanic ethnicity, making these contexts suitable for comparison of consumption and discard patterns between Anglo and Hispanic neighborhood residents during this time.

Structure 6 (111 West Manhattan Avenue)

Structure 6, 111 West Manhattan Avenue, was built between 1882 and 1885 and initially owned by the García family. During the twentieth century, the structure appears to have been owned by Frederick Muller and his wife. They rented outbuildings to a diverse array of Anglo and Hispanic families, presumably to supplement Frederick's pension from the US Army. Euroamerican artifacts (n = 1,726) were collected from 19 features associated with these structures. Artifacts are presented by category, type, and function in Table 20.15. Some of the more substantial features are discussed below.

Feature 1 was a very large domestic-refuse pit. Only 25 percent of the feature fill was sampled. The artifacts retrieved from this sample (n = 239) dated between 1910 and 1920. They included a variety of items from practically all functional categories. However, only a few food-related artifacts (n = 4, 1.6 percent) were collected, including a lard bucket and several extract bottles. One of the extract bottles was a Dr. Price's Delicious Flavoring Extracts, manufactured by the Illinois Glass Company between 1916 and 1929. The extracts came in vanilla, lemon, and orange flavors, which were used in "ice cream, cakes, pudding, sauces." Dr. Price's extracts were promoted as "perfect in purity, superior in strength" (*Desert News* 1891:3).

The indulgence category (n = 40, 16.7 percent) had several wine, soda, and beer bottles with associated crown caps. One amber beer bottle (n = 16, mnv = 1) was manufactured at William Franzen & Son (1900–1929) in Milwaukee, Wisconsin. Franzen's most important customers were the Milwaukee breweries, until Prohibition caused the company's demise (Toulouse 1971: 537).

Domestic items (n = 13, 5.4 percent) were minimal, with a piece of silverware, a broken cup (n = 2, mnv = 1) and plate (n = 7, mnv = 1), and an unknown vessel fragment. The ironstone plate had a trademark from the Johnson Bros. in England (1883–1960). The broken cup (n = 2, mnv = 1) was glassware.

The construction and maintenance category (n = 111, 46.4 percent) had an assortment of hardware items and nails (n = 41). Electrical items (n = 8) were also present but insignificant

in number. Building materials (n = 40) included pieces of linoleum (n = 6), an inexpensive and sturdy flooring commonly used during the early twentieth century. Window glass shards (n = 30) and other construction and maintenance items may reflect demolition or construction.

The personal effects items (n = 30, 12.6 percent) were primarily clothing items such as buttons (n = 7) and shoe fragments (n = 4). However, one toiletry and one medicinal bottle were also identified. One .38 caliber Winchester Repeating Center-fire cartridge (1883–1960) suggests gun ownership, and a bicycle tire could have been used by both children and adults.

In conclusion, artifacts from Feature 1 display a wide variety of items. These items appear to date to the 1910s or 1920s. Many of the construction and maintenance materials may specifically reflect construction of 111 1/2 West Manhattan between 1913 and 1921. The absence of artifacts tied to children matches favorably to the age of the Mullers, over 60, in the roaring twenties.

Feature 170 is a square well along the west fence of 111 West Manhattan. Only 50 percent of the feature was excavated, yielding 664 Euroamerican artifacts. A fair amount of these items were unassignable items (n = 76, 11.4 percent). However, some foodstuff was present, specifically fruit or vegetable cans (n = 3) and condiment jars (n = 8).

Indulgence items were common (n = 40, 6.0 percent), with one tobacco can, crown caps (n = 20), a Coca-Cola soda bottle, a wine bottle, a few cone-top cans, whiskey bottles (n = 14), and beer bottles (n = 22). One green bottle was identified as Falstaff beer (1903–1960). When Prohibition ended in 1933, Falstaff Brewing Corporation was granted Federal Permit Number 1 to resume brewing beer. On April 7, 1933, police had to control mobs of people trying to get a case of beer on the brewery lawn. Beer sales for the first year at Falstaff Brewery after Prohibition were 150,000 barrels (Rosso et al. 2009:9).

An aqua beer bottle body with an embossed crown on the base was manufactured by Bagley & Co. of Yorkshire, England. In 1905 Bagley purchased the European rights for the Owens automatic bottling machine and revolutionized the glass industry in Europe (Issitt 2005). Costs associated with bottle manufacture decreased almost overnight, increasing the consumption and discard of glass containers. However, Bagley bottles are not commonly found in New Mexico, since Bagley only supplied bottles to European companies. The presence of a Bagley beer bottle might suggest the Muller family purchased imported beer from Germany or Ireland.

Domestic items (n = 17, 2.6 percent) included a teaspoon, several indeterminate dinnerware pieces (n = 4), and a plate (n = 4, mnv = 1). The ceramic white-ware plate was manufactured at D. E. McNicol Pottery Co. in East Liverpool, Ohio (1892–1954). A few broken glassware pieces were also recovered, along with a couple of canning jars and a shot glass. Household furnishings (n = 16, 2.4 percent) included fragments from a wood or coal stove, pieces from a glass kerosene lamp, and a vase (n = 9, mnv = 1) disposed of in the well.

Construction and building materials (n = 424, 63.9 percent) were recovered in significant numbers. Various types of hardware were collected, including common wire-drawn nails (n = 165). Other building materials included window glass (n = 72), several types of electrical wires, cleats and fuses, some fencing, and a few plumbing objects. It is uncertain whether this construction debris was acquired during the remodeling phase or during the demolition of the primary structure.

The types of personal effects items (n = 30 or 4.5 percent) recovered are typically associated with domestic refuse, including buttons (n = 6), shoe fragments (n = 12), a shoe polish tin, a toiletry bottle shard, an ointment jar fragment, and a patent medicine bottle piece. All of the items were minute pieces and could not be tied to a specific brand or manufacturer. Lastly, entertainment and leisure items including a doll part, a colored pencil, and several scraps of paper representing a book (n = 10, mni = 1) were encountered, along with transportation items (bicycle tire fragments; n = 13) and two rimfire cartridges associated with the military and arms category.

Euroamerican artifacts found in the well are likely redeposited domestic refuse based on their small size. The likelihood of secondary deposition and mixed-age deposits limits the potential for Feature 170 to provide information on residential consumption and discard patterns.

Feature 178, a partially subterranean root cellar, yielded 189 Euroamerican artifacts.

Food items identified included milk bottles (n = 10, mnv = 6) from various dairies: Ferguson's Dairy of Santa Fe (1931–1945); Fred Harvey Farm, Newton, Kansas (1905–1925), Del Rico Dairy (possibly Texas); and Nob Hill Creamery, Colorado Springs, Colorado. Dates for the latter two dairies could not be determined, but their bottles were made using the automatic bottle machine (1904+). Many of these dairy bottles are shown in Figure 20.2. The Fred Harvey railroad enterprise supplied the dining cars with their own food from the Fred Harvey Farm in Newton, Kansas. On the farm there was a poultry area and a soft drink carbonating plant. The dairy was built in 1926, and milk, cream, butter, cottage cheese, ice cream, and buttermilk were processed. In a typical year 60,000 gallons of milk were shipped to facilities (Hurley 2002:2).

Other foodstuff items were a broken Sprague, Warner & Co (1909–1942) ketchup bottle (n = 3, mnv = 1) and several generic condiment jars (n = 4, mnv = 2) manufactured at Hazel-Atlas Glass Company and Owens Bottle, respectively. The present international food company, Sara Lee Corporation, is a descendant of the Chicago-based grocery store, Sprague, Warner & Co.

Indulgences (n = 115, 60.8 percent, mnv = 72) were plentiful. There were bottles of soda (n = 10, mnv = 9), wine (n = 26, mnv = 14), one Bacardi Rum bottle (1862–present), and evidence of plenty of beer (n = 78, mnv = 49). Identified beer brands included Anheuser-Busch, Falstaff, Blatz, and Schlitz breweries. Root cellars are ideal for storing alcoholic beverages because of low temperatures and steady humidity in the summer. However, these bottles may represent a cache of empty bottles in anticipation of recycling activities.

Domestic items consisted of only one embossed Certo amber glass jar. It contained liquid pectin, used in jam and jelly making. Liquid pectin was sold from the 1930s to the 1950s and thereafter produced in powder form. A few construction items (n = 7) were present, including common wire-drawn nails (n = 3) and some plumbing objects (n = 3). The nails may have fallen out of the wooden root cellar door, and a pipe, coupling, and spigot may have been stored in the cellar. Personal effects and entertainment and leisure items included an odd mix of a perfume or cologne bottle, a rubber cement tube, and several stencils (n = 11). These objects may or may not be associated with use of root cellar.

The trademarks collected from numerous whole and fragmented bottles within the root cellar produced a mean bottle glass manufacture date of 1936 (SD 12 years). This date suggest that most materials in the root cellar were consumed and discarded during the Great Depression. Given that the feature was full of glass bottles and jars at the time of demolition, destruction of the structure may not have been intentional. The Certo bottle suggests home canning at the residence during this time, but no canning jars were found.

Feature 192 was a self-contained vault privy in the backyard of 111 West Manhattan Avenue that probably served the rental properties. The small quantities of human excrement at the base of the feature were screened. Euroamerican artifacts consisted primarily of domestic items (n = 19), including a piece of silverware, two broken bowls (n = 7, mnv = 2), a cup (n = 3, mnv = 1), a saucer (n = 5, mnv = 1), one indeterminate glassware vessel, and crockery (n = 2, mnv = 1). The ceramic saucer had a maker's mark from the East End Pottery Co. (1894–1901), in East Liverpool, Ohio, suggesting the privy may have been used in the late nineteenth or early twentieth century.

Construction and maintenance items recovered were extremely minimal (n = 5). They consisted of a few metal plates (n = 2), nails (n = 2), and a bracket. A figurine (n = 20, mni = 1) of a yellow-haired terrier was classified under the furnishing category. It was hand-painted and made of molded gypsum. Personal effects included a comb, a miniature swan, and a pen. An unusual transportation item, a tire iron, was also tossed into the empty privy, probably during the demolition of the structure in the 1960s.

The other privy, Feature 219, was attached to a water closet (flush toilet) inside the Muller home. Flush systems do not allow for many artifacts to find their way into a privy. Twelve Euroamerican items were ultimately collected from the privy (Table 20.15). These items consisted of unassignable metal objects (n = 3) and bottle fragments (n = 2), a tong (construction and maintenance category), a hinge, nails (n = 4), and a rimfire cartridge. Lacking in trademarks, none of these objects could be dated. However, all of these materials are likely associated with

abandonment of the feature.

Features 193 and 194 are domestic-refuse pits behind Structure 6. Both pits are shallow depressions used to deposit coal clinkers, cinders, and burned refuse extracted from a coal stove. Twenty-nine Euroamerican artifacts were collected from the features. The vast majority are nails (n = 24), including both wire-drawn (n = 7) and machine-cut types (n = 17). This mixture suggests the pits date to the late nineteenth or early twentieth century.

Features 195 and 196 were also shallow domestic-refuse pits behind Structure 6. The pits contained primarily coal clinkers and cinders. Euroamerican artifacts from Feature 195 (n = 65) included unassignable items (n = 2), indulgences (n = 4), domestic items (n = 6), personal effects (n = 3), and construction and maintenance items (n = 40). Feature 196 produced only three artifacts, all in the construction and maintenance category. These included two wire-drawn nails and a piece of window glass. Since all the artifacts were lacking brand names or trademarks, these features could only tentatively be dated to the early twentieth century based on the presence of the wire-drawn nails.

Feature 207 is a shallow, basin-shaped refuse pit behind Structure 6. Like Features 193–196, it contained copious quantities of charcoal and coal inclusions. However, artifact counts were greater and more diverse than those in the other domestic-refuse pits (n = 110). Food and indulgence items included lard bucket fragments (n = 27, mni = 2) and two beer bottles. Dinnerware items were minimal, with a table fork, a bowl, a cup, unknown vessel fragments (n = 3, mnv = 2), and a plate. Construction items recovered were nails (n = 12) and window glass (n = 14). All 12 nails were machine-cut square nails, suggesting deposition in the nineteenth century. A few personal effects items, buttons (n = 2), metal rivets (n = 12), and a broken patent medicine bottles (n = 2, mnv = 1) were also collected.

A judgmental sample of Euroamerican artifacts (n = 29) was collected from Feature 209, the basement of Structure 6. Archival evidence suggests the building was demolished in the 1960s. Some of the Euroamerican artifacts collected in Feature 209 may be associated with this demolition. However, the majority of collected items appear to be sheet trash, which could be associated with residential occupation of the structure prior to this time.

A broken, unidentifiable item (n = 4, mni = 1) and two unknown bottle types were present. A few food item bottles did not retain their brand names, but each had a manufacturer mark from Hazel-Atlas Glass Co. (1902–1964) and Owens Bottle Co. (1929–1954). Indulgences were soda (n = 2), wine (n = 1), and beer (n = 2) bottles. In addition, a Paul Jones whiskey bottle (n = 2, mnv = 1), manufactured in Louisville, New York, was also found (Fig. 20.27). Domestic items were minimal, with a sherd from an indeterminate dish and three pieces from a single crock. The construction category (n = 4) had a few pieces of hardware and an electrical insulator.

Figure 20.27. Paul Jones Whiskey ad, 1948.

Personal effects items consisted of a prescription bottle and a Chesebrough Vaseline ointment jar (1872–1987). The Vaseline jar was clear glass and intact. Robert Chesebrough refined the crude, paraffin-like material forming on oil rigs and patented it in 1872 in New York. Touting the ointment as a healing agent, Chesebrough traveled through the city demonstrating his product by burning his arm, applying Vaseline

to the injured area, and showing healed previous burns (en.wikipedia.org.).

In summary, the majority of Euroamerican artifacts from features at Structure 6 appear to be associated with Frederick and Adella Muller's ownership of Structure 6 during the 1930s. Multiple buffering strategies combating the economic downturn associated with the Great Depression can be witnessed at Structure 6. The presence of the Certo bottle, for example, illustrates home canning at the property during the 1930s. Another is the use of outbuildings behind the structure as rental properties beginning in the late 1930s or early 1940s. However, as discussed in Chapter 16, Euroamerican artifacts likely reflect use of the property during this period by occupants of both the primary household and the rear rental buildings. With the exception of the privies, it is often unclear which inhabitants used which features. This proves to be a problem when attempting to infer social status and consumption patterns through the archaeological record. However, it reinforces the argument that archaeology is collective. Materials associated with Structure 6 represent not only the owners of the property, but also all occupants. As a result the materials found have as much to say about the unemployed family in the back house as they do about the middle-class family in the front.

Structure 7 (424, 428, and 430 Don Gaspar Avenue)

Structure 7, the First Baptist Church, was a two-story structure with a subterranean concrete basement built in 1921. Euroamerican artifacts were collected and analyzed from seven features, all associated with twentieth-century utilization of the property by Euromerican populations. Materials from these features are presented by category, type, and function in Table 20.16.

Features 202, 203, 204, and 211 were identified as construction-debris pits. A total of 117 Euroamerican artifacts were analyzed from the four features. In all four instances, construction and maintenance products (n = 58, 50 percent) were the most numerous. Artifacts identified within this category included substantial quantities of wire-drawn common nails (n = 21) and window glass (n = 21). It is unclear, based on artifact analysis, if these features are associated with construction or demolition of the church. However, the use of these materials matches well with known twentieth-century building practices.

Indulgence (n = 12, 10 percent) and domestic (n = 10, 9 percent) items were present in very small quantities and may be associated with activities occurring at the church during its use. The materials, such as wine (n = 8, mnv = 1) and beer (n = 4, mnv = 3) bottle fragments, ceramic dishes (n = 4, mnv = 2), and glassware (n = 9, mnv = 2), could be indicative of weddings and potlucks.

A single unidentifiable fragment of ferrous metal was recovered from Feature 205, a cinder-laden domestic-refuse pit. Less clearly associated with the church, the head of a cast-iron hoe was found near the foundation of Feature 218. It is possible the hoe is associated with earlier agricultural use of the land in the nineteenth century. However, the hoe is not wrought iron, and it is very similar to products marketed in the twentieth century.

A self-contained vault privy, Feature 7, yielded the majority of Euroamerican artifacts collected and analyzed from Structure 7 (n = 139). The indulgence (n = 12, 9 percent) items in conjunction with food (n = 30, 22 percent), domestic (n = 51, 37 percent), and furnishing (n = 1, 1 percent) products are indicative of residential consumption and discard patterns. This is to be expected, since several of the pastors appear to have lived at the church. Identified indulgence bottles included two complete wine bottles manufactured by William Franzen & Son of Milwaukee, Wisconsin (1900–1929; Toulouse 1971:536). Food items included sardine (n = 4, mnv = 4), pepper (n = 1, mnv = 1), condiment (n = 1, mnv = 1), and fruit or vegetable (n = 24, mnv = 2) can fragments. Dinnerware products, especially bowl fragments (n = 36, mnv = 5), were common in the domestic items category. The majority of the bowl fragments (n = 21, mnv = 2) were made of German porcelain from the C. Tielsch & Company (Fig. 20.28). The company operated from 1875 to 1934 in Altwasser, Silesia, Germany (Kovel and Kovel 1986:23). These vessels were a high-end product and probably of extreme value to the user given the cost of manufacturing and importing them. In addition, a teapot lid (n = 1, mnv = 1) had a maker's mark from the John Maddock & Sons Pottery (1894–1929) of Trenton, New Jersey. This brand of American white-bodied

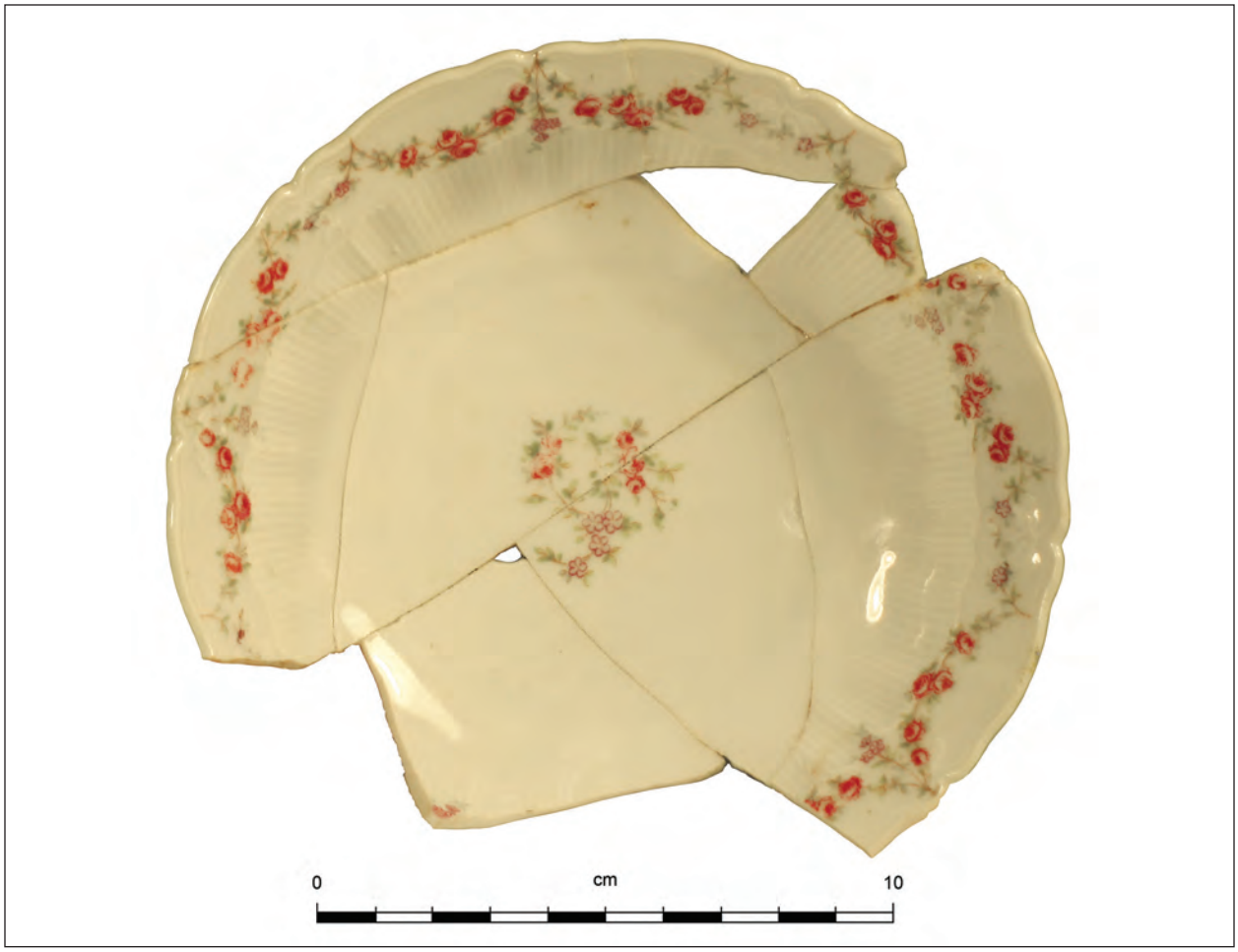


Figure 20.28. Porcelain bowl manufactured by C. Tielsch & Co., Altwasser, Silesia, ca. 1875–1934.

earthenware was advertised as being "the best semi-porcelain in the country" and "superior to the English" (DeBolt 1994:86–87). Together these objects provide a mean ceramic value of 2.22 (SD 0.69). This value is relatively high compared to other assemblages dating to the 1920s and 1930s and speaks to the socioeconomic status of the congregation in early twentieth-century Santa Fe.

It is interesting to note that, among the 258 artifacts collected from the First Baptist Church (Structure 7), not a single religious item was recovered. Such items would have been cherished possessions that were usually never discarded, and some of them may have been passed on from generation to generation. Even when broken, they were usually set aside.

Structure 8 (420 Don Gaspar Avenue)

Structure 8, 420 Don Gaspar Avenue, was constructed between 1913 and 1921 and was demolished in 1992. William E. Rutherford owned the residence for more than 40 years and rented the property to many Euroamerican families. While four features were documented on the property, Euroamerican artifacts were only collected from a single construction-debris pit (Feature 197, n = 18; Table 20.17). These artifacts consisted primarily of construction and maintenance items (n = 10, 56 percent) such as wire fragments (n = 2), wire-drawn common nails (n = 4), and indeterminate nail fragments (n = 4). Other artifacts documented included small quantities of unassignable (n = 6, 33 percent) and indulgence (n = 2, 11 percent) products. While artifact counts are low, the hardware materials may be associated with demolition of the structure in 1992.

Interpretations and Conclusions

Function-based analytical methods for historic artifacts were developed by South (1977) and others for their potential to distinguish activity patterns in the archaeological record. For comparative purposes, determining social status, date of occupation, and activities performed nearby at the time of deposition are fundamental to our understanding of the past.

The diverse array of Euroamerican material culture collected from LA 158037 allows us to examine contextual variability in occupation patterns and residential material culture during the late nineteenth and twentieth century. As proposed under Research Domain 2 in the data recovery plan (Barbour 2008a:90–93), units of comparison can include ethnicity (Hispanic vs. Anglo), socioeconomic status (middle-class homeowner vs. lower-income renter), feature type (construction-debris pit vs. domestic-refuse pit vs. privy), and temporal context (World War I vs. Prohibition vs. Depression). This section addresses noticeable differences within these units of study in an attempt to address questions proposed in the research design (Barbour 2008a).

Ethnicity

The ethnicity of inhabitants in the Capitol Complex Historic Neighborhood was derived from their surnames as listed in *Hudspeth's Santa Fe City Directories*, created during twentieth-century and nineteenth-century US census counts. This characterization is somewhat problematic, since it is quite possible that someone with the last name of Montoya could be Native American, or a Simpson could be Hispanic. Furthermore, it does not take into account mixed ancestry.

Based exclusively on the use of surnames, two major ethnic groups appear to have occupied LA 158037—Anglo (including German and other non-Hispanic surnames) and Hispanic. (Editor's note: The term *Anglo* is used here to mean, generally, any person of European ancestry.) While both groups have lived in the neighborhood since the late nineteenth century (Barbour 2008a:33–39), artifacts associated with Euroamerican surnames were only recovered from twentieth-century contexts during the current undertaking. Hence, for this study, nineteenth-century material culture was removed from consideration.

Initial comparisons between the two ethnic groups were developed using relative frequencies of Euroamerican artifacts within each of the function-based analytical categories (Table 20.18). As illustrated in Figure 20.29, consumption patterns between the two groups are largely similar except in the distribution of domestic items (Hispanic 23.6 percent, Anglo 15.3 percent), construction and maintenance materials (Hispanic 21 percent, Anglo 39.1 percent), and personal effects (Hispanic 12.8 percent, Anglo 7.1 percent). It is not necessarily clear why there are such noticeable discrepancies. If a similar set of activities (cooking, cleaning, sleeping, childcare, etc.) was performed by each ethnic group within a residential setting, then there should be a similar array of artifacts across each of the function-based categories.

It is possible to speculate that these differences do not reflect cultural factors but a swing in the number of artifacts recovered from specific activity-related features (Table 20.19). Certainly, construction-debris pits contributed more Euroamerican artifacts in the case of the Anglo assemblage (Hispanic 2.8 percent, Anglo 18.3 percent). This could cause a noticeable increase in the number of construction and maintenance items found during Euroamerican artifact analysis. However, the differences between Anglo and Hispanic consumption and discard patterns remain the same if you examine Euroamerican artifacts from a single feature type, such as domestic-refuse pits (Fig. 20.30; Table 20.20). While the relative frequencies of personal effects (Hispanic 8.7 percent, Anglo 9.5 percent) was equalized in domestic-refuse pits, substantial differences in domestic items (Hispanic 30.2 percent, Anglo 14.8 percent) and construction and maintenance materials (Hispanic 20.4 percent, Anglo 35 percent) are still clearly visible. Simply put, when all else is equal, Hispanics discarded more domestic items such as dinnerware, and Anglos more hardware such as nails.

Dinnerware was further scrutinized to see if there were also differences within the types of items consumed. As depicted in Figure 20.31, it appears that Hispanic residents discarded relatively more ceramic dinnerware (Table 20.21). Approximately 69.5 percent of all domestic items discarded by Hispanic households were ceramic

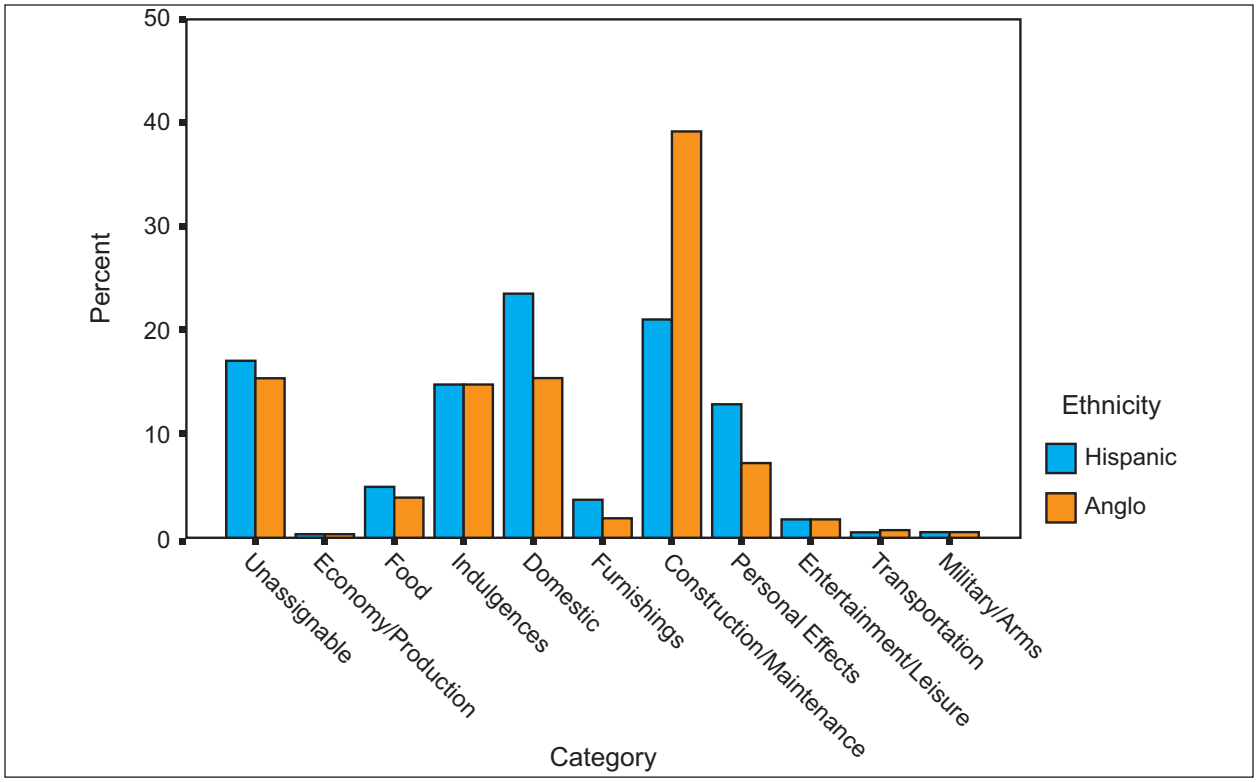


Figure 20.29. Euroamerican artifacts analyzed by function-based category and ethnicity from twentieth-century assemblages.

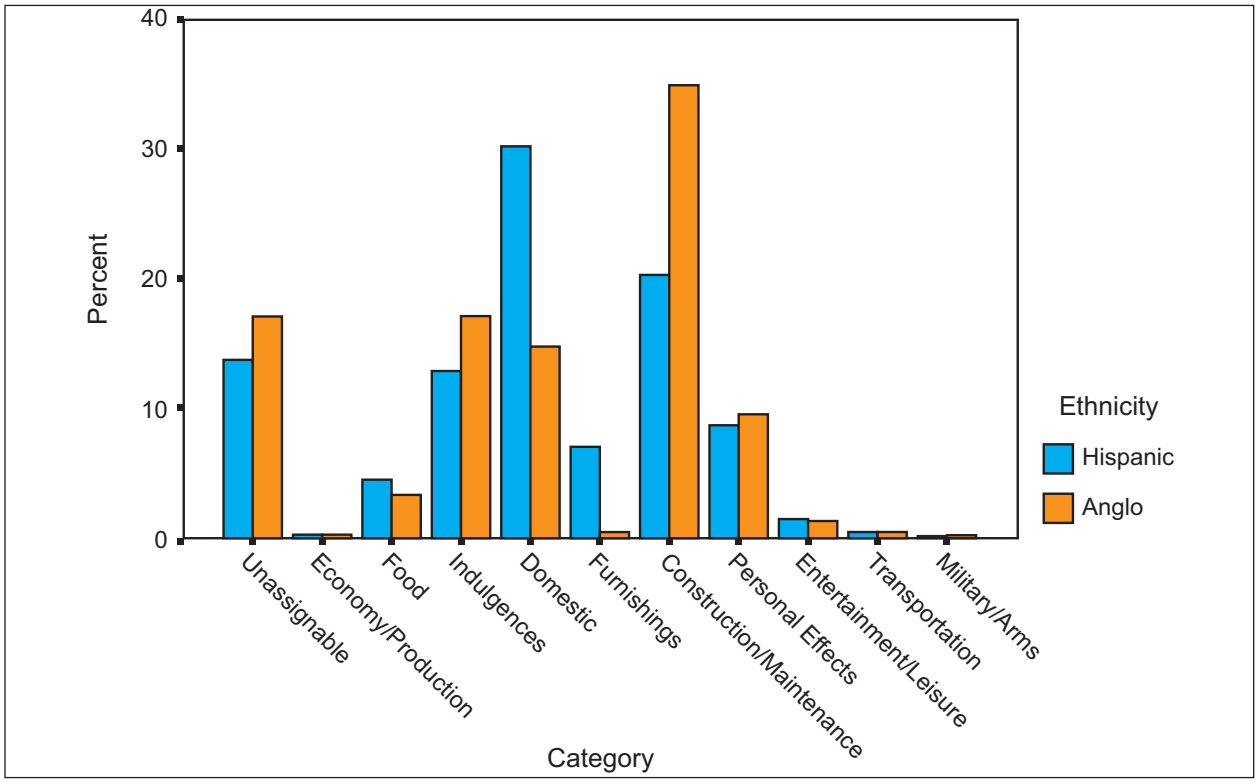


Figure 20.30. Euroamerican artifacts analyzed by function-based category and ethnicity from domestic-refuse pits dating to the twentieth century.

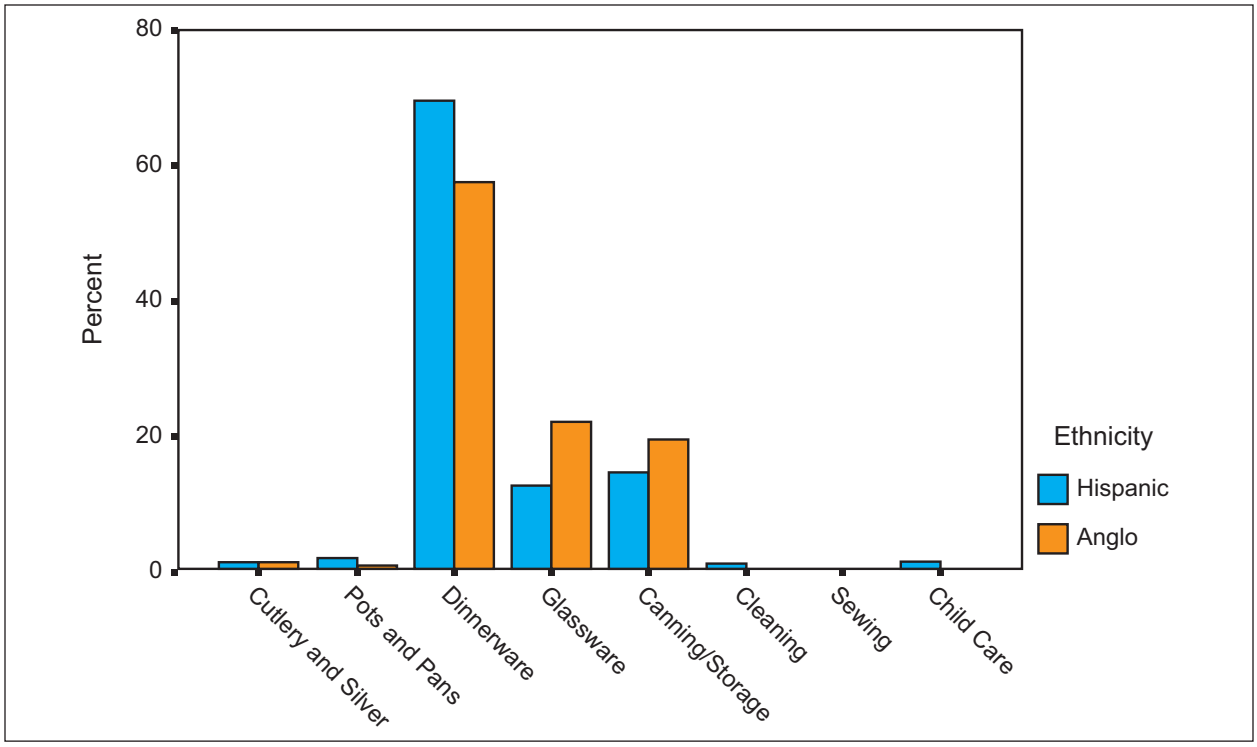


Figure 20.31. Euroamerican artifacts within the domestic items category by type and ethnic complexion of the user in the twentieth century.

dinnerware, compared to 57.4 percent from Anglo residences. Conversely, Anglo populations appear to discard more glassware (Hispanic 12.5 percent, Anglo 22 percent) and canning jar fragments (Hispanic 14.3 percent, Anglo 19.3 percent). This increase in glassware among Anglo population appears to represent a preference for glass cups, while ceramic cups were preferred by Hispanic populations. Ceramic dinnerware cups represent 18.8 percent of the Hispanic dinnerware assemblage and only 8.6 percent of the Anglo dinnerware assemblage (Table 20.22). Perhaps more interestingly, the soup plate vessel form, which has long been linked to Spanish Colonial cultural traditions, is used in only small insignificant quantities by both groups (Hispanic 1.9 percent, Anglo 3.9 percent).

Ceramic dinnerware discarded by both groups can also be aggregated by ceramic body (ware type) and aesthetic designs. In both cases, there are noticeable differences in the types of goods used and discarded. In the case of ware type (Table 20.23), both ethnic groups appear primarily to use semivitreous white-bodied earthenwares (i.e., ironstone—Hispanic 61.7 percent, Anglo 59.9 percent). However, when purchasing high-cost porcelain products, the Hispanic population appears to show an affinity for oriental porcelain (Hispanic 9.6 percent, Anglo 0.8 percent), whereas Anglos appear to favor continental (European) porcelain vessels (Hispanic 12.9 percent, Anglo 15.9 percent). It is possible these consumption patterns are somehow linked to specific ethnic affinities. In the case of continental porcelain, the majority of large factories were in Germany, and many of the Anglo families within the project area were of Germanic origin.

Similarly, in terms of aesthetic design (Table 20.24), simple flower or animal motifs (i.e., traditional design elements) appear to be the most common identifiable decorative elements among both ethnic affiliations (Hispanic 20.2 percent, Anglo 21.5 percent). However, both groups purchase an assortment of vessels with stylistic elements identifiable with a popular artistic movement in the nineteenth or early twentieth centuries (Fig. 20.32). The Aesthetic Movement (Hispanic 6.7 percent, Anglo 2 percent), popular in the 1870s–1890s; and Art Deco (Hispanic 10.8 percent, Anglo 2.7 percent), popular in the 1910s–1930s, styles appear to be discarded more frequently among Hispanic

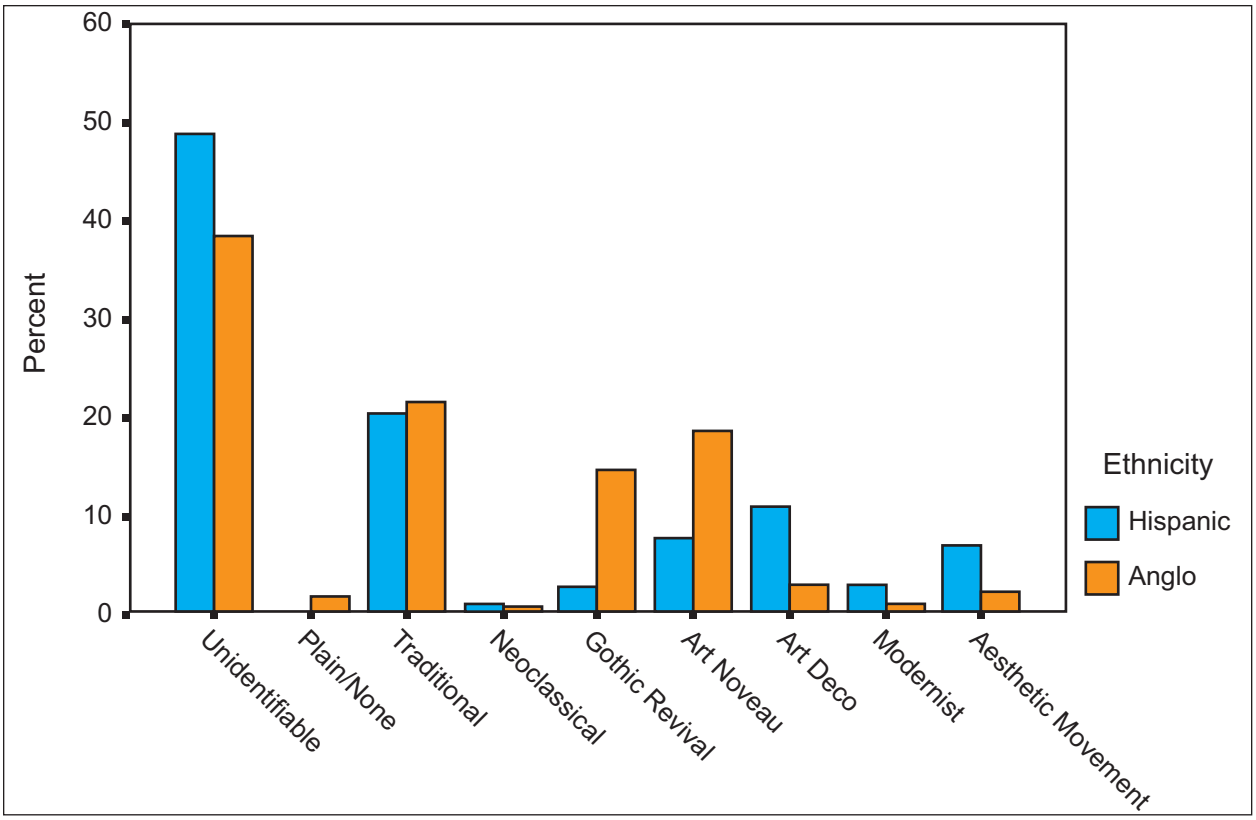


Figure 20.32. Twentieth-century ceramic dinnerware by aesthetic design and ethnic affiliation.

residents. The Aesthetic Movement in America was influenced by Asian design patterns, and there is a strong correlation between a preference for Asian porcelain and Aesthetic Movement dinnerware pieces. Juan Pedro "Pete" Alarid reported that his mother's dishes included a set of porcelains bowls which he was able to identify during an interview on April 6, 2009 (Fig. 20.33).Anglo residents appeared to purchase substantially more products associated with the Gothic Revival style (Hispanic 2.4 percent, Anglo 14.5 percent), popular in the mid-nineteenth century; and the Art Nouveau style (1890s–1910s; Hispanic 7.4 percent, Anglo 18.4 percent). Both of these aesthetic design traditions were out of date or waning in popularity by the early to mid-twentieth century. This suggests Anglo residents may have been more conservative in their dinnerware purchases or may have held on to pieces longer.

This examination of domestic items suggests ethnic differences not only in the relative frequencies of goods consumed by function-based category, but also in the types of items discarded. It is also often true that when broad consumption patterns seem similar, the types of goods utilized by each ethnic group vary. For example, both groups discard roughly the same quantity of indulgence items (Hispanic 14.7 percent, Anglo 14.8 percent), but Anglos consume larger quantities of beer (Hispanic 30.4 percent, Anglo 42.6 percent) and wine (Hispanic 8.3 percent, Anglo 26.9 percent) than Hispanic residents, who seem to prefer other forms of liquor (Hispanic 22.6 percent, Anglo 13 percent), such as whiskey and carbonated beverages (Hispanic 29.1 percent, Anglo 8.6 percent) like Sparkle brand soda (Fig. 20.34; Table 20.25).

Similar patterns of alcohol consumption have been discussed elsewhere. In the case of the nineteenth century, Fort Marcy Military Reservation, north of Santa Fe Plaza, Anglo officers drank greater quantities of wine, the German NCOs beer, and the Hispanic enlisted men whiskey (Lentz and Barbour 2011:275–276). Differences can found in almost every function-based artifact category. However, domestic and indulgence items offer the best examples for differentiating ethnic groups within the archaeological record.

Figure 20.33. Japanese porcelain bowl owned by Carmen Alarid in the early twentieth century.

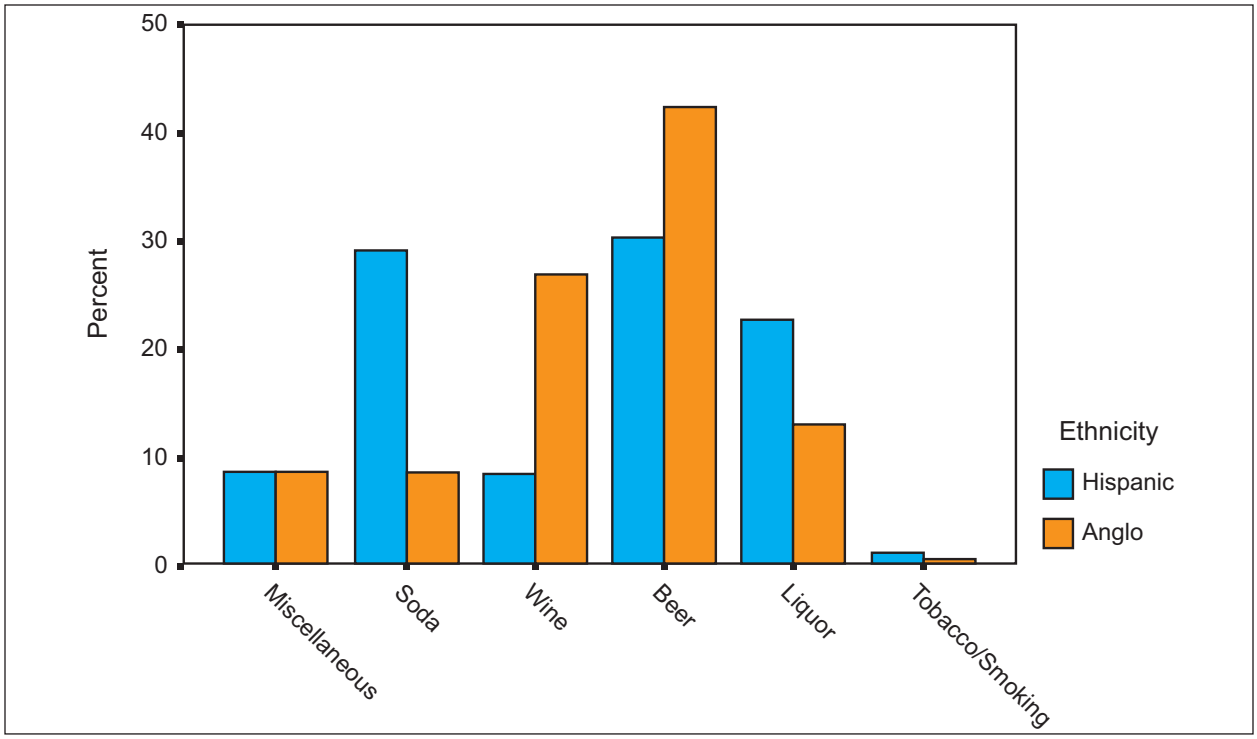


Figure 20.34. Indulgence type by ethnic affiliation in twentieth-century contexts.

In the early twentieth-century Capitol Complex Historic Neighborhood, it is strange to see such noticeable differences in consumption and discard patterns. By the 1920s, Hispanic and Anglo populations had been cohabitating in Santa Fe for roughly 100 years. These people were neighbors and presumably had access to the same items, sold at the same shops, but the items they choose were very different.

As discussed by Orser (2004:251–252), the ability to discern individual family units does not always lead to an ability to infer ethnic status. In an examination of consumption and discard patterns between English and Irish settlers living in New Jersey, Orser (2004:251) concluded that minorities often participate in the same "conspicuous" consumption as their Anglo counterparts. Rathje and Murphy (2001:147–150) came to a similar conclusion when comparing modern Mexican-American, Mexican, and Anglo households. Although he found significant differences in the refuse patterns produced by Mexican populations living in central Mexico and those of Anglos and Mexican-Americans living in Tucson, he found very little difference between the discard patterns of Anglos and Mexican-Americans. Once again, this could suggest that consumption and discard patterns are largely driven by variations in availability and regional economy, not ethnic differences.

Ethnic differences, still visible into the 1920s and 1930s, suggest that while the Capitol Complex Historic Neighborhood was a multiethnic community, it was not necessarily an integrated unit. Historian David Kyvig (2004:xiii) suggests that the standardization of American life began in the 1920s with access to radio advertisements and the birth of American consumerism on a national scale. However, it is not until the rise of suburbia and the expansion of the television into nearly every household in the Postwar era, or Proud Decades, that American culture took on a truly national form (Diggins 1988). It is likely that most of the twentieth-century Euroamerican artifact assemblages used in this study predate the late 1940s and early 1950s.

Furthermore, while this study suggests differences between ethnic groups, personal agency is also involved. The preference among Hispanics for Asian porcelain may simply be a preference Carmen Alarid had for fine china. Fritz Muller may have had a great fondness for wine and therefore upset the balance in alcohol consumption. Similarly, the sample of

eight residential units within a neighborhood of hundreds of homes is relatively small. There is no guarantee that the residences at LA 158037 are representative of Santa Fe as a whole or even of the historic neighborhood to which they were attached.

While differences witnessed here between the two ethnic groups are substantial, these variations in consumption and discard patterns need to be tested elsewhere to see if the current findings can be replicated. It would also be of benefit to compare the findings at LA 158037 with assemblages dating to the 1950s and 1960s, by which time there should be a greater degree of standardization across ethnic groups.

Socioeconomic Status

In Chapter 8, two methods—mean ceramic values and archaeological evidence of access to health care—were discussed as strategies used in performing economic scaling and determining the relative wealth of individual households during the early twentieth century. These methods have subsequently been utilized in the report to provide information regarding the socioeconomic status of residents within the current project area. However, the data provided imply that these methods work, which may or may not be the case.

One advantage to working within an urban environment in the twentieth century is access to a very detailed historic record. *Hudspeth's Santa Fe City Directories*, census records, and business directories allow archaeologists and ethnohistorians to accurately identify who lived where and what they did for a living. Residents of LA 158037 consisted of clerks, lawyers, judges, landowners, and railroad agents, among other professions. Overall, residents of the Capitol Complex Historic Neighborhood can be viewed as relatively wealthy or at least representing some early form of the American middle class. Conversely, inhabitants of the Santa Fe Railyard Historic District, only two blocks away, could be classified as lower income. At LA 156207, the most commonly listed professions were laborer and domestic (Snow and Barbour in prep.). Many did not list a profession at all, suggesting they were unemployed.

Using 1920s and 1930s Euroamerican artifact data from these two sites (LA 156207 and LA 158037), economic scaling via mean ceramic values can be tested against known differences in wealth based on the historic record. As previously stated, mean ceramic values are produced through averaging ceramic price index values within a given assemblage (feature, structure, site, etc.) and comparing these means to one another. The order of these mean ceramic values to one another should indicate the wealth or social status of the assemblage. The higher the value assigned to the assemblage, the higher the social status of those discarding into it relative to the other assemblages in the sample.

Ceramic price indices are predicated on the assumption that open-stock, or individual set item, prices of any given ceramic dinnerware are relative to production costs of a particular vessel form and decorative technique. Open-stock prices for dinnerware recovered in this study were aggregated by vessel form and decorative technique, and then averaged. Dinnerware was ranked hierarchically. The least expensive undecorated wares were assigned a rank of one, while the more expensive wares, such as porcelain and white-bodied earthenwares with decal designs, were assigned a rank relative to their retail cost in relation to undecorated wares (mean ceramic value = p/1 where p = price of the tableware and 1 = price of the cheapest undecorated tableware).

For this study, the 1920s values created by Susan Henry were used to examine differences between the two sites (see Table 8.1). As depicted in a high–low graph (Fig. 20.35), occupants of both sites displayed similar ranges of variability within their mean ceramic index values. However, occupants of LA 158037 (mcv = 1.69, SD 0.68) exhibited a slightly higher mean than that of LA 156207 (mcv = 1.59, SD 0.63). This would appear to indicate that the lawyers, clerks, and railroad agents living in the Capitol Complex Historic Neighborhood were wealthier than the laborers and domestics living in the Railyard Historic District.

This would seem to corroborate mean ceramic values as a method for examining differences in socioeconomic status, but might not. As previously stated, the variation within the assemblages is roughly comparable. There is also a large standard deviation associated with each

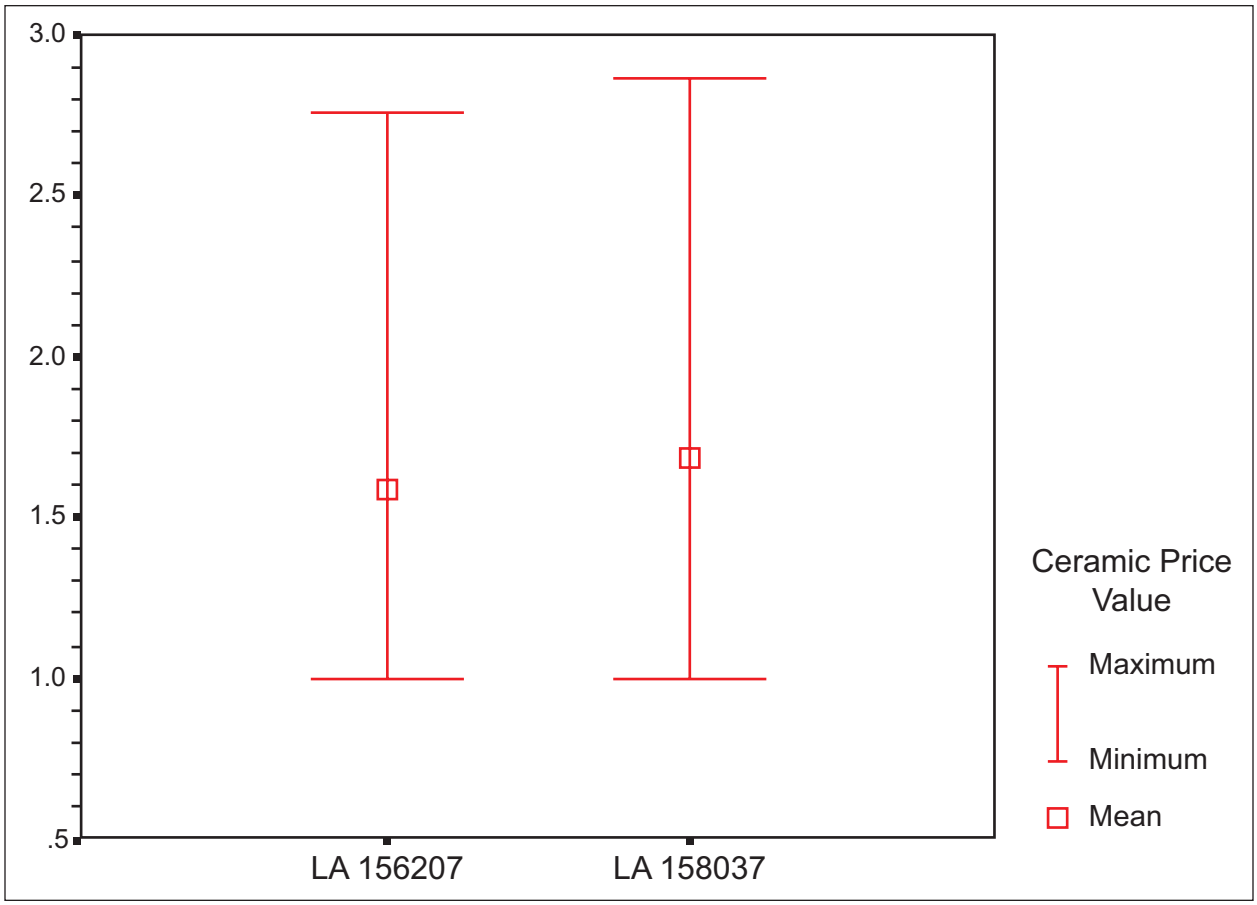


Figure 20.35. A high-low graph depicting ceramic price index values for LA 156207 and LA 158037.

value (Table 20.26). This allows the two values to overlap substantially, with the differences between the two values being statistically irrelevant before even taking into account differences in sample size.

A box plot offers a more exact way to examine these changes statistically. As exhibited in Figure 20.36, LA 158037 has a higher median score, that is, there is greater number of higher ceramic price index values relative to lower priced items at LA 158037. People in the Capitol Historic Neighborhood purchased and discarded somewhat greater numbers of higher-priced ceramic dinnerware. However, the upper and lower quartiles are identical, as is the minimum. The maximum is only slightly higher in the case of LA 158037. So while the mean ceramic price index value is higher, as it should be, the overall distribution of high- and low-priced dinnerware is nearly the same.

Assuming that mean ceramic values are a useful indicator of socioeconomic status, Figure 20.37 examines data sets from seven structures within LA 158037. As with the intersite comparison, high and low scores are similar among the different assemblages, suggesting a great deal of variation within each dinnerware assemblage. Based on mean ceramic values (Table 20.27), Structures 1–7 can be arranged from wealthiest to poorest: Structure 7 (mcv = 2.22, SD 0.69), Structure 3 (mcv = 1.92, SD 0.7), Structure 2 (mcv = 1.73, SD 0.66), Structure 5 (mcv = 1.69, SD 0.78), Structure 1 (mcv = 1.66, SD 0.71), Structure 4 (mcv = 1.62, SD 0.55), and Structure 6 (mcv = 1.41, SD 0.52).

This arrangement is somewhat counterintuitive. The Parker family (Structure 4) appears to have lived in one of the poorest residences in the neighborhood. Given Supreme Court Justice Parker's position within New Mexico state government and the size of his house, it is highly unlikely that he was among the poorest individuals residing in the neighborhood. However, this low value can easily be explained

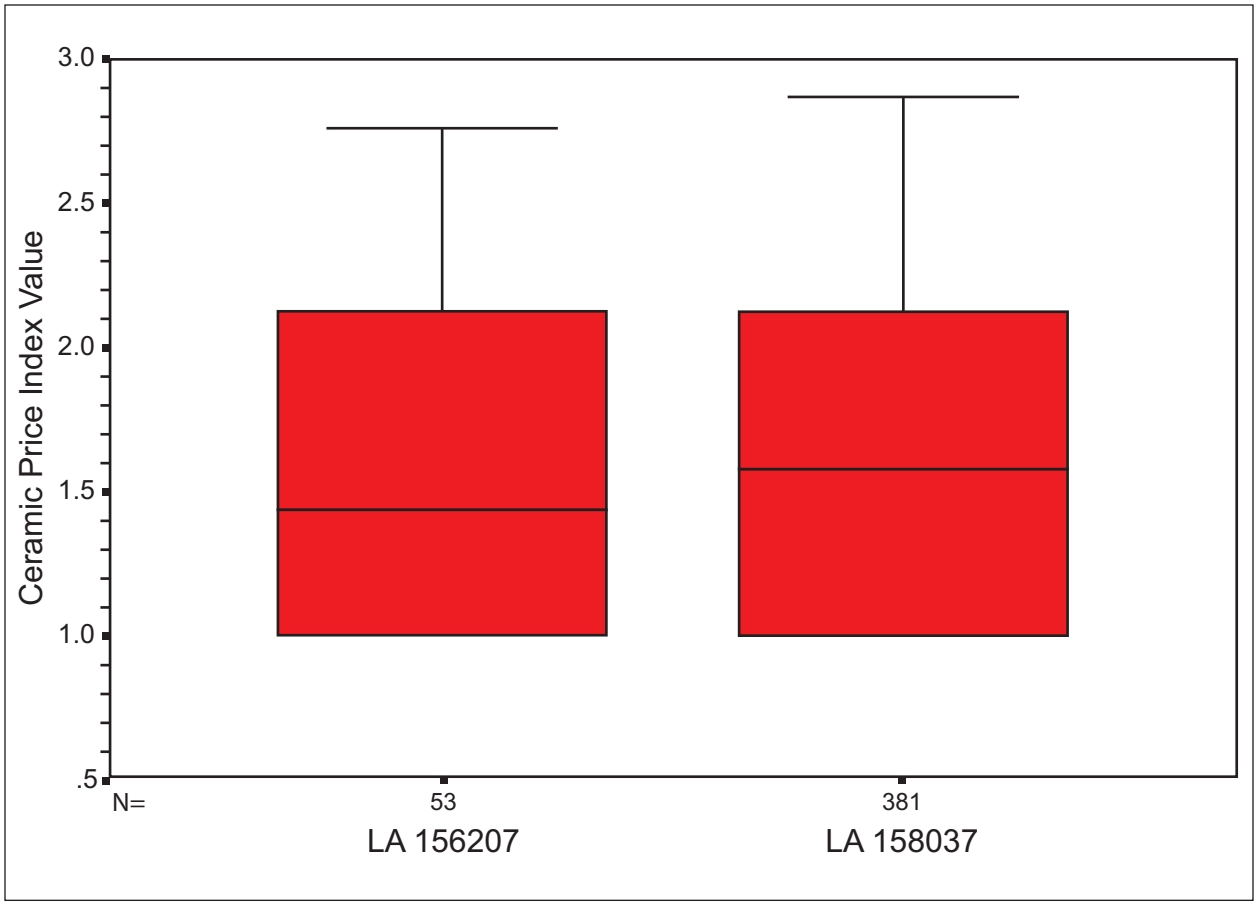


Figure 20.36. A box-plot graph depicting ceramic price index values for LA 156207 and LA 158037.

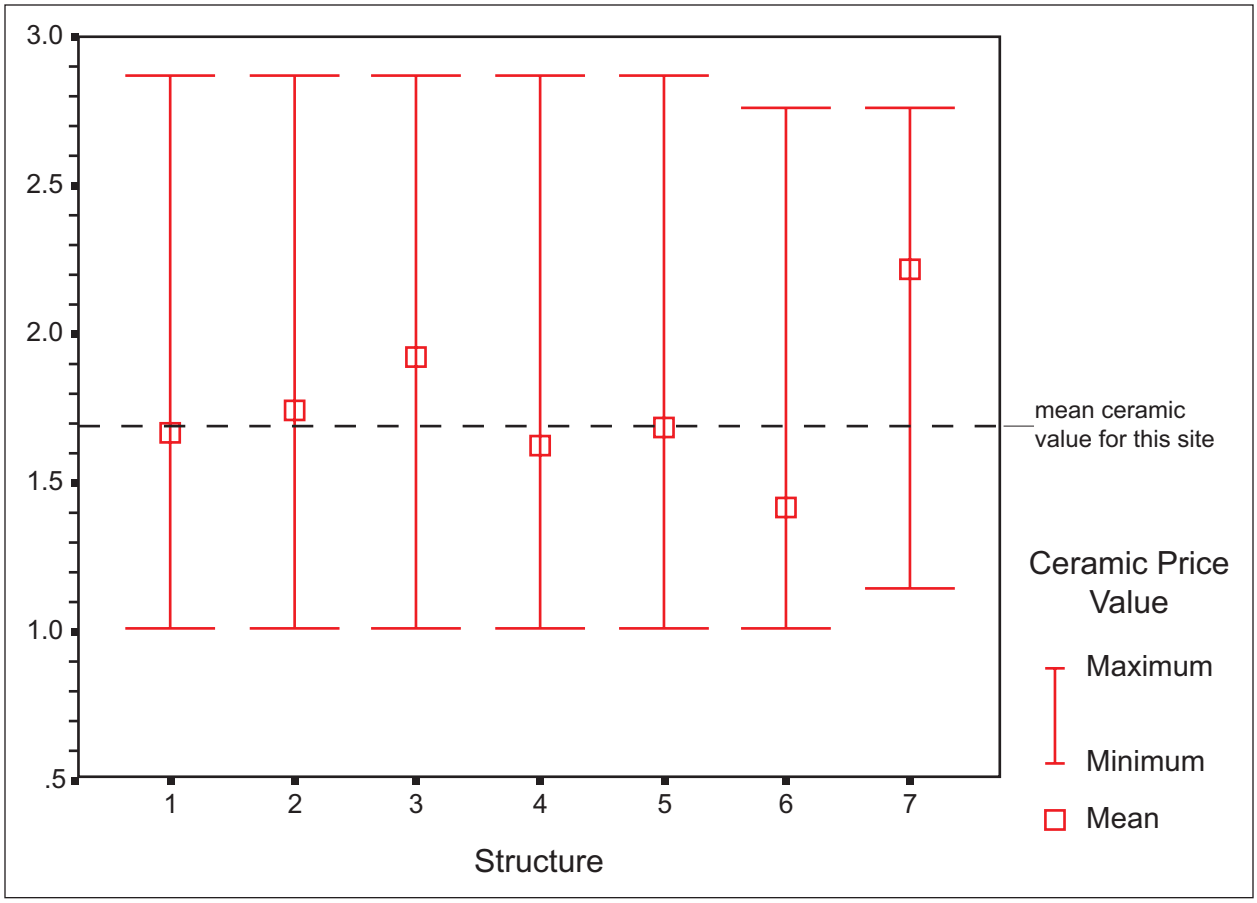


Figure 20.37. A high-low graph depicting ceramic price index values for the individual structures at LA 158037.

away by examining box plots associated with the various assemblages.

As depicted in Figure 20.38, the box plot for Structure 7 indicates that there are a large number of high-value outliers within the set. It is possible to speculate that because the Parker family did not move into the structure until the 1910s, these higher values might be the Parkers', whereas the lower values may indicate the Romero family just prior to selling the home. While the Romero family is also believed to have been relatively wealthy, the family may have fallen on hard times just prior to the sale of the structure.

It is also interesting to note that there is substantial variation between households in the upper and lower quartiles, suggesting that specific residences as a whole bought and discarded more expensive pieces. As when using mean ceramic price index values, median scores suggest that occupants of Structure 7 (First Baptist Church), Structure 3 (Alarid family/renters), and Structure 2 (Alarid family) were the wealthiest, and that the Muller family (Structure 6) was the poorest. The presence of so many highly valued pieces at the church is likely indicative of the structure's function and suggests the church put its best face forward when serving its constituency.

Prescription bottle indices were developed by dividing the number of prescription products (prescription and pill bottles only) by the total number of bottled medicinal products (prescription medicine, patent medicine, ointment, liniments, etc.). A higher index value suggests that residents of a particular structure treated ailments by going to a physician's office more frequently. As access to professional health care was often expensive, these values should work as a proxy to examine the relative wealth of each residential unit within the neighborhood.

Prescription bottle index values were developed for Structures 1, 2, 3, 4, and 6 (Fig. 20.39; Table 20.28). Structures 5 and 7 had too few medicinal products to be examined. Based upon these values, the structures can be arranged from

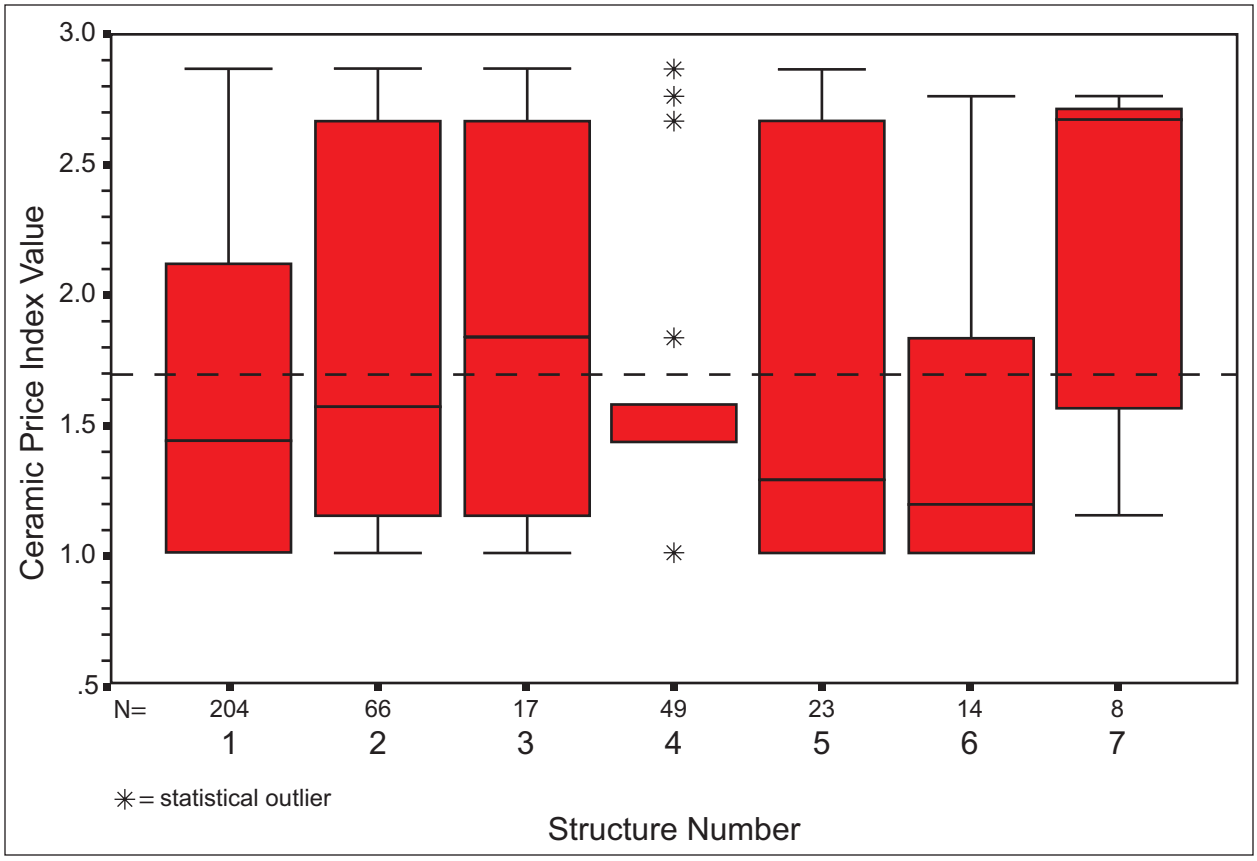


Figure 20.38. A box-plot graph depicting ceramic price index values for the individual structures at LA 158037.

wealthiest to poorest: Structure 6 (value = 0.22), Structure 4 (value = 0.2), Structure 1 (value = 0.16), Structure 3 (value = 0.07), and Structure 2 (value = 0.06). This relative ordering system does not match the list produced by mean ceramic values. In fact, except for the ordering of Structure 3 and then Structure 2, it is the reverse. While Structure 6 is considered the poorest household in the neighborhood when using mean ceramic values, residents of the structure appear to have had the greatest access to professional health care.

Is the prescription bottle index a good indicator of relative wealth? Perhaps not. Examining the distribution across ethnicities (Fig. 20.40), it is clear that Anglo populations consumed greater quantities of prescribed medicinal products. Hispanics residents appeared to more heavily rely on patent medicine and other homeopathic remedies. Hence, the utilization of professional Western medicine may be associated within one's ethnicity and not necessarily with one's socioeconomic status.

Feature Type

Central to any function-based analytical framework is the identification of specific activities within the discarded material culture. By examining the relative quantities of specific artifact types, an analyst should be able to determine what activities are represented in the artifact assemblage. For this to be the case, discard patterns must vary across archaeological assemblages in ways that are recognizable within the analytical framework and the archaeologist coding these materials.

For the State Capitol Parking Facility Project, features were assigned to one of ten different feature types based on in-field observations of feature shape, design, content (not just Euroamerican artifacts but the presence of human waste, concrete, coal, etc.), and location. Three of the most common feature types were domestic-refuse pits, construction-debris pits, and self-contained vault privies. As described in Chapter 8, each of these pits is assumed to be associated with a different set of household

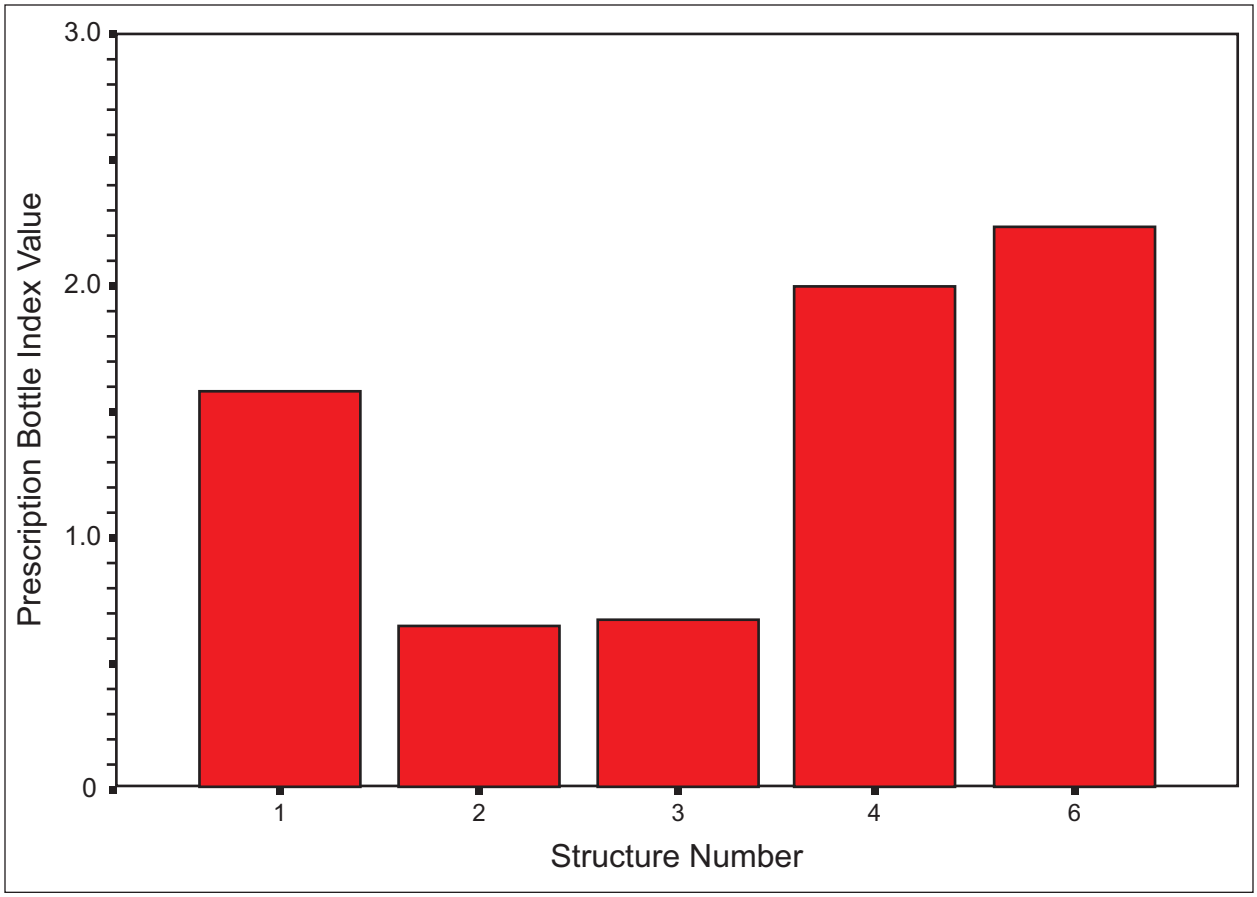


Figure 20.39. A bar graph depicting prescription bottle index values for the individual structures.

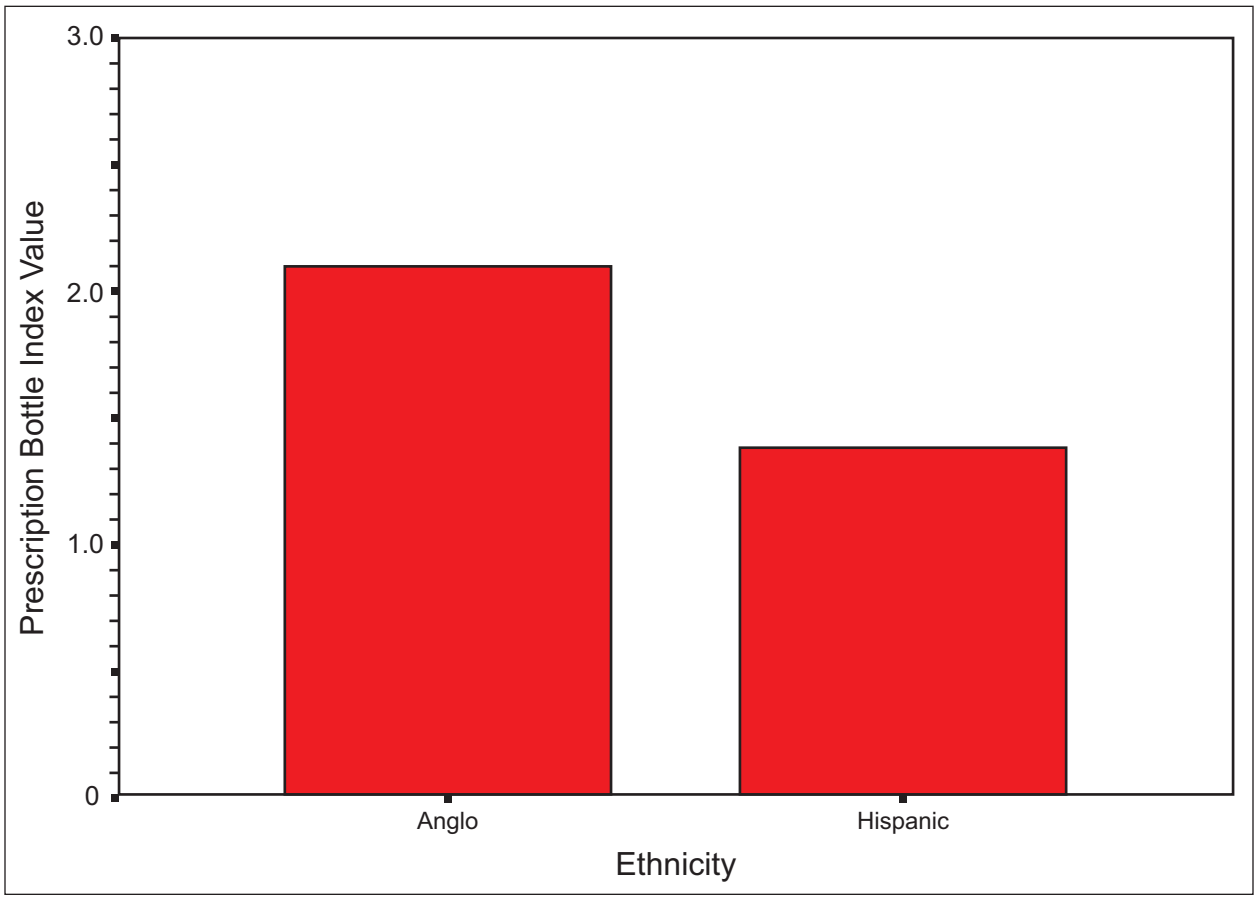


Figure 20.40. A bar graph depicting prescription bottle index values for Hispanic and Anglo residents.

activities. The domestic-refuse pit feature type is presumed to be linked primarily with everyday household upkeep and daily life at the residence. These features are identified by high quantities of butchered animal bone, bottled and canned goods, coal clinkers, and food preparation/serving instruments. The construction-debris pit feature type is thought to be associated with maintenance and renovation, based on the abundance of concrete and adobe (not collected); and the self-contained vault privy feature type is most likely connected with bathroom-related functions, based upon the presence of human waste. As expected, domestic-refuse pits usually have the greatest quantities of artifacts associated the domestic items category, construction-debris pits usually have greatest number of items within construction and maintenance, and privies usually have the highest number of personal effects (such as toiletry and medicine bottles) (Fig. 20.41; Table 20.29).

However, there is a substantial amount of variability in distribution patterns across specific artifact assemblages (Fig. 20.42). Some domestic-refuse pits have large quantities of construction and maintenance items (nails, screws, etc.), while some privies have larger quantities of domestic products (dinnerware, glassware, pots, and pans). In some of these instances, if analyzed Euroamerican artifacts were used exclusively to make a determination of feature function, that determination would be wrong. This is not to argue function-based analytical methods are incapable of determining activities that occurred at a specific site. Small sample size is often to blame in the cases in which function-based patterns varied from their norms. However, any determination of feature function using fewer than 100 Euroamerican artifacts would likely be little more than an educated guess. Even with more than 100 artifacts, there will still be some overlap.

Furthermore, while some general patterns within Euroamerican artifact assemblages

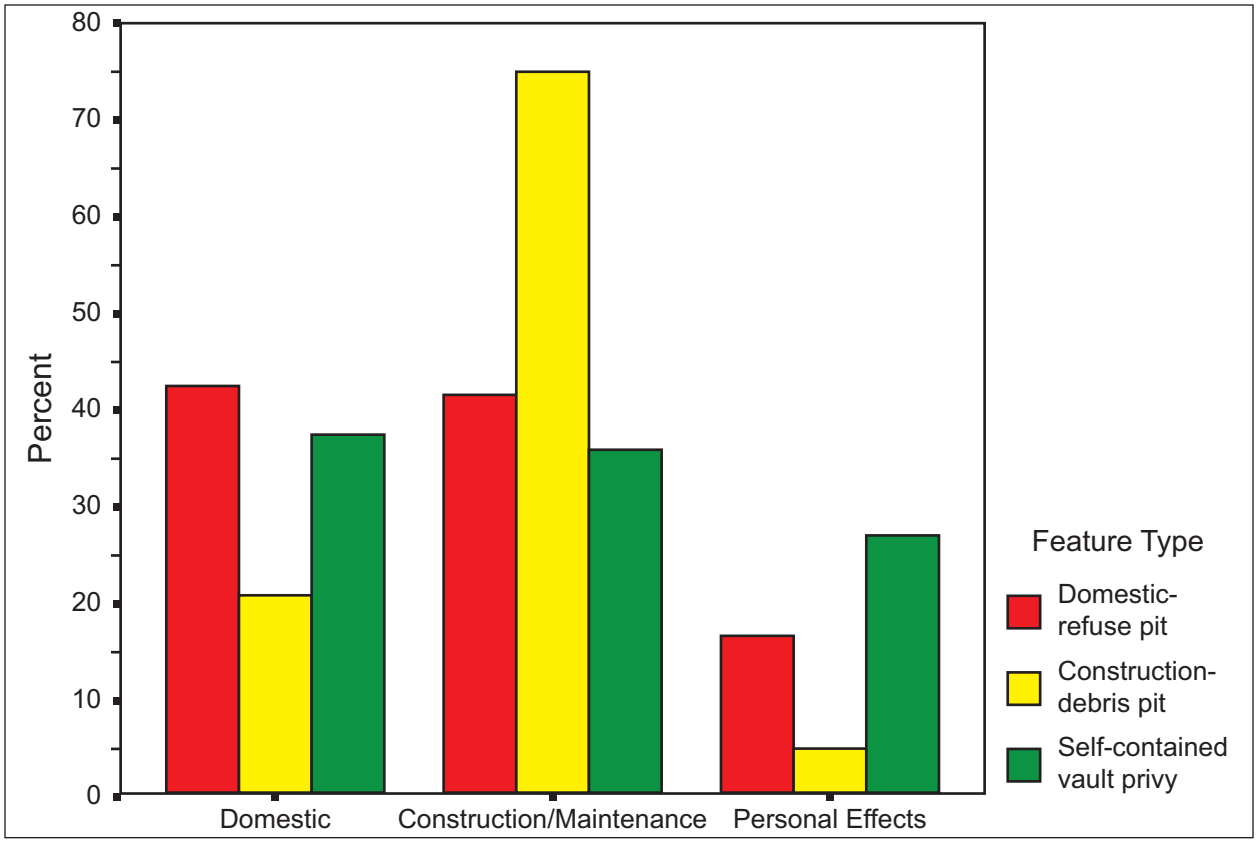


Figure 20.41. Relative frequencies of domestic, construction/maintenance, and personal effect items viewed collectively across domestic-refuse pits, construction-debris pits, and self-contained vault privies.

are associated with construction-debris pits, domestic-refuse pits, and privies, Euroamerican artifacts from other feature types often do not help in identifying activities or feature function. This is something long proven by Lewis Binford (1978), but something archaeologists often forget. Perhaps, most artifacts have nothing to do with their final feature/container. Instead, artifacts are disposed in pits to make room for more activities. So in almost all cases, artifact context is secondary to the pit and the activities with which they were originally associated. Ultimately, while it is possible to see some generalized consumption and discard patterns in domestic refuse, construction debris, and human waste disposal systems, there is too much variability across individual features to make these generalizations particularly useful in determining activities performed in and around these features by the analysis of Euroamerican artifacts without taking into account other variables such as feature design, shape, content, and location.

Temporal Context

Changes in consumption and discard patterns over only decades of time are difficult to infer, since ideally it requires that you control for all other variables described above. There is only one instance at LA 158037 in which this may occur. Features 231, 232, 233, 234, and 235 may represent an unbroken sequence of self-contained vault privies behind Structure 1. Feature 231 was used in the 1910s, Features 232 and 234 in the 1920s, and Features 235 and 233 in the 1930s. These periods correspond roughly to World War I (or slightly thereafter, 1914–1918), Prohibition (1920–1933) and the Great Depression (1929–1941).

If these assemblages are examined collectively by era of use, patterns of consumption and discard do vary across time (Fig. 20.43; Table 20.30). Unfortunately, it is impossible to infer whether these distinctions are a result of changes in consumption and discard patterns over time

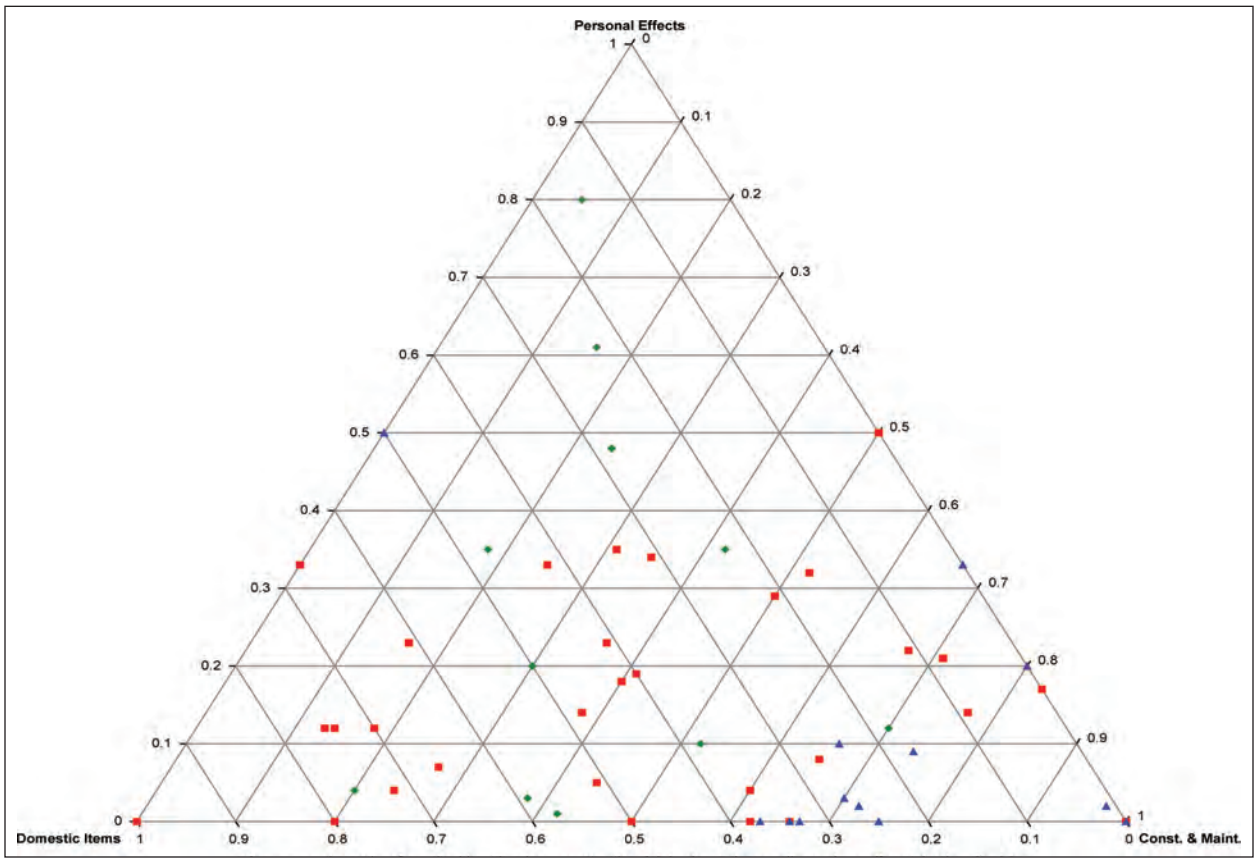


Figure 20.42. Relative frequencies of domestic, construction/maintenance, and personal effect items within individual features according to feature type. Red squares = domestic-refuse pits; blue triangles = construction-debris pits; green diamonds = self-contained vault privies.

or simply variability within the specific feature types. However, if these differences are assumed to be the result of change over time, there do appear to be some observations that can be made from the current sample:

1. The consumption of indulgence products does not decline during the Prohibition era (World War I 12.7 percent, Prohibition 12.7 percent, Great Depression 22.2 percent; see Table 20.30). During Prohibition, soda products do make up a higher percentage of artifacts identified within the category (Fig. 20.44). However, alcohol consumption does not disappear from the archaeological record. Furthermore, the era immediately following the overturning of the Eighteenth Amendment is characterized by the consumption of the highest frequencies of alcohol-related products. Hence, in times of economic stress or uncertainty (i.e., the Great Depression), it would appear alcohol consumption rises.

In an interview with Juan Pedro "Pete" Alarid (May 6, 2009), he indicated that his father, Ricardo "Richard" Alarid Jr., had been a bootlegger and distributor during Prohibition. It is unclear if a similar pattern would appear in other households, but it is important to note that while LA 158037 was clearly occupied during the 1920s, very few artifact assemblages dating to this era are without beer, wine, or other alcohol-related items. While the Eighteenth Amendment prohibited the sale or distribution of liquor, consumption continued throughout the 1920s.

2. The number of personal effects, such as clothing and medicinal products, noticeably increases between World War I and Prohibition (26.5 percent to 44 percent) and decreases between Prohibition and the Great Depression (44 percent to 7 percent; Table 20.30). The decrease between Prohibition and the Great Depression makes sense, since financial hardship during the 1930s

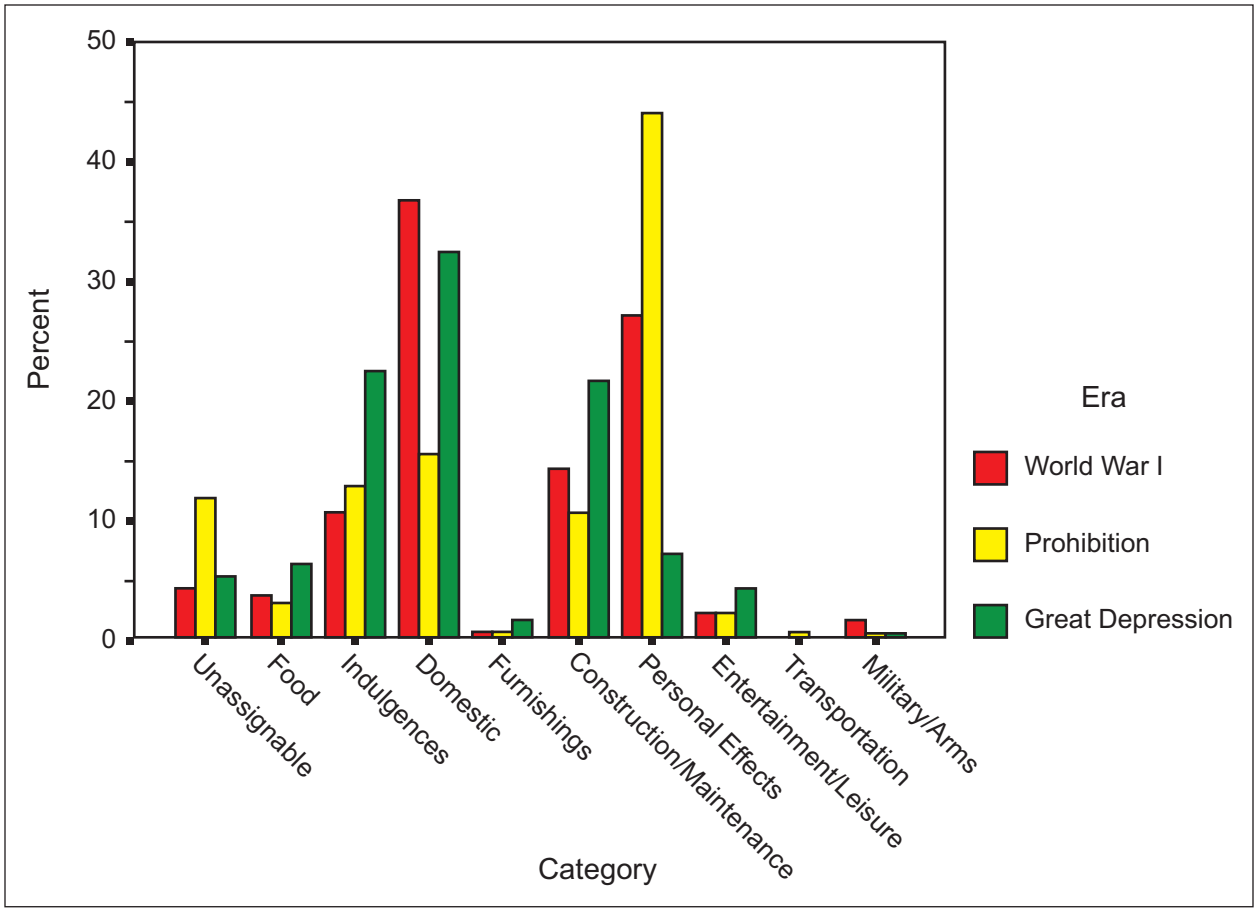


Figure 20.43. Relative frequencies of function-based analytical categories by historical era.

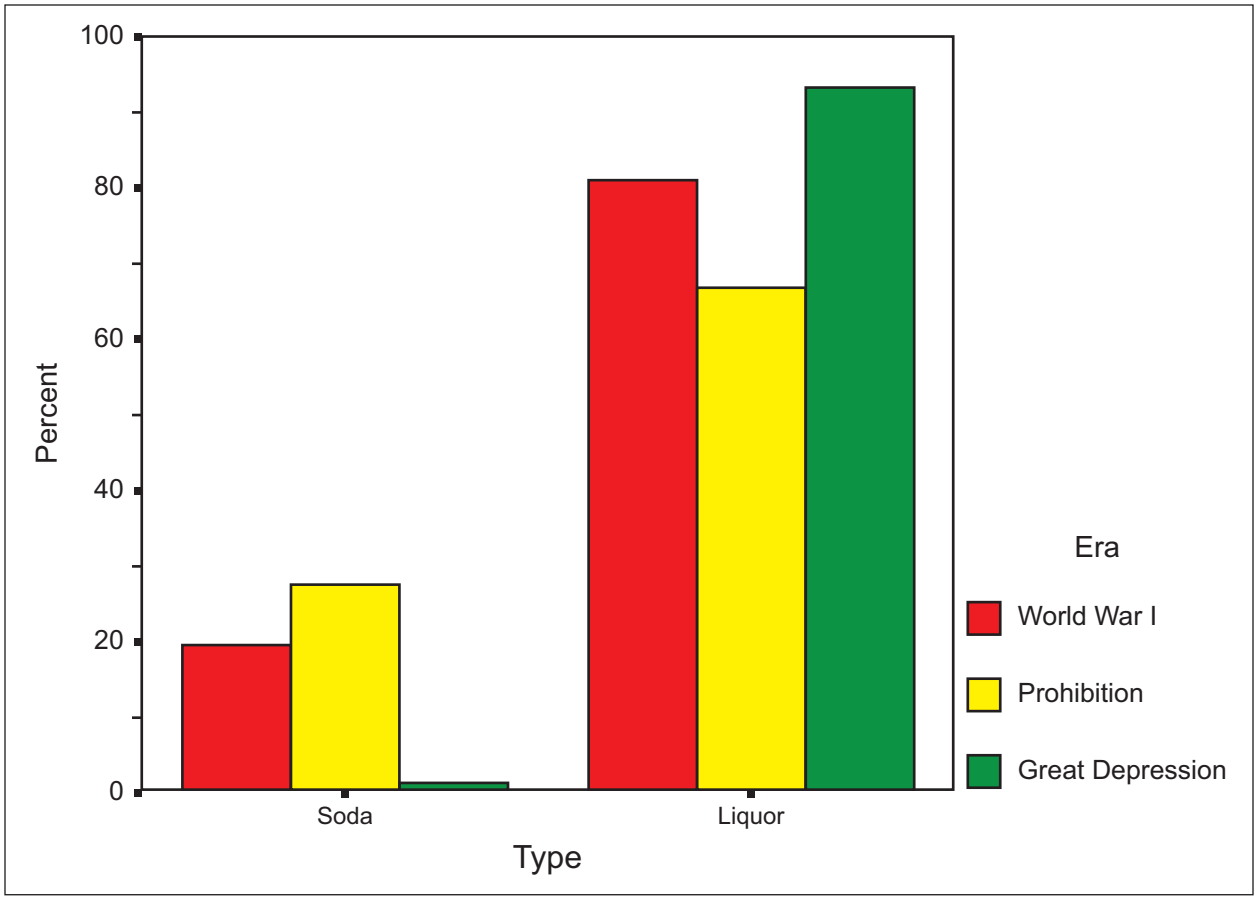


Figure 20.44. Relative frequencies of soda- and liquor-related indulgence products by historical era.

might have caused populations to hold onto clothing longer or see the doctor less frequently. This may not seem like an earth-shattering conclusion, but it has major implications for our current economic and political climate.

The increase between World War II and the Prohibition is more difficult to explain. It is possible to speculate that as distribution of liquor was prohibited, the population took to purchasing medicinal products. During the 1920s, many medicinal products had some combination of alcohol and opiates and could have been easily substituted for packaged liquors as a way to get intoxicated.

3. There appears to be a relative increase in military items and munitions during World War I (Table 20.30). Military and arms artifacts accounted for 1.2 percent of the assemblage during the war and then drop to 0.2 percent during Prohibition and the Depression. This could indicate a militarization of the general population during times of war, soldiers returning to the area after the war with their armaments, or an uptake in sport/subsistence hunting activities during this period. However, this observation is based on only a handful of military-related artifacts (n = 4) and may in effect be the results of a small sample bias.

4. The consumption and discard of canned and bottled food items increases over time (Table 20.30). During the World War I, packaged food items account for 0.6 percent of the assemblage; it then increases to 2.8 percent during Prohibition and accounts for 6.1 percent during the Depression. This may be the result of populations becoming more and more dependent on grocers and the integration of food markets on a national and international scale. It, at the very least, correlates with an increase in radio and magazine advertisements during the 1920s and an even greater increase in the 1930s.

5. Entertainment and leisure items increase substantially during the Depression. This can be

explained away quite easily. Most of these items are children's toys, and Pete Alarid was born in 1927. Hence, during the 1930s, at least one child between the ages of 3 and 13 was using the privies.

While the early twentieth century was a time of rapid economic change, using the archaeological record to explain consumption and discard practices on a decadal scale is difficult. Optimally, it requires that you control all other variables through time, a seemingly close to impossible task. At LA 158037, it was possible to examine a set of artifact assemblages from a group of outhouses that appeared to have been used sequentially without interruption. However, as previously stated, it is impossible to infer whether the observations made about consumption and discard are a result of changes over time or variability within the specific feature types. Even if it is assumed that these changes are the result of differences in consumption and discard patterns through time, many of these changes could be specific to the Alarid family and not representative of the population as a whole. Similar studies with larger sample sizes are needed to examine if these observations can be expanded to inferences about the general population.

Conclusions

Historical archaeologists are increasingly tasked with dealing with twentieth-century archaeological sites. Based on the current analysis, it is clear that there are differences between Anglo and Hispanic discard patterns within the Capitol Complex Historic Neighborhood during the early twentieth century (Table 20.31). These differences include the discard of more hardware and a preference for older, more conservative pottery designs among Anglo populations and the suggested consumption of more hard liquor and interest in oriental porcelain products by Hispanics.

Socioeconomic differences were hard to ascertain from the Euroamerican artifact assemblage. While historical records indicate that inhabitants of LA 158037 were substantially wealthier than their neighbors at LA 156207, mean ceramic index values overlapped substantially, suggesting that both groups had access to higher-end dinnerware products. This overlap was also visible among the individual residents of LA 158037. Determinations of wealth based on mean ceramic index values may be tenuous at best.

Prescription bottle index values were also employed to serve as a proxy for determining socioeconomic status. However, higher values were found consistently among only Anglo populations, suggesting that utilization of professional health care may have been an ethnic preference. Hispanic populations appear to have relied more heavily on homeopathic cures.

Central to the idea of any function-based analysis is the ability to identify locales in which specific activities occurred. While there are some general patterns within Euroamerican artifact assemblages associated with construction-debris pits, domestic-refuse pits, and privies, Euroamerican artifacts from other feature types often do not help identify activities in the area or what the feature was used for. Furthermore, while domestic-refuse pits typically have more domestic items, construction-debris pits tend to have more construction and maintenance products, and privies have more personal effects, there is too much variability across individual features to make these generalizations particularly useful in determining activities performed in and around these features by means of the analysis of Euroamerican artifacts alone.

Lastly, it is impossible to infer whether the observations made about consumption and discard practices between World War I, Prohibition, and Depression are a result of changes over time or variability within the specific feature types. Even if it is assumed that these changes are the result of differences in consumption and discard patterns through time, many of these changes, such as the continued consumption of alcohol throughout the Prohibition era, may be specific to the Alarid family and not representative of the population as a whole.

In all instances presented here, the interpreted differences in consumption and discard patterns are open to scholarly debate. Many of these interpretations are somewhat intuitive but have never been examined statistically within early twentieth-century archaeological contexts. Similar studies with larger sample sizes from the greater Santa Fe area are needed to determine if

these patterns can be projected for the general population. As archaeologists continue to work in the downtown Santa Fe area, there will be ample opportunity to expand upon the current interpretations.

Chapter 21
Faunal Remains

M. Maggie Craw

Historic documents related to the State Capitol Parking Facility Project indicate that the site was occupied during the last half of the nineteenth century and the first half of the twentieth century, that it was multiethnic in character (primarily Hispanic and Anglo), and that it was primarily comprised of residential properties with a small number of Hispanic-owned businesses.

Research Questions

Barbour (2008a:85–93) proposes three research questions that may be answered through analysis of the faunal assemblage recovered from the site.

The first research question seeks to understand the Santa Fe economy of the late nineteenth century and early twentieth century with respect to temporal and ethnic differences in the consumption and disposal of animal resources. Are there differences in animal resource consumption/disposal patterns between the deposits associated with the nineteenth and the twentieth centuries and/or between the deposits associated with the Hispanic-American and the Anglo-American populations?

The second research question seeks to understand the Santa Fe economy of the time with respect to class differences in the consumption and disposal of animal resources. Is there any correlation between animal resource consumption/disposal patterns and household economic status and, if so, are these patterns affected by the Great Depression?

The third research question asks whether discard patterns differ between the household refuse pit deposits and the self-contained privy vault deposits and/or the straight-line cesspit privy deposits.

While economic in character, these questions are perhaps best viewed in the context of consumer choice. While consumer choice is often regarded as a function of economic status, it is also a function of multiple variables unrelated to economic status (Reitz 1987:101–102). Because ethnicity and economic status are interwoven in multiethnic communities, ethnic choices unrelated to economic status may be reflected. One example is the difference between Mexican-American and Anglo-American diets in the amount of pork and mutton consumed (Henry 1996:251). The period a site was occupied is another variable that, although unrelated to the economic status of the site's occupants, may influence their choices. Similarly, the environmental setting in which a site is has a profound affect on choice in terms of food availability, yet this too is unrelated to economic status. Rural and urban settings are a special form of environmental variable in that native species are generally present in greater numbers in rural settings. As a result, the decision to hunt food may be unrelated to economic status but rather may be related to access (Huelsbeck 1991:63) or to other factors such as tradition. Conversely, raising domestic livestock is often prohibited in urban settings. Consequently, urban consumers may have no choice other than to purchase retail meat cuts (Reitz 1987:106). Finally, even choices based on cost may be unrelated to economic status, given that cost includes time, effort, and opportunity as well as expense (Reitz 1987:5).

Methods

Provenience-Related Variables

Provenience, component, and dating information are generally linked to the data file through the LA and field specimen (FS) numbers. Units of analysis are assigned by the site director, who also determines the structure of the data tables found in the faunal reports. Each data line contains the provenience information, the FS number, and a lot number that identifies a specimen or group of specimens matching the description recorded

in that line. The number of individual specimens described by that data line is indicated as NISP.

Taxon

Taxonomic identifications were made to the most specific level possible. Less than certain identifications are indicated by the certainty variable. These less than certainly identified specimens are included in the counts for that taxon rather than as separate entries. Specimens that cannot be identified to species, family, or order level are assigned to a range of indeterminate categories based on size and whether the specimen is that of a mammal, bird, or other animal. Unidentifiable fragments often constitute the bulk of a faunal assemblage. By identifying these as precisely as possible, the information gained may supplement that recorded for the identified taxa. Because the majority of the identifiable fauna remains recovered from historic-era sites are domestic ungulates, most of the unidentifiable bone is placed in one of the ungulate size taxa. Specimens recorded as medium to large or large mammal are generally those of very immature animals, or their poor condition makes even ungulate identification uncertain.

Each specimen is counted once, even when fractured into two or more fragments during excavation. In most instances, when it appears that a break occurred prior to excavation, the pieces are counted separately, and their articulation is noted in a variable that identifies conjoining fragments, fragments that were articulated when found, and fragments that appear to be from the same individual (e.g., an essentially complete foot or multiple fragments from a very young animal). Exceptions are made when a bone or bone fragment has been broken into multiple pieces.

Element (Body Part)

Each skeletal element (e.g., cranium, mandible, humerus) is identified and described by side, age, and portion recovered. Side is recorded for appendicular elements and paired axial elements. Side is also recorded for recovered portions of unpaired axial elements (e.g., left vertebral transverse process). Age is recorded as indeterminate young, fetal or neonatal, immature (one-third to two-thirds of mature size), juvenile (full size or near full size with one or more unfused epiphyses and/or immature appearing bone), and mature. Age refinements based on dental eruption, dental wear, and epiphyseal fusion are recorded when possible, along with the criteria used in age determination and the anatomical portion of the skeletal element represented by each specimen.

Completeness

Completeness refers to the amount of skeletal element represented by the specimen (e.g., analytically complete, greater than 75 percent complete but not analytically complete, between 50 to 75 percent complete, between 25 to 50 percent complete, or less than 25 percent complete). Degree of completeness also aids in identifying intrusive species and yields information about processing, environmental effects, animal activity, and thermal fragmentation.

Taphonomic Variables

Taphonomy is the study of preservation processes and how they affect the information that can be obtained from the faunal remains. The goal of taphonomy is to identify and evaluate the nonhuman processes affecting the condition of skeletal remains and the frequencies of specimens contained within an assemblage (Lyman 1994:1). Taphonomic processes considered in this study include environmental alterations, animal alterations, and some types of burning. Environmental alteration is recorded as absent, pitting or corrosion from soil conditions, sun bleaching from extended exposure, checking or exfoliation from exposure, root etching from the acids excreted by roots, and polish or rounding from sediment movement. Animal alteration is recorded by source or probable source and may include carnivore gnawing and/or punctures, scatological or probable scat, rodent gnawing, and agent uncertain. Burning, which is also a taphonomic process, effects the preservation and completeness of individual bones.

Burning

A bone may be burned during the cooking process,

during the disposal process, or after deposition. The color of a burned bone may be used as a gauge of burn intensity. A light tan color indicates scorching or superficial burning, black (charring) indicates burning temperatures sufficient to carbonize the collagen in the bone, and white (calcination) indicates burning temperatures sufficient to oxidize this carbon (Lyman 1994:385, 388). The color of a burned bone is a function of both the thickness of surrounding flesh and the moisture content. A light-colored exterior with a black core indicates that the burn occurred postdisposal and after the bone was dry. Graded burns and partial burns may indicate cooking processes such as roasting. Uniform burning such as charring and calcination are possible only after the flesh has been removed and generally indicate a disposal practice (Lyman 1994:387).

Thermal alteration is recorded as unburned; discard burn (blackened, calcined, and some graded burns); roasting burn (some graded and partial burns); boiled or possibly boiled (waxy appearance with rounded edges); and partial, intentional, or accidental burning (e.g., a tip used for poking a fire).

Butchering and Processing

Evidence of butchering was recorded as follows: chop, cut through, substantial surface cut, sawn through, impact break, spiral fracture, marrow breakage (impacted into small fragments), defleshing (fine cuts to remove meat), steak and chop cut (sawn on both faces), and snap. The anatomical location of the butchering marks was also recorded. A conservative approach was taken in the recording of marks and fractures that could potentially be indicative of processing animals for food, tools, or hides, since many natural processes result in similar findings.

Modification

Bone tools, bone ornaments, manufacturing debris, utilized bone, and other possible modifications were recorded. Mass-manufactured objects that are made from bone were not included in this analysis (e.g., toothbrush, button).

Measurements

Faunal remains recovered from historic sites are typically highly fragmented, and as a result, little measurement data is available. Nonetheless, because this data has the potential to differentiate breeds of sheep and goat and possibly distinguish beef from draft cattle, measurements were taken of the specimens representing domestic fauna. The measurements follow those of von den Driesch (1976).

The Faunal Assemblage

A total of 5,058 faunal remains were recovered from 86 features (Tables 21.1, 21.2). The greatest number of remains were recovered from domestic-refuse pits (50 percent), self-contained vault privies (18 percent), and bone pits (11 percent). All recovered specimens were analyzed and are included in the discussion to follow. Remains designated as FS 130 (n = 85) and associated with Feature 74 were neither analyzed nor included in this discussion.

Within the assemblage, 4,273 specimens (84 percent) were identified to family, genus, or species level (Table 21.3); 4,860 specimens (96 percent) were identified as domestic animals, and 60 specimens (1 percent) were identified as native or wild introduced species (e.g., domestic pigeon). The remaining 138 specimens (3 percent) comprise remains that were identified to class or family level and may represent either domestic species or native species (e.g., rabbit, fish, bivalve).

Of the 5,058 vertebrate faunal remains recovered during the investigation, 1,375 specimens (27 percent) are associated with deposits identified as nineteenth-century Hispanic, 205 (4 percent) are associated with deposits identified as nineteenth-century Anglo, 2,116 (42 percent) are associated with deposits identified as twentieth-century Hispanic, and 1,362 (27 percent) are associated with deposits identified as twentieth-century Anglo. Consequently, the assemblage provides a unique opportunity to study and compare patterns of animal resource consumption and disposal between the Hispanic populations and the Anglo populations living in urban Santa Fe during the last half of the nineteenth century and the first half of the twentieth century (Table 21.4).

As expected, the common domestic stock animals (cattle, caprines, pigs, and chickens) comprise the greatest portion of the assemblage (82 percent). The most frequent domestic taxa identified were *Ovis aries* (sheep), *Capra hircus* (goat), and sheep or goat, all of which are collectively referred to in this report as *caprine*. This broad category is used because of the widely recognized difficulty in distinguishing sheep elements from goat elements (Boessneck: 1970). The caprines comprise 50 percent of the assemblage, followed by cattle (40 percent), chicken (8 percent), and pig (2 percent) (Table 21.3).

These findings numerically suggest that caprines were somewhat greater in importance to the inhabitants of this site than were cattle, and that both caprines and cattle were substantially more important to the prior inhabitants than were either pigs or chickens. It is probable that this is a reflection of long-standing tradition on the part of the Hispanic inhabitants of the project area, possibly combined with adaptation on the part of the Anglo inhabitants, because throughout the sixteenth, seventeenth, and eighteenth centuries, "Most Spanish Americans preferred sheep to cattle because they could be herded and protected easier than the more far-ranging cattle; required less fodder in the winter, . . . and provided meat as well as wool for blankets and clothing" (Carlson 1990:82). Among the local populace, mutton was consumed more than beef because cattle were primarily used as work animals (Frazer 1983:8). Conversely, it may be a function of availability and/or cost given that, as will be shown, the caprine elements largely appear to represent home-butchered cuts, while the beef elements largely appear to represent retail-purchased cuts.

Although chicken and pig specimens comprise relatively small portions of the assemblage, it must be noted that historic sites often yield greater numbers of cattle remains than either chicken or pig remains. In reference to pigs, many commercially available pork products are boneless. Consequently, pig elements may be underrepresented in faunal samples from sites where the inhabitants relied upon commercially available pork products in addition to or in place of home-butchered pork cuts. It is possible, however, that the paucity of pig remains is a function of availability. An economic report prepared by Governor Fernando de Chacón in 1803 indicates that pigs were few in number in New Mexico, something he attributed to a preference for beef fat rather than lard and to the absence of a soap-making industry (Simmons 1985:85). It is also reported that the local environment was not conducive to large-scale pig raising and that attempts by the US military to raise hogs in the Southwest were unsuccessful (Crass and Wallsmith 1992:12). It must be noted that 27 percent of the pig remains recovered during this study are elements that may well represent primary butchering debris (e.g., cranium, feet), suggesting that the prior occupants may have, at least on an occasional basis, raised and butchered pigs.

When the relative frequencies of caprine, cattle, chicken, and pig specimens are compared between the nineteenth-century deposits and the twentieth-century deposits, changing patterns are suggested (Fig. 21.1). Within the assemblage of domestic stock specimens associated with nineteenth-century deposits, 54 percent are identified as caprine, 34 percent cattle, 10 percent chicken, and 2 percent pig. The relative frequency of caprine specimens recovered from twentieth-century deposits, however, decreased to 48 percent, while the relative frequency of cattle specimens is increased to 43 percent. Thus, a trend toward increasing beef consumption and decreasing mutton consumption is suggested. The frequency of pig specimens remains constant throughout both time periods, while the frequency of chicken remains decreases slightly over time to 7 percent.

The relative frequencies of domestic stock specimens are only slightly different when specimens recovered from deposits associated with Hispanic populations are compared to those recovered from deposits associated with Anglo populations (Fig. 21.2). As illustrated, caprine specimens occur with greater frequency within the Hispanic deposits (52 percent) and the Anglo deposits (46 percent) than do cattle specimens (40 percent and 42 percent, respectively); however, the caprine remains are slightly more dominant within the Hispanic deposits than the Anglo deposits. Pig specimens comprise 2 percent of both the Hispanic and Anglo assemblages, while chicken remains comprise 7 percent of the Hispanic assemblage and 10 percent of the Anglo

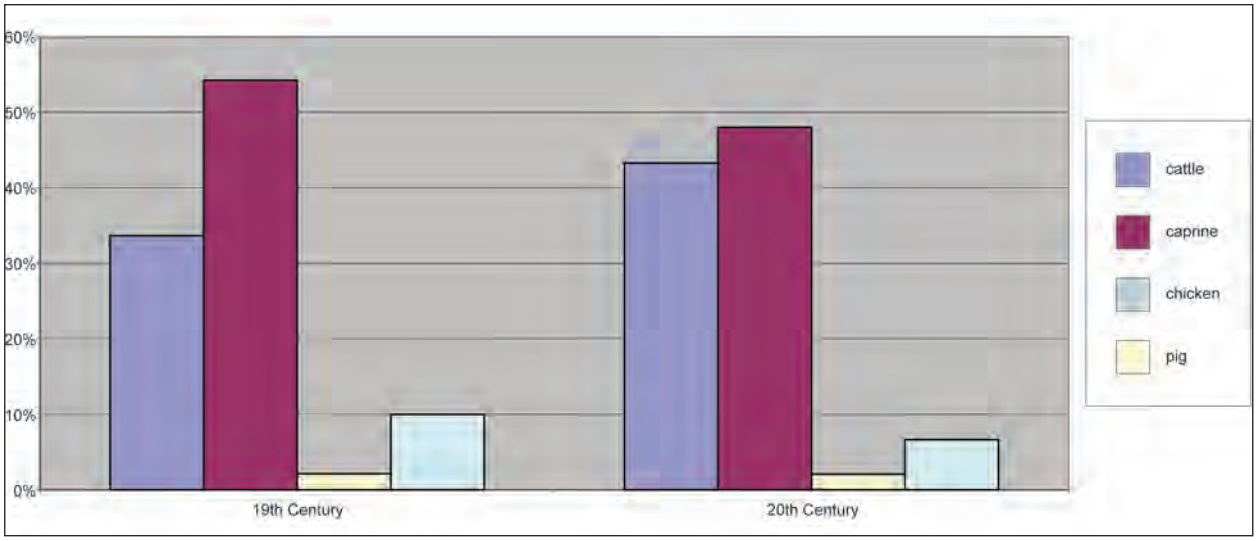


Figure 21.1. Domestic stock species by period.

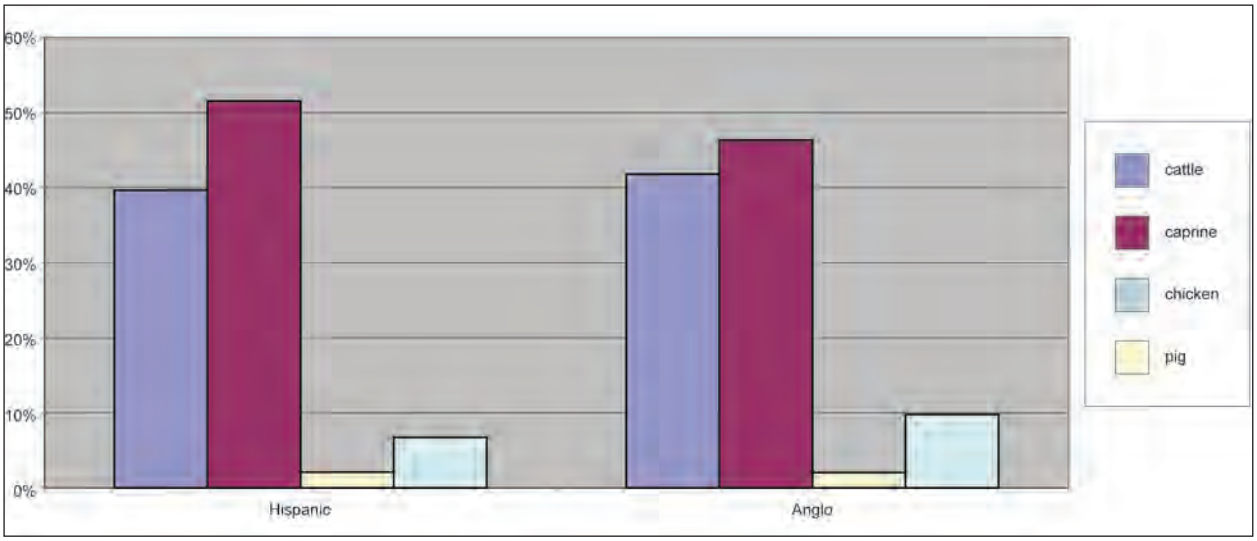


Figure 21.2. Domestic stock species by ethnic group.

assemblage.

Faunal specimens representing ungulates of varying size comprise the second largest taxon group within the assemblage, with a NISP of 629. Within this group, 10 percent are ungulates of undetermined size, 23 percent small ungulates (sheep/small pig), 23 percent small/medium ungulates, 1 percent medium ungulates (deer/pronghorn antelope/mountain sheep), 17 percent medium/large ungulates, and 26 percent large ungulates (cattle/elk/buffalo).

Hares and rabbits are represented by a total of 33 specimens, of which 15 are domestic rabbit, 4 cottontail, and 1 black-tailed jackrabbit. The remaining 13 specimens are identified only as rabbit because they may represent either native species or domestic species. Some of the 15 specimens identified as domestic rabbits are those of large animals, while others are those of small animals, suggesting that a variety of rabbit breeds were raised by the inhabitants. Most of the 33 hare and rabbit specimens are associated with deposits identified as twentieth century, nearly all of which are associated with deposits associated with Anglo households. The above findings suggest that rabbits played a small role in the subsistence practices of the occupants in general, but that they may have been more

important to the Anglo residents as a food source, as pets, or as targets of recreational hunting than to the Hispanic residents.

A total of 24 turkey specimens (0.5 percent) were identified. The remains of domestic turkeys are larger than those of native species but are otherwise indistinguishable, and the size of most of the specimens was consistent with domestic species. A total of 16 turkey specimens (67 percent) are associated with deposits identified as nineteenth century, and 8 turkey specimens (33 percent) are associated with deposits identified as twentieth century. All 16 of the nineteenth-century turkey specimens are associated with Hispanic deposits. Of the eight turkey specimens associated with twentieth-century deposits, one is associated with Hispanic deposits, and the remaining seven are associated with Anglo deposits. Although these numbers are small, they suggest that turkeys may have been somewhat important in the subsistence of nineteenth-century Hispanic households.

A relatively small amount of eggshell (16 g) was recovered, all of which is highly fragmented, precluding species identification. It is likely, however, that the eggshell fragments are those of domestic chickens, since some of the chicken remains identified include the medullary bone, which is formed during egg production. Of the 16 g of eggshell recovered, 31 percent was found in association with nineteenth-century deposits, and 69 percent was found in association with twentieth-century deposits. A greater difference in the frequency of eggshell was found between the deposits of the two ethnic groups: 88 percent is associated with Hispanic deposits, and 12 percent with Anglo deposits.

A total of 14 specimens were identified as belonging to the canid family. Within this group, 12 specimens are confidently identified as representing small domestic dogs, of which 11 are associated with twentieth-century Hispanic self-contained vault privy deposits. The remaining domestic dog specimen represents burial remains that were recovered from twentieth-century Anglo deposits. The lack of nineteenth-century domestic dog remains suggests that the role of the species may have become more important to the inhabitants with the passage of time. It is, however, not possible to infer if dogs played a more important role in the lives of the Hispanic occupants of the site or if cultural attitudes toward dogs affected the method of disposing of deceased animals. The dog burial remains that were recovered include the mandible, most of the axial skeleton, the left and right humeri, the left radius and ulna, and multiple tarsal, metatarsal, and phalangeal bones. In the absence of cranial elements, breed is difficult to establish; however, the mandible appears disproportionately long, and the bones of the forelegs demonstrate a truncated morphology that is characteristic of dachshunds and some other small breeds. The remains appear to be those of a young adult dog with no evidence of skeletal abnormalities.

As with dogs, the role of domestic cats appears to have increased over time. Of the 18 domestic cat specimens identified within the assemblage, 17 are associated with twentieth-century deposits. However, domestic cats appear to have been of greater importance to Anglo households than to Hispanic households: 14 of the specimens were identified in Anglo household contexts.

Native and wild introduced taxa are represented by a NISP of 60 (1 percent). The species represented include squirrel (n = 8), rodent (n = 19), cottontail (n = 4), black-tailed jackrabbit (n = 1), deer (n = 4), green-winged teal (n = 13), domestic pigeon (n = 5), sucker (n = 2), catfish (n = 1), and drum (n = 3). It is assumed that most, if not all, of the identified rodent and squirrel specimens represent intrusive animals. No specimens identified as likely representing hunting or fishing species were found in association with the nineteenth-century deposits. A total of 29 specimens representing common hunting or fishing species are, however, associated with twentieth-century deposits, of which 23 were recovered from Hispanic deposits and 6 from Anglo deposits.

A total of 20 specimens was recovered from Structure 1, the residence of the Hispanic Alarid family. The specimens identified within the Alarid domestic-refuse pit and vault privy deposits include deer (n = 3), green-winged teal (n = 13), and catfish (n = 1). The deer specimens, which were identified only to genus level, are most likely those of mule deer. Although the white-tailed deer is also native to New Mexico, they range in the eastern part of the state (Findley 1975:828, 330). The green-winged teal, presently North America's second most commonly hunted

duck, also occurs near Santa Fe seasonally, and New Mexico lies within its winter range. The single catfish specimen could represent any of several subspecies that are native to the Rio Grande, the Canadian, the Pecos, the Gila, and/or the San Francisco drainages (Sublette et al. 1990:235, 236, 238, 240–241, 244, 246). One drum specimen was also recovered from the Alarid deposits. Although the drum is a native fish, it was extirpated from the Rio Grande prior to the time period being considered (Sublette et al. 1990:10, 350), and the size of all of the drum specimens is consistent with the generally larger size of market fish. Interestingly, a man's leather wallet depicting a fishing motif was also recovered from the Alarid family's deposits.

Six of the remaining specimens that likely represent hunted or fished animals were found in association with Structure 4, a home owned for much of the twentieth century by the Anglo Parker family. These six specimens include cottontail (n = 4) and sucker (n = 2). Three varieties of cottontail inhabit New Mexico, although the desert cottontail is the most numerous in the Santa Fe area (Findley 1975:83). Cottontail was hunted by prehistoric peoples and continues to be hunted today, although much less commonly. The sucker, a ubiquitous fish, is native to the Rio Grande, Pecos, and Canadian drainages (Sublette et al. 1990:196). Although not highly prized for their flesh, they are a popular target for some fishers. Two drum specimens were also recovered from the Parker family deposits.

Butchering

It is expected that analysis of the types of butchering marks on the specimens within a historic faunal assemblage will aid in distinguishing a home-butchering economy from a market economy. Electric saws generally became available in Santa Fe during the 1880s. However, while they were available for use by professional butchers, home butchers typically relied on knives, cleavers, and hacksaws. Thus, an assemblage with a relatively high percentage of electric saw marks is expected to primarily represent retail meat cuts rather than home-butchered meat cuts. It is also expected that analysis of the types of elements in a faunal assemblage will aid in distinguishing home-butchering economies from market economies in that the bone refuse deposited by those households primarily consuming market-purchased meat cuts will typically be comprised of elements representing food waste, while the bone refuse deposited by households engaged in home butchering will typically be comprised of elements representing food waste and elements representing primary butchering debris (e.g., teeth, foot bones).

Butchering Marks

As discussed above, evidence of butchering was recorded in detail, as was the specific location of each butcher mark. Because any given element may reveal a variety of butcher marks in multiple locations, the data becomes unwieldy. Consequently, for analytical purposes, processing categories were combined as follows: impact breaks were folded into the chop category, cut through and substantial cut were consolidated into the category of cuts, and chop/steak/roast cuts were folded into the sawn category. In addition, groups comprising more than one type of processing were created (e.g., saw and cut), so that a single group accommodates elements demonstrating more than one type of butcher mark (Table 21.5).

Of the 5,058 animal remains recovered, 2,237 (44 percent) reveal evidence of butchering. As expected, butcher marks were evident on very few chicken remains, with 13 of the 318 specimens demonstrating cut marks, and 3 demonstrating chop marks. Similarly, just 2 of the 15 identified domestic rabbit specimens reveal butcher marks, both of which are cuts. Of the 4 recovered deer specimens, 1 has a single saw mark.

Within the group of 629 specimens identified only as ungulates of varying size, 161 (26 percent) demonstrate butcher marks. Of the specimens within this group demonstrating butchering marks, 75 percent have saw marks, either alone or in combination with other types of butcher marks, and the remaining 25 percent have chop marks or cut marks alone.

Among the 3,827 identified remains representing the large domestic species (cattle, caprine, and pig), 47 percent demonstrate butcher marks. Butcher marks were noted on 79 percent of the identified cattle specimens. Within

this group 93 percent have saw marks with or without other butcher marks, and 7 percent have chop marks, cut marks, or snap marks alone. These findings strongly suggest that the beef consumed by the site occupants was primarily retail-purchased cuts. Butcher marks were noted on 33 percent of the identified caprine specimens, of which 18 percent show evidence of saw marks either alone or in conjunction with other types of butcher marks, and 82 percent show evidence of various cut marks, chop marks, or snap marks alone. The relatively small number of caprine specimens demonstrating saw marks in conjunction with the relatively large number of caprine specimens demonstrating a variety of other types of butchering marks is consistent with home butchering. Of the 86 recovered pig specimens, 60 percent reveal butcher marks. Within this group, 76 percent demonstrate saw marks alone, and the remaining 24 percent reveal chop marks and/or cut marks. The relatively small number of identified butcher marks on pig remains precludes inference.

Within the group of 3,827 specimens representing the large domestic stock species, 30 percent were recovered from nineteenth-century deposits, and 70 percent were recovered from twentieth-century deposits (Fig. 21.3). Of the 431 nineteenth-century cattle specimens, 29 percent reveal no evidence of butchering, 64 percent reveal saw marks with or without other types of butcher marks, and the remaining 7 percent reveal only other types of butcher marks. Of the 1,240 twentieth-century cattle specimens, 18 percent reveal no evidence of butchering, 77 percent reveal saw marks, and the remaining 5 percent reveal various cut, chop, or snap marks alone. Within the group of 695 nineteenth-century caprine specimens, 75 percent reveal no evidence of butchering, 0.5 percent reveal saw marks, and 21 percent reveal various cut marks, chop marks, or snap marks alone. Within the group of 1,375 twentieth-century caprine specimens, 63 percent reveal no evidence of butchering, 7 percent reveal saw marks, and 30 percent reveal various cut, chop, or snap marks alone. Of the 27 nineteenth-century pig specimens, 48 percent reveal no evidence of butchering, 33 percent have saw marks, and 19 percent have only other types of butcher marks. Of the 59 twentieth-century pig specimens, 36 percent reveal no evidence of butchering, 53 percent reveal saw marks, and the remaining 12 percent reveal only other types of butcher marks. Again, these findings support the argument that the beef consumed by the site occupants largely represents retail purchases, while the mutton largely represents home-butchered cuts. The number of pig specimens again is too small to consider. The above findings suggest an increased frequency of retail beef cuts over time but reveal little other difference in butchering patterns between the nineteenth-century and twentieth-century samples.

A total of 2,675 large domestic species specimens (70 percent) were recovered from Hispanic deposits and 1,152 large domestic species specimens (30 percent) from Anglo deposits (Fig. 21.4). These numbers closely parallel the relative proportions of specimens associated with the two ethnic groups. Of the 1,137 cattle specimens recovered from Hispanic deposits, 21 percent reveal no evidence of butchering, 73 percent reveal saw marks, and 6 percent reveal only other types of butcher marks. Of the 534 cattle remains identified as Anglo, 20 percent reveal no evidence of butchering, 75 percent reveal saw marks, and 5 percent reveal only other types of butcher marks. Within the group of 1478 caprine remains identified as Hispanic, 73 percent reveal no evidence of butchering, 6 percent reveal saw marks, and 22 percent reveal only various cut marks, chop marks, and/or snap marks. Within the group of 592 caprine remains identified as Anglo, 55 percent reveal no evidence of butchering, 6 percent reveal saw marks, and 40 percent reveal various chop marks, cut marks, and/or snap marks. Of the 60 Hispanic pig remains, 45 percent reveal no evidence of butchering, 40 percent reveal saw marks, and 15 percent reveal only other types of butcher marks. Of the 26 Anglo pig remains, 27 percent reveal no evidence of butchering, 62 percent reveal saw marks, and 12 percent reveal only other types of butcher marks. These figures correspond well with the findings for the site as a whole and again suggest that the beef consumed by both the Hispanic and the Anglo inhabitants was generally retail purchased, while the mutton consumed was generally home butchered. There are, however, no significant differences noted between the two ethnic groups represented. Again, the number of butchered pig remains is so

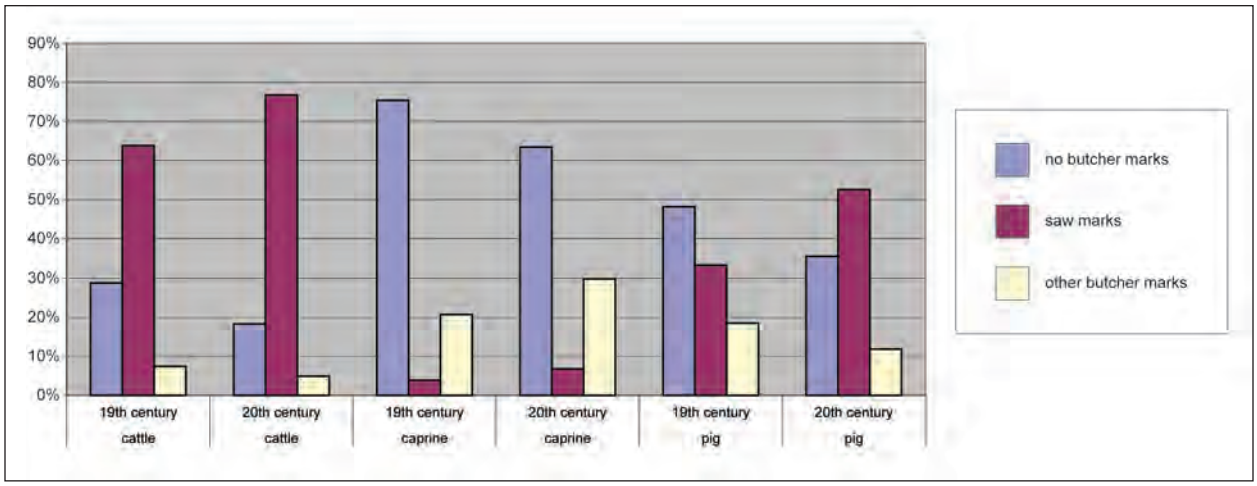


Figure 21.3. Butcher marks on large domestic species by period.

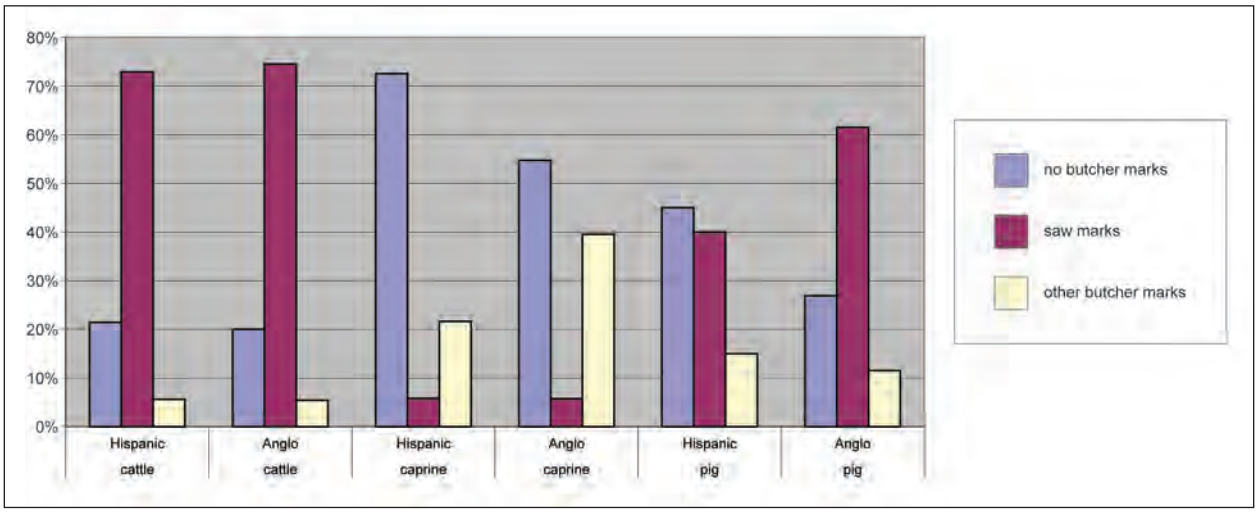


Figure 21.4. Butcher marks on large domestic stock species by ethnic group.

small as to preclude reliable inference.

Primary Butchering Debris

For the purpose of this discussion, primary butchering debris is considered as any of the bones of the cranium, mandible, feet, and tail, as well as any teeth found in isolation. Of the 3,827 cattle, caprine, and pig specimens, 26 percent represent butchering debris as defined above (Table 21.6). This group includes 1,671 cattle specimens, of which 12 percent represent primary butchering debris; 2,070 caprine specimens, of which 36 percent represent primary butchering debris; and 86 pig specimens, of which 27 percent represent primary butchering debris. Here, as above, the findings suggest that the cattle remains primarily represent market retail purchases, whereas the caprine remains primarily represent home-butchered cuts. Again, the relatively small number of pig elements precludes inference.

There were 482 cattle specimens recovered from nineteenth-century deposits, of which 20 percent represent primary butchering debris (Fig. 21.5). Of the 1,510 cattle remains associated with the twentieth century, 23 percent represent primary butchering debris. Once again, these findings strongly suggest that the beef cuts consumed by the occupants during the nineteenth and twentieth centuries were primarily retail purchases. Of the 741 nineteenth-century caprine remains, 47 percent represent primary butchering debris, and of the 1,475 twentieth-century caprine remains, 27 percent represent primary butchering

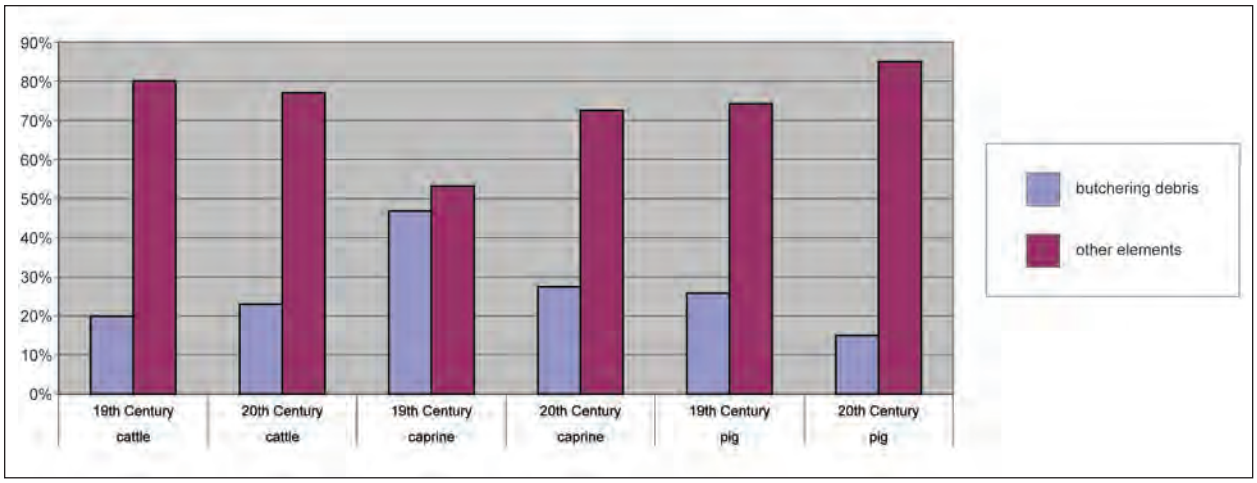


Figure 21.5. Butchering debris from large domestic species by period.

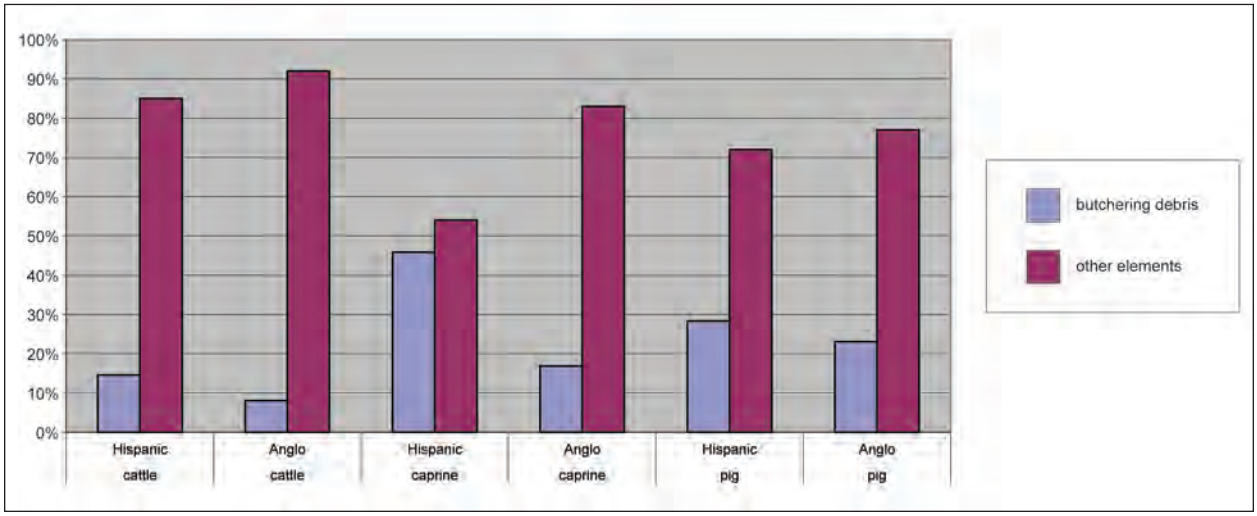


Figure 21.6. Butchering debris from large domestic species by ethnic group.

debris. These findings suggest that site occupants engaged in the home butchering of caprines with decreasing frequency over time. A total of 26 percent of the nineteenth-century pig remains represent primary butchering debris, and 15 percent of the twentieth-century pig remains represent butchering debris, suggesting that pigs may have been infrequently home butchered and that there was little change over time.

Of the 1,137 cattle elements recovered from deposits associated with Hispanic populations, 14 percent represent primary butchering debris (Fig. 21.6). Of the 534 cattle elements associated with Anglo populations, 8 percent represent primary butchering debris. The small percentage of primary cattle butchering debris relative to other cattle elements supports the above argument that the beef consumed by both the Hispanic and Anglo populations was most likely retail purchased. Within the group of 1,478 caprine elements that were identified within the Hispanic deposits, 46 percent represent primary butchering debris. Of the 592 caprine elements identified within Anglo deposits, 17 percent represent butchering debris. These results strongly suggest that the Hispanic households were regularly engaged in the home butchering of caprines, and that the Anglo households engaged in relatively little home butchering of caprines. A total of 28 percent of the 60 Hispanic pig elements represent primary butchering debris, and 23 percent of the 26 Anglo pig elements represent primary butchering debris. Although the total number of pig remains is small, these results do suggest that

both Hispanic and Anglo households may have occasionally engaged in the home butchering of pigs.

Included within the butchering debris discussed above are 23 nearly complete to complete (50 percent complete or greater) cattle crania. Nearly all of these crania were recovered from features that are identified here as "bone pits" for the purpose of distinguishing them from domestic-refuse pits. Unlike domestic-refuse pits, the bone pits are somewhat standard in size (1 m in diameter) and distribution (separated by approximately 3 m). Also unlike the domestic-refuse pits, few artifacts were recovered from the bone pit deposits, and cinders and coal were absent. Although these crania are discussed in greater detail in another section of this report (Sherman, this volume), it must be noted here that many of the specimens demonstrate evidence of hack saw marks in the frontal region and/or occipital region. Given that these butchered cranial specimens were found mingled with both butchered and nonbutchered remains of other taxa, it is likely that occupants were harvesting cattle brain as food rather than for tanning hides.

Primary Butcher Cuts

A primary or wholesale cut is a piece of meat initially separated from the carcass during butchering (e.g., chuck, sirloin, round) that is subsequently divided into secondary or retail cuts (e.g., steak, chop, roast). Primary cuts were recorded for elements that demonstrate butcher marks and those that do not. In reference to beef cuts, ribs were greatest in number, followed by short ribs and chuck. Among the caprine remains, foot elements were present in greatest number, followed by cranial elements and ribs. In reference to pig cuts, ribs are greatest in number, followed by feet and hind shank (Table 21.7). When comparing the deposits associated with the two time periods of interest, the most notable differences among the cattle specimens are the frequency of twentieth-century cranial elements relative to nineteenth-century cranial elements, which decreased by 9 percent over time; and the frequency of Hispanic cranial elements (9 percent) relative to Anglo cranial elements (2 percent). The most notable differences among the caprine specimens are the 22 percent decrease in the relative frequencies of foot elements between the nineteenth century and the twentieth century, and the frequency of Hispanic foot elements (28 percent) relative to Anglo foot elements (8 percent). These findings are consistent with those reported above, suggesting that the beef consumed by the inhabitants was typically market purchased, while the mutton consumed was often the product of home butchering. These findings are also consistent with others reported above, suggesting that more Hispanic households were engaged in the home butchering of caprines than were Anglo households, and that home butchering, in general, decreased over time.

Age-at-Death

Animals raised for consumption are generally slaughtered at a relatively young age. In reference to butchering, the term "lamb" applies to the flesh of a young sheep (typically less than 12 months of age), while the term "mutton" applies to the flesh of an older sheep (typically greater than 1–2 years of age) (Ashbrook 1955:105, 107). The term "veal" applies to the dressed carcass of a calf that is between one and three months of age (Ashbrook 1955:104). In the modern beef industry, cattle are typically slaughtered prior to three years of age (http://en.wikipedia.org/wiki/Cattle), while working animals typically enjoy longer life spans. Sheep raised for wool are typically culled from the herd at approximately six years of age, by which time they have generally stopped producing. In modern dairy ranching, cows are culled from the herd when they fail to reproduce a calf every 24 months or when they appear to be incapable of weaning a live calf. For most modern breeds of cows, the average age of culling is nine and one-half years (Rohrer et al. 1988). Modern, noncommercial chickens raised for meat are typically slaughtered at 14 weeks of age (http://en.wikipedia.org/wiki/Chicken), while modern noncommercial laying hens are typically culled from the flock at three years of age (http://extension.oregonstate.edu/catalog/html/pnw/pnw565). The estimated age-at-death of an animal represented within an assemblage may, therefore, indicate whether that animal was likely engaged in work (e.g., milk production, wool production, egg production) or intended for consumption. For those animals intended for

consumption, the estimated age-at-death may also indicate a consumer's preference for younger animals or older animals (e.g., lamb or veal rather than mutton or beef).

As stated earlier, each faunal specimen was assigned an estimated age-at-death based on epiphyseal fusion, bone texture, bone size, dentition, and/or tooth wear. Each specimen was then assigned to one of five age categories: indeterminate young, fetal/neonatal, immature, juvenile, and mature (Table 21.8). An analysis of the estimated age-at-death for 4,145 domestic stock specimens (cattle, caprine, pig, and chicken) reveals that the largest percentage represents juvenile animals, while a small percentage of the specimens represent mature animals, and a very small percentage of the specimens represent subjuvenile animals. The large number of juvenile specimens most likely represent animals intended for consumption, while the mature specimens may well represent stock raised for breeding, milk, or eggs.

When the estimated age-at-death of domestic stock specimens from nineteenth-century deposits is compared to those recovered from twentieth-century deposits, the findings are similar to those of the site as a whole, with little difference between the two groups other than that the relative frequencies of juvenile cattle, caprine, and pig specimens, which increase slightly over time relative to the mature specimens. Conversely, the relative frequencies of juvenile chicken specimens decrease from 41 percent during the nineteenth century to 25 percent during the twentieth century, while the relative frequencies of mature chicken specimens increase from 52 to 73 percent (Fig. 21.7). These results suggest the possibility that raising chickens for egg production became more prevalent with the passage of time.

When the estimated age-at-death of domestic stock specimens from Hispanic deposits is compared to that from Anglo deposits, the findings are similar to those of the site as a whole, with little difference between the two groups

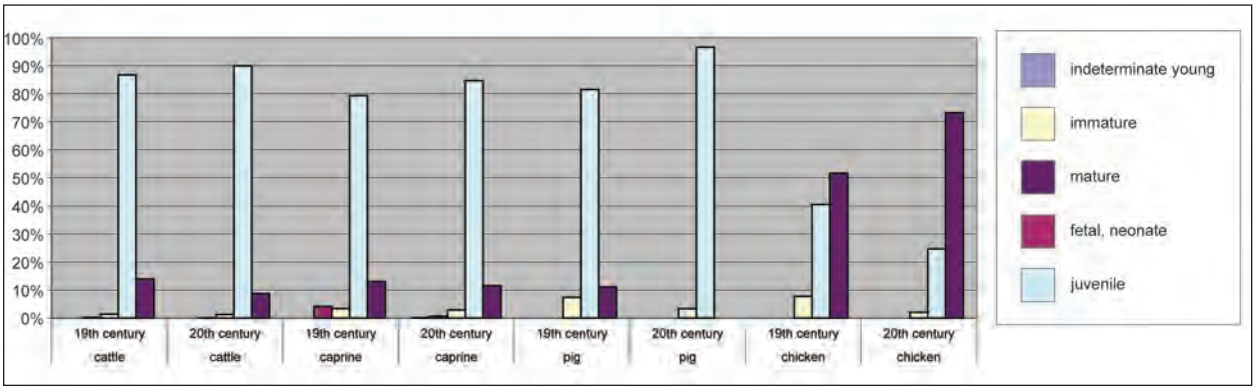


Figure 21.7. Estimated age-at-death of domestic stock species by period.

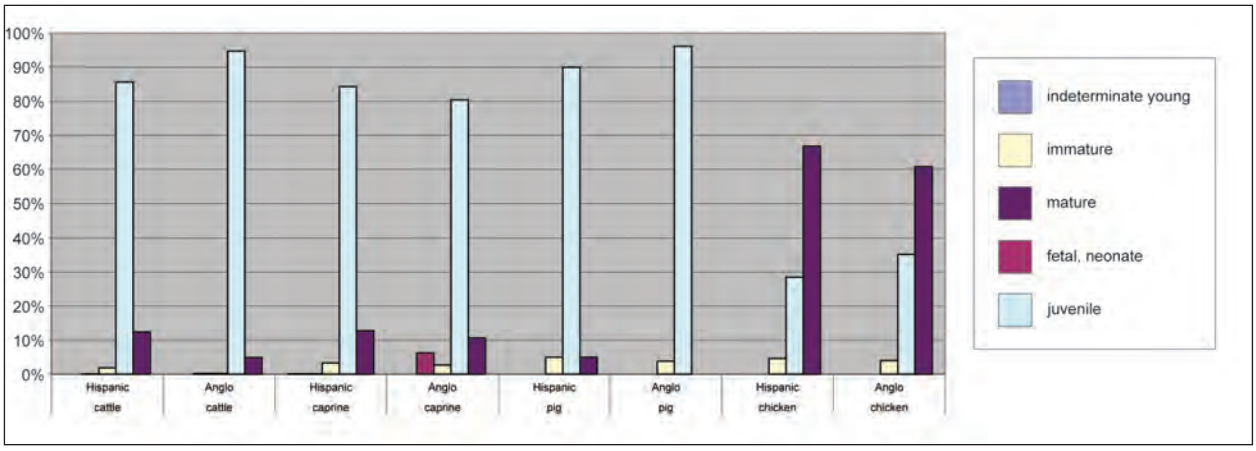


Figure 21.8. Estimated age-at-death of domestic stock species by ethnic group.

other than that the frequencies of mature remains for all four of the stock animals are slightly higher in the Hispanic deposits than in the Anglo deposits, while the frequency of juvenile remains for the stock animals is slightly higher in the Anglo deposits (Fig. 21.8).

Taphonomy

As indicated above, taphonomy is the study of preservation processes and how these processes affect the remains found within an assemblage. The goal of taphonomic studies is generally to identify and distinguish between the human and nonhuman processes that have affected the remains in order to link the assemblage with human behavior. The taphonomic processes recorded in this study include environmental damage, animal alterations, and changes that are the result of human actions, including processing and burning.

Completeness

In terms of completeness, the faunal specimens are generally well preserved. Only 44 percent are less than 10 percent complete, and 10 percent are complete. Little difference in completeness is noted between elements associated with nineteenth-century deposits and those associated with twentieth-century deposits in general, with the exception that 16 percent of the nineteenth-century elements are complete, while 8 percent of the twentieth-century samples are complete. Similarly, little difference is noted between the elements recovered from Hispanic deposits and those recovered from Anglo deposits, other than that 12 percent of the Hispanic deposits are complete, and only 6 percent of the Anglo deposits are complete. Given that elements representing butchering debris are, in general, more complete than elements representing food waste, it is possible that these findings are a reflection of home butchering, which may have occurred more commonly during the nineteenth century and within Hispanic households than during the twentieth century and within Anglo households.

Environmental Change

The assemblage has a relatively low frequency of environmental damage, with 33 percent of the specimens demonstrating alterations, most of which are instances of exfoliation (30 percent) There were no significant differences noted either between nineteenth- and twentieth-century deposits or between Hispanic and Anglo deposits (Table 21.9).

Animal Alterations

Animal alterations are uncommon, with the exception of carnivore gnawing. Evidence of carnivore gnawing occurs with substantially greater frequency on the twentieth-century specimens than on the nineteenth-century specimens, and with slightly greater frequency on the Anglo specimens than on the Hispanic specimens (Table 21.10). These findings are consistent with the greater frequency of domestic dog remains found in association with twentieth-century deposits than in association with nineteenth-century deposits. They are, however, inconsistent with the greater frequency of dog remains associated with Hispanic deposits relative to those associated with Anglo deposits.

Burning

Relatively few specimens demonstrate burn evidence of any type, and of those noted, most represented discard burn (Table 21.11). Discard burn, such as seen as a result of outdoor trash burning, was noted with greater frequency on the twentieth-century specimens than on the nineteenth-century deposits. It is unknown why trash burning may have become more common over time; however, it is possible that as the population density in the neighborhood increased, trash removal became more critical. The types and frequency of burning noted on the specimens were otherwise much the same for both time periods and for both ethnic groups.

Measures of Economic Status

After the variables for each faunal specimen were recorded and entered into the computer,

the number of identified specimens (NISP) and relative percentages for each identified taxon were computed. The NISP and relative percentage values form the fundamental basis for faunal assemblage descriptions and interpretations. As dictated by the research questions, however, potential differences in the economic status of the ethnic groups and time periods of interest are the major focus of this analysis. While a variety of faunal analytical methods have traditionally been employed in archaeological research (e.g., minimum number of individuals, animal age-at-death, weight of edible meat), the methods that have been shown to be most useful in elucidating consumer behavior in urban settings where meat was likely obtained through retail purchase are based on meat-cut selection.

Yield Ranking of Meat Cuts

Professional butchering techniques have remained relatively constant over the past 100 years (Schulz and Gust 1983b:48) as have meat-value relationships (Henry 1996:247). In addition, home butchering techniques have remained remarkably stable in New Mexico since the Spanish Colonial period. Consequently, analyses of the meat cuts represented by the elements disposed of by human populations may yield information about the economic status of those populations.

Three methods of primary-cut analyses are considered here: an economic ranking scale, an economic index, and a yield-ranking scale. The unit of analysis in all three models is the primary cut, which is subsequently butchered into smaller secondary cuts. All three models assume that the economic status of a human group is reflected in the character of the faunal debris that the group leaves behind. The three ranking scales for beef cuts are illustrated in Table 21.12. Because the applied ranking methods use differing ordinal outcome values, quartiles were established for each, with a nominal scale of excellent, good, fair, and poor.

Economic rank. Schulz and Gust (1983b:45; 1983b:13–15), postulate that faunal assemblages deposited by human populations of higher economic status will contain relatively greater frequencies of specimens representing beef cuts of high economic value, while faunal assemblages deposited by human populations of lower socioeconomic status will contain relatively greater frequencies of specimens representing beef cuts of low economic value. After establishing the relative values of beef cuts in different regions of the United States from the 1850s to 1910, Schulz and Gust devised a ranking system based on these values. To avoid inconsistencies resulting from the effects of economic fluctuation on monetary values and to allow the inclusion of sources which list only relative prices, the cuts were assigned an ordinal rank of 1 through 10, in which lower ranks correspond to more expensive cuts and higher ranks correspond to less expensive cuts.

Economic index. As reported by Henry (1996:247), Bayham et al. (1982) and Henry and Garrow (1982) generated a scale of economic indices based on the price relationships of retail beef, mutton, and pork cuts in the Phoenix area during the 1980s. The economic index assigns an index of 1.00 to the least expensive cuts of beef, mutton, and pork, and assigns relative indices to more expensive meat cuts of corresponding taxa (e.g., a cut that is twice as expensive as the least expensive cut is assigned an index of 2.00).

Yield rank. Lyman (1987:58–59) argues that economic rank may not accurately reflect the economic status of the human population responsible for depositing the faunal assemblage, in that it fails to consider beef-cut cost-efficiency. Instead, he proposes the meat yield rank system, a function of both cost/waste and return/yield maximization. Lyman's yield rank model assumes that a thrifty consumer with limited purchasing power will purchase beef cuts that both minimize cost/waste and maximize return/yield (i.e., the largest and least expensive cuts of beef).

As indicated earlier in this report, the butcher marks on the caprine specimens are generally consistent with home butchering, while those on the cattle specimens are generally consistent with retail-market cuts. Also, as reported earlier, a relatively small number of pig remains were identified, and the butcher marks they demonstrate are equivocal. Consequently, the economic/yield ranking methods discussed above were applied only to cattle specimens. These ranking methods were applied to all of the cattle specimens in the assemblage assigned to primary-cut categories (n = 1,655). Because none of the three ranking methods provide values for

head or tongue cuts, these elements (n = 31) were not considered. Elements were also omitted from consideration in those instances where a value for that element is not provided by the applied ranking method (Table 21.13).

Results. When all of the cattle specimens are placed into corresponding primary-cut categories, the resulting nominal values for the applied ranking methods are as follows: economic rank = good; economic index = good; and yield rank = fair (Table 21.14). When just those cattle elements associated with nineteenth-century deposits are placed into corresponding primary-cut categories, economic rank = good; economic index = good; and yield rank = fair. For just the cattle elements associated with twentieth-century deposits, economic rank = good; economic index = good; and yield rank = fair. When cattle elements recovered from Hispanic deposits are placed into corresponding primary cut categories, economic rank = good; economic index = good; and yield rank = fair. For elements associated with Anglo deposits, economic rank = good; economic index = good; and yield rank = fair. Thus, no change is noted between the nineteenth- and twentieth-century deposits, nor are differences noted between the Hispanic deposits and the Anglo deposits. However, while there is absolute correspondence between the economic value outcomes and the economic index outcomes, both are consistently higher than the yield value outcomes. The likely explanation for this is that the economic rank and the economic index are purely measures of cost that are assumed to reflect purchasing power, while the yield value is a measure of both cost and return that presumes to measure purchasing power by considering both cost and foraging/shopping efficiency.

Economic Class Differences and the Great Depression

Archival research indicates that Structure 4 was a home owned by the Parkers, a middle-class family, for much of the twentieth century. During the same time period, Structures 3 and 5 were occupied by a series of renters. Barbour (2008a:91) proposes that a comparison of material recovered from deposits associated with these structures may yield results that are a function of economic status differences between middle-class homeowners and working-class renters. While an adequate sample size was recovered from Structure 4 (n = 752), the relatively small number of twentieth-century cattle remains recovered from Structure 3 (n = 14) and Structure 5 (n = 45) preclude meaningful comparison.

Barbour's artifact analysis (this volume) indicates that eleven features (Features 1, 7, 38, 56, 62, 78, 79, 82, 224, 231, and 232) were in use during the period immediately preceding the Great Depression (1900s, 1910s, and 1920s), and eight features (Features 39, 77, 80, 88, 170, 233, 234, and 235) were in use during the Great Depression Era (1930s and early 1940s). The pre–Depression era sample is twice as large as the Depression-era sample (Table 21.13). The selected cattle remains were analyzed as above with the following results: both the pre-Depression and Depression-era economic ranks = good; both the pre-Depression and depression-era economic indices = good; and both the pre-Depression and Depression-era yield values = fair (Table 21.14). No difference is noted between the pre-Depression era and Depression-era samples with any of the three economic ranking methods. As above, economic rank and economic index give nominal rankings of good, while the yield value gives nominal rankings of fair.

Domestic-Refuse Pit and Self-Contained Vault Privy Faunal Assemblages

In order to undertake a comparative analysis of the faunal remains from specific deposit types, samples of adequate size representing the time periods and/or the ethnic groups being compared are prerequisite. Because samples of adequate size were recovered from nineteenth-century and twentieth-century domestic-refuse pits, Hispanic and Anglo domestic-refuse pits, and Hispanic and Anglo self-contained vault privies, these feature are discussed below. Although twentieth-century self-contained vault privies yielded a large faunal sample (n = 899), the small sample recovered from nineteenth-century vault privies (n = 27) precludes meaningful comparison.

Domestic-refuse pits. A total of 2,528 faunal specimens were recovered from 30 domestic-refuse pits (Features 1, 27, 28, 38, 39, 43, 45, 46, 56, 59, 75, 76, 77, 79, 80, 81, 82, 87, 88, 89, 90, 91,

119, 158, 194, 195, 196, 205, 207, and 229). These specimens are associated with nineteenth-century deposits (n = 542), twentieth-century deposits (n = 1,986), Hispanic populations (n = 1,510), and Anglo populations (n = 1,018). The taxa identified within the domestic-refuse pit assemblages were consolidated in order to facilitate analysis (Table 21.15). As illustrated, 95 percent were identified as ungulates of variable size: cattle, caprine, and pig. Domestic chicken/turkey/bird comprise the second largest group, with 3 percent. The remaining grouped taxa were minimally represented. The taxa group ungulate/large stock animal was omitted from both temporal period and ethnic group comparison so that the distribution of the remaining taxa can be better visualized (Figs. 21.9, 21.10). As is illustrated, the relative frequencies of mammal/bird remains and rabbit remains increase slightly over time, while the relative frequencies of chicken/turkey/bird remains and eggshell decrease slightly. The number of chicken/turkey/bird remains and eggshell are substantially greater in the Hispanic deposits than in the Anglo deposits. The only other difference of note is that the Hispanic deposits contain a small number of canid/cat remains, while the Anglo deposits contain a small number of rabbit remains.

Self-contained vault privies. There were 926 faunal specimens recovered from 11 self-contained vault privies (Features 7, 62, 73, 74, 78, 192, 231, 232, 233, 234, and 235). These specimens were associated with both Hispanic (n = 731) and Anglo populations (n = 195). As with the domestic-refuse pits, the species represented in the privy assemblages were consolidated in order to facilitate analysis (Table 21.16). Of the taxa recovered from the self-contained vault privy deposits, ungulates/stock animals (72 percent) comprise the largest group of specimens, followed by chicken/turkey/bird (19 percent). The remaining grouped taxa were minimally represented. As above, the taxa group ungulate/large stock animal was omitted from comparison so that the distribution of the remaining taxa could be better visualized (Fig. 21.11). As illustrated, the Hispanic privy deposits yielded an overall greater variety of taxa than the Anglo privy deposits, including carnivore, canid/cat, and eggshell remains. Both the Hispanic and Anglo privies yielded relatively large numbers of chicken/turkey/bird remains. While the Hispanic privy deposits yielded slightly greater frequencies of unknown/mammal/bird and squirrel/rodent remains, the Anglo privy deposits yielded slightly greater frequencies of rabbit/hare and fish remains.

Contemporaneous Urban Santa Fe Sites

Although several sites that are partially or wholly contemporaneous with LA 158037 have been excavated in New Mexico (Table 21.17), the following discussion is limited to contemporaneous urban Santa Fe sites.

The Santa Fe Railyard Project

The Santa Fe Railyard Project involved the investigation of 13 historic sites which collectively span the period from the late Spanish Colonial period through the Railroad period and into the Early Statehood period. Only the Railroad-period and Early Statehood–period sites are considered here.

The Railyard Project deposits corresponding to the Early Railroad period date from 1879 through 1912. The assemblages from this group were recovered from an acequia (n = 454), a series of privies (n = 108), and two industrial architecture features (n = 115). Within the acequia sample, caprine specimens are present with greater frequency than cattle specimens (26 percent and 16 percent, respectively). Domestic chicken specimens comprise 2 percent of the assemblage, and pig specimens comprise 1 percent. No specimens are identified as native species, fish, or equid. The privy deposits are atypical in that both cattle and caprine specimens are low in number (8 percent and 7 percent, respectively), while native species are represented in relatively large numbers. Pig specimens comprise 3 percent of the assemblage, and domestic chicken specimens comprise 2 percent. Fish specimens comprise a very small portion of the assemblage, and no equid remains were identified. The assemblage recovered from the industrial-architecture deposits includes a greater number of cattle specimens (30 percent) than caprine specimens (17 percent). Pig specimens comprise 3 percent of the assemblage, and domestic chicken specimens

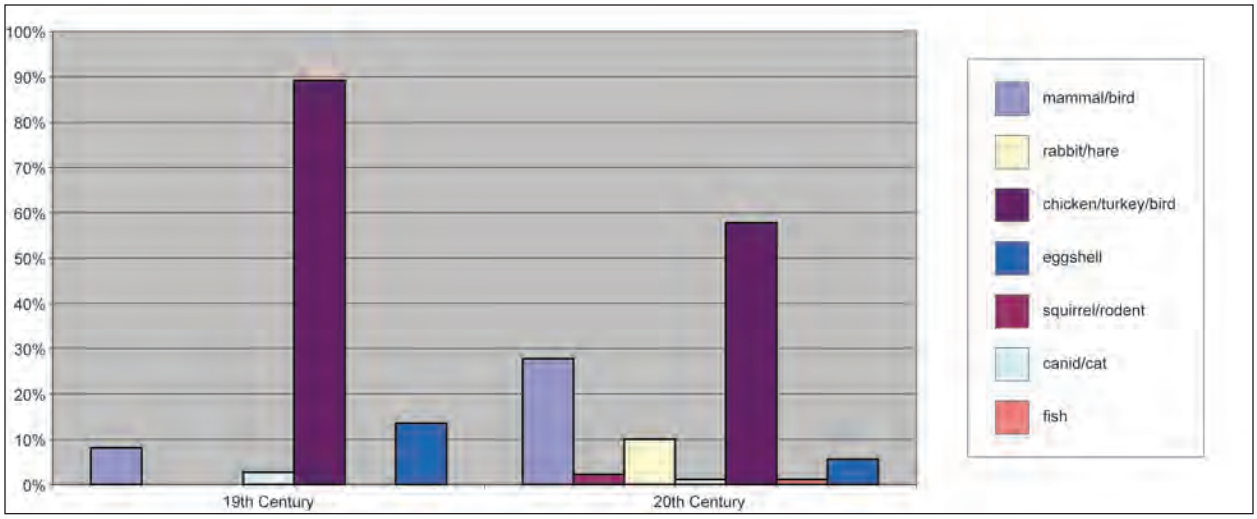


Figure 21.9. Domestic-refuse pits by period.

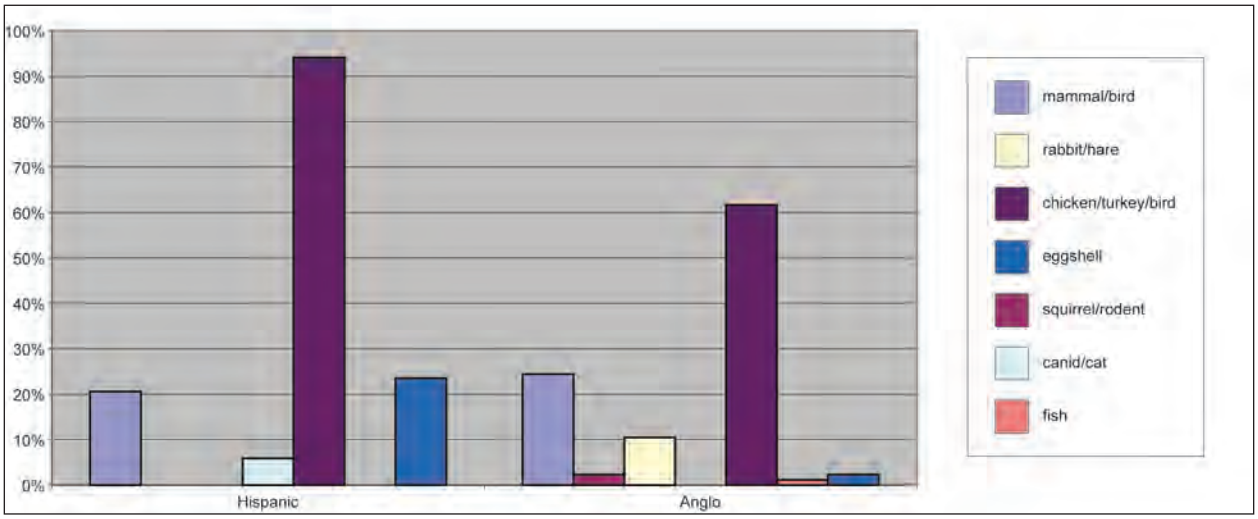


Figure 21.10. Domestic-refuse pits by ethnic group.

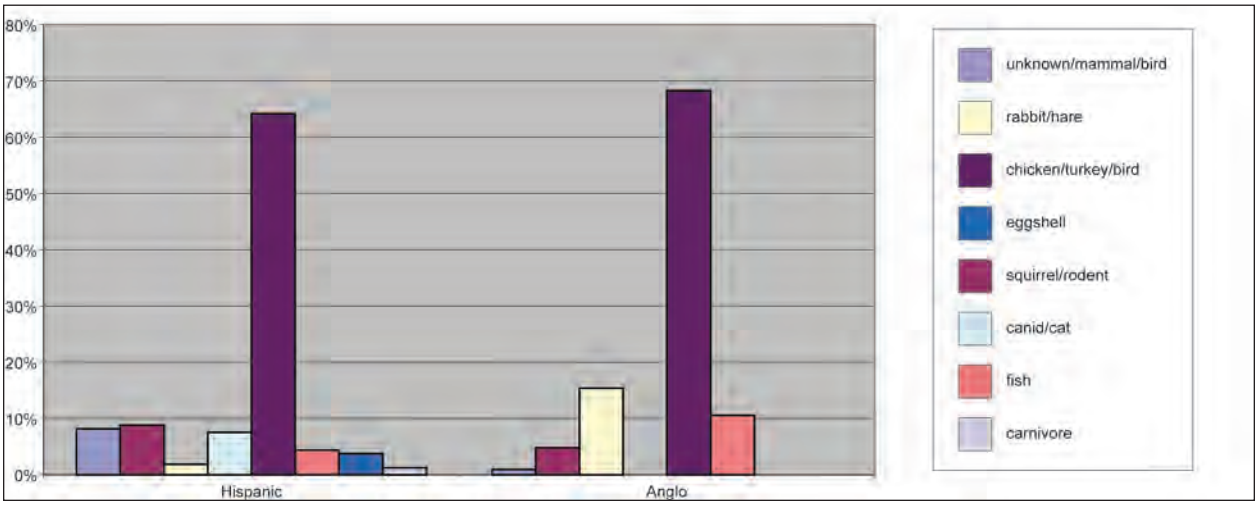


Figure 21.11. Twentieth-century self-contained vault privies by ethnic group.

2 percent. Both native species and fish specimens are very low in number, and no equid remains were identified (Starkovich in prep. a:11).

The Railyard Project deposits correspond to the early nineteenth century through the mid-twentieth century. The assemblages from this group of sites were recovered from an acequia (n = 14), two middens (n = 1,056), and an industrial-architecture feature (n = 339). Cattle specimens comprise 21 percent of the midden sample, while caprine specimens comprise 17 percent. Domestic chicken remains are present in relatively high numbers (16 percent), and eggshell and pig specimens comprise 1 percent of the assemblage. Very few native species were identified, and no fish or equid remains were identified. Within the industrial-architecture assemblage, cattle specimens occur with substantially greater frequency than do caprines (47 percent and 17 percent, respectively). Domestic chicken specimens (9 percent) also comprise a substantial portion of the sample, while pig specimens comprise only 2 percent. Native species and fish comprise very small portions of the assemblage, and no equid remains were identified. (Starkovich in prep. b:13–14).

The Santa Fe Judicial Complex

Of the five components investigated at the Santa Fe Judicial Complex, only the assemblages recovered from Area 2 were completely analyzed. This component contained two large features: a Depression-era refuse pit (n = 340) and a Depression-era privy (n = 730). The assemblage recovered from the refuse pit was highly atypical in that domestic chicken remains comprise 42 percent. Cattle remains comprise a slightly larger portion of the assemblage than caprine remains (17 percent and 11 percent, respectively). Pig specimens comprise just 2 percent of the assemblage, and native species are low in number. Few native species or fish are present within the assemblage, and no equid remains were identified. The privy assemblage is comprised of near-equal numbers of cattle specimens (32 percent) and caprine specimens (31 percent). Chickens specimens are low in frequency (4 percent), as are pig remains (3 percent). As with the refuse pit assemblage, native species and fish are very low in number, and no equid remains were identified (Starkovich in prep. b:8–9).

Comparison of Assemblages

The LA 158037 assemblage compares most closely with the Early Railroad–period assemblage recovered from the Santa Fe Railyard. Both assemblages are comprised of greater numbers of caprine specimens than cattle specimens, and both contain relatively small numbers of pig and domestic chicken specimens. In addition, fish and native species are present in very small numbers. The Early Statehood–period assemblage that was recovered from the Santa Fe Railyard and the assemblage recovered from the Santa Fe Judicial Complex differ from LA 158037 significantly in that both contain slightly greater numbers of cattle remains than caprine remains, and domestic chicken specimens are present in relatively high numbers. Like LA 158037, however, small numbers of native species and fish remains were identified in both. The relatively small numbers of pig specimens recovered from all of these sites and the very small number of identified native species and fish remains correspond well with historic New Mexico sites in general.

Conclusion

The faunal assemblage recovered from the State Capitol Parking Facility Project is adequate in both number and distribution across temporal period deposits and ethnic group deposits to address three of the research questions proposed by Barbour (2008a:85–93).

In seeking to understand the Santa Fe economy of the late nineteenth century and early twentieth century, Barbour asks if there are differences in animal-resource consumption and disposal patterns between deposits associated with the nineteenth and twentieth century, and between deposits associated with Hispanic and Anglo populations. Comparison of the frequencies with which individual taxa are identified within the temporal period and ethnic group deposits reveals shifts and differences in the relative numbers of some species. Although caprine remains are greater in number than cattle overall, cattle remains do increase slightly over time relative to caprine remains. This suggests

not only on a growing reliance on beef products and a decreasing reliance on mutton, but also a shift towards greater dependency on commercial sources for animal products. The frequency of identified pig specimens remains constant within both the temporal period deposits and the ethnic group deposits, while the frequency of chicken remains increase slightly over time and is slightly greater in the Anglo deposits than the Hispanic deposits.

Differences in the relative frequencies of cattle and caprine specimens within the deposits identified as Hispanic and Anglo are slight; however, caprine remains are somewhat more dominant within the former. Although domestic rabbit remains comprise a small portion of the assemblage, all of the identified specimens are associated with the twentieth-century deposits, and most are associated with Anglo deposits. Eggshell remains are slightly more prevalent in the twentieth-century deposits than the nineteenth-century deposits, and most of it is associated with Hispanic deposits. Native species and wild introduced species are represented within the assemblage in low numbers, and no species identified as likely representing hunting or fishing species were found in association with nineteenth-century deposits. Of those specimens indicative of possible hunting or fishing activities, most were found in association with Hispanic deposits.

Saw marks are present on most of the cattle specimens, suggesting that the beef consumed by the inhabitants primarily represents retail purchases. Conversely, the relatively small number of saw marks identified on caprine specimens along with the large number of various chop marks, cut marks, and snap marks is consistent with home-butchering practices. When the types of butcher marks identified within different temporal period deposits are compared, it is apparent that retail beef cuts increase in frequency over time. In addition, the caprine specimens that represent butchering debris decrease in frequency over time, suggesting a shift away from home butchering. Substantial differences are also noted in the frequencies of caprine butchering debris recovered from the deposits of the two ethnic groups: the Hispanic deposits are nearly twice as great.

Age-at-death estimates for the common domestic stock species reveal that juvenile animals are highly represented within the deposits of both ethnic groups. The number of immature specimens is small overall, indicating little preference for lamb or veal over mutton or beef. The number of mature specimens is also small but is slightly greater within the deposits associated with Hispanic populations, suggesting that this ethnic group may have raised some stock animals for milk or wool. Age-at-death estimates for chickens suggest that an increasing number of residents became engaged in poultry raising over time, and that the Hispanic residents may have done so more commonly than the Anglo residents.

Barbour's second research question concerns a correlation between animal-resource consumption and disposal patterns and economic status, and, if so, whether these patterns were affected by the Great Depression. Economic and yield-ranking methods were applied to the cattle specimens. Although the results differ slightly between the economic and yield-ranking methods, the results of each method remained absolutely consistent across both temporal periods and within both ethnic groups: the economic methods indicate the rank of "good," and the yield method indicates the rank of "fair." Similarly, when these methods were applied to the pre–Depression era and Depression-era deposits, the results varied between the economic and yield-ranking methods but were consistent between time periods and ethnic groups, again indicating the ranks of "good" and "fair," respectively.

Barbour's third research question concerns whether discard patterns differ between the household refuse-pit deposits and the privy deposits. When the relative frequencies of taxa within domestic-refuse pit and privy deposits are compared, ungulates, cattle, caprine, and pigs were found to comprise between 70 percent and 90 percent of each. Chicken/turkey/bird specimens comprised the second largest group of taxa within both the refuse-pit deposits and privy deposits. Although slight differences were noted between the nineteenth- and twentieth-century deposits in the Hispanic and Anglo deposits, no trends or patterns were apparent.

In conclusion, although some slight changes are shown in the patterns of animal-resource consumption and disposal over time, relatively

little difference is shown between the patterns of the Hispanic and Anglo populations who contributed to the sites assemblage. Rather, the faunal remains discarded by the two ethnic groups are more remarkable for their similarities than for their differences. While it is not possible to say with certainty whether this relative homogeneity is a function of the site's urban setting, food availability, or purchasing-power equality between the two ethnic groups, it is consistent with both the successful adaptation to Hispanic foodways by the site's Anglo occupants and the adoption of Anglo foodways by the site's Hispanic occupants.

Chapter 22

Analysis of 23 Cattle Skulls and the Possible Consumption of Cattle Brains

Diana Sherman

The archaeological investigations at LA 158037 revealed an unusual set of cattle bones. During archaeological testing, the project director, Matthew Barbour, saw a skull in the side of a Backhoe Trench 8 and thought perhaps they had found a cattle burial at the site (Barbour 2008a:61). However, excavation during the data recovery phase revealed that this skull, along with numerous others, had been buried in hand-dug pits, most measuring around 1 m in diameter (Barbour 2008c). These pits were spread 3 m apart from one another and were distributed across much of Scraping Units 6 and 7 within the property boundaries of 125 West Manhattan (Structure 4).

Based on the Hartmann map, an A. Romero lived at 125 West Manhattan at the time the skulls and various other bones were buried. The 1870 United States Census lists an Anastacio Romero, a farmer, as living in the Santa Fe area. It is likely that these people are one and the same, although the early census does not list an address. According to the census data, he was married to Inez Romero and had six children.

Romero's property was much larger than his adjoining neighbors' and was on what was then the outskirts of town (Fig. 14.1). Just south of his property were open fields, where it is likely that he, and perhaps his neighbors, raised crops and possibly livestock.

Although it is evident from the faunal assemblage that most of the site's occupants were purchasing retail beef cuts (see Craw, this volume), the skulls found suggest that some processing took place on site, since a majority of the skulls were sawn or broken open to access the brain. On-site home butchering of the skulls is also supported by the cuts themselves, since it appears that residents used handsaws or hacksaws to cut into the skulls, rather than the mechanical saws used by butchers.

The overall patterns of processing are shown in Table 22.1. While skull fragments were found in other contexts throughout the site, they never represent a completeness value of more than 10 percent. As shown in the table, the minimum number of individuals (MNI), based on the number of cattle skulls, is 23. Dentition eruption reveals that the majority (17 of 23) were from mature animals, 3 years old or older. No evidence of horns was observed on these specimens, but the way they are sawn could have removed all evidence of them.

Among the skulls examined, 17 of 23 exhibit obvious saw or chop marks. The vast majority of saw marks observed occur in the occipital region, extending diagonally from the frontal region to the base of the skull. This is clearly illustrated in Figures 22.1–22.4, which show the typical pattern of processing found in the collection. Chop marks were observed on two skulls, and another skull has evidence of an impact break along its posterior portion.

Additional evidence of processing was found on six mature mandibles and one juvenile mandible. Processing of the mandible results from removing it from the skull and possibly from removing the tongue. Two occipital condyles, one mature and one juvenile, also show chop or saw marks, as did one cranial case fragment of a juvenile.

All of the larger cattle crania fragments excavated during this project were associated with Structure 4, 125 West Manhattan, with the exception of one skull found in Feature 234, a self-contained vault privy. Feature 234 is associated with the Alarid family at Structure 1, 141 West Manhattan, and dates much later, to the Prohibition or Depression eras. One of the bone pits (Feature 136) on the Romero property may also date to this later period, with a mean glass manufacture date of 1932. However, the date is based on a limited quantity of bottle glass fragments, and it is possible that the feature dates only to the beginning of the twentieth century. All of the other skull-filled pit features

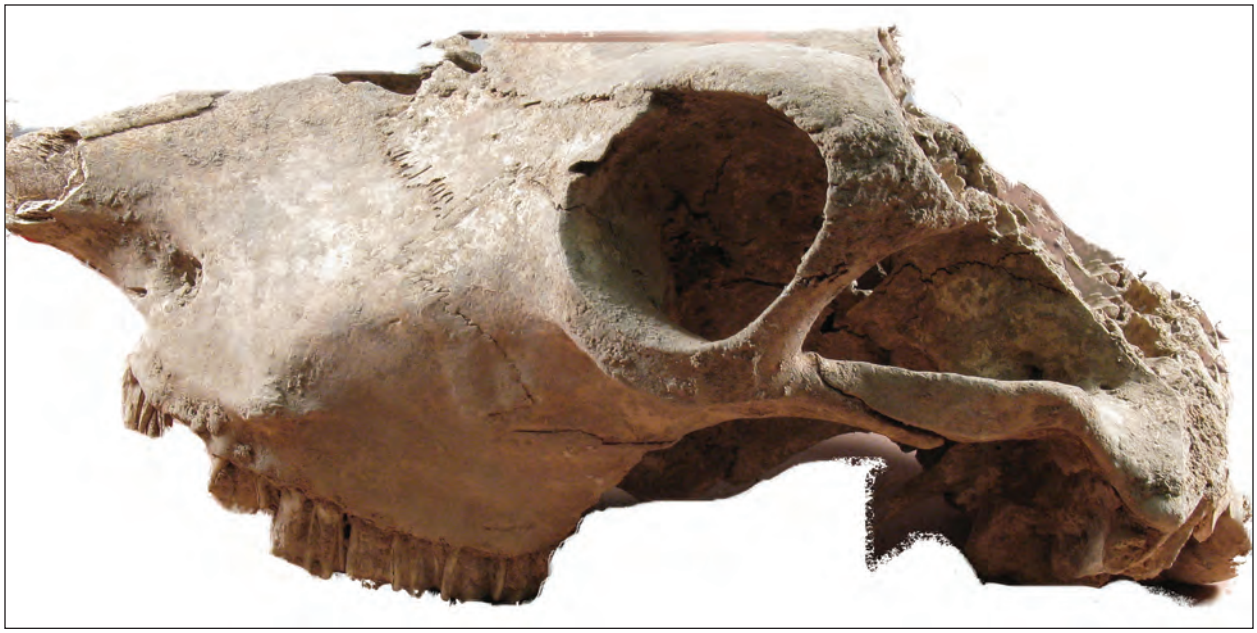


Figure 22.1. This skull illustrates the common method of sawing on the crania excavated at the site. The saw marks begin just behind the orbit and continue diagonally down through the skull to the base.

Figure 22.2. A rear view of a cattle skull with the typical butchering method, in which the back portion of the skull was removed above the brain case.

Figure 22.3. Top view of a skull that has been cut open to expose the area of the brain cavity.

Figure 22.4. Close-up of the sawn area on the back of a cattle cranium.

confidently date to the later nineteenth century. Why these two features date later is peculiar, as is finding only one skull that is not on the Romero's property.

Finding so many cattle crania at a historic residence is unusual. Skulls are not a high meat-yielding element and are not commonly purchased from a butcher. The majority of cattle bones within the assemblage appear to represent retail purchases rather than home-butchered cuts, and the largest part of the assemblage consists of sheep bones that appear to have been processed fully within the site area (Craw, this volume).

However, it does appear that cattle crania were processed on site and were likely purchased and butchered over a number of years while the Romeros lived at the residence. There is also the possibility that more pits with skulls exist on the property, since only one-third of the property was excavated. If the same pattern of buried skulls exists across the entire Romero property, as many as 60 to 100 cattle crania could be present (Barbour, personal communication, 2010).

The presence of the crania on Romero's property, with the evidence that the brains were targeted for removal, can likely be explained in two ways. Either the Romeros were extracting the brains for consumption, or the brains were used to tan hides.

Eating of Brains and other Organ Meats

If you were to serve beef brains as a delicacy at a dinner party these days, it's hard to know if anyone would show up. Today many people are squeamish about eating brains or other organ meats, or are unwilling to admit it if they do (Diana Bird, personal communication, 2010). Indeed, for many people worldwide, neither beef brains nor other organ meats appear on the family menu. It may be the idea of eating the brain itself, an organ that is so vital, that creates a taboo against eating it. Or it could simply be the look and texture of the brain—a wrinkly, gray mass—that makes it unappealing.

Yet in the past, much more of the animal was consumed, either as a delicacy or simply to avoid wasting any edible portions. Indeed, the eating of brains (*sesos* in Spanish) and other organ meats has not always been unpopular, and these delicacies are still available on menus across the world.

In past generations, eating liver was commonplace and acceptable. Some families still consume this meat on a regular basis. For others, the reality that this organ is involved in the breakdown and modification of toxins is enough to cross it off the family menu.

Tripe, the inner lining of the stomach of an animal, is another organ meat that is unappealing for some, yet is commonplace for others. It is a popular meat, particularly in Hispanic culture, where it is often served in a soup called *menudo*. Still, its use is not restricted to Hispanic or Mexican traditions, and it is found nearly everywhere in the world (Kenyon 2010).

Cattle testicles (Rocky Mountain oysters) are consumed by some residents of the United States, but is taboo in other households. Its use varies widely from one family to the next and even between siblings. A distinct memory as a young child is visiting my aunt's farm and seeing a bucket of Rocky Mountain oysters on the doorstep. My mother quickly reassured me that that was not what *we* would be eating for dinner.

Even so, many US residents still eat beef testicles. In fact, in the nineteenth century Rocky Mountain oysters were so popular that oyster houses and bars opened up throughout the United States. Today, "prairie oyster festivals" are still held in Montana, Nevada and Nebraska (Civitello 2008).

Those who raise cattle are more likely to eat more of the animal than those who simply buy prepackaged beef. Evidence for this is found in cookbooks. Dan Cushman's *Cow Country Cookbook* describes a recipe for "son-of-a-bitch-stew" that consists of veal heart, tongue, kidneys, sweetbreads, marrow gut, liver, brains, and suet. He says when an animal is butchered, the meat is not ready for consumption for at least a day. However, the organ meats can be eaten immediately. His recipe includes the following instructions: "[Discard] the connective tissue, and put them to soak in cold water. . . . Trim away what seems to be too tough, especially the large veins and any questionable tube like passages" (Cushman 1992:38).

Cushman also describes *haggis*, a meal prepared by the Scots and Native Americans. In this dish, the inner organs are cooked inside an

animal's stomach, often the stomach of a sheep or bison. Mountain sausages, small intestines of beef roasted with "milky, half-digested food"; *boudins*, the small intestines of bison wrapped around a stick and cooked over the fire; and Rocky Mountain oysters are other recipes found in Cushman (1992).

Watson (1991) says that organ meats are commonplace cowboy menu items. Among the recipes are tongue in beer, sweetbreads with spinach, and mountain oysters. The author states, "You can see, when we butcher, we use most everything: Mountain oysters, Sweetbreads, and Tongue" (Watson 1991:120).

Indeed, the eating of various animals' brains has been practiced cross-culturally throughout time. Antonio Chavarria of Santa Clara Pueblo says he remembers his grandmother cooking deer brains when he was a child. He once peered into a large stew pot and saw the whole head of a deer, with the eyes peering up at him. His grandmother cooked the entire skinned skull in a large pot until she was able to extract the brain from it, after the bone became soft with cooking. He did not partake in this meal because, as he says, it did not appeal to him. He also recalls brains being cooked or barbecued on spears, like a shish kebob, among other Native cultures (personal communication, 2010).

The use of brains and other organ meats was popular in England and across Europe, as described in Beeton (1861). This book, written for the growing middle class that sprung up after the Industrial Revolution (Civitello 2008), contains multiple recipes for calf's head. Beeton (1861: 411) further described a "calf's-head club" that existed in Britain and regularly partook of calf's head as a celebration.

Boar's head was also popular in ancient times. Beeton (1861:360) wrote, it was "the most important dish on the table, and was invariably the first placed on the board upon Christmas-day, being preceded by a body of servitors, a flourish of trumpets, and other marks of distinction and reverence, and carried into the hall by the individual of next rank to the lord of the feast."

Beeton notes that all guests had to partake in cattle brains and tongue, which is served on a separate dish. As for the eyes, these favorites "should be given to those at the table who are known to be the greatest connoisseurs" (Beeton 1861: 435).

The French have also included brain on their menus. Beeton quotes a native of Paris who speaks in favor of eating calf's head "simply boiled with the skin on. . . . It is a dish as wholesome as it is agreeable, and one that the most inexperienced cook may serve with success." The Parisian goes on to talk about consuming calf's feet, sweetbreads, ears, liver, and tongue (Beeton 1861:434).

Tanty (1803) includes a recipe for turtle soup, the main ingredient of which is half of a calf's head. A similar recipe, beef brain *a la poulette*, calls for three or four skinned beef brains. Sandwiches *a la langue* are also on the menu.

Sesos are also consumed in Spain. Anna Llobet (personal communication, 2010), a Spanish native who now lives in Santa Fe, says in Spain all kinds of meats are eaten, including sesos, tripe, and other organs.

In Mexico, sesos are served at taco stands as *tacos de cabeza*, or "head tacos." Traditional to Sonora and Bajio, they are also popular in Mexico City. The customer can choose from sesos of the brain, ear, or tongue (Graber 2006).

Ricardo Martínez, a Mexican native and photographer who has lived in Santa Fe for the past several years, says he has eaten sesos on a few occasions in Mexico City. When he first ate it, he didn't know what it was, since taco stands in Mexico City offer a wide variety of meats. Although he thought it was tasty, he said he has refrained from eating it again because the thought of eating brain meat makes him squeamish (personal communication, 2010).

Nonetheless, not all people have taboos against eating cattle or other animals' brains. In the United States, in 2004 the fear of mad cow disease had not deterred some brain-eating fans from consuming their favorite deep-fried brain sandwiches. Immigrants from Germany and Holland are said to have introduced the sandwiches to avoid waste (Hefling 2004). However, it is evident that those eating the sandwiches were not concerned with preventing waste, but were eating brain sandwiches because they preferred the meat (Hefling 2004). A switch to pig brains was suggested, but the customers said they preferred cattle.

Before the scare of mad cow disease, one report stated as many as 200,000 ox brains were eat-

en each year during the 1980s (*Independent News* 1998). Certainly that number has dropped, since mad cow disease can be contracted from eating infected brain tissue, prompting restrictions against selling brains of cattle that are more than 30 months old. This is believed to be a safe cut-off for consuming cattle brains safely, since it takes months or years for the animals to develop the disease (Hefling 2004).

Beef or other animal brains have also been used in cooking as a fat. For example, Native Americans of the Southwest make a paper-thin bread, called piki bread, out of blue cornmeal and water. Traditionally the bread was cooked on a heated, flat stone that was greased with brain (Dent 1985).

It is hard to know whether the presence of so many cow skulls on what was the Romero family's residence is proof that beef brains were eaten and were a popular menu item in Santa Fe in the late nineteenth and early twentieth centuries.

Brain Tanning

Animal brains, which are high in fat, serve well as lubricants that can be used in cooking or tanning hides. To brain tan a hide, the brain is cooked and mashed (Ojibway and Cree Cultural Center 1994) before it is applied to both sides of the hide after it is skinned. Belitz (1973), who wrote about brain tanning among the Sioux, says the brain matter is used like a bar of soap, rubbing it into the hide. The broth left from cooking the brain is also applied after the initial steps of scraping flesh off the hide and stretching it. It is then stretched again and rubbed with a rope. The hide can be smoked over a fire pit that is dug into the ground, 6 to 8 in deep and about 1 ft in diameter.

Shufeldt (1888:64) observed a Navajo man tanning a hide in 1887. The man cooked a deer skull overnight on a smoldering fire. The next morning, he split the skull with an axe along the bifrontal suture, chipping off the parietal bones to reveal the brain. He then placed it in water to remove chips of bone and blood, and let it cook at a simmer for over an hour. Over a period of time, the brain dissolved in the water and was then rubbed onto one side of the skin. The next day, the skin was soaked in water to remove traces of the brain. When asked why the brain was applied, the said it was used to soften the skin and keep it from becoming hard and brittle.

Tony Chavarria (personal communication, 2010) says Native Americans still prefer to tan hides this way, since the application guarantees a much softer hide that is less brittle. He said it is easy to find a brain for sale in butcher shops in northern New Mexico. The process involves adding ash to the brain .

Conclusion

Other than the sawn skulls, there is no direct evidence that the Romeros were in the hide tanning business or in the business of butchering cattle. It is likely that the family was processing skulls, but the relatively small number of cattle remains, other than professionally butchered cuts, makes it unlikely that the Romeros were butchering cattle whole (Craw, this volume).

Another possibility is that the Romero family ate beef brains during times of economic stress. Generally speaking, the head would be less expensive for many consumers, a less desirable meat cut. Discussion of the head and its cost is lacking in references to different meat cuts, but heads can likely be lumped in with other less meaty items, such as foot bones, neck, and tail. These types of meats are generally less expensive than the high-meat yielding cuts, such as sirloin (Schulz and Gust 1983a). It is also less likely that these types of bones will be found within a faunal assemblage. To illustrate, an archaeological study conducted in Phoenix, Arizona, from the late 1880s to the 1940s found that some less meaty bones, such as neck bone, calf feet, and tail, were present in the archaeological assemblage and were likely used in stews. However, only one pig skull was found, which may have been used for headcheese or another dish (Henry 1996).

However, the presence of retail market-cut meats suggests that the Romeros were not suffering from economic stress to the extreme that would dictate buying so many cow skulls. As shown in Figure 14.1, the Romero's property was larger than any of their neighbors', which also suggests that the heads were not purchased because of economic stress.

The real meaning behind the butchery of the 23 skulls in the Capitol Complex Historic Neigh-

borhood remains unknown. It would not be unusual for a Hispanic family living in the 1800s to put sesos on their menu. Unfortunately, the processing of the skulls does not help reveal the reason for extracting the brains. Although sometimes a head is cooked before the brain is removed for tanning, it is also often cooked whole when used in stews and other dishes. None of these skulls show evidence of boiling or burning. In addition, whether the brains were extracted for tanning or consumption, the skulls could be butchered in various ways to get at the brain, so the specific use cannot be determined by faunal analysis alone.

Before the modern age, when more families raised cattle themselves and could not buy meat prepackaged off a grocery store shelf, using all parts of an animal was a common practice. It is evident that brain meat was considered a delicacy or at least a desirable food by people of the past, and it is still sought by some people today. If more evidence can be found that the family living at 125 West Manhattan was involved in the sale or trade of hides during this time period, the possibility that they used cattle brains for hide tanning will be more convincing.

Chapter 23
Flaked Stone Artifacts

James L. Moore and Gavin B. Bird

Excavations at the State Capitol Parking Facility site (LA 158037) provided only a handful of flaked stone artifacts. Due to the limited number of Native ceramics and the fact that no prehistoric features were found during the course of excavations, it can be inferred that most of these artifacts were used during the historic occupation of the area. Flaked stone analysis was performed by James Moore and Gavin Bird of the OAS. Because there is such a small collection of artifacts from many unrelated features, a detailed analysis of intrasite trends would not be fruitful. Thus, after a summary of the assemblage, the artifacts from each feature are discussed separately.

The Assemblage

All 18 artifacts collected during data recovery were chertic, including one piece of silicified wood (Table 23.1). Most materials were probably obtained from local sources. Madera chert dominated this small assemblage (n = 13, 72 percent). While Madera chert was locally available from deposits in the Madera Limestone Formation, one specimen exhibited waterworn cortex and was thus collected from secondary gravel deposits. One piece of Pedernal chert (6 percent) was found, probably originally obtained from Rio Grande gravel deposits. Three pieces (17 percent) of unsourced chert were also collected; since one of these specimens exhibited waterworn cortex, these materials were probably obtained from secondary gravel deposits. The final material type is the previously mentioned silicified wood, which had an uncertain origin. There is a high percentage of noncortical debris in the assemblage. Only two artifacts exhibited any cortex and in both instances they were waterworn, as noted above. This suggests that these specimens, and probably most of the rest of the assemblage, were collected from gravel deposits. Only two artifacts exhibited any indications of thermal alteration. One was a piece of chert angular debris that was crazed. The second was the distal end of a Madera chert core flake that showed some luster variation. While the thermal alteration of the crazed specimen was probably inadvertent, the Madera chert flake was probably intentionally heat-treated to improve its flaking qualities.

Most of the artifacts in this assemblage were core flakes or angular debris. The core flakes represented 50 percent of the assemblage, seven of which were Madera chert, and two were unsourced cherts. Eight pieces of angular debris (44 percent) were also identified, including six pieces of Madera chert, one of Pedernal chert, and one of unsourced chert. The final artifact was a late-stage biface that was the only artifact made out of silicified wood. A single unsourced chert core flake was informally used as a strike-a-light flint (Fig. 23.1). Like most strike-a-light flints, the informal tool exhibited wear on two edges and had unrelated metal adhesions on both surfaces and was very diagnostic of historic use. The only formal tool was a Late Archaic En Medio point that was reused as a knife (Fig. 23.2), exhibiting rounding and abrasion along both edges. Most of

Figure 23.1. Strike-a-light flint.

Figure 23.2. Archaic-period En Medio projectile point.

the artifacts were whole, but this included the eight pieces of angular debris that were categorized as whole by definition. Of the core flakes, three were whole, two were lateral fragments, two were proximal ends, and two were distal ends. The En Medio point was complete, but reworked.

Seventeen flaked stone artifacts were recovered from cultural features associated with a specific residential property (Table 23.2). The remaining flake was found in Stratum 4/5 and is believed to be associated with earlier use of the project area as agricultural fields during the eighteenth and early nineteenth centuries.

Cultural Contexts

Agricultural Fields

A single unutilized Madera chert lateral flake fragment was recovered from Stratum 4/5.

Structure 1 (141 West Manhattan Avenue)

Structure 1 was a twentieth-century Hispanic-occupied house. Contexts associated with this building yielded two flaked stone artifacts. A single unutilized Madera chert core flake was recovered from Feature 44, a straight-line cesspit privy, and from Feature 74, a self-contained vault privy.

Structure 2 (451 Galisteo Street)

Structure 2 was a twentieth-century Hispanic-occupied house. Three flaked stone artifacts were collected from Feature 91, a domestic-refuse pit. These included an unutilized Madera chert core flake which had 100 percent cortical coverage on its dorsal surface, an unutilized piece of Madera chert angular debris, and an unutilized piece of unsourced chert angular debris that was crazed from inadvertent thermal alteration.

Structure 4, 125 West Manhattan Avenue

Structure 4 was a house occupied by Hispanic and Anglo families at different times in the late nineteenth and early twentieth centuries. Flaked stone artifacts (n = 10) were found associated with both ethnic groups (Table 23.3). However, the majority (n = 6) could be linked to the Romero family, who occupied the structure during the late nineteenth and very early twentieth centuries. These included two core flakes and three pieces of angular debris recovered from features identified as "bone pits" and a single piece of chertic angular debris found in a small irrigation feature used to feed their backyard garden. One of the two core flakes had evidence of being utilized as a strike-a-light flint.

The remaining flaked stone artifacts were associated with later occupation by the Parker family in the early and mid-twentieth century and were distributed across four distinct features. Feature 56, a domestic-refuse pit, contained the only projectile point found on the site, a Late Archaic En Medio point. Feature 74, a privy, contained an unutilized Madera core flake. Feature 131 also yielded an unutilized Madera chert core flake that exhibited some evidence of thermal alteration. Feature 119 contained a piece of unutilized Madera chert angular debris.

Structure 5 (135, 137, and 139 West Manhattan Avenue)

Structure 5 was a twentieth-century Hispanic-occupied house which yielded a single flaked stone artifact. This specimen came from Feature 82, a domestic-refuse pit, and was an unutilized unsourced chert core flake with 70 percent waterworn cortex.

Structure 7 (424, 426, or 430 Don Gaspar Avenue)

Structure 7 was a twentieth-century Anglo-occupied house. Feature 205, a domestic-refuse pit, yielded a single unutilized piece of Pedernal chert angular debris.

Discussion

The very small flaked stone assemblage from LA 158037 was recovered from a variety of proveniences separated both spatially and temporally. Three basic questions were asked about the structure of this assemblage:

1. Are there differing patterns of use visible within the assemblage, and do those patterns break down along ethnic lines?

2. Do use patterns change between the nineteenth and twentieth centuries?

3. Is this assemblage typical or atypical of flaked stone use in the downtown Santa Fe area during the nineteenth and twentieth centuries?

The 18 artifacts in this assemblage were recovered from 15 separate proveniences, and all probably represent materials collected from prehistoric sites in the area for reuse in historic contexts. This probability is supported by the lack of any cores and the nature of the spatial distribution, with no concentrations of flaked stone artifacts that would suggest the presence of reduction locales. While it is possible that the debitage in this assemblage was reduced elsewhere by site occupants and then transported to the locations in which they were found for use, this is unlikely because prehistoric flaked stone materials are fairly common in the Santa Fe area and would have been available at a variety of prehistoric residential sites as well as around Madera chert quarries in the adjacent foothills. Collecting flaked stone artifacts for reuse (or as curios) from earlier sites would have been fairly easy to do, as has commonly been done from at least the Late Developmental period (and probably much earlier) to the present.

Flaked stone artifacts were recovered from both nineteenth- and twentieth-century contexts (Table 23.4). Seven artifacts were found in nineteenth-century deposits, all of which could be linked to either the Romero family occupying 125 West Manhattan or the agricultural fields which predate the founding of the Capitol Complex Historic Neighborhood. The remaining 11 artifacts came from twentieth-century contexts, and all were found in features associated with residential structures, including a cesspit, two self-contained vault privies, and five domestic-refuse pits. The most obvious difference between the nineteenth- and twentieth-century artifacts is that the former was associated with fauna processing or small-scale agricultural pursuits, both of which could be considered cottage industries, while the latter twentieth-century flaked stone artifacts are more clearly associated with strictly domestic locales and activities.

Most of the nineteenth-century artifacts were made from Madera chert (n = 6) but also included one strike-a-light flint made from an unsourced chert. There was slightly more variety among the twentieth-century artifacts, which included seven Madera chert specimens, one Pedernal chert, one silicified wood, and one unsourced chert. It also included the only projectile point found on the site, a Late Archaic En Medio point.

Thirteen of the flaked stone artifacts (72.2 percent) were associated with Hispanic features, while only 5 (27.8 percent) came from Anglo features. The single strike-a-light flint was recovered from a nineteenth-century Hispanic agricultural pit (Feature 140), while the projectile point was found in a twentieth-century domestic-refuse pit associated with an Anglo-occupied house (twentieth-century occupation of Structure 4). Use of the strike-a-light flint was undoubtedly contemporary with the refuse pit in which it was found, since these tools were commonly used by Hispanics in New Mexico from the early Spanish Colonial period through the early twentieth century (Moore 2005, 2008). The projectile point,

on the other hand, is a Late Archaic En Medio point that undoubtedly represents an artifact collected as a curio and eventually discarded along with other domestic refuse.

The lack of strike-a-light flints in twentieth-century Hispanic residential assemblages is probably not meaningful, since so few flaked stone artifacts were recovered from these contexts. However, during testing, an early twentieth-century Hispanic-occupied house in Albuquerque yielded a similarly small flaked stone assemblage (n = 2), one specimen of which was a strike-a-light flint. These types of informal tools were also very common at late nineteenth-century Hispanic sites near Abiquiu and Pecos (Moore 2003). There was probably much more use of flaked stone tools and strike-a-light flints in particular in the more rural settings of these sites as opposed to the urban settings of Santa Fe and Albuquerque because of wealth and supply differences.

Patterns of flaked stone occurrence do not break down along ethnic lines, since these artifacts were recovered from features associated with both Hispanic- and Anglo-occupied residences. However, the only flaked stone tool that was definitely used historically was found in a Hispanic feature, and the only artifact that was definitely collected as a curio was found in a feature associated with an Anglo-occupied house. These differences could reflect variable patterns of flaked stone artifact acquisition, with Hispanics collecting them for use as tools, while Anglos viewed flaked stone artifacts as curios. Unfortunately, there simply is not enough data available to place much credence in this possibility. While the use of and views concerning the place of flaked stone tools in material culture almost certainly differed between Hispanics and Anglos in nineteenth-to-twentieth-century Santa Fe, those differences cannot be discerned in this very small assemblage except at a very superficial and speculative level.

This small assemblage contained no great surprises, though the recovery of multiple flaked stone artifacts from early twentieth-century Anglo contexts was unexpected. The En Medio point recovered from Feature 56 at Structure 4 was not a surprise, since projectile points have often been collected as curios (or for reuse) throughout prehistory and history. However, the occurrence of three unutilized pieces of debitage in other features at this site is more difficult to account for. The use of flaked stone tools was simply assumed to be absent from the repertoire of behaviors expected to be displayed by Anglo occupants of Santa Fe. In a comparison of assemblages from late nineteenth-to-early-twentieth-century Anglo- and Hispanic-occupied sites in New Mexico, one of the main differences encountered was the presence of numerous flaked stone tools in Hispanic assemblages and their absence in Anglo assemblages (Moore 2003). The only exceptions to this were a Hispanic site from southeastern New Mexico that contained no flaked stone tools and an Anglo site from the Pecos area that yielded a small number of flaked stone artifacts, including strike-a-light flints. In the latter case, documentary research indicated that the male Anglo occupant of the site was married to a Hispanic woman, and the assemblage reflected this blending of cultures. Certainly this is not the case at Structure 4, since Frank Parker was known to be married to Anna Davis during the twentieth century. However, the Parker family may have had either Hispanic or Native household servants who could have contributed flaked stone materials found in the archaeological assemblage. The possibility also exists that the Parker family collected a few pieces of debitage from prehistoric sites in the area as curios, eventually discarding them at home.

Chapter 24
Ground Stone Artifact Analysis

A single piece of ground stone representing Native technology was collected as a result of archaeological investigations at LA 158037. The stone was blue-gray schist pecked into a flat circular shape. It measures 8 cm in diameter and 1.5 cm thick. Ground on both flat surfaces, it seems likely that the stone functioned as a pot lid (Fig. 24.1). The artifact was in Feature 27, a twentieth-century domestic-refuse pit associated with Structure 1. Structure 1 was a Hispanic household, and there is some evidence for use of ground and flaked stone technologies by Hispanic populations in the Abiquiu and Pecos areas in the late nineteenth and early twentieth centuries (Moore 2003). However, it seems likely, given that only one artifact was found and the context it was found in, that the pot lid represents a curiosity collected elsewhere by an inhabitant of Structure 1 and discarded later on site.

Figure 24.1. Ground stone artifact recovered from Structure 1.

Chapter 25
Native Ceramic Artifact Analysis

C. Dean Wilson

A total of 552 sherds recovered during archaeological excavations at LA 158037 prior to the construction of the State Capital Parking Facility were assigned to Native ceramic types. The great majority (n = 506, 96.9 percent) of these were assigned to types known to have been produced in the Northern Rio Grande region during the historic period. While many of these sherds could not be assigned to distinct formal pottery types, almost all appear to have been derived from vessels that could have been produced during the late nineteenth to early twentieth centuries, when the project area was occupied. A very small number (n = 16, 2.9 percent) of these sherds were assigned to prehistoric types. The presence of a few prehistoric sherds from these contexts is not surprising, given potential contamination from the many sites in the downtown Santa Fe area known to date to the Late Developmental, Coalition, and Early Classic periods (Lentz 2011; Scheick 2007; Shapiro 2008).

This small sample of sherds provided an opportunity to examine Native ceramic assemblage associated with both Hispanic and Anglo households in a Santa Fe neighborhood during the late nineteenth and early twentieth century. A wide range of descriptive attribute classes and ceramic type categories were recorded, including temper, surface manipulation, vessel form, and modification.

Temper

Temper categories were identified by examining freshly broken sherd surfaces through a binocular microscope. The various temper categories recognized are based on distinctive combinations of color, shape, size, fracture, and sheen of aplastic particles observed. Because it is often impossible to differentiate rock types solely based on visual analysis, temper categories can refer to a broad range of visible characteristics rather than necessarily to specific rock and mineral classifications. Still, temper categories indicate a range of characteristics that may be associated with types of sources used within a specific area or region.

The most common temper noted during this study appears to reflect the use of various forms of tuff. *Fine tuff or ash* refers to fine volcanic fragments presumably derived from pumice, ash, or tuff deposits long-used by potters in the Northern Rio Grande region. This category consists of small, clear to light, or dark vitreous, angular to rod-shaped particles with light-colored dull pumice particles. The presence of tuff or ash particles may reflect the use of self-tempered clay or the intentional addition of crushed or weathered tuff or ash to the clay. Tuff was divided into a series of categories in an attempt to identify potential production areas. Examples of groups defined based on slight differences in mixtures of inclusions or size include l*arge vitric tuff*, *fine tuff and sand*, and *mica and tuff*.

Many of the other temper categories are derived from metamorphic rocks from Precambrian uplifts primarily in the Sangre de Cristo Mountains. *Granite or schist with abundant mica* appears to reflect the use of combinations of local alluvial clays and crushed igneous river cobbles. Even without microscopic examination, sherds with this temper are easily recognized by the presence of numerous mica fragments visible through the vessel surface. Crushed rock fragments are relatively large and subangular to subround. While some examples assigned to this group may be from metamorphic origin, microscopically they resemble granite and other leucocratic igneous rock types and are usually white but are occasionally clear, light gray, or pink. Rock fragments sometimes contain mica or black inclusions. Temper assigned to this group comes from either the Sangre de Cristo Mountains or local stream cobble or gravel deposits weathered from these mountains. Examples with similar

characteristics but without readily identifiable distinct mica fragments were assigned to the g*ranite without mica* category.

Another category was differentiated by the presence of very abundant small mica particles and small platy or crystalline quartz particles. Sherds displaying this combination of particles were classified as h*ighly micaceous* and appear to reflect the use of distinct residual clays weathered from highly micaceous schist that occurs in mountainous areas in north central New Mexico.

Sand refers to rounded or subrounded, well-sorted sand grains. These grains are translucent or white to gray. This category is distinguished from sandstone temper by the presence of large, even-sized quartz grains and the absence of matrix. The differentiation of sand from some local igneous or metamorphic sources sometimes proved to be a very difficult distinction to consistently apply to polished micaceous utility ware types. Some of the examples assigned to this category may reflect the use of arcose weathered from local materials.

Sherd refers to the use of crushed potsherds as temper. Crushed sherds fragments appear white, buff, gray, or orange in color. These fragments are often distinguished from crushed rock tempers by their dull nonreflective appearance.

Other materials reflected tempers used by pueblos south of Santa Fe. *Gray crystalline basalt* refers to the presence of homogeneous gray or black angular rock fragments representing the use of crushed basalt, historically used by potters in the Zia area (Batkin 1987; Harlow 1973; Harlow and Lammon 2003). Examples of similar basalt with numerous rounded quartz grains were recorded as *basalt and sand*. Another crushed rock type associated with glaze wares is *latite*. This temper is characterized by dull buff, light gray, to dark dull tuff particles and shiny black and white quartz grains.

Pigment Type

Pigment categories refer to the surface characteristics and color of painted decorations applied to vessel surfaces. Most pigments were divided into organic (or carbon) and mineral based on previously described characteristics. Pigment types on unpainted sherds were recorded as *none*. Sherds with evidence of a pigment that could not be identified were assigned to an i*ndeterminate* group.

Organic pigment refers to the use of organic or vegetal pigment only. Organic paint is absorbed into the vessel surface. Streaks and polish are often visible through the paint, and painted surfaces are often lustrous depending on the amount of surface polishing. Decorations in organic pigment may be gray, black, bluish, and occasionally orange in color. The edges of the painted designs range from sharp to fuzzy. In some cases, examples with faded organic pigments were assigned to an *organic diffuse* category. Combinations of decorations in organic and clay pigments were classified as o*rganic black with red mineral paint*.

Mineral pigments are made from finely ground minerals, usually iron oxides that are applied as powdered compounds, often with an organic binder. The pigment appears as a distinct layer that exhibits surface relief. Mineral pigments obscure surface polish and irregularities. Firing atmospheres affect the color of iron-based mineral pigments. Neutral or reduction atmospheres produce black pigments, while oxidizing atmospheres result in reddish pigments. All mineral pigment categories identified during the present study were assigned to m*ineral red*.

Glaze pigments contain a fluxing agent such as lead that results in a very vitrified or glassy appearance. Glaze pigments are often very thick and runny. Glaze pigments may fire to black, green, brown, or yellow.

Surface Manipulation

Surface manipulation refers to combinations of polished, slipped, and textured treatments recorded for interior and exterior surfaces. Slips refer to the intentional application of distinctive clay, mineral, or carbon layers over a vessel surface. Such applications were used to achieve black, white, or red surface colors, not always obtained with local paste clays and normal firing methods. Polished surfaces result from rubbing the surface with a very smooth stone to produce a compact and lustrous surface. A textured appearance is created by retaining the coils on the vessel surface to create banded or

corrugated treatments or by pressing or etching a wet surface to create a decorative pattern. Surface manipulations recorded during this analysis reflect various combinations of these techniques. Categories relating to surface manipulation recorded include *plain unpolished*, *plain polished*, *polished white slip*, *polished red slip*, *polished smudged*, *plain scored, micaceous slip*, *surface missing*, *wide coils, polished cream and red slip*, *polished cream slip*, and *punctated*.

Vessel Form and Portion

Shape and surface manipulation provide clues concerning the form and implied use of vessels from which sherds are assumed to have derived. Vessel form classification is usually dependent on sherd size, manipulation, and vessel portion. The consistent placement of sherds into form categories provides for basic functional comparisons for sherd assemblages from different sites or contexts. It is usually possible to assign rim sherds to more specific categories than body sherds. Vessel form and portion categories recognized during this analysis include i*ndeterminate*, *bowl rim*, *bowl body*, *olla rim*, *jar neck*, *jar rim*, *jar body*, *indeterminate coil*, *strap handle*, *miniature jar*, *body sherd polished on both surfaces, body sherd unpolished interior polished exterior surface*, *body sherd polished interior and unpolished exterior surface*, and *soup plate*.

Modification

Modification refers to evidence of postfiring alterations relating to use, repair, and shaping of vessels and sherds. Modification categories combine information concerning the size, shape, and associated wear patterns of a modified sherd. Modifications recorded during this analysis included *none*, *drill hole complete*, *beveled edge*, *interior surface partially worn*, *reshaped rim*, and *pendant*.

Typological Classification

Ceramic type categories refer to groupings based on various combinations of paste, surface, and stylistic traits with known temporal, spatial, and functional significance. Historic pottery is sometimes assigned to types associated with specific cultural groups or Pueblo provinces based on probable region or group of origin as indicated by paste and temper characteristics (Adler and Dick 1999; Batkin 1987; Brugge 1983; Carrillo 1997; Frank and Harlow 1990; Woosley and Olinger 1990). This ceramic item is then placed into a ware group on the basis of general surface manipulation and form. Finally it is assigned to a temporally distinctive type previously defined for various traditions and ware groups based on combinations of slip treatment and decorative styles.

The range of variation present in historic Native pottery forms resulted in the identification of a relatively large number of pottery types, particularly when considering the small sample of sherds analyzed. The large number of type categories generated by the system used here can make comparisons of type distributions very cumbersome. Therefore, types were also placed in groups based on very basic temporal classifications (prehistoric vs. historic) or distinct combinations of manipulations indicative of different wares and technologies.

Prehistoric Types

Groups indicative of pottery produced before the arrival of the Spanish into northern New Mexico during this study consist of very low numbers of Rio Grande gray ware, white ware, and glaze ware types from the Late Developmental, Coalition, and Early Classic periods. Gray ware types assigned to prehistoric Rio Grande tradition pottery types include plain gray body (10 sherds) and wide neckbanded (n = 2). Prehistoric white ware types include Santa Fe Black-on-white (n = 2) and unpainted undifferentiated white (n = 1). A single prehistoric glaze ware sherd was assigned to glaze-on-red undifferentiated.

Historic Types

Descriptions and discussions of many historic Pueblo types are largely based on whole vessels from collections, at the Museum of New Mexico and elsewhere, whose provenience of origin is unknown (Batkin 1987; Chapman 1933; Frank and Harlow 1990; Harlow 1970; 1973; Mera 1939).

These descriptions focused on painted forms thought to have been produced from the late eighteenth to early twentieth century based on minor differences in overall decoration and vessel shape. Such differences are difficult enough to discern when dealing with whole vessels and often impossible to distinguish for the great majority of sherds recovered from archaeological contexts. Furthermore, these descriptions are often not easily applied to the undecorated pottery dominating most collections of Native pottery from archaeologically excavated historic sites in the Northern Rio Grande.

Recently, some archaeological investigations have incorporated sherd-based definitions of historic decorated types (Wilson in prep.). These include categories that are defined by a range of characteristics that may be ultimately connected to but are not necessarily equivalent to types previously defined for whole vessels. One problem encountered when using these descriptions stems from the wide range of types assigned to different historic forms depending on the perceived ethnic group or village origin assumed to be associated with the production of a particular ceramic form.

For this study, pottery sherds were assigned to a combination of formal and descriptive type categories. Formal types recognized during this study were mainly represented by decorated pottery exhibiting a distinct range of styles. These types are referred to by a place and descriptive name long used to differentiate distinct forms assumed to be associated with a specific time and area. An example of formal type identified during the present study is Tesuque Polychrome. Informal types are given a descriptive name based on a combination of characteristics used to describe a distinct ceramic form. Examples of informal types used during the present study include black-on-cream undifferentiated and smudged interior mica slip exterior. Informal categories are used to document the range of characteristics noted in historic forms, while mostly avoiding conjectures about the specific ethnic group responsible for production or the overall form of the vessel from which a sherd was derived. For example, the large number of descriptive forms assigned to micaceous forms acknowledges variability that may be shown to have temporal, spatial, or even cultural significance, as opposed to assigning a type name with specific temporal and cultural connotations that may or may not be real. In addition, the use of informal types allows for the characterization of individual sherds with a particular trait that could originate from a variety of forms. For example, it would provide a means to document sherds with red slips or unslipped polished surfaces that could have potentially originated from a wide range of pottery wares, including plain red, red-on-tan, or unpainted portions of Tewa Polychrome or glaze-red wares.

The great majority of the Native pottery examined during the present study exhibits characteristics of pottery known to have been produced by Tewa pueblos during the American Territorial period (Batkin 1987; Frank and Harlow 1990; Harlow 1973; McKenna and Miles 1990; Mera 1939; Snow 1982). The great majority of the historic Native sherds from LA 158037 were placed into types belonging to three distinct ware groups—micaceous, Tewa Plain, and Tewa Polychrome—while a very small number of sherds were assigned to types indicative of decorated pottery produced in Pueblo villages to the south. It is also possible that some of the micaceous and plain utility pottery forms could represent forms produced by Northern Tiwa as well as Hispanic and Jicarilla Apache potters who adopted and used Pueblo ceramic technologies between the late eighteenth and early nineteenth century (Adler and Dick 1999; Carrillo 1997; Eiselt 2005; Hurt and Dick 1946; Levine 1990; Woosley and Olinger 1990).

Micaceous utility wares. Northern Rio Grande micaceous pottery is made with self-tempered residual clay-pastes. These wares also include forms with pastes containing added crushed micaceous rock, along with those exhibiting a distinct micaceous slip that was applied over at least one surface (Eiselt and Ford 2008). Micaceous utility ware vessels produced during the historic period can be traced to gray ware technologies long utilized in areas of the Northern Rio Grande region (Anderson 1999; Curowitz 2008; Eiselt and Ford 2008; Warren 1981). Micaceous pottery may have begun in the Northern Rio Grande at villages in the tributary valleys as early the tenth century. This early pottery displays numerous mica flecks visible on both surfaces resulting from the use of tempering material with high mica content (McNutt 1969;

Warren 1981; Wilson 2005). Pottery with similar pastes continued to dominate utility ware assemblages in this area into the Late Coalition period. Micaceous pottery characterized by the use of residual clays was common by the Early Classic period and was followed by forms characterized by the application of micaceous slips to the exterior surface (Anderson 1999; Warren 1981).

By the end of the eighteenth century, several micaceous forms were being produced over a wide area of northern New Mexico by potters associated with a number of distinct ethnic or tribal groups, including Northern Tewa and Northern Tiwa Pueblo (Adler and Dick 1999; Anderson 1999; Ellis and Brody 1964; Warren 1981), as well as Hispanic or Genízaro groups (Carrillo 1997; Dick 1968; Hurt and Dick 1946; Levine 1990) and Apachean (Baugh and Eddy 1987; Brugge 1983; Gunnerson 1969; Mensel et al. 2003; Woosley and Olinger 1990).

Micaceous pottery from historic contexts has often been assigned to different pottery types based on the location of recovery and related assumptions regarding the cultural identity or affiliation of the potters assumed responsible for that pottery (Adler and Dick 1999; Eiselt 2005; Warren 1981). Although studies involving compositional and geochemical characteristics provide the potential to identify pottery reflecting sources used by different cultural groups (Eiselt 2005; Eiselt and Ford 2008; Woosley and Olinger 1990), even with such characterizations the situation often appears to be complex, with similar groups sometimes using the same or similar sources. In order to avoid assignments based on such assumptions, during the present study all micaceous types were assigned to a series of descriptive types based on combinations of paste characteristics and surface manipulations. Pottery exhibiting micaceous slips or highly micaceous paste was assigned to types for three different groups based on surface observations relating to paste characteristics, polishing and slipping, and associated firing atmosphere.

Historic micaceous unpolished plain. More than for any other form produced in the Northern Rio Grande during the historic period, pottery assigned to unpolished micaceous ware types represents a continuation of the basic utilitarian technology that began with the production of prehistoric gray ware forms. Micaceous pottery forms exhibiting unpolished surfaces were assigned to two types based on paste characteristics.

One of the most distinct forms of micaceous pottery is represented by pottery exhibiting self-tempered residual clays, classified here as highly micaceous paste utility. Pottery assigned to this type appears to be very similar to pottery previously placed into a number of types, including Peñasco Micaceous, Tewa Micaceous, Ocate Micaceous, Petaca Micaceous, Cimarron Micaceous, and Taos Micaceous (Adler and Dick 1999; Brugge 1983; Dick 1968; Eiselt 2005; Lang 1997b; Woosley and Olinger 1990).

Surfaces are usually unpolished and unslipped, although some are well smoothed or waxy in appearance. Higher concentrations of mica on some surfaces may indicate the occasional application of a mica slip derived from similar paste clay. Mica flecks tend to be smaller and more even in size than those noted in other micaceous types. Exterior surfaces occasionally exhibit small regular striations. Color ranges from dark gray to gray to red. Pastes are often vitrified and platy in appearance. Cores tend to be dark gray with occasional reddish streaks and indicate the use of poorly controlled reduced firing atmospheres. Pastes tend to fire to dark red when exposed to oxidizing atmospheres. Inclusions within the paste include dark biotite mica, subangular crystalline fragments, and occasional large sand grains (Lang 1997b). Sherds often break at a rough and irregular fracture distinct from that noted in other historic types. Forms are usually represented by jars often displaying fairly narrow rim diameters, although bowls are present in low frequencies. Rims are often rounded. Wall thickness is variable but tends to be thinner than other historic pottery types.

Pottery exhibiting plain unpolished surfaces was assigned to unpolished mica slip. Flecks of granite are often large and distinct. This pottery exhibits a distinct slipped surface and pastes and tempers similar to those noted on polished micaceous types as well as some prehistoric types. Pastes are gray to dark gray, although some examples are reddish. Temper is usually represented by fairly large grains of sand or granite. Vessels walls are relatively thin. Forms are usually jars.

Historic micaceous polished. Another distinct group of micaceous pottery produced during most of the historic period consists of pottery with thin layers of mica slip over unpolished exteriors and smudged and slipped interior surfaces. These forms appear to have developed out of late forms of Sapawe Micaceous, exhibiting polished and smudged interiors that appear during the early historic period (Snow 1982).

The great majority of the pottery associated with this group was assigned to one of two distinct types based on the presence of sooted or smudged interior: smudged interior mica slip exterior, and polished interior mica slip exterior (Fig. 25.1). Except for evidence of interior sooting, pottery assigned to these categories exhibit similar ranges of characteristics. The pottery assigned to these categories appears to be very similar to forms previously described as Vadito Micaceous, El Rito Micaceous, and Tewa Micaceous Slipped (Dick 1968; Eiselt 2005).

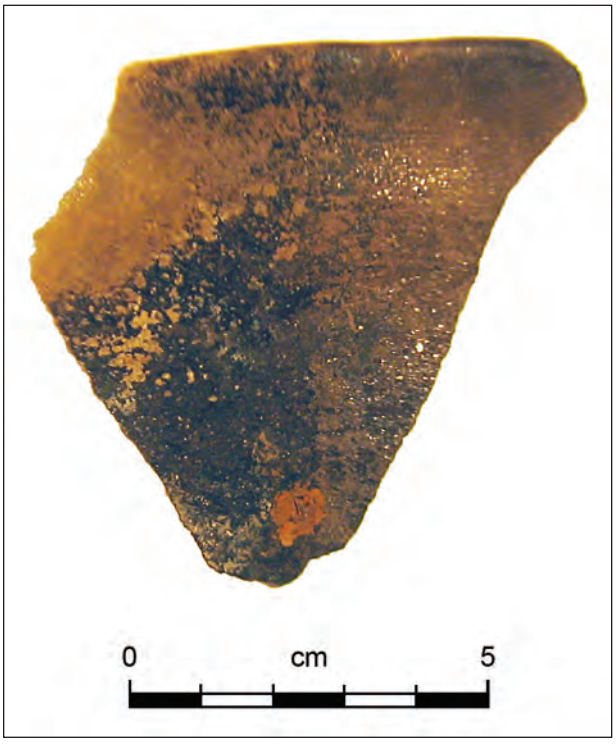


Figure 25.1. A polished interior mica slip exterior sherd.

Pastes are almost always yellow-red to red when exposed to an oxidizing atmosphere. Pastes are usually dark throughout, and cores tend to be red. When present, cores often exhibit brown to reddish streaks. It appears that most vessels were fired in reduction atmospheres with occasional evidence of exposure to oxidizing atmosphere probably during the final stages of firing or during postfiring burning episodes. Vessels seem to have been fairly well fired. Temper includes a crystalline granite, sand, tuff, or combination of these. Vessels tend to be thicker than those observed for unpolished micaceous forms.

Exterior surfaces are plain and unpolished and are usually covered with a distinct mica slip with large visible flecks. Many of the surfaces, however, seem to easily erode and may obscure evidence of mica slip. Small pitted surfaces and very small striations are often present and reflect the absence of any polished finish. Unslipped portions of surfaces are usually dark gray but are also occasionally light gray brown or yellow red. Mica ranges from gold to silver in color. The application of mica is fairly variable. Some exteriors were covered with mica flecks, while it is fairly sparse and not very noticeable in others. Interior surfaces were usually slightly to moderately polished. Occasional micaceous flecks show through most polished interior but appear to represent inclusions present in paste rather than an added slip. Surfaces that had not been sooted were usually brown but sometimes gray. Interior surfaces tend to be more polished in smudged examples. Smudged and polished surfaces were never slipped. There appears to be very little relationship between interior and exterior surface color and treatment. The variability noted in color and paste may indicate that significant amounts of pottery originated from a number of different Tewa pueblos, but it is possible that most of the more reduced polished forms assigned to this group may have been produced at the pueblos of Santa Clara, San Juan, and San Ildefonso (Eiselt 2005; Olinger 1988).

Based on rim forms, jars dominated the assemblage, although everted bowls were also identified. Jars are variable in size, although small forms are relatively common. Bowls tend to be flared near the rim and commonly represent a shorter version of jars.

Variation in treatment also resulted in a very small number of sherds being assigned to other type categories. One sherd exhibiting polish on both surfaces but covered with a micaceous slip was classified as Tewa Polished Black with mica slip. Another sherd exhibited a polished interior

and micaceous exterior, but the exterior was also covered with distinct punctated decorations and was classified as punctated polished utility (Fig. 25.2).

Figure 25.2. A punctated polished utility sherd.

Oxidized or tan micaceous. The occurrence of significant amounts of micaceous pottery displaying distinct well-fired and oxidized pastes distinct from the great majority of other polished micaceous pottery, which I have noted in other assemblages, resulted in the assignment here of pottery examined during the present study to two types described here as tan micaceous. Pottery noted for this group was assigned to these two types based on the absence or occurrence of interior polish and includes pottery classified as plain tan mica and plain tan mica polished (Fig. 25.3). Both of these types were assigned to this group because of similarities in paste. Pottery assigned to these types is distinguished by the tan-brown to salmon-pink and silty pastes and surfaces. Exterior surfaces are covered with large but sparse mica flakes which are usually gold in color. The mica slip tends to be sparse and unevenly distributed across the vessel surface. The overall effect is very striking and distinct from that noted in other unpolished or polished or micaceous types, and was certainly intentionally achieved. The overall characteristics of pastes, in some ways, are more similar to those noted for Tewa Buff Ware types than other micaceous types. Pastes tend to be harder and denser than other micaceous types and are less friable and break along a more even plane. Paste cross section is reddish-yellow, tan, or salmon pink, or these colors with a gray core or streak. Temper of most pottery assigned to this group consists of a fine tuff along with smaller amounts of larger rounded sand grains. All the pottery identified for this group appears to be derived from jars or pitchers. Vessels tend to be relatively thin, particularly when compared to other polished micaceous pottery.

Characteristics noted in pottery assigned to this group seem to indicate a fairly distinct and standardized technology that may have both temporal and spatial implications. Tan micaceous pottery from LA 158037 seems to be identical to examples from Nambe, Pojoaque, and Tesuque Pueblos illustrated by Eiselt (2005) as "Salmon-Pinkish paste and slip." Overall characteristics of the polished and unpolished forms of this group appear to be very similar, although many of the polished forms examined are thicker. The presence of distinct unpolished forms with the same paste and technology is also a distinct aspect of this group.

Tewa plain ware types. Tewa plain ware types represent the other class of utility ware pottery commonly produced during the historic period. The great majority of pottery assigned to Tewa plain ware types exhibit at least one polished surface, and textured treatments are almost always absent. Pottery belonging to this group is usually assigned to types based on the presence and type of slipped surfaces (Dick 1968; Snow 1982).

The shapes, surface treatments, types of slips, and pastes employed in types belonging to Tewa Plain and Tewa Polychrome wares overlap and indicate that pottery assigned to various types belonging to these two groups was closely related and probably commonly produced by the same potters. For example, types assigned to both groups exhibit similar pastes and tuff tempers, and polished surfaces. These similarities can sometimes make it difficult to distinguish unpainted sherds from polychrome vessels from portions of a vessel that exhibits no slip or a red slip. Thus, it is likely that some of the sherds with polished buff and slipped red surfaces assigned to Tewa plain ware types could have actually been derived from Tewa Polychrome vessels.

Tewa plain ware sherds were placed into different groups and types based on the use of or

Figure 25.3. Tan micaceous sherds.

characteristics of slip applied to various surfaces. Ceramics assigned to plain red and black ware types differ from each other only by techniques used in final stages of firing. Black wares obtain their distinctive characteristics as the result of a highly reducing atmosphere applied after firing in an oxidizing atmosphere. This final step introduced a thick black carbon or sooted deposit over a red slip characteristic of Tewa black ware types. A similar dichotomy in technology is represented for unslipped forms by plain buff and gray ware types.

Unslipped plain ware sherds are often very difficult to assign to a particular type. Types within a historic buff utility ware group were defined to provide for the classification of sherds not exhibiting evidence of painted decoration or applications of distinct clay, sooted, or micaceous slip. This category is represented by sherds with buff, tan, or brown surfaces. Surfaces are almost always smoothed and usually polished. Types defined for this group were sometimes used as a catchall category to classify sherds without evidence of distinct slip applications or decorations. Sherds assigned to types within this category may include micaceous sherds, where the slip was missing or not visible, or sherds with slips that could not be readily identified, as well as sherds derived from the unslipped or unpainted portions of Tewa Polychrome, Glaze Ware, and Red-on-tan vessels.

Sherds in this group were assigned to types based on polish and rare variation in texture. *Tewa buff undifferentiated* refers to smoothed sherds with at least one polished surface. *Tewa unpolished buff* refers to sherds without polished surfaces. In most cases the absence of a slip seems to be the result of weathered or obliterated surfaces, and pottery assigned to this group is probably derived from vessels actually representing a number of different types.

Pottery was assigned to types of the historic red slip group based on the presence of distinct red slips. Sherds assigned to this group could have potentially derived from a number of distinct classes of vessels including those for

which at least one entire surface is covered by a red slip, the upper slipped portions of red-on-tan forms, oxidized areas of black wares, and red-slipped unpainted portions of polychrome vessels. Sherds with at least one surface that exhibited a red polished slip without evidence of other decoration were classified as Tewa Polished Red. Temper usually consists of a fine tuff similar to that noted in Tewa Black. Forms are represented by bowls and jars. Small mica flecks are commonly visible on unslipped surfaces.

Red-on-tan unpainted refers to forms with a red-slipped band on the upper vessel. The color of this slip is similar to that described for other slipped red ware types. The first few centimeters of the upper vessel interior or exterior of this form are covered with a clay slip. The slipped area is usually narrow, often covering only 10 mm or less and seldom more than 30 mm on the interior and exteriors of bowls and jar exteriors. The pattern of red slips on these areas is similar to that noted on later Tewa polychrome types, indicating similar conventions in application of red slips may have been used on decorated and plain wares. Temper is a fine tuff similar to that noted in other plain ware types.

Pottery exhibiting gray or black polished and slipped surfaces was assigned to types placed into the historic polished gray/black group. Two basic groups were distinguished by the darkness and thickness of a slip and seem to reflect gradations in the degree of smudging and applications of sooting over slipped red surfaces. *Tewa Polished Gray* refers to sherds with gray to dark gray sooted deposits. This type, in part, reflected both an earlier plain ware technology where polished vessels were reduced during the later stages in firing as well as sherds derived from unslipped and less sooted lower portions of some black ware vessels.

Sherds assigned to Tewa Polished Black (Fig. 25.4) exhibit thick black deposits that appear to have been applied over slipped red surfaces. In examples that are heavily smudged, it is not possible to see the red slip. A sample of clips from sherds with heavily polished sherds with back surfaces assigned to Tewa Polished Black was fired in an oxidizing atmosphere. Examinations

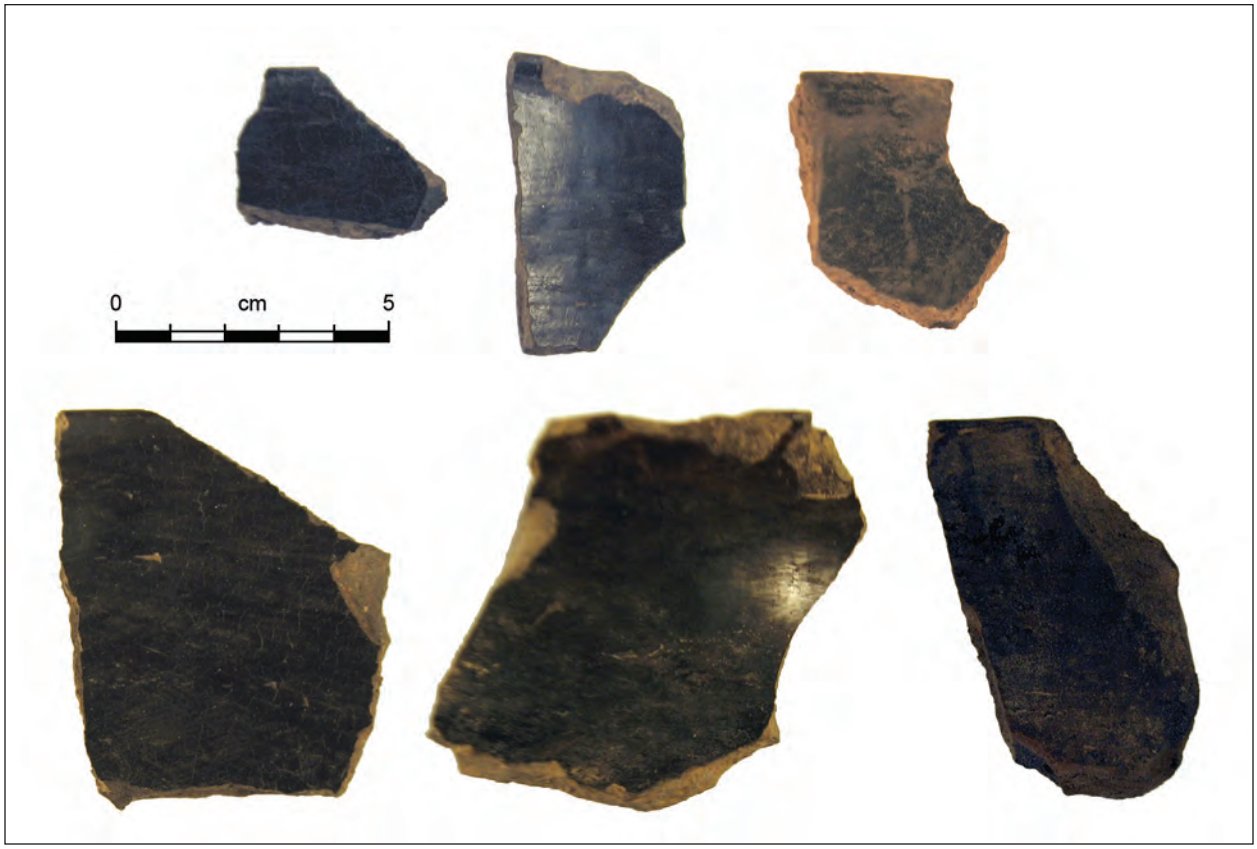


Figure 25.4. Tewa Polished Black sherds.

of these clips indicated that the smudged surface consistently rested on a distinct red slip. The very high iron content of the red slip contributes to the very high degree of polishing characteristic of Tewa Black. Sherds from similar vessels for which surfaces have not been sooted would be classified as Tewa Red. The sooted deposit may occur over the entire surface on bowls, and the entire exterior surface for jars, and both forms may also be sooted on both surfaces. In other cases the sooting is patchier, and it is possible to observe the red slip in some areas of the surface. Almost all sherds assigned to Tewa Polished Black during the present study are highly polished. This degree of polishing certainly appears to have been an intentional desired effect resulting from the use of a high-iron red slip clay and exposure to a highly reducing atmosphere during the final stages of the firing of vessels. Gray or black sherds with historic plain ware pastes but without evidence of polishing were assigned to the Tewa Plain Utility (unpolished) category.

Historic black ware pottery is sometimes assigned to Kapo Black or Santa Clara Black (Harlow 1973), and these types as originally defined infer vessels with specific shapes and manipulations associated with later black wares. This includes the assignment of hard paste thinner walled examples to Kapo Black, and later, softer, thicker paste to Santa Clara Black. Kapo Black is sometimes characterized as dating from the late sixteenth century to about 1760, and Santa Clara Black has been tentatively dated from AD 1760 to the present (Harlow 1973). Almost all the sherds assigned to Tewa Black exhibit the highly sooted and polished surfaces noted for later forms sometimes assigned to Santa Clara Black.

Tewa polychrome types. The great majority of the pottery from painted vessels examined during this study represents similar polychrome forms known to have been produced by Northern Tewa potters from the late Colonial period on. Decorated vessels produced by Northern Tewa Pueblo potters during the late Colonial and Early Territorial periods are the result of a long series of technological and stylistic developments in the Northern Rio Grande region. The Northern Tewa decorative tradition began with the production of mineral-painted white ware types known as Kwahe'e Black-on-white during the Late Developmental period. The production of Santa Fe Black-on-white reflects a shift toward the use of decorations in organic paint by AD 1200, which later developed into biscuit ware types, produced in areas such as the Tewa Basin, Pajarito Plateau, and Chama Valley. Further technological changes are represented by Sankawi Black-on-cream, which was first produced during the Late Classic period and continued to be made after the Spanish arrived in 1500s. By the mid-seventeenth century, red-slipped areas were incorporated into vessels dominated by the tan and cream slips used in Sankawi Black-on-cream. This development resulted in the appearance of the earliest polychrome types of the Tewa tradition, first represented by Sakona Polychrome and then by Tewa Polychrome. From the late seventeenth through the eighteenth century, the great majority of the polychrome pottery produced was covered with a cream slip to which decorations in organic paint were applied. During most of this period, long use of similar decorative conventions and styles resulted in pottery that would be classified as Powhoge Polychrome. By the end of the nineteenth and start of the twentieth century, potters at different Tewa pueblos began to produce distinct versions of Powhoge Polychrome, which can be subdivided into several types (Frank and Harlow 1990).

Many of the conventions and styles noted are characteristic of Powhoge Polychrome (Fig. 25.5), the overwhelmingly dominant decorated pottery form occurring in Pueblo and Hispanic sites dating to the late eighteenth and first three-quarters of the nineteenth century (Dick 1968; Harlow 1973; Frank and Harlow 1990). Decorations on Powhoge Polychrome are usually applied in organic pigment over broad areas slipped with a cream, tan to light gray clay. This slip usually covers the great majority of the interior surfaces of shallow bowls and the upper three-quarters of the exterior of jars and dough bowls. This slip tends to be well polished and may be crazed or crackled. Most of the exterior surfaces of shallow bowls and interior surfaces of jars and deep bowls are unslipped with tan to brown polished surfaces. A unique polychrome effect is created by the use of a red slip which consists of very thin bands covering the rim that usually extends slightly below both surfaces, as well another band sometimes covering the lower part of the exterior of jars and dough bowls.

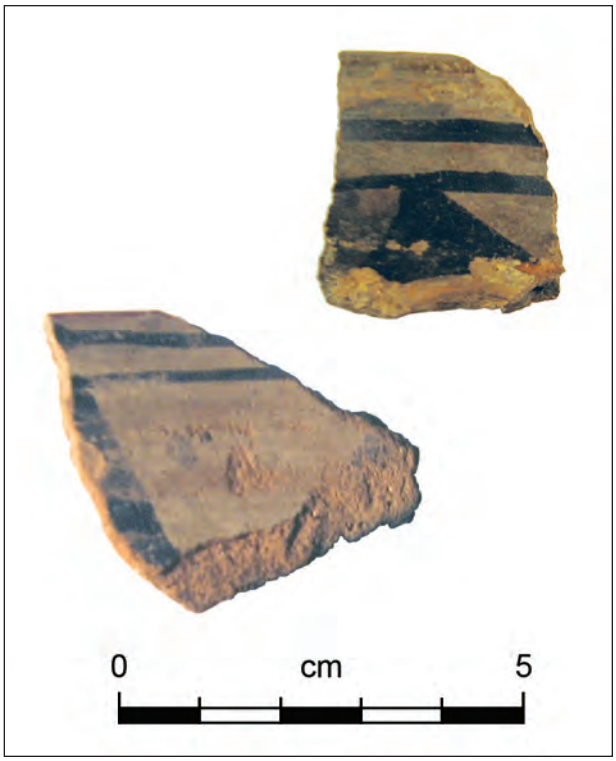


Figure 25.5. Powhoge Polychrome sherds.

Vessel forms include a range of distinct bowl and jar forms.

Painted decorations are applied in a black organic pigment that is well polished into the surface over a cream slip. Painted decorations often consist of wide panels framed by thin single or double framing lines. Designs on the exterior of jars and deep bowls consist of very wide bands, covering at least two-thirds of the vessels, framed by one or two lines and red slip. Designs commonly consist of bold geometric or floral elements that cover large portions of the vessel field. The most common designs incorporated into these geometric fields are straight and curved triangles with motifs including short line segments, dots, solid circles and half circles, open circles, ellipses, solid squares, stylized clouds, leaf-shaped elements, and stylized feathers. The polychrome effect is produced through the application of a red slip on limited areas of the vessel often limited to thin bands near the rim. The band is particularly thin on the painted surface and often results in closely spaced lines in red slip and back organic paint.

Tesuque Polychrome is one of several distinct forms produced in different Northern Tewa Pueblo villages that developed out of Powhoge Polychrome during the late nineteenth century (Fig. 25.6). Specific characteristics associated with this type appear to have already been well developed when Stevenson (1883) made his large collections from Tesuque and other pueblos in 1879. Harlow (1973) states that typically Tesuque Polychrome can be distinguished from Powhoge Polychrome by a softer paste and the absence of a gray core. Other characteristics that have been used to define this type are a well-polished underslope as well as distinct design styles. Until the late 1800s, all decorated pottery produced at Tesuque Pueblo was decorated with a red slip in a manner previously described for Powhoge Polychrome. By the late 1880s, black paint was commonly used to create decorated lines along the rim (Batkin 1987). Design styles characteristic of Tesuque Polychrome include flowered meanders, stalked flowers, trident figures, pods, and a variety of wavy lines and arcs. Tesuque Polychrome was made until the early 1900s and was replaced by vessels decorated with glossy white slips and poster paints in blue, red, and yellow that were painted after firings and curios in nontraditional effigy forms referred to as "rain gods" (Toulouse 1977).

After a near hiatus of pottery making at San Ildefonso from about 1850 to 1879, a revival in pottery production occurred in the 1880s (Harlow 1973). This period corresponded with the production of San Ildefonso Polychrome (Fig. 25.7), which is characterized by the use of designs in both a black organic and a red mineral pigment over a well-polished white to cream slip. Pastes for vessels belonging to this type tend to be soft and porous. At about 1900, a white colored slip from Cochiti that was polished by rag rather than stone began to be used. This form is almost completely limited to jars with thick walls, although some are vaselike forms that appear to have appealed to tourists.

The well-polished underbody is still topped by the band typical of Powhoge Polychrome. Designs utilized in the production of this type did not significantly change from those used in earlier forms, but some designs that had originally been painted black began to appear in red with back outlines (Toulouse 1977). These designs were placed into two or sometimes three horizontal bands. Design elements included symbolic motifs with linear and bold solid elements. By the early

Figure 25.6. Tesuque Polychrome sherds.

Figure 25.7. A San Ildefonso Polychrome sherd.

1900s, the representation of animals, particularly birds, in polychrome decorations had become common (Batkin 1987).

Contemporaneous with black-on-cream and polychrome forms produced in Northern Tewa Pueblos during the late nineteenth and twentieth centuries were forms in which a black paint was applied over a red slip. This pottery is characterized as San Ildefonso Black-on-red and has the same forms as contemporaneous cream-colored and polychrome types produced at San Ildefonso

The great majority of Tewa polychrome types identified during this study, while clearly exhibiting characteristics indicative of pottery contemporaneous with other types identified, did not display distinct design field or manipulations allowing for their assignment to a particular formal type. These sherds were assigned to a series of descriptive categories: Tewa Polychrome undifferentiated (two slips), Tewa Black-on-cream undifferentiated, and Tewa historic white cream slipped unpainted. For the most part, these appear to reflect pottery that probably derived from vessels that would have been assigned to other Northern Tewa types identified during the present study if a larger field of design had been present.

Painted types from other areas. A very small number of sherds examined during the present study were assigned to polychrome types known to have been produced by potters from the Pueblo province other than the Northern Tewa. Attributes used to define pottery types indicative of origin within these other Pueblo provinces include the painted decorations in distinct red and black mineral pigment as well as distinct clay pastes, slips, and tempers indicative of pottery forms produced in various locations defined for historic Pueblo groups (Batkin 1987; Frank and Harlow 1990; Harlow 1973).

Puname-district pottery types refer to distinct forms produced at or near Zia Pueblo (Harlow 1973; Harlow and Lammon 2003; Mera 1939). Pastes of polychrome pottery types produced in the Puname district tend to be dark red, but are sometimes orange to tan and may occasionally display dark gray cores. These vessels are covered with white to tan slips which usually exhibit a dull polish. Puname vessels are tempered with a distinct gray to black diabase basalt (Harlow 1973). Bands of red slip are applied to the upper and lower areas of the decorated portion of the vessel in a manner similar to that described for late Tewa polychrome types.

Painted designs are executed in a combination of black mineral and red slip. Designs occur in paneled bands or in an all-over pattern on the upper part of the vessel, and are framed above and below with parallel lines with line breaks. Paneled designs on the upper body are separated by double vertical lines. Red matte-painted arcs on the mid-body bulge are a diagnostic feature. Design elements include opposing geometric elements, arcs, feathers, and keys. Vessels are dominated by jar forms with a low, wide underbody bulge and short neck. Bowl forms are rare and have a rounded underbody, with simple designs on the slipped vertical area. Pottery exhibiting temper, pastes, and painted decorations characteristic of pottery produced at Zia Pueblo were assigned to Puname Polychrome (Fig. 25.8). While sherds assigned to this type do not necessarily exhibit the styles indicative of Puname Polychrome described as a specific style produced during the eighteenth century, they reflect general styles and manipulations noted in pottery produced in the Zia area during the eighteenth and nineteenth centuries. Sherds with

Figure 25.8. A Puname Polychrome sherd.

white slips, red pastes, and basalt temper without painted decorations were classified as Puname Polychrome unpainted.

In the 1700s, the historic pueblo of Santa Ana (Tamaya) moved from the Jemez River near Zia to farming lands along the Rio Grande (Batkin 1987; Harlow et al. 2005). Shortly after this move, potters from this pueblo switched from the use of crushed basalt temper to river sand found in sources along the Rio Grande floodplain. Santa Ana pottery typically contains abundant sand temper in paste colors ranging from dark-red beige to orange or gray, and vessels are decorated with black and red mineral-painted designs In general, surfaces are not well polished, and the white slip appears pinkish-white, white, or cream and is crackled or flaked off the surface. The red slip is thick and smooth. The black mineral paint fires true black but is light on some sherds and dense black on others. The red mineral paint fires reddish-brown and consistently flakes off the surface, obscuring the design elements.

Cochiti Polychrome refers to recent forms produced in the Keres-speaking pueblo of Cochiti and reflects a form which appeared about 1880 (Harlow 1973). It is similar to Tewa polychrome types in that it exhibits tuff temper and is decorated in organic paint. Painted areas were covered with a fine white slip. As was the case with contemporary Northern Tewa forms, red slip was limited to the upper rims and lower portions of jars. While upper parts of vessels were often well polished, the lower portions were often not polished or were rag-polished. Designs often consist of naturalistic forms including animals, flowers, birds, vines, as well as rain and clouds (Harlow 1973). Cochiti Polychrome designs are characterized by their diversity and boldness. Vessel shapes tend to be globular or rounded.

Distribution of Native Pottery Types Recovered from LA 158037

Tables 25.1 and 25.2 present distributions of ceramic types and groups identified during the analysis of 552 Native pottery objects recovered from LA 158037. As previously indicated, the sixteen sherds assigned to prehistoric types appear to reflect items washed or carried in from nearby sites. Thus, the remaining discussions will focus exclusively on the 536 sherds assigned to Native types known to have been produced during the historic period. All of these ceramics represent forms that could have originated from vessels produced during the late nineteenth or early twentieth century and are assumed to reflect pottery discarded during this time.

Distributions of historic types identified during this analysis reflect a wide range of wares and types. Pottery assigned to micaceous types is represented by 184 sherds, or 34.3 percent of the historic pottery. This includes 59 sherds (32.1 percent of the total micaceous) assigned to two types in the plain unpolished micaceous group, 69 (37.5 percent of micaceous sherds) assigned to six types in the polished micaceous group, and 56 (30.4 percent of micaceous sherds) assigned to two types for the tan micaceous group. A total of 234 sherds, 43.7 percent of the total historic pottery, was assigned to plain utility ware types. This includes 78 sherds (33.3 percent of the total plain ware sherds) assigned to two types in the plain buff group, 22 sherds (9.4 percent of plain ware) assigned to two types in the plain red group, and 134 sherds (57.3 percent of the plain ware) assigned to three types in the gray/black group. Pottery assigned to historic decorated types is represented by 118 sherds, which represent 22 percent of the historic pottery. This includes 113 decorated sherds (95.8 percent of the total) assigned to eight Tewa polychrome type categories; and 5 sherds (4.2 percent of the total decorated) assigned to four type categories that appear to be indicative of vessels produced in other Pueblo provinces, including the Keres-speaking villages of Cochiti, Zia, and Santa Ana.

This broad range of Native pottery forms is fairly similar to that noted for assemblages documented for Spanish or Hispanic sites occupied from the late eighteenth to the first half of the nineteenth century (Wilson in prep.). Characteristics of pottery from assemblages associated with this occupational span include unpolished and polished micaceous, buff, red, and black plain utility ware, as well as Tewa polychrome types characterized by broad decorations over cream slips with limited use of red-slipped areas. Similarities in pottery forms noted in assemblages dating to the Late Spanish Colonial, Mexican, and Early American Territorial periods reflect the continuation of

pottery technology and decorative conventions developed or adopted by Pueblo potters and in some cases other groups as well in order to mass produce large amounts of pottery vessels to meet the needs and tastes of diverse populations, including increasing numbers of Hispanic settlers and villagers (*vecinos*) (Frank 1991, 2000).

Along with the similarities to the Native pottery noted in these earlier contexts, differences in the types and forms noted in various wares from LA 158037 and earlier assemblages also reflect stylistic and technological changes that occurred during the late nineteenth century. While micaceous pottery forms continued to represent an important group characterized by both polished and unpolished vessels similar to those noted for earlier contexts, an important distinction noted for assemblages at LA 158037 is reflected by the presence of significant amounts of oxidized micaceous pottery assigned here to the tan micaceous group. The common occurrence of such pottery seems to reflect a technological innovation with functional significance. While a high frequency of this pottery is also represented by plain utility ware with a similar range of characteristics to those noted for earlier assemblages, a much higher frequency of the plain ware pottery examined from LA 158037 is represented by highly polished forms of Tewa Black. Another similarity with early assemblages is the presence of Tewa polychrome types characterized by decorations over broad cream slips. While some of these decorated sherds were assigned to Powhoge Polychrome based on the presence of styles and manipulations that commonly occur in decorated vessels from slightly earlier assemblages, differences are characterized by decorated sherds exhibiting styles and manipulations characteristic of later types produced in various Northern Tewa pueblos. These include pottery assigned to Tesuque Polychrome and San Ildefonso Polychrome and Black-on-red. Another change reflected in some sherds identified during this study is the replacement of red-slipped bands along the rim by decoration in black paint. Thus, while assemblages from LA 158037 do reflect similarities to forms long produced by Tewa Pueblo potters, there are also important differences reflected in all three major ware groups, which provide the basis for the fairly easy distinction of Native ceramic assemblages dating to the late nineteenth to early twentieth centuries from those dating to slightly earlier periods.

While types identified included a very small number of forms produced in Keres-speaking villages to the south, the majority of the Native pottery was manufactured by Northern Tewa potters during the late historic period (Batkin 1987; Eiselt 2005; Frank and Harlow 1990; Harlow 1970, 1973; McKenna and Miles 1990; Snow 1982). However, it is possible that a small portion of the pottery identified as Northern Tewa represents forms produced by Tiwa Pueblo, Jicarilla Apache, and Hispanic potters (Brody and Colberg 1966; Brugge 1983; Carrillo 1997; Eiselt 2005; Levine 1990; Mensell et al. 2003; Woosley and Olinger 1990), although the distinction of these types from contemporaneous forms produced by Tewa potters is very difficult (Eiselt 2005).

The most likely possibility for Native pottery vessels that could have been produced by a number of ethnic groups in these assemblages is the micaceous pottery. As previously noted, during the present analysis, micaceous pottery was assigned to a number of different types belonging to three different groups, which were distinguished by characteristics noted for surface manipulation, clay paste, and temper (Table 25.3). Pottery exhibiting unpolished surfaces and micaceous pastes has at various times been assigned to a number of different types indicative of production by potters belonging to different cultural or ethnic groups. This includes forms known to have been produced by Northern Tewa potters as well as those known to have been produced by Tiwa pueblos at both Taos and Picuris, as well as those known to have been produced by Jicarilla Apache and Hispanic potters. Examples of pottery with micaceous paste identified during this study display a similar combination of paste and temper that may be indicative of the use of clay from a single source (Table 25.3). None of the sherds assigned to this group display distinct surface and rim manipulations and large sorted temper sometimes used to distinguish forms thought to have been produced by Hispanic or Apachean groups (Levine 1990; Eiselt 2005). Thus, it is fairly likely that most if not all pottery assigned to this group was produced by Pueblo potters, given the dominance of other Northern Pueblo pottery

types from assemblages at LA 158037.

The small numbers of sherds representing unpolished micaceous pottery with other pastes display a higher range of tempers and could potentially reflect production at a number of different locations. Sherds assigned to types in the polished micaceous group exhibit a range of tempers and surface treatments (Table 25.3). Most of the characteristics noted for pottery from this group, however, fall within the range of pottery defined for Tewa Micaceous Slipped (Eiselt 2005), and it is likely that most of the forms assigned to this group reflect part of the range of variability of pottery produced within and between different Northern Tewa Pueblos. Pottery assigned to the micaceous tan group reflects less variability in both paste and temper. For example, temper in pottery assigned to this group is limited to sand and or tuff. Larger crushed rocks, common in other micaceous forms, are absent. The harder surface and distinct pastes suggest a different production area, and the combination of characteristics may reflect those employed historically by Hispanic potters (Boyer in prep.; Carrillo 1997; Levine 1990), although similar characteristics have also been noted for vessels produced by potters at Nambe, Pojoaque, and possibly Tesuque Pueblo (Eiselt 2005).

The great majority of plain utility and Tewa polychrome types display similar pastes and temper (Tables 25.4, 25.5). In addition, red slips noted on examples belonging to both ware groups exhibit similar characteristics and colors. Similarities were noted in pottery types assigned to these groups and indicate that pottery represented by these two groups was probably produced by Tewa potters using similar clays. The close similarity in pastes for types assigned to these two ware groups reflects a trend that has also been documented for earlier assemblages (Wilson 2007). The final group of historic pottery is represented by examples assigned to types indicative of production with various Keres-speaking pueblos to the south of Santa Fe, including Cochiti, Zia, and Santa Anna. As with trends noted for late Tewa Polychrome forms, this pottery represents the modification of basic forms and technology that first appeared during the eighteenth century and is still reflected by pottery produced in these pueblos (Harlow 1973).

The presence of such a wide range of forms and wares in these assemblages was somewhat unexpected, since it has often been assumed that by the last quarter of the nineteenth century, Pueblo potters had largely shifted away from the production of utility ware and other forms used in various activities necessary for the operations of a household and toward the production of specialized forms for the expanding tourist and collector market (Snow 1973). For example, the great majority of Pueblo pottery vessels illustrated in collections accumulated during the late nineteenth and early twentieth century represent painted jars, dough bowls, or other specialized forms largely produced for collectors (Frank 1991; Harlow 1973; Stevenson 1883; Toulouse 1977). This shift has been interpreted as representing a profound change that resulted from the impact of the introduction of the railroads into New Mexico during the late nineteenth century. The wide-scale transportation of manufactured American goods by the railroad resulted in the ready availability of affordable china, crockery, and metal utensils to settlers and villagers in New Mexico made through market-based transactions. Such changes resulted in Hispanic settlers becoming less reliant on Native-produced pottery forms (Snow 1973). Pottery making among Pueblo groups was probably able to survive as a result of a new market created by American tourists and collectors who came en masse to New Mexico by the railroad (Toulouse 1977). This resulted in the production of pottery made explicitly to appeal to the tastes of tourists or collectors. In some instances this led to a revival of earlier pottery forms and styles which were deemed to represent worthy examples of the Pueblo artistic tradition to growing numbers of collectors. Similar forms continue to be the focus of Pueblo pottery produced today.

Another important development that strongly influenced Pueblo pottery was the acquisition of earlier Pueblo vessels that could serve as models for the types of vessels that could be produced and collected. This involved the acquisition of pottery vessels of varying ages from various pueblos as well as Hispanic residents who had long lived in the area (Chapman 1933; Kidder 1925; Stevenson 1883). During the early part of the twentieth century, older Pueblo vessels were purchased by individuals in Santa Fe who had organized the Southwestern or Pueblo Pottery

Fund (Kidder 1925; Toulouse 1977). During this time, these individuals were constantly adding to this collection, and in a short time they had put together a large and impressive collection of several hundred antique vessels (Kidder 1925; Toulouse 1977). These vessels were in part meant to serve as templates for a revival of Pueblo pottery, in an attempt to remedy a perceived decline of this pottery resulting from the influences of the tourist trade during the last quarter of the nineteenth and early part of the twentieth century (Kidder 1925). During the process of accumulating such collections, large, well-decorated jars were viewed as the ideal of Pueblo pottery, and this form ultimately was perceived as typical of traditional Northern Pueblo pottery and worthy of continued production by Pueblo potters. These collections served as the basis for the definition, description, and illustration of Pueblo vessels thought to have been produced from the late eighteenth to the twentieth century (Batkin 1987; Harlow 1973; Frank and Harlow 1990; Mera 1939), often giving the impression that little else of consequence other than elaborately decorated jars were produced during this time. It appears that choices about forms of Pueblo vessels deemed worthy of collecting and made during the late nineteenth and early twentieth century have dramatically influenced our perception of pottery vessels produced during the historic period. This has resulted in a dramatic contrast between the utilitarian cooking forms and range of polished serving forms and polychrome bowls dominating ceramic archaeological collections from eighteenth and early nineteenth Hispanic settlements and large "antique" polychrome jars, desired by early collectors, that came to serve as the template for pottery assumed to have been produced from the late eighteenth century on.

An interesting question to consider is whether the range of vessels forms from Hispanic and Anglo households in Santa Fe neighborhoods is similar to that noted in archaeological contexts from late eighteenth- and early nineteenth-century Hispanic households or to decorated pottery forms stored in museum and described in catalogues. The majority of the pottery analyzed at LA 158037 is dominated by neither obvious curios nor decorated jars, but as previously indicated, appears to reflect the continuation of patterns of household use of Native pottery vessels first established during the late Colonial period. This would suggest the continued utilization of Native American pottery forms for domestic use into the early twentieth century.

Of particular interest is the presence of fairly high frequencies of micaceous sherds. Most of these sherds appear to have been derived from cooking jars, one of which, a rim sherd with a handle, was classified as a pitcher (Table 25.6). Two examples from the same polished vessels are rim sherds from a bowl. Many of these sherds exhibit evidence of some degree of sooting and may indicate the role of the associated vessels in cooking food. The continual use of micaceous pots may have been further facilitated by economic factors that may have resulted from the availability of cheap vessels by potters who continued to make these vessels even after they were largely replaced by other forms and heirloom pots that continued to be used by or traded from various households. The continual use of micaceous pots could have also been partially influenced by a folk belief, still held by groups in northern New Mexico, that beans taste better when cooked in a micaceous pot (Carrillo 1997).

The presence of relatively high frequencies of pottery assigned to plain ware types, particularly Tewa Black, is also interesting. Manipulations and shapes noted for rim sherds indicate plain ware forms from LA 158037 were derived from a wide range of vessel forms including bowls, ollas, jars, and a single sherd from a soup plate (Table 25.7). This indicates that vessels represented by plain ware sherds in these assemblages could have been used in a wide range of activities involving both storage and serving, and may reflect a continuation of patterns established during the late Colonial period.

Decorated polychrome pottery is also represented by a relatively wide range of forms, including a fairly even mixture of bowls and jars as well as ollas (Table 25.8). Again, these distributions appear to reflect forms that could have been used for a range of storage and not simply a collection of decorated jars.

An important question concerns whether different Native ceramic wares and forms were used in Hispanic versus Anglo households and neighborhoods. Thus, distributions of ceramics from contexts known to have been historically occupied by Hispanic versus Anglo households

were compared (Table 25.2). These comparisons, while indicating the presence of similar ceramic groups from households assumed to reflect different ethnicity, also indicated some differences in the frequencies of ceramics ware groups noted in contexts assigned to different types of households. Differences noted include almost twice the frequency of Tewa polychrome types at contexts assumed to represent Anglo residences and almost twice the frequency of micaceous pottery at those thought to reflect Hispanic residences.

A chi-square test was performed on the 11 ceramic types to determine if sherd discard patterns were different in late nineteenth- and early twentieth-century contexts. Based on the test, X^2 (10, N = 465) = 20.13, p = 0.028, there was discernible difference in the frequencies of micaceous and polychrome ceramics found in nineteenth- and twentieth-century Hispanic contexts. Over time, Hispanic residents of the neighborhood appear to be discarding more and more polychrome sherds. However, even into the twentieth century, Hispanics continued to view Native pottery as having a role in cooking.

As illustrated in Table 25.9, over half the rim sherds from Hispanic contexts are represented by micaceous jars or polychrome bowls, while over half those from Anglo contexts are derived from polychrome jars or ollas. Thus, ceramics from twentieth-century Hispanic contexts still seem to reflect a distribution associated with domestic activities such as cooking and serving, similar to that noted in earlier Hispanic sites, whereas distributions noted from Anglo contexts appear to be decorated forms purchased for their aesthetic value. These purchasing patterns are similar to those associated with American soldiers stationed on the Fort Marcy Military Reservation during the later half of the nineteenth century. It is also possible that purchases by members of the Pueblo Art Fund could have played a role in the distributions. Older decorated vessels would have been more likely to have been purchased from poorer Hispanic households and thus less likely to occur in archaeological contexts. Further comparisons of Native ceramics from sites in Santa Fe and nearby communities dating to this period as well as those from various collections made during this time may provide further clues concerning the nature of and potential reasons for the distribution of various ceramic forms acquired and used by various groups during this time.

Thus, distributions of Native ceramics from LA 158037 seem to indicate that they were derived from a range of forms associated with a number of activities similar to those reflected by assemblages from Hispanic sites dating to preceding periods. One primary difference between the later and earlier contexts concerns the relative abundance of Native ceramics. For example, in colonial assemblages from both Pueblo and Hispanic contexts, Native ceramics represent by far the most common items recovered, while they are much rarer in assemblages dating to the American Territorial period and later, which are overwhelmingly dominated by pottery and other types of goods of Euroamerican origin. Thus, the nineteenth century may have been a time of transition during which Native pottery vessels were increasingly produced for tourists and collectors. Other vessels continued to be used in everyday activities. However, these objects were primarily limited to Hispanic households. Further examinations of ceramics from various types of archaeological contexts and historical collections may provide further clues concerning the nature and duration of this transition. Such studies will also provide further insights concerning the nature of and reasons for differences in Native pottery found in different collections that ultimately resulted in the various pottery forms still produced in the Pueblo villages surrounding Santa Fe.

Chapter 26
Archaeomagnetic Dating

J. Royce Cox

Archaeomagnetic dating derives from the acquisition of a magnetic moment (direction and strength) by susceptible minerals when they are heated and cooled (Blinman and Cox 2002). When heated to the Curie point (580 and 680 degrees C for magnetite and hematite, respectively), magnetic materials go into a state of flux and lose any prior magnetic orientations. Upon cooling, the magnetic orientations of susceptible minerals are aligned with the earth's prevailing magnetic field, creating thermo-remnant magnetism (TRM). TRM alignments generally persist until the material is again heated to the original or a higher temperature. Although most heat events do not reach as high as the Curie temperature, enough of the magnetic material is realigned (partial TRM, or pTRM) to provide a detectable orientation. Since the earth's magnetic field is constantly changing, heated earths retain a record of the past apparent or virtual geomagnetic pole (VGP) position at the time of cooling. Pole positions from heated archaeological earths can be compared with the regional calibration of VGP movement through time, and the position of the sample VGP along the calibration curve can be interpreted as a date range. Successful archaeomagnetic dating requires appropriate earthen materials, fires sufficiently hot to create an alignment, recovery of carefully aligned set of specimens from the burned archaeological feature, laboratory measurement of the specimens to determine a mean pole position and its error term for the set, and interpretation of a date range from the juxtaposition of the error ellipse of the set result and a calibration curve.

The archaeomagnetic measurement process starts by letting the individually collected specimens "rest" within a zero field after collection. This allows the dissipation of any contaminating weaker magnetic moments that have been created since the last firing or during transportation. Each specimen is measured to determine the natural remnant magnetism (NRM), which is the specimen's original direction plus any secondary magnetism that didn't dissipate. After the initial NRM measurement, the specimens are usually demagnetized in an alternating magnetic field (AF) at 50, 100, 150, 200, and 300 Oersted (Oe) steps. If warranted, specimens are taken up by additional 100 Oe steps until a significant amount of additional secondary magnetism has been eliminated. Since demagnetization removes TRM as well as extraneous orientations, the measurement technician must make a subjective judgment about whether demagnetization has progressed sufficiently and which demagnetization level results in the cleanest approximation of the TRM of interest.

During collection, specimen orientations are observed as magnetic azimuths using calibrated Brunton compasses. These measurements must be translated into geographic azimuths, using the local declination at the time of sample collection. Declinations can be estimated through a series of sun compass readings at the site during collection, but that is not always possible. Declinations for the date and location of sampling can also be estimated by reference to the USGS International Geomagnetic Reference Field (IGRF) model (http://geomag.usgs.gov/models/models). The declinations used to calculate the VGPs for these samples were derived from the USGS IGRF model.

An archaeomagnetic dating result is expressed as a VGP centerpoint and a surrounding error ellipse. The centerpoint is the mean of the orientations of the individual specimens. An error ellipse is defined by the dispersion of the individual specimen orientations around the set mean. The spread (α_{95}) describes the area within which the mean centerpoint can be expected to fall 95 percent of the time, assuming that the specimen orientations are representative of the orientation of the feature as a whole. As error terms become larger, VGP locations are less precisely known, and the date range interpretations become larger and less useful. Large α_{95} values also imply that

the TRM contribution to a sample's magnetic orientation may be weakly expressed compared with other sources of magnetic orientations within the material or that the pTRM component was not sufficiently altered within the affected material: α_{95} values of less than 1 degree are excellent and imply a strong TRM, which should be relevant for dating purposes; α_{95} values of more than 4 degrees are imprecise and raise the possibility that the magnetic moment is less exclusively relevant to the TRM of the heating event than is of archaeological interest.

In some instances, individual specimen measurements deviate markedly from the rest of the specimens of the archaeomagnetic set. These outliers can either be defined as specimens that fall beyond two standard deviations of the sample mean or by physical anomalies, such as a significant change in specimen intensity, difference of material, separation from the rest of the specimens, or other indications by the collector indicating that a specimen might not be congruent with the rest of the archaeomagnetic set (Cox and Blinman 1999; Sternberg and McGuire 1990). Outliers that are statistically aberrant are progressively eliminated from the specimen set until remaining specimens fall within two standard deviations of the new calculated sample mean. Those specimens subjectively indicated as outliers are removed from the set, and the remaining specimens are recalculated.

Three curves are currently in use for date estimation in the greater Southwest (Fig. 26.1). The Wolfman Curve (Cox and Blinman 1999) is used for the AD 1000–1450 segment of the curve, the SWCV2000 curve (Lengyel and Eighmy 2002) is used primarily for the AD 650–1000 segment and AD 1450–present, and occasionally the DuBois Curve (DuBois 1989) is used for AD 400–650 and AD 1450–present. Dates interpreted for the AD 650–1000 period using the SWCV2000 curve are generally accurate, although precision can be improved (Cox and Blinman 1999). The Archaeomagnetic Dating Lab (ADL) believes that the Wolfman Curve is both a more accurate and more precise model of VGP movement for the AD 1000–1450 period in the Southwest (Blinman et al. 2007).

The interaction between an error ellipse and the VGP calibration curve determines the estimated date range(s) for a sample result. To the extent that curve paths are accurate and VGPs express the TRM exclusively, error ellipses should overlap the curve path. However, neither assumption can be made with absolute confidence. The most common dating convention is to assume that every curve segment intersected by or immediately adjacent to an error ellipse is potentially relevant to the date interpretation of that result. Depending on location and error size, an ellipse can intersect multiple curve segments, each of which could support a valid date interpretation (although only one is correct). To estimate a date range that reflects the precision or imprecision of the VGP estimate, the oval is moved as if the centerpoint were replotted to coincide with the nearest point on each curve segment in turn. The points of intersection between the ellipse and each curve segment determine the early and late end points of the date range interpretations (rounded to the nearest five-year point outside of the ellipse).

Since only one date range is actually relevant to the archaeological event that produced the TRM, independent information must be used by the archaeologist to determine which archaeomagnetic date range is appropriate. Archaeomagnetic date interpretations are thus most useful where there are multiple sources of chronology that can help focus attention on a particular date range as relevant.

Results

A double set of eight specimens each (ADL 1328 and 1329) was collected from a brick feature in Structure 4 (Table 26.1). Archaeomagnetic material was collected from five different bricks from the northern and western sides, as well as some plaster coping from the northern side.

Structure 4, Feature 99

Archaeomagnetic sets 1328 and 1329 came from Feature 99, which appears to be a boiler/heater flue within the structure. An opening on the eastern side was used to place heating material inside the feature. The heating events darkened and blackened the interior section of brick, leading to the possibility of ascertaining whether the hearth was last used near abandonment of the

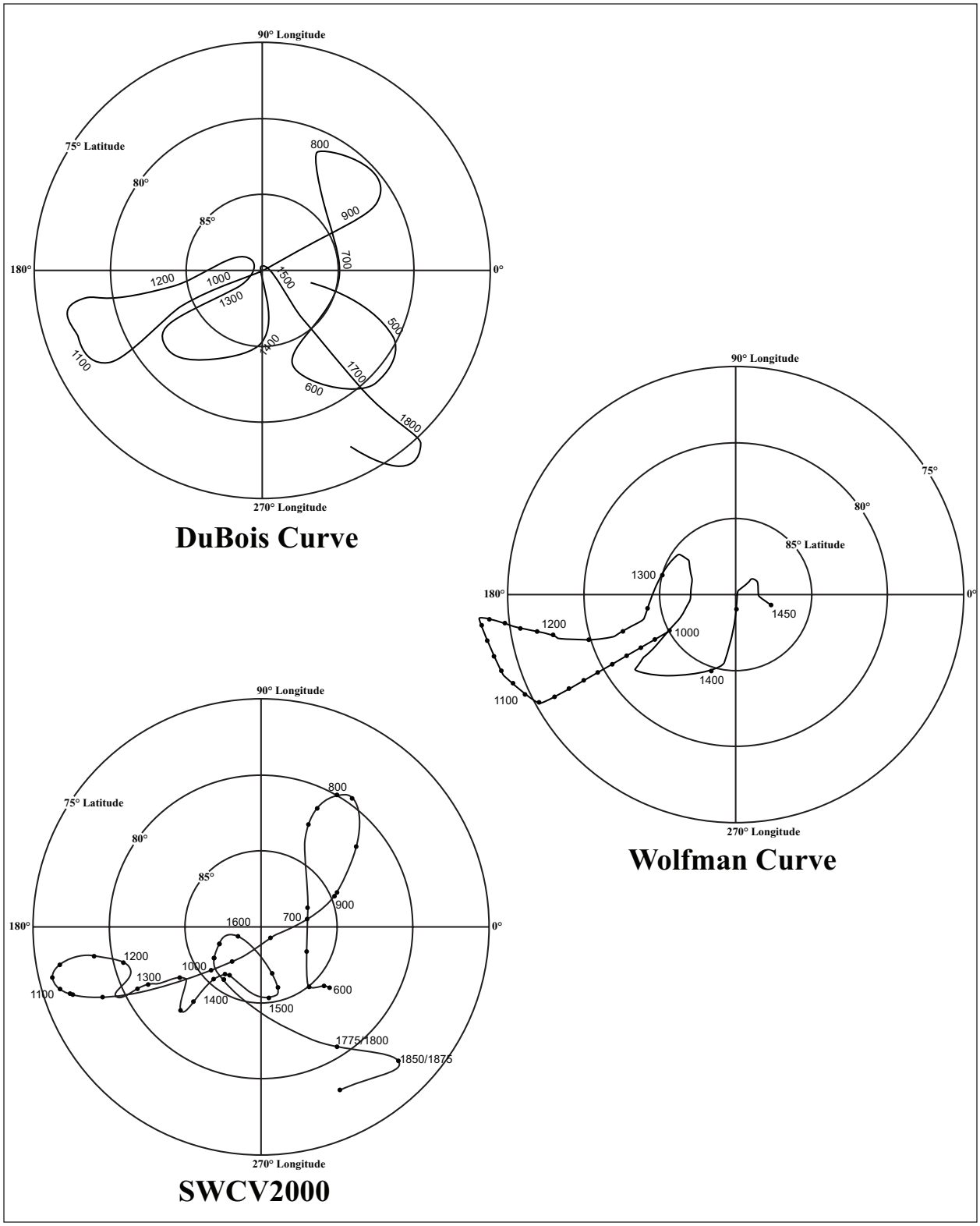


Figure 26.1. Current archaeomagnetic dating curves for the southwestern United States. The DuBois curve is adapted from DuBois (1989), the SWCV2000 curve from Lengyel and Eighmy (2002), and the Wolfman curve from Cox and Blinman (1999).

structure or much earlier when the feature was constructed, since the opening had been bricked over at some time during the use of the feature.

Individual specimens were collected from the vertical surface of the feature in situ. Whole blank cubes of plaster were epoxied onto the side of the material to be sampled and held in place until firmly hardened. During the drying process, a level was placed on top of the cube to make sure that it was level horizontally. After the blank cube was affixed, an azimuth reading was taken, as well as a dip reading, since the bricks were not exactly perpendicular to horizontal level. The dip, while not extreme, varied between 0.5 and 2.5 degrees among all 16 specimens. Once these directions had been noted, the bricks were able to be removed intact, while the plaster specimens could be chipped off. After removal, the brick specimens were cut with a rock saw to 0.5 cm thick, capturing the darker reddened portion of the brick, which had been heated inside the flue. Each specimen was then placed in a bronze mold, centering the fired material, with the excess portion of the blank cube removed and a new base of plaster applied to the bottom of the mold. This is a new method of collection being employed by the Archaeomagnetic Dating Laboratory for collecting material that cannot easily be recovered by the conventional means of first creating a pedestal around which a mold can be placed.

The 16 specimens were divided into two sets of eight. ADL set 1328 consisted of three specimens from a brick on the northern side and five specimens from a second brick on the western side. ADL set 1329 consisted of a single specimen from a brick on the northern side, two specimens each from two bricks on the western side (one of which was lost during the rock saw cutting process), and three coming from the plaster coping on the northern side. Both sets were measured at NRM.

Examination of the results after the initial measurement of both sets indicates that the temperature of the bricks never reached a sufficient enough temperature to reset the magnetic direction within the individual bricks. Set 1328 clearly illustrates this, since the eight specimens were only collected from two bricks. The first three specimens from the northern brick had inclination readings varying from 30 to 34 degrees and the declination varying from 134 to 148 degrees, while the five specimens from the western brick had inclination readings between 22 and 39 degrees and declination readings between 45 and 60 degrees. This difference between the two bricks is not representative of a reheating event, but does lead to the possibility that both bricks are from the same firing, since there is an approximate 90-degree difference in declination between the two bricks.

The results for set 1329 are much more varied, indicating that some of the bricks were not in the same firing, or if they were, they were not fired parallel to or perpendicular to the other bricks. The brick for specimen 11 is similar to the results for the first eight, but specimens 14 and 16 are completely different, with inclinations of 8 and 14 degrees, respectively, and declinations of 70 and 64 degrees, respectively. Even the plaster samples were inconsistent with each other, with no agreement among any of the three specimens.

The most likely reason for the poor results is the nature and location of the firing area and the collected material. The firing base of the feature was 2+ ft below the sampled locations and not enclosed as in an oven. These conditions did not allow for the attainment of a high enough temperature to be reached in the area of the sampled material. Unfortunately, no material was recovered near the firing surface to contrast with the other material to see if a high enough temperature had been reached in the lower region.

Conclusion

It was hoped that the collection of material within the brick feature could determine if the feature was last used near abandonment or was in a state of disuse decades before. Unfortunately, the temperature of the sampled section of the feature was not sufficiently high to reset the direction within the material. It is highly likely though that some of the sampled bricks came from the same firing, having similar alignments. The new collecting method, with plaster and epoxy, proved a valuable tool in the process.

Chapter 27

Geomorphological Description of Cultural and Natural Strata

Jeffrey L. Boyer

In August 2008, I examined and formally described one cultural and four natural strata at LA 158037. Strata 1, 9, and 2 (modern parking lot pavement and underlying base course) were present but not formally described because their identity was not in question. The cultural stratum is Stratum 3; the natural strata are Strata 4 through 7. The strata were initially defined during testing at LA 158037 (Barbour 2008a:43–51). Only Stratum 4 was used as a vertical provenience unit during data recovery investigations (Barbour, personal communication, 2008).

Samples of Strata 3, 4, and 5 were collected during data recovery investigations in anticipation of laboratory analyses. Before those samples were subjected to laboratory analyses, however, we elected to obtain in-field descriptions of the strata, with three goals in mind: (1) determine whether the strata correspond to natural soil horizons or cultural deposits; (2) if the former, determine whether those horizons were modified by human use or occupation; (3) determine, based on the results of in-field description, whether laboratory analyses were warranted.

In-field description of Strata 3 through 7 utilized the OAS stratum description form. The form is used to record a variety of information about strata, natural and cultural, encountered on archaeological sites according to standards derived from the USDA Natural Resource Conservation Service (NRCS; Schoeneberger et al. 2002) for soils and sediments. The format follows Birkeland (1974, 1984) and is similar to formats presented in the field manuals for the OAS La Plata Data Recovery Project (Toll and Blinman 1990), the Fruitland Data Recovery Project (Sesler and Hovezak 1992), the OAS US 84/285 Data Recovery Project (Boyer et al. 2000), and the Crow Canyon Archaeological Center (Crow Canyon Archaeological Center 2001). Completion of the form allows the recorder to provide a description of a stratum that meets NRCS standards. Texture was determined in the field using Thien's (1979; Presley and Thien 2008) texture by feel procedure. Color was identified using Munsell color charts.

Stratum Descriptions

Stratum 3

Reddish gray (5YR 5/2, dry) sandy loam; strong, coarse to very coarse, subangular blocky structure; hard when dry, firm when moist, slightly sticky and plastic when wet; weakly cemented; poorly sorted; massive; ca. 70 percent very fine to very coarse, angular to well-rounded sand; <10 percent bladed granule- to cobble-size gravels; few, very fine to fine, interstitial and tubular pores (interstitial pores from sand grains, tubular pores from roots); few, thin, clay films in gravel pores; strongly effervescent; abrupt, smooth boundary; ca. 10 cm thick.

Stratum 3 is mixed material that was spread across the site area as a parking lot surface in the twentieth century. It contains charcoal, "flower pot" (red earthenware) sherds, and probably other artifacts. Barbour (2008a:43) associates Stratum 3 with Strata 8 and 10: "It is likely given this variability, Stratum 10 denotes the demolition of structural elements during the latter half of the twentieth century. Then Stratum 8 was placed on top to cover up these components, hide jagged edges, and prepare the area. Stratum 3 was created when the top of Stratum 8 was rolled smooth to form a level ground upon which a parking lot could be constructed."

Barbour's (2008a:45–50) profiles of testing-phase Backhoe Trenches 14 and 16, at the western side of the site area, show Stratum 3 over Stratum 10. His profile of Backhoe Trench 5, in the eastern area where my formal descriptions were made, shows Stratum 3 adjacent to Stratum 10. None of the profiles show Stratum 8 below or adjacent to Stratum 3. Strata 8 and 10 were not present when LA 158037 strata were formally described. Whether creation of Stratum 3 was associated

with Strata 8 or 10 cannot be confirmed.

During formal description, Stratum 3 was found over Stratum 4, which is the upper B horizon of a natural soil. It appears that the A horizon and, probably, the uppermost B horizon of that soil were removed by mechanical scraping, resulting in the abrupt, smooth lower boundary of Stratum 3, which was laid down on top of the remaining B horizon (Stratum 4). Barbour's (2008a:45–50) profiles suggest a similar situation across the site, particularly when we consider that Stratum 3 is mixed material laid down over the site, while Strata 4 and 7 are natural soil horizons. While these formal descriptions cannot confirm a creative association between Strata 3, 8, and 10, it does seem clear that Stratum 3 was a parking lot surface that was subsequently covered by Stratum 2 (base course) and Stratum 1 (asphalt pavement).

Stratum 4

B1tk. Brown (10YR 5/3, dry) sandy clay; common, medium, distinct, dark grayish brown (10YR 4/2, moist) mottles; moderate, coarse, subangular blocky structure; slightly hard when dry, very friable when moist; slightly sticky and plastic when wet; weakly cemented; moderately sorted; massive; ca. 70 percent very fine to coarse, rounded to well-rounded sand; no gravels; common, very fine to coarse, tubular pores (very fine to medium pores from roots, coarse pores from insect burrows); no clay films; strongly effervescent; very abrupt, wavy boundary; ca. 22 to 27 cm thick.

Stratum 4 is the upper portion of the B horizon of a natural soil represented by Strata 4 through 7. It is not a mixture of alluvial and eolian materials as postulated by Barbour (2008a:51). As noted earlier, the A and uppermost B horizons were removed, probably by mechanical scraping, before Stratum 3 was deposited. It is important to observe that Barbour's (2008a:43–51) profiles and strata descriptions do not include any strata that represent the A or uppermost B horizons; all strata recorded above Strata 4 and 5 represent parking lot surfaces or structural debris.

The mottles in Stratum 4 are the result of insect burrows. Although very distinct when moist, they are minimally distinct when dry.

The bottom of Stratum 4 is defined by a series of thin, laminated lenses of calcium carbonate. These lenses created a layer of calcium carbonate that ranges from about 0.5 to 2.0 cm thick. According to Barbour, this layer is not consistently present across the site area, an observation confirmed during formal strata description. Its inconsistent presence shows that this layer was an incipient horizon that was being formed before the area was converted to a parking lot. Had its formation not been truncated, it would likely have eventually resembled Stratum 6. Where the carbonate layer is not present, Stratum 4 grades into Stratum 5, forming a single, thick B horizon.

As the description of Stratum 5 shows, Stratum 4 is darker in color than Stratum 5, suggesting that it has a higher content of organic material, a possibility supported by the much greater frequency of roots and root pores in Stratum 4 than in Stratum 5. That situation is true whether or not the thin calcium carbonate layer is present to distinguish Strata 4 and 5.

The presence of the calcium carbonate layer explains the greater clay content in Stratum 4 relative to Stratum 5. The calcium carbonate layer represents an approximate depth of effective illuviation, resulting in accumulation of calcium carbonate at that depth and of clay in the matrix above it.

Barbour (2008a:51) speculates that Stratum 4 represents a plow zone resulting from repeated farming of the site area. That possibility cannot be confirmed by formal stratum description, nor can Barbour's (2008a:51) observation that the upper half of the B horizon (Stratum 4) was less compact than the lower half (Stratum 5). It is possible, however, that the presence of the calcium carbonate deposit separating Strata 4 and 5 reflects disturbance of the soil's A and uppermost B horizons, loosening the soil and resulting in increased water percolation and illuviation. It is possible that differential distribution of the thin calcium carbonate layer across the site area reflects variation in the degree of disturbance of the soil's A and uppermost B horizon. If so, the calcium carbonate deposition could be associated with farming in the area. Barbour's observation, confirmed during formal in-field description—that while artifacts were present in Stratum 4 (Barbour 2008a:51), they were almost always found at the top of the stratum—indicates that Stratum 4 was not a plow zone but was immediately below the zone of disturbance.

Stratum 5

B21k. Light yellowish brown (10YR 6/4, dry) loamy sand; weak, medium to thick, platy structure; soft when dry, loose to very friable when moist, nonsticky and nonplastic when wet; no cementation; moderately to well sorted; massive; ca. 80 percent very fine to coarse, rounded sand; <5 percent, bladed-shaped, granule- to pebble-size gravels; few, very fine to fine, interstitial and tubular pores (interstitial pores from sand and gravel grains, tubular pores from roots); no clay films; strongly effervescent; clear to abrupt, wavy boundary; ca. 22 to 27 cm thick.

Stratum 5 is the lower portion of the B horizon whose upper portion is represented by Stratum 4. As discussed earlier, Stratum 5, like Stratum 4, is not a mixture of alluvial and eolian materials; rather it is part of an in situ soil horizon. Also as discussed earlier, a thin layer of calcium carbonate deposits defines the boundary between Strata 4 and 5. Where that layer is not present, Strata 4 and 5 grade into each other, presenting a single soil horizon.

Stratum 6

B2k. Light brown (7.5YR 6/4, dry) loamy sand; many, fine to large, prominent, pinkish white (7.5YR 8/2, dry) mottles; moderate, coarse, subangular blocky structure; soft when dry, very friable when moist, nonsticky and nonplastic when wet; weak cementation; moderate to well sorted; massive with lenses and pockets of calcium carbonate; ca. 80 percent very fine to very coarse, rounded sand; <5 percent granule- to cobble-size gravels; few, fine to medium, tubular pores from roots; no clay films; sand matrix is slightly effervescent, calcium carbonate is violently effervescent; gradual to diffuse, wavy to irregular boundary; ca. 6 to 15 cm thick.

Stratum 6 represents the illuvial accumulation of calcium carbonate at the bottom of the B horizon and the top of Stratum 7, the C horizon from which the soil was formed. Its calcium carbonate deposits range from very thin lenses, ca. 1 mm thick, to pockets and lenses up to 2 cm thick; the former are more common than the latter. Stratum 6 does not represent low-energy alluvial deposition (Barbour 2008a:51) but long-term illuviation during formation of the natural soil across the site area.

Stratum 7

C1. Light brown (7.5YR 6/4, dry) very gravelly, cobbly, sandy loam; structureless; sand matrix is soft when dry, very friable when moist, nonsticky and nonplastic when wet; massive with pockets of horizontally bedded sands probably representing separate alluvial channels; ca. 60 percent granule- to boulder-size gravels; ca. 40 percent very fine to very coarse, rounded sand; many, very fine to coarse, interstitial pores; no clay films; not effervescent; unknown boundary; greater than 2 m thick, as exposed by mechanical excavation.

Stratum 7 is a very thick deposit of alluvially transported sands and gravels. Although it is not possible to examine the spatial extent of this deposit in downtown Santa Fe, it is likely that Stratum 7 is not an abandoned bed of the Santa Fe River (Barbour 2008a:51) but an extensive, old, alluvial deposit that is the foundation of the Panky and Pojoaque series soils in the immediate Santa Fe vicinity (Folks 1975:39, 45, 105). This deposit is formed from the Santa Fe Formation geological deposit (Folks 1975:5, 105).

Soil Identification

Strata 4 through 6 at LA 158037 represent a single soil that formed in the mixed alluvium of Stratum 7. The presence of a single soil is consistent with Folks's (1975) description of the Santa Fe vicinity in which single soils are formed in thick alluvial deposits, with little or no evidence for buried soils. That said, however, descriptions of the soil horizons represented by Strata 4 through 7 do not closely resemble Folks's descriptions of Santa Fe–vicinity soil horizons.

Folks (1975:2–3) states that, relative to rural range and timber areas, the "built-up area around the City of Santa Fe and the small valleys used for irrigated crops were surveyed at high intensity." His general soil map, however, shows that the urban portion of Santa Fe along and mostly south of the Santa Fe River was not actually surveyed. Although Folks does not say why, it is likely that the urban landscape prevented surveyors from examining soils in their natural states, a possibility supported by this project. Nonetheless, the soil

map shows that the broad piedmont south of the Santa Fe River is mostly characterized by soils in the Panky series. It therefore seems likely that the soil in the LA 158037 site area falls in that series, which is dominated by Panky fine sandy loam and also includes soils in the Harvey, Agua Fria, Cerrillos, and Pojoaque series (Folks 1975:39–40). In each of these series, the representative profiles show B horizons that consist of clay loams, sandy clay loams, or heavy clay loams, and C horizons that consist of clay loams, sandy clay loams, or sandy, gravelly, clay loams. The clay components of these soils do not characterize the horizons at LA 158037.

Folks (1975:3–6) groups the "soils of dissected piedmont plains" into six associations. The association that characterizes the area south of the Santa Fe River is the Panky-Pojoaque-Harvey association, comprised of "well-drained soils that formed in old mixed alluvium" (Folks 1975:4). His summaries of the Panky, Pojoaque, and Harvey soils in this association emphasize the significant presence of clay in the B and C horizons ("subsoils" and "substrata" in Folks's descriptions). Of the strata described in this report, only Stratum 4 has a significant clay component, and it is possible that this reflects disturbance of the now-removed A and uppermost B horizons. Further, neither Folks's summaries nor his detailed descriptions of the representative profiles mention an actual alluvial deposit, such as that described here as Stratum 7, as the C horizon from which the soils formed.

There is, of course, variability inherent in any soil description because it actually refers to a profile chosen by surveyors as representative of that soil. That is also true of the descriptions in this report, and the trench profiles provided by Barbour (2008a) demonstrate the variation present across the LA 158037 site area. Variation in soil horizons is, first, a reflection of variation in the parent material (Folks 1975:104). It seems reasonable to speculate that the paucity of clay in the LA 158037 soil horizons reflects the paucity of clay in the Stratum 7 parent material, which may, in turn, reflect variation in the clay contents of the alluvial deposits underlying the Panky and other series soils. Such variation may be expected given the breadth of the piedmont south of the Santa Fe River and the variation in the materials comprising the Santa Fe Formation. Consequently, it is impossible to say that the LA 158037 soil, because of its characteristics described here, does not fall within one of the series in the Panky-Pojoaque-Harvey association (most likely the Panky series, based on Folks's general soil map).

In any case, Strata 4 through 7 at LA 158037 represent the in situ formation of a soil from a thick deposit of mixed, alluvial sands and gravels. The thickness of the B horizon remnant—Strata 4, 5, and 6 together are 50 to 60 cm thick—shows that the soil was well formed, and the presence of a single soil shows that the site area remained a stable landform for a considerable period of time. This is also consistent with Folks's (1975:105) characterization of Panky series soils.

The near absence of prehistoric artifacts might suggest that human use or occupation of the site area that resulted in disturbance to the soil occurred during the historic period. Whether that disturbance resulted from agricultural activities, as Barbour (2008a) postulates, cannot be confirmed by characterization of the soil horizons, primarily because the soil's A and uppermost B horizons were removed prior to, and perhaps during, conversion of the area for use as a parking lot. It is also possible that prehistoric deposits were removed when the A and upper B horizons were removed, a scenario that cannot be confirmed or denied based on the characteristics of the remaining horizons. It remains, then, for the remnants of the preparking lot archaeological record to point to the types and timing of historic-period use and occupation of the LA 158037 site area and to indicate whether prehistoric deposits were once present in the site area. Based on the results of in-field description of Strata 3 through 7 at LA 158037, laboratory analyses of strata samples could not provide additional information of significance in characterizing the strata, and were not warranted.

Chapter 28
Macrobotanical Analysis

Pamela J. McBride

This chapter reports on analysis results of 55 flotation samples from 40 features and 34 peach pits from 11 features relating to the State Capitol Parking Facility Project. Features examined for archaeobotanical remains include domestic-refuse pits, privies, bone pits, a well, irrigation ditches, and construction-debris pits associated with six residences within the Capitol Complex Historic Neighborhood of Santa Fe, New Mexico. Houses within this neighborhood were occupied during the late nineteenth and early twentieth century by Hispanic and Anglo owners and renters.

Plant remains recovered from the project are collectively listed in Table 28.1 by scientific name, charring state, common name, and plant parts. Analysis results of archaeobotanical materials are presented below by residential unit.

Structure 1 (141 West Manhattan Avenue)

A diverse assortment of plant materials was recovered from six domestic-refuse pits (Features 27, 38, 39, 75, 79, and 89) associated with the occupation of Structure 1 during the early twentieth century that may represent a mixture of household waste and weed-burning residues. Wild plant taxa included amaranth, beeweed, goosefoot, grass family, mustard, piñon, purslane, Russian thistle, and sedge family (Table 28.2). While these all have documented economic uses, the presence of Russian thistle seeds (only the young sprouts are edible) indicates that the other wild plants might have burned along with them during an attempt to eradicate this unwelcome non-native plant. Conifer duff such as juniper twigs and pine needles are probably artifacts of fuelwood use. Indeed, juniper and piñon were the most common wood taxa encountered in samples from Structure 1 refuse pits (Table 28.3).

A large number of cultivars were recovered, including beans, chile, maize, five different fruit taxa, tomatoes, and wheat. In addition, peach stones were examined from macrobotanical samples collected in privies and domestic-refuse pits. The majority of these came from Feature 79, a large refuse pit of which only the northern half was excavated. Artifacts retrieved from the pit such as medicine and whiskey bottles yielded a date of AD 1891, while 1917 was the manufacturing date for ceramic dishes recovered from the feature, suggesting trash was disposed into the pit prior to the construction of Structure 1 and during the occupation of the structure. The feature was thought to be contemporaneous with Features 77 and 88, which are associated with the Great Depression (Chapter 11). However, the diversity of plant material indicates access to a large variety of fruits and vegetables during the use of the refuse pit, which would not necessarily be expected during a depression, although it could indicate an increase in home gardens and self sufficiency out of necessity. Also, piñon nutshell and pinecone scales were restricted to this feature, suggesting home processing of nuts. Ethnographic accounts of piñon processing by indigenous groups refer to nuts "gathered in the cone," with the cone later "burned off the nuts near where gathered or after the return home" (Reagan 1929:146–147; see also Murphey 1959:23). This same practice could have been taking place at 141 West Manhattan.

An even larger variety of fruits were recovered from the privy samples (Features 74, 231, 232, and 234) that served the occupants of Structure 1 during the 1930s, including apple, cantaloupe, grape, plum or apricot, fig, mulberry, raspberry/blackberry, strawberry, and watermelon (Table 28.4). Feature 44 (cesspit) yielded the lowest number of taxa. Diagnostic glass artifacts from Feature 44 produced a mean manufacturing date of AD 1898, but the actual construction of the cesspit took place in the early twentieth century. Barbour and Moga (Chapter 11) suggest that the

pit may have been filled in with dirt brought from another location at abandonment or that it was used for a short period of time. The paucity of plant material seems to support the latter supposition, but two of the samples from Feature 74 have an equally low diversity of taxa; low diversity could be related to sampling vagaries rather than to length of feature use. The wood assemblage is similar to that from the refuse pits, dominated by conifers, and in particular, juniper (Table 28.5).

Structure 2 (451 Galisteo Street)

Structure 2 was built on the same lot as Structure 1 by Richard Alarid in 1938. The domestic-refuse pits (Features 87, 88, and 91) display a marked drop in the number of domesticates (n = 3) compared to Structure 1 refuse pits (Table 28.6). Plant material from Feature 87 was restricted to charred unidentifiable seeds, unknown plant parts, and juniper twigs, while those from Feature 88 consisted of chile, tomato, and mint family seeds. Feature 91 was the only pit to produce a considerable floral assemblage, including a variety of wild plant seeds, piñon nutshell, chile, and maize. The most unusual plant material was carbonized yucca leaf fragments, perhaps the remains of cordage or basketry. In fact, with the exception of chile, the assemblage from Feature 91 more closely resembles prehistoric collections than those of the historic period. Ponderosa was the most common wood recovered by weight, followed by juniper (Table 28.7). Ponderosa may have been used for roof beams in the adobe structure or might have been one of the several resources used for firewood.

Structure 4 (125 West Manhattan Avenue)

The one privy (Feature 62) that was associated with Structure 4 hints that strawberries were a big hit with the family who used it (Table 28.8). Chiles were present, as they are in the majority of assemblages from the project, as well as figs, grapes, raspberries or blackberries, and tomatoes. Unburned wild seeds and piñon nutshell could be the remains of ingested plant foods or that of plants growing on the property that were deposited by wind or insects or during excavation activities. Peach pits and wheat were two cultivars present in domestic-refuse pits (Features 56, 58, 119, 157, and 158) that were not present in the privy. This is a fairly clear indication that the privy material represents cultivars that were digested and eliminated, while large items such as peach pits were deposited in refuse pits along with intact wheat that was not eaten, but most likely ground into flour, either with a hand mill or at a local gristmill. Alternatively, the grain could have been used as feed for farm animals. Wheat is not an optimal feed grain because the starch in wheat ferments more rapidly than in other cereal grains, resulting in greater potential for stomach upset (Lardy and Dhuyvetter 2000).

Feature 119, where the peach pit was found, also contained a number of burned wild taxa. Deposits were described as mostly sooted and blackened and probably represent a combination of domestic trash and weeds that were collected and burned in place. Features 157 and 158 had very low artifact densities, none of which were diagnostic, so it is not too surprising that carbonized unidentifiable seeds and unburned plant material were the only nonwood floral remains recovered from the two features. Juniper was by far the most common wood taxon encountered in the three refuse pits with charcoal (Table 28.9). Small amounts of pine, piñon, ponderosa pine, and unknown conifer were also present.

The majority of plant remains from the construction-debris pit and irrigation ditches consisted of annual seeds and other weedy species, although maize glumes were present in one of the samples from the irrigation ditch, possibly residue from burning maize cobs and weeds in fields to fertilize them (Table 28.10). The irrigation ditches were associated with the Romero family occupation of the house in the latter part of the nineteenth century. As documented at Zuni Pueblo, farmers may not have applied livestock manure to fields until they were encouraged to do so by agricultural extension workers in the 1920s (MacDowell 1919, cited in Brandt 1995:296).

Unidentifiable seeds were recovered from Feature 127, one of nine bone and offal pits (also connected with the Romero occupation) examined for archaeobotanical remains (Table 28.11). The

majority of other plant material encountered was unburned weedy annual seeds, and together with other common weeds most likely represents background seed rain. Wood in Features 118 and 126 consisted of juniper, piñon, ponderosa pine, unknown conifer, and cottonwood/willow.

Structure 5 (135, 137, and 139 West Manhattan Avenue)

Although a few grape and chile seeds were recovered from the domestic-refuse pit (Feature 82) at Structure 5, carbonized tumbleweed seeds and uncharred goosefoot seeds make up the majority of plant material from the pit (Table 28.12). The construction-debris pit (Feature 105), beneath Structure 5, contained more tumbleweed seeds and several burned and unburned weedy seeds.

Juniper, piñon, ponderosa pine, unknown conifer, and one fragment of cottonwood/willow comprised the wood assemblage from the domestic-refuse pit, while juniper, ponderosa pine, cottonwood/willow, and unknown nonconifer wood fragments were recovered from the construction-debris pit (Table 28.13). Burned wood in the construction-debris pit could indicate that materials from demolition activities were burned in place and the burned seeds found in the pit were from plants either deliberately burned (like tumbleweeds) or incidentally burned along with debris.

Structure 6 (111 West Manhattan Avenue)

The well/cistern (Feature 170) was the only feature associated with the occupation of Structure 6, the main residence at 111 West Manhattan Avenue. This feature produced plant remains that may offer a clue to what was consumed by the Muller family and included fig, grape, mulberry, raspberry/blackberry, strawberry, and chokecherry (Table 28.14). The cesspit and the Feature 161 pit yielded only unburned annual and groundcherry seeds, while the vault privy that was probably associated with the rental properties behind the primary residence produced carbonized juniper leaflets. Wood charcoal from the well/cistern consisted entirely of unknown nonconifer, while juniper and unknown conifer were identified in the cesspit sample (Table 28.15).

Structure 7 (424, 428, or 430 Don Gaspar Avenue)

The sample examined from the vault privy (Feature 7) used by church parishioners produced many of the same taxa found at other contexts at LA 158037 with the exception of the conspicuous absence of chile. Two other oddities included carbonized spurge and a nucellus from a piñon nut (Table 28.16). The nucellus is the brown papery cap attached to the micropylar end of the cream-colored endosperm (USDA 1974:618) and offers direct evidence of piñon nut consumption. Without this, we are left with tiny burned and unburned nutshell fragments, which are ambiguous at best. This relatively unusual find was first recognized in privy samples from LA 156207, a nearby archaeological site with Depression-era contexts. Wood retrieved from the privy consisted of juniper, piñon, and unknown conifer.

Discussion

Three research questions proposed by Barbour (2008a:85–93) in the research design have the potential to be answered by archaeobotanical analysis results. The first is the question of whether ethnic differences in consumption and discard of plant foods can be detected and whether these differences change over time. This comparison is confounded by a marked degree of imbalance in the number of samples analyzed from Anglo versus Hispanic contexts. The number of samples examined from contexts associated with Anglo occupants was less than half (n = 9) of those examined from contexts associated with occupants of Hispanic descent (n = 23). Also, the majority of Anglo-associated samples were from domestic-refuse pits, while 57 percent of the Hispanic-related samples were from privies, which by their very nature hold much more direct evidence of diet than refuse pits or well/cisterns.

However, a few patterns can be discerned from the data. Across ethnicities, fig, grape, raspberry/blackberry, strawberry, and tomato seeds occurred in all privy samples. Chile seeds occurred in 65 percent of Hispanic-associated samples versus 22 percent of all Anglo-related samples. Bean, cantaloupe, apricot/plum, apple, and watermelon were restricted to the Structure 1 samples, and maize cupules and kernels were recovered solely from the Alarid households (Structures 1 and 2), while a chokecherry seed and a piñon nucellus were limited to Anglo-associated contexts. Whether these results are a reflection of sample biases or a true indication of dietary preferences is unknown. However, the high percentage of chile from Hispanic samples is intriguing and may suggest that Hispanic households were eating more of this traditional food than Anglo households. Perhaps this disparity in chile distribution together with the list of crops that were restricted to Hispanic contexts indicates that Hispanic residents were practicing irrigation farming, maintaining cultural traditions and close ties to family-owned land nearby or elsewhere in New Mexico. Melons, chile, maize, and beans were common crops grown in New Mexico, beginning in the early 1600s and continuing to the present (Dunmire 2004). Apple and apricot or plum trees could have been growing on the edges of old irrigation ditches or in the Alarid family backyards. It is also possible that the Alarids had access to family orchards in places like Velarde.

In contrast, taxa limited to Anglo contexts are wild plants that could have been gathered in the mountains or purchased from vendors. Chokecherries are popular fruits for making wine and jelly and probably wouldn't have been eaten fresh (Harrington 1967:256–258). The common name illustrates the astringent taste of the fruit (causing a "choking feeling"), especially when harvested prior to optimal ripeness. Not only is ripeness sometimes difficult to judge, but competition from many wild animals who avidly consume the fruit may cause premature harvesting (Forager's Harvest 2003).

When we look at taxa common to both sample sets, with the exception of figs, they consist of fruits that were not ordinarily grown in irrigated fields but could have been grown in backyard gardens. More likely, however, the fruits were purchased from local farmers and eaten fresh or originated in jam, either commercially or home produced; a number of canning jars were found at LA 158037, particularly in domestic-refuse pits associated with Structures 1 and 4 (Chapters 11, 14). Figs probably would not have been growing in the area, since most varieties are only hardy to 12–15 degrees Fahrenheit, making them a poor choice for the Santa Fe climate. Instead, fresh figs may have been acquired from more southern regions of New Mexico or dried fruit from California. The first shipment of dried figs was sent east by rail from Fresno, California, in 1889. By 1931 there were 57,278 acres of fig trees in California (http://californiafigs.com), which would have easily provided plentiful supplies of dried figs. Another possibility is that they were ingested in the form of Fig Newtons, cookies that, with the invention of a double funnel machine in 1891 by James Henry Mitchell, began to be mass produced that year (Bellis 2009). Wood assemblages all seem to suggest a preference for conifers, especially juniper, and piñon to a lesser degree.

Distinguishing temporal changes is not really possible because the majority of contexts either did not produce diagnostic artifacts and features were placed in the broader early twentieth century, sufficient samples from specific time periods were unavailable for analysis, or cultural plant material was not recovered. For example, the bone and offal pits that were probably associated with the occupation of Structure 4 by the Romero family in the late nineteenth century understandably contained very little in the way of plant material, consisting of unburned weed and bulrush seeds and charred unidentifiable seeds.

The second research question that might be answered with archaeobotanical data is whether there are differences in consumption and discard of plant foods that relate to economic status and whether changes occur with the onset of the Depression era. Archival research and interviews with descendants indicates that the Alarids, who occupied Structure 1, were relatively wealthy early in the twentieth century but suffered reduced circumstances, as did most during the Depression. Structures 4 and 6 were owned and occupied by middle- to upper-class families during the early part of the twentieth century, but after the 1930s, the primary structure or

outbuildings were used as rentals. There was a lack of plant material from both the vault privy connected with the rental properties behind Structure 6 and the cesspit linked with the house occupied by the Mullers, because both were apparently cleaned out prior to abandonment, leaving no comparative material. Structure 5 was occupied by a series of working-class renters. Unfortunately, no privy samples were analyzed from Structure 5. Only one domestic-refuse pit was examined; it contained trash from AD 1900–1910 and yielded burned Russian thistle seeds as well as chile and grape seeds. The mean ceramic value from Euroamerican vessels found in the feature suggests deposits represent those of a family with a relatively high social standing. Since the house was built between 1908 and 1913, the deposits may have little or nothing to do with the actual occupants of the house. The only other feature associated with Structure 5, the construction-debris pit, was filled with trash connected with demolition activities of the 1940s and contained charred and uncharred weed seeds, offering little useful information for comparative purposes.

Regarding Depression-era changes in plant assemblages, prior to the Depression the number of taxa is nearly equal to that found in Depression-age samples, but the diversity of cultivars is much greater in Depression samples. Perhaps more people were farming, or fruits and vegetables were purchased from local farmers rather than bought as more expensive canned goods.

The final research question addresses differences in discard of plant foods found in domestic-refuse pits versus vault or cesspit privies. The list of taxa and their frequencies that were found in privies versus domestic-refuse pits illustrates that at least for plant material, privies were not used for trash disposal to a great extent (Table 28.17). On the other hand, plant remains from refuse pits are a combination of weed seeds commonly found in yards or fields that may have been burned in pits during clearing activities, and household waste including burned beans, maize cupules and kernels, and wheat grains. Yet peach pits, which clearly would not have been ingested, show up in both privies and trash pits, demonstrating that at least some plant materials were disposed of in privies (Table 28.18). Strawberry, fig, chile, raspberry/blackberry, tomato, and grape seeds were the most frequently encountered taxa in privy samples, whereas unknown plant parts, unidentifiable seeds, goosefoot, and chile were the most common in trash pit samples. The high frequency of unknown and unidentifiable plant parts and seeds in trash pits illustrates the difficulty of identifying material that has been burned at high temperatures due to distortion. Chile seeds are one of the most common plant remains that are found in both contexts, possibly indicating that the seeds were often ingested along with the flesh, and at other times the seeds were removed prior to food preparation and were burned along with other trash in outside pits.

Santa Fe Area Historic Sites

Two other sites investigated in the urban Santa Fe area have components that are contemporaneous with LA 158037. The Santa Fe Railyard project included investigation of privies associated with the early twentieth century, and LA 156207 had a historic component consisting of a privy and refuse pit that served a compound of multiple households on a 2.4-acre property slated to become the new First Judicial Courthouse Complex, at the corner of Montezuma Avenue and Sandoval Street, not far north of the current project. Of the fourteen cultivars recovered from the three projects, eight were found in all deposits, four were found at two of the sites, and coriander and squash were restricted to the privy at LA 156207 (Table 28.19). Piñon was the only wild plant taxon present at all three sites (nucelluses were recovered from the Capitol and Judicial Complex deposits, and nutshell was also found at the Capitol and the Railyard).

The similarity in plant assemblages suggests Santa Feans in the early part of the twentieth century were eating a combination of traditional foods and commercial commodities available nationwide. Chile has been a favorite food of New Mexicans ever since Oñate and his companions introduced it into the state from Mexico in the late 1500s. Pfefferkorn (1949:49), a German Jesuit missionary who served in Sonora from 1756 to 1767, wrote: "The Spanish pepper, which is called chile in America, is abundantly grown in Sonora, as it is in all of New Spain, because it is the Spaniard's favorite spice for seasoning their

meat and their lenten dishes." Piñon, a highly nutritious resource that was collected in great quantities in the Spanish Colonial period as it is today, was another favorite. Complaints were made during the Colonial period about governors exacting tribute in the form of large quantities of nuts for their personal profit. Hackett (1937:188) noted, "the clergy accused Governor Lopez and others of forcing Pueblo peoples to collect salt and piñon nuts and to transport those products both within and out of the colony." In another instance, Governor Rosas shipped 39 fanegas (nearly 62 bushels) of piñon nuts in baskets (Bloom 1935).

LA 1051, in downtown Santa Fe, had features, including privies, from the Territorial period (around AD 1848–1933) associated with the Fort Marcy Military Reservation. Here, too, we see figs and strawberries showing up in all but one sample from an 1885 noncommissioned officer privy, including fig seeds in a hospital privy with deposits dating to about 1871 (Toll 2011), offering substantial evidence for the consumption of figs in the early stages of their commercial production.

Further afield, but from a similar time period, Gasser (1982a, 1983) analyzed 17 samples from eight privies and 9 samples from two domestic trash pits representing deposits from late nineteenth and the early twentieth century in downtown Phoenix, Arizona. Peach, olive, grape, plum, cherry, apricot, apricot/plum, fig, raspberry/blackberry, squash, tomato, and watermelon pits or seeds were recovered, along with maize cob fragments and almond, pecan, and walnut hulls. Of the 3,142 seeds that were found in privies, 92 percent were fig or raspberry/blackberry seeds. The seeds accounted for between 74 and 100 percent of the total number of seeds in each privy. What is especially interesting is the total absence of chile seeds from either type of sample. Strawberry and mulberry seeds were also not identified in the Arizona samples; distinguishing between fig, mulberry, and strawberry seeds is a difficult task, but subtle differences are detectable, and the three taxa were identified during the Capitol Parking analysis. Mulberries and strawberries were absent from the Phoenix samples, or the characteristic morphological differences were not detected. Of the 9,702 estimated seeds per liter of soil in Capitol Parking privy samples, 63 percent were fig and strawberry, and only 10 percent of the total were raspberry/blackberry. Chile seeds accounted for 5 percent of the total. That the floral assemblage is skewed toward the recovery of tiny fig and strawberry seeds is not remarkable, since each fruit contains hundreds of seeds. No matter in what form was they originated (fresh, dried, in conserves, or in cookies), many seeds would have been ingested during the consumption of one or two fruits or cookies, and figs probably represented a rather insignificant portion of the diet such as snacks or deserts.

Table 28.19 lists morphometrics of peach pits recovered from late nineteenth- and early twentieth-century privies and domestic trash pits associated with Structures 1, 2, and 4 and a scraping unit that was part of data recovery investigations at Structure 1. The 34 peach pits averaged 26.1 mm long, 19.9 mm wide, and 14.8 mm thick. Peach pits have been found in some abundance at historic sites in northern New Mexico. These heavily lignified plant parts have a distinct preservation advantage over more perishable materials. In the archaeological record, this taphonomic bias puts extra emphasis on the well-documented popularity of peaches since their introduction by the Spanish (Stevenson 1904:354; Whiting 1939:79). At Walpi, peach remains found in over 43 percent of sampled proveniences document a history of constant use over a 285–year span, from the late seventeenth century (Gasser 1980). Peach pits were recovered in over half of the flotation samples from the Zuni Waterline project, where Gasser (1982b:429) called them "the predominant plant macrofossil" in trash deposits from the late nineteenth and early twentieth centuries.

Table 28.20 presents morphometrics of peach pits from several projects in northern New Mexico, ranging in age from the Territorial period to the early twentieth century. Territorial-age peach remains are represented by 12 pits recovered in a trash pit and midden at La Puente and Trujillo House, near Abiquiu, New Mexico (Table 19; Toll 2004). Twenty peach pits were present in the Depression-era privy at LA 156207 (McBride 2009), and four were measured from early twentieth-century privy deposits at the Railyard (McBride 2010). Twentieth-century peach pit dimensions of the Judicial Complex (LA 156207) and Capitol Parking assemblages display greater dimensional

variability than those recovered from the earlier Territorial period, especially in length. This may be a function of sample size differences, since the small sample from the early twentieth-century Railyard also does not display much variability. It is a pity that Gasser did not measure any of the pits found at Walpi in such massive quantities or the 46 found during examination of historic latrines from Blocks 1 and 2 of the Phoenix City Project (Gasser 1982a).

Fruit size in peaches tends to exhibit greater variability under stressful growing conditions such as insufficient moisture and lack of pruning (USDA Forest Service 1974:665). If the variability in peach pits from the two Santa Fe projects is valid, this could indicate that the peaches consumed by occupants at LA 156207 and LA 158037 were grown under suboptimal conditions (a neglected orchard, for example) or varying environmental conditions, suggesting they were obtained from a number of different growers.

Summary

Plant material from late nineteenth- and early twentieth-century contexts at LA 158037 indicate the diet was a combination of cultivars and wild plants brought by the original Spanish settlers from the home country and Mexico or long-established adopted foods used by the existing indigenous people of the area. The significance of chile as a traditional New Mexican food is illustrated in the results of this analysis, together with the use of wild plants like piñon nuts, which continues to this day.

It is to some extent unclear how residents acquired the varied botanical products. In some instances, occupants could have bought crops from local farmers as well as purchasing brand-name cookies and jams at local stores. The other residents may have also owned land and farmed, or had extended families that farmed or kept orchards outside of the urban area. Lastly, some, such as the Romero family at 125 West Manhattan Avenue, may have tended their own backyard orchards and gardens or made jams from raspberries gathered in the mountains.

Chapter 29
Pollen Analysis of Coprolites

Linda Scott Cummings and R. A. Varney

LA 158037, in downtown Santa Fe, New Mexico, contained numerous self-contained vault privies dating to the early twentieth century (ca. 1910 to 1935). These privies held waste associated with both Hispanic and Anglo residents. Seven coprolite samples, each from a separate self-contained vault privy, were submitted for pollen analysis with PaleoResearch Institute of Golden, Colorado. The goal of the analysis was to identify foods consumed by the population that used these privies.

Ethnobotanical Review

It is a commonly accepted practice in archaeological studies to reference ethnographically documented plant uses as indicators of possible or even probable plant uses in prehistoric times. The ethnobotanical literature provides evidence for the exploitation of numerous plants in historic times, both by broad categories and by specific example. Evidence for exploitation from numerous sources can suggest widespread utilization and strengthens the possibility that the same or similar resources were used in prehistoric times. Ethnographic sources outside the study area have been consulted to permit a more exhaustive review of potential uses for each plant. Ethnographic sources document that with some plants, the historic use was developed and carried from the past. A plant with medicinal qualities very likely was discovered in prehistoric times, and the usage persisted into historic times. There is, however, likely to have been a loss of knowledge concerning the utilization of plant resources as cultures moved from subsistence to agricultural economies or were introduced to European foods during the historic period. The ethnobotanical literature serves only as a guide, indicating that the potential for utilization existed in prehistoric times—not as conclusive evidence that the resources were used. Pollen and macrofloral remains, when compared with the material culture (artifacts and features) recovered by the archaeologists, can become indicators of use. Plants represented by pollen and seeds will be discussed below to provide an ethnobotanical background for discussing the remains.

Native Plants

Opuntia (prickly pear cactus). All species of *Opuntia* (prickly pear, Indian fig) produce edible fruit. The fruits were eaten raw, stewed, or dried for winter use. Dried fruits could be ground into a meal. Young stems or pads were peeled and eaten raw or roasted. Peeled stems also can be used as a dressing or poultice on wounds. The spines on fruits and pads often were removed by singeing over a fire, and/or the fruits were rolled in a basket with rocks. The seeds were eaten in soups, or dried, parched, and ground into a meal to be used in gruel or cakes. The Apaches made a medicinal tea from the boiled roots. The spines were used to pierce ears and to lance small skin abscesses (Gallagher 1977:91–92; Harrington 1964:382–384; Nequatewa 1943:18–19; Robbins et al. 1916:62; Vestal 1952:37). Prickly pear plants are found throughout the western United States on arid, rocky, or sandy soils (Kirk 1975:50–52; Muenscher 1987:317).

Pinus (pine). All species of *Pinus* (pine) produce edible nuts, but *Pinus edulis* (piñon pine) was one of the most important and widely used pines. Nuts are harvested in the fall or winter, and a bumper crop occurs approximately every seven years. Nuts were eaten raw or roasted by native groups. One method of roasting piñon nuts involved shaking nuts and coals in a basket. Whole cones also were collected and heated over a fire or in ashes to open the scales and release the seeds. Nuts were roasted in preparation for storage or for being ground into flour. Ground piñon nuts were added to corn meal or used to thicken soup or make cakes, balls, or a paste

like peanut butter. Pine needles, inner bark, and resin also were used medicinally. The needles are high in vitamin C and can be used to prevent scurvy. A medicinal tea was made from pine needles to treat a variety of ills. Pine pitch was chewed as gum, applied to sores and cuts, and used to coat baskets and pottery to make them waterproof. Piñon pine logs are noted to have been the chief building material for Navajo hogans. Pine was valued as firewood because the pitch would readily start the wood burning, even when wet (Angier 1978:193–197; Colton 1974:347; Gallagher 1977:37–39; Harrington 1967:323–325; Niethammer 1974:47–49; Robbins et al. 1916:41–42; Vestal 1952:12–14; Whiting 1939:22, 63).

The nuts of *Pinus edulis* have become an article of commerce, and sale of piñon nuts is an important source of revenue for native groups in the southwest United States. Nuts can be eaten raw or roasted. Piñon nuts are high in thiamine, riboflavin, niacin, protein, and fat (Kearney and Peebles 1960:51; McGee 1984:265).

Cultigens

Acer (maple). There are several species of *Acer* (maple) native to the southwestern United States, four of which produce a highly valued sweet sap. Northern New Mexico has a climate that is conducive to the production of a greater quality and quantity of this sap, since it has a great deal of sunshine in the summer and fall months, followed by a much colder winter that freezes the roots. The method of sap collection and processing or "sugaring" the sap into syrup was a fairly simple one at the turn of the twentieth century. Beginning at the first spring thaw, a hole was bored into a tree and a spout inserted upon which hung a sap bucket. After collection, the sap had to be boiled to rid it of impurities and achieve the desired consistency. Sap was usually processed in a sugarhouse or sugar shack, an outdoor building made for that purpose. The syrup was then used as a condiment to flavor foods such as oatmeal or pancakes, or as a flavoring and sweetener in baking, or further processed to make crystallized sugar or candy (Couplan 1998:300–301; Kiple and Ornelas 2000:1810; McGee 1984:380–385).

Apiaceae (parsley family). Members of the Apiaceae (parsley family) are biennial or perennial, mostly herbs with stout stems, often aromatic. Many of the species in this family are of economic importance, including *Anethum graveolens* (dill), *Anthriscus cerefolium* (chervil), *Carum carvi* (caraway), *Coriandrum sativum* (coriander or cilantro), *Cuminum cyminum* (cumin), *Daucus carota* (carrot), *Foeniculum vulgare* (fennel), *Pastinaca sativa* (parsnip), *Petroselinum crispum* (parsley), and *Pimpinella anisum* (anise). Other members of this family, including but not limited to *Cymopterus*, *Lomatium* (biscuitroot, prairie parsley), *Perideridia* (yampa), and *Pseudocymopterus* (mountain parsley), were used by many Native American groups. The roots, stems, and leaves of these plants were used for food, seasoning, and medicine (Harrington 1967; Kirk 1975). Several members are noted to be poisonous, such as *Conium maculatum* (poison hemlock) and species of *Cicuta* (water hemlock). Members of the Apiaceae are found primarily in the temperate northern hemisphere (Hickey and King 1981:298–299; Muenscher 1987:321–331; Smith 1977:177).

Brassicaceae (mustard family). The Brassicaceae (mustard family) consist of 375 genera and 3,200 species of annual, biennial, or perennial herbs or, rarely, small shrubs with watery, acrid sap. Flowers are noted to be uniform and consist of four separate sepals arranged like a cross. Members of this family cultivated for food include *Brassica*, *Sinapis alba* (yellow mustard), *Rorippa nasturtium-aquaticum* (watercress), *Lepidium sativum* (garden cress), and *Armoracia rusticana* (horseradish). Many members of this family are cultivated as ornamentals and include such plants as *Iberis* (candytuft), *Alyssum* (alyssum), *Hesperis matronalis* (dame's rocket), *Lobularia maritima* (sweet alison), *Matthiola* and *Malcolmia* (stocks), *Arabis* (rockcress), *Erysimum* (wallflower), *Lunaria* (honesty, money plant), and *Aubrieta*. These plants seed freely, thus establishing themselves in gardens over a period of many years. Weedy species include *Capsella* (shepherd's purse), *Descurainia* (tansy mustard), and *Lepidium* (peppergrass). The leaves and stems have a very pungent or peppery flavor. Members of the Brassicaceae are cosmopolitan in distribution, chiefly in northern temperate regions (Hickey and King 1981:150; Muenscher 1987:229).

Capsicum (red pepper). *Capsicum* (red pepper) are cultigens introduced from tropical America.

This group has many different varieties, including chiles, cayenne pepper, and pimentos. Fruits ripen to a yellow, red, or black color. Peppers are used to add a hot, spicy flavor to many dishes. Cayenne pepper can be medicinally used to stop bleeding or to treat sore throats, colds, chicken pox, backaches, and a number of other ailments (Hedrick 1972:135; Heinerman 1983:23–26; Kearney and Peebles 1960:755–756).

Cerealia. The Cerealia group consists of the economic members of the grass family, including *Triticum* (wheat), *Avena sativa* (oat), *Hordeum vulgare* (barley), and *Secale cereale* (rye). These plants are part of the cereal grains, so-named for Ceres, the Roman goddess of agriculture. These seeds are noted to "have played a crucial role in human nutrition and cultural evolution" (McGee 1984:226). These grains are used to make beer and bread, which have been staples in the human diet since at least 3000 BC. The cereal grains are concentrated sources of protein and carbohydrates and continue to provide the majority of the caloric intake for much of the world's population. Wheat, barley, and oats have been the most important grain in the Middle East and Europe (Hickey and King 1981:436; McGee 1984:227–229).

Eugenia (clove). *Eugenia* (clove) is a tropical evergreen tree native to the Molucca Islands in the East Indies. The cloves, commonly used as a spice in cooking, are the dried floral buds of this tree. Cloves originally were known throughout the Mediterranean countries and were imported into Europe during the Middle Ages. Cloves are used in a variety of ways, including for baking, for seasoning hams, and in the preparation of foods such as spaghetti and lasagna. Eugenol, the main constituent of clove oil, is found in some brands of mouthwash. Eugenol is noted to have anesthetic properties and has been used to relieve toothaches. Clove oil also has been used in perfumes and bath salts (Hedrick 1972:259; McGee 1984:210).

Ficus (fig). *Ficus* (fig) is a native of Asia Minor that was imported into the Mediterranean area and used by the Egyptians 6,000 years ago. The fig was an important part of the common man's diet in Greece and Rome. Figs are noted to have been introduced to North America around 1600, although they were not commercially cultivated until the 1900s. Like the date, the fig is valued for its sugar content. Figs contain about 50 percent invert sugar, as well as pectin, organic acids, fat, albumin, and vitamins A and B. The fig "fruit" is actually the soft, fleshy, pear-shaped, swollen flower base that encloses the true fruits (achenes). Figs can be eaten raw, preserved, dried, and canned. Figs are mildly purgative and slightly expectorant and have been used to treat constipation and coughs (Hedrick 1972:268; McGee 1984:186–187; Thomson 1978:23, 64, 155).

Fragaria (strawberry). *Fragaria* (strawberry) is found naturally in both Eurasia and the Americas; the American varieties produce larger berries. In the eighteenth century, a French engineer named Frezier brought some of the large American species back to Europe and began breeding today's modern varieties (McGee 1984:183–184). Wild strawberries are smaller and more flavorful than the domesticated ones. The leaves and berries are rich in Vitamin C, and a leaf tea was used to prevent scurvy and to treat diarrhea. Crushed wild strawberries also once were used to whiten the complexion, remove freckles, and as a treatment for mild sunburn (Ody 1993:60). Wild strawberries are perennial herbs found in meadows, fields, woods, hillsides, and forest edges (Angell 1981:20; Kirk 1975:90). Strawberries are commonly eaten fresh or cooked in pies, jams, jellies, and preserves.

Lamiaceae (mint family). The Lamiaceae (mint) family is characterized by square stems and hairlike oil glands on the surfaces of leaves and stems that are often used as flavorings. This is a large family of about 180 genera. Several members of the mint family are important culinary herbs, including *Ocymum basilicum* (basil), *Marjorana hortensis* (marjoram), *Origanum vulgare* (oregano), *Mentha piperita* (peppermint), *Mentha spicata* (spearmint), *Rosmarinus officinalis* (rosemary), *Salvia officinalis* (sage), *Satureja* (savory), and *Thymus vulgaris* (thyme). Mints also are useful medicinal herbs. *Mentha* (wild mint) is noted to be good for the stomach and has antispasmodic properties. *Scutellaria* (skullcap) is a calming nervine that can be used to treat nervous conditions, menstrual problems, and epilepsy. *Stachys officinalis* (wood betony) is a relaxing herb for general use. Specifically, *Stachys* can be used for headaches, nervous disorders, and digestive problems, and as a diuretic. A *Leonuris* (motherwort) tonic can be used for anxiety and

heart weaknesses, nervous tension, or menstrual pain. *Melissa officinalis* (lemon balm) can be used to treat depression, tension, indigestion, and other stomach problems, nervous exhaustion, and colds. *Ocymum basilicum* (basil) leaves are useful for treating insect bites. *Prunella* (self-heal) is widely used to stop bleeding, as well as to treat throat and mouth inflammations and diarrhea. *Rosmarinus officinalis* (rosemary) can be taken for colds, influenza, rheumatic pains, indigestion, and headaches. *Thymus vulgaris* (thyme) is an antiseptic expectorant that is good for treating chest infections. It also may be used for stomach disorders and diarrhea. Other species of mint also may be used medicinally, for oils or perfumes, or as ornamentals, or they may exist as weedy herbs or undershrubs (Hickey and King 1981:350; McGee 1984:204–206; Ody 1993; Toussaint-Samat 1992:533).

Lycopersicon (tomato). *Lycopersicon esculentum* (tomato) was widely cultivated in Mexico and South America at the time of Spanish contact. The early introductions to Europe are believed to have been the large-fruited variety from Mexico. In Europe, the fruits acquired a reputation as an aphrodisiac and were called "love apples." It was not until the mid-1800s that tomatoes began to gain popularity, and today there are many varieties with red, yellow, or green fruits. Tomatoes are high in vitamin C. In the United States, the tomato is second only to the potato in popularity. Tomatoes are consumed raw and used in sauces, stews, and soups. Tomatoes also may be included in preserves and jams, either alone or in combination with other fruits. The plant is very adaptable, sometimes reseeding the following year in the garden or compost areas. Tomatoes are "half-hardy annuals or short-lived perennials" (Phillips and Rix 1993:150). These plants grow best in a hot climate on fertile, well-drained, and moisture-retentive soil (Hedrick 1972:343–345; McGee 1984:202).

Rubus (raspberry group). The *Rubus* (raspberry) group also includes blackberry, cloudberry, dewberry, salmonberry, thimbleberry, wineberry, and yellowberry. All species of *Rubus* produce edible berries that can be eaten raw or made into cobblers, jams, jellies, and pies. The fruit also can be used in cold drinks, teas, and salads and is easily dried and preserved. The fruit of some species is used to make liquor. The dried leaves can be used to make tea, and tender blackberry shoots can be added fresh to salads. *Rubus idaeus* (raspberry) was noted to be a favorite household remedy. A leaf infusion was used to treat mild diarrhea, as a gargle for mouth ulcers and sore throats, as a wash for bathing varicose ulcers and sores, and as an eyewash. The berries are rich in vitamins and minerals and traditionally have been taken for indigestion and rheumatism. *Rubus* plants are commonly found in sunny thickets and mountainous areas, especially at higher altitudes (Angell 1981; Hedrick 1972; Medsger 1966; Peterson 1977).

Vitis (grape). *Vitis* (grape), a native of Asia Minor and North America, is cultivated for wine and table grapes. The Egyptians are believed to have first cultivated grapes 6,000 years ago. The majority of wines and table grapes are made from varieties of the European *Vitis vinifera*. American jelly, grape juice, and northeastern wines are made from Concord grapes, a variety of the American *Vitis labrusca* (McGee 1984:187). Many other species of *Vitis* are native to the United States and produce edible fruit, which can be purple, blue, black, or amber. Wild grapes are often too tart to be eaten raw but are used in jams, jellies, and juices (Angell 1981:156). Generally, wild grapes need more sweetening than cultivated grapes and contain plenty of pectin before fully ripe (Peterson 1977:198). Young grape leaves can be cooked as greens or used to wrap meat for baking. Internally and externally, leaves were used to cure snake bites and disorders of the internal organs. "In various parts of the world, including the West in pioneer times, grape leaves soaked in water were used as a poultice for wounds" (Kirk 1975:263). Wild grapes are found throughout the Southwest and Northeast United States growing in thickets and edges of woods (Medsger 1966:53–59).

Zea mays (maize, corn). *Zea mays* (corn, maize) is a New World cultigen that has become a very important resource. Native people in Central America first domesticated maize over a thousand years ago. Native Americans grew maize as a staple and introduced it to visiting Europeans. Today, corn is used for food, starch, alcohol, and animal feed. It is still a staple for millions of people in developing nations in Latin America, Africa, and Asia. Maize continues to be grown by Native peoples in the Southwest, and it is big business for American farmers in the

corn belt of the Midwest. Often corn is grown in gardens. Fresh, boiled ears of corn are a common food when in season, and fresh corn kernels are canned and/or frozen. Kernels also are dried and made into cornmeal. Popcorn is a genetic variant whose kernels are heated and popped. Corn is also fermented into bourbon whiskey (Rhoades 1993:92–117).

Discussion

At LA 158037 samples were collected from seven self-contained vault privy features (Table 29.1). These samples comprised loose organic sediment and will be referred to as "coprolitic matter" rather than discrete coprolites. Based on occupants living at 141 West Manhattan Avenue (Structure 1), Features 73, 78, 74, 231, 232, and 233 all contained Hispanic waste dating from ca. 1915–1935. They appear to be part of a complex of self-contained vault privies behind the structure on property owned by the Alarid family. Another self-contained vault privy from the First Baptist Church was sampled and dates to 1910. Results of our analysis of the coprolitic matter from these features will be discussed individually (Fig. 29.1; Table 29.22). The samples have been diagramed in order of date of use, relying on mean bottle glass manufacture dates to establish the chronology.

Local vegetation communities growing in the area of Santa Fe are typical of the Upper Sonoran grasslands. Piñon-juniper grasslands are typical and include piñon, juniper, prickly pear, cholla, yucca, and several types of grasses. Occasional Gambel's oak and small stands of mountain mahogany are also reported. Arroyo bottoms support four-wing saltbush, Apache plume, rabbitbrush, big sagebrush, and wolfberry, while wetland vegetation along perennial streams includes willow, cottonwood, salt cedar, rushes, and sedges (Pilz 1984, cited in Barbour 2008a:5). A description of the local vegetation is important in understanding the contribution of the local vegetation to the pollen record of the privy deposits.

First Baptist Church

Sample 257, collected from Feature 7, was described as waste from a twentieth-century Anglo privy. The pollen record from this coprolitic material was dominated by cheno-am pollen, probably from saltbush growing in the arroyo bottoms. High-spine Asteraceae pollen was second in abundance, probably also from rabbitbrush in the arroyo bottoms. This sample yielded the only evidence of *Sarcobatus* pollen, reflecting growth of greasewood, probably also in the arroyo bottoms. Recovery of small quantities of *Pinus*, *Pseudotsuga*, *Tamarix*, *Ulmus*, *Artemisia*, low-spine Asteraceae, Liguliflorae, *Eriogonum*, Poaceae, Rosaceae (small, smooth), and *Sphaeralcea* pollen represent local vegetation (pine, Douglas fir, introduced salt cedar, elm, sagebrush, various members of the sunflower family, wild buckwheat, grasses, a member of the rose family, and globemallow). The only evidence of food recovered from this privy was a small quantity of Cerealia pollen, reflecting consumption of cereals such as wheat or perhaps barley or rye. In spite of the absence of pollen from this record, *Ficus*, *Fragaria*, and *Rubus* seeds (figs, strawberries, and raspberries) were recovered in the pollen screen, indicating the presence of other food remains in this deposit. This sample also yielded a relatively large quantity of microscopic charcoal, suggesting the possibility that charcoal or ash was added to the privy to control odor. Alternatively, remains from a heating or cooking stove might have been dumped in the privy. Only *Juniperus* charcoal was noted in the pollen screen, documenting the use of juniper wood as a fuel and subsequent discard of the ashes into the privy. Total pollen concentration in this sample was very high (almost 7500 pollen per cc of sediment), as is often expected from the organic materials in a privy.

141 West Manhattan Avenue

Six features (73, 74, 78, 231, 232, and 233) were sampled for coprolitic material. Use of these self-contained vault privies appears to span a time between 1915 and 1935. The primary components of these samples are very similar to that described for the church privy. Exceptions include the recovery of several additional types of pollen in several of these samples. These include *Juniperus*, *Abies*, *Picea*, *Quercus*, Brassicaceae, *Erodium*, Fabaceae, *Trifolium*, and Rosaceae pollen, documenting the presence of juniper, fir, spruce,

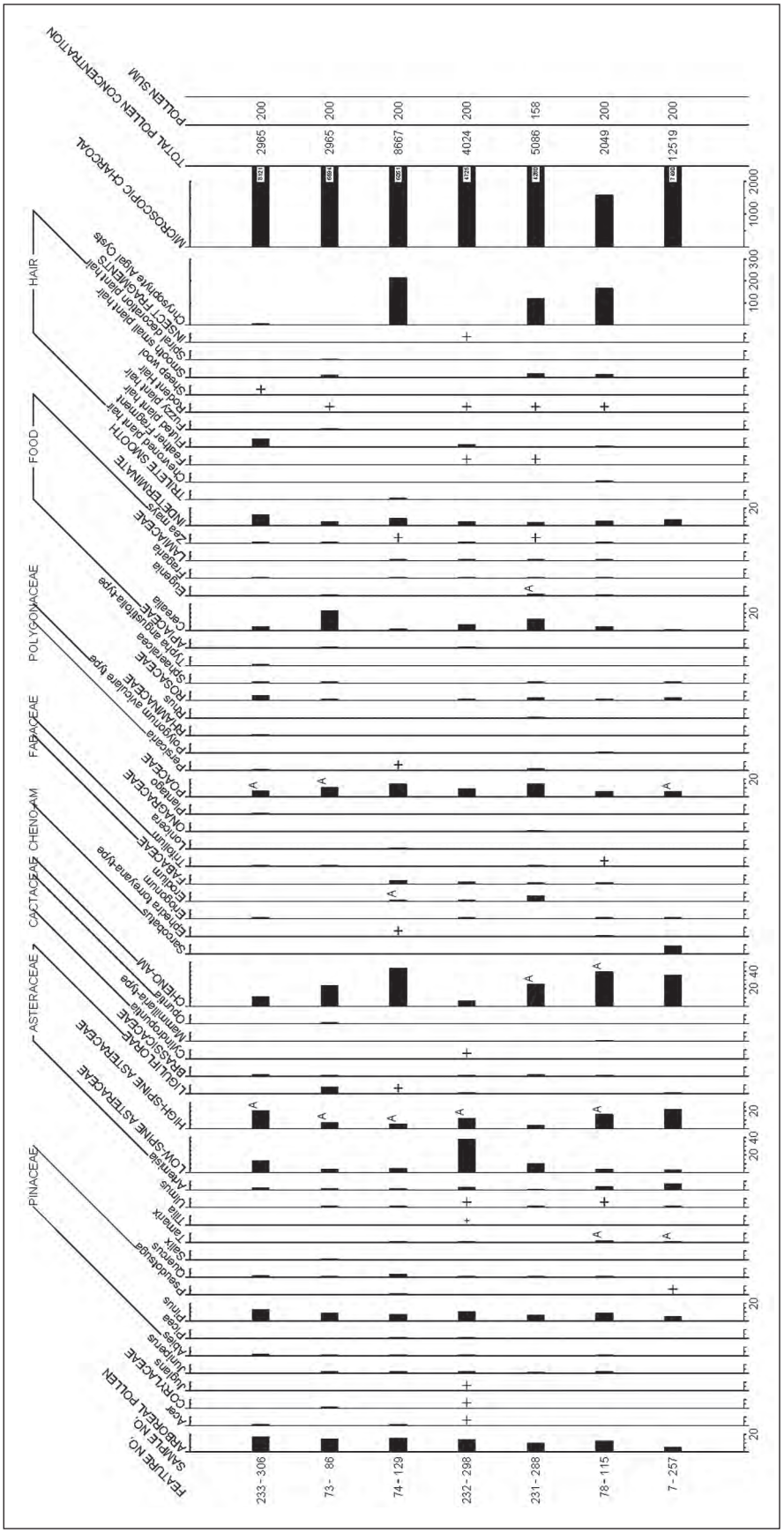


Figure 29.1. Pollen diagram for privies at LA 158037.

oak, members of the mustard family, weedy filaree, legumes, clover, and members of the rose family that grew locally or in the mountains. Evidence for food is discussed individually for each of these features below, starting with the oldest.

Feature 78. Feature 78 has been assigned a date of use near 1915. The coprolitic material from this privy (Sample 115) contained a small quantity of Brassicaceae pollen, which might represent a weedy plant or consumption of mustard. This pollen type is included with the general environmental pollen types, since it is such a common weed. Recovery of small quantities of Cerealia, *Eugenia*, *Fragaria*, Lamiaceae, and *Zea mays* pollen indicates consumption of cereals such as wheat, cloves, strawberries, mint, and maize. This sample also contained a small quantity of *Mammillaria* pollen, which is rare in this record. It might reflect growth of ball-type cactus on the property. In addition, several *Ficus*, *Fragaria*, and *Rubus* seeds were noted in pollen screen, representing consumption of figs, strawberries, and raspberries (or similar berries). This sample yielded a large quantity of organic material that did not break down well in the pollen extraction process, indicating the possibility that meat fragments were present. This interpretation is based not on the identification of fibers as meat, but on the presence of a gooey residue.

This sample displayed a relatively large quantity of chrysophyte algal cysts. Chrysophyte algae produce distinctive microscopic cysts during a resting stage of their life cycles. They are globular and have a single collared opening. The chrysophyte algal cysts in this sample (and the three other samples that contained these cysts) had smooth surfaces. The environmental requirements of these golden brown algae include cold winters, including winter freezing, particularly since they have been noted beneath winter ice. They are also associated with low to moderate pH (Adam and Mahood 1981). Urine has a pH between 4.5 and 8, with higher values indicating more alkaline urine, associated with disease. The climate of Santa Fe includes cold winters and freezing temperatures, and the conditions within privies could well be acid or at least slightly acid. Recovery of these chrysophyte cysts suggests limited use or no use of lime in the privy or at this level in the privy. The quantity of microscopic charcoal was greatly reduced in this sample, suggesting limited addition of ash or charcoal to the privy. Conifer, *Juniperus*, and *Pinus* charcoal was observed in the pollen screen, indicating that fuel burned included at least both locally available juniper and pine. Recovery of several types of plant hairs suggests the consumption of greens. The presence of rodent hair suggests that rodents infested some of the stored food. Total pollen concentration was more modest, with 2,000 pollen per cc of sediment.

Feature 231. Pollen Sample 288, representing coprolitic material from this privy that appears to have been used around 1920, contained small quantities of Apiaceae, Brassicaceae, Cerealia, *Eugenia*, *Fragaria*, Lamiaceae, and *Zea mays* pollen, indicating consumption of an herb in the umbel family such as coriander/cilantro, mustard, wheat or another cereal, cloves, strawberries, mint, and maize. It is possible that Apiaceae or Brassicaceae pollen represents weedy plants, although it is most likely that recovery of Apiaceae pollen is associated with consumption of seeds from a member of this family that is commonly used to flavor foods. The elevated quantity of Cerealia pollen suggests consumption of more baked goods made from wheat or other cereals than was typical in the earlier deposits. No seeds were noted in the pollen screen. The quantity of microscopic charcoal was elevated in this sample, suggesting addition of ash to the privy. Only *Pinus* charcoal fragments were recovered from the pollen screen, indicating use of pine wood as fuel. Chrysophyte algal cysts were noted, once again indicating acidic conditions in this privy. A few fluted and smooth plant hairs and rodent hairs were observed in this sample. Recovery of plant hairs suggests the consumption of greens, while rodent hair might indicate that rodents were taking advantage of some of the stored food supplies. Total pollen concentration of more than 4,000 pollen per cc of sediment was recorded for this sample.

Feature 232. Sample 298 from Feature 232 represents coprolitic material from this privy that appears to have been used around 1925. This sample yielded a very large quantity of low-spine Asteraceae pollen compared to the other samples, indicating the presence of ragweed-type plants. This sample also contained the only *Tilia* pollen observed from this site, indicating the

presence of a basswood tree, probably planted by someone familiar with these trees that typically grow much farther to the east. This sample also displayed a small quantity of *Cylindropuntia* pollen, indicating that cholla probably grew on the property. Evidence for food was noted in the small quantities of Apiaceae, Brassicaceae, Cerealia, *Fragaria*, Lamiaceae, and *Zea mays* pollen recovered. Once again, interpretation of Apiaceae and Brassicaceae pollen as representing foods rather than local weeds is tentative. This sample also yielded many insect fragments in the pollen record, suggesting that at least some of the food consumed had been stored a long time and had become infested with insects. Recovery of feather fragments and plant hairs suggest the possibility that birds and fresh greens were consumed. The presence of rodent hairs in this sample suggests that rodents might have gotten into the food supply. The pollen screen contained *Capsicum*, *Ficus*, *Fragaria*, *Lycopersicon*, *Pinus edulis*, *Rubus*, and *Vitis* seeds, indicating that hot peppers, figs, strawberries, tomatoes, piñon nuts, raspberries, and grapes had been consumed. The quantity of microscopic charcoal was elevated, suggesting dumping ash into the privy. Recovery of both *Pinus* charcoal and coal fragments from the pollen screen indicate the burning of both pine and coal prior to discarding ash into this privy. No chrysophyte algal cysts were observed in this sample. A total pollen concentration of 4,750 pollen per cc of sediment was noted.

Feature 74. This self-contained vault privy was part of the complex of privies on the property owned by the Alarid family. Based on artifact recovery, it appears to have been used around 1930. The pollen record for this sample (No. 129) was very similar to several others from this property. It was clearly dominated by cheno-am pollen, probably reflecting saltbush growing in a nearby arroyo. Recovery of *Acer* pollen in the count might reflect planting a maple tree on the property. The first observance of *Acer* pollen was in Sample 298 from Feature 232. An alternative explanation of the presence of maple pollen is the consumption of maple syrup. Since the syrup is collected and concentrated (boiled down) in the early spring near the time that maple trees pollinate, it is possible that consumption of maple syrup containing *Acer* pollen was the source. Testing modern maple syrup to observe the presence or absence of *Acer* pollen is not expected to provide a good comparison or guideline for interpretation, since modern processing methods are different than those of the past. The possibility of consumption of maple syrup as a vehicle for introducing *Acer* pollen into a privy is mentioned as an alternative for planting maple trees on this or a neighboring property. Of course, the residents of this property might have tapped their own trees to make maple syrup that they consumed. The pollen record sometimes provides the evidence of availability of resources, rather than direct evidence of their consumption. Recovery of small quantities of Cerealia, *Fragaria*-type, Lamiaceae, and *Zea mays* pollen indicates consumption of cereals that probably included wheat, perhaps as baked goods, strawberries, mint, and maize. Only *Portulaca* seeds were observed in the pollen screens from this sample. This sample did not yield hairs from either plants or animals. Chrysophyte algal cysts were abundant, again indicating a slightly to moderately acid environment and suggesting absence of lime in the privy. Microscopic charcoal was abundant, suggesting that ash was dumped in the privy. Charcoal identified as belonging to *Celtis*, *Pinus*, *Pseudotsuga*, and Salicaceae were observed in the pollen screen, as were coal fragments, indicating that the ash dumped into this privy probably was from cooking and included hackberry, pine, Douglas fir, and willow-family wood, as well as coal burned as fuel. A total pollen concentration of more than 6,000 pollen per cc of sediment is relatively high, indicating concentrated organic remains.

Feature 73. This self-contained vaulted privy dates to 1930, with a mean glass date only slightly more recent than that of Feature 74. This sample (No. 86) did not contain *Acer* pollen, although it did contain small frequencies of Apiaceae and Brassicaceae pollen, which might represent local weedy plants, or consumption of coriander/cilantro or another herb in the umbel family and mustard. The Cerealia pollen frequency was elevated, suggesting consumption of a larger quantity of cereals and/or baked goods than was noted elsewhere. Recovery of a small quantity of *Eugenia* pollen indicates that cloves were used, possibly when cooking ham or as part of the spices added to baked goods. The presence of a small quantity of *Zea mays* pollen indicates

consumption of maize, as well. A few plant hairs recovered in this sample provide evidence of the probable consumption of greens. *Ficus*, *Fragaria*, *Juncus*, and *Lycopersicon* seeds were noted in the pollen screen, indicating consumption of fig, strawberry, and tomato. Recovery of the *Juncus* seed might represent introduction of remains from the local environment. Rodent hairs were present again, suggesting some rodent infestation of food. No chrysophyte algal cysts were noted in this sample, although microscopic charcoal was abundant, suggesting dumping ash into this privy. Recovery of *Juniperus*, *Pinus*, and *Pseudotsuga* charcoal, as well as coal fragments in the pollen screen, indicate that trees obtained locally included juniper, pines, and Douglas fir were burned and the ashes dumped in the privy. The total pollen concentration was nearly 3,000 pollen per cc of sediment.

Feature 233. Feature 233 is the latest sampled, with an estimated use date of 1935. Once again, the major features and pollen types observed in this sample are consistent with those of other privies from this property. Small quantities of *Acer* and Brassicaceae pollen recovered from this sample indicate local growth of maple and/or consumption of maple syrup and local growth of weedy members of the mustard family or consumption of mustard. The presence of small quantities of Cerealia, *Fragaria*, and *Zea mays* pollen indicate consumption of cereals and probably baked goods, strawberries, and maize. Recovery of *Capsicum*, *Fragaria*, *Lycopersicon*, *Pinus edulis*, *Rubus*, and *Vitis* seeds in the pollen screen represent consumption of hot peppers, strawberries, tomatoes, piñon nuts, raspberries, and grapes. This sample yielded a single type of plant hair, reflecting consumption of greens, as well as rodent hairs, suggesting infestation of stored goods by rodents. This is the only sample with sheep wool, which might have been introduced either through wearing wool or processing wool. Even working with wool to knit sweaters or other clothing or to make rugs might have introduced wool into the digestive system of a person. A very small quantity of chrysophyte algal cysts was recovered, suggesting slightly acid to moderate pH for the liquids in this privy. Finally, a large amount of microscopic charcoal was recovered, suggesting dumping ash into the privy. *Pinus* charcoal and wood, and coal fragments were noted in the pollen sieve, indicating that pine and coal were burned and their ashes dumped in this privy. Recovery of pine wood might reflect timbers used to construct this vaulted privy or perhaps discard of partially burned pine wood from a fire. Total pollen concentration was moderate, nearly 3,000 pollen per cc of sediment.

Summary and Conclusions

The pollen record remained remarkably stable throughout the samples examined from the Hispanic self-contained vaulted privies on the property at 141 West Manhattan, which were used between 1915 and 1935. These are mean dates for the fill, rather than start and end dates. A local vegetation community very similar to that of today is recorded in these deposits, with the typical sparse woodland that supported piñon, juniper, and Gambel's oak. Shrubs in the hazel family and willow might have grown near permanent water. Fir, spruce, and Douglas fir also appear to have grown in the region. Trees that appear to have been planted include *Acer* (maple, box elder) and *Tilia* (basswood). Several weedy plants are noted to have grown on the property. They include at least ragweed and closely related plants, probably a few other members of the sunflower family, possibly a member of the umbel and mustard families, as well as wild buckwheat, filaree, legumes, clover, plantain, knotweed, and globemallow. Pollen representing foods that were consumed include at least Cerealia, *Eugenia*, *Fragaria*, Lamiaceae, and *Zea mays* from cereals and probably baked goods, clovers, strawberries, mint, and maize. In addition, it is possible that maple syrup, mustard, and a member of the umbel family such as coriander/cilantro were eaten. Recovery of *Acer* pollen indicates either that maple/box elder trees were planted or that maple syrup was consumed. It is certainly possible that maple syrup was made locally if the trees grew on this or a nearby property. Local, native foods that might have been consumed include prickly pear cactus. Recovery of seeds in the pollen screens is typical when analyzing coprolitic material. Seeds from *Capsicum*, *Ficus*, *Fragaria*, *Lycopersicon*, *Pinus edulis*, *Rubus*, and *Vitis* expand the interpretation of foods consumed to include hot pepper, figs,

tomato, pine nuts, raspberries, and grapes. Of these, figs would not have been grown locally and would have had to be imported, probably dried or canned.

Recovery of chrysophyte cysts indicates low to moderate pH and cold conditions, usually with at least some winter freezing. This is consistent with the pH of urine, which usually varies between 4.5 and 8, and the climate of Santa Fe. Recovery of larger quantities of chrysophyte cysts from three of these samples suggests the possibility that some of the privies had lime added and that others did not. Increased alkalinity resulting from addition of lime would have prevented chrysophyte algae from growing.

The presence of rather large quantities of microscopic charcoal indicate discard of ash in the privies. Whether this was a convenient place to discard ash or whether the ash was added to diminish the smell is not evident. Recovery of a variety of charcoal fragments from pollen indicate local trees and shrubs included juniper, pine, hackberry, Douglas fir, and members of the willow family. In addition, coal fragments, noted in a few of the pollen screens, indicate that local residents also burned coal.

Chapter 30
Research Domain 1: Agricultural Systems

Initial archaeological testing of LA 158037 in 2007 (Barbour 2008a) suggested the presence of intact cultural deposits associated with eighteenth- and early nineteenth-century agricultural fields. If so these features would have had the potential to increase our understanding of agricultural systems as they existed south of the Santa Fe River between 1700 and 1880. During this period, much of the population was engaged in a subsistence-based economy in which these agricultural systems were pivotal.

However, the features believed to be associated with the eighteenth- and early nineteenth-century fields appear to have been misidentified during initial archaeological testing (Chapter 10). Construction and renovation activities in the late nineteenth and early twentieth centuries followed by massive demolition in the late 1960s have destroyed all recognizable traces of early agricultural features at LA 158037. While the bases to several small irrigation features were found, Features 14, 17, 120, 121, 122, and 123 appear to be associated with a garden behind Structure 4 (125 West Manhattan Avenue) at the turn of the twentieth century (Chapter 14). These features are likely not indicators of land use prior to the establishment of the residential neighborhood and cannot be linked physically or historically to the large-scale acequia systems that once distributed water throughout the city (Snow 1988).

While archaeological data regarding early agricultural systems were not found, this chapter briefly addresses each of the research questions proposed in the data recovery plan (Barbour 2008a). Based upon previously published archaeological work in the surrounding areas and archival research, rudimentary answers to the questions are provided. However, intensive archaeological investigations would need to be undertaken elsewhere to confirm or refute these interpretations.

Research Question 1: Can we date agricultural systems? Were small management features built for continuous use, or is there evidence of expansion or periodic remaking of the system? If so, how often do such changes occur?

Archival documents, such as the Urrutia map of 1766 and the Gilmer map of 1846–1847, appear to indicate the presence of agricultural fields in and around LA 158037 during the eighteenth and nineteenth centuries. During this time, the Acequia or Arroyo de los Pinos, a large agricultural ditch, was immediately south of the current project area along what is now Paseo de Peralta (Snow 1988). However, no laterals off of this ditch were found.

During initial testing (Barbour 2008a:51), Stratum 4 was believed to represent a plow zone. As discussed in Chapter 27, this is not the case. Any A or Ap horizons, along with much of the upper B horizon, which had covered the site during the eighteenth and nineteenth centuries, were destroyed by subsequent construction and demolition activities. Twenty-six 1 by 1 m test units were hand-excavated into Stratum 4 and resulted in the recovery of 42 artifacts. These artifacts included nineteenth- and twentieth-century bottle glass, square machine-cut nails, and domestic fauna (cow and sheep/goat). All were found in the uppermost 10 cm and are believed to represent later historic materials pushed into Stratum 4 during the dispersal of Stratum 3, a culturally mixed stratum associated with demolition of the later historic neighborhood in the 1960s, on top of it.

It seems likely that the area south of the Santa Fe River was under intensive agricultural use by 1628, when the San Miguel Church was first established in the nearby Barrio de Analco. These systems would have presumably followed the Iberian style of agriculture. As described by Plewa (2008:96), this system diverted water from the nearby Santa Fe River by gravity into an unlined main ditch (acequia madre) from which it was directed to specific fields by way of laterals (*sangrías*) and released using flood gates (*compuertas*). Hackett and Shelby (1942:98) indirectly point to the existence of one or more acequias south of the river during the seventeenth

century, but none are mentioned specifically in the surviving seventeenth-century documents.

Initial agricultural systems south of the Santa Fe River may have also been influenced by or similar to those employed by the indigenous populations of central Mexico, with the obvious exception of chinampas (artificial islands). The highlands of central Mexico are geographically and climatologically similar in many ways to New Mexico, and if populations residing south of the Santa Fe River were indeed Nahuatl-speaking Mexicans (as discussed in Chapter 5), there is no reason why Mesoamerican agricultural traditions would not have been utilized. Such traditions would bear many similarities with those employed by the local Pueblos in the seventeenth century. Agricultural practices would have included the use of the digging sticks, little or no use of draft animals, and the *milpa* system of planting corn, beans, and squash together to keep the soil nutrient rich and minimize the need for crop rotation. Mesoamerican milpas were typically farmed for two years and then allowed to lay fallow for eight, which suggests a 10-year rotation cycle for Mexican Indians living in the Barrio de Analco if they were using these methods.

In the years following the Pueblo Revolt, these fields may have been abandoned. It is unclear if the Pueblo Indians who occupied Santa Fe continued to farm areas south of the Santa Fe River between 1680 and 1692. After the subsequent Reconquest, there is clear historic evidence of the more robust Euroamerican-style agriculture, specifically acequias (Chapter 5). Wilson (2008:78) characterizes the periphery of Santa Fe at the time of American conquest as a conglomeration of wheat, corn, chile, and bean fields. It is likely that a similar situation existed in the eighteenth century. There is no evidence to suggest corn, beans, and squash were planted together, and it is unlikely that locations in and around the project area were allowed to lay fallow for more than a year. Instead, a single species would be planted from year to year. Farmers would switch from corn to beans to squash year after year to keep the soil and fertilize the soil with human and animal excrement. These specific plots may have been modified internally by the individuals who owned them, but it is unlikely that the boundaries of individual agricultural fields changed frequently. Irrigable land close to the villa was essential to life and prosperity, and presumably only sold off if absolutely necessary.

Research Question 2: What do traces of remnant fields and diversion and dispersion features indicate about changes in irrigation, farming, or land tenure? Do technological changes in farming and irrigation practices correspond to the introduction of the Santa Fe Trail? Do any changes occur after the coming of the railroad?

W. H. H. Davis (1938:67–71), a circuit judge who traveled extensively through New Mexico during the nineteenth century, specifies that field systems were composed of numerous agricultural beds. Each bed is characterized as a section of land 60 by 40 ft whose perimeter is surrounded by mounded earth. Adjacent to the bed, a minor irrigation ditch runs upon the highest portion of land within the field. This ditch is fed by a lateral from the acequia madre. When water is needed for the field, the perimeter around the bed is breached and water is allowed to flood that specific bed within the field.

It is unclear if these beds were utilized during the eighteenth century, but the description suggests a system that relied heavily on the utilization of at least three different kinds of ditches to irrigate even a small amount of land. Construction of these ditches and the above-mentioned agricultural beds would have been labor intensive. As a result, it is unlikely that these systems were modified frequently.

In the case of LA 158037, the mother ditch that fed the project area was the Acequia or Arroyo de los Pinos, immediately south of the project area (Snow 1988), in the current location of Paseo de Peralta. The locale impacted as a result of construction associated with the proposed State Capitol Parking Facility is 9,244 sq m, which would equate to a minimum of 40 beds. While these beds did not survive within the archaeological record, the minor irrigation ditches found behind Structure 4 (Features 14, 17, 120, 121, 122, and 123) may represent a modified version of the smallest form of ditch. Fed water from a nearby well, these ditches could have run adjacent to similar 60 by 90 ft beds and may represent the last gasp of semi-intensive agriculture at the site.

It seems likely that the ditches were abandoned

by 1910, and there is no archaeological evidence of later gardens at LA 158037. This is not say there were no later gardens, but rather that these small agricultural plots were likely quite ephemeral. Destruction of the A and Ap horizons during the late 1960s presumably removed all physical evidence.

Research Question 3: Is there evidence for crops or plant species? Did crop selection change during the life of the field? What evidence is there for crop diversification?

Recent archaeological work within the surrounding areas has yielded evidence of several plant species associated with eighteenth- and early nineteenth-century agricultural fields (Wenker 2005a; Lentz and Barbour 2011). The vast majority of pollen and macrobotanical assemblages are dominated by large quantities of corn with smaller samples of wheat smut, squash, and chiles.

While corn was the obvious crop of choice throughout New Mexico's history and prehistory, Davis's (1938) account of field division into individual beds hints at crop diversification within the agricultural system. Water to each bed could be regulated individually to meet specific crop needs. Direct historical or archaeological evidence of which crops were cultivated at LA 158037 does not exist. However, Wilson (2008:78) characterizes the periphery of Santa Fe at the time of American conquest as a conglomeration of wheat, corn, chile, and bean fields. This would match well with archaeological findings elsewhere in the Santa Fe area.

After the development of the residential neighborhood in the 1880s, it is likely the types of crops grown in the area changed as the focus shifted from large agricultural fields to smaller household gardens. Any individual household garden would likely have grown a large variety of vegetable and fruit products within the same plot. Macrobotanical evidence (Chapter 28) suggests residents had an affinity for a wide assortment of berries, peaches, grapes, figs, watermelons, and tomatoes. Interestingly, a similar range of items was found associated with each individual residence. While it cannot be proven that any of these products were grown on site, it allows archaeologists to examine the possible variation in garden products grown in the Capitol Complex Historic Neighborhood during the late nineteenth and twentieth century.

Conclusions

Archival evidence suggests the area in and around LA 158037 was being farmed by the early seventeenth century. However, it is unclear how these initial fields south of the Santa Fe River were organized and irrigated. By the eighteenth century, there is direct mention of the use of acequias in the historic record. During the eighteenth and early nineteenth centuries, an interconnected series of ditches fed the individual agricultural plots, which presumably focused on single crop.

At LA 158037, the destruction of the A and Ap horizons by residential construction and subsequent demolition removed all evidence of these early agricultural systems. While some irrigation features were identified, these ditches appeared to date to the turn of the twentieth century and were presumably fed water from a nearby well. However, the use of small ditch features may have been similar to earlier agricultural practices. Later 1920s and 1930s garden plots similarly could not be identified. However, macrobotanical evidence from nearby domestic-refuse pits suggests residents of the neighborhood ate a wide array of fruits and vegetables. Many of these products may have been grown in backyard gardens.

Chapter 31

Research Domain 2: Contextual Variability in Occupation Patterns and Residential Material Culture

The diverse array of archaeological features at LA 158037 can be linked to specific structures occupied during the late nineteenth and early twentieth centuries. Based upon archival research, residents show significant variability in ethnicity and socioeconomic status. The potential range of variability for these attributes provides opportunities, through written and archaeological resources, to examine differences in occupation patterns and material culture across many contexts.

Research Question 4: Does recognizable variability occur within the discarded material culture that may represent different consumption patterns of Hispanic and Anglo households within the late nineteenth and early twentieth centuries? What are the specific artifact classes that are most sensitive to different consumption patterns as they relate to cultural identity?

Past studies have focused on questions concerning New Mexico as a frontier of the Spanish Empire, Mexican state, and territory of the United States through shifts in material culture (Boyer 1992; Moore 2001). The arrival of the railroad increased availability and reduced costs of mass-produced products from the eastern United States. It was postulated in the data recovery plan that this influx of abundant and affordable goods would have resulted in a homogenizing of material culture assemblages left by late nineteenth- or early twentieth-century households, eliminating differences across ethnic groups. This was the not the case at LA 158037. Furthermore, discernible variability occurred across ethnic groups not just in the consumption and discard of material culture, but also in the broader occupation patterns of Hispanic and Anglo residents across the Capitol Complex Historic Neighborhood.

These differences in occupation patterns occurred on many different levels, the most basic of which is the distribution of different ethnicities across the neighborhood, both spatially and temporally. Many of the structures (Structures 1–5) built in the project area were initially owned by Hispanic families, many of whom appear to have owned the parcels of land prior to the coming of the railroad in 1880. These families, such as the Alarids and Romeros, built their initial structures in the last 20 years of the nineteenth century. Hispanic habitation was focused along Galisteo and the western extent of West Manhattan.

Anglo populations appear to have occupied the area in significant numbers after the turn of the twentieth century. Some families, such as the Parkers and Mullers, bought existing homes from Hispanic families. Others built new structures. These Anglo-occupied homes were clustered around Don Gaspar and the eastern extent of West Manhattan.

In general terms, the architecture of the structures occupied by each ethnic group is also quite different. Many of the Hispanic residences (Structures 2, 3, and 5) are built of adobe. Anglos appear to have preferred wood-framed buildings (Structures 6, 8, and 9). Brick structures (Structures 1, 4, and 7) are distributed somewhat evenly across ethnic lines. The Romero family built Structure 4 it of adobe, and the building was later given a brick facade by the Parker family. Brick structures were quite common in the neighborhood, with several preserved examples along the south side of West Manhattan Avenue and the west side of Galisteo Street.

The distribution of feature types across specific household lots shows that activities or preferences by individual households appear to play out on an ethnic level. Bone pits, for example, only occur at the Romero house. As discussed by Sherman (Chapter 22), these pits are most likely associated with feasting activities in which the brain and tongue of a cow were consumed. While the pits are unique to the Romero family, a cow skull was also found in an Alarid privy, suggesting that the consumption of cow tongue and brains may have been popular among Hispanic populations residing in the neighborhood as whole during the

late nineteenth and early twentieth centuries.

Privies are also a good example of ethnic trends visible across space and time. Self-contained privies indicate the use of outhouses, whereas straight-line cesspits suggest a household had an indoor water closet. Furthermore, the absence of both privy feature types suggests that some residences were tied into the city's sewer system.

At LA 158037, both ethnic groups used all three systems. However, as seen in the archaeological record associated with Structure 1, Hispanics may have been slower to adopt new systems. Based on temporally diagnostic cultural materials from Features 231–235, the Alarid family was using an outhouse until the beginning of the 1940s, when they likely switched to an indoor water closet connected to a straight-line cesspit (Feature 44). Sewage services were available to residents as early as 1920 (Snow and Barbour in prep.), which should have made both systems used at Structure 1 obsolete by the beginning of the Depression era. Conversely, Anglo inhabitants of Structures 8 and 9 may have linked their buildings to the sewage system at the time of construction, and other Anglo-owned structures were using straight-line cesspits at least by the 1920s, suggesting they had indoor plumbing 15 to 20 years before some of their Hispanic neighbors.

Smaller cultural materials collected for laboratory analysis provide more nuanced differences between the two ethnic groups. Barbour and Moga discussed consumption and discard differences within the Euroamerican artifact assemblages in Chapter 20). In the case of Euroamerican artifacts, consumption patterns across function-based analytical categories between the two groups are largely similar except in the distribution of domestic items (more Hispanic) and construction and maintenance materials (more Anglo). It is not necessarily clear why there are noticeable discrepancies. A similar set of activities (cooking, cleaning, sleeping, childcare, etc.) would have been performed by each ethnic group within a residential setting, and hence a similar array of artifacts across each of the function-based categories was expected.

Domestic items were further scrutinized. Glassware cups and goblets were found to be more prevalent in Anglo assemblages, but perhaps more interestingly, soup plates, often seen as a marker of Spanish ethnicity, were used in only small, insignificant quantities by both groups. However, overall ceramic dinnerware products made up the bulk of the domestic items artifact assemblages. These artifacts were aggregated by ceramic body (ware type) and aesthetic designs. Hispanic populations at LA 158037 were found to have a preference for eastern porcelain and oriental and Art Deco design patterns. Anglos preferred Gothic Revival and Art Nouveau stylings, and most of their porcelain derived from continental European sources.

Conversely, unlike domestic items, the relative frequency of indulgence-related items was similar in both ethnic groups. Both groups preferred very different types of products. Anglos seemed to have been partial to beer and wine. Hispanics preferred whiskey and soda. These differences in indulgence consumption are similar to those at the Fort Marcy Military Reservation (Lentz and Barbour 2011). A comparison between noncommissioned officers (largely Anglo) and enlisted men (largely Hispanic) during the late nineteenth century showed whiskey was primarily consumed by the enlisted men, and the NCOs preferred beer. This suggests indulgence preferences may be a very strong indicator of one's ethnicity during the nineteenth and twentieth centuries.

Analysis of the fauna by Craw also showed recognizable differences between the two groups (Chapter 21). While both groups consumed greater quantities of sheep/goat relative to cow, Anglos consumed more cow compared to their Hispanic counterparts. Anglos also consumed more chicken and rabbit. Hispanics seemed to enjoy chicken but tended to eat more eggs. Surprisingly, even though some of the Anglo families were of German origin (Muller, Yodder, etc.), pig products appear to have been consumed equally by both groups.

There are also differences in the fauna between percentages of store-bought (i.e., saw-cut bone) and home-raised products (i.e., axe-cut bone). Anglo populations appear to have purchased more of their meats at the store, while Hispanic populations chose to eat products they or their neighbors processed in greater frequency. Adding to this, the Alarid family in particular appears to have supplemented domestic meat resources with hunting of wild game. This led to a more diversified fauna assemblage found in

association with Hispanic households.

The flaked stone assemblage, analyzed by Bird and Moore (Chapter 23), was small, and most of the artifacts are likely not associated with activities occurring in or around LA 158037 during the late nineteenth and early twentieth centuries. Many may have simply been collected from other archaeological sites as curios by the residents of the Capitol Complex Historic Neighborhood. The most obvious example of this collection practice is the Archaic-period En Medio projectile point found in the Parker privy, which predates construction of the feature by several thousand years.

However, not all flaked stone artifacts can be easily explained away. A strike-a-light flint was encountered in a bone pit associated with the Romero family in the late nineteenth century. This type of informal tool appears in contemporaneous Hispanic sites near Abiquiu and Pecos (Moore 2003). While this kind of stone tool seems out of place in a 1890s urban environment, it may have been used by the Romero family. If so, the use of flaked stone by Hispanic residents would be an ethnic difference in artifact consumption and discard patterns.

There is less ambiguity in the Pueblo-style pottery assemblage. Locally produced Native ceramic products, as discussed by Wilson (Chapter 25), clearly show a more diversified assemblage among Hispanic populations. Unlike their Anglo counterparts, Native pottery appears to have had a functional role in Hispanic households into the early twentieth century. Hispanics purchased substantial quantities of micaceous and plain utility vessels, including bowl forms, whereas Anglos seem to have been more concerned with the aesthetic value of Native ceramics, buying decorated ollas or jars.

While both Anglo and Hispanic populations in New Mexico consume copious quantities of chile and piñon nuts today, McBride (Chapter 28) observes that the consumption of these items appears to be a Hispanic ethnic marker in early twentieth-century macrobotanical assemblages. Cummings and Varney (Chapter 29) also suggest that prickly pear cactus was a food consumed by Hispanic populations and not their Anglo counterparts based upon their study of coprolitic matter from several of the self-contained vault privies.

Many of these differences were quite surprising. Anglos had lived side by side with Hispanic populations in Santa Fe for several decades. Presumably the two populations shopped at the same shops, ate at the same restaurants, and worked together at the same jobs. Yet throughout it all, it is easier to see differences than similarities. Populations that are archaeologically distinct from one another lived side by side.

This conclusion runs counter to Rathje and Murray (2001:147–150), who suggest that discrepancies in consumption and discard patterns are largely driven by variations in availability and regional economy, not ethnic differences. However, the garbology project from which that conclusion was deduced was generated by examining modern refuse in the 1970s and 1980s. It is likely that most of the twentieth-century Euroamerican artifact assemblages used in this study predate the late 1940s and early 1950s. Historian David Kyvig (2004:xiii) suggests that the standardization of American life began in the 1920s with access to radio advertisements and the birth of American consumerism on a national scale. However, it was not until the rise of suburbia and the expansion of the television into nearly every household in the Postwar era that American culture took on a truly national form (Diggins 1988).

It would be interesting to compare Hispanic and Anglo ethnic groups with data collected from 1950s and 1960s suburbia. Would it be possible to follow the transition from the current heterogeneous data set observed in this report to the more homogeneous findings of Rathje and Murray? It is obvious that archaeologists have only begun to scratch the surface regarding ethnic identity and consumption and discard practices in twentieth-century archaeological contexts.

Research Question 5: Do consumption patterns vary between low- and middle-class households in the late nineteenth and early twentieth centuries? If so, are these patterns exacerbated or diluted by the Great Depression (AD 1929 to 1941)?

Research Question 5 is somewhat problematic. It assumes that lower- and middle-income household artifact assemblages were recovered

within the project area and can be distinguished from one another by archaeological, ethnographic, and archival evidence. This may or may not be true. It then further implies that these assemblages will have diagnostic elements that tie them to historic periods on a roughly decadal scale, such as the 1920s, 1930s, or 1940s.

Hudspeth's Santa Fe City Directories between 1928 and the 1960s characterizes the occupants at LA 158037 as holding a diverse array of jobs, such as lawyer, laborer, judge, housekeeper, clerk, and minister. These jobs represent a wide range of lower-, middle-, and upper-income households, and the directories were produced on an annual or biannual basis. This produces a very accurate list by which to characterize occupants of the neighborhoods during and after the Great Depression. However, the majority of artifact assemblages recovered from the project area date between 1890 and 1940. These two time scales are not contemporaneous. For comparative purposes, we lack job listings for residents over a pivotal 40-year interval. While we do have census records that can tell us something of the people who lived at the residences between 1890 and 1928, a national census is only performed every 10 years. At best the census is a snapshot in time and cannot relate the fluid dynamics of the living situations. For example, Structures 1, 2, 3, and 5 were owned by the Alarid family, but they moved between the four structures based on which they could rent out at any given time. So while the census lists the professions of Ricardo Alarid, Ricardo Alarid Jr., and Juan Pedro Alarid, it misses an unknown number of the families who rented houses from them.

Some but not all of this data can be supplemented from ethnographic interviews. In the case of the Alarids, Juan Pedro (personal communication, 2009) stated that his father occupied 141 West Manhattan Avenue during most of the 1920s, when he was distributing alcohol from the premises as part of a bootlegging operation. This excludes renters from the premises between ca. 1920 to 1930. To some extent this can be validated through the archaeological record, which found numerous shouldered jugs and Mexican and Canadian alcohol products in privies believed to date to the Prohibition era. However, oral history is at best a questionable means of determining who was rich and who was poor.

Archaeological methods were also employed to determine the socioeconomic status of individuals residing in the neighborhood (Chapter 20). One approach employed was the use of ceramic price indices with Euroamerican dinnerware from the individual households. This data suggested that Structures 1–7 could be arranged from wealthiest to poorest in the follow order: Structure 7, Structure 3, Structure 2, Structure 5, Structure 1, Structure 4, and Structure 6. However, mean ceramic index values generated across the individual structures were statistically irrelevant, with standard deviations which clearly overlapped and could suggest that all inhabitants within the neighborhood had similar purchasing power.

Prescription bottle index values were also employed to serve as a proxy for determining socioeconomic status. However, higher values were found consistently among only Anglo populations. The utilization of professional health care may have been an ethnic preference. Hispanic populations appear to have relied more heavily on homeopathic cures than Anglos , who often sought professional treatment for their medical ailments.

Assigning features to specific eras also proved to be incredibly difficult. Mean bottle glass and ceramic manufacturing dates offer an approximate date for individual features across LA 158037. However, many of these mean manufacture dates also had large standard deviations, which diminished the potential to link the features to a specific decade. In many instances, assemblages could only be designated late nineteenth century, early twentieth century, post-1910, and post-1930.

With these complexities in mind, comparisons of cultural material could not adequately deal with both time and socioeconomic status collectively. While analysts were able to generate some general conclusions about consumption and discard change over time, linking these changes to different socioeconomic groups was largely impossible.

Euroamerican artifacts, analyzed by Barbour and Moga (Chapter 20), offered several observations on changes in consumption and discard in the World War I, Prohibition, and Depression eras. It appeared that while the

Eighteenth Amendment prohibited the sale and distribution of alcohol, alcohol products were still visible within the archaeological record throughout the Prohibition era, albeit on a reduced scale. Conversely, personal effects such as clothing and medicine were found in reduced frequencies during the Great Depression, suggesting that access to health care declined, and clothing was likely repaired or modified to last longer. In addition, there was a clear trend towards the increased consumption of store-bought food items across all three periods.

This trend towards purchasing more and more food items from commercial establishments was also recognized by Craw in the faunal analysis (Chapter 21) and correlated well with a trend over time away from the consumption of mutton or lamb (typically home-butchered) towards greater quantities of beef (typically store-bought). However, economic indices and yield values did not show a decline in the quality of meats eaten during the Great Depression. Hence, the economic downturn of the 1930s appears to have little effect on the cut of meat purchased by the community.

Wilson found through the analysis of locally produced Native American pottery (Chapter 25) that there was a trend towards more decorative and less functional vessels over time. This pattern may been influenced by the efforts of Edgar L. Hewett and others associated with the Pueblo Art Fund, who encouraged Pueblo potters to abandon their many traditional forms in favor of creating large, highly decorative jars and ollas. Moore and Bird concluded that flaked stone artifacts were likely not used by residents of the neighborhood in the twentieth century (Chapter 23). Flaked stone found in these contexts was likely collected as curios. The single piece of ground stone on the site was likely collected for similar reasons (Chapter 24).

Based upon the conclusions reached by the individual analysts, it appears that the effect of Prohibition and the Great Depression on the archaeological record was in many ways negligible. Many patterns discussed, such as a greater reliance on store-bought products, the consumption of beef, and the consideration of aboriginal pottery as works of art, appear to have been trending upward before, during, and after these two eras. The Eighteenth Amendment and national economy had little to no impact on these general trends. Prohibition did impact the overall frequency of alcohol products within the archaeological record but did not succeed in stopping alcohol consumption. During the recession, access to health care appears to have declined, and people may have held on to some items, such as clothing, for longer periods of time.

This is not to say Prohibition and the Great Depression did not have a visible impact on the archaeological record. However, many of these responses may have been family or structure specific. The bootlegging and alcohol distributorship operation run by the Alarid family and documented in Features 232 and 234 was in direct response to the public's thirst for illicit spirits during the 1920s (Chapter 11). The Alarids met these needs, but the products they sold were recognizably different from those sold in the 1910s and 1930s. Because alcoholic beverage distribution was illegal in the US, most of the manufacturers and brands within the Prohibition assemblages could be traced to Mexico or Canada. There were also a number of nondescript shouldered jugs, presumably containers for homemade products.

It is also true that while people purchased more and more commercial food items over time, some people did turn to home canning as a cost-saving measure during the Great Depression. The Muller family root cellar, where a jar of pectin was found, is a perfect example. This sort of cottage industry likely typified the Great Depression era. However, many of these industries may not be visible in the archaeological record.

As discussed in Post (1999), the Great Depression of the 1930s affected a broad spectrum of socioeconomic groups. In rural areas, the hardest hit were small-time subsistence farmers, who were unable to claim federal aid until after their land was lost to tax collection. This led to alienation and disenfranchisement of rural populations and ultimately to relocation to urban environments. This relocation can be seen in the building construction patterns within the Capitol Complex Historic Neighborhood. During the 1930s and early 1940s, Structure 5 and 6 underwent substantial renovations to accommodate rental units (Chapters 15 and 16). Similarly, Structure 2 was purposely built by the Alarids as a rental unit in 1938 (Chapter 12).

Presumably these rental properties provided supplemental income, which, along with their salaries, allowed residents to mitigate the more drastic impacts of the recession on their quality of life.

Hence, while there is little evidence of collective disruption to consumption and discard patterns during the Prohibition and the Great Depression eras, individual families responded to the new challenges brought on during these periods in a variety of ways. This level of personal agency witnessed in the archaeological record suggests there was no one response to the proscription of alcohol or the economic recession which followed. Instead, there were numerous responses by individual family units to address highly complex situations.

Research Question 6: Do discard patterns differ in domestic-refuse pits and self-contained vault privies? If so, what characteristics of consumption patterns are similar?

For the State Capitol Parking Facility Project, features were identified by one of ten different feature types based on in-field observations of feature shape, design, content, and location. Three of the most common feature types were domestic-refuse pits, construction-debris pits, and self-contained vault privies (Chapter 8). Each of these pits is perceived to be associated with a different set of household activities. The domestic-refuse pit feature type is presumed to be linked primarily with kitchen- and child-related chores based upon high quantities of coal clinkers and charcoal, the construction-debris pit feature type is thought to be associated with maintenance and renovation based on the abundance of concrete and adobe, and the self-contained vault privy feature type is most likely connected with bathroom-related functions based upon the presence of human waste.

The Euroamerican artifact analysis used for this report is a function-based analytical framework (Chapter 20). Central to any function-based analytical framework is the identification of specific activities within the discarded material culture. Some generalized patterns in the discard of Euroamerican artifacts occur across domestic refuse (domestic artifacts typically dominant), construction debris (construction/maintenance items typically dominant), and human waste disposal systems (personal effects typically dominant). However, there is too much variability across individual features to make these generalizations particularly useful in determining activities performed in and around these features by the analysis of Euroamerican artifacts without taking into account other variables such as feature design, shape, content, and location. Furthermore, Euroamerican artifacts recovered from irrigation ditches, bone pits, postholes, etc. had very little to do with feature function.

While artifacts collected from all of these features were likely associated with general residential activities at each of the individual properties, Euroamerican artifact assemblages from specific feature types were not necessarily distinct from one another. Feature function could not be identified based on artifact distributions alone. So while the artifacts could be used collectively to determine the range of activities which occurred at the residence, their spatial distribution usually did not relate to areas associated with their use.

Conclusions

Ethnic differences were clearly visible both across occupation patterns and consumption and discard practices within the Capitol Complex Historic Neighborhood. These differences included when specific groups settled the neighborhood, the materials they used to build their homes, the liquor they drank, and the animals they ate. While Anglo and Hispanic residents lived side by side within the neighborhood in the early twentieth century, these two groups were archaeologically distinct from one another.

Differences in consumption and discard through the various historic eras, such as Prohibition and the Great Depression, were less pronounced and more nuanced. Over time, it was possible to see an increase in store-bought products and a greater reliance on beef. However, alcohol consumption was not eradicated by the passing of the Eighteenth Amendment, and the Great Depression may have only had a limited impact on the financial well-being of the neighborhood as a whole. Individual responses to the economic recession and the banning of alcohol were varied.

Whether it was bootlegging whiskey, canning fruits and vegetables, or adding rental units to the property, inhabitants of LA 158037 managed rather well through trying times.

However, much of the comparison between different socioeconomic groups throughout the occupation sequence was difficult to infer. Archival records prior to 1928 were sporadic, and ethnographic interviews are to some extent unreliable. Two archaeological methods were used to infer social status: mean ceramic price index values and prescription bottle index values. Unfortunately, variation across structures in the mean ceramic price index values was statistically irrelevant, and prescription bottle index values seem not to indicate socioeconomic status, but rather ethnic variation: Hispanics focused on homeopathic health care options more than Anglos, who preferred to treat their ailments with pharmaceutical prescriptions.

Artifact distributions across specific feature types were not necessarily related to feature function, but rather provided information on collective residential activities occurring on the property. On a very broad scale, it was possible to see general patterns across construction-debris pits, domestic-refuse pits, and self-contained vault privies. However, these patterns could not predict feature function without knowledge of feature shape, size, and context. Furthermore, artifacts from other feature types, such as irrigation ditches and bone pits, offered no information on the feature's function in relation to other surrounding features.

Hence, it seems that contextual variability was easiest to assess and most distinct between the two ethnic groups. Temporal change was noticeable. However, linking change through time with lower and middle socioeconomic groups was difficult. Either differences between the two groups are not recognizable, or they are impossible to infer within the current data. The examination of artifact distribution patterns across different feature types was not beneficial and is of dubious value to future archaeological research in twentieth-century residential contexts.

These conclusions are at best tenuous, but they are derived from a substantial sample of artifacts, features, and structures within the Capitol Complex Historic Neighborhood. This suggests that the observations listed herein are at least accurate to the level of the neighborhood. Further research is needed to confirm or refute these concepts on a city-wide level, and comparative data from cities like Las Vegas and Albuquerque would be necessary to tie these observations into state-wide trends of contextual variability in occupation patterns and residential material culture.

Chapter 32
Summary and Conclusions

In a handful of modern cities, archaeologists have begun inquiries into the all-but-forgotten landscapes of inner-city neighborhoods. In almost every instance, the importance of these places have been obscured by distorting "slumland" stereotypes and the acceptance of these communities by the archaeological mainstream as areas of little or no research merit (Mayne and Murray 2001:1). This is certainly not the case with the Capitol Complex Historic Neighborhood of Santa Fe.

In addition to housing many state and federal office buildings, archival records suggest the current Capitol Complex Historic Neighborhood was at one time a fairly affluent multiethnic community. Between the 1880s and the post–World War II era, the neighborhood flourished. Just south of the Capitol Building at LA 158037, judges, lawyers, soldiers, business owners, clerks, housemaids, and bootleggers lived side by side. Accessibility to mass-produced goods and countrywide advertising strategies tied the community into national and international markets. However, through it all, residents continued to maintain distinctive ethnic behaviors of consumption and discard. For example, Anglos preferred beef in their diet, while Hispanics, perhaps adhering to old traditions, consumed larger quantities of mutton.

The development of suburbs on the edge of town after 1945 does appear to have led to a general downturn in the local neighborhood economy. As *Hudspeth's Santa Fe City Directories* listings indicate, by the late 1940s the "upper classes," such as lawyers and judges, had moved away from the neighborhood. Most of those listed as still living in the area during the 1950s and early 1960s were waiters, waitresses, laborers, housemaids, and custodial staff. It is this perception of the neighborhood which has led to its "slumland" reputation.

This stereotype made it easy for the public to forget what had existed before. On the heels of nationwide calls for urban redevelopment in the late 1960s, the State of New Mexico purchased much of the land in and around LA 158037 for use as state offices and parking lots for state employees. Longtime residents, such as the Alarid family, who did not acquiesce to the state, had their properties condemned and then seized for a fraction of its market value.

The land was leveled. Houses which had existed for decades were bulldozed down to their foundations and then sealed off from the modern world. Encased under a layer of asphalt and concrete, they laid ignored and all but forgotten for nearly half a century until archaeology was performed in advance of the proposed parking facility.

While demolition during the late 1960s had disrupted and churned much of the old twentieth-century ground surface, many of the subsurface refuse pits, privy vaults, and house foundations remained relatively unscathed. In most instances, only the upper 20 to 50 cm of fill were impacted, while lower deposits within these features were preserved in situ. Earlier agricultural fields and features predating development of the neighborhood were less fortunate. However, from the cultural materials that remained, a vivid picture of the community during the late nineteenth and early twentieth century emerged.

Development of what is now called the Capitol Complex Historic Neighborhood coincides with the coming of the Atchison, Topeka & Santa Fe Railway in 1880 and the construction of the first New Mexico State Capitol Building in 1886. Initially, this community was comprised primarily of Hispanic families from the Santa Fe area, but as it grew, Anglo occupants from the eastern United States began to settle the area in ever increasing numbers. Within the current project limits there were eight individual lots (nine structures). Six were residential (Structures 3–6 and 8–9), one was mixed residential/commercial (Structures 1 and 2) and one was a church (Structure 7). Three of the lots were occupied primarily by Hispanic families and five by Anglos.

Archaeological features were found on all eight of the lots. In most instances, these features could be tied to the inhabitants of the nine structures. The ethnic and socioeconomic diversity among

the inhabitants of the neighborhood combined with the array of features types were ideal for a processual examination of contextual variability in settlement patterns and residential material culture.

Structure 1, 125 West Manhattan Avenue, was the location of Pete's Super Market in the 1950s and had been owned by the Alarid family for over half a century. Throughout its life, the structure had served many functions, including the family's home, a rental property, and a bootlegging operation during Prohibition. Feature types included privies, domestic-refuse pits, construction debris, and miscellaneous structural elements. Artifacts from these features suggested a relatively wealthy family whose fortunes began to decline in the 1920s.

Structure 2, 451 Galisteo Street, was on the same lot as Structure 1. Built during the Great Depression, the structure functioned as both a rental property and primary residence for the Alarid family. A disproportionate number of toiletry bottles found within six domestic-refuse pits associated with structure provided evidence of Ricardo Alarid Jr.'s work as a barber.

Structure 3, 135 1/2 West Manhattan Avenue, also appears to have served primarily as rental property for the Alarid family throughout the early to mid twentieth century. Most of the renters were Hispanic. Like much of the Hispanic population residing in the neighborhood during the early twentieth century, the inhabitants of the structure preferred mutton to beef.

The Parker house, Structure 4, was at 125 West Manhattan Avenue. Owned initially by the Romero family, the property was characterized by 14 bone pits filled with butchered cow crania. It was deduced through faunal studies that a member of the family appears to have had an insatiable appetite for cow brains.

New Mexico Supreme Court Justice Frank W. Parker purchased the property in the 1910s and expanded the structure to become the one of the largest residential households in the area. It also appears to have been among the first houses in the neighborhood to make use of indoor plumbing as represented by the construction of a large straight-line cesspit leading out of the structure.

Structure 5, or 135, 137, and 139 West Manhattan, served as a rental property catering primarily to Hispanics. Like Structures 2 and 3, Structure 5 was owned by the Alarid family. However, it represents one of the few buildings on LA 158037 built of adobe bricks, a technique that was antiquated by the time the structure was built in ca. 1911. Artifacts found in the various construction-debris pits, domestic-refuse pits, and a privy suggest different individuals of varying social standing lived on the property, an interpretation confirmed by the historic record, which identifies the building as primarily rental apartments.

Structure 6, the Muller house, was owned by German immigrant Fritz Muller throughout much of the twentieth century. During the Great Depression, World War II, and postwar eras, smaller backyard buildings were constructed and used as rental properties to supplement Muller's retirement income from the US Army. Many of the early renters are not listed in *Hudspeth's Santa Fe City Directories*. However, residential refuse collected from domestic-refuse pits and privies may represent a palimpsest of materials associated both with the Muller family and these unknown renters, many of whom were presumably Hispanic based on their consumption of large quantities of mutton.

The First Baptist Church, Structure 7, was at 424, 428 and 430 Don Gaspar Avenue. No evidence of funerary, ceremonial, or religious activities of any kind was encountered on the property. However, the mean ceramic index value of porcelain bowls recovered from a self-contained vault privy suggests a relatively wealthy congregation.

Throughout much of the twentieth century, Structure 8, 420 Don Gaspar Avenue, and Structure 9, 416 Don Gaspar Avenue, were owned by William E. Rutherford, a station agent for the Atchison, Topeka & Santa Fe Railway. Only five features were identified in association with the two structures. These included three construction-debris pits, a domestic-refuse pit, and a posthole. Artifacts associated with these structures were minimal but could be linked to the Anglo inhabitants.

A comparison of archaeological materials associated with these eight lots (nine structures) across temporal, ethnic, and socioeconomic lines yielded mixed results. There were clear indications of differences across ethnic groups, in this case Anglo and Hispanic. While both groups lived

side by side within the neighborhood in the early twentieth century, Hispanic and Anglo cultures were revealed to be archaeologically distinct from one another. These differences included when specific groups settled the neighborhood, the materials they used to build their homes, and the food they ate.

Socioeconomic diversity was more difficult to infer. Archival records prior to 1928 were sporadic, and ethnographic interviews were unreliable when attempting to characterize the socioeconomic status of the individual families residing on the eight lots. Archaeological efforts also proved to be largely unsuccessful. Variation across structures using the mean ceramic price index values were statistically irrelevant, suggesting all families had similar purchasing power when dealing with specific items such as ceramic dinnerware. Prescription bottle index values were also an ineffective means for comparing relative wealth among the inhabitants of the Capitol Complex Historic Neighborhood. According to this study, prescription medicine consumption and bottle discard patterns suggested that utilization of professional health care was more characteristic of Anglo habitation. Hispanic families of the early twentieth century were more likely to treat illness with more traditional herbal and patent medicine remedies.

Several shifts in consumption and discard patterns of disposable material culture were visible through time. These included the ever-increasing consumption of beef and store-bought products. However, individual responses to specific historic events such as the prohibition of alcohol in the 1920s and the economic depression of the 1930s varied; they included bootlegging whiskey, the canning of fruits and vegetables, and the addition of rental units to the property. These activities expose a high degree of personal agency in which each family dealt with a specific event according to its own economic situation or individual tastes and preferences.

Personal agency was an unexpected theme visible throughout the project. Whether it was Mrs. Alarid and her fondness for eastern porcelain or the Muller family canning fruits and vegetables in their backyard, these individual choices by inhabitants of the project area may have had substantial impact upon the general patterns observed throughout the neighborhood. While the conclusions reached in this report are based on a large number of individual archaeological features and artifacts, the data set is ultimately derived from only eight city lots and nine structures. Further research is needed to confirm or refute these tentative conclusions on a city-wide level, and comparative data from other towns and cities would be necessary to tie these observations into larger, statewide trends of contextual variability in occupation patterns and residential material culture.

Perhaps none of these individual choices was more pronounced than the bootlegging and alcohol distributorship operation organized by Ricardo Alarid Jr. at 141 West Manhattan Avenue during Prohibition. As identified by the numerous shouldered jugs and Canadian and Mexican whisky bottles, this illicit entrepreneurial activity was clearly visible in the archaeological record and was confirmed in an interview with Ricardo's son, Juan Pedro. It is ironic to think that such an operation was occurring only a block from the New Mexico State Capitol Building and only two houses down from where New Mexico Supreme Court Justice Frank Parker resided!

As a result of HBO's hit series *Boardwalk Empire*, the illicit distribution of alcohol during the Prohibition has recently become a popular theme in American culture. While certainly the Alarid bootlegging and distributorship in the Capitol Complex Historic Neighborhood is a far cry from *Boardwalk Empire* (although Frank Parker and Ricardo Alarid Sr. were both high-ranking members of the Republican Party, like Enoch Johnson in the show), its presence speaks to the realities of the 1920s. People continued to drink, and as a result there continued to be a steady demand for alcoholic beverages. Bootlegging and distribution was not confined to mobsters in large urban centers or hillbillies in Appalachia. It was everywhere.

Another theme made evident in this study is the consistent limitations of the archival record even when dealing with the recent past. Sanborn Fire Insurance maps were utilized heavily throughout the archaeological investigations, but many of the physical observations conflicted with the data presented on these documents. In the case of Structure 4, 125 West Manhattan Avenue, the structure is labeled as adobe, but data recovery in and around the structure suggests a building

made of bricks or at least remodeled with a brick façade. Structure 2, 451 Galisteo, is placed much farther south than the archaeological evidence suggests. The 1948 Sanborn Fire Insurance map depicting the structure is not a new survey, but rather an ad hoc refurbishing of the 1930 Sanborn Fire Insurance map, which was created prior to the building's construction. It is possible the structure was drawn on the map without an adequate survey of the structure or its relation to other buildings in the area.

Conflicts between the written word and the archaeological record are not new, and it is not our intent to challenge one of the primary sources available to historians. Without archival documents, this study would not have been possible. In many ways, the two types of data were complementary, filling in gaps in the other. Documented historical events can often lend a human dimension to an incomplete data base.

This study of urban archaeology describes an era that has frequently been neglected in other works on downtown Santa Fe. Previous archaeological work within the city has focused on the Spanish Colonial, Mexican, and American Territorial periods. While this project included archaeological materials associated with the American Territorial period, much of the archaeological investigation was centered on deposits dating well after New Mexico statehood in 1912. Some of this focus on earlier periods has been the result of city ordinances which require mediation of only those archaeological sites over 75 years of age, but much is also the result of the perceived information gaps in the early archives. Certainly, these gaps exist, but they extend to all periods of time.

In this instance, the archival records could explain who lived at the property, when they lived there, and what they did for a living. Using this information, the archaeological record could be accessed to provide information regarding consumption and discard patterns of those who lived in the neighborhood. Subsequently, the archaeological data was studied to examine differences and similarities along ethnic, socioeconomic, and temporal lines. These lines of inquiry suggest that the "slumland" stereotype ascribed to the neighborhood is misleading and masks a vibrant middle-class, multiethnic community in which people with very different lifestyles lived side by side, coped with Prohibition, and worked through the Great Depression on their own terms.

This investigation has amassed a substantive body of archaeological materials and inferences regarding the community's inhabitants. When viewed collectively, patterns began to emerge, including the observation that consumption and discard patterns of disposable material culture vary significantly between ethnic groups and across time in many different ways. While these patterns need to be tested further by future investigations, analysis and interpretation of these data have produced information which may be used to stimulate increasingly dynamic models of urban life in Santa Fe during the late nineteenth and early twentieth centuries.

Chapter 33
Cultural Resources Management Summary

Upon completion of fieldwork, it was felt that this study had exhausted the potential of the 9,244 sq m of LA 158037 within the area impacted by construction of the State Capitol Parking Facility to provide information on the history of the region. No further archaeological work was recommended for that part of the site (Barbour 2009b).

However, it should be noted that LA 158037 was not excavated in its entirety. The remaining 9,090 sq m of the site were outside the project limits and were not investigated in detail. Archaeological testing of this area in 2007 (Barbour 2008a) revealed intact cultural features with the potential to yield additional information important to the history of Santa Fe during the late Territorial and early Statehood periods. LA 158037 continues to remain eligible for inclusion in the *National Register of Historic Places* and the *State Register of Cultural Properties* under Criterion D (36 CFR Part 60.4). Thus, further work may be necessary at LA 158037 if future projects are planned for areas outside those impacted by construction of the State Capitol Parking Facility.

This report complies with the provisions set forth in Barbour (2008a) and Section 18-6-5 (NMSA 1978) of the Cultural Properties Act (4.10.16.15 NMAC-N, January 1, 2006). Cultural materials recovered during archaeological investigations are curated at the Museum of New Mexico. Field and analysis records are on file at the Archaeological Research Collections Unit of the Museum of Indian Arts and Culture in Santa Fe.

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Appendix 1

A Sample of Deed Transfers and Purchases at LA 158037

David H. Snow

The following deed references to lot transfers within the project area must be considered merely a sample of those recorded. Some have not been recorded at the county; for example, it was not possible to locate the deed by which the New Mexico Baptist Convention acquired the lot on the northwest corner of Don Gaspar and West Manhattan prior to 1921. No attempt has been made to trace the ownership of each individual lot on the project site, an effort that would entail far more time (and money) than is available for this report. In addition, no attempt has been made to identify ownership histories beyond about 1920, since this information can be obtained, in most instances, from *Hudspeth's Santa Fe City Directories*. Conversely, deeds recorded prior to about 1850–60 seldom reference identifiable boundaries (such as street or acequia names); thus, efforts to identify lot locations are difficult, and few earlier deeds are included here.

With selection of the site for the new State Capitol building and grounds, and the extension of Don Gaspar Street south across the river, real estate activity in the vicinity increased dramatically, resembling a game of Monopoly as lots were bought and sold many times over. Much of this activity was little more than speculation, prompted by the city's anticipation of a "splendid business thoroughfare" as Don Gaspar was extended. Interestingly, however, with the exception of the First Baptist Church property, there could be found no deeds referring to residences (or businesses) north of the church along the west side of Don Gaspar Street. The first group of deed references are to purchases by the State of New Mexico for the new capitol grounds and buildings; following is a sampling of transfers of individual lots within and adjacent to LA 158037.

Editor's note: The following transactions are transcribed with only minor editorial changes, including the addition of Spanish-language accentuation. [?] indicates illegible material.

New Capitol Complex Purchases

1875 (Bk H:350). Cruz Peralta buys from Francisquita and Samuel Ellison a house of 12 rooms, a yard, and corral south of the river, bd'd east by the street towards Galisteo, north the Río Chiquito, south by Cruz Peralta and Adelaida Cienfuegos, west by Felipe Delgado.

1885 (Bk N:262). Thomas B. Catron to State, bd'd west, heirs of Tomás Gurule; south, heirs of José de la Cruz Ramírez and José Gonzales; east, Manuel Salazar and [?] Pino; north, [?] Pino de Sandoval and the river.

1885 (Bk N:108). Nemesion [sic] Roibal et al. to the State of New Mexico, bd'd north Nemesia G. Roibal et al., south, Jacob Esselbach, Levi Garnier, and Hilario Romero, east, T. B. Catron, west, Galisteo Road.

1885 (Bk N:124). Manuel Salazar to State of New Mexico, bd'd east, N. B. Laughlin, west, T. B. Catron, south, *acequia analco*.

1888 (Bk T:222). Juan B. Sandoval to State of New Mexico, bd'd east, Katie K. Laughlin, south and west, Capitol building grounds, north, Analco Street.

1908 (Bk L-1:509). Edward Miller to State of New Mexico, bd'd south, Florentina Manderfield et al.; north, river; east, Zepora G. Renehan; west, Galisteo Street.

1908 (Bk L-1:510). A. R. Renehan to State of New Mexico, as above, p. 590.

1934 (Bk Y-ms:288). Henry Alarid et ux. to State of New Mexico, bd'd, beginning at the south gate to the entrance of capitol grounds on Galisteo Street.

1934 (Bk Y-ms:287). Eliza Roberts to State of New Mexico, as above, p. 288.

Deeds to Lots within LA 158037 and Adjacent Areas

1844 (SANM I:715). María Antonia Pacheco to Rafael Padilla, house and land bd'd east, lands of Tomás de Sena; west, road to Galisteo, north, lands of Pablo Sandobal; south, *acequia del Pino*.

1858 (Bk G:114). María Isabel Rodríguez to José de la Cruz Ramírez [1850 census, p. 136], bd'd east, María Tomasa Alire; west, María Gonzales [possibly the mother of Felipe Alarid]; north, *acequia analco*; south, José de la Cruz Ramírez.

1859 (Bk J-1:169). House and lot from Margarito Sandoval to Tomás Gurule, bd'd east, a road; west Marta Tafoya; north an alley and the river; south, a road.

1859 (Bk J:99). Josefa Alarid [y Quintana] et al. to Tomás Gurule, bd'd east, José Pino and Ramón Sandoval; west, Ramón Sandoval [1850 census, p. 139] and Josefa Alarid; north, a road; south, Ramón Sandoval. [María Josefa Alarid was, apparently, a daughter of José Ramón and Antonia Troncoso (Alarid 1997:103).]

1859 (Bk J:98). María Antonia Trujillo [et vir, Ramón Sandobal] to Tomás Gurule, bd'd east, Ramón Sandoval; west, Luís Constante; north, a road; south, *acequia analco*.

1859 (Bk C:413). Recorded 1863. Interest in property transferred by María Filomena Pino de Alarid to María Rita Tafoya (see Bk C:139, following). [María Rita was married a second time to Jesús María Hilario Alarid, literary composer, poet, and postmaster at Galisteo, New Mexico, in 1888 and son of José Ramón and Antonia Troncoso (Alarid 1997:103–04), brother of Josefa, above. Antonia Troncoso was most likely a sister of Anastacio Romero's wife.]

1859 (Bk C:139). María Rita Tafoya to Felipe Alarid; bd'd east by Tomás Rivera, west, by María Rita Tafoya, north the *acequia analco*, south, the *camino real*.

1859 (Bk J:99). Josefa Alarid et al. to Tomás Gurule, bd'd east, Joe Pino and Ramón Sandoval, west, Ramón Sandoval and Josefa Alarid, north, road, south, Ramón Sandoval.

1860 (Bk C:228). María Rita Tafoya et al. to Felipe Alarid, bd'd east, Felipe Alarid, west, Felipe Pino, north, *acequia analco*, south, a road.

1863 (Bk C:139). María Filomena Pino de Alarid to José de la Cruz Pino (no boundaries provided).

1863 (Bk J:101). Ramón Sandoval to Tomás Gurule, bd'd south an *acequia*, east José Pino, west Ramón Sandoval and Josefa Alarid, north, a road.

1865 (Bk D:18). Antonio Brito to Felipe Alarid, bd'd east, Manuel Rivera, west, Felipe Alarid, north Tomasa Miranda and a road, south, Manuel Rivera.

1865 (Bk D:19). Miquela Luján to Felipe Alarid, bd'd east, Tomás Brito, west, entrances and exits to José Antonio Rodríguez, north, Dolores Rodrigues and an acequia, south, [?] Rivera.

1866 (Bk D:240). Adelaida Cienfuegos to Francisca Morales, bd'd north, the river, east and south, Albino Roibal, west, Galisteo Road.

1866 (Bk D:264). Francisca Morales to Eduardo Miller, bd'd east and south, Albino Roibal, north river, west, Galisteo Road.

1868 (Bk D:491). Albino Roybal et al. to Eduardo Miller, bd'd north, Miller and a road to hill [Pleasant Hill, on Cerrillos Road], south, Albino Roybal, east, Roybal's wall, west, Galisteo road.

1868 (Bk D:427). María Gonzales to Fernando Delgado, bd'd north, José Gonzales; south, the road from Pecos road to Galisteo road [that is, Manhattan Street]; east, José Gonzales; west, José Gonzales.

1873 (Bk G:116). Guadalupe Quintana de Ramírez

to Ambrose P. Adams et ux., bd'd east, José Gonzales, north, *acequia analco*, west, Fernando Delgado and Anastacio Romero, south, a road.

1875 (Bk H:319). Leonarda Ramírez Olson et vir to Edubina Ramírez de Adams et vir, bd'd east, José Gonzales; north, acequia analco; west, Fernando Delgado and Anastacio Romero; south a road.

1875 (Bk H:391). Leonarda Ramírez Olsen et vir to Ambrose P. Adams, bd'd, east, José Gonzales, north, *acequia analco*, west, Fernando Delgado and Anastacio Romero, south, a road.

1878 (Bk S:31). Nicolas Rodríguez to Jesús Tafoya et ux., bd'd, north an arroyo, south, a road, east, Felipe Quintana, west, Jesús Tafoya.

1879 (Bk Y:280). M. A. Breeman to Adela Krummeck, bd'd, north river, south *acequia analco*, east, Cayetano Varela and J. Ritter, west, Antonio Abeyta.

1881 (Bk R-2:123). Sophia Herlow to Julia Esselbach, bd'd, west by Galisteo Road at the south boundary of lands of Nemesia Gurulé de Roibal.

1881 (Bk R-2:80). Anastacio Romero to Pleasant Hill, bd'd east, Anastacio Romero, west, Galisteo road, south, *acequia común*, north, Anastacio Romero.

1882 (Bk M:20). Ambrose P. Adams et ux. to Levi Garnier, bd'd west, F. Delgado et al., east, J. Gonzales, south, road, north, *acequia analco*.

1883 (Bk S:275). Adelaida Cienfuegos to Adelaida Krummeck, on the east side of Galisteo Road (ref to Bk L:111).

1883 (Bk M:118). Adelaida Krummeck to Etienne Lacassagne, two tracts on the south side of the river, the second bd'd north, the river, south, a street.

1883 (Bk M:289). Adelaida Krummeck to N. B. Laughlin, bd'd, begin on north bank of *acequia analco*; also an adobe house and orchard.

1885 (BkB-1:592). Anastacio Romero to Ramón Romero, a house and lot, bd'd on all sides by Anastacio Romero.

1887 (Bk V:17). Anastacio Romero to María Guadalupe Romero, bd'd north, Benito Alarid, east and south, Anastacio Romero, west, Galisteo Road.

1888 (Bk T:220). Estate of Manuelita Pino de Sandoval to Juan B. Sandoval, bd'd north Analco Street, east, Manuel Salazar, south and west, the Capitol.

1888 (Bk T:56). Margarita Romero to Henry Oppenheimer, bd'd north, heirs of Pablo Delgado, east, Trinidad Lucero de Delgado, south, road, west, Anastacio Romero.

1888 (Bk S:554). Manuel Salazar et ux. to Katie K. Laughlin, bd'd, north the river, west, Frank Chávez, Juan Sandoval, and Capitol grounds, south, Capitol grounds, east, Stephen Laccasagne.

1890 (Bk V:306). Henry Oppenheimer to Rafael Ortiz y Lucero, bd'd north, heirs of Pablo Delgado, east, Trinidad Lucero de Delgado, south, a road, west, Anastacio Romero.

1890 (Bk V:366). Sophia Herlow to Julia Esselbach, land on the east side of Galisteo Road, at the south boundary of Nemesia Gurulé de Roibal.

1890 (Bk V:369). Julia Esselbach to Wm Quayle (?), land on the east side of Galisteo Road.

1890 (Bk V:371). Edwin T. Weber and Julia Esselbach interest in contract above, p. 369.

1891 (Bk W:222). Heirs of Anastacio Romero to John W. Akers, bd'd south, Manhattan Street, west, Santa Fe Improvement Company, north, Benito Alarid, east, Rafael Ortiz.

1894 (Bk C-1:16). N. B. Laughlin to Katie K. Laughlin, bd'd north, the river, east, P. H. Kuhn, south analco ditch, west, Don Gaspar Ave., east, E. Laccasagne.

1894 (Bk D-1:421). Heirs of José Gregorio Roybal to Albina Lugarda Roybal (no boundaries given).

1896 (Bk D-1:283). William Quagle to Julia and C. D. Esselbach, land on the east side of Galisteo road at the southwest corner of a wall at the south boundary of the Capitol grounds.

1897 (Bk E-1:412). Julia Esselbach to D. P. Simmons, beginning at a point on the east side of Galisteo Street near the south boundary of the Territorial Capitol grounds.

1898 (Bk C-1:217). Levi Garnier to Fred Muller, bd'd west, Fernando Delgado and Anastacio Romero; east, José Gonzales; south, Manhattan Street; north, *acequia analco*.

1899 (Bk P-2:417). Ramón García to Frederick Muller, bd'd north, Capitol lands; south, Rafael Ortiz and Manhattan Street; east, Levi Garnier; west, Wm Quyle [sic?, Quayle, Quagle?] and Benito Alarid.

1899 (Bk C-1:290). Ricardo Alarid to Libbie R. Schofield, bd'd south, Manhattan Street, east, Rafael Ortiz, west, Santa Fe Improvement Company, north Pelegrina Delgado.

1900 (Bk C-1:374). Beatriz Enos de Ortiz to Nathan Salmon, bd'd north and east by Fritz Muller, south, Manhattan Street, west, Ricardo Alarid.

1901 (Bk C-1:436). Robert N. Bell to Ishmael Sparks, begin at a stake on Galisteo Road.

1901 (Bk C-1:592). D. P. Simmons to Ishmael Sparks, begin at a stake on Galisteo Road.

1902 (Bk I-1:145). City to Frederick Muller, bd'd north, the river; east, west, and south by N. B. Laughlin.

1902 (Bk J-1:456). Etienne Laccasagne, bd'd north, the river; south, east, and west, by N. B. Laughlin.

1906 (Bk L-1:250). W. H. Pope to Louise Schnepple, land on northwest corner of Don Gaspar @ Manhattan, west to Fritz Muller.

1907 (Bk L-1:443). W. H. Pope to Mrs. Arthur A. Spearin [?], land on northwest corner of Don Gaspar @ Manhattan, thence west to Fritz Muller.

1908 (Bk L-1:517). Property as described above.

1911 (Bk P-1:113). Property as described above.

1912 (Bk L-2:543). Arthur A. Spearin [?] et ux. to E. R. Wright, as described above.

1917 (Bk R-ms:14). Land as described above.

1918 (Bk R-ms:25). Land as described above.

1920 (Bk P-2:142). Edward Knott to Adolfo Romero, bd'd north, heirs of Pablo Delgado, east, Trinidad Lucero de Delgado, south, a road, west, Anastacio Romero.

1921 (Bk M-3:580). A. N. Starkey et ux. to First Baptist Church, bd'd north, Manhattan Street, south, Arroyo Pino, east, Santa Fe Improvement Company.

1921 (Bk ?). Baptist Convention of New Mexico to First Baptist Church, land at northwest corner of Don Gaspar @ Manhattan.

1923 (Bk 10:90). Ishmael Sparks to Thomas Z. Winter, bd'd north, Capitol Street, east, Fritz Muller, south, Lot 24 Blk 43, west, Miguel Chávez. [Block 43 does not concur with either of King's maps of Santa Fe.]

Appendix 2

Biographical Information on Residents of the Capitol Complex Historic Neighborhood

David H. Snow

This appendix provides biographical information alphabetically, from various sources consulted, for some of the easily identified and more prominent people who resided on or adjacent to the Capitol Complex. The majority of the individuals and their family members listed in the US federal and earlier Mexican-period censuses cannot, for the most part, be further identified.

Ricardo Alarid I, son of Benito was, by all accounts, a "legend during his time, manipulating those around him." His first wife was Emilia Justice, daughter of John and Macedonia Luján (married 1883), and they produced fifteen children. His home on Alarid Street is said to have been leased from 1918–1925 to three presumed prostitutes and, at one time, for court proceedings. Ricardo died at his home on Alarid Street in 1939, and his obituary in the *Santa Fe New Mexican* described him as "for many years a colorful figure in local politics." At one time, Ricardo and Marcelino Ortiz "were virtually in control of the Republican party in Santa Fe" (Alarid 1997:97–99). It has been suggested that Ricardo might have been a gubernatorial candidate except that he was unable to speak English. Ricardo II, "Puma," was a barber by trade, but neither he nor his older brother play roles in Waldo Alarid's account of Benito's heirs. Puma's son, Pete (Juan Pedro), is identified variously as a carpenter and manager (or owner?) of Pete's Super Market, at 141 West Manhattan. Several other Alarid family members who resided along Galisteo Street are indicated in the genealogy chart (Fig. 5.12).

Lansing Bartlett Bloom was a Presbyterian minister, historian, and professor of history (1929) at the University of New Mexico. Born in Auborn, New York, Bloom came to Santa Fe in 1907 because of poor health. That same year he married Maude E. McFie, daughter of John R. McFie, associate justice on the Territorial Supreme Court. In the 1920 census, Bloom was said to rent quarters on West Manhattan Street, in his father-in-law's home. Bloom subsequently moved to Saltillo, Mexico, and served as a Presbyterian missionary. Returned to New Mexico, he also served briefly at Jemez Pueblo, where his lifelong interest in Pueblo culture and New Mexico history took root. In 1917 he exchanged his ministerial duties for a teaching position with the newly organized School of American Research in Santa Fe. He was an active member of the New Mexico Historical Society and associate editor of a historical journal, *Old Santa Fe*, and editor of its successor, the *New Mexico Historical Review*, from 1926 until his death in 1946 (Lamar 1966:110).

Antonio Donoghue, a Native New Mexican, was not otherwise identified. Listed as a renter on Don Gaspar Street, with several unskilled laborers, he provided no occupation to the census taker. He might have been related to "Messr. Donoghue," who owned a brick factory in town.

Jacob Esselbach (and daughter, Julia) could not be further identified.

Levi Garnier may have been related to Father J. M. Garnier, a French priest brought to New Mexico by Bishop Lamy prior to 1886.

Adelaida Barron de Krummeck sold property in the project vicinity, in 1866, to Francisca Morales (unidentified). The property was bounded on the north by the river, west by the road to Galisteo, and both east and south by Albino Roibal (SFCD Bk D:240); as well as to Etienne Lacassagne and Napoleon Laughlin (SFCD Bk M:118; SFCD Bk M:289). She is otherwise unidentified.

Kuhn Preston could not be identified.

Etienne ("Stephen") Lacassagne, a bricklayer or mason, almost certainly was one of the Italian workers—along with Mouly, Di Lorenzo,

Palladino, Digneo and Berardinelli—imported by Bishop Lamy for work on his cathedral. He owned a brick plant in town as early as the 1870s and may have taught and employed Amado Alarid, also a bricklayer by occupation.

Napoleon B. Laughlin came to Santa Fe in 1879 from Texas, where he practiced law, and was elected to the lower house of the New Mexico legislative assembly in 1880. He was elected again to the assembly in 1886, representing Santa Fe County. He was appointed associate justice of the Supreme Court of New Mexico, presiding over the first judicial district for four years. He was married to Kate Kimbrough of Dallas, by whom he had two daughters (Twitchell 1963:517), and was a regent of the Museum of New Mexico in the early twentieth century.

John R. McFie was born in Illinois in 1848. McFie was the son of 1845 Scottish immigrants to the United States. Having read law, he practiced that profession in his native state until 1884 and was twice elected a member of the state's legislature. With a commission from President Arthur as registrar of the US Land Office at Las Cruces, he arrived in New Mexico in 1884. In 1889 he was elevated to the bench by President Harrison and in 1898 was again appointed an associate justice of the Supreme Court by President McKinley, a position subsequently confirmed by both Roosevelt and Taft. He married Mary Steel, of Missouri; they had five children, one of whom, Maude, married Lansing B. Bloom (Twitchell 1963:506). A son, Ralph, served with Roosevelt's Rough Riders.

Edward ("Eduardo") Miller, known as "Eddy Mueller" by Adolph Bandelier, was a rancher in Tesuque, owner of Rancho Viejo (now Rancho Encantado), whose orchard of fruit trees and pond stocked with German carp were noted in the daily newspapers (Lange et al. 1975:461, n. 651; and 446, n. 540). Miller married Luisa López of Santa Fe in 1866. He was a merchant and pawnbroker, presumably, before his acquisition of land in Tesuque. A second marriage is noted, to Wilhelmina Feirde in Santa Fe, but no additional information concerning Miller or his wives has been found.

[Muo?] [Fra ?]. The name is illegible. It may be Francisca Morales, who, in 1866, sold land to Ed Miller, bounded west by the road to Galisteo, north by the river, and east and south by Albino Roybal (SFCD Bk D:264).

Captain Frederick ("Fritz") Muller, who served in Troop E, 1st US Cavalry, was born in Wurtemberg, Germany, in 1862, as a Müeller. Muller came to New York in 1879 and enlisted in 1882, serving under Generals Crook and Miles against Geronimo. He served with the New Mexico Rough Riders and, later, for three years, as receiver at the US Land Office in Santa Fe (Twitchell 1963:540). He also was a third-degree Mason (Wilson 1997:193) and was still living at the time Twitchell compiled his *Leading Facts of New Mexican History* in 1912. A "Frederick Muller" also was listed among the enlisted men at Fort Marcy in the 1850 US census (Windham 1976:154), aged 29, and native of Germany; it cannot be the same man. A "Fritz" Muller, who owned a mineral spring "in the hills south of Nambe and east of Tesuque," was an acquaintance of Adolph Bandelier (Lange et al. 1975:528, n. 1015). Fritz Muller, age 56 in the 1920 US census, and wife Adella (Adelaida), are also in the 1930 census as owners of properties within the Capitol Complex.

Frank Wilson Parker was born in 1860, in Sturgis, Michigan. A lawyer, he came to New Mexico, initially to Socorro, in 1881, and thence to Mesilla, Kingston, and Hillsboro, where he lived from 1883 to 1889. In Santa Fe the following year, he was owner of a restaurant on property owned by Juan B. Lamy (presently the La Fonda Parking Garage) and secretary of the Santa Fe Hose Company (Twitchell 1963:479, n. 651). He was appointed to the bench by President McKinley in 1898, a position he held during the remainder of the Territorial years. He was a member of the constitutional convention of 1910 from Doña Ana County and was elected a justice of the New Mexico Supreme Court in 1911 (Twitchell 1963:525, n. 442). Parker still occupied his premises at 125 West Manhattan Avenue at the time of the 1930 US census.

William Hays Pope was born in Beaufort, South Carolina, 1870, and arrived in Santa Fe in 1894, where he served as associate editor of the *New Mexican* newspaper. He returned to the law in

1895, serving as assistant to the attorney general for the court of private land claims in New Mexico. Later, he was attorney for the Pueblo Indians and, following the Spanish-American War, was appointed judge in the Philippines. Returning to Santa Fe, he was appointed associate justice of the Supreme Court of New Mexico by President Taft, following which the president nominated him for the position of judge of the district court for New Mexico in 1912 (Twitchell 1963:566, n. 476). Among the cases heard before his court was an indictment against Elfego Baca for the escape of a Mexican counterrevolutionary, General Salazar (Hannett 1964:35–37).

Anastacio Romero, born August 21, 1820, was the son of Juan Diego and María Juana Montoya, "vecinos del barrio de Guadalupe" (Martinez et al. 1992:454). What was apparently the small lateral from the "acequia madre" (Acequia de Pino), which ran west down the north side of West Manhattan Street, was named for Juan Diego Romero (perhaps his grandfather?), which suggests that he might formerly have owned the land from which it was diverted. Juan Diego was most likely a grandson of Juan Diego Romero, of Tomé, and Gertrudis Padilla, who occupied a portion of the 1742 Felipe Tafoya grant west of the "camino de los carros" through inheritance (in the railroad properties; Hordes and Payne 1991:44). A daughter of Juan Diego of this report, Perfilia, married Pleasant Hill, whose son, Adolphus (Adolfo), might have owned and/or occupied, under his mother's name (Adolfo Romero), a lot later identified as owned by Anastacio (Snow 2004:29).

Adolfo Romero is identified in the 1930 US Federal census as a resident on West Manhattan Street, but whether east or west of Galisteo cannot be determined from the census. He was a nephew of Anastacio Romero and might be the same Adolfo Romero identified as resident on Anastacio's lot at the corner of Manhattan and Galisteo in the 1930 census. Adolfo also owned property further west on the south side of West Manhattan, possibly through inheritance from his mother.

Manuel Salazar could not be identified, but possibly was the man identified in Lange et al. (1975:383, n. 238) as a "land attorney" from Las Vegas, New Mexico, involved in fraudulent homestead entries during the mid-1880s. No individual of this name is listed in the censuses for the neighborhood.

Ishmael Sparks, with H. B. Cartwright, "started in upon the task of supplying a 'long-felt want' by constructing here a telephone system. . . . The inauguration of the 'hellow' system marks an era in the advancement of Santa Fe" (*Santa Fe New Mexican*, May 15, 1894, quoted in La Farge 1959:155–156). I am unable to further identify Sparks, but it is possible that he was a son of William Andrew Jackson Sparks, commissioner of the general land office in Santa Fe, appointed by President Cleveland in 1885 (Twitchell 1963:462).

Thomas Z. Winter was mayor of Santa Fe between 1920 and 1922 (La Farge 1959:265), but he was not further investigated.

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Appendix 3
Family Histories of Residents at LA 158037

Jacob Fishbein

This appendix provides family history information alphabetically, from various sources consulted, for some of the more recognizable family names encountered during archaeological, ethnological, and historical inquiries into LA 158037.

Alarid

Origin: French (Hispanic).
Members on location: Richard Jr. (1928–1958), Richard (1955–1958), Pete C. (1951–1952), and Ethel (1958–1960)
History: It is not known for certain when Juan Bautista Alarí arrived in New Mexico; there are three conflicting possibilities. The first possibility occurred in 1740, when nine Frenchmen arrived in Taos; two moved to Santa Fe and lived there. One of these men was a Jean d'Alay, who became a barber (medic) and whose name was written as Alarí by the governor at the time. However, it is also possible that Juan Alarí arrived in New Mexico with a group of 33 Frenchmen around 1740. The third possibility is that Alarí arrived with the Mallet Expedition in 1839. Among the eight party members there is a man called both "Petit Jean" and "Jean David," the only Frenchmen in the group. To make this option all the more appealing, Alarí's supposed companion, Louis Moreau, is listed among the party (Chávez 1992:122).

While living in Santa Fe, Juan Alarí married María Francisca Fernández de la Pedrera, and they lived in a house where La Fonda is now. They had four children. María died at the age of forty, and Juan married again and had one more son. Almost all the male children of Juan Alarí became soldiers during some part of their lives, as did their father. The name Alarí was written in a variety of different forms: Alarij, Alaríe, and Alejaríe, besides the most common and most often used Alarí. In the nineteenth century the name was hispanicized to Alarid, possibly in response to growing Anglo intrusion (Chávez 1992:122–123).

The first historical documentation of the Alarid family in the project area is on the *Hartmann Map of Santa Fe*, where two plots, one owned by a S. Alarid and another by a B. Alarid, are shown. Both are in the western boundary of the project area. This occupation continued into the twentieth century. *Hudspeth's Santa Fe City Directories* show multiple Alarids residing in the area. Richard Alarid lived at 135 1/2 West Manhattan Avenue in 1959; Richard Jr. Also lived in this building between 1938 and 1939. Richard Jr. also lived at 141 West Manhattan Avenue between 1940 and 1947. Richard Jr. lived even earlier at 443 Galisteo Street from 1928 to 1932. Richard Jr. also lived at 451 Galisteo Street between 1938 and 1943. Pete Alarid lived at 443 Galisteo Street in apartment number two between 1951 and 1952.

According to the Direct and Indirect Deed Books at the Santa Fe County Courthouse, between 1848 and 1934 the Alarid family had some of the largest land holdings south of the Santa Fe River. It showed hundreds of transactions using the Alarid surname and showed that Richard Alarid Jr. owned at least four residences. The deeds have been made out to Ricardo Alarid Jr., meaning that *Hudspeth's Santa Fe City Directories* anglicized his name for no known reason.

Aragón

Origin: Spanish (Hispanic).
Members on location: Andrew (1953–1956).
History: Andrew Aragón may have descended from any one of three Hispanic families. The first is the family of López de Aragón, who arrived in New Mexico in 1640 but made another trip from Mexico City to Santa Fe in 1642. During the revolt of 1680, there is no mention of any Aragóns; therefore, they may not have stayed in New Mexico. What followed is not known (Chávez 1992:54–55).

The second possibility is that Andrew Aragón was a descendent of Ignacio de Aragón, who arrived in New Mexico in 1693. His wife was

Sebastiana Ortiz, most likely a sister of Nicolás Ortiz, who is mentioned above. One source stated that he had three children when he arrived in New Mexico, but a second source mentioned only two. In 1710 Ignacio no longer lived in Santa Fe but in Bernalillo, where he had a new wife, Luisia Baca (Sebastiana Ortiz had died in 1708). The third possibility is that Andrew was a descendent of Felix de Aragón, who was from Guadiana, now Durango, in Colorado. However, it is not known if Felix had any descendants (Chávez 1992:127–128).

Andrew Aragón lived at 111 1/2 West Manhattan Avenue from 1953 to 1956. His profession is unknown. There were no other Aragóns in the project area.

Arguello

Origin: Spanish (Hispanic).
Members on location: Gloria (1969–1970).
History: The Arguello family arrived in New Mexico in 1695, when Juan de Arguello arrived with colonists in Santa Fe (Chávez 1992:133–134). He later became a soldier in Santa Fe in 1716. Gloria worked at the State Capitol and lived at 125 West Manhattan Avenue apartment number one from 1969 to 1970.

Carruth

Origin: Scottish (Anglo).
Members on location: J. A. (ca. 1928–1929) and C. H. (1930–1931).
History: It is not known exactly when the Carruths came to New Mexico. But it can be assumed that at least J. A. did before 1890, when he put together a catalogue (*Carruth's Catalogue and Price List of Blank Books, Records, and Blanks, 1890*). Carruth worked for the Museum of New Mexico as a printer. In 1890 Carruth did not live in Santa Fe but in Las Vegas, New Mexico. The catalogue contained objects that Carruth himself owned as well as documentation about elections for various positions in 1884, 1886, and 1888. At this time of his life it is not known if he was married to C. H. Carruth, but it can be assumed that he married her between 1890 and 1929. Carruth may have moved to the project area around 1928. This may have been the first time Carruth lived in Santa Fe, having lived in Las Vegas before, or he may have moved to the project area from another neighborhood in the city. Carruth presumably died in 1929 because the listing at 420 Don Gaspar Avenue was changed to the name of his wife, C. H. Carruth. She proceeded to live there until 1933 (http://elibrary.unm.edu/oanm/NmSm/nmsm1 percent23ac033-p/nmsm1 percent23ac033-p_m2.html).

Collier

Origin: Old English (Anglo).
Members on location: Adella (1957–1958).
History: Adella Collier was not a Collier by blood. In fact, she was the daughter of real estate agent Fred and Adella Muller. Though there is a fair amount of information on her father, there is not as much on Adella herself. She did, however, donate a large collection to the State of New Mexico that contained artifacts from her father dating from 1836 to 1974. Who Adella's husband was could not be found, but he was undoubtedly a Collier, a family which included some of the first English settlers in the United States. Adella Collier lived in the same building previously occupied by her father and mother, 111 West Manhattan Avenue (http://elibrary.unm.edu/oanm/NmAr/nmar percent231978-030/).

Delgado

Origin: Spanish and Portuguese (Hispanic).
Members on location: Lencha (1958–1962).
History: The first recorded Delgado in Santa Fe was Manuel Delgado, who in 1790 was shown as holding second place in command and being the *primer teniente*; he was 51 years old. It is likely that Manuel had already outlived his first wife, of whom we have no record because he had an 11- year-old daughter and 23-year-old wife, Josefa García. Josepha died in 1811 and Manuel married again, this time to an Ana María Baca. Manuel died less than a year later. José Fernando Delgado, a son of Manuel, was an *alférez* (ensign) and was killed in a campaign against Indians in 1821 (Chávez 1992:168–169).

The first record of Delgados in the project area was on the *Hartmann Map of Santa Fe*, where two plots, both owned by a J. Delgado, can be seen. They were in the center area of the project area. However, it can be assumed that in the

following years the Delgados began to leave the project area, because there is only one Delgado listed, Lencha. She lived at 449 Galisteo Street in apartment number one.

García

Origin: Spanish (Hispanic).
Members on location: Benjamin A. (1961–1962), Adelina (1958–1959), and Lucián or Julián (1969).
History: There are only three Garcías listed in the project area during the twentieth century, but it is impossible to know who they descended from. The surname García is one of the most common surnames in all of New Mexico. Marcos García came to New Mexico in 1598 with Oñate. In the early part of the colonization of New Mexico, many Garcías had a second name added on to the first (e.g., García Holgado, García Muerte, García de Noriega). By the time of the Reconquest, most of the Garcías had discontinued use of second names. Therefore, it becomes very difficult to distinguish one family from the others (Chávez 1992:32–34, 184–186).

The first reference to Garcías in the project area was on the *Hartmann Map of Santa Fe*, where two plots in the northern section of the project area were owned by a man referred to only as García. As mentioned above, there are only three Garcías living in the project area during the twentieth century: Benjamin, Lucián, and Adelina. Benjamin lived at 416 Don Gaspar Avenue, Lucián lived at 125 West Manhattan Avenue in apartment number four, and Adelina lived at 449 Galisteo Street in apartment number two.

Martínez

Origin: Spanish (Hispanic).
Members on location: José (1957–1959), Guadalupe (1957–1959), Benjamin (1957–1959), Teresa (1957–1959) and Bernabe (1963–1966).
History: The Martínez surname first arrived in New Mexico in 1693 (Chávez 1992:226–227). José Martínez was a teacher at Wood-Gormley Elementary School when he and his family (sons Guadalupe and Benjamin, and wife Teresa) lived at 135 1/2 West Manhattan Avenue. Bernabe Martínez, no relation, was a clerk at the Bureau of Revenue and lived at 125 West Manhattan Avenue apartment number one between 1963 and 1966.

Muller

Origin: German (Anglo).
Members on location: Fred (ca. 1928–1935) and Adella (ca. 1928–1954).
History: Fred Muller arrived in the United States in 1878. He had been born in Wurtemberg, Germany. Four years after his arrival, he joined the military and fought in campaigns in both Arizona and New Mexico. In 1887 he was discharged from the army and moved to New Mexico. He initially opened a grocery store but soon got involved in politics. He was the Santa Fe city treasurer in 1896, 1898, and 1900. Muller also joined the New Mexico National Guard and was a Rough Rider. Subsequently, he went to work at the United States Land Office at Santa Fe in 1899. He continued to work there until 1911. In 1912, when the State Land Office was created, he served under director Robert P. Ervien. After Ervien's death in 1918, he assumed the directorial duties. Then in the 1920s, Fred Muller left the state department to pursue real estate and insurance ventures (http://elibrary.unm.edu/oanm/NmAr/nmar percent231978-030/).

Fred Muller married Adella Miller and had six children: Frederick Jr., Alfred, Theodore, William, Elsie May, and Adella. They lived at 111 West Manhattan Avenue from 1928 to 1954. After Fred's death in 1934, the property was held by Adella until 1954. Fred and Adella are buried in the Santa Fe National Cemetery (http://www.interment.net/data/us/nm/santafe/santanat/santa_fe_muhnew.htm).

Ortiz

Origin: Spanish (Hispanic).
Members on location: Zoilo (1949–1950) and Juan D. (1949–1960).
History: The first Ortiz in Santa Fe was Nicolás Ortiz, who joined the colonists in the town in 1693. There is no consensus about his occupation or the size of his family. At Zacatecas he is referred to as a *sargento* (sergeant), with a family of seven. Another list shows him as a civilian not associated with the military with only six children

The early life of the Ortiz family in Santa Fe

was full of hardship. In 1714, Luís Ortiz, a son of Nicolás, was sent to Mexico City to conduct a convicted murderer back for disposition, but the prisoner escaped en route. When Luís returned to Mexico City with the news, he was jailed. Francisco Ortiz, another son of Nicolás, was banished to Bernalillo, along with his family, by Governor Cuervo (Chávez 1992:247–251).

Nicolás Ortiz II, "Niño Ladrón de Guevara" (a child thief from Guevara), was a military man who arrived in Santa Fe in 1693 from Mexico City; he was twelve years old. Four years later Nicolás received a citation for military valor in the battles of Black Mesa and Picuris in 1696; this was the beginning of his military career. In 1713 he was the captain of the Santa Fe militia. However, he apparently caused some offence because in the Moqui campaign of 1716 he functioned as a regular soldier, not a commanding officer. Despite this demotion, Nicolás was able to acquire much property in Santa Fe, including a house in front of the Church of St. Francis (Chávez 1992:247–251).

Francisco Ortiz, another relative, was at one time the alcalde of Santa Fe in 1744 and owned a mine in the Picuris country. Nicolás Ortiz III was the *teniente* (lieutenant) of the Santa Fe Presidio in 1750, and he had a connection to the Alarid family. Nicolás's son Gaspar Ortiz married Dolores Alarid in 1810 (Chávez 1992:247–251).

The Ortiz family does not seem to have played a large role in the project area. They held no plots of land recorded on the *Hartmann Map of Santa Fe*. It may be assumed, then, that the Ortiz family was not living in the area until later. There are references to a Zoilo Ortiz living at 135 West Manhattan Avenue between 1944 and 1948. There are also references to a Juan, or John, Ortiz living at 135 West Manhattan Avenue between 1949 and 1950, and in 1960 at 135 1/2 West Manhattan Avenue.

Romero

Origin: Spanish (Hispanic).
Members on location: Anastacio (ca. 1882–1911), Dolores (1958–1966), Manuel (1959), Adolf (1928–1929), Ramón (1928–1964), Ramón Jr. (1936–1959), J. Delfín (1964–1966), Romancita (1930–1931), and Raymond E. (1965–1966).
History: The Romero family is a long-standing family in Santa Fe history. Bartolomé Romero came to Santa Fe in 1598, when he 35; he was an alférez. Bartolomé was promoted to captain shortly after arriving in New Mexico. Bartolomé Romero II was also a military man, as were many of the Romeros over the subsequent years. He had been regent of New Mexico and alcalde of Santa Fe. Matías Romero, the second son of Bartolomé Romero, was *alférez real* (royal ensign) and high sheriff of Santa Fe in 1631. He was accused of trading illicitly with the Plains Indians. The third son of Bartolomé, Agustín, may have even outshined his two older brothers. He was the secretary of war of New Spain in 1642. Bartolomé Romero III, the son of Bartolomé II, was also a military man, rising to alcalde of Santa Fe in 1661.

Following this period of military prosperity in the Romero family came a period where there were no known Romeros in New Mexico. In the Pueblo Revolt of 1680, three known Romeros fled New Mexico for New Spain: Felipe Romero, Bartolomé Romero de Pedraza, and Francisco Romero de Pedraza. It is not known for sure if these Romeros returned with the Reconquest of New Mexico, but they may have returned under "apostolic" names, which many Spaniards took on returning to New Mexico. Other Romeros in New Mexico at the time were not related to this Romero family (Chávez 1992:95–98).

In the project area the earliest recorded evidence of Romero influence is on the *Hartmann Map of Santa Fe*, where there are two plots owned by an A. Romero in the eastern bottom of the project area. Romeros also show up in *Hudspeth's Santa Fe Directories* from 1928 to 1960. In the twentieth century, the Romero family had a large contingent in the project area; the earliest recorded were Adolf and Ramón in 1928. Both Ramón lived at 449 Galisteo Street, albeit at different times. Ramón also lived at 449 Galisteo Street two different times. Although there was a large contingent of Romeros, they do not stay in the same place for many years. As in the case of Mrs. Romancito Romero, a family member would often live in one place for a year and move on.

Rutherford

Origin: Scottish (Anglo).
Members on location: William E. (1944–1987) and Robert E. (1949–1950).
History: There is very little information to be

gathered about the history of the Rutherfords in New Mexico. We do not know when they entered New Mexico, but it is most likely that they came to the United States during the age of immigration, in the late nineteenth century. Based on William's occupancy in Santa Fe, they probably entered New Mexico in the middle of the twentieth century. However, there are many William and Robert Rutherfords in the history of the Rutherford name (http://www.wayfinding.net/Rutherfordsurname.htm). What we can glean from the housing records is that William E. Rutherford probably moved to Santa Fe to work in the railway business. In the 1944 *Hudspeth's City Directory*, he is listed as a freight agent for the Atchison, Topeka & Santa Fe Railway and held this job until 1963, when he retired.

References Cited

Chávez, Fray Angélico
1992 *Origins of New Mexico Families: A Genealogy of the Spanish Colonial Period*. Rev. ed. Museum of New Mexico Press, Santa Fe.

Hudspeth's Santa Fe City Directories
1929 Hudspeth Directory Company Publishers, El Paso.

Appendix 4
Tables

Table 5.1. Pastors who served the First Baptist Church of Santa Fe, New Mexico (1918–1972)

Pastor	Dates
John F. Measells	1918–1920
Buren Sparks	1920–1922
Roscoe Stapp	1922–1923
A. B. Parry	1923–1928
George C. Hutto	1928–1930
Forest Neal Pack	1930–1933
A. Hope Owen	1933–1936
C. R. Barrick	1936–1939
Bert Gould	1939–1940
C. A. Alexander	1940–1941
C. Paul Rich	1941–1944
Clint Irwin	1944–1950
I. D. Walker	1951–1952
R. Y. Bradford*	1953–1967
Ronald Herrin	1968–1972
Dr. James W. Evans	1972+

* Last pastor to hold services at 424 Don Gaspar.

Table 6.1. Archaeological sites in the vicinity of LA 158037

Component	Date (AD)	Total
Pueblo		
Anasazi artifact scatter	1200–1600	2
Anasazi artifact scatter	1200–1325	1
Anasazi feature and artifact scatter	600–1400	1
Anasazi unknown	1100–1600	5
Anasazi unknown	1100–1300	2
Anasazi unknown	1–1600	2
Pueblo unknown	1539–1680	1
Pueblo unknown	1692–1821	3
Pueblo artifact scatter	1692–1821	1
Subtotal		18
Hispanic		
Hispanic ranching/agricultural	1692–1912	1
Hispanic ranching/agricultural	1846–1912	1
Hispanic ranching/agricultural	1821–1879	1
Hispanic ranching/agricultural	1610–1912	1
Hispanic single residence	1750–1856	1
Hispanic single residence	1880–1996	1
Hispanic residential complex/community	1605–1680	1
Hispanic residential complex/community	1605–1846	1
Hispanic residential complex/community	1714–1996	2
Hispanic residential complex/community	1821–1846	1
Hispanic residential complex/community	1853–1858	1
Hispanic residential complex/community	1780–1996	1
Hispanic artifact scatter	1600–1945	1
Hispanic artifact scatter	1720–1821	1
Hispanic artifact scatter	1600–1912	1
Hispanic artifact scatter	1767–1810	1
Hispanic artifact scatter	1700–1850	1
Hispanic artifact scatter	1700–1945	1
Hispanic artifact scatter	1600–1977	1
Hispanic simple feature	1605–2004	1
Hispanic simple feature	1610–1990	1
Hispanic simple feature	1870–1889	1
Hispanic simple feature	1740–1740	1
Hispanic features and artifact scatter	1835–1945	1
Hispanic unknown	1692–1821	3
Hispanic unknown	1846–1912	4
Hispanic unknown	1821–1846	1
Hispanic unknown	1945–1993	1
Hispanic unknown	1539–1993	1
Hispanic unknown	1539–1680	1
Subtotal		36
Anglo/Euroamerican		
Anglo/Euroamerican transportation/communication	1879–1955	1
Anglo/Euroamerican transportation/communication	1903–1955	2
Anglo/Euroamerican transportation/communication	1846–1900	1
Anglo/Euroamerican transportation/communication	1900–1930	1
Anglo/Euroamerican transportation/communication	1880–1955	1
Anglo/Euroamerican simple features	1912–1960	1
Anglo/Euroamerican simple features	1945–1960	1
Anglo/Euroamerican single residence	1856–1900	1
Anglo/Euroamerican single residence	1883–1912	1
Anglo/Euroamerican residential complex/community	1846–2000	3
Anglo/Euroamerican features and artifact scatter	1870–1945	1
Anglo/Euroamerican features and artifact scatter	1821–1912	1
Anglo/Euroamerican features and artifact scatter	1850–1930	1
Anglo/Euroamerican features and artifact scatter	1900–1971	1
Anglo/Euroamerican features and artifact scatter	1821–1859	1
Anglo/Euroamerican features and artifact scatter	1912–1990	1
Anglo/Euroamerican commercial	1881–1886	1
Anglo/Euroamerican industrial	1891–1960	1
Anglo/Euroamerican unknown	1846–1912	3
Anglo/Euroamerican unknown	1912–1945	3
Anglo/Euroamerican unknown	1945–1993	1
Anglo/Euroamerican artifact scatter	1700–1850	1
Anglo/Euroamerican military	1846–1851	1
Subtotal		30
Unknown		
Unknown features	?	6
Unknown simple feature	1900–1990	1
Unknown artifact scatter	900–1800	2
Subtotal		9
Total		93

Table 6.2. Archaeological sites with nineteenth- and twentieth-century components within 500 m of LA 158037

Site	Location/Ownership	Dates of Occupation	Ethnic Composition	Features
LA 1742	San Miguel Cemetery	1846 to 1912	Hispanic	human burials
LA 4450	Santa Fe Historic District	1100 to present	Hispanic and Anglo/Euroamerican	church, structures, depression
LA 20195	Second Ward School	1846 to present	Anglo/Euroamerican	structures, fence, privy
LA 54000	La Fonda Project	1539 to 1912	Hispanic	foundations, dugouts, midden, well
LA 54312	City of Santa Fe	1883 to 1960	Anglo/Euroamerican	power plant, foundations, well, refuse pit
LA 69193	private ownership	1846 to 1912	Hispanic	foundations, refuse pits
LA 70092	Spiegelberg/Spitz	1858 to 1945	Anglo/Euroamerican	structures, ash stain, cobble wall
LA 80000	Santa Fe Plaza	1605 to present	Hispanic and Anglo/Euroamerican	irrigation ditch, refuse pit, plaza
LA 101303	–	1692 to 1912	Hispanic and Anglo/Euroamerican	foundations, refuse
LA 103293	Manuela Baca	1875 to 1886	Hispanic and Anglo/Euroamerican	foundations, cobble-lined ramada
LA 112663	418 Sandoval Street	1880 to present	Hispanic	foundation, privy, cistern, refuse
LA 114215	East De Vargas Street	900 AD to 1880	unknown	unknown
LA 114216	Improvement Row	900 AD to 1880	unknown	unknown
LA 114218	College St. Bridge	1600 to 1912	Hispanic (?)	artifact collection
LA 114219	Old Valdez House	1720 to 1821	unknown	possible structure
LA 114221	Our Lady of Light Chapel	1605 to present	Hispanic and Anglo/Euroamerican	cemetery, human burials, structures
LA 114230	Alfredo Herrera House	1200 to 1945	Hispanic	structure
LA 114231	Santa Fe River Bank	1900 to present	Anglo/Euroamerican	stone wall
LA 114239	507 Agua Fria Well	1859 to 1889	Hispanic	well
LA 114251	632 Paseo de Peralta	1610 to 1960	Hispanic and Anglo/Euroamerican	acequia, trash dump
LA 114265	José Alarid House	600 AD to 1945	Hispanic	burials, mixing pit, artifact scatter
LA 120279	Boyle Floral Company	1200 to 1600	Anglo/Euroamerican	cistern, concrete floor, footings
LA 122227	Denver & Rio Grande Railroad	1900 to 1930	Anglo/Euroamerican	masonry railroad turntable
LA 127276	60 E. San Francisco St.	1750 to present	Hispanic and Anglo/Euroamerican	foundations, depression, posthole
LA 146402	Santa Fe Railyard	1821 to present	Hispanic and Anglo/Euroamerican	foundations, middens, acequias, pits
LA 146403	Santa Fe Railyard	1846 to 1900	Anglo/Euroamerican	foundations, windmill, well, water tank
LA 146404	Santa Fe Railyard	1870 to 1945	Anglo/Euroamerican	hearth, pits
LA 146405	Santa Fe Railyard	1904 to 1955	Anglo/Euroamerican	foundations, refuse pits
LA 146406	Santa Fe Railyard	1903 to 1955	Anglo/Euroamerican	railroad track, pit
LA 146407	Acequia de Analco	1846 to 1912	Hispanic	acequia
LA 146409	Santa Fe Railyard	1879 to 1955	Anglo/Euroamerican	structures, pits, thermal features
LA 149909	Acequia de los Pinos	1692 to 1912	Hispanic	acequia
LA 149910	Santa Fe Railyard	1912 to 1960	Anglo/Euroamerican	concrete foundation
LA 149913	Santa Fe Railyard	1821 to 1912	Anglo/Euroamerican	acequia
LA 149914	–	1912 to 1999	Anglo/Euroamerican	concrete foundation, rock wall
LA 156207	Santa Fe Judicial Complex	1325 to 1950	Native, Hispanic, and Anglo/Euroamerican	foundation, privy, hearth, pithouse

Table 8.1. Ceramic price indices (Henry 1996)

	Average Price per Dozen			Indices		
Decoration	Cups/Saucers	Plates	Bowls	Cups/Saucers	Plates	Bowls
		1895, 1897				
Undecorated	$1.10	$0.68	$1.00	1.00	1.00	1.00
Molded	$1.26	$0.75	$1.15	1.15	1.10	1.15
Transfer	$1.49	$1.00	$1.37	1.35	1.47	1.37
Gilt	$1.73	$1.32	$1.94	1.57	1.94	1.94
Porcelain	$4.12	$2.71	$2.80	3.75	3.99	2.80
		1900, 1902, 1909				
Undecorated	$0.68	$0.50	$0.72	1.00	1.00	1.00
Molded	$1.07	$0.73	$0.97	1.57	1.46	1.35
Color, gilt	$1.70	$1.27	$1.71	2.50	2.54	2.38
Porcelain	$2.82	$2.01	NA	4.15	4.02	4.00*
		1922, 1927				
Undecorated	$2.21	$1.50	$1.51	1.00	1.00	1.00
Molded	$2.52	$1.63	$1.93	1.14	1.09	1.28
Decal, transfer, sponged	$3.41	$1.70	$2.16	1.54	1.13	1.43
Gilded, banded, hand-painted	$4.69	$2.36	$2.77	2.12	1.57	1.83
Porcelain	$6.10	$4.31	$4.02	2.76	2.87	2.66

* Estimated value based on relationship of porcelain to other categories (no bowl prices available).

Table 11.1. Resident and business directory, Structure 1, 141 West Manhattan Avenue

Years	Occupant	Status	Profession
1930–1931	H. P. Hensley	renter	clerk, State Land Office
1932–1939	Mrs. A. M. Velarde.	renter	chief clerk, State Auditor's Office
1940–1947	Richard Alarid Jr.	owner	owner, Dick's Barber Shop
1947–1957	Pete's Super Market	renter	business
1958	vacant	NA	NA
1959+	no longer listed	NA	NA

Table 11.2. Extramural features, Structure 1, 141 West Manhattan Avenue

Feature No.	Feature Type	Century	Northing	Easting	Beginning (mbd)	Ending (mbd)	Length (m)	Width (m)	Thickness (m)	Sample
27	domestic-refuse pit	19th	1034.44	845.68	6.1	5.76	1.76	0.92	0.34	100%
28	domestic-refuse pit	20th	1028	844.5	6.36	6.28	1.3	0.7	0.08	100%
30	construction-debris pit	20th	1025.5	844	6.26	6.16	0.8	0.6	0.1	100%
38	domestic-refuse pit	19th	1040.75	852.5	6.1	5.4	4.5	3	0.7	20%
39	domestic-refuse pit	20th	1034.5	851.4	6.12	5.72	1.43	1.36	0.58	50%
40	posthole	20th	1025.12	846.55	6.33	–	0.2	0.2	–	0%
44	straight-line cesspit privy	19th	1031.74	851.75	6.24	4.59	2.7	1.8	1.75	100%
45	domestic-refuse pit	19th	1038.39	848.84	5.98	5.88	3	2	0.1	25%
46	domestic-refuse pit	19th	1038.84	847.21	5.91	5.88	1	0.86	0.03	100%
73	self-contained vault privy	20th	1046.5	858	6.36	5.7	1.4	0.62	0.66	100%
74	self-contained vault privy	20th	1044.6	858.1	6.52	5.8	1.6	0.7	0.82	100%
75	domestic-refuse pit	20th	1045.5	860	6.59	6.43	1.62	1.43	0.16	100%
76	domestic-refuse pit	20th	1042	861	6.64	6.49	2.45	2.3	0.15	50%
77	domestic-refuse pit	20th	1041.72	863.48	6.66	6.24	1.8	1.1	0.42	100%
78	self-contained vault privy	20th	1040.95	861.89	6.69	5.59	2	1	1.1	100%
79	domestic-refuse pit	20th	1037.85	863.12	6.65	6.37	2.75	2.75	0.28	25%
81	domestic-refuse pit	20th	1031.85	863.7	6.73	6.66	0.41	0.35	0.07	100%
89	domestic-refuse pit	20th	1046.5	863.4	6.74	6.5	0.7	0.5	0.24	100%
229	domestic-refuse pit	20th	1037	855.3	6.24	5.84	2	1	0.4	judgmental
231	self-contained vault privy	20th	1040.8	855.24	5.2	4.51	1.5	1.4	0.69	100%
232	self-contained vault privy	20th	1042.4	855.89	5.1	3.94	1.61	1.45	1.16	100%
233	self-contained vault privy	20th	1042.2	856.48	4.79	4.06	1.5	0.88	0.73	100%
234	self-contained vault privy	20th	1039.7	855	5.35	4.66	1.26	1	0.69	100%
235	self-contained vault privy	20th	1043.5	856	4.73	4.32	1.6	1.14	0.41	100%

Table 12.1. Resident and business directory, Structure 2, 451 Galisteo Street

Date	Occupant	Status	Profession
		451 Galisteo Street	
1938–1943	Richard Alarid Jr.	owner	owner, Dick's Barber Shop
1944–1948	Anthony Summa	renter	U.S. Army
1949–1950	Mrs. Vada Richards	renter	housekeeper
1951–1956	vacant	NA	NA
1957–1958	Dick's Barber Shop	renter	business
1958–1960	Ethel's Beauty Shop	renter	business
1961–1963	vacant	NA	NA
1967+	no longer listed	NA	NA
		451 Galisteo Street, Rear	
1951	Myrtle Anderson	renter	waiter, New Canton Café
1952+	no longer listed	NA	NA
		451 Galisteo Street, Apartment 1	
1964	George A. Harris	renter	mechanic, Volkswagen Independent Service
1966	Rene Guerra (wife Sylvia)	renter	construction worker, H. B. Zachry
1967+	no longer listed	NA	NA
		451 Galisteo Street, Apartment 2	
1964–1966	J. Delfín Romero	renter	utility man, Southern Union Gas
1967+	no longer listed	NA	NA
		451 Galisteo Street, Apartment 3	
1964	Madeline Howard	renter	stenographer
1966	no return of information	NA	NA
1967+	no longer listed	NA	NA
		451 Galisteo Street, Apartment 4	
1966	vacant	NA	NA
1967+	no longer listed	NA	NA

Table 12.2. Extramural features, Structure 2, 451 Galisteo Street

Feature No.	Feature Type	Century	Northing	Easting	Beginning	Ending	Length (m)	Width (m)	Thickness (m)	Sample
34	posthole	20th	1045.81	850.63	6.2	–	0.4	0.4	–	0%
35	posthole	20th	1045.68	851.59	6.23	–	0.15	0.15	–	0%
36	posthole	20th	1041.19	852.1	6.13	–	0.1	0.1	–	0%
43	domestic-refuse pit	20th	1039.82	849.33	6.05	5.98	1.36	0.9	0.07	100%
47	well/cistern	20th	1041.78	851.08	6.48	4.36	1.2	1.2	2.12	100%
80	domestic-refuse pit	20th	1031	862	6.75	6.48	3	1.66	0.27	50%
87	domestic-refuse pit	20th	1042.3	866	6.75	6.58	1.38	1.3	0.17	100%
88	domestic-refuse pit	20th	1035	862.8	6.7	6.18	1.95	0.85	0.62	100%
90	domestic-refuse pit	20th	1044.6	862	6.59	6.5	1.6	0.8	0.09	100%
91	domestic-refuse pit	20th	1043.38	858.6	6.55	6.44	2	0.9	0.11	100%
230	construction-debris pit	20th	1046	859.5	6.24	5.94	2.75	2.5	0.3	judgmental

Table 13.1. Resident and business directory, Structure 3, 135 1/2 West Manhattan Avenue

Date	Occupant	Status	Profession
1936–1937	M. A. Gilcrease	renter	clerk
1938–1939	Richard Alarid Jr.	owner	owner, Dick's Barber Shop
1940–1941	Fidel Durán	renter	unknown
1942–1943	Eleuterio Padilla	renter	assistant state comptroller
1944–1948	Mrs. Mary Ethelbak	renter	unknown
1949–1950	Leo G. O'Connor	renter	plant operator, Slade's Dairy
1951–1958	Joseph A. Andregg	renter	apprentice electrician
1958	Vacant	NA	NA
1959	Richard Alarid	renter	unknown
1960	John Ortiz	owner	foreman, Creamland Dairies
1961–1962	Gilbert Rodríguez (wife Virginia)	renter	carpenter, Allen Stamm & Associates
1963	John Ortiz	owner	unknown
1964–1965	George H. Plasencia	renter	teacher, St. Michael's High School
1966	vacant	NA	NA
1967+	no longer listed	NA	NA

Table 13.2. Extramural features, Structure 3, 135 1/2 West Manhattan Avenue

Feature No.	Feature Type	Century	Northing	Easting	Beginning	Ending	Length (m)	Width (m)	Thickness (m)	Sample
83	domestic-refuse pit	20th	1044	868	6.76	6.5	5.3	3.3	0.26	30%
213	well	20th	1058	878	8.81	–	1.6	1.12	–	judgmental
214	domestic-refuse pit	20th	1059	873	8.95	8.26	1.6	1.6	0.66	0%
227	construction-debris pit	20th	1054	877	6.76	6.56	2	2	0.2	0%
228	domestic-refuse pit	20th	1054.3	880.4	6.76	6.32	0.45	0.43	0.44	judgmental
236	posthole	20th	1049.6	907	6.7	6.5	0.2	0.2	0.2	0%
237	domestic-refuse pit	20th	1054.4	875	6.72	6.22	1	1	0.5	0%

Table 14.1. Resident and business directory, Structure 4, 125 West Manhattan Avenue

Date	Occupant	Status	Profession
		125 West Manhattan Avenue	
ca. 1928–1933	Frank W. Parker	owner	judge
1934–1937	vacant	NA	NA
1938–1939	Reverend W. P. Bell	renter	minister
1940–1946	vacant	NA	NA
		125 West Manhattan Avenue, Apt. 1	
1947–1948	John C. Moody	renter	director, National Catholic Community
1949–1950	Mrs. Ruth Sterling	renter	artist
1951–1952	vacant	NA	NA
1953–1957	Ray H. Johnson (wife Lorene)	renter	clerk, Safeway Stores; assistant manager by 1955
1958	Mary E. Dignan	renter	unknown
1959	Wendell Hall	renter	employee, US government
1960–1962	Mrs. Mary A. Sieps	renter	unknown
1963–1966	Bernabe Martínez	renter	clerk, Bureau of Revenue
1967–1968	vacant	NA	NA
1969–1970	Gloria Arguello	renter	employee, State Capitol
		125 West Manhattan Avenue, Apt. 2	
1947–1948	J. F. Estabrook	renter	manager, Miller Motors
1949–1950	Paula Grum	renter	unknown
1951–1952	vacant	NA	NA
1953–1954	James J. Rogers (wife Mary A.)	renter	rehabilitation counselor, Department of Public Welfare
1955–1956	George Crumbaugh	renter	salesman, Santa Fe Book & Stationery
1957	vacant	NA	NA
1958–1960	Martha O. Howard	renter	unknown
1961–1962	Dolores Romero	renter	accountant, PERA Board
1963	Dolores Romero	renter	secretary, Taxpayers Association of New Mexico
1964–1965	vacant	NA	NA
1966	Dolores Romero	renter	accountant, PERA Board
1967–1968	Leland Stone	renter	lawyer, State Public Service Commission
1969	no return of information	NA	NA
1970	vacant	NA	NA
		125 West Manhattan Avenue, Apt. 3	
1947–1948	C. V. Forrest	renter	engineer, R. E. McKee
1949–1950	John G. Samson (wife Philena)	renter	director of publications (publicity?), State Game and Fish Department
1951–1952	G. Fred S. Bichan	renter	electrician
1953–1955	John Y. Helm (and Willie M.)	renter	deputy state bank examiner
1956–1957	Frances Salazar	renter	teacher, Kaune School
1958	Edwin E. Piper (wife Julia H.)	renter	Gilbert White & Gilbert
1959	vacant	NA	NA
1960	Charles W. Vitilow (wife Ora L.)	renter	unknown
1960	Ora L. Vitilow (husband Charles W.)	renter	clerk, State Department of Finance and Administration
1961	vacant	NA	NA
1962	Frances T. Baca	renter	Secretary of State office
1963	Patricia A. Maher	renter	bookkeeper, St. Michael's College
1964–1965	vacant	NA	NA
1966	Olivia Townsend	renter	waitress, Senate Restaurant
1967–1968	vacant	NA	NA
1969–1970	Cecelia Lucero	renter	secretary, Avery-Bowman Insurance Agency

Date	Occupant	Status	Profession
	125 West Manhattan Avenue, Apt. 4		
1947–1948	J. J. Dixon	renter	manager, United Press Associations
1949–1954	vacant	NA	NA
1955–1957	Monroe K. Alexander	renter	state police identification officer
1958	Jack W. Manning	renter	unknown
1959–1962	Lillian B. Coy	renter	research analyst, then field representative, State Welfare Department
1963	Samuel R. Arguello	renter	employee, Foremost Dairy
1964–1967	vacant	NA	NA
1968	Aurora L. Abeyta	renter	clerk, State Department of Health
1969	Lucián (or Julián) García	renter	employee, Saint Vincent Hospital
1970	vacant	NA	NA
	125 West Manhattan Avenue, Apt. 5		
1947–1950	vacant	NA	NA
1951–1952	Gerald W. Erickson	renter	chief accountant (not known where)
1953–1954	Earl W. Cline	renter	X-ray technician, St. Vincent Hospital
1955–1956	John L. Guest	renter	unknown
1957	vacant	NA	NA
1958	Angelo J. Ottati (wife Mildred R.)	renter	bartender, Bishop's Lodge
1959	Cora Maez	renter	operator, Telephone Company
1960	A. T. Greene	renter	unknown
1961–1962	Patricia Gallegos	renter	unknown
1963–1965	Epitacio Vigil (wife Agatha)	renter	correctional officer, state penitentiary
1966	Epitacio Vigil (wife Agatha)	renter	laborer, Robert E. McGee Contractors
1967–1968	Anton D. Shoemaker	renter	watchmaker, Rubber Bruce Jewelers
1969	Johnson	renter	employee, State Capitol
1970	vacant	NA	NA
	125 West Manhattan Avenue, Apt. 6		
1947–1948	C. E. Huffman	renter	estimator, R. E. McKee
1949–1950	Daniel I. Stover (wife Joy H.)	renter	auditor
1949–1950	Joy H. Stover (husband Daniel I.)	renter	clerk, US District Land & Survey
1951–1954	Vernon G. Smylie	renter	correspondent, *Albuquerque Tribune*
1955–1956	George McGuire	renter	mechanical engineer, Wolgamood & Millington
1957–1958	vacant	NA	NA
1959–1963	Mrs. Helen H. Fidler (widow)	renter	receptionist, Hilda C. Voetberg
1964–1966	vacant	NA	NA
1967	Cirilo G. Sandoval	renter	unknown
1968	no return of information	NA	NA
1969–1970	Jerry Byrd	renter	manager, St. Vincent Hospital

Table 14.2. Extramural features, Structure 4, 125 West Manhattan Avenue

Feature No.	Feature Type	Century	Northing	Easting	Beginning	Ending	Length (m)	Width (m)	Thickness (m)	Sample
13	bone pit	19th	999.2	920.2	6.38	6.2	0.7	0.6	0.18	100%
14	irrigation ditch	19th	1034.2	930.58	7.77	7.3	1.48	0.42	0.47	100%
17	Irrigation ditch	19th	1038	897.4	7.36	7.32	6	0.4	0.04	50%
22	bone pit	19th	1015.6	935.17	8.06	7.58	0.84	0.46	0.48	100%
49	Irrigation ditch	19th	1038.5	898	7.38	7.32	11	0.46	0.06	36%
50	domestic-refuse pit	20th	1037.54	905.41	6.51	6.06	0.95	0.93	0.45	100%
51	posthole	20th	1036.87	901.96	7.37	–	0.4	0.4	–	0%
52	posthole	20th	1036.74	898.07	7.33	–	0.3	0.25	–	0%
53	posthole	20th	1034.88	897.4	7.33	–	0.3	0.25	–	0%
55	bone pit	19th	1033.4	900.5	7.5	7.15	1.1	1	0.35	100%
56	domestic-refuse pit	20th	1030.7	905.8	7.54	7.09	2.5	1.5	0.45	50%
58	domestic-refuse pit	20th	1030.31	906.58	7.52	7.5	0.87	0.7	0.02	100%
59	construction-debris pit	20th	1029.76	906.2	7.61	7.59	1.2	0.8	0.02	100%
60	posthole	20th	1028.71	903.7	7.41	–	0.36	0.36	–	0%
61	posthole	20th	1029.61	903.33	7.44	–	0.38	0.32	–	0%
62	self-contained vault privy	19th	1029.2	900.35	7.48	5.81	2.4	1.3	1.67	100%
63	posthole	20th	1031.52	897.56	7.35	–	0.4	0.4	–	0%
65	posthole	20th	1032.23	892.39	7.27	–	0.41	0.31	–	0%
67	posthole	20th	1030.43	896.83	7.27	–	0.24	0.24	–	0%
68	posthole	20th	1028.86	897.47	7.36	–	0.2	0.14	–	0%
69	posthole	20th	1027.18	898.7	7.3	–	0.32	0.31	–	0%
70	posthole	20th	1027.44	896.83	7.32	–	0.34	0.3	–	0%
71	posthole	20th	1028.15	894.94	7.28	–	0.28	0.24	–	0%
72	posthole	20th	1027.94	886.6	7.1	–	0.42	0.31	–	0%
93	straight-line cesspit privy	20th	1031.57	902.29	7.81	5.31	2	2	2.5	100%
118	bone pit	19th	1038.1	918.68	7.54	7.23	1.15	0.9	0.31	100%
119	domestic-refuse pit	20th	1036.97	924.07	7.76	7.5	0.51	0.48	0.26	100%
120	Irrigation ditch	19th	1037.46	925.69	7.81	7.59	2.16	0.34	0.22	100%
121	Irrigation ditch	19th	1037.2	925.5	7.78	7.65	0.8	0.4	0.13	100%
122	Irrigation ditch	20th	1036.2	925.5	7.8	7.7	1.5	0.4	0.1	100%
123	Irrigation ditch	19th	1034.83	925.41	7.77	7.59	1.64	0.4	0.18	100%
124	posthole	20th	1035.12	919.16	7.6	–	–	0.4	–	0%
125	bone pit	19th	1037.1	914.8	7.51	7.07	1.2	0.85	0.44	100%
126	bone pit	19th	1034.53	914.57	7.49	7.09	1.15	0.78	0.4	100%
127	bone pit	19th	1032.85	918.79	7.56	7.31	0.87	0.72	0.25	100%
128	bone pit	19th	1033.17	924.06	7.74	7.4	1.4	0.74	0.34	100%
129	posthole	20th	1033.41	915.39	7.74	–	0.25	0.25	–	0%
130	bone pit	19th	1032.8	914.6	7.5	7.26	0.95	0.75	0.24	100%
131	construction-debris pit	20th	1030	914.42	7.5	6.1	2.78	1.12	1.4	50%
132	posthole	20th	1030.48	913.95	7.48	–	0.3	0.3	–	0%
133	posthole	20th	1030.47	913.07	7.48	–	0.4	0.4	–	0%
134	construction-debris pit	20th	1029.4	912.2	7.47	–	2	1.5	–	25%
135	bone pit	19th	1028.18	918.75	7.56	7.26	1.06	0.71	0.3	100%
136	bone pit	20th	1028.5	923.94	7.62	7.47	0.95	0.72	0.15	100%
137	posthole	20th	1031.27	931.21	7.95	–	0.09	0.09	–	0%
138	posthole	20th	1030.22	929.56	7.85	–	0.08	0.08	–	0%
139	posthole	20th	1032.28	927.63	7.74	–	0.28	0.28	–	0%
140	bone pit	19th	1033.2	929	7.77	7.48	1.3	1.2	0.29	100%
141	posthole	20th	1026.97	930.31	7.75	–	0.31	0.31	–	0%
142	bone pit	19th	1028.28	929.02	7.72	7.52	0.9	0.74	0.2	100%
143	posthole	20th	1027.01	931.21	7.71	–	0.15	0.15	–	0%
144	posthole	20th	1025.97	931.43	7.76	–	0.11	0.11	–	0%
145	posthole	20th	1024.83	931.22	7.77	–	0.1	0.1	–	0%
146	posthole	20th	1023.47	931.38	7.74	–	0.18	0.18	–	0%
147	posthole	20th	1020.94	931.5	7.77	–	0.16	0.16	–	0%
148	posthole	20th	1018.42	931.5	7.73	–	0.18	0.18	–	0%
149	posthole	20th	1018.85	932.32	7.72	–	0.28	0.28	–	0%
150	posthole	20th	1018.28	934.35	7.58	–	0.32	0.32	–	0%
151	posthole	20th	1019.38	935.57	7.61	–	0.33	0.33	–	0%
152	posthole	20th	1025.31	929.97	7.64	–	0.25	0.25	–	0%
153	posthole	20th	1015.88	931.96	7.62	–	0.12	0.12	–	0%
154	posthole	20th	1030.37	936.39	7.7	–	0.53	0.53	–	0%
156	posthole	20th	1028.74	934.08	7.68	–	0.17	0.17	–	0%
157	bone pit	19th	1032.41	935.44	7.95	7.7	1.02	0.96	0.15	100%
158	domestic-refuse pit	20th	1020.62	931.6	8.07	7.98	1.76	1.38	0.09	100%
160	posthole	20th	1023.01	935.29	8.03	–	0.5	0.5		0%
166	bone pit	19th	1031.2	925.8	7.73	7.45	0.7	0.6	0.28	100%
171	bone pit	19th	1027.61	935.4	8	7.69	0.96	0.93	0.31	100%

Table 15.1. Resident and business directory, Structure 5, 135 West Manhattan Avenue

Date	Occupant	Status	Profession
ca. 1928–1929	B. R. Thomas	renter	attorney at 241 Washington Ave.
ca. 1928–1929	A. H. Carter	renter	editor, New Mexico State Records
1928–1929	W. L. Mumford	renter	unknown
1930–1931	D. L. Williams	renter	superintendent, Capitol Building
1932–1937	Richard Alarid Jr.	owner	owner, Dick's Barber Shop
1938–1939	G. D. Martínez	renter	unknown
1940–1941	Marie Velarde	renter	clerk, State Bureau of Revenue
1942–1943	Githon Reid	renter	unknown
1944–1948	Zoilo Ortiz	renter	US Army
1949–1950	Juan (John) D. Ortiz	owner	clerk
1951–1956	vacant	NA	NA
1957–1959	Joe S. Bello	renter	unknown
1960	Secundino Sena	renter	unknown
1961–1966	vacant	NA	NA
1967+	no longer listed	NA	NA

Table 15.2. Resident and business directory, Structure 5, 137 West Manhattan Avenue

Date	Occupant	Status	Profession
1940–1941	A. E. Hickmott	renter	clerk, White Swan Grocery
1942–1943	Mrs. Bessie Collamer	renter	waitress, DeVargas Coffee Shop
1944–-1946	George Smith	renter	US Army
1947–1948	J. L. Lambert	renter	rate clerk, Atchison, Topeka & Santa Fe Railway
1949–1950	vacant	NA	NA
1951–1954	Mrs. Margaret E. Kidd	renter	unknown
1955–1956	Gilbert Rodríguez	renter	delivery man, New Mexico Company
1957	Mrs. Teresita Perea	renter	unknown
1958	vacant	NA	NA
1958–1960	Maida Perea	renter	telephone company operator
1961	Mrs. Isabel Suazo	renter	kitchen helper, La Fonda Hotel
1962	vacant	NA	NA
1963	Raymond Lucero	renter	delivery man, Wilson Transfer
1964	Mrs. Irene D. Zurla	renter	unknown
1965–1966	vacant	NA	NA
1967+	no longer listed	NA	NA

Table 15.3. Resident and business directory, Structure 5, 139 West Manhattan Avenue

Date	Occupant	Status	Profession
1940–1948	Mrs. Myrtle Anderson	renter	waitress , New Canton Café
1949–1950	Mrs. Margaret E. Kidd	renter	seamstress, Santa Fe Maid Shop
1951–1952	vacant	NA	NA
1953–1954	Elmer J. Bursik	renter	unknown
1955–1958	Willy R. Lucero	renter	piano player, Eddy's Night Club
1957–1958	Mrs. Gabriletta Padilla	renter	unknown
1958–1959	Ruby López	renter	clerk typist, State Driver's License
1959	Manuel Romero	renter	unknown
1960	vacant	NA	NA
1961	Mrs. Pauline Strock	renter	NA
1962	vacant	NA	NA
1963	William Harper	renter	attendant, Kenny Moore's Mobile Service
1964–1966	vacant	NA	NA
1967+	no longer listed	NA	NA

Table 15.4. Extramural features, Structure 5, 135, 137, and 139 West Manhattan Avenue

Feature No.	Feature Type	Century	Northing	Easting	Beginning	Ending	Length (m)	Width (m)	Thickness (m)	Sample
82	domestic-refuse pit	20th	1030	866	6.81	6.52	0	3.82	0.29	30%
92	posthole	20th	1036.1	861.93	6.58	–	0.3	0.3	–	0%
105	construction-debris pit	20th	1010.75	859.35	6.33	5.69	3.2	2.65	0.64	70%
106	posthole	20th	1006	873.8	6.81	–	0.2	0.2	–	0%
111	construction-debris pit	19th	1011	869	6.76	6.3	4	3.7	0.46	10%
224	straight-line cesspit privy	20th	1024	871	6.76	4.76	2.25	1.5	2	100%

Table 16.1. Resident and business directory, Structure 6, 111 West Manhattan Avenue

Date	Occupant	Status	Profession
ca. 1928–1935	Fred Muller	owner	real estate and insurance agent
1936–1954	Mrs. Adella Muller (widow of Fred)	owner	unknown
1955–1956	vacant	NA	NA
1957–1958	Adella Collier	owner	unknown
1958	vacant	NA	NA
1959–1960	Callie L. Harwell	renter	unknown
1961	M. L. Evans	renter	owner, Evans Weatherproof Drumheads
1962	Leonard E. Cline	renter	kitchen helper, Palace Restaurant
1963	Leonard E. Cline	renter	student
1964–1966	vacant	NA	NA
1967+	no longer listed	NA	NA

Table 16.2. Resident and business directory, 111 1/2 West Manhattan Avenue

Date	Occupant	Status	Profession
1951–1952	Louis Pepperis	renter	owner, Louis' Flower Shop
1953–1956	Andrew Aragón	renter	unknown
1957	vacant	NA	NA
1958	Clyde D. Harper	renter	salesman, Family Record Plan
1959–1961	Walter L. Bradley	renter	unknown
1962	Frank Angel	renter	clerk, State Motor Vehicle Department
1963	Francis Burns	renter	retired
1963	Pete P. Trevigo	renter	driver, R. E. McKee
1964–1966	vacant	NA	NA
1967+	no longer listed	NA	NA

Table 16.3. Resident and business directory, 111 Rear West Manhattan Avenue

Date	Occupant	Status	Profession
1947–1948	Charles King	renter	unknown
1947–1948	F. Orcutt	renter	unknown
1949–1950	Steve Kitzs	renter	unknown
1951–1960	no information found for this time period	NA	NA
1961	vacant	NA	NA
1962	C. R. Fite	renter	unknown
1963+	no longer listed	NA	NA

Table 16.4. Extramural features, Structure 6, 111 West Manhattan Avenue

Feature No.	Feature Type	Century	Northing	Easting	Beginning	Ending	Length (m)	Width (m)	Thickness (m)	Sample
1	domestic-refuse pit	20th	1036.4	963.5	8.53	8.2	3.4	3.2	0.33	25%
6	construction-debris pit	20th	1019.71	971.65	8.62	8.2	1.31	1.15	0.42	100%
155	posthole	20th	1033.72	937.73	7.72	–	0.28	0.28	–	0%
159	dog burial	20th	1021.39	937.52	8.06	7.94	0.56	0.3	0.12	100%
161	construction-debris pit	20th	1016.28	937.72	8.14	7.67	2.36	1.06	0.47	100%
162	posthole	20th	1033.36	941.34	8.11	–	0.16	0.16	–	0%
163	posthole	20th	1026.1	940.42	7.94	–	0.25	0.25	–	0%
164	posthole	20th	1022.75	940.42	7.96	–	0.31	0.31	–	0%
167	posthole	20th	1029.12	943.17	8.1	–	0.4	0.4	–	0%
168	posthole	20th	1021.12	944.27	8.13	–	0.5	0.25	–	0%
169	posthole	20th	1020.58	944.59	8.11	–	0.26	0.26	–	0%
170	well/cistern	20th	1020.1	943.94	8.2	5.7	1.92	1.8	2.5	50%
173	posthole	20th	1020.48	955.46	8.38	–	0.41	0.32	–	0%
174	posthole	20th	1016.77	956.49	8.49	–	0.25	0.2	–	0%
175	posthole	20th	1016.72	958.3	8.5	–	0.35	0.35	–	0%
177	posthole	20th	1026.58	953.35	8.21	–	0.42	0.42	–	0%
178	root cellar	20th	1024.45	960.07	8.64	8.3	4.14	1.92	0.34	100%
179	posthole	20th	1024.45	953.56	8.35	–	0.16	0.16	–	0%
180	posthole	20th	1023.39	967.78	8.79	–	0.3	0.3	–	0%
181	posthole	20th	1025.13	968.86	8.76	–	0.2	0.2	–	0%
182	posthole	20th	1026.86	969.81	8.9	–	0.5	0.5	–	0%
183	posthole	20th	1024.97	972.52	8.82	–	0.26	0.26	–	0%
184	posthole	20th	1028.54	969.86	8.49	–	0.16	0.16	–	0%
185	posthole	20th	1029.97	971.34	8.69	–	0.28	0.28	–	0%
186	posthole	20th	1028.07	972.95	8.74	–	0.3	0.3	–	0%
187	posthole	20th	1029.41	972.55	8.77	–	0.24	0.24	–	0%
188	posthole	20th	1029.8	973.07	8.57	–	0.2	0.2	–	0%
189	posthole	20th	1033.7	973.07	8.51	–	0.28	0.28	–	0%
190	posthole	20th	1028.77	973.74	8.52	–	0.16	0.16	–	0%
191	posthole	20th	1025.68	977.14	8.77	–	0.36	0.36	–	0%
192	self-contained vault privy	20th	1036.05	970.1	8.67	7.64	2.3	1.9	1.03	100%
193	domestic-refuse pit	20th	1031.84	964.7	8.61	8.4	0.72	0.66	0.21	100%
194	domestic-refuse pit	20th	1033.4	966	8.5	8.37	1.3	1.2	0.13	100%
195	domestic-refuse pit	20th	1033.06	967.04	8.57	8.29	1.76	1.7	0.28	100%
196	domestic-refuse pit	20th	1032	969.92	8.53	8.46	1.24	1.2	0.07	100%
198	posthole	20th	1021.77	961.62	8.65	8.1	0.9	0.55	0.55	100%
199	construction-debris pit	20th	1025	963.53	8.6	8.43	2.54	1.51	0.13	50%
200	posthole	20th	1026.38	965.11	8.68	–	0.15	0.15	–	0%
201	posthole	20th	1022.83	965.3	8.67	–	0.15	0.15	–	0%
206	construction-debris pit	20th	1011.1	968.88	8.65	8.33	2.8	1.2	0.42	60%
207	domestic-refuse pit	19th	1011.64	966.64	8.66	8.42	1.2	0.9	0.24	100%
210	posthole	20th	1016.21	959	8.63	–	0.15	0.15	–	0%
217	domestic-refuse pit	20th	1032.6	949.8	8.75	8.45	1.4	1.3	0.3	judgmental
219	straight-line cesspit privy	20th	1013.21	938.55	8.11	5.77	1.05	1.05	2.53	100%
220	domestic-refuse pit	20th	1043.61	940.93	8.2	7.77	0.61	0.45	0.43	judgmental
221	posthole	20th	1044.2	941.5	8.85	8.45	0.2	0.2	0.4	0%
223	construction-debris pit	20th	1045.8	952.4	8.85	7.85	3.2	3.2	1	judgmental

Table 17.1. Resident and business directory for Structure 7, 424, 428, or 430 Don Gaspar Avenue

Date	Occupant	Status	Profession
1921–1960	First Baptist Church	owner	church
1961+	no longer listed	NA	NA

Table 17.2. Extramural features, Structure 7, 424, 428, or 430 Don Gaspar Avenue

Feature No.	Feature Type	Century	Northing	Easting	Beginning	Ending	Length (m)	Width (m)	Thickness (m)	Sample
7	self-contained vault privy	20th	1021.31	976.29	8.75	8.00	1.43	1.10	0.75	100%
176	posthole	20th	1018.59	977.07	8.84	–	0.28	0.28	–	0%
202	domestic-refuse pit	20th	1018.70	981.07	8.94	8.87	2.35	1.00	0.07	100%
203	domestic-refuse pit	20th	1015.80	982.63	9.07	8.99	1.05	0.71	0.08	100%
204	domestic-refuse pit	20th	1015.37	980.45	9.04	8.95	1.50	1.10	0.09	100%
205	domestic-refuse pit	20th	1013.84	977.91	9.09	9.07	0.88	0.78	0.02	100%
211	construction-debris pit	20th	1013.80	980.92	9.08	8.89	1.20	0.97	0.19	100%

Table 18.1. Resident and business directory, Structure 8, 420 Don Gaspar Avenue

Date	Occupant	Status	Profession
ca. 1928–1929	J. A. Carruth	renter	printer, Museum of New Mexico
1930–1931	Mrs. C. H. Carruth	renter	widow of J. A.
1932–1933	W.C. Carter	renter	meat cutter, Kaune Grocery Company
1934–1939	H. B. Yoder	renter	clerk, State Highway Department
1940–1943	Mrs. Anne Stinson	renter	dressmaker
1944–1946	J. A. Seibert	renter	structural detailer, State Highway Department
1947–1948	G. J. Gray	renter	assistant staff manager, US Forest Service
1949–1950	Robert E. Rutherford	renter	wholesale manager, Charles Ilfeld
1951–1954	Rubel R. Newman	renter	widow of Walter
1955–1957	Mrs. Rubel R. Newman	renter	stenographer, State Department of Game and Fish
1958–1963	William E. Rutherford (wife Rosemary)	owner	station agent, Atchison, Topeka & Santa Fe Railway
1964–1987	William E. Rutherford (wife Rosemary)	owner	retired
1988–1991	no return of information	NA	NA
1992+	no longer listed	NA	NA

Table 18.2. Features, Structure 8, 420 Don Gaspar Avenue

Feature No.	Feature Type	Century	Northing	Easting	Beginning	Ending	Length (m)	Width (m)	Thickness (m)	Sample
191	posthole	20th	1025.68	977.14	8.77	–	0.36	0.36	–	0%
197	construction-debris pit	20th	1029.34	977.64	8.59	8.79	1.75	1.45	0.20	100%
215	domestic-refuse pit	20th	1030.00	981.30	8.55	8.35	1.00	0.60	0.20	0%
216	construction-debris pit	20th	1035.00	985.00	8.55	7.95	7.20	5.50	0.60	0%

Table 19.1. Resident and business directory, Structure 9, 416 Don Gaspar Avenue

Date	Occupant	Status	Profession
ca. 1928–1929	R. W. Birdseye	renter	advertiser
1930–1931	Mrs. Sybil Ervein	renter	stenographer, Taxpayers Association of New Mexico
1932–1933	C. O. Harrison	renter	dentist, 16–17 Laughlin Building
1934–1937	Mrs. Bertha Pincetl	renter	widow of M. F.
1938–1939	T. E. Julian	renter	tax investigator, State Tax Commission
1940–1941	L. E. Wheeler	renter	designer, State Highway Department
1942–1943	M.C. Beene	renter	director, New Mexico Veterans Service Commission
1944–1957	William E. Rutherford	owner	freight agent, Atchison, Topeka & Santa Fe Railway
1958	John B. Shephard	renter	teacher, Young Jr. High School
1959	Elizabeth Montgomery	renter	unknown
1960	Frank Rourke	renter	plumber
1961–1962	Benjamin A. García	renter	administrative assistant, US Bureau of Land Management
1963–1965	Jay Slone	renter	clerk, State Corporation Commission
1966	George H. Plasencia	renter	teacher, St. Michael's High School
1967–1968	John Martínez	renter	cook
1969–1971	Ralph Garrity	renter	special fire inspector, State Corporation Commission
1972	Mike Bauer	renter	architect, Richard Halford and Associates
1973	Mike Bauer	renter	draftsman, Luna-Ross and Associates
1974–1975	James Dominic (wife Sue)	renter	construction worker
1976–1980	James Dominic (wife Sue)	owner	S and D Construction
1981–1984	Cynthia Stevens	renter	nurse, St. Vincent Hospital Infirmary
1985–1987	vacant	NA	NA
1988–1990	Ebers McCulloch	renter	unknown
1991	no return of information	NA	NA
1992+	no longer listed	NA	NA

Table 20.1. Euroamerican artifacts, LA 158037

Type	Function	Count	Category %	Total %
	Unassignable			
Unidentifiable	unidentifiable	537	26.1%	4.3%
	bottle	1205	58.5%	9.7%
	can	280	13.6%	2.3%
	plug/cap	29	1.4%	0.2%
	gasket	6	0.3%	0.0%
	tubing	3	0.1%	0.0%
Subtotal		2060	100.0%	16.6%
	Economy/Production			
Agricultural	hoe	2	12.5%	0.0%
Machinery	machinery parts	14	87.5%	0.1%
Subtotal		16	100.0%	0.1%
	Food			
Miscellaneous	thermos	14	2.5%	0.1%
Canned goods	unidentifiable	2	0.4%	0.0%
	coffee can	1	0.2%	0.0%
	condensed milk	6	1.1%	0.0%
	juice can	3	0.5%	0.0%
	lard bucket	36	6.4%	0.3%
	meat can	17	3.0%	0.1%
	sardine can	10	1.8%	0.1%
	spice can	1	0.2%	0.0%
	vegetable or fruit can	239	42.8%	1.9%
	pepper can	1	0.2%	0.0%
Bottled goods	condiment bottle	57	10.2%	0.5%
	condiment jar	55	9.8%	0.4%
	ketchup bottle	10	1.8%	0.1%
	marmalade jar	1	0.2%	0.0%
	mustard jar	3	0.5%	0.0%
	peppersauce bottle	3	0.5%	0.0%
	pickle jar	19	3.4%	0.2%
	syrup bottle	1	0.2%	0.0%
	jam or jelly jar	11	2.0%	0.1%
	baby food jar	4	0.7%	0.0%
	milk bottle	50	8.9%	0.4%
	olive oil bottle	4	0.7%	0.0%
	extract bottle	5	0.9%	0.0%
	salad dressing	1	0.2%	0.0%
	mayonnaise jar	5	0.9%	0.0%
Subtotal		559	100.0%	4.5%
	Indulgences			
Miscellaneous	bottle opener	1	0.1%	0.0%
	crown cap	126	7.4%	1.0%
	lead paper/foil	5	0.3%	0.0%
	can tab	1	0.1%	0.0%
Soda/carbonated beverage	soda bottle	356	20.9%	2.9%
	ginger beer bottle	1	0.1%	0.0%
Wine	wine bottle	250	14.7%	2.0%
Beer	beer bottle	621	36.5%	5.0%
	ale bottle	9	0.5%	0.1%
	cone-top can	6	0.4%	0.0%
Liquor	rum bottle	1	0.1%	0.0%
	brandy bottle	5	0.3%	0.0%
	whiskey bottle	216	12.7%	1.7%
	miniature bottle	4	0.2%	0.0%
	shouldered jug	82	4.8%	0.7%
	gin bottle	2	0.1%	0.0%
Tobacco, smoking	pipe	4	0.2%	0.0%

Type	Function	Count	Category %	Total %
	tobacco can	8	0.5%	0.1%
Tobacco, chewing	cuspidor	3	0.2%	0.0%
Subtotal		1701	100.0%	13.7%
	Domestic			
Cutlery and silverware	silverware, indeterminate	4	0.2%	0.0%
	knife, indeterminate	1	0.0%	0.0%
	tablespoon	6	0.2%	0.0%
	teaspoon	7	0.3%	0.1%
	table fork	4	0.2%	0.0%
	spatula	1	0.0%	0.0%
	butter knife	3	0.1%	0.0%
Pots and pans	unidentifiable	2	0.1%	0.0%
	baking pan	5	0.2%	0.0%
	basin	1	0.0%	0.0%
	coffee pot	4	0.2%	0.0%
	pot	5	0.2%	0.0%
	bean pot	3	0.1%	0.0%
	muffin pan	1	0.0%	0.0%
	measuring cup	24	0.9%	0.2%
Dinnerware	bowl	365	13.9%	2.9%
	cup	284	10.8%	2.3%
	soup plate	36	1.4%	0.3%
	vessel, indeterminate	399	15.2%	3.2%
	plate	327	12.5%	2.6%
	saucer	179	6.8%	1.4%
	teapot	5	0.2%	0.0%
	mug	1	0.0%	0.0%
	pitcher	3	0.1%	0.0%
	casserole dish	40	1.5%	0.3%
	sugar bowl	4	0.2%	0.0%
	salt or pepper shaker	4	0.2%	0.0%
	platter	95	3.6%	0.8%
	creamer	19	0.7%	0.2%
	serving tray	4	0.2%	0.0%
Glassware	cup	110	4.2%	0.9%
	goblet	45	1.7%	0.4%
	mug	6	0.2%	0.0%
	vessel, indeterminate	187	7.1%	1.5%
	shotglass	11	0.4%	0.1%
	sugar bowl	5	0.2%	0.0%
	platter	2	0.1%	0.0%
	creamer	3	0.1%	0.0%
	casserole dish	11	0.4%	0.1%
Canning/storage	canning jar	357	13.6%	2.9%
	crock	24	0.9%	0.2%
	vessel, indeterminate	5	0.2%	0.0%
Cleaning	solvent bottle	1	0.0%	0.0%
	clothespin	1	0.0%	0.0%
	wringer	1	0.0%	0.0%
Sewing	scissors	1	0.0%	0.0%
	sewing machine	1	0.0%	0.0%
Child care	baby bottle	11	0.4%	0.1%
Subtotal		2618	100.0%	21.1%
	Furnishings			
Heating, cooking, and lighting	poker	2	0.5%	0.0%
	cooking grill	2	0.5%	0.0%
	wood/coal stove	12	3.2%	0.1%
	kerosene lamp	13	3.5%	0.1%
	wick	1	0.3%	0.0%
	candlestick	1	0.3%	0.0%

Type	Function	Count	Category %	Total %
	lampshade	222	59.8%	1.8%
Furniture	unidentifiable	4	1.1%	0.0%
	chair	1	0.3%	0.0%
	flowerpot	10	2.7%	0.1%
	vase	9	2.4%	0.1%
	knob	6	1.6%	0.0%
	figurine	88	23.7%	0.7%
Subtotal		371	100.0%	3.0%
	Construction/Maintenance			
Unidentifiable	plate	309	9.1%	2.5%
	ring	31	0.9%	0.3%
	rod	16	0.5%	0.1%
	strap/band/strip	250	7.4%	2.0%
	wire	62	1.8%	0.5%
Tools	unidentifiable	1	0.0%	0.0%
	bucket/pail	6	0.2%	0.0%
	chisel	1	0.0%	0.0%
	metal file	1	0.0%	0.0%
	hammer	1	0.0%	0.0%
	pliers	1	0.0%	0.0%
	pulley	2	0.1%	0.0%
	saw	1	0.0%	0.0%
	shovel	2	0.1%	0.0%
	axe, single bit	5	0.1%	0.0%
	tongs	1	0.0%	0.0%
	water hose nozzle	1	0.0%	0.0%
	axe, trade	2	0.1%	0.0%
	rake	1	0.0%	0.0%
	line level	1	0.0%	0.0%
	wire brush	2	0.1%	0.0%
	protective goggles	1	0.0%	0.0%
Hardware	bolt	64	1.9%	0.5%
	brad	2	0.1%	0.0%
	key, flat	4	0.1%	0.0%
	doorknob	1	0.0%	0.0%
	hinge, indeterminate	16	0.5%	0.1%
	hook	35	1.0%	0.3%
	latch	2	0.1%	0.0%
	lock, padlock	2	0.1%	0.0%
	nail, roofing	23	0.7%	0.2%
	nail, indeterminate	503	14.9%	4.1%
	nail, finish	23	0.7%	0.2%
	nut	14	0.4%	0.1%
	spike	13	0.4%	0.1%
	tack, double pointed	2	0.1%	0.0%
	tack, bill poster	1	0.0%	0.0%
	washer	15	0.4%	0.1%
	screw, wood	6	0.2%	0.0%
	nut and bolt	5	0.1%	0.0%
	nail, common	724	21.4%	5.8%
	chain	1	0.0%	0.0%
	bracket, indeterminate	21	0.6%	0.2%
	nail, casing	1	0.0%	0.0%
	bolt, nut and washer	3	0.1%	0.0%
Building materials	plate	71	2.1%	0.6%
	linoleum	36	1.1%	0.3%
	paint can	22	0.7%	0.2%
	screening	17	0.5%	0.1%
	tile	4	0.1%	0.0%
	window glass	766	22.7%	6.2%
Electrical	electrical, indeterminate	27	0.8%	0.2%
	alligator clip	1	0.0%	0.0%

Type	Function	Count	Category %	Total %
	battery cable	12	0.4%	0.1%
	box, fuse	13	0.4%	0.1%
	box, switch/outlet	2	0.1%	0.0%
	insulator	7	0.2%	0.1%
	wire connector	1	0.0%	0.0%
	wire/insulated wire	29	0.9%	0.2%
	light plate	3	0.1%	0.0%
	light bulb	58	1.7%	0.5%
	one-wire cleat	2	0.1%	0.0%
	two-wire cleat	8	0.2%	0.1%
	three-wire cleat	1	0.0%	0.0%
	light switch toggle	1	0.0%	0.0%
	fuse	3	0.1%	0.0%
Fencing	barbed wire spool	1	0.0%	0.0%
	barbed wire	9	0.3%	0.1%
	fence staple	9	0.3%	0.1%
Plumbing	pipe cap	1	0.0%	0.0%
	pipe	46	1.4%	0.4%
	toilet	3	0.1%	0.0%
	tubing	4	0.1%	0.0%
	coupling	8	0.2%	0.1%
	float ball	5	0.1%	0.0%
	drain stopper	1	0.0%	0.0%
	spigot	2	0.1%	0.0%
	water hose	12	0.4%	0.1%
	manhole/utility cover	1	0.0%	0.0%
	urinal	3	0.1%	0.0%
Lubricants/solvents	oiler/oil can	1	0.0%	0.0%
Tentage	grommet	12	0.4%	0.1%
Subtotal		3381	100.0%	27.3%
	Personal Effects			
Clothing	belt end tab	1	0.1%	0.0%
	buckle, suspender	11	0.8%	0.1%
	buckle, suspender	4	0.3%	0.0%
	button, four hole	23	1.6%	0.2%
	button, two hole	34	2.4%	0.3%
	button, indeterminate	17	1.2%	0.1%
	clothing rivet	13	0.9%	0.1%
	jean stud/rivet	3	0.2%	0.0%
	glove	11	0.8%	0.1%
	snap	1	0.1%	0.0%
	belt end tab	12	0.9%	0.1%
	button, shank	2	0.1%	0.0%
	clothing, indeterminate	41	2.9%	0.3%
	hose/stockings	1	0.1%	0.0%
	necktie	1	0.1%	0.0%
Boots and shoes	shoe, indeterminate	339	24.3%	2.7%
	boot, indeterminate	15	1.1%	0.1%
	shoe polish can	1	0.1%	0.0%
	slipper	1	0.1%	0.0%
	boot dressing bottle	7	0.5%	0.1%
	work boot	16	1.1%	0.1%
	sports shoe	17	1.2%	0.1%
Jewelry	unidentifiable	2	0.1%	0.0%
	bead	2	0.1%	0.0%
	brooch	1	0.1%	0.0%
	watch	5	0.4%	0.0%
	bauble	1	0.1%	0.0%
Grooming items/	barrette	1	0.1%	0.0%
personal hygiene	chamber pot	72	5.2%	0.6%
	comb	18	1.3%	0.1%
	hairpin	2	0.1%	0.0%

Type	Function	Count	Category %	Total %
	lipstick	1	0.1%	0.0%
	perfume/cologne bottle	15	1.1%	0.1%
	razor blade, straight	4	0.3%	0.0%
	shaving brush	1	0.1%	0.0%
	toothpaste tube	1	0.1%	0.0%
	toothbrush	8	0.6%	0.1%
	wash basin	11	0.8%	0.1%
	toiletry bottle	70	5.0%	0.6%
	razor, safety	1	0.1%	0.0%
	compact	35	2.5%	0.3%
	hairbrush	2	0.1%	0.0%
	lice comb	3	0.2%	0.0%
	dentifrice bottle	3	0.2%	0.0%
	nail polish bottle	3	0.2%	0.0%
	sponge	1	0.1%	0.0%
	lotion bottle	1	0.1%	0.0%
	mouthwash bottle	6	0.4%	0.0%
	bedpan	1	0.1%	0.0%
	douche	4	0.3%	0.0%
	antacid bottle	4	0.3%	0.0%
Medicine/health	eyedropper	1	0.1%	0.0%
	laxative bottle	30	2.2%	0.2%
	liniment bottle	12	0.9%	0.1%
	ointment jar	54	3.9%	0.4%
	prescription bottle	37	2.7%	0.3%
	syringe	13	0.9%	0.1%
	thermometer	4	0.3%	0.0%
	patent medicine bottle	323	23.2%	2.6%
	bitters bottle	6	0.4%	0.0%
	eye cup	1	0.1%	0.0%
	cough syrup	3	0.2%	0.0%
	tincture bottle	2	0.1%	0.0%
	pill bottle	36	2.6%	0.3%
	antiseptic bottle	6	0.4%	0.0%
	New Mexico school tax token	2	0.1%	0.0%
Money/tokens	penny	3	0.2%	0.0%
	token	1	0.1%	0.0%
Religious	devotional medal	1	0.1%	0.0%
	rosary	1	0.1%	0.0%
Political	promotional button, indeterminate	2	0.1%	0.0%
Miscellaneous	pocket knife	3	0.2%	0.0%
	change purse	1	0.1%	0.0%
	eyeglass lens	2	0.1%	0.0%
	wallet	1	0.1%	0.0%
Subtotal		1395	100.0%	11.3%
	Entertainment/Leisure			
Toys	unidentifiable	3	1.5%	0.0%
	ball	11	5.6%	0.1%
	bicycle	9	4.6%	0.1%
	roller skate	1	0.5%	0.0%
	truck	2	1.0%	0.0%
	doll	24	12.3%	0.2%
	miniature cup	5	2.6%	0.0%
	miniature anvil	1	0.5%	0.0%
	miniature swan	1	0.5%	0.0%
	3-D glasses	2	1.0%	0.0%
	duck	1	0.5%	0.0%
Music	harmonica	6	3.1%	0.0%
	record	33	16.9%	0.3%
Games	marble	16	8.2%	0.1%
	jacks	1	0.5%	0.0%
	unidentifiable	18	9.2%	0.1%

Type	Function	Count	Category %	Total %
Books	newspaper	1	0.5%	0.0%
	ink bottle	24	12.3%	0.2%
Stationery equipment	pencil	3	1.5%	0.0%
	pen	1	0.5%	0.0%
	chalk	2	1.0%	0.0%
Arts and crafts/hobby	paint tube	1	0.5%	0.0%
	colored pencil	1	0.5%	0.0%
	rubber cement tube	1	0.5%	0.0%
	stencil	11	5.6%	0.1%
Scholastic/academic	slate	12	6.2%	0.1%
Pets and pet supplies	collar/sleeve button, army	2	1.0%	0.0%
Outdoor sports and recreation	sportsman's license	2	1.0%	0.0%
Subtotal		195	100.0%	1.6%
	Transportation			
Wagons and buggies	wagon part, indeterminate	1	2.1	0.0%
	unidentifiable	3	6.3%	0.0%
Cars and trucks	license plate	3	6.3%	0.0%
	suspension spring	10	20.8%	0.1%
	engine valve	2	4.2%	0.0%
	battery cable	2	4.2%	0.0%
	tire iron	2	4.2%	0.0%
	jacks	1	2.1%	0.0%
	brakes	1	2.1%	0.0%
Railroad	spike	2	4.2%	0.0%
Animal/human power	harness strap	1	2.1%	0.0%
	bicycle tire	14	29.2%	0.1%
	harness buckle	1	2.1%	0.0%
	horseshoe, riding	2	4.2%	0.0%
	horseshoe, draft	1	2.1%	0.0%
	spur	1	2.1%	0.0%
Lubricants/fluids/fuel	motor oil can	1	2.1%	0.0%
Subtotal		48	100.0%	0.4%
	Military/Arms			
Small arms	centerfire cartridge	19	39.6%	0.2%
	rimfire cartridge	6	12.5%	0.0%
	shotgun shell	9	18.8%	0.1%
	pistol	1	2.1%	0.0%
	military insignia, army	7	14.6%	0.1%
Military clothing and insignia	coat button, army	4	8.3%	0.0%
	collar/sleeve button, army	1	2.1%	0.0%
	coat button, navy	1	2.1%	0.0%
Subtotal		48	100.0%	0.4%
Total		12,392		100.0%

Table 20.2. Bottle manufacturing methods, period of use, and characteristic marks left behind

Manufacturing Technique	Date Range	Description
Free blown	before 1870	Asymmetrical with a glass mark or scar upon the base.
One–piece dip mold	1790–1920	Horizontal seam along the base of the shoulder with symmetrical body and asymmetrical shoulder and neck.
Three–piece hinge mold	1810–1920	Horizontal seam along the base of the shoulder and vertical seam running up the shoulder and neck.
Two–piece hinge mold	1840–1920	Vertical seams running the entire length of the body, through the shoulder and up the neck.
Lipping tool	1850–1920	Even finish with no seam running through it.
Snap case	1857–1920	No mark or scar from pontil rod on base.
Lettered panels	1867–present	Embossed lettering in flat panels upon the body of the bottle.
Turn mold	1880–1920	No seams present; bottle exhibits striations mirroring the direction in which the bottle was turned in the mold.
Automatic bottle machine	1904–present	Seams running horizontal around the base and vertical through the body, shoulder, neck, and finish.

Table 20.3. Datable manufacturing characteristics of tin cans

Type	Date Range	Remarks
Hole-in-top can	1810–1876	Lapped and obtrusive soldered seams.
Hole-in-top can	1876–1920s	Lapped and soldered seams.
Tin-plated iron can	1810–1870s	–
Tin-plated steel can	1870s–present	–
Tapered can	1875–present	–
Key method with a scored strip opening	1895–present	–
Double-side seam or sanitary can	1904–present	Lock and lapped seams.
Sanitary can replaces hole-in-top	1920s	–
Aluminum can	1959–present	Two-piece can.
Appearance of tab tops	1962	–
Reappearance of lapped seams	1968	–
Use of tin-free steel	1968	–

Table 20.4. Brand name of indulgence items

Brand Name	Count	MNV
Soda and Carbonated Beverages		
Coca-Cola	3	3
Pepsi	4	1
Nifty	1	1
Sparkle flavored soft drinks	1	1
Ginger beer (unidentified brand name)	1	1
Wine		
Bonheur Company, Inc.	14	1
Spañada	1	1
New Mexico Selling Company	1	1
Beer		
Budweiser	8	8
Anheuser-Busch	1	1
Falstaff	14	5
Gilbey's	1	1
Schlitz Brewing Co.	1	1
Lemp	1	1
Blatz	6	6
Northwestern Brewery	1	1
R & Co.	1	1
Coor's Brewing Company	1	1
Liquor		
Bacardi rum	1	1
Benedictine brandy	1	1
Taylor & Williams whiskey	1	1
Canadian Club whiskey	1	1
Paul Jones whiskey	1	1
Juarez whiskey	1	1
Fleischmann's vodka	1	1
Avor cordials	1	1
Chenley whiskey	1	1
Tobacco		
Sport	1	1
Total	70	45

Table 20.5. Glass product manufacturers and factory dates

Manufacturer	Factory Dates	Count	MNV
Unidentifiable		4793	1914
Glidden's	1850–present	1	1
Kerr	1912–present	58	12
Owen's-Illinois	1929–present	220	73
Obear-Nester Glass	1894–present	23	21
Coca-Cola	1886–present	1	1
Cumberland Glass Manufacturing Company	1883–unknown	4	4
Hazel-Atlas Glass Company	1919–1925	65	47
Maywood Glass Company	1930–1961	9	5
Latchford Glass Company	1939–1957	1	1
F. Hitchins Glass Works	unknown	1	1
Continental Can Company	1905–1976	1	1
Streator Bottle and Glass Company	1881–1905	1	1
Ball	1888–present	5	2
Boyd	1869–1881	1	1
Owens Bottle Company	1911–1929	105	61
Whitall-Tatum	1857–1938	54	52
Pierce Glass Company	1912–1916	15	12
Pacific Coast Glass Company	1925–1930	1	1
Turner Brothers Company	1910–1929	6	6
Adolphus Busch Glass Manufacturing Company	1904–1928	3	1
Brockway Glass Company	1907–present	4	4
A. H. Heisey Glass Company	1893–1958	1	1
La Clede Company	unknown	4	2
American Bottle Company	1905–1929	11	9
Sunruco (Sun Rubber Company)	1919–1950	2	2
Gallo Glass Company	1966–present	1	1
Fairmount Glass Works	1889–1968	67	6
Thatcher Manufacturing Company	1900–present	7	2
Anheuser Busch Bottling Company	1852–present	6	6
Metro Glass Bottle Company	1935–1949	9	9
Cunninghams and Company	1879–1907	1	1
Diamond Glass Company	1888–present	7	7
Pyrex Rador U.S.A.	1915–present	10	1
Illinois Glass Company	1873–1929	32	19
Maryland Glass Company	1907–present	1	1
Mason Fruit Jar Company	1885–1900	53	3
Pearl	1909–1912	5	5
H. J. Heinz Company	1860–present	8	1
William Frazen and Son	1900–1929	22	7
Glenshaw Glass Company	1895–present	1	1
Western Glass Manufacturing Company	1900–1909	5	4
Reed Glass Company	1927–1956	4	3
Reed and Company (also Reid)	1887–1898	4	2
R. J. Reynolds	1874–present	3	2
Western Bottle Works	unknown–1893	2	2
Three Rivers Glass Company	1927–1937	3	3
Cheramy	1921–1960	4	1
United Drug Company	1910–1930	5	2
Signet	unknown	2	2
William McCully and Company	1832–1886	1	1
Pennsylvania Bottle Company	1929–1953	2	2
Gayher Glass Works Company	1898–present	2	2
O-Cedar	1908–unknown	1	1
Resinol Chemical Company	1895–2001	1	1
Pluto	1890–unknown	3	3
Schram Glass Manufacturing Company	1915–1925	3	3
Chattanooga Glass Company	1901–1960	1	1
A. S. Hinds Company	1870–1925	1	1
Foster Brothers Glass Company	1929–present	3	1
Bagley and Company	1871–1899	11	1
Lysol	1918–present	1	1
Wyeth	1880–1910	3	3
Menley-James	1969–1980	1	1
Chesebrough Manufacturing Company	1880–1987	1	1
Usona	unknown	1	1
Rubber Company	unknown	1	1
Cartel Vidriera, Monterey	unknown	1	1
E. R. Squibb	1858–1895	23	3
C. W. Beggs and Sons Company	1920–1930	1	1
Total		5714	2357

Table 20.6. Euroamerican dinnerware count by ware, vessel form, and aesthetic design

Vessel Form	Unidentifiable	Traditional	Neoclassical	Gothic Revival	Aesthetic Movement	Art Nouveau	Art Deco	Modernist	Total
Eastern Porcelain									
Bowl	11	–	–	–	18	–	–	–	29
Cup	7	–	–	–	–	–	–	–	7
Vessel, indeterminate	5	–	–	–	2	–	–	–	7
Plate	–	–	–	–	10	–	1	–	11
Saucer	15	–	–	–	26	–	–	17	58
Salt or pepper shaker	–	–	–	–	2	–	–	–	2
Continental Porcelain									
Bowl	22	27	2	–	–	2	–	–	53
Cup	18	14	–	–	8	29	15	2	86
Vessel, indeterminate	28	6	–	–	–	7	5	–	46
Plate	14	3	–	–	–	10	2	–	29
Saucer	9	4	–	2	–	5	13	–	33
Teapot	1	–	–	–	–	1	1	–	3
Salt or pepper shaker	2	–	–	–	–	–	–	–	2
Platter	3	–	–	–	–	–	–	–	3
Nonvitreous White-Bodied Earthenware									
Bowl	24	6	–	5	–	3	1	–	39
Cup	6	–	–	–	–	–	10	–	16
Soup plate	–	–	–	–	–	–	1	–	1
Vessel, indeterminate	4	–	–	–	–	–	–	–	4
Plate	–	–	1	1	–	2	7	–	11
Saucer	–	–	–	–	2	–	4	–	6
Casserole dish	–	–	–	–	–	–	7	–	7
Creamer	–	–	–	–	–	19	–	–	19
Semivitreous White-Bodied Earthenware									
Bowl	55	49	–	6	2	17	59	–	188
Cup	45	73	–	7	2	14	6	1	148
Soup plate	7	–	–	14	8	1	3	–	33
Vessel, indeterminate	251	6	1	8	1	5	7	–	279
Plate	76	67	–	33	7	62	5	15	265
Saucer	28	19	–	–	7	–	13	–	67
Teapot	1	–	–	–	–	–	–	–	1
Pitcher	1	1	–	–	–	–	–	–	2
Casserole dish	12	8	–	–	–	2	–	–	22
Sugar bowl	4	–	–	–	–	–	–	–	4
Platter	33	15	6	–	–	–	–	–	54
Vitreous White-Bodied Earthenware									
Bowl	35	5	–	–	–	2	1	–	43
Cup	21	5	–	–	–	–	–	–	26
Soup plate	2	–	–	–	–	–	–	–	2
Vessel, indeterminate	54	2	–	–	–	–	–	–	56
Plate	9	2	–	–	–	–	–	–	11
Saucer	8	–	–	–	–	–	7	–	15
Casserole dish	9	1	–	–	–	–	–	–	10
Platter	29	9	–	–	–	–	–	–	38
Stoneware									
Bowl	1	7	–	–	–	–	1	–	9
Vessel, indeterminate	4	–	–	–	–	2	–	–	6
Teapot	–	–	–	–	–	1	–	–	1
Mug	–	–	–	1	–	–	–	–	1
Casserole dish	1	–	–	–	–	–	–	–	1
Earthenware									
Bowl	–	3	–	–	–	–	–	–	3
Vessel, indeterminate	1	–	–	–	–	–	–	–	1
Total	856	332	10	77	95	184	169	35	1758

Note: Seven fragments were too small to determine the ware group and are not listed. Assemblage total = 1765.

Table 20.7. Dinnerware manufacturers and factory dates

Manufacturer	Factory Dates	Count	MNV
Unidentifiable ceramics		1544	605
Johnson Brothers Limited	1883–present	30	8
Alfred Meakin Limited	1851–unknown	1	1
John Maddock and Sons	1894–1929	16	2
Colonial Pottery	1890–1931	1	1
Homer Laughlin	1877–present	25	5
Shenango China	1901–present	2	1
Bryant	unknown	1	1
Edwin M. Knowles	1900–1963	11	2
Grindley and Company	1880–present	1	1
Mercer Pottery Company	1868–1937	2	1
C. Tielsch and Company	1845–present	21	2
Henry Alcock and Company	1861–1910	12	4
Noritake	1904–present	4	1
W. S. George Pottery	1900–1950	7	2
Imperiale Royale	1744–1864	5	1
Erdmann Schlegelmilch	1902–1938	7	1
Keller and Everin	1788–1890	2	1
Peoria Pottery Company	1873–1904	14	3
East End Pottery Company	1894–1954	19	2
D. E. McNicol Pottery Company	1892–1954	4	1
J. G. Meakin	1851–present	2	2
American Heritage Dinnerware	1933–1965	4	1
C. C. Thompson Pottery Company	1889–1938	1	1
W. S. George Company	1904–1960	14	3
Collinwood and Greatbatch	1870–1887	1	1
Ravenna	1915–1950	1	1
Goodwin Pottery Company	1844–1913	1	1
Petrus Regout	1836–1931	4	1
East Palestine Pottery Company	1884–1909	1	1
Hudson and Wilcox	unknown	7	1
Total		1765	659

Table 20.8. Whole nail counts by pennyweight and manufacturing technique

Pennyweight	Cut	Drawn	Total
2	12	19	31
3	3	19	22
4	15	44	59
5	3	21	24
6	27	98	125
7	4	31	35
8	51	137	188
9	17	96	113
10	32	65	97
11	2	1	3
12	8	51	59
13	–	6	6
15	–	1	1
16	17	64	81
20	10	35	45
30	1	44	45
40	3	23	26
50	–	4	4
60	–	7	7
Total	205	766	971

Table 20.9. Identified brand names on medicine bottles

Brand Name	Count	MNV
Antacid		
Emerson Drug Company	1	1
Laxatives		
Pluto Water	3	3
California Fig Syrup Company	3	3
Citrate of Magnesia	1	1
Charles H. Fletcher's Castoria	11	9
Dr. S. Pitcher's Castoria	2	2
Mrs. Winslow's Syrup	1	1
Liniments		
Garden-Deluxe	1	1
Dr. J. H. McLean	6	6
Murine Eye Remedy Company	2	2
Bradfield Regal Company	1	1
Ointments		
Pond's	3	3
Chesebrough Vaseline	3	3
Resinol	1	1
Mentholatum	14	11
Ingram's Milkweed Cream	2	2
Ely's Cream Balm	1	1
Prescription		
Murine Eye Remedy Company	1	1
Red Cross	1	1
Kelloggs	1	1
Generic Patent Medicine		
United Drug Company	1	1
Dr. J. H. McLean	1	1
Hood	2	2
Chamberlain's Cough Remedy	2	1
E. R. Squibb	4	3
St. Luke's Immediate Relief for Pain Miss Sarah Stuck	3	1
Lyric	2	2
Whittemore	2	2
Vick's	1	1
Caldwells Syrup Pepsin	1	1
Chattanooga Medicine Company	6	1
Murine Eye Remedy Company	1	1
Dr. Busanko's Pile Remedy	1	1
Rawleigh's	1	1
McElree's Caroui	2	1
Hadd Medical Company	1	1
Wyeth	1	1
Jacques Chemical Works	1	1
Koenic Medical Company	1	1
DAE Health Laboratory	1	1
Foley and Company	2	1
Gets It	1	1
Knoxit (liquid)	1	1
Knoxit (globules)	1	1
Eye		
Wyeth	1	1
Pills		
Dr. Piece's Anuric Tablets for Kidneys and Backache	1	1
Bayer	1	1
Reed and Camrick	1	1
Total	103	87

Table 20.10. Euroamerican (Hispanic) artifacts for Structure 1, 141 West Manhattan Avenue

Type	Function	Nineteenth Century					Twentieth Century																							Total
		Domestic-Refuse Pit				Straight-line Cesspit Privy	Domestic-Refuse Pit									Well or Cistern	Construction-Debris Pit	Self-Contained Vault Privy							Foundation/ Structural					
		Feature No.				Feature No.	Feature No.									Feature No.	Feature No.	Feature No.							Feature No.					
		27	38	45	46	44	28	39	75	76	77	79	81	89	229	47	30	73	74	78	231	232	233	234	235	225				
Unassignable																														
Unidentifiable	unidentifiable	17	14	1	1	63	–	4	3	2	2	19	–	7	–	2	–	13	58	38	2	8	2	3	1	–	260			
	bottle	38	35	2		67		54	10	30	–	2	–	18	2	3	–	98	147	109	3	36	17	–	2	2	675			
	can	–	1	–	–	21	–	60	–	–	1	3	–	1	–	4	–	21	8	63	3	25	–	–	–	–	211			
	plug/cap	1	1	–	–	7	–	2	–	–	–	1	–	–	–	–	–	–	2	1	–	–	–	–	–	–	15			
	gasket	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	6			
	tubing	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	3			
Economy/Production																														
Machinery	machinery parts	–	1	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	3	2	–	–	–	–	–	–	8			
Food																														
Miscellaneous	thermos	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14	–	14			
Canned goods	unidentifiable	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	2			
	condensed milk	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	3			
	juice can	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	3			
	lard bucket	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	1	1	3	–	–	–	–	–	–	8			
	meat can	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2			
	sardine can	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2			
	vegetable or fruit can	–	1	–	–	24	–	54	3	–	–	–	–	–	–	–	–	6	18	15	–	–	–	–	–	–	121			
Bottled goods	condiment bottle	–	–	–	–	3	–	–	–	–	3	3	–	–	–	–	–	–	22	–	6	3	–	1	2	–	43			
	condiment jar	–	–	–	–	–	–	15	–	–	–	–	–	–	–	10	–	–	2	–	–	2	4	–	–	–	33			
	marmalade jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1			
	pepper sauce bottle	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
	pickle jar	2	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–	–	1	–	–	7	–	12			
	jam or jelly jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	2			
	baby food jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	4			
	milk bottle	–	–	–	–	6	–	4	–	–	–	–	–	–	–	–	–	–	3	10	–	6	–	–	–	–	29			
	olive oil bottle	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	3			
	extract bottle	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	2			
	salad dressing	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1			
	mayonnaise jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	2			
Indulgences																														
Miscellaneous	bottle opener	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
	crown cap	1	1	–	–	–	–	5	1	1	–	1	–	1	–	1	–	1	10	12	–	4	4	–	–	–	43			
	lead paper/foil	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2	–	–	–	3			
Soda/carbonated bevera	soda bottle	3	–	–	–	11	–	24	5	7	–	12	–	–	1	1	–	163	7	13	4	22	–	–	1	–	274			
	ginger beer bottle	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
Wine	wine bottle	4	7	–	–	21	1	14	6	1	–	9	–	7	–	1	–	–	5	2	1	2	–	5	1	–	87			
Beer	beer bottle	20	23	9	–	61	1	–	6	7	2	44	–	20	–	–	–	19	38	52	6	17	2	5	1	–	333			
	ale bottle	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	5	–	–	–	–	–	6			
	cone-top can	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1			
Liquor	brandy bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	3	–	–	–	4			
	whiskey bottle	4	5	–	–	7	–	15	12	21	1	3	–	–	–	–	–	9	2	12	4	18	46	2	–	–	161			
	miniature bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1			
	shouldered jug	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	–	4	39	1	–	–	46			
	gin bottle	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2			
Tobacco-smoking	pipe	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	2			
	tobacco can	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
Tobacco-chewing	cuspidor	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3			
Domestic																														
Cutlery and silverware	silverware, indeterminate	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2			
	table spoon	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	1	–	4			
	teaspoon	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	2	1	–	–	–	4			
	table fork	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
	spatula	–		–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
	butter knife	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2			
Pots and pans	pot	–		–	–	2	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	4			
	bean pot	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3			
	muffin pan	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
	measuring cup	–	–	–	–	8	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	4	–	–	–	15			
Dinnerware	bowl	22	18	–	–	40	–	25	9	1	–	10	–	–	–	–	–	2	3	28	5	–	2	–	1	1	167			
	cup	9	4	–	–	18	–	15	2	7	3	6	–	3	–	3	–	1	6	24	29	21	29	–	1	–	181			
	soup plate	–	–	–	–	4	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	25			

Type	Function	Nineteenth Century					Twentieth Century																						Total
		Domestic-Refuse Pit				Straight-line Cesspit Privy	Domestic-Refuse Pit									Well or Cistern	Construction-Debris Pit	Self-Contained Vault Privy							Foundation/ Structural				
		Feature No.				Feature No.	Feature No.									Feature No.	Feature No.	Feature No.							Feature No.				
		27	38	45	46	44	28	39	75	76	77	79	81	89	229	47	30	73	74	78	231	232	233	234	235	225			
	vessel, indeterminate	24	10	1	3	33	–	16	2	10	–	8	–	2	2	–	–	4	11	23	1	5	4	1	–	1	161		
	plate	1	–	–	1	13	–	28	2	11	6	5	–	6	4	–	–	–	3	15	29	–	15	2	–	–	141		
	saucer	12	12	2	–	10	–	13	–	–	1	11	–	–	1	–	–	4	–	5	1	1	25		–	–	98		
	teapot	1	1		–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3		
	pitcher	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2		
	casserole dish	–	–	–	–	1	–	12	1	–	–	–	–	–	–	–	–	–	2	1	6	–	–	1	–	–	24		
	sugar bowl	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4		
	platter	–	2	3	–	2	–	1	19	–	–	4	–	–	–	–	–	1	–	17	–	–	10	–	–	–	59		
	creamer	–	–	–	–	19	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	19		
Glassware	cup	–	–	–	–	22	–	10	–	5	1	–	–	–	1	–	–	–	6	12	–	3	2	–	–	–	62		
	goblet	–	–	–	–	–	–	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12	–	–	–	18		
	mug	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	5		
	vessel, indeterminate	1	15	3	–	14	–	10	50	–	–	15	–	–	–	–	–	–	3	5	2	1	1	–	–	–	120		
	shot glass	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1		
	sugar bowl	–	–	–	–	–	–	1	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4		
	platter	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1		
	creamer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	3		
	casserole dish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	–	–	–	11		
Canning/storage	canning jar	3	–	–	–	50	–	9	–	7	3	–	–	–	1	8	–	9	34	51	–	35	14	–	2	–	226		
	crock	1	–	–	–	3	–	–	1	–	–	–	–	1	–	–	–	–	3	2	–	–	–	–	–	–	11		
	vessel, indeterminate	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	5		
Cleaning	solvent bottle	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1		
	clothespin	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	wringer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1		
Sewing	scissors	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1		
	sewing machine	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1		
Child care	baby bottle	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	9	–	10		
Furnishings																													
Heating, cooking, and lighting	poker	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2		
	cooking grill	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2		
	wood/coal stove	–	2	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3		
	kerosene lamp	–	3	–	–	2	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	2	–	–		–	9		
	lampshade	–	–	–	–	49	–	–	157	–	–	10	–	–	–	–	–	–	–	–	–	–	–	–	6	–	222		
Furniture	chair	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	flower pot	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4		
	knob	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2		
	figurine	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	17	–	–	–	–	–	–	–	19		
Construction/Maintenance																													
Unidentifiable	plate	3	–	–	–	3	–	1	87	–	1	3	–	–	–	–	–	8	2	5	–	–	–	–	–	–	113		
	ring	1	1	–	–	1	–	–	–	–	2	–	–	–	–	–	–	3	1	4	–	–	–	–	–	–	13		
	rod	4	1	–	–	2	–	–	–	–	–	1	–	–	–	–	–	1	1	1	–	1	–	–	–	–	12		
	strap/band/strip	2	42	1	–	25	–	–	8	–	–	12	–	1		–	–	5	3	1	4	4	–	–	–	–	108		
	wire	1	2	–	–	7	–	2	1	–	1	1	–	–	–	–	–	1	5	1	–	–	–	–	–	–	22		
Tools	unidentifiable	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1		
	bucket/pail	–	–	–	–	–	–	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5		
	chisel	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	hammer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1		
	pliers	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	pulley	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2		
	saw	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	shovel	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2		
	axe, single bit	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	3		
	axe, trade	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	rake	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	protective goggles	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1		
Hardware	bolt	1	–	–	–	6	–	–	–	–	–	2	–	–	–	–	–	–	3	3	3	–	–	–	–	–	18		
	key, flat	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	2		
	doorknob	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	hinge, indeterminate	1	–	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	7		
	hook	3	1	–	–	23	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	–	–	–	–	31		
	latch	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
	lock, padlock	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1		
	nail, roofing	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	5	–	–	–	–	–	–	7		
	nail, indeterminate	38	25	8	–	37	–	1	5	2	1	7	1	2	2	9	1	18	18	2	2	1	4	–	4	–	188		

Type	Function	Nineteenth Century					Twentieth Century																					Total
		Domestic-Refuse Pit				Straight-line Cesspit Privy	Domestic-Refuse Pit									Well or Cistern	Construction-Debris Pit	Self-Contained Vault Privy							Foundation/ Structural			
		Feature No.					Feature No.																					
		27	38	45	46	44	28	39	75	76	77	79	81	89	229	47	30	73	74	78	231	232	233	234	235	225	
	nail, finish	–	2	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	4	–	–	–	–	–	–	8
	nut	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	3
	spike	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	1	2	–	1	–	–	–	–	6
	tack, bill poster	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
	washer	–	1	–	–	–	–	–	–	–	–	2	–	–	–	1	–	–	2	–	–	–	–	–	–	–	6
	screw, wood	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	2
	nut and bolt	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
	nail, common	18	53	–	–	73	–	7	5	12	–	13	–	1	–	1	–	28	41	56	1	2	6	–	1	–	318
	bracket, indeterminate	–	1	6	–	2	–	2	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12
	bolt, nut and washer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	3
Building materials	plate	–	–	–	1	5	–	5	–	–	–	4	–	–	–	–	–	1	–	–	–	12	–	–	–	–	28
	linoleum	–	1	–	–	–	–	–	25	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	27
	paint can	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	3
	screening	–	15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	16
	tile	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
	window glass	5	9	4	–	40	1	8	12	4	–	5	–	15	2	1	–	12	20	136	14	29	73	–	6	–	396
Electrical	electrical, indeterminate	–	–	1	–	25	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	27
	alligator clip	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
	battery	1	–	–	–	1	–	1		–	–	–	–	–	–	–	–	–	–	–	–	5	1	–	–	–	9
	box, fuse	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7	4	–	–	–	–	–	–	–	11
	insulator	–	2	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–	–	–	1		–	–	–	5
	wire connector	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
	wire/insulated wire	1	5	–	–	5	–	1	–	–	–	–	–	–	–	–	–	–	1	5	–	–	–	–	–	–	18
	light plate	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
	light bulb	–	–	–	–	7	–	1	–	–	–	–	–	–	–	–	–	1	7	15	–	–	–	–	1	–	32
	cleat, one wire	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
	cleat, two wire	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	fuse	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	2
Fencing	barbed wire spool	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
	barbed wire	2	5	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8
	fence staple	1	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	4
Plumbing	pipe cap	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
	pipe	–	3	–	–	1	–	–	–	–	–	–	–	–	–	–	–	3	6	4	1	9	–	–	–	–	27
	toilet	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	3
	tubing	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	coupling	–	1	–	–	1	–	2	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	6
	float ball	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	4
	drain stopper	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
	water hose	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8	1	–	–	–	–	–	–	9
	urinal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	3
												Personal Effects																
Clothing	belt end tab	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	buckle, suspender	–	2	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	3	–	1	–	–	–	–	–	8
	buckle	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2
	button, four hole	1	1	3	–	–	–	1	–	–	–	3	–	–	1	–	–	–	1	1	–	–	–	1	–	–	13
	button, two hole	1	–	–	–	–	–	1	2	1	–	1	–	–	–	–	–	2	4	4	–	–	–	–	–	–	16
	button, indeterminate	–	1	–	–	4	–	–	–	–	–	–	–	–	–	–	–	1	1	1	–	1	–	–	–	–	9
	jean stud/rivet	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2
	glove	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	–	–	–	–	–	–	11
	snap	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	belt	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	2
	button, shank	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	clothing, indeterminate	3	–	–	–	2	–	1	–	–	–	1	–	–	–	–	–	–	1	3	–	2	–	–	–	–	13
	hose/stockings	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Boots and shoes	shoe, indeterminate	53	6	4	–	12	–	23	–	–	–	36	–	–	–	4	–	–	64	13	16	2	–	3	–	–	236
	boot, indeterminate	–	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	5	–	–	–	–	14
	slipper	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	boot dressing bottle	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	3	–	–	–	–	6
	work boot	–	–	–	–	9	–	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14
	sports shoe	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	17	–	–	–	–	–	–	–	17
Jewelry	unidentifiable	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2
	bead	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	brooch	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	watch	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Grooming items/ personal hygiene	chamber pot	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	1	11	24	–	14	–	–	52
	comb	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	1	–	2	–	1	–	1	1	–	1	9

Type	Function	Nineteenth Century					Twentieth Century																						Total
		Domestic-Refuse Pit				Straight-line Cesspit Privy	Domestic-Refuse Pit									Well or Cistern	Construction-Debris Pit	Self-Contained Vault Privy							Foundation/ Structural				
		Feature No.				Feature No.	Feature No.									Feature No.	Feature No.	Feature No.							Feature No.				
		27	38	45	46	44	28	39	75	76	77	79	81	89	229	47	30	73	74	78	231	232	233	234	235	225			
	lipstick	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			1
	perfume/cologne bottle	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	3	2	–	2	1	–	–	–			10
	razor blade, straight	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–			4
	shaving brush	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–			1
	toothpaste tube	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–			1
	toothbrush	–	–	–	–	–	–	1	–	–	1	1	–	–	–	–	–	–	–	1	–	1	–	1	1	–			7
	wash basin	–	–	–	–	10	–		–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–			11
	toiletry bottle	1	–	–	–	9	–	1	3	–	4	1	–	–	–	–	–	–	1	2	–	11		1	3	–			37
	razor, safety	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–			1
	compact	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	33	–	–	–	–			35
	hairbrush	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–			2
	dentifrice bottle	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–			2
	nail polish bottle	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			2
	sponge	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–			1
	lotion bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			1
	mouthwash bottle	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	1	–			5
	bedpan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–			1
	douche	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	2	–	–	1	–			4
Medicine/health	eyedropper	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–			1
	laxative bottle	9	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	3	–	10	–	–	–	–			23
	liniment bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	4	2	–	–	–			8
	ointment jar	–	1	–	–	1	–	5	–	–	2	–	–	–	1	–	–	3	3	3	1	8	–	–	1	–			29
	prescription bottle	–	–	–	–	5	–	–	–	–	1	4	–	–	–	–	–	2	–	2	–	13	–	1	3	–			31
	syringe	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	1	–	3		–			7
	thermometer	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–			3
	patent medicine bottle	10	2	5	–	65	–	14	2	2		13	–	–	2	–	–	–	3	1	17	107	2	6	11	1			263
	bitters bottle	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			3
	eye cup	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–			1
	cough syrup	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	1	–	–	–	–			3
	tincture bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–			2
	pill bottle	–	–	–	–	1	–	–	–	–	3		–	–	–	–	–	–	–	–	1	14	–	–	1	–			20
Money/tokens	New Mexico school tax token	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–			1
	token	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			1
Religious	devotional medal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–			1
Miscellaneous	pocket knife	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–			1
Entertainment/Leisure																													
Toys	unidentifiable	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–			2
	ball	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	3	–	1	–	5	–	–	–	–			10
	doll	–	–	2	–	3	–	4	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–			12
	miniature cup	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			2
	miniature anvil	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			1
	duck	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			1
Music	harmonica	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			6
	record	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16	–	–	1	–	16	–	–	–			33
Games	marble	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	3	1	1	2	2	–	–	–	1			12
Books	unidentifiable	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	5	–	–	–	–			6
Stationery equipment	ink bottle	–	–	–	–	–	–	13	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–			15
	pencil	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–			1
Arts and crafts/hobby	paint tube	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			1
Scholastic/academic	slate	–	–	–	–	1	–	–	–	–	–	6	–	–	–	–	–	–	–	–	1	–	–	–	–	–			8
Pets and pet supplies	collar	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			2
Outdoor sports and recreation	sportsman's license	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–			2
Transportation																													
Wagons and buggies	wagon part, indeterminate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–			1
Cars and trucks	unidentifiable	–	–	–	–	1	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			3
	license plate	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			1
	suspension spring	–	–	–	–	–	–	–	–	–	–	7	–	–	–	–	–	–	1	–	–	–	–	–	–	–			8
	engine valve	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–			2
	battery cable	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–			2
	brakes	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			1
Animal power	harness strap	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–			1
	bicycle tire	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–			1
	harness buckle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–			1

Type	Function	Nineteenth Century					Twentieth Century																				Total
		Domestic-Refuse Pit				Straight-line Cesspit Privy	Domestic-Refuse Pit									Well or Cistern	Construction-Debris Pit	Self-Contained Vault Privy							Foundation/ Structural		
		Feature No.				Feature No.	Feature No.									Feature No.	Feature No.	Feature No.							Feature No.		
		27	38	45	46	44	28	39	75	76	77	79	81	89	229	47	30	73	74	78	231	232	233	234	235	225	
	horseshoe, riding	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2
	spur	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Lubricants/fluids/fuel	motor oil can	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
												Military/Arms															
Small arms	centerfire cartridge	–	–	–	–	2	–	–	–	–	–	–	1	–	–	–	–	7	–	2	2	–	–	–	–	–	14
	rimfire cartridge	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
	shotgun shell	–	–	–	–	1	–	–	–	1	–	1	–	–	–	–	–	–	–	1	–	–	1	–	–	–	5
	pistol	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Military clothing and insignia	military insignia, army	–	5	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7
	collar/sleeve button, army	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	coat button, navy	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Total		340	375	58	6	1009	5	528	445	143	48	326	3	88	26	53	3	497	689	850	199	579	357	58	88	11	6784

Table 20.11. Euroamerican twentieth-century artifacts, Structure 2, 451 Galisteo Street

Type	Function	Void	Domestic-Refuse Pit						Construction-Debris Pit	Structural	Total
		Feature No.	Feature No.						Feature No.	Feature No.	
		0	43	80	87	88	90	91	230	33	
					Unassignable						
		–	–	–	–	–	–	–	–	–	–
Unidentifiable	unidentifiable	1	1	1	6	13	3	32	–	–	57
	bottle	3	14	5	6	14	23	46	–	–	111
	can	–	–	1	–	4	–	–	–	–	5
	plug/cap	–	–	–	1	4	–	1	–	–	6
					Economy/Production						
Machinery	machinery parts	–	–	–	–	1	–	–	–	–	1
					Food						
Canned goods	coffee can	1	–	–	–	–	–	–	–	–	1
	condensed mile		–	–	–	3	–	–	–	–	3
	meat can		–	–	1	2	–	–	–	–	3
	vegetable or fruit can		–	3	–	26	–	–	–	–	29
Bottled goods	condiment bottle	6	–	–	–	1	–	–	–	–	7
	condiment jar	5	–	1	–	–	–	–	–	–	6
	ketchup bottle	4	–	1	–	1	–	–	–	–	6
	mustard jar	2	–	–	–	–	–	–	–	–	2
	pepper sauce bottle	2	–	–	–	–	–	–	–	–	2
	pickle jar	1	–	–	–	–	–	–	–	–	1
	syrup bottle		–	–	–	–	–	–	1	–	1
	jam or jelly jar	1	–	1	–	2	2	–	–	–	6
	milk bottle	3	–	–	–	–	–	–	–	–	3
	olive oil bottle	1	–	–	–	–	–	–	–	–	1
	mayonnaise jar	1	–	–	–	–	–	–	–	–	1
					Indulgences						
Miscellaneous	crown cap	–	–	3	4	25	1	–	–	–	33
Soda/carbonated beverage	soda bottle	8	7	–	3	2	5	–	–	–	25
Wine	wine bottle	4	1	1	–	1	–	17	–	–	24
Beer	beer bottle	4	20	2	–	5	1	4	–	–	36
	ale bottle	–	–	–	–	–	1	–	–	–	1
	cone-top can	–	–	–	–	1	–	–	–	–	1
Liquor	whiskey bottle	8	–	–	4	7	–	–	–	–	19
	shouldered jug	1	–	–	–	–	–	–	–	–	1
Tobacco-smoking	pipe	–	–	1	–	–	–	–	–	–	1
	tobacco can	–	–	–	–	5	–	–	–	–	5
					Domestic						
Cutlery and silverware	knife, indeterminate	–	–	–	–	–	–	1	–	–	1
	teaspoon	–	–	–	–	2	–	–	–	–	2
Pots and pans	unidentifiable	–	–	–	–	–	1	1	–	–	2
	baking pan	–	–	–	–	4	–	–	–	–	4
	coffee pot	–	–	4	–	–	–	–	–	–	4
	measuring cup	–	–	1	–	8	–	–	–	–	9
Dinnerware	bowl	1	–	35	–	5	–	46	1	2	90
	cup	1	–	6	3	17	–	12	–	1	40
	soup plate	–	–	1	–	–	–	–	–	–	1
	vessel, indeterminate	–	7	1	3	12	6	16	–	1	46
	plate	2	–	46	9	18	–	–	–	–	75
	saucer	–	–	14	–	33	–	–	–	–	47
	casserole dish	–	–	3	–	–	–	1	–	–	4

Type	Function	Void	Domestic-Refuse Pit						Construction-Debris Pit	Structural	Total
		Feature No.	Feature No.						Feature No.	Feature No.	
		0	43	80	87	88	90	91	230	33	
	salt or pepper shaker	–	–	–	–	2	–	2	–	–	4
	platter	–	–	2	–	12	–	9	–	–	23
Glassware	cup	–	–	–	–	1	3	–	–	–	4
	goblet	–	1	1	2	–	–	–	–	–	4
	vessel, indeterminate	–	–	1	1	6	–	–	–	–	8
	sugar bowl	–	–	1	–	–	–	–	–	–	1
Canning/storage	canning jar	5	–	2	–	31	1	–	–	–	39
			Furnishings								
Heating, cooking and lighting	coal/wood stove	–	–	–	–	–	1	–	–	–	1
	candlestick	1	–	–	–	–	–	–	–	–	1
Furniture	unidentifiable	–	–	–	–	1	–	–	–	–	1
	knob	–	–	1	–		–	–	–	–	1
	figurine	–	–	–	–	46	–	–	–	–	46
			Construction/Maintenance								
Unidentifiable	plate	–	–	5	–	15	7	11	–	–	38
	ring	–	–	1	–	5	–	1	–	–	7
	rod	–	–	1	–		–	–	–	–	1
	strap/band/strip	–	50	–	–	2	–	3	–	–	55
	wire	1	–	–	–	5	–	–	–	–	6
Tools	metal file	1	–	–	–	–	–	–	–	–	1
	axe, single bit	–	–	–	–	–	–	–	–	1	1
	wire brush	–	–	–	–	–	–	2	–	–	2
Hardware	bolt	–	–	2	–	2	1	–	–	–	5
	key, flat	2	–	–	–	–	–	–	–	–	2
	hinge, indeterminate	–	–	–	–	1	–	–	–	–	1
	hook	–	–	–	–	–	–	1	–	–	1
	latch	–	–	–	–	–	–	1	–	–	1
	nail, indeterminate	–	13	8	1	23	–	5	–	–	50
	nail, finish	–	–	–	–	2	–	–	–	–	2
	washer	–	–	–	–	1	–	–	–	–	1
	nail, common	–	–	–	3	14	–	7	–	–	24
	bracket, indeterminate	–	–	–	–	3	–	–	–	–	3
Building materials	plate	–	–	–	–	–	–	18	–	–	18
	paint can	–	–	–	–	19	–	–	–	–	19
	tile	–	1	–	1	1	–	–	–	–	3
	window glass	–	6	–	–	15	12	28	–	–	61
Electrical	box, switch/outlet	1	–	1	–	–	–	–	–	–	2
	insulator	–	–	–	–	–	1	–	–	–	1
	wire/insulated wire	–	–	–	–	2	–	–	–	–	2
	light plate	–	–	–	–	1	–	–	–	–	1
	light bulb	–	–	–	–	1	–	–	–	–	1
	two-wire cleat	–	–	1	–	2	–	–	–	–	3
	three-wire cleat	–	–	1	–	–	–	–	–	–	1
Fencing	fence staple	–	–	–	1	–	–	–	–	–	1
Plumbing	pipe	–	–	–	–	4	–	–	–	–	4
	tubing	–	–	–	–	1	–	–	–	–	1
	float ball	–	–	–	–	1	–	–	–	–	1
	spigot	1	–	–	–	–	–	–	–	–	1
Lubricants/solvents	oiler/oil can	–	–	–	–	1	–	–	–	–	1
			Personal Effects								
Clothing	buckle, suspender	–	–	–	–	–	–	1	–	–	1

Type	Function	Void	Domestic-Refuse Pit						Construction-Debris Pit	Structural	Total
		Feature No. 0	Feature No. 43	80	87	88	90	91	Feature No. 230	Feature No. 33	
	button, four hole	–	1	–	–	–	–	–	–	–	1
	button, two hole	1	–	–	–	6	–	–	–	–	7
	button, indeterminate	–	–	–	–	–	–	1	–	–	1
	clothing, indeterminate	–	–	2	–	–	–	–	–	–	2
Boots and shoes	shoe, indeterminate	3	6	7	–	2	–	3	–	–	21
	boot, indeterminate	–	–	1	–	–	–	–	–	–	1
	boot dressing bottle	–	–	–	–	1	–	–	–	–	1
	work boot	–	–	2	–	–	–	–	–	–	2
Jewelry	watch	–	–	–	–	2	–	–	–	–	2
Grooming items/personal hygiene	barrette	–	–	–	–	–	–	1	–	–	1
	chamber pot	–	–	–	–	1	–	3	–	1	5
	perfume/cologne bottle	–	–	–	–	2	–	–	–	–	2
	toiletry bottle	9	–	3	–	10	–	–	–	–	22
	nail polish bottle	1	–	–	–	–	–	–	–	–	1
	mouthwash bottle	–	–	–	–	1	–	–	–	–	1
Medicine/Health	antacid bottle	4	–	–	–	–	–	–	–	–	4
	laxative bottle	1	–	–	–	2	–	–	–	–	3
	liniment bottle	2	–	–	–	–	–	–	–	–	2
	ointment jar	17	–	1	–	–	–	–	–	–	18
	prescription bottle	2	–	–	–	–	–	–	–	–	2
	syringe	–	–	1	–	–	–	–	–	–	1
	patent medicine bottle	11	14	–	1	12	–	–	1	–	39
	pill bottle	1	–	–	–	1	–	–	–	–	2
	antiseptic bottle	4	–	1	–	1	–	–	–	–	6
Money/Tokens	New Mexico school tax token	1	–	–	–	–	–	–	–	–	1
	penny	2	–	–	–	–	–	–	–	–	2
Miscellaneous	eyeglass lens	–	–	–	–	2	–	–	–	–	2
	Entertainment/Leisure										
Toys	ball	–	–	–	1	–	–	–	–	–	1
	bicycle	–	–	–	–	8	–	–	–	–	8
	roller skate	–	–	–	–	1	–	–	–	–	1
	truck	–	–	2	–	–	–	–	–	–	2
	doll	1	–	–	–	2	–	1	–	–	4
Games	marble	–	1	–	–	–	–	–	–	–	1
Stationery Equipment	ink bottle	3	–	–	–	1	–	–	–	–	4
	Transportation										
Cars and Trucks	license plate	2	–	–	–	–	–	–	–	–	2
	tire iron	–	–	–	–	1	–	–	–	–	1
	jack	–	–	–	–	1	–	–	–	–	1
Animal Power	horseshoe, draft	–	–	–	–	1	–	–	–	–	1
	Military/Arms										
Military clothing and insignia	coat button, army	–	–	–	–	–	–	3	–	–	3
Total		137	143	179	51	494	69	278	3	6	1360

Table 20.12. Euroamerican twentieth-century artifacts, Structure 3, 135 1/2 West Manhattan Avenue

Type	Function	Domestic-Refuse Pit		Well or Cistern	Foundation/Structural		Total
		Feature No.		Feature No.	Feature No.		
		83	228	213	84	94	
			Unassignable				
Unidentifiable	unidentifiable	6	–	–	4	–	–
	bottle	31	–	–	16	–	–
	plug/cap	1	–	–	–	–	–
			Economy/Production				
Machinery	machinery parts	1	–	–	2	–	–
			Food				
Canned goods	meat can	1	–	–	–	–	–
	vegetable or fruit can	4	–	–	–	–	4
Bottled goods	condiment bottle	1	–	3	–	–	4
	condiment jar	3	–	–	–	–	3
	ketchup bottle	–	–	1	–	–	1
	jam or jelly jar	3	–	–	–	–	3
	milk bottle	4	–	–	–	–	4
	mayonnaise jar	1	–	–	–	–	1
			Indulgences				
Miscellaneous	crown cap	10	–	–	–	–	10
Soda/carbonated beverage	soda bottle	14	2	–	–	–	16
Wine	wine bottle	2	1	–	1	–	4
Beer	beer bottle	29	–	–	3	–	32
Liquor	whiskey bottle	5	–	1	2	–	8
	shouldered jug	3	–	–	–	–	3
Tobacco, smoking	tobacco can	–	–	–	1	–	1
			Domestic				
Cutlery and silverware	table spoon	2	–	–	–	–	2
	table fork	1	–	–	–	–	1
Pots and pans	basin	1	–	–	–	–	1
	pot	1	–	–	–	–	1
Dinnerware	bowl	11	–	–	3	3	17
	cup	31	–	–	–	–	31
	vessel, indeterminate	46	–	–	1	–	47
	plate	6	–	–	3	–	9
	saucer	5	–	–	–	–	5
	teapot	–	–	–	–	1	1
	casserole dish	7	–	–	–	–	7
	platter	3	–	–	–	–	3
Glassware	cup	–	–	–	8	–	8
	goblet	1	–	–	–	–	1
	vessel, indeterminate	6	–	–	1	–	7
	shot glass	1	–	–	–	–	1
Canning/storage	canning jar	7	–	–	–	–	7
	crock	3	–	–	1	–	4
Child Care	baby bottle	1	–	–	–	–	1
			Furnishings				
Furniture	flower pot	5	–	–	–	–	5
	knob	1	–	–	–	–	1

Type	Function	Domestic-Refuse Pit		Well or Cistern	Foundation/Structural		Total
		Feature No.		Feature No.	Feature No.		
		83	228	213	84	94	
		Construction/Maintenance					
Unidentifiable	strap/band/strip	1	–	–	4	–	5
Tools	water hose nozzle	1	–	–	–	–	1
	line level	–	–	–	–	1	1
Hardware	nail, indeterminate	16	–	–	3	–	19
	nail, common	1	–	–	4	–	5
Building materials	window glass	2	–	–	2	–	4
Electrical	wire/insulated wire	1	–	–	–	–	1
Plumbing	pipe	3	–	–	2	–	5
	tubing	1	–	–	–	–	1
	manhole/utility cover	–	–	–	1	–	1
		Personal Effects					
Clothing	button, two hole	2	–	–	–	–	2
Boots and shoes	shoe, indeterminate	2	–	–	–	–	2
Grooming items/ personal hygiene	toothbrush	–	–	1	–	–	1
	toiletry bottle	3	–	–	1	–	4
Medicine/Health	laxative bottle	2	–	1	–	–	3
	liniment bottle	–	–	1	–	–	1
	ointment jar	3	–	–	–	–	3
	prescription bottle	2	–	–	–	–	2
	patent medicine bottle	6	–	–	2	–	8
Religious	rosary	1	–	–	–	–	1
Miscellaneous	wallet	–	–	–	–	1	1
		Entertainment/Leisure					
Arts and crafts/hobby	chalk	–	–	–	1	–	1
Total		305	3	8	66	6	326

Table 20.13. Euroamerican artifacts by category, type, function and feature for Structure 4, 125 West Manhattan Avenue

Type	Function	Hispanic																			Anglo-American										Total
		Nineteenth Century																	Twentieth Century		Twentieth Century										
		Irrigation Ditch					Bone Pit												Irrigation Ditch	Bone Pit	Domestic-Refuse Pit					Construction-Debris Pit		Straight-line Cesspit Privy	Self-Contained Vault Privy		
		Feature No.					Feature No.												Feature No.	Feature No.	Feature No.					Feature No.		Feature No.	Feature No.		
		14	17	120	121	123	13	55	118	125	126	127	128	135	140	142	166	171	122	136	50	56	58	119	158	59	131	93	62		
Unassignable																															
Unidentifiable	unidentifiable	1	–	–	–	–	1	–	–	–	–	–	–	1	2	1	–	2	–	3	11	5	–	–	–	–	9	–	14	50
	bottle	2	1	1		1	1	–	–	–	–	–	–	1	4	–	–	1	1	1	52	16	1	1	–	–	10	1	55	150
	can	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	14	–	–	–	–	–	11	–	8	33
	plug/cap	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Economy/Production																															
Agricultural	hoe	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
Food																															
Canned goods	meat can	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
	sardine can	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
	vegetable or fruit can	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15	–	–	–	–	–	1	7	24
Bottled goods	mustard jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
	pickle jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	–	–	–	–	–	–	–	6
	milk bottle	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Indulgences																															
Miscellaneous	crown cap	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	3
Soda/ Carbonated beverage	soda bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8	–	–	–	–	–	2	–	1	11
Wine	wine bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18	–	–	–	–	3	–	12	33
Beer	beer bottle	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	18	13	–	–	–	–	2	–	14	48
	ale bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
Liquor	whiskey bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	4	6
	shouldered jug	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	31	–	–	–	–	–	–	–	–	31
Tobacco-smoking	pipe	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Domestic																															
Dinnerware	bowl	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	8	–	1	–	–	–	–	16	27
	cup	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7	–	–	–	–	4	–	1	12
	soup plate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	7	8
	vessel, indeterminate	1	1	–	–	–	1	–	–	2	1	–	2	–	3	–	–	2	–	3	1	4	–	1	1	2	13	–	11	49
	plate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	5	–	–	–	1	2	–	56	65
	saucer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10	10
	casserole dish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
	platter	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	1	–	–	–	3
Glassware	cup	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	31	33
	goblet	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22	22
	vessel, indeterminate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	1	–	–	–	–	–	–	24	27
	shot glass	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8	8
	platter	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
Canning/storage	canning jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	44	4	–	–	–	–	–	–	27	76
	crock	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	1	–	1	–	–	–	–	–	4
Furnishings																															
Heating, cooking and lighting	wood/coal stove	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	2
Furniture	unidentifiable	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	2
	knob	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
	figurine	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	3
Construction/Maintenance																															
Unidentifiable	plate	–	–	–	16	–	–	3	–	–	–	1	1	–	–	–	–	–	–	–	1	1	–	1	–	–	9	–	14	47
	ring	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
	rod	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
	strap/band/strip	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	5	4	–	–	–	–	4	–	7	23
	wire	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3	2	–	–	–	–	–	1	–	2	11
Tools	axe, single bit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
	axe, trade	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Hardware	bolt	2	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	4
	hinge, indeterminate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	2
	hook	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
	lock, padlock	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
	nail, roofing	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	3	5
	nail, indeterminate	3	1	1	2	–	–	1	–	–	6	–	–	1	–	1		–	–	3	3	11	–	–	–	–	13	–	49	95
	nail, finish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	9	9
	nail, common	–	2	–	–	–	–	3	–	1	–	1	–	–	4	–	1	–	–	2	3	13	–	1	–	–	7	1	23	62

Type	Function	Hispanic																			Anglo-American									Total
		Nineteenth Century																		Twentieth Century		Twentieth Century									
		Irrigation Ditch					Bone Pit													Irrigation Ditch	Bone Pit	Domestic-Refuse Pit					Construction-Debris Pit		Straight-line Cesspit Privy	Self-Contained Vault Privy	
		Feature No.					Feature No.													Feature No.	Feature No.	Feature No.					Feature No.		Feature No.	Feature No.	
		14	17	120	121	123	13	55	118	125	126	127	128	135	140	142	166	171		122	136	50	56	58	119	158	59	131	93	62	
Building materials	window glass	–	2	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–		–	1	7	6	–	1	–	–	14	–	13	46
Electrical	battery	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	1	–	–	–	–	–	–	–	–	1
	box, fuse	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	2	–	–	–	–	–	–	–	–	2
	wire/Insulated wire	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	1	–	–	–	–	–	–	–	1	2
	light bulb	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–		–	–	18	–	–	–	–	–	–	–	–	19
	light switch toggle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	1	–	–	–	–	–	–	–	–	1
Fencing	fence staple	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–		–	–	–	–	–	–	–	–	–	–	–	2
Plumbing	pipe	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	1	3	4
	tubing	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	1	1
Personal Effects																															
Clothing	buckle, suspender	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	1	–	–	–	–	–	–	–	1
	buckle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	2	–	–	–	–	–	–	–	2
	button, four-hole	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	1	1	–	–	–	–	–	–	3	5
	button, two-hole	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	2	–	–	–	–	–	–	–	–	2
	clothing, indeterminate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	1	–	–	–	–	–	–	–	21	22
Boots and shoes	shoe, indeterminate	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–		–	–	3	6	–	–	–	–	–	–	27	40
Grooming items/	chamber pot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	15	15
Personal hygiene	comb	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	4	4
	hair pin	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	1	1
	perfume/cologne bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	2	2
	lice comb	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	1	–	2	3
	dentifrice bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	1	1
Medicine/Health	laxative bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	1	–	–	–	–	–	–	–	1
	ointment jar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	1	1
	prescription bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	1	1
	syringe	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	1	–	–	–	–	–	–	–	4	5
	thermometer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	1	1
	patent medicine bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	3	–	–	–	–	1	–	2	6
	bitters bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	3	–	–	–	–	–	–	–	3
	pill bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	13	–	–	–	–	–	–	–	–	13
Miscellaneous	pocket knife	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	2	2
	change purse	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	1	1
Entertainment/Leisure																															
Toys	doll	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	6	6
	miniature cup	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	3	3
Books	unidentifiable	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	2	2
Stationery equipment	ink bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	1	–	1
	pencil	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	1	1	2
Scholastic/academic	slate	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	1	–	–	–	–	–	–	2	4
Transportation																															
Cars and trucks	suspension spring	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	2	–	–	–	–	–	–	–	–	2
Railroad	spike	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	1	–	–	–	–	–	–	–	1
Military/Arms																															
Small arms	centerfire cartridge	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	4	4
	shotgun shell	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	1	–	1	2
Military clothing and insignia	coat button, army	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	1	–	–	–	–	–	–	–	1
Total		10	8	2	19	3	7	8	1	3	9	3	4	7	18	2	1	5		3	18	253	169	1	7	3	4	110	6	579	1263

Table 20.14. Euroamerican twentieth-century artifacts, Structure 5, 135, 137, and 139 West Manhattan Avenue

Type	Function	Domestic-Refuse Pit	Construction-Debris Pit		Straight-line Cesspit Privy	Foundation/Structural	Total
		Feature No.	Feature No.		Feature No.	Feature No.	
		82	105	111	224	117	
		Unassignable					
Unidentifiable	unidentifiable	2	28	17	2	3	52
	bottle	15	21	28	1	4	69
	plug/cap	–	2	1	–	–	3
		Food					
Canned goods	spice can	–	–	–	1	–	1
	vegetable or fruit can	–	1	19	3	–	23
Bottled goods	mayonnaise jar	1	–	–	–	–	1
		Indulgences					
Miscellaneous	crown cap	–	2	–	–	–	2
	can tab	–	1	–	–	–	1
Soda/carbonated beverage	soda bottle	–	–	–	4	–	4
Wine	wine bottle	–	2	12	2	–	16
Beer	beer bottle	–	4	13	13	–	30
	ale bottle	1	–	–	–	–	1
	cone-top can	–	2	–	–	–	2
Liquor	whiskey bottle	–	–	–	5	–	5
	miniature bottle	–	3	–	–	–	3
		Domestic					
Dinnerware	bowl	6	6	–	8	–	20
	cup	–	–	8	–	–	8
	vessel, indeterminate	39	10	8	1	–	58
	plate	–	13	–	1	–	14
	saucer	13	–	–	–	–	13
	pitcher	–	–	–	1	–	1
	casserole dish	–	–	2	–	–	2
	platter	5	–	–	–	–	5
Glassware	mug	1	–	–	–	–	1
	vessel, indeterminate	4	2	–	1	–	7
Canning/storage	canning jar	5	1	–	–	–	6
		Furnishings					
Heating, cooking, and lighting	kerosene lamp	1	–	–	–	–	1
Furniture	flower pot	–	1	–	–	–	1
		Construction/Maintenance					
Unidentifiable	plate	1	2	–	–	1	4
	rod	–	–	1	–	–	1
	strap/band/strip	–	5	1	–	–	6
	wire	–	3	1	–	–	4
Hardware	bolt	–	2	–	1	–	3
	hinge, indeterminate	–	1	–	–	–	1
	hook	–	1	–	–	–	1
	nail, roofing	–	8	1	–	–	9
	nail, indeterminate	7	17	19	–	2	45
	nail, finish	–	1	–	–	–	1
	spike	–	1	–	–	–	1
	tack, double pointed	–	1	–	–	–	1
	nail, common	3	2	5	1	–	11
	bracket, indeterminate	–	1	–	–	–	1
Building materials	linoleum	–	–	6	–	–	6
	window glass	7	47	41	–	2	97
Fencing	fence staple	1	–	–	–	–	1

Type	Function	Domestic-Refuse Pit	Construction-Debris Pit		Straight-line Cesspit Privy	Foundation/Structural	Total
		Feature No.	Feature No.		Feature No.	Feature No.	
		82	105	111	224	117	
		Personal Effects					
Clothing	buckle, suspender	–	–	1	–	–	1
	button, two hole	–	1	–	–	–	1
Boots and shoes	shoe, indeterminate	13	–	–	–	–	13
Jewelry	bauble	–	–	1	–	–	1
Grooming items/ personal hygiene	comb	–	–	1	–	–	1
	toiletry bottle	–	–	4	–	–	4
Medicine/health	patent medicine bottle	–	2	1	–	–	3
Money/tokens	penny	–	–	1	–	–	1
		Entertainment/Leisure					
Toys	unidentifiable	–	1	–	–	–	1
Games	marble	1	–	2	–	–	3
Stationery equipment	ink bottle	1	–	–	–	–	1
Total		127	195	194	45	12	573

Table 20.15. Euroamerican artifacts, Structure 6, 111 West Manhattan Avenue

Type	Function	Nineteenth Century	Twentieth Century																				Total
		Domestic-Refuse Pit	Void	Domestic-Refuse Pit							Well or Cistern	Construction-Debris Pit				Straight-line Cesspit Privy	Self-Contained Vault Privy	Foundation/ Structural		Posthole	Dog Burial	
		Feature No. 207	Feature No. 3	Feature No. 1	193	194	195	196	217	220	Feature No. 170	Feature No. 6	161	206	223	Feature No. 219	Feature No. 192	Feature No. 178	209	Feature No. 198	Feature No. 159	
Unassignable																							
Unidentifiable	unidentifiable	9	–	20	–	–	–	–	–	–	47	–	–	4	–	3	1	–	4	2	1	–	
	bottle	4	7	9	–	1	2	–	–	–	25	3	18	5	–	2	–	35	2	9	–	–	
	can	18	–	–	–	–	–	–	–	–	2	–	11	–	–	–	–	–	–	–	–	–	
	plug/cap	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	1	–	–	–	–	
Economy/Production																							
Machinery	machinery parts	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	2	
Food																							
Canned goods	lard bucket	27	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	28	
	vegetable or fruit can	–	–	–	–	–	–	–	–	–	3	–	–	11	–	–	–	–	–	–	–	14	
Bottled goods	condiment bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	2	
	condiment jar	–	–	–	–	–	–	–	–	–	8	–	–	–	–	–	–	2	3	–	–	13	
	ketchup bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	3	
	milk bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10	2	1	–	13	
	extract bottle	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	
Indulgences																							
Miscellaneous	crown cap	–	–	11	–	–	–	–	–	–	20	–	2	–	–	–	–	–	–	–	–	33	
	lead paper/foil	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
Soda/carbonated beverage	soda bottle	–	–	7	–	–	–	–	–	–	1	–	–	–	–	–	–	10	2	2	–	22	
Wine	wine bottle	–	–	2	–	1	2	–	–	–	1	1	39	–	–	–	–	26	1	–	–	73	
Beer	beer bottle	2	–	16	–	1	2	–	–	–	22	1	2	3	–	–	–	78	2	7	–	136	
	cone-top can	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	2	
	rum bottle	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	
Liquor	whiskey bottle	–	–	–	–	–	–	–	–	–	14	–	–	–	–	–	–	–	2	–	–	16	
	shouldered jug	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	
Tobacco-smoking	tobacco can	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	
Domestic																							
Cutlery and silverware	silverware, indeterminate	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	2	
	teaspoon	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	
	table fork	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	2	
	butter knife	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	
Pots and pans	baking pan	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	
Dinnerware	bowl	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7	–	–	–	–	8	
	cup	1	–	2	–	–	–	–	–	–	–	–	–	1	–	–	3	–	–	–	–	7	
	soup plate	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	
	vessel, indeterminate	3	–	1	–	–	4	–	–	–	4	1	3	8	–	–	–	–	1	1	–	26	
	plate	1	–	7	–	–	–	–	–	–	4	–	11	–	–	–	–	–	–	–	–	23	
	saucer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5	–	–	–	–	5	
	mug	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	
	casserole dish	–	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	2	
	platter	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	2	
	serving tray	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	4	
Glassware	cup	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	
	vessel, indeterminate	–	–	–	–	–	–	–	–	–	5	–	1	2	–	–	1	–	–	–	–	9	
	shot glass	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	
Canning/storage	canning jar	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	1	–	–	–	3	
	crock	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	
Furnishings																							
Heating, cooking, and lighting	wood/coal stove	–	–	–	–	–	–	–	–	–	5	–	–	–	–	–	1	–	–	–	–	6	
	kerosene lamp	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	1	–	–	–	3	
	wick	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
Furniture	unidentifiable	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
	vase	–	–	–	–	–	–	–	–	–	9	–	–	–	–	–	–	–	–	–	–	9	
	figurine	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	–	–	–	–	20	
Construction/Maintenance																							
Unidentifiable	plate	–	–	5	–	–	–	–	–	–	15	43	20	11	–	–	2	–	1	–	–	97	
	ring	–	–	–	–	–	–	–	–	–	7	–	1	–	–	–	–	–	–	–	–	8	
	rod	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
	strap/band/strip	–	–	5	–	–	5	–	–	–	30	–	9	–	1	–	–	–	–	–	–	50	
	wire	–	–	–	–	–	1	–	–	–	9	3	–	–	–	–	–	–	–	–	–	13	
Tools	bucket/pail	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	
	tongs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	
Hardware	bolt	–	–	5	–	–	–	–	–	–	28	–	–	–	–	–	–	–	1	–	–	34	
	brad	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
	hinge, indeterminate	–	–	1	–	–	–	–	–	–	2	–	–	–	–	1	–	–	1	–	–	5	

Type	Function	Nineteenth Century	Twentieth Century																				Total
		Domestic-Refuse Pit	Void	Domestic-Refuse Pit								Well or Cistern	Construction-Debris Pit				Straight-line Cesspit Privy	Self-Contained Vault Privy	Foundation/ Structural		Posthole	Dog Burial	
		Feature No. 207	Feature No. 3	Feature No. 1	193	194	195	196	217	220		Feature No. 170	6	161	206	223	Feature No. 219	Feature No. 192	Feature No. 178	209	Feature No. 198	Feature No. 159	
	hook	–	1	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	nail, roofing	–	–	–	–	–	–	1	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	nail, indeterminate	7	–	12	1	6	22	–	–	–		24	2	4	4	–	–	2	–	–	2	–	86
	nail, finish	–	–	–	–	–	–	–	–	–		–	1	1		–	–	–	–	–	–	–	2
	nut	–	–	–	–	–	–	–	–	–		11	–	–	–	–	–	–	–	–	–	–	11
	spike	–	–	–	–	–	–	–	–	–		6	–	–	–	–	–	–	–	–	–	–	6
	tack, double pointed	–	–	–	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	1
	washer	–	–	–	–	–	–	–	–	–		8	–	–	–	–	–	–	–	–	–	–	8
	screw, wood	–	–	–	–	–	–	–	–	–		4	–	–	–	–	–	–	–	–	–	–	4
	nut and bolt	–	–	1	–	–	–	–	–	–		1	1	–	–	–	–	–	–	–	1	–	4
	nail, common	5	1	29	4	13	4	–	–	–		165	5	14	6	1	4	–	3	–	4	–	258
	chain	–	–	–	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	1
	bracket, indeterminate	–	–	3	–	–	–	–	–	–		1	–	–	–	–	–	1	–	–	–	–	5
	nail, casing	–	–	–	–	–	–	–	–	–		–	1	–	–	–	–	–	–	–	–	–	1
Building materials	plate	–	–	6	–	–	1	–	–	–		18	–	–	–	–	–	–	–	–	–	–	25
	linoleum	–	–	3	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	3
	screening	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	window glass	14	1	30	–	–	3	1	–	–		72	7	5	2	1	–	–	–	–	4	–	140
Electrical	battery	–	–	1	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	2
	insulator	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	1	–	–	1
	wire/insulated wire	–	–	2	–	–	1		–	–		3	–	–	–	–	–	–	–	–	–	–	6
	light bulb	–	–	3	–	–	–	–	–	–		3	–	–	–	–	–	–	–	–	–	–	6
	two-wire cleat	–	–	3	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	4
	fuse	–	–	–	–	–	–	–	–	–		–	–	–	–	1	–	–	–	–	–	–	1
Fencing	barbed wire	–	–	–	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	1
	fence staple	–	–	–	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	1
Plumbing	pipe	–	–	–	–	–	–	–	–	–		4	–	–	–	–	–	–	1	–	1	–	6
	coupling	–	–	–	–	–	–	–	–	–		1	–	–	–	–	–	–	1	–	–	–	2
	spigot	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	1	–	–	–	1
	water hose	–	–	–	–	–	–	–	–	–		3	–	–	–	–	–	–	–	–	–	–	3
Tentage	grommet	–	–	9	–	–	–	–	–	–		3	–	–	–	–	–	–	–	–	–	–	12
											Personal Effects												
Clothing	button, four hole	–	–	4	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	4
	button, two hole	–	–	3	–	–	–	–	–	–		3	–	–	–	–	–	–	–	–	–	–	6
	button, indeterminate	2	–	–	–	–	1	–	–	–		3	–	1	–	–	–	–	–	–	–	–	7
	clothing rivet	12	–	–	–	–		–	–	–		–	–	–	–	–	–	–	–	–	–	–	12
	jean stud/rivet	–	–	1	–	–		–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	belt	–	–	–	–	–	7	–	–	–		3	–	–	–	–	–	–	–	–	–	–	10
	button, shank	–	–	–	–	–		–	–	–		1	–	–	–	–	–	–	–	–	–	–	1
	clothing, indeterminate	–	–	–	–	–		–	–	–		3	–	–	–	–	–	–	–	–	–	–	3
	necktie	–	–	1	–	–		–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
Boots and shoes	shoe, indeterminate	–	–	4	–	–	4	–	–	–		12	–	7	–	–	–	–	–	–	–	–	27
	shoe polish can	–	–	–	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	1
Jewelry	bead	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	watch	–	1	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
Grooming items/ personal hygiene	comb	–	–	2	1	–	–	–	–	–		–	–	–	–	–	–	1	–	–	–	–	4
	hairpin	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	perfume/cologne bottle	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	1	–	–	–	1
	toiletry bottle	–	–	1	–	–	–	–	–	1		1	–	–	–	–	–	–	–	–	–	–	3
Medicine/health	liniment bottle	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	ointment jar	–	–	1	–	–	–	–	–	–		1	–	–	–	–	–	–	–	1	–	–	3
	prescription bottle	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	1	–	–	1
	patent medicine bottle	2	–	–	–	–	–	–	–	–		1	1	–	–	–	–	–	–	–	–	–	4
	pill bottle	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
Political	promotional button, indeterminate	–	–	1	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	2
											Entertainment/Leisure												
Toys	bicycle	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	doll	–	–	–	–	1	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	2
	miniature swan	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	1	–	–	–	–	1
	3-D glasses	–	–	2	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	2
Games	jacks	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
Books	unidentifiable	–	–	–	–	–	–	–	–	–		10	–	–	–	–	–	–	–	–	–	–	10
	newspaper	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
Stationery equipment	ink bottle	–	–	3	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	3
	pen	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	1	–	–	–	–	1
Arts and crafts/hobby	chalk	–	–	1	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	1
	colored pencil	–	–	–	–	–	–	–	–	–		1	–	–	–	–	–	–	–	–	–	–	1
	rubber cement tube	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	1	–	–	–	1
	stencil	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	11	–	–	–	11

Type	Function	Nineteenth Century	Twentieth Century																			Total
		Domestic-Refuse Pit	Void	Domestic-Refuse Pit							Well or Cistern	Construction-Debris Pit				Straight-line Cesspit Privy	Self-Contained Vault Privy	Foundation/ Structural		Posthole	Dog Burial	
		Feature No.	Feature No.	Feature No.							Feature No.	Feature No.				Feature No.	Feature No.	Feature No.		Feature No.	Feature No.	
		207	3	1	193	194	195	196	217	220	170	6	161	206	223	219	192	178	209	198	159	
Transportation																						
Cars and trucks	tire iron	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
Railroad	spike	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Animal power	bicycle tire	–	–	–	–	–	–	–	–	–	13	–	–	–	–	–	–	–	–	–	–	13
Military/Arms																						
Small arms	centerfire cartridge	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	rimfire cartridge	–	–	–	–	–	–	–	–	–	2	–	1	–	–	1	–	–	–	–	–	4
	shotgun shell	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Total		110	11	239	6	23	61	3	2	3	664	70	155	58	6	12	48	189	26	34	1	1721

Table 20.16. Euroamerican twentieth-century artifacts, Structure 7, 424, 428, or 430 Don Gaspar Avenue

Type	Function	Domestic-Refuse Pit	Construction-Debris Pit				Self-Contained Vault Privy	Foundation/ Structural	Total
		Feature No.	Feature No.				Feature No.	Feature No.	
		205	202	203	204	211	7	218	
			Unassignable						
Unidentifiable	unidentifiable	1	2	2	1	5	2	–	13
	bottle	–	6	10	4	3	3	–	26
			Economy/Production						
Agricultural	hoe	–	–	–	–	–	–	1	1
			Food						
Canned goods	sardine can	–	–	–	–	–	4	–	4
	vegetable or fruit can	–	–	–	–	–	24	–	24
	pepper can	–	–	–	–	–	1	–	1
Bottled goods	condiment bottle	–	–	–	–	–	1	–	1
			Indulgences						
Miscellaneous	crown cap	–	–	–	–	–	2	–	2
Soda/carbonated beverage	soda bottle	–	–	–	–	–	2	–	2
Wine	wine bottle	–	8	–	–	–	5	–	13
Beer	beer bottle	–	2	–	1	1	1	–	5
Liquor	brandy bottle	–	–	–	–	–	1	–	1
	whiskey bottle	–	–	–	–	–	1	–	1
			Domestic						
Dinnerware	bowl	–	–	–	–	–	36	–	36
	cup	–	–	–	–	–	5	–	5
	vessel, indeterminate	–	2	2	–	–	7	–	11
	saucer	–	–	–	–	–	1	–	1
	teapot	–	–	–	–	–	1	–	1
Glassware	cup	–	–	–	–	–	1	–	1
	vessel, indeterminate	–	8	1	–	–	–	–	9
			Furnishings						
Furniture	knob	–	–	–	–	–	1	–	1
			Construction/Maintenance						
Unidentifiable	plate	–	5	–	–	–	4	–	9
	ring	–	–	–	–	–	1	–	1
	strap/band/strip	–	–	–	–	1	2	–	3
	wire	–	1	–	–	1	2	–	4
Hardware	brad	–	–	–	–	–	1	–	1
	nail, roofing	–	–	–	–	1	–	–	1
	nail, indeterminate	–	–	1	4	2	6	–	13
	nail, finish	–	–	–	–	–	1	–	1
	nail, common	–	8	4	–	9	21	–	42
Building materials	window glass	–	16	–	–	5	–	–	21
			Personal Effects						
Clothing	clothing, rivet	–	–	–	–	–	1	–	1
	clothing, indeterminate	–	–	–	1	–	–	–	1
			Military/Arms						
Small arms	rimfire cartridge	–	–	–	–	–	1	–	1
Total		1	58	20	11	28	139	1	258

Table 20.17. Euroamerican twentieth-century artifacts, Structure 8, 420 Don Gaspar Avenue

Type	Function	Feature 197 (Construction-Debris Pit)	Total
	Unassignable		
Unidentifiable	unidentifiable	3	3
	bottle	3	3
	Indulgences		
Soda/carbonated beverage	soda bottle	2	2
	Construction/Maintenance		
Unidentifiable	wire	2	2
Hardware	nail, indeterminate	4	4
	nail, common	4	4
Total		18	18

Table 20.18. Euroamerican artifacts from twentieth-century assemblages by function-based category and ethnicity

Category	Hispanic		Anglo	
	Count	Column %	Count	Column %
Unassignable	1216	17.0%	451	15.4%
Economy/production	11	0.2%	4	0.1%
Food	345	4.8%	110	3.8%
Indulgences	1047	14.7%	432	14.8%
Domestic	1688	23.6%	446	15.3%
Furnishings	257	3.6%	49	1.7%
Construction/maintenance	1498	21.0%	1142	39.1%
Personal effects	912	12.8%	207	7.1%
Entertainment/leisure	120	1.7%	50	1.7%
Transportation	28	0.4%	18	0.6%
Military/arms	24	0.3%	14	0.5%
Total	7146	100.0%	2923	100.0%

Table 20.19. Euroamerican artifacts by feature type and ethnicity from twentieth-century artifact assemblages

Feature Type	Hispanic		Anglo	
	Count	Column %	Count	Column %
Void	137	1.9%	11	0.4%
Domestic-refuse pit	3261	45.6%	775	26.5%
Well or cistern	61	0.9%	664	22.7%
Construction-debris pit	201	2.8%	534	18.3%
Irrigation ditch	3	0.0%	–	–
Straight-line cesspit privy	45	0.6%	18	0.6%
Self-contained vault privy	3318	46.4%	667	22.8%
Foundation/structural	101	1.4%	219	7.5%
Bone pit	19	0.3%	–	–
Posthole	–	–	34	1.2%
Burial (nonhuman)	–	–	1	0.0%
Total	7146	100.0%	2923	100.0%

Table 20.20. Euroamerican artifacts by function-based category and ethnicity from twentieth-century domestic-refuse pits

Category	Hispanic		Anglo	
	Count	Column %	Count	Column %
Unassignable	451	13.8%	133	17.2%
Economy/production	4	0.1%	1	0.1%
Food	149	4.6%	26	3.4%
Indulgences	424	13.0%	133	17.2%
Domestic	985	30.2%	115	14.8%
Furnishings	229	7.0%	4	0.5%
Construction/maintenance	665	20.4%	271	35.0%
Personal effects	283	8.7%	74	9.5%
Entertainment/leisure	48	1.5%	11	1.4%
Transportation	15	0.5%	4	0.5%
Military/arms	8	0.2%	3	0.4%
Total	3261	100.0%	775	100.0%

Table 20.21. Twentieth-century Euroamerican domestic artifacts by type and ethnic origin

Type	Hispanic		Anglo	
	Count	Column %	Count	Column %
Cutlery and silverware	15	0.9%	5	1.1%
Pots and pans	30	1.8%	1	0.2%
Dinnerware	1174	69.5%	256	57.4%
Glassware	211	12.5%	98	22.0%
Canning/storage	242	14.3%	86	19.3%
Cleaning	3	0.2%	–	–
Sewing	2	0.1%	–	–
Child care	11	0.7%	–	–
Total	1688	100.0%	446	100.0%

Table 20.22. Twentieth-century ceramic dinnerware vessel fragments by ethnic origin

Function	Hispanic		Anglo	
	Count	Column %	Count	Column %
Bowl	214	18.2%	64	25.0%
Cup	221	18.8%	22	8.6%
Soup plate	22	1.9%	10	3.9%
Vessel, indeterminate	236	20.1%	66	25.8%
Plate	225	19.2%	68	26.6%
Saucer	127	10.8%	14	5.5%
Teapot	2	0.2%	1	0.4%
Mug	–	–	1	0.4%
Pitcher	2	0.2%	–	–
Casserole dish	34	2.9%	2	0.8%
Sugar bowl	4	0.3%	–	–
Salt or pepper shaker	4	0.3%	–	–
Platter	83	7.1%	4	1.6%
Serving tray	–	–	4	1.6%
Total	1174	100.0%	256	100.0%

Table 20.23. Twentieth-century ceramic dinnerware by ethnic origin

Ware	Hispanic		Anglo	
	Count	Column %	Count	Column %
Eastern porcelain	112	9.5%	2	0.8%
Continental porcelain	151	12.9%	40	15.6%
Nonvitreous white-bodied earthenware	69	5.9%	11	4.3%
Semivitreous white-bodied earthenware	725	61.8%	155	60.5%
Vitreous white-bodied earthenware	111	9.5%	40	15.6%
Stoneware	5	0.4%	8	3.1%
Earthenware	1	0.1%	–	–
Total	1174	100.0%	256	100.0%

Table 20.24. Twentieth-century ceramic dinnerware by aesthetic design and ethnicity

Aesthetic Design	Hispanic		Anglo	
	Count	Column %	Count	Column %
Unidentifiable	575	49.0%	98	38.3%
Plain/none	–	–	4	1.6%
Traditional	237	20.2%	55	21.5%
Neoclassical	9	0.8%	1	0.4%
Gothic Revival	28	2.4%	37	14.5%
Art Nouveau	87	7.4%	47	18.4%
Art Deco	127	10.8%	7	2.7%
Modernist	33	2.8%	2	0.8%
Aesthetic Movement	78	6.6%	5	2.0%
Total	1174	100.0%	256	100.0%

Table 20.25. Indulgence type by ethnic affiliation in twentieth-century contexts

Indulgence Type	Hispanic		Anglo	
	Count	Column %	Count	Column %
Miscellaneous	90	8.6%	37	8.6%
Soda/carbonated beverage	305	29.1%	37	8.6%
Wine	87	8.3%	116	26.9%
Beer	318	30.4%	184	42.6%
Liquor	237	22.6%	56	13.0%
Tobacco, smoking	10	1.0%	2	0.5%
Total	1047	100.0%	432	100.0%

Table 20.26. Mean ceramic price index values for LA 156207 and LA 158037

Site	Mean	MNV	Standard Deviation
LA 156207	1.586792	53	0.628654771
LA 158037	1.685407	381	0.683683256
Total	1.673364	434	0.677285522

Table 20.27. Mean ceramic price index values for the individual structures at LA 158037

Structure No.	Mean	MNV	Standard Deviation
1	1.664902	204	0.709052299
2	1.732273	66	0.661956995
3	1.917647	17	0.701280342
4	1.618367	49	0.546318539
5	1.685217	23	0.77731981
6	1.411429	14	0.52115046
7	2.21875	8	0.69344765
Total	1.685407	381	0.683683256

Table 20.28. Prescription bottle index values for individual structures at LA 158037

Structure No.	MNV	Value
1	272	0.16
2	62	0.06
3	15	0.07
4	15	0.2
5	2	0
6	9	0.22
7	0	0

Table 20.29. Raw and relative frequencies of domestic, construction/maintenance, and personal effect items across privy feature types

Feature Type	Domestic		Construction/Maintenance		Personal Effects		Total
	Count	Row %	Count	Row %	Count	Row %	
Domestic-refuse pit	1266	42.2%	1246	41.5%	490	16.3%	3002
Construction-debris pit	118	20.6%	430	74.9%	26	4.5%	574
Self-contained vault privy	889	37.3%	856	35.9%	639	26.8%	2384

Table 20.30. Raw and relative frequencies of function-based analytical categories by historic era

Category	World War I		Prohibition		Great Depression	
	Count	Column %	Count	Column %	Count	Column %
Unassignable	5	3.0%	75	11.8%	23	5.2%
Food	1	0.6%	18	2.8%	27	6.1%
Indulgences	21	12.7%	81	12.7%	99	22.2%
Domestic	63	38.0%	98	15.4%	144	32.4%
Furnishings	1	0.6%	2	0.3%	6	1.3%
Construction/maintenance	25	15.1%	67	10.5%	96	21.6%
Personal effects	44	26.5%	281	44.0%	31	7.0%
Entertainment/leisure	4	2.4%	13	2.0%	18	4.0%
Transportation	–	–	2	0.3%	–	–
Military/arms	2	1.2%	1	0.2%	1	0.2%
Total	166	100.0%	638	100.0%	445	100.0%

Table 20.31. Euroamerican artifacts by ethnicity, structure, and feature

Structure No.	Structure	Feature No.	Total
	Hispanic		
1	141 West Manhattan Avenue	28	5
		30	3
		39	528
		47	53
		73	497
		74	689
		75	445
		76	143
		77	48
		78	850
		79	326
		81	3
		89	88
		225	11
		229	26
		231	199
		232	580
		233	357
		234	58
		235	88
2	451 Galisteo Street	0	137
		33	6
		43	143
		80	179
		87	51
		88	494
		90	69
		91	278
		230	3
3	135 1/2 West Manhattan Avenue	83	305
		84	66
		94	6
		213	8
		228	3
4	125 West Manhattan Avenue	122	3
		136	19
5	135, 137, and 139 West Manhattan Avenue	82	127
		105	195
		117	12
		224	45
Subtotal			7146
	Anglo		
4	125 West Manhattan Avenue	50	253
		56	169
		58	1
		59	4
		62	478
		93	6
		119	7
		131	110
		158	3
6	111 West Manhattan Avenue	1	239
		3	11
		6	70
		159	1
		161	155
		170	664
		178	189
		192	50
		193	6
		194	23
		195	61
		196	3
		198	34
		206	58
		209	29
		217	2
		219	12
		220	3
		223	6
7	424, 428, or 430 Don Gaspar Avenue	7	139
		202	58
		203	20
		204	11
		205	1
		211	28
		218	1
8	420 Don Gaspar Avenue	197	18
Subtotal			2923
Total			10,069

Table 21.1. Faunal assemblage by structure (count)

	Structure 1, 141 West Manhattan Avenue																			
	Nineteenth-Century Hispanic					Twentieth-Century Hispanic														
	Domestic-Refuse Pit				Straight-Line Cesspit Privy	Domestic-Refuse Pit									Self-Contained Vault Privy					
Feature No.	27	38	45	46	44	28	39	75	76	77	79	81	89	229	73	74	78	231	232
Unknown small	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Small mammal or bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–
Medium mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Medium-large mammal	–	–	1	1	3	–	–	–	–	–	–	–	–	–	1	1	3	1	–
Large mammal	–	–	–	–	3	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Small squirrel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rock squirrel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Banner-tailed kangaroo rat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Woodrat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5	–	–	–
Medium-large rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	7	1
Rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Cottontail rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Black-tailed jackrabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Small carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Medium carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Large canid (large dog or wolf)	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dog, coyote or wolf	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small dog	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	–	–	–
Domestic cat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Ungulate	5	–	–	6	1	–	1	–	–	–	1	–	–	–	–	3	–	–	–
Small ungulate	8	1	1	6	11	1	2	–	1	–	–	–	1	–	2	3	2	–	–
Small-medium ungulate	1	–	–	–	12	1	1	–	3	–	–	–	–	–	–	1	3	–	–
Medium ungulate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Large ungulate	8	1	–	–	8	–	3	–	–	–	6	–	2	–	–	9	9	1	–
Medium-large ungulate	–	–	2	1	10	2	–	1	1	–	10	–	–	–	2	–	12	–	–
Deer	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–
Cattle	94	32	3	4	133	3	10	7	3	4	107	1	3	1	5	85	90	40	30
Domestic sheep	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic goat	48	80	23	12	88	1	13	8	7	1	133	–	3	2	12	40	36	5	30
Domestic sheep or goat	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Pig	1	3	–	1	13	1	2	–	2	–	1	–	1	–	–	7	3	1	–
Horse or burro	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium-large bird	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Very large bird	2	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Bird eggshell	–	–	1	2	–	–	1	–	–	1	–	–	–	–	–	1	1	–	1
Green-winged teal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	13
Turkey	8	–	–	–	8	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Rock dove or domestic pigeon	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	1	–	–
Domestic chicken	–	6	–	–	82	–	–	2	1	–	–	–	–	–	–	–	67	1	6
Fish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	1	–	–	1
Sucker	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Catfish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Drum	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Bivalve	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	177	123	31	33	378	9	33	18	19	6	266	1	10	3	25	177	230	57	82

Table 21.1. Faunal assemblage by structure (continued)

	Structure 1, 141 West Manhattan Avenue (continued)				Structure 2, 451 Galisteo Street										Structure 3, 135 1/2 West Manhattan Avenue
	Twentieth-Century Hispanic				Twentieth-Century Hispanic										Twentieth-Century Hispanic
	Self-Contained Vault Privy				Domestic-Refuse Pit						Well or Cistern	Construction-Debris Pit	Foundation/ Structural		Foundation/Structural
Feature No.	233	234	235	Total	43	80	87	88	90	91	47	230	33	Total	84
Unknown small	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Small mammal or bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mammal	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–
Small mammal	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–
Medium mammal	–	–	–	1	–	–	–	1	–	–	–	–	–	1	–
Medium-large mammal	2	–	–	13	–	–	–	2	–	–	–	–	–	2	–
Large mammal	–	–	–	4	–	–	–	1	–	–	–	–	–	1	–
Small squirrel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rock squirrel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Banner-tailed kangaroo rat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Woodrat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small rodent	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–
Medium-large rodent	–	–	–	9	–	–	–	–	–	–	–	–	–	–	–
Rabbit	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Cottontail rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Black-tailed jackrabbit	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–
Domestic rabbit	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Small carnivore	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Medium carnivore	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Large canid (large dog or wolf)	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Dog, coyote or wolf	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small dog	–	–	–	11	–	–	–	–	–	–	–	–	–	–	–
Domestic cat	–	–	–	1	–	–	–	–	–	1	–	–	1	2	–
Ungulate	1	–	–	18	4	1	–	1	–	2	–	–	–	8	2
Small ungulate	–	–	–	39	10	–	–	2	–	21	–	–	–	33	5
Small-medium ungulate	–	–	–	22	–	–	–	3	–	1	–	–	–	4	1
Medium ungulate	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Large ungulate	–	–	–	47	5	2	–	6	–	37	–	–	–	50	1
Medium-large ungulate	–	–	–	41	–	–	–	–	2	10	1	–	–	13	1
Deer	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–
Cattle	98	7	6	766	42	15	3	52	1	58	7	1	–	179	14
Domestic sheep	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–
Domestic goat	12	–	7	561	92	9	13	24	6	298	13	1	1	457	7
Domestic sheep or goat	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–
Pig	4	–	5	45	–	–	2	6	–	–	1	–	–	9	1
Horse or burro	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–
Medium bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium-large bird	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–
Very large bird	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–
Bird eggshell	–	–	3	11	–	–	–	2	–	–	–	–	–	2	–
Green-winged teal	–	–	–	13	–	–	–	–	–	–	–	–	–	–	–
Turkey	–	–	–	17	–	–	–	–	–	–	–	–	–	–	–
Rock dove or domestic pigeon	–	–	–	3	–	–	–	–	–	1	–	–	–	1	–
Domestic chicken	1	4	8	178	–	–	–	4	–	4	–	–	–	8	3
Fish	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–
Sucker	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Catfish	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Drum	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Bivalve	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–
Total	118	13	29	1838	154	27	18	104	9	433	23	2	2	772	36

Table 21.1. Faunal assemblage by structure (continued)

	Structure 4, 125 West Manhattan Avenue																		
	Nineteenth-Century Hispanic																		Nineteenth-Century Anglo
	Irrigation Ditch				Bone Pit														Self-Contained Vault Privy
Feature No.	14	17	120	123	13	22	55	118	125	126	127	128	135	140	142	157	166	171	62
Unknown small	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small mammal or bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium-large mammal	–	–	–	1	–	2	–	–	–	2	–	5	–	3	–	–	–	–	–
Large mammal	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small squirrel	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Rock squirrel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Banner-tailed kangaroo rat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Woodrat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Medium-large rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cottontail rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Black-tailed jackrabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Large canid (large dog or wolf)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dog, coyote or wolf	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Small dog	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic cat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ungulate	–	–	–	–	–	–	–	–	–	–	–	12	–	2	–	–	–	–	–
Small ungulate	–	–	–	–	–	–	–	–	2	1	1	–	2	–	6	–	–	–	–
Small-medium ungulate	–	–	–	–	–	–	–	–	–	–	3	9	–	4	–	–	–	3	–
Medium ungulate	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Large ungulate	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Medium-large ungulate	–	–	–	–	7	–	–	28	–	–	1	2	–	–	–	–	–	–	1
Deer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cattle	7	1	–	–	5	1	–	22	1	3	6	16	6	7	3	2		1	–
Domestic sheep	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic goat	6	–	–	3	25	–	1	15	3	5	21	40	42	45	32	2	7	2	6
Domestic sheep or goat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pig	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Horse or burro	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium-large bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Very large bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bird eggshell	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Green-winged teal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Turkey	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rock dove or domestic pigeon	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic chicken	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2	–	–	–
Fish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sucker	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Catfish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Drum	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bivalve	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	13	1	1	4	38	5	2	66	6	11	32	85	50	62	41	6	7	7	–

Table 21.1. Faunal assemblage by structure (continued)

	Structure 4, 125 West Manhattan Avenue (continued)										Structure 5, 135, 137 and 139 West Manhattan Avenue				
	Twentieth-Century Hispanic	Twentieth-Century Anglo									Nineteenth-Century Hispanic	Twentieth-Century Hispanic			
	Irrigation Ditch	Bone Pit	Domestic-Refuse Pit				Construction-Debris Pit	Straight-Line Cesspit Privy	Self-Contained Vault Privy		Construction-Debris Pit	Domestic-Refuse Pit	Construction-Debris Pit	Straight-Line Cesspit Privy	
Feature No.	122	136	56	59	119	158	131	93	62	Total	111	82	105	224	Total
Unknown small	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small mammal or bird	–	–	–	–	1	–	–	–	–	1	–	–	–	1	1
Mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium mammal	–	–	1	1	1	–	–	–	1	4	–	–	–	–	–
Medium-large mammal	–	3	1	–	1	1	12	–	–	31	7	–	1	–	8
Large mammal	–	1	1	1	–	–	–	–	–	4	–	–	1	–	1
Small squirrel	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–
Rock squirrel	–	–	–	–	–	–	–	–	4	4	–	–	1	–	1
Banner-tailed kangaroo rat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Woodrat	–	1	–	–	–	–	–	–	–	1	–	–	–	–	–
Small rodent	–	–	–	–	1	–	–	–	–	2	–	–	–	–	–
Medium-large rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rabbit	–	–	–	–	–	–	1	–	6	7	–	–	–	–	–
Cottontail rabbit	–	–	–	–	–	–	–	–	4	4	–	–	–	–	–
Black-tailed jackrabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic rabbit	–	–	–	–	–	–	–	–	6	6	–	–	–	–	–
Small carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Large canid (large dog or wolf)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dog, coyote or wolf	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Small dog	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic cat	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Ungulate	–	–	–	–	–	–	–	–	–	14	–	4	–	–	4
Small ungulate	3	–	6	–	1	–	1	–	5	28	8	–	1	–	9
Small-medium ungulate	–	48	–	–	3	–	1	–	1	72	–	–	2	–	2
Medium ungulate	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Large ungulate	–	1	7	3	–	–	4	–	1	17	11	2	1	–	14
Medium-large ungulate	–	–	4	–	2	–	–	–	2	47	3	–	–	–	3
Deer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cattle	–	9	200	2	5	–	8	1	34	340	56	18	7	4	85
Domestic sheep	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic goat	3	80	340	–	1	1	34	–	26	740	99	10	4	3	116
Domestic sheep or goat	–	–	–	–	–	–	–	–	3	3	–	–	–	–	–
Pig	–	–	2	–	–	–	1	–	3	7	3	1	–	–	4
Horse or burro	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium bird	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–
Medium-large bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Very large bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bird eggshell	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
Green-winged teal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Turkey	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–
Rock dove or domestic pigeon	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic chicken	–	–	2	2	–	–	1	–	50	58	–	–	1	–	1
Fish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sucker	–	–	–	–	–	–	–	–	2	2	–	–	–	–	–
Catfish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Drum	–	–	–	–	–	–	–	–	2	2	–	–	–	–	–
Bivalve	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	–	143	564	9	16	3	64	1	150	1387	188	36	19	8	251

Table 21.1. Faunal assemblage by structure (continued)

Structure 6, 111 West Manhattan Avenue

	Nineteenth-Century Anglo	Twentieth-Century Anglo															
	Domestic-Refuse Pit	Void	Domestic-Refuse Pit				Well or Cistern	Construction-Debris Pit				Straight-Line Cesspit Privy	Self-Contained Vault Privy	Foundation/ Structure	Posthole	Burial (Nonhuman)	
Feature No.	207	3	1	194	195	196	170	6	161	206	223	219	192	209	198	159	Total
Unknown small	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small mammal or bird	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium mammal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Medium-large mammal	–	–	7	–	–	–	3	1	–	–	–	–	–	–	–	–	11
Large mammal	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	2
Small squirrel	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Rock squirrel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Banner-tailed kangaroo rat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Woodrat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium-large rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rabbit	–	1	1	–	–	–	1	–	2	–	–	–	–	–	–	–	5
Cottontail rabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Black-tailed jackrabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic rabbit	–	–	8	–	–	–	–	–	–	–	–	–	–	–	–	–	8
Small carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Large canid (large dog or wolf)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dog, coyote or wolf	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Small dog	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Domestic cat	–	–	–	–	–	–	14	–	–	–	–	–	–	–	–	–	14
Ungulate	6	–	1	1	5	–	1	–	–	2	–	–	–	–	–	–	16
Small ungulate	1	–	1	–	6	–	11	2	6	2	–	–	–	–	–	–	29
Small-medium ungulate	20	–	7	–	1	–	10	1	–	–	–	–	–	–	2	–	41
Medium ungulate	–	1	–	–	–	–	2	–	2	–	–	–	–	–	–	–	5
Large ungulate	14	–	1	–	13	–	1	1	–	3	–	–	–	–	–	–	33
Medium-large ungulate	–	–	–	–	–	–	1	1	–	1	–	–	–	–	–	–	3
Deer	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Cattle	25	–	47	1	52	4	117	7	12	7	2	–	–	1	1	–	276
Domestic sheep	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic goat	87	1	10	1	31	1	15	3	8	12	–	1	–	1	2	–	173
Domestic sheep or goat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pig	5	–	10	–	1	–	3	–	1	–	–	–	–	–	–	–	20
Horse or burro	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium-large bird	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Very large bird	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	2
Bird eggshell	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Green-winged teal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Turkey	–	–	5	–	1	–	–	–	–	–	–	–	–	–	–	–	6
Rock dove or domestic pigeon	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Domestic chicken	17	–	19	1	2	–	7	–	2	–	–	–	1	–	–	–	49
Fish	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Sucker	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Catfish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Drum	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bivalve	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	178	3	120	4	116	5	187	16	33	27	3	1	1	2	6	1	703

Table 21.1. Faunal assemblage by structure (continued)

	Structure 7, 424, 428, or 430 Don Gaspar Avenue						Structure 8, 420 Don Gaspar Avenue		
	Twentieth-Century Anglo						Twentieth-Century Anglo		
	Domestic-Refuse Pit	Construction-Debris Pit			Self-Contained Vault Privy		Construction-Debris Pit	Self-Contained Vault Privy	
Feature No.	205	202	204	211	7	Total	197	7	Total
Unknown small	–	–	–	–	–	–	–	–	–
Small mammal or bird	–	–	–	–	–	–	–	–	–
Mammal	–	–	–	–	–	–	–	–	–
Small mammal	–	–	–	–	–	–	–	–	–
Medium mammal	–	–	–	–	–	–	–	–	–
Medium-large mammal	2	–	–	–	–	2	–	–	–
Large mammal	–	–	–	–	–	–	–	–	–
Small squirrel	–	–	–	–	–	–	–	–	–
Rock squirrel	–	–	–	–	–	–	–	–	–
Banner-tailed kangaroo rat	–	–	–	–	–	–	–	–	–
Woodrat	–	–	–	–	–	–	–	–	–
Small rodent	–	–	–	–	–	–	–	–	–
Medium-large rodent	–	–	–	–	1	1	–	–	–
Rabbit	–	–	–	–	–	–	–	–	–
Cottontail rabbit	–	–	–	–	–	–	–	–	–
Black-tailed jackrabbit	–	–	–	–	–	–	–	–	–
Domestic rabbit	–	–	–	–	–	–	–	–	–
Small carnivore	–	–	–	–	–	–	–	–	–
Medium carnivore	–	–	–	–	–	–	–	–	–
Large canid (large dog or wolf)	–	–	–	–	–	–	–	–	–
Dog, coyote or wolf	–	–	–	–	–	–	–	–	–
Small dog	–	–	–	–	–	–	–	–	–
Domestic cat	–	–	–	–	–	–	–	–	–
Ungulate	–	–	–	–	–	–	–	–	–
Small ungulate	–	–	–	–	–	–	–	–	–
Small-medium ungulate	–	–	–	–	–	–	–	–	–
Medium ungulate	–	–	–	–	–	–	–	–	–
Large ungulate	–	–	–	1	–	1	1	–	1
Medium-large ungulate	–	–	–	–	–	–	–	–	–
Deer	–	–	–	–	–	–	–	–	–
Cattle	–	1	–	1	3	5	2	1	3
Domestic sheep	–	–	–	–	–	–	–	–	–
Domestic goat	1	–	1	1	2	5	–	3	3
Domestic sheep or goat	–	–	–	–	–	–	–	–	–
Pig	–	–	–	–	–	–	–	–	–
Horse or burro	–	–	–	–	–	–	–	–	–
Medium bird	–	–	–	1	–	1	–	–	–
Medium-large bird	–	–	–	–	–	–	–	–	–
Very large bird	–	–	–	–	–	–	–	–	–
Bird eggshell	–	–	–	–	–	–	–	–	–
Green-winged teal	–	–	–	–	–	–	–	–	–
Turkey	–	–	–	–	–	–	–	–	–
Rock dove or domestic pigeon	–	–	–	–	–	–	–	–	–
Domestic chicken	–	–	1	–	–	1	–	–	–
Fish	–	–	–	–	3	3	–	4	4
Sucker	–	–	–	–	–	–	–	–	–
Catfish	–	–	–	–	–	–	–	–	–
Drum	–	–	–	–	–	–	–	–	–
Bivalve	–	–	–	–	–	–	–	–	–
Total	3	1	2	4	9	19	3	8	11

Table 21.2. Faunal assemblage by feature type

Taxon	Void		Agricultural Field Deposit		Domestic-Refuse Pit		Well or Cistern		Construction-Debris Pit		Irrigation Ditch		Straight-Line Cesspit		Self-Contained Vault Privy		Foundation or Structural Element		Bone Pit		Posthole		Burial (Nonhuman)	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Unknown small	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	0.1%	–	–	–	–	–	–	–	–
Small mammal or medium-large bird	–	–	–	–	3	0.1%	–	–	–	–	–	–	1	0.3%	–	–	–	–	–	–	–	–	–	–
Mammal	–	–	–	–		–	–	–	–	–	–	–	–	–	1	0.1%	–	–	–	–	–	–	–	–
Small mammal	–	–	–	–		–	–	–	–	–	–	–	–	–	2	0.2%	–	–	–	–	–	–	–	–
Medium mammal	–	–	–	–	4	0.2%	–	–	–	–	–	–	–	–	2	0.2%	–	–	–	–	1	16.7%	–	–
Medium-large mammal	–	–	–	–	16	0.6%	3	1.4%	21	5.8%	1	4.0%	3	0.8%	8	0.9%	–	–	15	2.7%	–	–	–	–
Large mammal	–	–	–	–	5	0.2%	1	0.5%	1	0.3%	–	–	3	0.8%	–	–	–	–	2	0.4%	–	–	–	–
Small squirrel	–	–	–	–	1	0.0%	–	–	–	–	–	–	–	–	–	–	–	–	2	0.4%	–	–	–	–
Rock squirrel	–	–	–	–	–	–	–	–	1	0.3%	–	–	–	–	4	0.4%	–	–	–	–	–	–	–	–
Banner-tailed kangaroo rat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	2.5%	–	–	–	–	–	–
Woodrat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	0.2%	–	–	–	–
Small rodent	–	–	–	–	1	0.0%	–	–	–	–	–	–	–	–	5	0.5%	–	–	1	0.2%	–	–	–	–
Medium-large rodent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10	1.1%	–	–	–	–	–	–	–	–
Rabbit	1	33.3%	–	–	1	0.0%	1	0.5%	3	0.8%	–	–	–	–	7	0.8%	–	–	–	–	–	–	–	–
Cottontail	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	0.4%	–	–	–	–	–	–	–	–
Black-tailed jackrabbit	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	0.1%	–	–	–	–	–	–	–	–
Domestic rabbit	–	–	–	–	8	0.3%	–	–	–	–	–	–	–	–	7	0.8%	–	–	–	–	–	–	–	–
Small carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	0.1%	–	–	–	–	–	–	–	–
Medium carnivore	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	0.1%	–	–	–	–	–	–	–	–
Large canid (large dog or wolf)	–	–	–	–	1	0.0%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dog, coyote or wolf	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	0.2%	–	–	–	–
Small dog	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	1.2%	–	–	–	–	–	–	1	100.0%
Domestic cat	–	–	–	–	1	0.0%	14	6.7%	1	0.3%	–	–	–	–	1	0.1%	1	2.5%	–	–	–	–	–	–
Ungulate	–	–	–	–	38	1.5%	1	0.5%	2	0.6%	–	–	1	0.3%	4	0.4%	2	5.0%	14	2.5%	–	–	–	–
Small ungulate	–	–	2	25.0%	69	2.7%	11	5.2%	20	5.5%	3	12.0%	11	2.8%	12	1.3%	5	12.5%	12	2.1%	–	–	–	–
Small-medium ungulate	–	–	1	12.5%	41	1.6%	10	4.8%	4	1.1%	–	–	12	3.1%	5	0.5%	1	2.5%	67	11.9%	2	33.3%	–	–
Medium ungulate	1	33.3%	–	–	–	–	2	1.0%	2	0.6%	1	4.0%	–	–	1	0.1%	–	–	–	–	–	–	–	–
Large ungulate	–	–	–	–	110	4.4%	1	0.5%	22	6.1%	–	–	8	2.1%	20	2.2%	1	2.5%	2	0.4%	–	–	–	–
Medium-large ungulate	–	–	–	–	35	1.4%	2	1.0%	5	1.4%	–	–	10	2.6%	17	1.8%	1	2.5%	38	6.8%	–	–	–	–
Deer	–	–	–	–	3	0.1%	–	–	1	0.3%	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cattle	–	–	3	37.5%	797	31.5%	124	59.0%	104	28.7%	8	32.0%	138	35.6%	399	43.1%	15	37.5%	82	14.6%	1	16.7%	–	–
Domestic sheep	–	–	–	–	1	0.0%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Domestic goat	1	33.3%	2	25.0%	1256	49.7%	28	13.3%	163	45.0%	12	48.0%	92	23.7%	179	19.3%	9	22.5%	320	57.0%	2	33.3%	–	–
Domestic sheep or goat	–	–	–	–	2	0.1%	–	–	–	–	–	–	–	–	3	0.3%	–	–	–	–	–	–	–	–
Pig	–	–	–	–	39	1.5%	4	1.9%	5	1.4%	–	–	13	3.4%	23	2.5%	1	2.5%	1	0.2%	–	–	–	–
Horse or burro	–	–	–	–	–	–	1	0.5%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium bird	–	–	–	–	–	–	–	–	2	0.6%	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medium-large bird	–	–	–	–	–	–	–	–	–	–	–	–	1	0.3%	1	0.1%	–	–	–	–	–	–	–	–
Very large bird	–	–	–	–	5	0.2%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bird eggshell	–	–	–	–	10	0.4%	–	–	–	–	–	–	–	–	6	0.6%	–	–	–	–	–	–	–	–
Green-winged teal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	13	1.4%	–	–	–	–	–	–	–	–
Turkey	–	–	–	–	16	0.6%	–	–	–	–	–	–	8	2.1%	–	–	–	–	–	–	–	–	–	–
Domestic pigeon	–	–	–	–	4	0.2%	–	–	–	–	–	–	–	–	1	0.1%	–	–	–	–	–	–	–	–
Domestic chicken	–	–	–	–	60	2.4%	7	3.3%	5	1.4%	–	–	82	21.1%	158	17.1%	3	7.5%	3	0.5%	–	–	–	–
Fish	–	–	–	–	1	0.0%	–	–	–	–	–	–	–	–	12	1.3%	–	–	–	–	–	–	–	–
Sucker	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	0.2%	–	–	–	–	–	–	–	–
Catfish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	0.1%	–	–	–	–	–	–	–	–
Drum	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	0.3%	–	–	–	–	–	–	–	–
Bivalve	–	–	–	–	–	–	–	–	–	–	–	–	5	1.3%	–	–	–	–	–	–	–	–	–	–
Total	3	100.0%	8	100.0%	2528	100.0%	210	100.0%	362	100.0%	25	100.0%	388	100.0%	926	100.0%	40	100.0%	561	100.0%	6	100.0%	1	100.0%

Table 21.3. Domestic and wild taxa

Taxa	Common Name	Count	Column %
	Domestic Taxa		
Oryctolague cuniculus	domestic rabbit	15	0.3%
Small *Canis familiaris*	small dog	12	0.2%
Felis domesticus	domestic cat	18	0.4%
Ungulate	ungulate	62	1.3%
Small ungulate	small ungulate	145	3.0%
Small–medium ungulate	small–medium ungulate	143	2.9%
Medium ungulate	medium ungulate	7	0.1%
Large ungulate	large ungulate	164	3.4%
Medium–large ungulate	medium–large ungulate	108	2.2%
Bos taurus	cattle	1671	34.4%
Ovis aries	domestic sheep	1	0.0%
Capra hircus	domestic goat	6	0.1%
Ovis/Capra	domestic sheep or goat	2063	42.4%
Sus scrofa	pig	86	1.8%
Equus sp.	horse or burro	1	0.0%
Bird eggshell	bird eggshell	16	0.3%
Meleagris gallopavo	turkey	24	0.5%
Gallus gallus	domestic chicken	318	6.5%
Total		4860	100.0%
	Native/Wild Taxa		
Small Sciuridae	small squirrel	3	5.0%
Spermophilus variegatus	rock squirrel	5	8.3%
Dipodomys spectabilis	banner-tailed kangaroo rat	1	1.7%
Neotoma sp.	woodrat	1	1.7%
Small rodent	small rodent	7	11.7%
Medium–large rodent	medium–large rodent	10	16.7%
Sylvilagus sp.	cottontail rabbit	4	6.7%
Lepus californicus	black-tailed jackrabbit	1	1.7%
Odocoileus sp.	deer	4	6.7%
Anas carolinensis	green-winged teal	13	21.7%
Columba livia	domestic pigeon	5	8.3%
Catostomidae	sucker	2	3.3%
Ictaluridae	catfish	1	1.7%
Sciaenidae	drum	3	5.0%
Total		60	100.0%
	Indeterminate Taxa		
Unknown small	unknown small	1	0.7%
Small mammal or medium–large bird	small mammal or medium–large bird	4	2.9%
Mammal	mammal	1	0.7%
Small mammal	small mammal	2	1.4%
Medium mammal	medium mammal	7	5.1%
Medium–large mammal	medium–large mammal	67	48.6%
Large mammal	large mammal	12	8.7%
Leporidae	rabbit	13	9.4%
Small carnivore	small carnivore	1	0.7%
Medium carnivore	medium carnivore	1	0.7%
Large canid (large dog or wolf)	large canid (large dog or wolf)	1	0.7%
Canis sp.	dog, coyote or wolf	1	0.7%
Medium bird	medium bird	2	1.4%
Medium–large bird	medium–large bird	2	1.4%
Very large bird	very large bird	5	3.6%
Fish	fish	13	9.4%
Bivalve	bivalve	5	3.6%
Total		138	100.0%

Table 21.4. Faunal assemblage by period and ethnicity

Taxon	Nineteenth Century				Twentieth Century			
	Hispanic		Anglo		Hispanic		Anglo	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Unknown small	–	–	–	–	1	0.0%	–	–
Small mammal or medium-large bird	–	–	1	0.5%	1	0.0%	2	0.1%
Mammal	–	–	–	–	1	0.0%	–	–
Small mammal	–	–	–	–	2	0.1%	–	–
Medium mammal	–	–	–	–	2	0.1%	5	0.4%
Medium-large mammal	25	1.8%	–	–	14	0.7%	28	2.1%
Large mammal	4	0.3%	–	–	4	0.2%	4	0.3%
Small squirrel	2	0.1%	–	–	–	–	1	0.1%
Rock squirrel	–	–	–	–	1	0.0%	4	0.3%
Banner-tailed kangaroo rat	–	–	–	–	1	0.0%	–	–
Woodrat	–	–	–	–	1	0.0%	–	–
Small rodent	1	0.1%	–	–	5	0.2%	1	0.1%
Medium-large rodent	–	–	–	–	9	0.4%	1	0.1%
Rabbit	–	–	–	–	1	0.0%	12	0.9%
Cottontail	–	–	–	–	–	–	4	0.3%
Black-tailed jackrabbit	–	–	–	–	1	0.0%	–	–
Domestic rabbit	–	–	–	–	1	0.0%	14	1.0%
Small carnivore	–	–	–	–	1	0.0%	–	–
Medium carnivore	–	–	–	–	1	0.0%	–	–
Large canid (large dog or wolf)	1	0.1%	–	–	–	–	–	–
Dog, coyote or wolf	1	0.1%	–	–	–	–	–	–
Small dog	–	–	–	–	11	0.5%	1	0.1%
Domestic cat	1	0.1%	–	–	3	0.1%	14	1.0%
Ungulate	26	1.9%	6	2.9%	20	0.9%	10	0.7%
Small ungulate	49	3.6%	1	0.5%	54	2.6%	41	3.0%
Small-medium ungulate	33	2.4%	20	9.8%	64	3.0%	26	1.9%
Medium ungulate	1	0.1%	–	–	1	0.0%	5	0.4%
Large ungulate	29	2.1%	14	6.8%	85	4.0%	36	2.6%
Medium-large ungulate	54	3.9%	1	0.5%	42	2.0%	11	0.8%
Deer	–	–	–	–	3	0.1%	1	0.1%
Cattle	406	29.5%	25	12.2%	731	34.5%	509	37.4%
Domestic sheep	–	–	–	–	1	0.0%	–	–
Domestic goat	601	43.7%	93	45.4%	874	41.3%	496	36.4%
Domestic sheep or goat	1	0.1%	–	–	1	0.0%	3	0.2%
Pig	22	1.6%	5	2.4%	38	1.8%	21	1.5%
Horse or burro	–	–	–	–	1	0.0%	–	–
Medium bird	–	–	–	–	–	–	2	0.1%
Medium-large bird	1	0.1%	–	–	1	0.0%	–	–
Very large bird	2	0.1%	–	–	1	0.0%	2	0.1%
Bird eggshell	3	0.2%	2	1.0%	11	0.5%	–	–
Green-winged teal	–	–	–	–	13	0.6%	–	–
Turkey	16	1.2%	–	–	1	0.0%	7	0.5%
Domestic pigeon	–	–	–	–	4	0.2%	1	0.1%
Domestic chicken	91	6.6%	37	18.0%	102	4.8%	88	6.5%
Fish	–	–	–	–	5	0.2%	8	0.6%
Sucker	–	–	–	–	–	–	2	0.1%
Catfish	–	–	–	–	1	0.0%	–	–
Drum	–	–	–	–	1	0.0%	2	0.1%
Bivalve	5	0.4%	–	–	–	–	–	–
Total	1375	100.0%	205	100.0%	2116	100.0%	1362	100.0%

Table 21.5. Butcher marks by taxon

Taxon	None		Saw		Saw and Chop		Saw and Cut		Saw and Snap		Chop		Chop and Cut		Chop and Snap		Cut		Cut and Snap		Snap		Total
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	
Small mammal/ medium–large bird	3	75.0%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	25.0%	–	–	–	–	4
Medium mammal	5	71.4%	1	14.3%	–	–	–	–	–	–	1	14.3%	–	–	–	–	–	–	–	–	–	–	7
Medium–large mammal	61	91.0%	5	7.5%	–	–	–	–	–	–	1	1.5%	–	–	–	–	–	–	–	–	–	–	67
Large mammal	10	83.3%	2	16.7%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12
Domestic rabbit	13	86.7%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	13.3%	–	–	–	–	15
Ungulate	51	82.3%	9	14.5%	–	–	–	–	–	–	1	1.6%	–	–	–	–	1	1.6%	–	–	–	–	62
Small ungulate	126	86.9%	6	4.1%	–	–	–	–	–	–	12	8.3%	–	–	–	–	1	0.7%	–	–	–	–	145
Small–medium ungulate	118	82.5%	21	14.7%	–	–	–	–	–	–	2	1.4%	–	–	–	–	2	1.4%	–	–	–	–	143
Medium ungulate	3	42.9%	4	57.1%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7
Large ungulate	85	51.8%	59	36.0%	2	1.2%	–	–	–	–	16	9.8%	–	–	–	–	2	1.2%	–	–	–	–	164
Medium-to-large ungulate	85	78.7%	19	17.6%	–	–	–	–	–	–	2	1.9%	–	–	–	–	2	1.9%	–	–	–	–	108
Deer	3	75.0%	1	25.0%	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
Cattle	351	21.0%	1172	70.1%	35	2.1%	17	1.0%	3	0.2%	64	3.8%	7	0.4%	–	–	16	1.0%	–	–	6	0.4%	1671
Caprine	1396	67.4%	102	4.9%	6	0.3%	11	0.5%	1	0.0%	260	12.6%	19	0.9%	2	0.1%	242	11.7%	3	0.1%	28	1.4%	2070
Pig	34	39.5%	39	45.3%	–	–	1	1.2%	–	–	5	5.8%	–	–	–	–	7	8.1%	–	–	–	–	86
Domestic chicken	302	95.0%	–	–	–	–	–	–	–	–	3	0.9%	–	–	–	–	13	4.1%	–	–	–	–	318
Total	2646	54.2%	1440	29.5%	43	0.9%	29	0.6%	4	0.1%	367	7.5%	26	0.5%	2	0.0%	289	5.9%	3	0.1%	34	0.7%	4883

Table 21.6. Skeletal element representation for domestic-stock species

Species	Unknown		Long Bone		Flat Bone		Horn or Antler		Cranial		Vertebral		Thorax	
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %
Ungulate	3	4.8%	14	22.6%	17	27.4%	–	–	22	35.5%	2	3.2%	4	6.5%
Small ungulate	2	1.4%	118	81.4%	6	4.1%	–	–	9	6.2%	–	–	9	6.2%
Small–medium ungulate	12	8.4%	42	29.4%	9	6.3%	–	–	55	38.5%	2	1.4%	20	14.0%
Medium ungulate	1	14.3%	3	42.9%	3	42.9%	–	–	–	–	–	–	–	–
Large ungulate	11	6.7%	82	50.0%	57	34.8%	–	–	3	1.8%	9	5.5%	1	0.6%
Medium-to-large ungulate	5	4.6%	35	32.4%	26	24.1%	1	0.9%	31	28.7%	5	4.6%	4	3.7%
Cattle	–	–	–	–	–	–	–	–	122	7.3%	381	22.8%	443	26.5%
Caprine	–	–	–	–	–	–	3	0.1%	264	12.8%	239	11.5%	346	16.7%
Pig	–	–	–	–	–	–	–	–	9	10.5%	5	5.8%	26	30.2%
Domestic chicken	–	–	1	0.3%	–	–	–	–	18	5.7%	9	2.8%	48	15.1%
Total	34	0.7%	295	6.2%	118	2.5%	4	0.1%	533	11.2%	652	13.7%	901	18.9%

Species	Pelvis		Front Limb	Front Foot		Rear Leg		Rear Foot		Front or Rear Foot		Wing Tip		Total	
	Count	Row %	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %
Ungulate	–	–	–	–	–	–	–	–	–	–	–	–	–	62	100.0%
Small ungulate	–	–	0.7%	–	–	–	–	–	–	–	–	–	–	145	100.0%
Small-medium ungulate	–	–	1.4%	–	–	1	0.7%	–	–	–	–	–	–	143	100.0%
Medium ungulate	–	–	–	–	–	–	–	–	–	–	–	–	–	7	100.0%
Large ungulate	–	–	–	–	–	–	–	–	–	1	0.6%	–	–	164	100.0%
Medium-to-large ungulate	1	0.9%	–	–	–	–	–	–	–	–	–	–	–	108	100.0%
Cattle	108	6.5%	20.4%	16	1.0%	205	12.3%	38	2.3%	17	1.0%	–	–	1671	100.0%
Caprine	119	5.7%	17.5%	94	4.5%	263	12.7%	126	6.1%	253	12.2%	–	–	2070	100.0%
Pig	2	2.3%	10.5%	10	11.6%	21	24.4%	2	2.3%	2	2.3%	–	–	86	100.0%
Domestic chicken	20	6.3%	25.5%	1	0.3%	124	39.0%	7	2.2%	1	0.3%	8	2.5%	318	100.0%
Total	250	5.2%	16.7%	121	2.5%	614	12.9%	173	3.6%	274	5.7%	8	0.2%	4774	100.0%

Table 21.7. Primary cut by period, ethnicity, and element

	Nineteenth Century		Twentieth Century		Hispanic		Anglo		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Primary Beef Cut										
Head	59	13.8%	56	4.6%	104	9.2%	11	2.1%	115	6.9%
Tongue	7	1.6%	–	–	7	0.6%	–	–	7	0.4%
Neck	31	7.3%	68	5.5%	59	5.2%	40	7.5%	99	6.0%
Chuck	42	9.9%	159	12.9%	135	12.0%	66	12.5%	201	12.1%
Rib	75	17.6%	229	18.6%	209	18.6%	95	17.9%	304	18.4%
Short loin	31	7.3%	63	5.1%	59	5.2%	35	6.6%	94	5.7%
Sirloin	14	3.3%	56	4.6%	39	3.5%	31	5.8%	70	4.2%
Rump	6	1.4%	29	2.4%	24	2.1%	11	2.1%	35	2.1%
Round	19	4.5%	111	9.0%	69	6.1%	61	11.5%	130	7.9%
Hind shank	9	2.1%	59	4.8%	40	3.6%	28	5.3%	68	4.1%
Tail	3	0.7%	6	0.5%	5	0.4%	4	0.8%	9	0.5%
Short rib	61	14.3%	179	14.6%	180	16.0%	60	11.3%	240	14.5%
Short plate	12	2.8%	35	2.8%	34	3.0%	13	2.5%	47	2.8%
Brisket	9	2.1%	9	0.7%	16	1.4%	2	0.4%	18	1.1%
Arm	11	2.6%	72	5.9%	47	4.2%	36	6.8%	83	5.0%
Fore shank	12	2.8%	54	4.4%	54	4.8%	12	2.3%	66	4.0%
Feet	25	5.9%	44	3.6%	44	3.9%	25	4.7%	69	4.2%
Total	426	100.0%	1229	100.0%	1125	100.0%	530	100.0%	1655	100.0%
Primary Mutton Cut										
Head	84	12.1%	178	13.0%	217	14.7%	45	7.6%	262	12.7%
Tongue	3	0.4%	2	0.1%	5	0.3%	–	–	5	0.2%
Neck	31	4.5%	47	3.4%	57	3.9%	21	3.5%	78	3.8%
Chuck	32	4.6%	110	8.0%	61	4.1%	81	13.7%	142	6.9%
Rib	68	9.8%	181	13.2%	162	11.0%	87	14.7%	249	12.0%
Short loin	25	3.6%	50	3.6%	71	4.8%	4	0.7%	75	3.6%
Sirloin	8	1.2%	38	2.8%	34	2.3%	12	2.0%	46	2.2%
Rump	26	3.7%	53	3.9%	47	3.2%	32	5.4%	79	3.8%
Round	36	5.2%	65	4.7%	73	4.9%	28	4.7%	101	4.9%
Hind shank	43	6.2%	106	7.7%	109	7.4%	40	6.8%	149	7.2%
Tail	2	0.3%	5	0.4%	5	0.3%	2	0.3%	7	0.3%
Short rib	30	4.3%	121	8.8%	78	5.3%	73	12.3%	151	7.3%
Short plate	6	0.9%	18	1.3%	11	0.7%	13	2.2%	24	1.2%
Brisket	1	0.1%	1	0.1%	1	0.1%	1	0.2%	2	0.1%
Arm	21	3.0%	67	4.9%	52	3.5%	36	6.1%	88	4.3%
Fore shank	21	3.0%	123	9.0%	74	5.0%	70	11.8%	144	7.0%
Feet	258	37.1%	208	15.1%	419	28.4%	47	7.9%	466	22.5%
Total	695	100.0%	1373	100.0%	1476	100.0%	592	100.0%	2068	100.0%
Primary Pork Cut										
Head	8	29.6%	1	1.7%	4	6.7%	5	19.2%	9	10.5%
Tongue	–	–	–	–	–	–	–	–	–	–
Neck	2	7.4%	–	–	2	3.3%	–	–	2	2.3%
Chuck	–	–	4	6.8%	2	3.3%	2	7.7%	4	4.7%
Rib	6	22.2%	14	23.7%	14	23.3%	6	23.1%	20	23.3%
Short loin	–	–	–	–	–	–	–	–	–	–
Sirloin	–	–	–	–	–	–	–	–	–	–
Rump	1	3.7%	4	6.8%	2	3.3%	3	11.5%	5	5.8%
Round	1	3.7%	5	8.5%	5	8.3%	1	3.8%	6	7.0%
Hind shank	3	11.1%	9	15.3%	8	13.3%	4	15.4%	12	14.0%
Tail	–	–	–	–	–	–	–	–	–	–
Short rib	4	14.8%	4	6.8%	6	10.0%	2	7.7%	8	9.3%
Short plate	–	–	1	1.7%	1	1.7%	–	–	1	1.2%
Brisket	–	–	–	–	–	–	–	–	–	–
Arm	–	–	4	6.8%	3	5.0%	1	3.8%	4	4.7%
Fore shank	–	–	1	1.7%	–	–	1	3.8%	1	1.2%
Feet	2	7.4%	12	20.3%	13	21.7%	1	3.8%	14	16.3%
Total	27	100.0%	59	100.0%	60	100.0%	26	100.0%	86	100.0%

Table 21.8. Estimated age at death, domestic-stock species

	Cattle		Caprine		Pig		Chicken	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Indeterminate young	–	–	2	0.1%	–	–	–	–
Fetal, neonate	2	0.1%	39	1.9%	–	–	–	–
Immature	22	1.3%	64	3.1%	4	4.7%	14	4.4%
Juvenile	1480	88.6%	1715	82.9%	79	91.9%	99	31.1%
Mature	167	10.0%	250	12.1%	3	3.5%	205	64.5%
Total	1671	100.0%	2070	100.0%	86	100.0%	318	100.0%

Table 21.9. Environmental change by period and ethnicity

	Nineteenth Century		Twentieth Century		Hispanic		Anglo		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
None	1108	70.1%	2297	66.0%	2396	68.6%	1009	64.4%	3405	67.3%
Not applicable	10	0.6%	25	0.7%	18	0.5%	17	1.1%	35	0.7%
Indeterminate	2	0.1%	11	0.3%	10	0.3%	3	0.2%	13	0.3%
Pitting/corrosion	6	0.4%	25	0.7%	21	0.6%	10	0.6%	31	0.6%
Sun bleached	3	0.2%	3	0.1%	6	0.2%	–	–	6	0.1%
Checking/exfoliation	438	27.7%	1066	30.6%	988	28.3%	516	32.9%	1504	29.7%
Root etching	13	0.8%	46	1.3%	47	1.3%	12	0.8%	59	1.2%
Precipitate coating	–	–	5	0.1%	5	0.1%	–	–	5	0.1%
Subtotal	472	29.9%	1181	34.0%	1095	31.4%	558	35.6%	1653	32.7%
Total	1580	100.0%	3478	100.0%	3491	100.0%	1567	100.0%	5058	100.0%

Table 21.10. Animal alteration by period and ethnicity, domestic-refuse pits

	Nineteenth Century		Twentieth Century		Hispanic		Anglo		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Not applicable	1478	93.5%	2978	85.6%	3112	89.1%	1344	85.8%	4456	88.1%
Carnivore gnawing	100	6.3%	488	14.0%	369	10.6%	219	14.0%	588	11.6%
Rodent gnawing	1	0.1%	8	0.2%	7	0.2%	2	0.1%	9	0.2%
Carnivore and rodent gnawing	–	–	1	0.0%	–	–	1	0.1%	1	0.0%
Scat	–	–	2	0.1%	2	0.1%	–	–	2	0.0%
Human gnawing	1	0.1%	1	0.0%	1	0.0%	1	0.1%	2	0.0%
Total	1580	100.0%	3478	100.0%	3491	100.0%	1567	100.0%	5058	100.0%

Table 21.11. Burn pattern by period and ethnicity, domestic-refuse pits

	Nineteenth Century		Twentieth Century		Hispanic		Anglo		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Unburned	1538	97.3%	3114	89.5%	3184	91.2%	1468	93.7%	4652	92.0%
Discard burn	20	1.3%	292	8.4%	246	7.0%	66	4.2%	312	6.2%
Roasting burn	11	0.7%	20	0.6%	13	0.4%	18	1.1%	31	0.6%
Boiled	2	0.1%	2	0.1%	3	0.1%	1	0.1%	4	0.1%
Possibly boiled	2	0.1%	16	0.5%	15	0.4%	3	0.2%	18	0.4%
Deliberate partial burn	–	–	2	0.1%	1	0.0%	1	0.1%	2	0.0%
Unintentional partial burn/scorch	7	0.4%	32	0.9%	29	0.8%	10	0.6%	39	0.8%
Total	1580	100.0%	3478	100.0%	3491	100.0%	1567	100.0%	5058	100.0%

Table 21.12. Individual economic value rankings for primary beef cuts

Primary Beef Cut	Economic Rank	Economic Index	Yield Rank
Short loin	1****	6.25****	3.5*
Rib	2****	5.64****	3.5*
Sirloin	2****	6.25****	7.0***
Round	3***	4.53***	2.0*
Rump	4***	3.93***	11.5****
Tail	–	3.08**	–
Chuck	5**	3.07**	1.0*
Arm	6**	3.07**	6.0**
Cross/short rib	6**	–	10.0****
Brisket	7*	–	11.5****
Short plate	7*	2.56**	5.0**
Neck	8*	1.49*	13.0****
Foreshank	9*	2.66**	9.0***
Feet	–	1.00*	–
Hindshank	9*	1.00*	8.0***
Head	–	–	–

**** excellent; *** good; ** fair; * poor.

Table 21.13. Economic value rankings by context for primary beef cuts

Primary Cut		Total		Nineteenth Century		Twentieth Century		Hispanic		Anglo		Pre-Depression		Depression	
	Economic Rank (er)	n	n x er	n	n x er	n	n x er	n	n x er	n	n x er	n	n x er	n	n x er
Short loin	1	94	94	31	31	63	63	59	59	35	35	26	26	15	15
Rib	2	304	608	75	150	229	458	209	418	95	190	88	176	77	154
Sirloin	2	70	140	14	28	56	112	39	78	31	62	36	72	10	20
Round	3	130	390	19	57	111	333	69	207	61	183	69	207	24	72
Rump	4	35	140	6	24	29	116	24	96	11	44	10	40	10	40
Tail	n/a	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chuck	5	201	1005	42	210	159	795	135	675	66	330	109	545	26	130
Arm	6	83	498	11	66	72	432	47	282	36	216	44	264	17	102
Cross/short rib	6	240	1440	61	366	179	1074	180	1080	60	360	85	510	47	282
Brisket	7	18	126	9	63	9	63	16	112	2	14	2	14	4	28
Short plate	7	47	329	12	84	35	245	34	238	13	91	18	126	9	63
Neck	8	99	792	31	248	68	544	59	472	40	320	35	280	17	136
Foreshank	9	66	594	12	108	54	486	54	486	12	108	10	90	6	54
Feet	n/a	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hindshank	9	68	612	9	81	59	531	40	360	28	252	27	243	20	180
Total	69	1455	6768	332	1516	1123	5252	965	4563	490	2205	559	2593	282	1276
	Economic Index (ei)	n	n x ei	n	n x ei	n	n x ei	n	n x ei	n	n x ei	n	n x ei	n	n x ei
Short loin	6.25	94	587.5	31	193.75	63	393.75	59	368.75	35	218.75	26	162.5	15	93.75
Rib	5.64	304	1714.56	75	423	229	1291.56	209	1178.76	95	535.8	88	496.32	77	434.28
Sirloin	6.25	70	437.5	14	87.5	56	350	39	243.75	31	193.75	36	225	10	62.5
Round	4.53	130	588.9	19	86.07	111	502.83	69	312.57	61	276.33	69	312.57	24	108.72
Rump	3.93	35	137.55	6	23.58	29	113.97	24	94.32	11	43.23	10	39.3	10	39.3
Tail	3.08	9	27.72	3	9.24	6	18.48	5	15.4	4	12.32	1	3.08	3	9.24
Chuck	3.07	201	617.07	42	128.94	159	488.13	135	414.45	66	202.62	109	334.63	26	79.82
Arm	3.07	83	254.81	11	33.77	72	221.04	47	144.29	36	110.52	44	135.08	17	52.19
Cross/short rib	n/a	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Brisket	n/a	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Short plate	2.56	47	120.32	12	30.72	35	89.6	34	87.04	13	33.28	18	46.08	9	23.04
Neck	1.49	99	147.51	31	46.19	68	101.32	59	87.91	40	59.6	35	52.15	17	25.33
Foreshank	2.66	66	175.56	12	31.92	54	143.64	54	143.64	12	31.92	10	26.6	6	15.96
Feet	1.00	69	69	25	25	44	44	44	44	25	25	19	19	13	13
Hindshank	1.00	68	68	9	9	59	59	40	40	28	28	27	27	20	20
Total		1275	4946	290	1128.68	985	3817.32	818	3174.88	457	1771.12	492	1879.31	247	977.13
	Yield Rank (yr)	n	n x yr	n	n x yr	n	n x yr	n	n x yr	n	n x yr	n	n x yr	n	n x yr
Short loin	3.5	94	329	31	108.5	63	220.5	59	206.5	35	122.5	26	91	15	52.5
Rib	3.5	304	1064	75	262.5	229	801.5	209	731.5	95	332.5	88	308	77	269.5
Sirloin	7	70	490	14	98	56	392	39	273	31	217	36	252	10	70
Round	2	130	260	19	38	111	222	69	138	61	122	69	138	24	48
Rump	11.5	35	402.5	6	69	29	333.5	24	276	11	126.5	10	115	10	115
Tail	n/a	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chuck	1	201	201	42	42	159	159	135	135	66	66	109	109	26	26
Arm	6	83	498	11	66	72	432	47	282	36	216	44	264	17	102
Cross/short rib	10	240	2400	61	610	179	1790	180	1800	60	600	85	850	47	470
Brisket	11.5	18	207	9	103.5	9	103.5	16	184	2	23	2	23	4	46
Short plate	5	47	235	12	60	35	175	34	170	13	65	18	90	9	45
Neck	13	99	1287	31	403	68	884	59	767	40	520	35	455	17	221
Foreshank	9	66	594	12	108	54	486	54	486	12	108	10	90	6	54
Feet	n/a	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hindshank	8	68	544	9	72	59	472	40	320	28	224	27	216	20	160
Total		1455	8511.5	332	2040.5	1123	6471	965	5769	490	2742.5	559	3001	282	1679

Table 21.14. Economic value ranking, primary beef cuts

Ranking Method	Total		Nineteenth Century		Twentieth Century		Hispanic		Anglo		Pre-Depression		Depression	
Economic rank	4.65	good	4.57	good	4.68	good	4.73	good	4.50	good	4.64	good	4.52	good
Economic index	3.88	good	3.89	good	3.88	good	3.88	good	3.88	good	3.82	good	3.96	good
Yield rank	5.85	fair	6.14	fair	5.76	fair	5.98	fair	5.60	fair	5.37	fair	5.95	fair

Table 21.15. Faunal assemblage by period and ethnicity, domestic-refuse pits

Group	Nineteenth Century		Twentieth Century		Hispanic		Anglo		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Mammal/bird	3	0.6%	25	1.3%	7	0.5%	21	2.1%	28	1.1%
Squirrel/rodent	–	–	2	0.1%	–	–	2	0.2%	2	0.1%
Rabbit/hare	–	–	9	0.5%	–	–	9	0.9%	9	0.4%
Canid/domestic cat	1	0.2%	1	0.1%	2	0.1%	–	–	2	0.1%
Ungulate/large stock species	500	93.1%	1891	95.5%	1461	97.7%	930	91.5%	2391	94.6%
Domestic chicken/turkey/bird	33	6.1%	52	2.6%	32	2.1%	53	5.2%	85	3.4%
Fish	–	–	1	0.1%	–	–	1	0.1%	1	0.0%
Eggshell	5	0.9%	5	0.3%	8	0.5%	2	0.2%	10	0.4%
Total	537	100.0%	1981	100.0%	1495	100.0%	1016	100.0%	2528	100.0%

Table 21.16. Faunal assemblage, twentieth-century, self-contained vault privies

Group	Hispanic		Anglo		Total	
	Count	Column %	Count	Column %	Count	Column %
Unknown/mammal/bird	13	1.8%	1	0.5%	14	1.5%
Squirrel/rodent	14	1.9%	5	2.6%	19	2.1%
Rabbit/hare	3	0.4%	16	8.2%	19	2.1%
Canid/domestic cat	12	1.6%	–	–	12	1.3%
Ungulate/large stock species	572	78.5%	91	46.7%	663	71.6%
Domestic chicken/turkey/bird	102	14.0%	71	36.4%	173	18.7%
Fish	7	1.0%	11	5.6%	18	1.9%
Eggshell	6	0.8%	–	–	6	0.6%
Carnivore	2	0.3%	–	–	2	0.2%
Total	729	100.0%	195	100.0%	926	100.0%

Table 21.17. Historic New Mexico sites contemporaneous with the Capitol Parking Structure excavation

Location	Site	Name	Dates	Sample Size	Caprine		Cattle		Pig		Horse/Burro		Chicken		Native Fauna		Fish	
					Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %
Santa Fe Trail Period																		
Santa Fe	LA 111332	Palace of the Governors	1846–1879	1506	427	28.4%	122	8.1%	7	0.5%	–	–	17	1.1%	8	0.5%	7	0.5%
Pecos	LA 99029	José María Martínez Site	1865–1880	1456	649	44.6%	357	24.5%	13	0.9%	4	0.3%	3	0.2%	8	0.5%	1	0.1%
Albuquerque	LA 50240	Old Alameda Plaza Site	pre-1880	13172	1099	8.3%	304	2.3%	7	0.1%	2	0.0%	77	0.6%	18	0.1%	4	0.0%
Albuquerque	LA 87058	Alameda Boulevard Improvement Project	1821–1900	5027	756	15.0%	18	0.4%	37	0.7%	11	0.2%	–	–	13	0.3%	–	–
Early Railroad Period																		
Abiquiu	LA 59658	Trujillo House	1880–1900	6548	1890	28.9%	261	4.0%	109	1.7%	3	0.0%	13	0.2%	–	–	–	–
Santa Fe	LA 120957	Santa Fe Railyard (Early Railroad)	1879–1912	677	146	21.6%	115	17.0%	12	1.8%	–	–	13	1.9%	51	7.5%	7	1.0%
		Santa Fe Railyard (Early Railroad–Statehood)	early 1800s–mid 1900s	1409	242	17.2%	337	23.9%	23	1.6%	–	–	200	14.2%	12	0.9%	11	0.8%
Talpa	LA 77861	Vigil-Torres Site	1880–1920	939	176	18.7%	40	4.3%	7	0.7%	–	–	1	0.1%	7	0.7%	–	–
Santa Fe	LA 126709	Lensic Theater Property	1890–1930	510	45	8.8%	94	18.4%	2	0.4%	–	–	6	1.2%	–	–	–	–
Post-Statehood Period																		
Santa Fe	LA 156207	Santa Fe Judicial Complex (Feature 1, Area 2)	Depression era	340	36	10.6%	56	–	8	2.4%	–	–	144	42.4%	2	0.6%	19	5.6%
		Santa Fe Judicial Complex (Feature 2, Area 2)	Depression era	730	227	31.1%	232	–	23	3.2%	–	–	32	4.4%	3	0.4%	4	0.5%

Table 22.1. Large cranium fragments and associated small elements, LA 158037

Structure No.	Feature No.	Feature Type	Century	Ethnicity	FS No.	Lot No.	Element	Portion	Side	Complete-ness	Age	Processing	Location	Comment	Count
4	13	bone pit	19th	Hispanic	146	27	cranium	partial cranium	axial	75–95%	mature	sawn through	base	>3 years; + sawn transverse	1
						28	cranium	maxilla fragment	axial	10–50%	mature	none	0	>3 years; slightly younger; little wear on M#	1
4	118	bone pit	19th	Hispanic	168	13	cranium	fragment	unknown	<10%	juvenile	none	0		13
						14	cranium	basioccipital	unknown	10–50%	juvenile	none	0		1
						17	cranium	max dentition	right	<10%	juvenile	none	0		1
						20	cranium	partial cranium	axial	75–95%	mature	sawn through	posterior cranium	>3 years; sawn and broken	1
						21	cranium	partial cranium	axial	75–95%	mature	sawn through	posterior cranium	about 3 years	1
						22	cranium	partial cranium	axial	75–95%	mature	sawn through	posterior cranium	>3 years	1
4	126	bone pit	19th	Hispanic	173	10	cranium	max molar/ premolar fragment	unknown	<10%	juvenile	none	0		1
4	127	bone pit	19th	Hispanic	181	16	cranium	anterior max or brouse pad	left	<10%	juvenile	none	0		1
						19	cranium	nasal	unknown	<10%	juvenile	none	0		1
						25	cranium	partial cranium	axial	75–95%	mature	chops	Base	>3 y; fragmented	1
						26	cranium	partial cranium	axial	50–75%	mature	none	0	>3 years; posterior missing	1
						27	cranium	partial cranium	axial	50–75%	mature	sawn through	posterior cranium	>3 years; sawn in 2 planes	1
						28	cranium	partial cranium	axial	50–75%	mature	sawn through	posterior cranium	>3 years	1
4	128	bone pit	19th	Hispanic	177	25	cranium	anterior max or brouse pad	right	<10%	juvenile	none	0		1
						39	mandible	analytically complete	left	complete	juvenile	none	0	2–3 years; anterior missing	1
						40	cranium	partial cranium	left	10–50%	juvenile	chops	split transverse	left side; probably split	1
						41	mandible	analytically complete	left	75–95%	juvenile	none	0	24–30 months; M3 erupting	1
						42	cranium	partial cranium	axial	75–95%	juvenile	Impact	posterior cranium	pathological bone destruction	1
4	135	bone pit	19th	Hispanic	182	24	cranium	partial cranium	axial	75–95%	mature	sawn through	posterior cranium	>3 years	1
						25	cranium	partial cranium	axial	50–75%	mature	sawn through	medial	>3 years	1
						26	cranium	partial cranium	axial	50–75%	mature	sawn through	posterior cranium	>3 years	1
						27	cranium	partial cranium	axial	75–95%	mature	sawn through	posterior cranium	>3 years; base sawn transverse	1
						30	cranium	anterior max or brouse pad	right	<10%	juvenile	none	0		1
4	136	bone pit	20th	Hispanic	189	27	cranium	partial cranium	axial	75–95%	mature	sawn through	posterior cranium	>3 years	1
						28	cranium	partial cranium	right	50–75%	mature	sawn through	posterior cranium	>3 years	1
						29	cranium	partial cranium	right	75–95%	juvenile	none	0	2–3 years; PM4 erupting	1
						30	cranium	anterior max or brouse pad	left	<10%	juvenile	none	0	could be lot 28 or 29	1
4	140	bone pit	19th	Hispanic	227	34	cranium	partial cranium	axial	75–95%	mature	none	0	>3 years; R anterior maxilla missing	1
						35	cranium	partial cranium	axial	50–75%	mature	sawn through	split lengthwise	>3 years; bottom half; teeth sawn off; secondary processing sawn vertically	1
1	234	self-contained vault privy	20th	Hispanic	308	2	cranium	partial cranium	left	10–50%	juvenile	sawn through	posterior cranium	15–18 months; most of left half	1
						3	cranium	basioccipital	right	10–50%	juvenile	none	0	not Lot 2	1
						4	mandible	horizontal ramus	left	75–95%	juvenile	none	0	<24–30 months; M3 not erupted	1
						5	mandible	ascending ramus	right	10–50%	juvenile	none	0		1
						6	cranium	max dentition	right	<10%	juvenile	none	0	slight wear	1

Table 23.1. Flaked stone morphology by material type

Material Type		Angular Debris	Core Flake	Late-Stage Biface	Total
Chert	Count	1	2	–	3
	Row %	33.33%	66.67%	–	16.67%
Pedernal chert	Count	1	–	–	1
	Row %	100.00%	–	–	5.56%
Madera chert	Count	6	7	–	13
	Row %	46.15%	46.15%	–	72.22%
Silicified wood	Count	–	–	1	1
	Row %	–	–	100.00%	5.56%
Total	Count	8	9	1	18
	Row %	44.44%	50.00%	5.56%	100.00%

Table 23.2. Flaked stone artifact morphology by structure

Structure No.	Address	Chert		Pedernal Chert	Madera Chert		Silicified Wood	Total
		Angular Debris	Core Flake	Angular Debris	Angular Debris	Core Flake	Late-Stage Biface	
0	agricultural fields	–	–	–	–	1	–	1
1	141 West Manhattan	–	–	–	–	2	–	2
2	451 Galisteo	1	–	–	1	1	–	3
4	125 West Manhattan	2	1	–	3	3	1	10
5	135, 137, and 139 West Manhattan	–	1	–	–	–	–	1
7	424, 428, or 430 Don Gaspar	–	–	1	–	–	–	1
Total		3	2	1	4	7	1	18

Table 23.3. Flaked stone by morphology for households assigned to different ethnicities, Structure 4

Material Type	Artifact Morphology	Ethnicity		Total
		Hispanic	Anglo	
Chert	angular debris	2	–	2
	core flake	1	–	1
Madera chert	angular debris	2	1	3
	core flake	1	2	3
Silicified wood	late-stage biface	–	1	1
Total		6	4	10

Table 23.4. Flaked stone assemblage by period

Material Type	Artifact Morphology	Nineteenth Century	Twentieth Century	Total
Chert	angular debris	2	1	3
	core flake	1	1	2
Pedernal chert	angular debris		1	1
Madera chert	angular debris	2	2	4
	core flake	2	5	7
Silicified wood	late-stage biface		1	1
Total		7	11	18

Table 25.1. Native ceramic types by group, LA 158037

	Count	Column %
Northern Rio Grande Prehistoric Gray		
Plain gray body	10	1.8%
Wide neckbanded	2	0.4%
Northern Rio Grande Prehistoric White		
Santa Fe Black-on-white	2	0.4%
Unpainted undifferentiated white	1	0.2%
Middle Rio Grande Glaze		
Glaze-on-red undifferentiated	1	0.2%
Historic Micaceous Utility		
Highly micaceous paste	41	7.4%
Polished interior with mica slip	1	0.2%
Unpolished, micaceous slip	17	3.1%
Highly micaceous paste	1	0.2%
Smudged interior, mica-slipped exterior	22	4.0%
Polished interior with mica slip	41	7.4%
Punctated utility	1	0.2%
Smudged micaceous	2	0.4%
Tewa polished black with mica slip	1	0.2%
Middle Rio Grande polished interior, mica-slipped exterior	1	0.2%
Plain tan, mica	23	4.2%
Plain tan, mica, polished	33	6.0%
Historic Plain Utility		
Tewa buff, undifferentiated	70	12.7%
Tewa unpolished buff	7	1.3%
Red-on-tan unpainted	1	0.2%
Tewa polished red	21	3.8%
Tewa polished gray	18	3.3%
Tewa polished black	114	20.7%
Tewa unpolished black	2	0.4%
Tewa unpolished buff	1	0.2%
Historic Tewa Decorated		
Tewa Polychrome, painted, undifferentiated (two slips)	14	2.5%
Black-on-cream (Undifferentiated)	61	11.1%
Powhoge Polychrome	6	1.1%
Historic white cream, slipped, unpainted	12	2.2%
Historic unpainted red and cream, slipped	3	0.5%
Historic Tewa Black-on-red	1	0.2%
Tesuque Polychrome	13	2.4%
San Ildefonso Polychrome	3	0.5%
Historic Decorated (not Tewa)		
Cochiti Polychrome	1	0.2%
Puname Polychrome, Zia basalt	2	0.4%
Unpainted Puname	1	0.2%
Santa Ana White, slipped	1	0.2%
Total	552	100.0%

Table 25.2. Basic pottery groups by temporal and cultural affiliation

	Hispanic				Anglo-American		Total	
	Late Nineteenth Century		Early Twentieth Century		Early Twentieth Century			
Pottery Group	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Prehistoric gray	8	5.0%	2	0.7%	2	2.3%	12	2.2%
Prehistoric white ware	1	0.6%	1	0.3%	1	1.1%	3	0.5%
Glaze ware	1	0.6%	–	–	–	–	1	0.2%
Unpolished micaceous	15	9.4%	37	12.1%	7	8.0%	59	10.7%
Polished micaceous	20	12.6%	44	14.4%	5	5.7%	69	12.5%
Micaceous tan	16	10.1%	34	11.1%	6	6.9%	56	10.1%
Tewa Buff	25	15.7%	31	10.1%	22	25.3%	78	14.1%
Tewa Red	8	5.0%	10	3.3%	4	4.6%	22	4.0%
Tewa Black/gray	36	22.6%	88	28.8%	10	11.5%	134	24.3%
Tewa Polychrome	29	18.2%	54	17.6%	30	34.5%	113	20.5%
Intrusive polychrome	–	–	5	1.6%	–	–	5	0.9%
Total	159	100.0%	306	100.0%	87	100.0%	552	100.0%

Table 25.3. Temper of historic micaceous utility ware types

	Sand	Granite and Mica	Granite	Highly Micaceous	Fine Tuff	Fine Tuff and Sand	Total
Unpolished Micaceous							
Highly micaceous paste	–	–	–	42	–	–	42
Unpolished micaceous slip	4	1	8	–	2	2	17
Total	4	1	8	42	2	2	59
Polished Micaceous							
Smudged interior, mica-slipped exterior	–	–	4	–	3	15	22
Polished interior with mica slip	11	2	6	–	8	15	42
Smudged micaceous	–	–	–	–	2	–	2
Tewa polished black with mica slip	–	–	–	1	–	–	1
Punctated utility	–	–	–	–	1	–	1
Middle Rio Grande, polished interior, mica-slipped exterior	–	–	–	–	1	–	1
Total	11	2	10	1	15	30	69
Micaceous Tan							
Plain tan, mica	9	–	1	–	1	12	23
Plain tan, mica, polished	4	–	–	–	24	5	33
Total	13	–	1	–	25	17	56
Total	28	3	19	43	42	49	184

Table 25.4. Temper of historic plain utility ware types

Type	Sand	Granite and Mica	Highly Micaceous	Fine Tuff	Large Tuff	Tuff and Sand	Mica and Tuff	Total
			Tewa Buff					
Tewa buff undifferentiated	–	1	–	63	–	2	4	70
Tewa unpolished buff	–	–	–	8	–	–	–	8
Total	–	1	–	71	–	2	4	78
			Tewa Red					
Red-on-tan unpainted	–	–	–	1	–	–	–	1
Tewa polished red	–	–	–	21	–	–	–	21
Total	–	–	–	22	–	–	–	22
			Tewa Black/Gray					
Tewa polished gray	–	–	–	16	1	1	–	18
Tewa polished black	1	–	6	103	–	4	–	114
Tewa unpolished black	–	–	–	2	–	–	–	2
Total	1	–	6	121	1	5	–	134
Total	1	1	6	214	1	7	4	234

Table 25.5. Temper of historic decorated types

	Sand	Fine Tuff	Large Tuff	Tuff and Sand	Gray Crystalline Basalt	Mica and Tuff	Total
			Tewa Polychrome				
Tewa Polychrome, painted, undifferentiated	–	14	–	–	–	–	14
Black-on-cream, undifferentiated	–	57	–	–	–	4	61
Powhoge Polychrome	–	4	–	–	–	2	6
Historic white cream, slipped, unpainted	–	10	–	2	–	–	12
Historic unpainted red and cream, slipped	–	3	–	–	–	–	3
Historic Tewa Black-on-red	–	1	–	–	–	–	1
Tesuque Polychrome	–	11	–	–	–	2	13
San Ildefonso Polychrome	–	3	–	–	–	–	3
Total	–	103	–	2	–	8	113
			Intrusive Polychrome				
Cochiti Polychrome	–	–	1	–	–	–	1
Puname Polychrome, Zia basalt	–	–	–	–	2	–	2
Unpainted Puname	–	–	–	–	1	–	1
Santa Ana white, slipped	1	–	–	–	–	–	1
Total	1	–	1	–	3	–	5
Total	1	103	1	2	3	8	118

Table 25.6. Vessel fragments of micaceous types

Type	Indeterminate	Bowl Rim	Bowl Body	Jar Neck	Jar Rim	Jar Body	Handle	Body Sherd	Pitcher Rim	Total
Unpolished Micaceous										
Highly micaceous paste	–	–	–	2	1	38	1	–	–	42
Unpolished micaceous slip	–	–	–	–	1	16	–	–	–	17
Total	–	–	–	2	2	54	1	–	–	59
Polished Micaceous										
Smudged interior, mica-slipped exterior	–	–	1	–	2	–	–	19	–	22
Polished interior with mica slip	1	1	–	2	3	3	–	32	–	42
Smudged micaceous	–	–	–	–	1	1	–	–	–	2
Tewa polished black, mica slip	–	–	1	–	–	–	–	–	–	1
Punctated utility	–	–	–	–	–	–	–	–	1	1
Middle Rio Grande, polished interior, mica-slipped exterior	–	–	–	–	–	–	–	–	1	1
Total	1	1	2	2	6	4	–	51	2	69
Micaceous Tan										
Plain tan, mica	2	–	–	6	6	9	–	–	–	23
Plain tan, mica, polished	–	–	–	2	6	–	–	24	1	33
Total	2	–	–	8	12	9	–	24	1	56
Total	3	1	2	12	20	67	1	75	3	184

Table 25.7. Vessel fragments of historic plain ware types

	Indeterminate	Bowl Rim	Bowl Body	Olla Rim	Jar Neck	Jar Rim	Jar Body	Mini Jar	Body Sherd	Soup Plate	Total
Tewa Buff											
Tewa buff, undifferentiated	5	2	5	–	1	–	10	1	46	–	70
Tewa unpolished buff	2	–	–	–	–	–	5	–	1	–	8
Total	7	2	5	–	1	–	15	1	47	–	78
Tewa Red											
Red-on-tan, unpainted	–	–	–	–	–	–	1	–	–	–	1
Tewa polished red	1	1	–	–	6	–	2	–	10	1	21
Total	1	1	–	–	6	–	3	–	10	1	22
Tewa Black/Gray											
Tewa polished gray	2	–	–	–	–	–	2	–	14	–	18
Tewa polished black	1	6	6	2	25	6	41	–	27	–	114
Tewa unpolished black	–	–	–	–	–	–	2	–	–	–	2
Total	3	6	6	2	25	6	45	–	41	–	134
Total	11	9	11	2	32	6	63	1	98	1	234

Table 25.8. Vessel fragments of historic decorated types

	Indeterminate	Bowl Rim	Bowl Body	Olla Rim	Jar Neck	Jar Rim	Jar Body	Mini Jar	Body Sherd	Total
Tewa Polychrome										
Tewa Polychrome, painted, undifferentiated	–	1	1	–	1	4	7	–	–	14
Black-on-cream, undifferentiated	1	7	7	5	7	1	31	–	2	61
Powhoge Polychrome	–	–	1	–	–	3	2	–	–	6
Historic white cream, slipped, unpainted	2	–	3		1	–	5	1	–	12
Historic unpainted red and cream, slipped	–	–	–	–	–	3	–	–	–	3
Historic Tewa Black-on-red	–	–	1	–	–	–	–	–	–	1
Tesuque Polychrome	–	4	2	–	–	4	2	–	1	13
San Ildefonso Polychrome	–	–	–	2	–	–	–	–	1	3
Total	3	12	15	7	9	15	47	1	4	113
Intrusive Polychrome										
Cochiti Polychrome	1	–	–	–	–	–	–	–	–	1
Puname Polychrome	–	–	–	–	–	1	1	–	–	2
Unpainted Puname	–	–	1	–	–	–	–	–	–	1
Santa Ana White, slipped	–	–	–	–	1	–	–	–	–	1
Total	1	–	1	–	1	1	1	–	–	5
Total	4	12	16	7	10	16	48	1	4	118

Table 25.9. Rim sherds by ware group for households assigned to different ethnicities

Ware Group	Hispanic		Anglo	
	Count	Column %	Count	Column %
Micaceous jar rim	19	35.2%	2	11.1%
Micaceous bowl rim	–	–	1	5.6%
Plain utility jar rim	6	11.1%	–	–
Plain utility olla rim	2	3.7%	–	–
Plain utility bowl rim	7	13.0%	3	16.7%
Polychrome jar	7	13.0%	6	33.3%
Polychrome olla	2	3.7%	5	27.8%
Polychrome bowl	11	20.4%	1	5.6%
Total	54	100.0%	18	100.0%

Table 26.1. Archaeomagnetic set results, Feature 99, Structure 4

Set	Site	Feature No.	Inc. (º)	Dec. (º)	VGP Lat. (º)	VGP Long. (º)	$"_{95}$ (º)	$*_p$	$*_m$	N	De-mag Level (Oe)	AM Date Ranges (AD) Est. Date	SWCV2000
1328	LA 158037	99, brick heater/boiler	41.141	82.283	19.477	328.47	29.27	21.67	35.617	8/8	NRM	20th c.	N/A
1329	LA 158037	99, brick heater/boiler	44.951	40.031	54.783	347.721	33.518	26.787	42.375	8/8	NRM	20th c.	N/A

Table 29.1. Provenience of pollen samples from self-contained vault privies

FS No.	Depth (mbd)	Feature No.	Provenience/Date
306	1+	233	twentieth-century Hispanic waste, ca. 1935
86	1+	73	twentieth-century Hispanic waste, ca. 1930
129	1+	74	twentieth-century Hispanic waste, ca. 1930
298	1+	232	twentieth-century Hispanic waste, ca. 1925
288	1+	231	twentieth-century Hispanic waste, ca. 1920
115	1+	78	twentieth-century Hispanic waste, ca. 1915
257	1+	7	twentieth-century Anglo waste, ca. 1910

Table 29.2. Pollen types in samples from self-contained vault privies

Scientific Name	Common Name
	Arboreal Pollen
Acer	maple
Corylaceae	birch family
Juglandaceae	walnut family
Juglans	walnut
Juniperus	juniper
Pinaceae	pine family
Abies	fir
Picea	spruce
Pinus	pine
Pseudotsuga	Douglas fir
Quercus	oak
Salicaceae	willow family
Salix	willow
Tamarix	tamarisk
Tilia	linden, basswood
Ulmus	American elm or white elm, water elm
	Nonarboreal Pollen
Asteraceae	Sunflower family
Artemisia	Sagebrush
Low-spine	Includes ragweed, cocklebur, sumpweed
High-spine	Includes aster, rabbitbrush, snakeweed, sunflower, etc.
Liguliflorae	chicory tribe, includes dandelion and chicory
Brassicaceae	mustard or cabbage family
Cactaceae	cactus family
Cylindropuntia (antiquated term used in palynology)	cholla cactus
Mammillaria -type (includes *Carnegiea gigantea* , Coryphantha, Echinocactus, Echinocereus, Ferocactus, and Mammillaria)	Includes saguaro cactus, hedgehog cactus, strawberry cactus, barrel cactus, and pincushion cactus.
Opuntia	prickly pear cactus
Cheno-am	includes the goosefoot family and amaranth
Sarcobatus	greasewood
Ephedra torreyana– type (includes *E. torreyana* , *E. trifurca,* and *E. antisyphilitica)*	ephedra, joint fir, Mormon tea
Eriogonum	wild buckwheat
Erodium	storksbill, heron-bill, filaree
Fabaceae	bean or legume family
Trifolium	clover
Lonicera	honeysuckle
Onagraceae	evening primrose family
Plantago	plantain
Poaceae	grass family
Polygonaceae	knotweed/smartweed family
Persicaria	persicaria, smartweed, pinkweed
Polygonum aviculare– type	smartweed
Rhamnaceae	sumac family
Rhus	sumac
Rosaceae	rose family
Sphaeralcea	globemallow
Typha angustifolia -type	cattail
	Cultigens
Apiaceae	cilantro, coriander
Cerealia	economic members of the grass family including *Triticum* (wheat), *Avena sativa* (oat), *Hordeum vulgare* (barley), and *Secale cereale* (rye)
Eugenia	clove
Fragaria	strawberry
Lamiaceae	mint family
Zea mays	maize, corn
Indeterminate	too badly deteriorated to identify
	Algae
Chrysophyte algal cysts	chrysophyte algal cysts
	Spores
Trilete smooth	fern
	Other
Feather fragment	feather fragment
Insect fragments	insect fragments
Plant hair	chevroned, fluted, fuzzy, smooth, small, and sprial decoration plant hair
Rodent hair	rodent hair
Sheep wool	sheep wool
Charcoal	microscopic charcoal

Total pollen concentration = quantity of pollen per cubic centimeter (cc) of sediment.

Appendix 5
Site Location Information

LA 158037

Unplatted land in Santa Fe, Santa Fe County, New Mexico; UTM Zone 13 (NAD 27), E414830, N3948930; USGS 7.5′ Santa Fe quadrangle (2002).