# **OFFICE OF ARCHAEOLOGICAL STUDIES**

# Archaeological Testing at the Watson and Fresquez Properties, Lincoln State Monument, Lincoln, New Mexico

Dorothy A. Zamora

Stephen S. Post Principal Investigator

**ARCHAEOLOGY NOTES 399** 

SANTA FE 2008 NEW MEXICO

# Administrative Summary

From March 31 through April 11, 2008, Office of Archaeological Studies (OAS), Department of Cultural Affairs, conducted a testing program for Lincoln State Monument behind the Watson and Fresquez houses in Lincoln, New Mexico. The area is part of Lincoln State Monument (LA 8977), within the form of Sec. 34, T 9S, R 16E, NMPM, Lincoln County, USGS 7.5' Lincoln Quadrangle.

Lincoln State Monument proposes to place a pipeline from the Watson house to a new septic tank and leach line on the slope behind the house. It will require digging a new trench for the line from the Watson house. The old pipeline from the Fresquez house will be replaced within the existing trench, in accordance with state law. The procedure required archaeological testing in the areas to be disturbed by the project.

The archaeological investigation followed a testing program approved by the Historic Preservation Division on March 20, 2008. The testing at LA 8977 included excavating five 1 by 1 m units in areas where trenching for the lines and septic tank are to be placed. Test Pit 1 was placed in the area of an embankment and a retaining wall. The wall was not visible on the surface but was exposed during excavation. Test Pit 2 was placed in the area of the septic tank on a hillside. Test Pit 3 was placed below the embankment in a flat area where there proved to be an old 1878 acequia. Because the retaining wall was exposed in Test Pit 1 and the acequia was present in Test Pit 3, two alternative areas were tested. Test Pit 4 was placed between the retaining wall and the existing telephone line. Test Pit 5 was placed west of the septic tank on a slope for the leach line.

Cultural materials were found in all test pits at various depths. Test Pit 1 was excavated to 1.3 m deep, and excavation was stopped because of OSHA safety regulations. Artifacts were still present in this test unit, with an ash lens at the bottom of the excavation pit. Test Pit 2 was sterile except for the surface stripping, which consisted of modern artifacts. Test Pit 3 uncovered the acequia and was dug down 1.3 m. The soil changed from a charcoal, sandy clay to a silty clay, with artifacts still in the fill. Test Pit 4 was excavated to a depth of 30 cm. Artifact deposits from early to modern time periods were mixed from prior trenching for the gas line, telephone lines, the old septic tanks, sewer lines, and from alluvial washing. Test Pit 5 contained cultural material down to 40 cm. Most of the artifacts were from the surface, with some downward filtering, probably from root action. All test units were taken down to sterile soil with the possible exceptions of Test Pits 1 and 3.

An acequia behind the Watson and Fresquez houses is shown on an 1878 map in the N. A. M. Dudley inquiry papers. It runs from behind the Tunstall store, west behind the Fresquez and Watson houses, and eventually down to Rio Bonito. The acequia is not mentioned in any known articles and is only shown on Dudley's map. The historical importance of the acequia prompted Lincoln State Monument to move the leach line west instead of east to avoid it.

In all test pits, artifacts showed extensive mixing with a wide range of dates. Two features were found: a stone wall dating possibly to the 1930s and a 1878 acequia. If these features are avoided, the OAS recommends archaeological clearance for the project.

MNM Project No. 41.863 (Lincoln Testing) NMCRIS No. 109864

# Contents

## FIGURES

1. Project vicinity map	2
2. Town of Lincoln, showing location of Watson and Fresquez houses	3
3. The crew and volunteers	4
4. The environment of the project area, facing northwest	5
5. The environment of the site, facing west.	6
6. Dudley inquiry map	13
7. Path of the acequia, looking west	14
8. Excavations in septic tank area	18
9. Test Pit 1, showing stone wall.	19
10. Privy behind Watson house, facing northwest.	20
11. Profile of north and east walls of Test Pit 1	21
12. Batteries, not collected from Test Pit 1	21
13. Test Pit 2, facing south	24
14. Test Pit 3, facing south	26
15. Profile of the north wall, Test Pit 3	27
16. Test Pit 4, facing south	32
17. Profile of the south wall, Test Pit 4	33

18. Test Pit 5, facing south	. 35
19. Profile of the west wall, Test Pit 5	. 35
20. Stone wall with privy in the background, facing west	. 44

## TABLES

1. Level Descriptions and Artifact Counts, Test Pit 1	20
2. Artifacts from Test Pit 1	22
3. Level Descriptions and Artifact Counts, Test Pit 2	24
4. Artifacts from Test Pit 2	25
5. Level Descriptions and Artifact Counts, Test Pit 3	28
6. Artifacts from Test Pit 3	29
7. Level Descriptions and Artifact Counts, Test Pit 4	32
8. Artifacts from Test Pit 4	34
9. Level Descriptions and Artifact Counts, Test Pit 5	36
10. Artifacts from Test Pit 5	36
11. Bone Recovered from Test Pits (count and column percentage)	38
12. Frequency and Cost-Efficiency of Meat Cuts in Test Pits.	40
13. Bone Fusion	41

# Introduction

At the request of Rick Revcraft, director of New Mexico State Monuments, the Office of Archaeological Studies (OAS) conducted an archaeological testing program for a new septic system behind the Watson and Fresquez houses at Lincoln State Monument, Lincoln County, New Mexico. Both of these properties lie within Lincoln State Monument, in Lincoln County, New Mexico. The buildings are maintained by Lincoln State Monument and are listed on the National Register of Historic Places and the New Mexico State Registers of Cultural Properties. The area is part of the Lincoln State Monument (LA 8977), within the of Section 34, T 9S, R 16E, NMPM Lincoln County, USGS 7.5' Lincoln Quadrangle (Figs. 1, 2, and Appendix 1).

The New Mexico State Monuments Division plans to place a new septic tank, lines, and leach line from the Watson and the Fresquez houses in an area north of the structures on a slope below the embankment to service both houses. The project involves digging a pit for the septic tank and a trench from the Watson house to the tank and a leach line west of the tank. The sewer line from the Fresquez house will be replaced using the existing trench.

The fieldwork was conducted from March 31 through April 4, 2008, and from April 9 to April 11. The purpose of the testing program was to identify and determine the depth, extent, and temporal affiliation of any subsurface cultural remains that might exist within the project area. The testing focused on identifying architectural features and the chronological placement of cultural strata through the analysis of historical artifacts.

Field personnel included Dorothy A. Zamora, crew chief; Philip Alldritt and Richard Montoya, assistants, all from OAS; Sha Yella and Shanley Smotherman, volunteers from Tularosa, New Mexico (Fig. 3); and DeAnn Kessler and Murray Arrowsmith of Lincoln State Monument. A total of 140 man hours were expended for the fieldwork. The processing of 2,489 artifacts was carried out by Sheila Martin, and the analysis by Gini Prihoda. The principal investigator for the project was Stephen S. Post.



Figure 1. Project vicinity map.





Figure 3. The crew and volunteers.

# Environment

## (adapted from Oakes 1986)

The town of Lincoln lies in the Bonito Valley, within the foothills of the Sierra Blanca Mountains of southeastern New Mexico. It is within the Basin and Range physiographic province (Fenneman 1931). Rio Bonito begins on the slopes of the Sierra Blancas and flows through the town (Figs. 4 and 5). The river flows in a southeasterly direction until it joins the Rio Ruidoso at Hondo, forming the Hondo River, which flows eastward into the Pecos River.

The Bonito Valley consists of a narrow band of alluvial soils along the river (Maker et al. 1971:22). Lincoln is at an elevation of 5,760 ft, and Sierra Blanca Peak, 26 miles away, is at 11,977 ft, which indicates "the great diversity of topography that exists in the region" (Oakes 1986:4).

Vegetation in the surrounding areas is dominated by juniper-piñon woodlands. Among the plants found there are one-seed juniper, Rocky Mountain juniper, alligator juniper, black walnut, piñon, oak, amaranth, lamb's quarters, cholla, and dropseed grasses (Dart 1980). Historic use of these plants by the Mescalero Apaches has been documented by Basehart (1974).

Fauna found in the area include mule deer, black bear, bobcat, cottontail, jackrabbit, squirrel, prairie dog, deer mouse, muskrat, beaver, porcupine, badger, Merriam's turkey, bald and golden eagles, and many other species of birds.

The average precipitation in Lincoln is 15 inches, mostly from summer thunderstorms. The average frost-free days recorded at Fort Stanton, 12 miles away, is 157 days. In the Sierra Blanca area, where the elevation varies, the annual amounts range from less than 5 to over 30 inches per year. The mean annual temperature is 50 to 52 degrees F (10 to 11.1 degrees C) (Maker et al. 1971).



Figure 4. The environment of the project area, facing northwest.



Figure 5. The environment of the site, facing west.

# Previous Work in the Area

The National Park Service recorded LA 8977, the town of Lincoln, in 1959. Lincoln is in the *National Register of Historic Places* as a national historic landmark because of its significance as a center for agriculture and the cattle industry and the county seat of what was once the largest county in the United States (Kirkpatrick and Hart 1989). The Lincoln County War took place mostly in Lincoln and gained much attention in the 1870s.

Archaeological work in the past has consisted of testing of several of the monument's structures prior to renovation. Michael Taylor (1983, 1984, 1986) of New Mexico State Monuments tested west of the Tunstall Store and under the porch at the Watson House. Yvonne Oakes (1986) conducted a testing program for State Monuments in which she tested under the Tunstall Store porch and dug several test pits in the Lincoln County Courthouse Museum area. Joe Stewart recorded LA 51351, La Placita, a prehistoric Lincoln-phase site found during the construction of the Dunlap store next to the Torreon. Linda Hart (1989) excavated a trench for a waterline to the new restrooms behind the courthouse. Eastern New Mexico University (Beck 1980; Schermer 1980) found an isolated burial and an artifact midden in the parking lot of the Lincoln County Heritage Trust. While searching for the foundations of the McSween house in 1989, Human Systems Research (Kirkpatrick and Hart 1989) excavated an area between the Watson and Fresquez houses.

## (from Oakes 1986)

After abandonment of the area by prehistoric populations in about AD 1400, the region was unoccupied until the sixteenth and seventeenth centuries. At that time, Mescalero Apaches moved into the nearby Sierra Blanca Mountains. Despite the presence of the Apaches, the water, irrigable land, and shelter available in the valleys made the Bonito, Ruidoso, and Hondo valleys attractive to European settlers seeking new lands. By the 1850s, Hispanic groups consisting mainly of sheepherders had built small placitas (plaza villages) along the rivers. Some settlers may have come from the eastern slopes of the Manzano Mountains (Fulton 1954:176); others may have moved west from Texas up the Hondo River (Oakes 1983). One such plaza village was La Placita de Bonito, which later became known as Lincoln. Others include Anally (now Tinnie), Hondo, San Patricio, Picacho, and Missouri Plaza.

The conflict between valley settlers and Mescalero Apaches lasted through the 1860s. In 1855 the US Army established Fort Stanton 12 miles west of La Placita to control hostilities. Because of the security provided by the fort, La Placita became the largest village in the valley by 1861. Late in that year, however, Fort Stanton was abandoned because Confederate soldiers were present in the area. The fort reopened in September 1862 under Colonel Christopher Kit Carson, who had specific orders to suppress the Indians (Cremony 1868:219). He sent many Mescalero Apaches to Fort Sumner, from which most escaped in 1865 (Terrell 1974:258). The army needed provisions for soldiers and Indians at Fort Stanton and Fort Sumner, and a cattle industry developed in the Rio Bonito area soon after the forts were built.

Lincoln County was formed from eastern Socorro County on January 16, 1869, and the town of Lincoln (formerly La Placita) became the county seat. In 1870 the population of the county was 2,904, of which 588 lived in or near Lincoln (Caperton 1983:13). In 1878 Lincoln County was enlarged to twice its original size, making it the largest county in the United States. (Eventually, seven additional counties were carved out of this single political unit). The 1880 US Census shows only 533 people in the Lincoln precinct, a slight drop from 1870 (Caperton 1983:23). The Lincoln County War of the late 1870s probably contributed heavily to the decline in population.

Fort Stanton closed in August 1896 and reopened in 1899 as a US Marine hospital. During the same year, the El Paso and Northeastern Railroad reached Carrizozo, providing a ready market for the large cattle holdings established throughout the area. By 1900 the population of Lincoln had climbed to 917. However, in 1913 the county seat was moved to Carrizozo because of its growing importance as a railway shipping point. A 1912–1913 business directory for Lincoln shows a population decline to 250 persons (Caperton 1983:26–27).

The town of Lincoln became a national historic landmark in 1966. Today, the population varies between 50 and 100. New Mexico State Monuments manages many historic properties in Lincoln, including the Tunstall Store, the Lincoln Courthouse Museum, and the Watson and Fresquez houses. Lincoln Heritage Trust, an independent organization dedicated to preserving the town's original character, also owns several historic structures in the town.

## THE LINCOLN COUNTY WAR

Much has been written about Lincoln and the Lincoln County War of 1878. Mullin (1968) and Keleher (1982) wrote detailed accounts of the conflict. Many events led up to the war, which began in the mid-1860s. Economic conditions within the territory of New Mexico, specifically those at Fort Stanton (Oakes 1986), were crucial. Details of those events can be found in Henn (1982), Caperton (1983), Nolan (1965) , Lavash (1986), McCright and Powell (1983), Tuska (1983), Utley (1986), Coe (1951), and Greenly (1986), just to name a few. Henn (1982) and Caperton's

(1983) research on the Lincoln County War are in-depth independent studies of court documents, account ledgers, and primary sources compiled for the State Monuments research project.

Fort Stanton, a military post, obtained produce, grain, and beef through government contracts with private citizens (Oakes 1986). These contracts, secured through political and financial dealing, became a major factor in the region. The locals depended on the fort for their supplies and to market their produce. From 1866 to 1873, Murphy and Fritz operated a sutler's store at Fort Stanton, but eventually they were forced to move because of their undesirable business practices (Kirkpatrick and Hart 1989). They moved to Lincoln and used Murphy's adobe house as the store. In 1873 they built a two-story building for their business. This building became the Lincoln County Courthouse (Oakes 1986).

In 1878 citizens of Lincoln were complaining about the economic state of affairs. Cattle and ranch owners were upset with Murphy's economic monopoly. J. J. Dolan and John Riley formed a partnership in 1877, and L. G. Murphy & Co. became J. J. Dolan & Co. Nolan (1965:279) stated that Dolan was ruthless in his business dealings. McSween and Tunstall established a store and bank competing against Dolan for the government contracts with backing from McSween and Chisum. Tunstall accepted "grain notes" from local farmers and settlers, allowing them credit in his store in return for their grain crops (Oakes 1986). With these notes, Tunstall had a monopoly on the grain crops.

Discontent grew until everyone was one side or the other. In February 1878 Tunstall was killed, sparking the beginning of the Lincoln County War. On April 1, 1878, Billy the Kid and others killed Sheriff Brady and Deputy Hindman (Lavash 1986:105–106). This action led to a fiveday battle at the McSween house. By the end of the fighting, Tunstall, McSween, and at least four others were dead.

The Lincoln County War led to the intervention of President Hayes. Samuel Axtell, governor of New Mexico, and District Attorney Thomas Catron lost their appointments. By the end of 1878, the shooting was over, but both sides continued to harass each other until 1881 (Oakes 1986).

## **Historic Features**

The following information on the Watson and the Fresquez houses is taken from Caperton (1983).

#### THE WATSON HOUSE

The first two rooms of the Watson house were built before 1886 on the west wing of the McSween house or just adjacent to it. The house was probably constructed by Rosenthal & Company; its partner, Charles Beljean; and his wife. The property went through many landowners starting with John D. Bail, who owned it in 1876. He sold the land to L. G. Murphy, who sold to Alexander McSween in 1887. After the Lincoln County War, McSween's wife, Susan McSween, lost the property, and Charles Fritz purchased it in 1882 at a public auction (Caperton 1983). In 1886 Fritz sold it to his daughter, who was married to J. J. Dolan. After her death, Dolan inherited her half interest and sold his half in 1887 to Numa Raymond. Although it is not know when the house was built, a photograph from 1885 shows it as a flat-roofed two-room adobe with a front door and window (Caperton 1983). An 1888 deed found in the Lincoln County Courthouse in Carrizozo describes the house as a two-room, shingle-roofed adobe house (Deed Book K, p. 132). Raymond sold the property to William Rosenthal and Charles Beljean in 1890. Four years later, in 1894, Emil Fritz, guardian of the Dolan children, sold their half interest to Raymond (Deed Book Q, pp. 37-39), and two weeks later he sold it to Rosenthal and Beljean (Deed Book N, p. 286). Timeteo (sic) Anally purchased the parcel in January 1894 (Deed Book M, p. 564). John and Cecilia West bought the property in 1901 (Deed Book T, p. 80). The land was sold to Dr. Watson and his wife, Virginia, in 1903. The house was also a drugstore and doctor's office. The Rice family lived in the east section for a while.

Dr. Watson and his wife lived in the east rooms and installed a drugstore in the west room. They later added on two rooms, a new drugstore, and a basement. The Watsons moved to Carrizozo in 1914 and sold the house to Dr. John R. Neal and his wife, Pearl, in 1920. Dr. Earl Woods, a neighbor of Dr. Watson, kept the drugstore open until 1922. Mr. Magee rented the property from Dr. Neal in 1922 and opened a general store in the drugstore space. Fire damaged the store a year later, and Magee moved to El Paso.

Someone named Pfingsten bought the land and sold it in 1924 to the El Paso and Rock Island Railroad (Miscellaneous Book 1, pp. 399-340). In the early 1930s a rear bathroom was added. Several small screen and frame structures used in the fresh-air treatment of tubercular patients at Fort Stanton were sold to local residents in 1930 (Caperton 1983). One of the structures was placed between the Watson and Fresquez houses. It was used for a "laundry and other things" (Ofecia Salas, personal communication, in Caperton 1983). At the same time, a garage was built at the southwest corner of the Watson house. In 1938 someone named Frontie and James Ramey built a shed on the rear of the west side of the building, which served as a kitchen (Caperton 1983). The building was vacant between the late 1940s and early 1950s. The El Paso and Rock Island Railroad sold the property to A. T. Pfingsten and wife, Ora, in 1953. The house was purchased by the state of New Mexico in 1955. It was renovated in 1958 by the Lincoln County Memorial Commission. Today, the house is used as an office for State Monument personnel.

#### The Fresquez House

After Alexander McSween died, Susan McSween hired Ira E. Leonard of Colorado to oversee the property (Keleher 1952:226). Leonard sold the McSween property to J. J. Dolan in 1885 for \$100. In September 1888 Dolan sold the property to M. L. Gorton. At that time the lot was 40 ft by 90 ft, 53 ft east of the Watson house (Caperton 1983). The first two rooms were built in about 1887. This building was constructed over the east wing of the McSween house. Gorton's application for a butcher shop was approved in October 1888 by the county commissioners, and the house became the Gorton Butcher Shop. By March 1892 the Gortons had sold the property to William Rosenthal & Company. John and Cecilia West purchased the land from Rosenthal & Company in 1894. The single-roofed butcher shop was the only building on the lot. The size of the property grew to 64 by 200 ft. Cecilia had been Mrs. Charles Beljean's maid (Wilson 1987).

In 1895 Cecilia West rented the building to Jewett and Matthews for a law office, and two rooms were added on the west in ca. 1900. H. B. Hamilton and wife occupied the house in 1903. Mrs. West died in 1910, and her husband sold the property to Henry Lutz, who sold it to Teófilo Sisneros and Isidro Frésquez. The deed contained a clause that gave a lifeline tenancy to George Barber, a lawyer who occupied two rooms in the house. The clause specified that he had to have sufficient room in the yard for firewood to heat his offices. Barber married Susan McSween in 1880 and divorced her in 1891 (Keleher 1952:159–160). A west wing was added to the house in 1900.

Sisneros sold his share to Fresquez in 1912, and the deed contained the same lease to Barber. Frésquez's wife died in 1918. Barber moved out, and Isidro lived in the house until the early 1930s (Caperton 1983). Frésquez sold the property to Frank C. Boyce in 1961, who deeded it to the state of New Mexico. The building was restored in 1982, which included replacing the asphalt shingles with wood shingles, replastering, and replicating the board-and-batten facade on the south.

## Acequia

A feature present since 1878, an acequia, was uncovered during the testing program. There is no mention of the acequia in any written documents, but in his inquires to the assistant adjutant general of New Mexico, Dudley (1878) has a map of the McSween property showing the acequia (Fig. 6). The acequia ran through Lincoln and was used until 1940, when the Rio Bonito flooded and collapsed its banks (Phoebe Taylor, personal communication, 2008). According to Mrs. Taylor, Lincoln was supposed to install a pipeline in its place but never did. She stated that it was a good water source and was used for all kinds of things, including washing clothes. Today, it is 3.95 m wide and over 1.3 m deep (Fig. 7).



Archaeological Testing at the Watson and Fresquez Properties 13



Figure 7. Path of the acequia, looking west.

# **Testing Procedures**

The purpose of the testing program was to determine the nature, depth, and extent of possible cultural deposits within the proposed septic system alignment. The testing operations followed general procedures used by OAS. A primary datum was established for the site and a northsouth and east-west base laid out with a transit and stadia rod. Stakes were placed every 5 m along each baseline. A 1 by 1 m grid system was then superimposed over the site. Test pits measuring 1 by 1 m were then placed in the grid along the septic alignment area.

Each test pit was hand-excavated with trowels, picks, and shovels in 10 cm arbitrary levels. All the soil was screened through 1/4-inch mesh. All artifacts were collected and bagged by level and artifact type, and catalogued with a fieldspecimen (FS) number. All provenience information was written on the bags: project number, LA number, test pit number, level and depth, date, FS number, artifact counts, and excavator's initials. Profiles of each test unit were drawn, and photographs were taken. A site map was produced with transit and stadia rod. Topographic variation, drainages, test pit locations, and site limits were plotted on the map.

When possible, all excavations proceeded until sterile soil was reached. Upon completion of the testing, all pits were backfilled. All artifacts collected were analyzed in the laboratory and entered into a computer for statistical analysis.

# **Testing Results**

Five 1 by 1 m units were placed in areas where trenching for the lines and septic tank are to take place (Fig. 8). Test Pit 1 was placed where there is an embankment and a retaining wall. The wall was not visible at the surface; however, during excavation of the unit, the feature was exposed. Test Pit 2 was placed in the area of the septic tank on a hillside. Test Pit 3 was placed below the embankment in a flat area, where there proved to be an 1878 acequia. Because the retaining wall was exposed in Test Pit 1 and the acequia was present in Test Pit 3, alternative areas were tested. Test Pit 4 was placed between the retaining wall and the existing telephone line. Test Pit 5 was placed west of the septic tank on a slope for the leach line.

#### Test Pit 1

Test Pit 1 (Fig. 9) was excavated in 10 cm arbitrary levels down to 1.30 m (Table 1).

An existing privy (Fig. 10) just west of the test unit may also have been the location of an earlier privy. The rock wall (Fig. 11) continues over to the existing privy. The artifact frequency increases toward the bottom of the pit, where the ash lens is present and then begins to decrease. The only artifacts not collected were two batteries (Fig. 12).

The artifacts recovered from Test Pit 1 are listed in Table 2.

#### Test Pit 2

Test Pit 2 is within the area where the new septic tank will be placed (Fig. 13). It is on a slope between Test Pits 1 and 3. Before excavation of the unit, artifacts from the surface were collected. These artifacts were included as part of the unit and analyzed as such. Excavation of the unit was in vertical 10 cm levels although the ground had a gentle slope (Table 3).

A total of 270 artifacts were recovered from Test Pit 2, and nearly all were from the first two levels – from or just below the surface (Table 4; Fig. 13).

#### Test Pit 3

Test Pit 3 was placed within the acequia on the east side of the work site. Excavations were in 10 cm arbitrary levels to a depth of 1.20 m below present ground level (Figs. 14 and 15). Before excavation, a backdirt area was surveyed for artifacts, but none were found (Table 5).

The artifacts recovered from Test Pit 3 are listed in Table 6.

#### Test Pit 4

Test Pit 4 was an alternative test pit for the sewer line from the Watson house (Table 7). It was placed to the south, away from the existing stone wall. This area already has a propane gas line and telephone line. The test unit was placed just north of the telephone line, where no disturbance was noticed. Four levels were excavated, and all levels exhibited some type of disturbance (Figs. 16 and 17).

The artifacts recovered from Test Pit 4 are listed in Table 8.

#### Test Pit 5

Test Pit 5 is another alternative area for the leach line. It is on a slight slope northwest of the Watson house (Figs. 18 and 19) and surrounded by trees. Five levels were excavated (Table 9).

The artifacts from Test Pit 5 are listed in Table 10.

#### DISCUSSION

The excavation of the five test pits yielded 2,484 artifacts. Numbers and manufacturing dates of artifacts, however, vary greatly within the test units. Test Pit 3 had 1,229 artifacts, while Test Pit 5 had only 47. Test Pit 3 was situated within the channel of an old acequia, and materials were obviously being washed down the channel. Artifacts here range in date from the 1930s back



Figure 8. Excavations in septic tank area.

to the 1890s. However, the bottom of the channel was not reached because of safety concerns, and deeper artifacts could extend back to the 1870s, when the acequia was first recorded. Test Pit 1 also did not reach sterile soil. Artifacts dated back to the 1890s, and earlier dates may be represented. No artifacts dated to the Lincoln County War of 1878, with the exception of a Minié ball found in Test Pit 2.

Artifact dates were assigned on the basis of the mean manufacturing date of each artifact, when known. A weighted mean date was then obtained for all artifacts in each level in each trench. All trenches indicate that trash deposition tapered off in the area behind the Watson and Fresquez houses after the 1930s. There was probably some kind of systematic processing of waste after this date, since only a relatively few modern artifacts were found.

The results of artifact analysis indicate that the Watson and Fresquez houses were used mostly as residences, except for use of the Fresquez house as a butcher shop in the late 1880s, as evidenced by the 135 butchered bones found in the test pits. Artifacts are primarily domestic in nature and confirm the use of the nearby structures as residences. They consist mostly of glass and ironstone fragments. Nails from building activities were also prevalent. Overall, the artifact assemblage is consistent with what would be expected from trash deposits of primarily residential structures dating from the late 1890s to the mid-1930s. After this date, trash was probably hauled away in vehicles.



Figure 9. Test Pit 1, showing stone wall.

Level	Depth (cm)	Description	No. of Artifacts
1	0 to 10	Loose top soil, 80 percent cobbles and small gravels.	4
2	10 to 20	Loose sandy clay with decomposing wood and roots, small to medium cobbles.	19
3	20 to 30	Sandy clay with decomposing roots and small cobbles. No wall present.	8
4	30 to 40	Clay loam with medium to small cobbles, decomposing roots.	59
5	40 to 50	Wall present. Soil is clay loam with roots and late 1930s to early 1940s artifacts.	44
6	50 to 60	Wall continues. Soil is a clay loam with small to medium cobbles and heavy root action.	61
7	60 to 70	Soil is a clay loam with heavy root disturbance with wall fall starting.	49
8	70 to 80	Clay loam with decomposing root and tree stump.	27
9	80 to 90	Clay loam with an ash lens. Root disturbance and decomposing stump.	78
10	90 to 100	More wall fall in the southwest corner. Soil clay loam with	
		decomposing stump and more cobbles present. Ash lens continued.	29
11	100 to 110	Clay loam with cobbles and root disturbance. Wall present.	22
Total			400

## Table 1. Level Descriptions and Artifact Counts, Test Pit 1



Figure 10. Privy behind Watson house, facing northwest.



Figure 11. Profile of north and east walls of Test Pit 1.



Figure 12. Batteries, not collected from Test Pit 1.

Table 2. /	Artifacts 1	from To	est Pit 1
------------	-------------	---------	-----------

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
2	1	indeterminate glass	green	1930	1954	1942	1	
		indeterminate glass	clear	1930	1954	1942	1	
		ironstone white ware	white	1884	1920	1887	2	
						Subtotal	4	1914.5 ± 27.5
4	2	indeterminate glass	clear	1930	1954	1942	10	
		indeterminate glass	green	1930	1954	1942	1	
		indeterminate glass	aqua	1880	1910	1895	1	
		coke bottle	green	1915	1954	1934	2	
		prescription bottle	purple	1880	1917	1898	1	
		indeterminate metal	-	-	-	-	2	
		roofing nail	-	1890	1954	1922	1	
		indeterminate ironstone	white	1854	1920	1877	1	
						Subtotal	19	1930.7 ± 19.8
5	3	indeterminate metal	-	-	-	-	1	
		indeterminate glass	clear	1930	1954	1942	7	
						Subtotal	8	
7	4	indeterminate glass	clear	1930	1954	1942	19	
		indeterminate glass	aqua	1880	1910	1895	7	
		indeterminate glass	brown	1880	1954	1917	3	
		indeterminate glass	purple	1880	1917	1898	4	
		coke bottle	green	1915	1954	1934	5	
		soda bottle	green	-	-	-	1	
		indeterminate ironstone	white	1854	1920	1887	5	
		metal button	-	-	-	-	1	
		copper fragment	-				1	
		indeterminate can fragments	-	1904	1954	1929	8	
		clothing rivet	-	1873	1954	1913	1	
		wire nails	-	1880	1954	1907	2	
		rooting nails	-	-	-	-	1	
		cast from stove part	-	-	-	- Subtotal	59	1921.6 ± 20.3
10	5	aluminum		1050	1054	1056	1	
10	5	indeterminate metal	-	1959	1954	1950	7	
			-	- 1830	- 1800	-	1	
		fence stanle	_	1050	1090	1000	1	
		baling wire	_	_	_		1	
		prescription bottle	aqua	1886	1886	1886	5	
		indeterminate glass	aqua	1880	1910	1895	4	
		indeterminate glass	clear	1930	1954	1942	14	
		indeterminate glass	brown	1880	1954	1917	3	
		coke bottle	areen	1915	1954	1934	1	
		7-UP bottle	areen	1930	1954	1942	1	
		mentholatum	white milko	1900	1952	1926	1	
		indeterminate ironstone	white	1854	1920	1887	1	
		indeterminate porcelain	white	1880	1954	1917	1	
		cable	-	-	-	-	1	
		shell button	white	1850	1954	1902	1	
						Subtotal	44	1919.7 ± 25.5
12	6	indeterminate ironstone	white	1854	1920	1887	1	
		porcelain plate	white	1800	1954	1877	2	
		cut nails	-	1830	1890	1860	4	
		indeterminate metal	-	-	-	-	40	
		indeterminate glass	clear	1930	1954	1942	6	
		indeterminate glass	purple	1880	1917	1898	2	
		window glass	aqua	1800	1910	1895	4	
						Subtotal	61	1900.4 ± 31.0

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
16	7	indeterminate ironstone	white	1854	1920	1887	3	
		porcelain plate	white	1800	1954	1877	2	
		crock	brown/gray	1850	1900	1875	1	
		glass bowl	clear	1876	1954	1915	1	
		prescription bottle	clear	1880	1930	1905	7	
		indeterminate glass	agua	1880	1910	1875	4	
		indeterminate glass	brown	1880	1954	1917	3	
		indeterminate metal	biowii	1000	1004	1017	22	
			-	1900	1054	1022	22	
		wire nails	-	1690	1954	1922	4	
		bailing wire	-	-	-	- Subtotal	2 49	1902.3 ± 14.6
17	8	indeterminate glass	aqua	1880	1910	1895	2	
••	Ū	indeterminate glass	clear	1930	1954	1942	5	
		indeterminate glass	nurnle	1880	1917	1898	2	
		indeterminate glass	brown	1880	1954	1000	1	
		indeterminate glass	DIOWII	1000	1994	1317	0	
		holing wire	-	-	-	-	9	
		bailing wire	-	-	-	-	2	
		wire nails	-	1890	1954	1922	3	
		indeterminate ironstone	white	1854	1920	1887	3	
						Subtotal	27	1915 ± 21.6
19	9	glass button	white	-	-	-	1	
		indeterminate glass	clear	1930	1954	1942	1	
		indeterminate glass	aqua	1880	1910	1875	6	
		indeterminate glass	nurnle	1880	1017	1808	3	
		indeterminate glass	brown	1000	1054	1030	2	
		tumbler	DIOWII	1000	1954	1917	3	
			clear	1930	1954	1942	1	
			-	1830	1890	1860	27	
		indeterminate metal	-	-	-	-	23	
		clothing rivet	-	-	-	-	1 1	
		indeterminate ironstone	white	1813	105/	1883	6	
		indeterminate ironatone	white	1013	1904	1005	1	
			white	1004	1920	1007	1	
		CFOCK	brown	1850	1954	1902	2	
		porcelain cup	white	-	-	-	1	
		bottle	clear	1930	1954	1942	1	
						Subtotal	78	1887 ± 23.2
21	10	shell button	white	1850	1954	1902	1	
		indeterminate metal	-	-	-	-	1	
		cut nails	-	1830	1890	1860	7	
		spark plug	-	1912	1914	1913	1	
		bottle	clear	1930	1954	1942	6	
		bottle	agua	1880	1910	1895	3	
		bottle	brown	1880	1954	1917	1	
		bottle	clear	1890	1954	1077	1	
		round put	cical	1000	1004	1022	1	
		indeterminete irenetene	-	-	-	-	1	
		indeterminate ironstone	white	1004	1920	1007	1	
		ironstone plate	white	1854	1920	1877	6	
						Subtotal	29	1894.8 ± 28.5
22	11	indeterminate glass	clear	1930	1954	1942	6	
		indeterminate glass	aqua	1880	1910	1895	7	
		indeterminate glass	brown	1880	1954	1017	, 1	
		indeterminate glass	nurnla	1990	1017	1909	1	
			pulpie	1000	1917	1090	1	
			-	1830	1890	1860	4	
		indeterminate ironstone	white	1854	1920	1887	3	
						Subtotal	22	1901.5 ± 28.5
Grand to	otal						400	
Signa lu							.00	

# Table 2 (continued). Artifacts from Test Pit 1



Figure 13. Test Pit 2, facing south.

# Table 3. Level Descriptions and Artifact Counts, Test Pit 2

Level	Depth (cm)	Description	No. of Artifacts
0	surface	Modern top soil. Semiconsolidated silty loam with gravels. North half only	7 173
2	10 to 20	Semiconsolidated silty loam with an increase in gravels.	89
3 4	20 to 30 30 to 40	Most of the test pit is gravel. All gravel. Sterile soil east half excavated below the gravels.	3 0
Total			272

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
9	surface	indeterminate glass	brown	1880	1954	1917	1	
		indeterminate glass	aqua	1880	1910	1895	1	
		indeterminate glass	clear	1930	1954	1942	2	
		indeterminate ironstone	white	1854	1920	1887	3	
			Winte	1001	1020	Subtotal	7	1908.1 ± 23.5
20	1	metal button	-	-	-	-	2	
	•	crown caps	_	1892	1954	1921	2	
		watch part	_	1002	-	-	1	
		iron fragment	_	-	_	-	1	
		tov jack		1966	1054	1012	1	
		wiro	-	1860	1054	1007	1	
		otoplo	-	1000	1904	1907	4	
		staple	-	-	-	-	1	
			-	1030	1090	1000	2	
		wire nails	-	1890	1954	1922	3	
		square nut	-	-	-	-	1	
		Minié ball	-	1855	1875	1865	1	
		can fragments	-	1904	1954	1927	8	
		metal tag	-	-	-	-	1	
		indeterminate ironstone	white	1854	1920	1887	1	
		ironstone sugar bowl	white	1854	1954	1887	3	
		ironstone dish	white	1854	1954	1887	3	
		indeterminate glass	clear	1930	1954	1942	74	
		indeterminate glass	blue	1930	1954	1942	1	
		indeterminate glass	aqua	1880	1930	1905	3	
		indeterminate glass	areen	1000	1050	1042	1	
		indeterminate glass	brown	1880	1054	1017	1/	
		indeterminate glass	purplo	1000	1954	1917	14	
		hottle	purpie	1000	1917	1090	1	
		bollie	brown	1933	1954	1944	21	
		bottle	brown	1940	1954	1947	1	
		liquor flask	brown	1880	1954	1917	3	
		bottle	clear	1924	1954	1939	3	
		bottle base	clear	1932	1953	1943	4	
		coke bottle	green	1916	1954	1935	4	
		7-UP bottle	green	1930	1954	1942	1	
		Clorox bottle	brown	1880	1954	1917	1	
		milk bottle	clear	1934	1954	1950	5	
		glass plate	clear	-	-	-	1	
						Subtotal	173	1931.8 ± 18.2
23	2	black rubber	-	-	-	-	5	
		metal tag	-	-	-	-	1	
		baling wire	-	-	-	-	3	
		fence staple	-	-	-	-	1	
		cut nails	-	1830	1890	1860	5	
		wire nails	-	1890	1954	1922	5	
		bracket	-	1880	1954	1917	3	
		indeterminate metal	-	-	-	-	3	
		tin	-	1904	1954	1929	1	
		bucket		1004	1004	1020	1	
		orock	- blue				1	
		crock	Diue	-	-	-	1	
			white	1004	1920	1007	2	
		ironstone plate	white	1908	1954	1931	4	
		indeterminate ironstone	white	1854	1920	1887	2	
		prescription bottle	aqua	1880	1930	1905	1	
		indeterminate glass	clear	1930	1954	1942	2	
		indeterminate glass	aqua	1880	1920	1895	11	
		indeterminate glass	purple	1880	1917	1898	4	
		indeterminate glass	brown	1880	1954	1917	15	
		bottle	amber	1873	1954	1914	3	
		bottle	brown	1940	1954	1947	2	
		Coke bottle	areen	1915	1954	1934	8	
		7-I IP bottle	areen	1930	1954	1942	3	
		liquor flask	brown	1020	1954	10/1	3	
		nquui naər	DIOWII	1929	1904	Subtotal	89	1913.5 ± 22.0
25	°	bottlo	ambor	1070	1054	1012	4	
20	3	bottle	annuer	10/3	1904	1913	1	
		buttle	ciear	1930	1954	1942	2	4000 10 -
						Suptotal	3	1928 ± 19.7
Grand to	otal						272	

## Table 4. Artifacts from Test Pit 2



Figure 14. Test Pit 3, facing south.



Figure 15. Profile of the north wall, Test Pit 3.

Level	Depth (cm)	Description	No. of Artifacts
1	0 to 10	Dark brown sandy clay with modern vegetation.	3
2	10 to 20	Dark brown sandy clay with charcoal chunks and blackened soil on the north quarter.	96
3	20 to 30	Dark brown sandy clay slightly compact with charcoal flecks and slightly lighter soil. Heavy rodent and root disturbance.	215
4	30 to 40	Soil is more compact with roots present throughout the level. Small flecks of charcoal present.	305
5	40 to 50	Soil remains the same as in Level 4.	249
6	50 to 60	The soil remains the same consistency; however, cobbles are starting to show.	147
7	60 to 70	More cobbles present, and the soil remains the same.	58
8	70 to 80	Soil is sandy clay with laminations. Cobbles are only in the first 3 cm of the level.	68
9	80 to 90	Soil remains the same as above. No cobbles.	57
10	90 to 100	Soil is the same as above; however, laminations are more apparent.	19
11	100 to 110	Soil remains the same as above; however, cobbles are present again, and the artifact frequency has declined.	5
12	110 to 120	Soil is the same; most of the artifacts come from the north half of the unit.	7
Total			1229

## Table 5. Level Descriptions and Artifact Counts, Test Pit 3

Table 6. Artifacts fro	om Test Pit 3
------------------------	---------------

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
1	1	indeterminate glass	brown	1880	1954	1917	1	
		indeterminate glass	clear	1930	1954	1942	2	
						Subtotal	3	1933.6 ± 11.7
3	2	norcelain	white	1800	1954	1887	2	
0	-	indeterminate ironstone	white	1854	1920	1892	5	
		milk glass	white	1905	1954	1927	1	
		penny		1992	1992	1992	1	
		slate	gray	-	-	-	1	
		indeterminate glass	clear	1930	1954	1942	52	
		indeterminate glass	aqua	1880	1910	1895	1	
		indeterminate glass	brown	1880	1954	1917	6	
		Indeterminate glass	purple	1880	1917	1898	1	
		Coke bottle	cieal	1910	1950	1930	1	
		window glass	aqua	1880	1910	1895	2	
		sanitary can fragments	- 1	1880	1920	1937	14	
		eyelet	-	-	-	-	1	
		buckle	-	-	-	-	1	
		cut nail		1830	1890	1860	1	
		leather					5	
						Subtotal	96	1932.1 ± 20.6
6	3	leather	-	-	-	-	3	
		rubber	-	-	-	-	5	
		cut nail	-	1830	1890	1860	1	
		wire pail	-	- 1890	- 1954	- 1922	46	
		baling wire	-	-	-	-	4	
		battery	-	-	-	-	1	
		battery core	-	-	-	-	1	
		round-head screw	-	-	-	-	1	
		buckle	-	-	-	-	1	
		shoe leather	-	-	-	-	1	
		key-strip opener		1895	1954	1914	1	
		ciotning stud	-	-	-	-	1	
		crown can	-	1893	1954	1924	1	
		ironstone bowl	white	1854	1920	1887	32	
		ironstone cup	white	1854	1920	1887	1	
		indeterminate ironstone	white	1854	1920	1887	1	
		whiskey flask	clear	1930	1954	1942	3	
		bottle	green	1930	1954	1942	1	
		Pepsi bottle fragment	red and blue	1934	1954	1944	6	
		indeterminate glass	clear	1930	1954	1942	62	
		indeterminate glass	pulpie	1880	1917	1877	10	
		indeterminate glass	brown	1880	1954	1917	7	
		jar	black	-	-	-	1	
		soda bottle	green	1934	1954	1942	2	
		Mentholatum jar	white	1906	1954	1930	3	
						Subtotal	215	1918.0 ± 25.1
8	4	indeterminate glass	clear	1930	1954	1942	90	
		indeterminate glass	cobalt blue	1802	1954	1878	2	
		indeterminate glass	light green	1880	1920	1900	3	
		indeterminate glass	green	1930	1954	1942	15	
		indeterminate glass	purpie	1000	1917	1090	17	
		indeterminate glass	adua	1880	1910	1895	11	
		indeterminate glass	black	-	-	-	2	
		Boyd's cap	aqua	1869	1910	1885	1	
		window glass	aqua	1880	1910	1885	17	
		glass marble	green	1918	1954	1936	1	
		ironstone bowl	white	1854	1920	1887	25	
		ironstone plate	white	1854	1920	1887	19	
		indeterminate ironstone	white	1854	1920	1887	9	
		rubber	writte	1000	1954	10//	2	
		leather	-	-	-	-	2	
		wire nails		1890	1954	1922	56	
		fence staple	-	-	-	-	1	
		round-head screw	-	-	-	-	2	
		baling wire	-	-	-	-	9	
		crown caps	-	1893	1954	1924	2	
		ioli-on cap	-	-	-	-	1	
		wire handle	-	-	-	-	0 1	
		centerfire cartridge		1911	1954	1932	1	
						Subtotal	305	1918.2 ± 23.0

Table 6	(continued).	Artifacts	from	Test	Pit 3	3
---------	--------------	-----------	------	------	-------	---

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
11	5	bisque doll part	pink	1891	1954	1892.5	1	
		creamware ceramic	gray	1850	1954	1902	2	
		ironstone plate	white	1813	1954	1870	4	
		ironstone bowl	white	1854	1920	1887	1	
		ironstone cup	white	1908	1954	1930	5	
		ironstone cup	white	1840	1930	1885	3	
		indeterminate ironstone	white	1854	1920	1887	2	
		vellow ware ceramic	vellow	1870	1954	1904	3	
		crock	brown	1870	1945	1904	3	
		porcelain	white	1870	1054	1012	1	
		shall button	white	1070	1004	1012	1	
		rubber gasket	WINC				1	
		lubbel gaskel					1	
		indeterminete glass		1000	1020	1015	20	
			aqua	1000	1930	1915	20	
		indeterminate glass	clear	1930	1954	1942	22	
		indeterminate glass	brown	1880	1954	1917	3	
		condiment bottle	clear	1930	1954	1942	7	
		7-UP bottle	green	1930	1954	1942	1	
		whiskey bottle	clear	1904	1954	1929	4	
		bottle	purple	1880	1917	1895.5	7	
		bottle	aqua	1880	1930	1905	8	
		Boyd's cap	white milk glass	1869	1954	1911.5	1	
		indeterminate can fragments	-	-	-	-	33	
		fence staple	-	-	-	-	1	
		buckle	-	-	-	-	1	
		clothing grommet	-	-	-	-	1	
		metal washer	-	-	_	-	1	
		brass fragment	-	-	_	-	1	
		indeterminate metal					1	
		round head screw	-	-	-	-	1	
		out pails	-	1020	1900	1960	20	
			-	1000	1090	1000	20	
		wire nais	-	1090	1954	1922	79	
		norsesnoe nalis	-	1830	1954	1892	0	4040.0 + 00.0
						Subtotal	249	1912.8 ± 23.0
13	6	indeterminate glass	brown	1880	1954	1917	8	
		indeterminate glass	aqua	1880	1910	1895	14	
		indeterminate glass	purple	1880	1917	1895.5	13	
		whiskey bottle	purple	1880	1920	1900	2	
		bottle	clear	1904	1954	1929	1	
		bottle	clear	1024	1954	1020	1	
		bottle	clear	1825	1054	1880	1	
		bottle		1020	1020	1005		
			aqua	1000	1930	1905	22	
		indeterminate ironstone	white	1906	1954	1931	2	
		Ironstone bowi	white	1840	1930	1885	2	
		crock	brown/white	1850	1900	1875	1	
		charcoal stick	-	-	-	-	1	
		can fragments	-	-	-	-	26	
		sardine can	-	1897	1954	1926	1	
		baling wire	-	-	-	-	4	
		fence staple	-	-	-	-	1	
		wire nails	-	1890	1954	1922	28	
		cut nails	-	1830	1890	1860	12	
		lead fragment	-	-	-	-	1	
		indeterminate metal	-	-	-	-	1	
		iron fragment	-	-	-	-	2	
						Subtotal	147	19.3.0 ± 19.3

30 Archaeological Testing at the Watson and Fresquez Properties

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
14	7	milk glass	white	1870	1954	1912	1	
		indeterminate glass	aqua	1880	1910	1895	4	
		bottle	green	1845	1913	1879	3	
		bottle	brown	1873	1954	1913	1	
		bottle	aqua	1880	1920	1877	12	
		bottle	clear	1930	1954	1942	8	
		mason iar	aqua	1880	1910	1895	2	
		beer bottle	amber	1873	1954	1913	7	
		clothespin	-	-	-	-	1	
		wire nails	-	1890	1954	1922	4	
		cut nails		1830	1890	1860	1	
		meat can	-	1888	1904	1896	7	
		hisque doll part	nink/white	1801	1954	1922 5	1	
		porcelain	white	1800	1054	1922.0	1	
		ironatono plato	white	1000	1054	1077	1	
		indistorminate ironatone	white	1900	1904	1931	1	
			write	1054	1920	Subtotal	58	1901.4 ± 22.8
15	8	ironstone plate	white	1888	1896	1892	1	
10	0	indeterminate ironstone	white	1885	1954	1800	2	
		rubber comb	black	1000	1004	1000	1	
		can fragments	DIACK	-	-	-	12	
		wire pails	-	1900	1054	1022	7	
			- white	1090	1954	1922	1	
		glass bullon	wille	-	-	-	07	
		indeterminate glass	amber	1873	1954	1913	21	
		indeterminate glass	clear	1930	1954	1942	4	
		indeterminate glass	blue	1930	1954	1942	1	
		bottle	clear	1928	1954	1941	1	
		bottle	green	1880	1913	1896	2	
		cough syrup bottle	aqua	1880	1890	1885	6	
		bottle	aqua	1880	1920	1895 Subtotal	3	1011 2 ± 15 7
						Subiolai	00	1911.2 ± 15.7
18	9	cut nails	-	1830	1890	1860	1	
		iron pipes	-	-	-	-	2	
		can fragments	-	-	-	-	22	
		iron fragment	-	-	-	-	1	
		indeterminate ironstone	white	1854	1920	1887	2	
		indeterminate glass	purple	1880	1917	1898.5	4	
		indeterminate glass	agua	1880	1910	1895	4	
		indeterminate glass	brown	1880	1954	1917	7	
		indeterminate glass	amber	1873	1954	1913	14	
						Subtotal	57	1906.5 ± 12.5
24	10	bottle	amber	1873	1954	1913	9	
		indeterminate glass	brown	1880	1954	1917	1	
		indeterminate glass	clear	1930	1954	1942	1	
		indeterminate ironstone	white	1854	1920	1887	2	
		can fragments	-	-	-	-	5	
		cut nails	_	1830	1890	1860	1	
				1000	1000	Subtotal	19	1907.8 ± 18.2
26	11	bottle	aqua	1880	1920	1895	2	
		indeterminate glass	amber	1873	1954	1913	1	
		indeterminate glass	brown	1880	1954	1917	1	
		can fragment	-	-	-	-	1	
		our rugmont				Subtotal	5	1905.0 ± 10.0
27	12	ironstone plate	white	1854	1920	1887	1	
		bottle	brown	1845	1913	1879	1	
		bottle	amber	1873	1954	1913	3	
		bottle	aqua	1880	1920	1895	2	
		20100	4444	1000	1020	Subtotal	7	1899.2 ± 12.8
Grand to	tal						1220	
	a la						1223	

# Table 6 (continued). Artifacts from Test Pit 3

Level	Depth (cm)	Description	No. of Artifacts
1	0 to 10	Loose sandy clay with large pieces of burned wood and charcoal.	383
2	10 to 20	Sandy clay with flat rocks and ash. Flat rocks seem to have been pushed there.	92
3	20 to 30	Soil compact and lighter in color, possibly the original surface. Clear milk bottle present below the rocks.	58
4	30 to 40	Soil more compact and artifact frequency low. Most of the artifacts have fallen in from the upper levels.	3
Total			536

Table 7. Level Descriptions and Artifact Counts, Test Pit 4



Figure 16. Test Pit 4, facing south.



Figure 17. Profile of the south wall, Test Pit 4.

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
28	1	aluminum foil		1959	1954	1956	1	
		asphalt paper	black	-	-	-	9	
		crock	buff	-	-	-	1	
		crock	buff/brown	-	-	-	1	
		ink bottle	buff/brown	-	-	-	1	
		porcelain creamer	white	1908	1954	1931	2	
		indeterminate ironstone	white	1854	1920	1887	4	
		ironstone plate	white	1854	1920	1887	2	
		Ironstone Dowi	white	1854	1920	1887	1	
		indeterminete glass	clear	1904	1954	1929	62	
		hoeterminate glass	clear	1930	1954	1942	03	
		bottle	purple	1880	1930	1905	2	
		bottle	aqua	1904	1954	1929	24	
		bottle	clear	1904	1954	1929	24 5	
		bottle	amber	1873	10/0	1947	1	
		Pensi hottle	diffuer	1073	1940	1900	10	
		soda bottle	clear/orange	1934	1954	1044	4	
		window glass	clear	1930	1954	1042	200	
		mason jar	clear	1930	1954	1042	200	
		milk glass	white	1870	1954	1012	1	
		wire nails	-	1890	1954	1922	30	
		cut nails	_	1830	1890	1860	6	
		window screening	-	-	-	-	1	
		iron fragment	_	-	-	_	1	
		metal bracket	-	-	-	-	1	
		date nail	-	1933	1933	1933	1	
		staple	-	-	-	-	2	
		centerfire long case	-	1908	1954	1931	1	
		j				Subtotal	383	1927.8 ± 14.3
32	2	indeterminate metal	_	_	-	_	11	
52	2	wire nails	_	1890	1954	1022	2	
		crock	brown	-	-	-	1	
		porcelain plate	grav	-	-	-	1	
		maiolica	polychrome	-	-	-	2	
		indeterminate ironstone	white	1854	1954	1904	5	
		milk bottle	clear	1930	1954	1942	15	
		indeterminate glass	clear	1930	1954	1942	17	
		indeterminate glass	amber	1873	1940	1906	1	
		indeterminate glass	brown	1880	1954	1917	2	
		soda bottle	clear/orange	1934	1954	1944	1	
		bottle	aqua	1880	1930	1905	12	
		bottle	aqua	1880	1913	1896	1	
		bottle	clear	1922	1937	1930	9	
		bottle	clear	1870	1954	1895	1	
		bottle	brown	1880	1954	1917	3	
		7-UP bottle	green	1934	1954	1944	1	
		cut glass	purple	1880	1920	1900	4	
		glass jar	clear	1924	1954	1939	1	
		glass marble	green	-	-	-	1	
		perfume bottle	cobalt blue	1924	1954	1939	1	
						Subtotal	92	1926.6 ± 17.4
33	3	centerfire case	-	1895	1954	1918	1	
	-	date nail	-	1933	1933	1933	1	
		wire nails	-	1890	1954	1922	7	
		cut nails	-	1830	1890	1860	1	
		indeterminate ironstone	white	1854	1920	1887	5	
		ironstone bowl	white	1820	1900	1860	1	
		indeterminate glass	clear	1930	1954	1942	14	
		indeterminate glass	aqua	1880	1910	1895	1	
		bottle	clear	1924	1937	1931	24	
		bottle	amber	1873	1940	1906	1	
		panel bottle	aqua	1880	1930	1905	1	
		Mentholatum jar	white milk glass	1870	1954	1912	1	
			Ç i			Subtotal	58	1924.3 ± 19.7
34	4	round-head screw	-	-	-	-	1	
		indeterminate ironstone	white	1854	1920	1887	1	
		bottle	amber	1873	1940	1906	1	
						Subtotal	3	1896.5 ± 9.5
Grand to	tal						536	

## Table 8. Artifacts from Test Pit 4



Figure 18. Test Pit 5, facing south.



Figure 19. Profile of the west wall, Test Pit 5.

Level	Depth (cm)	Description	No. of Artifacts
1	0 to 10	Loose clay loam with large roots and cobbles. Sparse charcoal flecks are present.	24
2	10 to 20	Soil remains the same and roots encompass the unit.	10
3	20 to 30	Compact clay with small gravels and heavy root disturbance.	13
4 Total	30 to 40	Very compact clay with no artifacts.	0 47

Table 9. Level Descriptions and Artifact Counts, Test Pit 5

Table 10. Artifacts from Test Pit 5

FS No.	Level	Artifact	Color	Begin Date	End Date	Mid-Date	Total	Mean Date
29	1	bottle	purple	1880	1920	1900	1	
		bottle	clear	1930	1954	1942	1	
		bottle	amber	1873	1940	1906	4	
		Coke bottle	green	1915	1954	1949	2	
		indeterminate glass	clear	1930	1954	1942	10	
		earthenware bowl	pink	-	-	-	1	
		milk glass	white	-	-	-	2	
		shell button	white	-	-	-	1	
		indeterminate disc		-	-	-	1	
		indeterminate key		-	-	-	1	
		-				Subtotal	24	1929 ± 16.3
30	2	bottle base	clear	1945	1954	1949	2	
		bottle	brown	1880	1954	1917	1	
		bottle	clear	1930	1954	1942	1	
		bottle	green	1934	1954	1944	1	
		indeterminate glass	amber	1873	1940	1906	1	
		indeterminate glass	aqua	1880	1910	1895	1	
		indeterminate glass	clear	1930	1954	1942	1	
		window glass	clear	1930	1954	1942	1	
		light bulb fragment	-	-	-	-	1	
						Subtotal	10	1931.7 ± 19.1
31	3	indeterminate glass	clear	1930	1954	1942	9	
		jar	clear	1924	1954	1939	1	
		ironstone plate	white	1908	1954	1931	1	
		wire nails	-	1890	1954	1922	1	
		cut nails	-	1830	1890	1860	1	
						Subtotal	13	1933 ± 21.8
Grand to	otal						47	

# **Faunal Analysis**

### Britt M. Starkovich

The faunal sample from LA 8977 consists of only 135 analyzed specimens. Five test pits were excavated at the site, but only Test Pits 1–4 yielded faunal remains. Test Pits 1, 2, and 4 are associated with residential structures, and Test Pit 3 was in an acequia. The bulk of the faunal sample is from Test Pit 3 (Table 11).

The assemblage is composed almost entirely of domestic fauna, with the exception of three bones from a rock squirrel and a vertebra from an undetermined large fish. Due to difficulties in distinguishing small fragments of sheep from goat, unspecified pieces were assigned to a generalized "sheep/goat" category, though species designations were made whenever possible. About 40 percent of the specimens could only be identified to different size classes of ungulate, though it is likely that the categories "large ungulate" and "small ungulate" represent cattle and sheep/goat, respectively. Cattle and sheep/goat dominate the identifiable component of the remains, but domestic chicken and a fragment of eggshell are also present. On a whole, the assemblage is fairly fragmented: 82 percent of the remains are less than 10 percent complete. Environmental damage is relatively common: over 20 percent of the assemblage shows signs of environmental alterations, especially exfoliation. Animal damage and burning are fairly infrequent. Roughly 30 percent of the remains have evidence of human butchering, and most of the butchery corresponds to meat cuts still used today (Ashbrook 1955). The sample size is small, and the stratigraphic context is probably mixed, so only some very basic observations will be made.

#### TEST PIT ASSEMBLAGES

Test Pit 1

Though the sample size of Test Pit 1 is small, it is one of the most diverse pits in terms of animal species, including cattle, sheep/goat, chicken, and fish. The remains are less fragmented than those in the other pits, with 66 percent less than 10 percent complete, and only one complete element. Less than 15 percent of the sample shows signs of weathering, and no animal damage is apparent on the remains. In terms of human modifications, only one specimen is burned, and over 30 percent are butchered.

#### Test Pit 2

Only six specimens were found in the largely sterile Test Pit 2. One is from an undetermined large bird, and the rest likely belonged to sheep/goat or cattle. All of the bones are highly fragmented, and only one does not display environmental damage. The weathered bones are all exfoliated, which often results from exposure to the elements. One bone was damaged by carnivores. None of the remains are burned, and one is butchered.

## Test Pit 3

As mentioned above, Test Pit 3, the acequia, has the largest faunal sample (n = 81). The diverse remains include cattle or large ungulate, sheep/goat or small ungulate, chicken, and rock squirrel, the only nondomestic mammal from the entire site. Due to a lack of burning or butchering on the squirrel remains, it is likely that it was intrusive to the site and not utilized as food. Environmental damage is common, particularly exfoliation, and occurs on about 25 percent of the remains. No animal alterations are apparent, and burning is fairly infrequent. Human butchery is common; about a quarter of the sample is processed.

#### Test Pit 4

The only species represented in the small sample of Test Pit 4 are cattle or large ungulate and sheep/goat or small ungulate. The remains are highly fragmented, and two of the specimens are

	Tes	st Pit 1	Tes	st Pit 2	Tes	st Pit 3	Tes	st Pit 4	Т	otal
	n =	%	n =	%	n =	%	n =	%	n =	%
Common name										
Rock squirrel	-	-	-	-	3	3.7%	-	-	3	2.2%
Large ungulate	1	3.1%	2	33.3%	18	22.2%	3	18.8%	24	17.8%
Cattle	12	37.5%	1	16.7%	19	23.5%	6	37.5%	38	28.1%
Small ungulate	4	12.5%	1	16.7%	23	28.4%	3	18.8%	31	23.0%
Domestic sheep	1	3.1%	-	-	-	-	-	-	1	0.7%
Domestic sheep or goat	9	28.1%	1	16.7%	8	9.9%	4	25.0%	22	16.3%
Large bird	1	3.1%	1	16.7%	-	-	-	-	2	1.5%
Domestic chicken	3	9.4%	-	-	9	11.1%	-	-	12	8.9%
Eggshell	-	-	-	-	1	1.2%	-	-	1	0.7%
Large fish	1	3.1%	-	-	-	-	-	-	1	0.7%
Total	32	100.0%	6	100.0%	81	100.0%	16	100.0%	135	100.0%
Completeness										
<10%	21	65.6%	6	100.0%	68	84.0%	15	93.8%	110	81.5%
10-50%	10	31.3%	_	_	5	6.2%	-	_	15	11.1%
50-75% complete	-	-	-	-	2	2.5%	-	-	2	1.5%
75-95% complete	-	-	-	-	2	2.5%	1	6.3%	3	2.2%
Complete	1	3.1%	-	-	4	4.9%	_	-	5	3.7%
Total	32	100.0%	6	100.0%	81	100.0%	16	100.0%	135	100.0%
Environmental alteration			-		•					
None	28	87.5%	1	16 7%	61	75.3%	14	87.5%	104	77.0%
Pitting/corrosion	-	-	-	-	1	1.2%	-	-	1	0.7%
Sun bleached	-	-	-	-	2	2.5%	-	-	2	1.5%
Checked/exfoliated	2	6.3%	5	83.3%	14	17.3%	2	12 5%	23	17.0%
Root etched	2	6.3%	-	-	3	3.7%	-	-	5	3.7%
Total	32	100.0%	6	100.0%	81	100.0%	16	100.0%	135	100.0%
Animal alteration	02	100.070	Ŭ	100.070	01	100.070	10	100.070	100	100.070
Not applicable	32	100.0%	5	83.3%	81	100.0%	14	87.5%	132	97.8%
Carnivore		100.070	1	16.7%	-	-	2	12.5%	3	2.2%
Total	32	100.0%	6	100.0%	81	100.0%	16	100.0%	135	100.0%
Burn type	02	100.070	Ū	100.070	01	100.070	10	100.070	100	100.070
Unburned	31	96.9%	6	100.0%	77	95.1%	15	93.8%	129	95.6%
Discard burn	1	3 1%	-	100.070	л Л	4 9%	1	6.3%	6	4.4%
Total	32	100.0%	6	100.0%	91	100.0%	16	100.0%	135	100.0%
Brocossing	52	100.070	0	100.070	01	100.070	10	100.070	100	100.070
None	22	68.8%	5	83.3%	61	75 3%	0	56 3%	07	71 0%
Chops	22	00.070	5	05.570	1	1 20/	9	50.576	1	0.7%
Substantial out	-	-	-	-	1	1.2 /0	-	-	1	0.7%
Sawa through	- 7	21.0%	-	-	0	1.2 /0	- 2	18.8%	20	1/ 8%
Dofloching	1	21.9%	1	10.7 %	9	2 50/	2	10.070	20	14.070
Stock abon or roast cuts	1 2	5.170	-	-	2	2.0%	3	10.0%	5	4.470 2 70/
Steak, chop, or roast cuts	2	0.3%	-	-	3 1	3.170	-	-	5	3.1 % 2 70/
Total	- 32	-	-	-	4 Q1	4.9%	16	100.0%	135	3.7 % 100.0%
	52	100.070	U	100.070	01	100.070	10	100.070	155	100.0 /0

Table 11. Bone Recovered from Test Pits (count and column percentage)

weathered, while two display carnivore damage. Only one specimen is burned, and almost half of the remains are butchered.

## AREA COMPARISONS

Because some of the samples are extremely small and likely come from mixed sediments, area comparisons are not particularly instructive. Species representations and the frequency of most taphonomic observations are not significantly different between the four test pits. The sample from Test Pit 3 is much more heavily weathered than those from the other areas, with the exception of Test Pit 2, which has an exceptionally small sample. Test Pit 3 also has a wider range of different kinds of weathering processes. This may be the result of a larger sample (as sample size increases, so generally does diversity, to a certain point), or it may be from the processes that acted on the bones as they moved through the acequia and were then deposited in a wet environment. Overall, however, little can be said in terms of large differences between the four pits.

## SPECIES UTILIZATION

Evidence of human taphonomic processes, such as butchery patterns, are very informative when interpreting a faunal assemblage. The selection of specific animals for consumption is also important, which can be understood by looking at the age profiles of the animals at a site. Because LA 8977 is a historic site, an analysis of body part profiles in the classic sense is not necessarily the best strategy. In many historic situations, meat was often purchased as specific cuts, evidenced by smooth, well formed cuts that were probably made by butchers. Because meat was acquired in this way, body-part profiles that look at specific elements are not as useful as those that consider meat cuts.

Examining historic cuts of meat at a site can be very useful for understanding the economic situations of the people depositing the remains. In the case of LA 8977, the sediments were probably mixed, and the representation of meat cuts seems to reinforce this. Schulz and Gust (1983)

construct a ranking system for beef cuts based on the relative prices at the turn of the nineteenth century in Sacramento, California, that has been widely applied to other historic faunal data sets in the western United States. Using this system, most of the cuts of meat at LA 8977 were expensive (n = 5), followed by moderately priced (n = 5)3) and cheap cuts (n = 2) of meat. Though this price based construction is useful, Lyman (1987) argues that simple price rankings are not necessarily the best tool for interpreting historic faunal data. Rather, cost efficiency based on price per pound and pound of edible meat for each beef cut was probably more logical for the price conscientious consumer. In terms of cost efficiency, most of the cuts of meat from LA 8977 were moderately cost efficient (n = 5), followed by cuts with low cost efficiency (n = 3) and the most cost efficient cuts (n = 2). As is apparent in Table 12, the relative cost efficiency of meat cuts in the test pits is variable, and there is no clear pattern in any of the pits. This is likely due to the small sample size and the mixed sediments at the site.

The ages of animals utilized at an historic site are indicative of the kinds of meat that were being eaten-for example, if lamb or mutton were preferred, or if veal were eaten instead of older cattle that were culled after they were no longer useful for milk or breeding. Animal age can be determined by the fusion of long-bone ends, which fuse at a known, predictable rate, and by tooth eruption and wear, also a well documented process (Hillson 2005; Schmidt 1972; Silver 1970; Reitz and Wing 1999). Age data for LA 8977 are presented in Table 13.

Test Pits 1 and 4 contain the remains of cattle younger than 108 months. It is likely that two different animals were represented because they were found in different areas that span several decades. The remains of cattle older than 84 months were found in Test Pit 3, which is indicative of the slaughter of an animal once it was several years past its prime (Ashbrook 1955). Test Pit 1 yielded the remains of a sheep/goat younger than 42 months, and a sheep/goat older than three months was in Test Pit 3. A sheep/goat mandible with a second premolar found in Test Pit 3 is indicative of an animal younger than 24 months (Silver 1970). A portion of a mandible belonging to a very young animal was found in Test Pit 4. Overall, little can be said about animal

Test Pit	Species	Cut	Number of Cuts	Column %	Relative Cost-Efficiency Ranking	Cost Efficiency
1	Cattle	Round Arm Sirloin Brisket Total	1 1 2 1 5	20.0% 20.0% 40.0% 20.0% 100.0%	4 5 9 12	high moderate Iow Iow
1	Domestic sheep or goat	Rack	2	100.0%		
3	Cattle	Round Rib Short loin Short rib Total	1 1 2 1 5	20.0% 20.0% 40.0% 20.0% 100.0%	4 7 8 10	high moderate moderate low
3	Domestic sheep or goat	Leg Loin Shank Total	1 1 2 4	25.0% 25.0% 50.0% 100.0%		
4	Cattle	Rib Short loin Short rib Total	1 1 1 3	33.3% 33.3% 33.3% 100.0%	7 8 10	moderate moderate low
4	Domestic sheep or goat	Shoulder	1	100.0%		
All	Cattle	Round Arm Rib Short loin Sirloin Short rib Brisket Total	2 1 2 3 2 2 1 13	15.4% 7.7% 15.4% 23.1% 15.4% 15.4% 7.7% 100.0%	4 5 7 8 9 10 12	high moderate moderate moderate low low low
All	Domestic sheep or goat	Leg Loin Rack Shank Shoulder Total	1 1 2 2 1 7	14.3% 14.3% 28.6% 28.6% 14.3% 100.0%		

## Table 12. Frequency and Cost-Efficiency of Meat Cuts in Test Pits

After Ashbrook (1955)

exploitation based on age because of the small sample size.

### Conclusions

Interpreting the small amount of faunal remains from LA 8977 is problematic due to a lack of integrity in the stratigraphic context. Overall, LA 8977 is a typical historic site in New Mexico, dominated by cattle, sheep/goat, and chicken. The cuts of meat are as expected for a site from this time period, containing a range of cuts of all levels of cost efficiency. If anything, the cuts are less cost efficient than expected if the consumers were on the low end of the economic scale. The ages of the animals present at the site span from very young to a fairly old animal in the case of the cattle remains from Test Pit 3. No patterns are apparent between the different test pits at the site.

Test Pit	Species	Element	Age at Fusion (months)	No. of Unfused Bones	No. of Fused Bones
1	Cattle	Lumbar vertebra	84-108	1	0
1	Domestic sheep or goat	Distal femur	36-42	1	0
3	Cattle	Lumbar vertebra	84-108	0	1
3	Cattle	Thoracic vertebra	84-108	0	1
3	Domestic sheep or goat	Distal humerus	3-10	0	1
4	Cattle	Thoracic vertebra	84-108	1	0

## Table 13. Bone Fusion

# Conclusions

The purpose of the testing program was to determine if there were any significant cultural resources in the area where Lincoln State Monument personnel proposed to place a new septic tank and lines to service both the Watson and Fresquez houses within LA 8977. The first plan was to place three test pits in the areas selected by Murray Arrowsmith. Test Pit 1 was placed where the sewer line from the Watson to the new septic will run. A wall built in the 1930s was uncovered, and the unit proved to have deep deposits of cultural materials (Fig. 20). Test Pit 2 was place downslope from the houses and did not have deep cultural materials present; all were on the surface or just below the surface. This unit lacks features. Test Pit 3 was placed in the 1878 acequia and also contained deep deposits. A new plan was proposed whereby two test pits were added. Test Pit 4 was placed between the Watson and Fresquez houses, where existing gas and telephone lines are present. The placement of the test unit was along the proposed sewer line from the Watson house. This area was disturbed from the surface to 40 cm depth. The disturbance may have been from machine blading during leveling, pushing the soils with artifacts into this area. Test Pit 5 was another additional unit for the leach line. Instead of the leach line heading east, as originally planned, it will now go west. Cultural deposits in this unit were shallow, with heavy root disturbance. Artifacts found below the roots have probably filtered down.

The tests determined that most of the area has been disturbed. In Test Pit 1, the cultural deposits are deep, suggesting that the upper 40 cm of fill are from some type of mechanical blading or backfilling. Below that, the deposits are still intact and probably have been there from the time of the Lincoln County War, when the McSween house was standing, to 1887, when the Fresquez house was built. The acequia was in use from 1878 until 1940, when the Rio Bonito flooded its banks. It is downhill from the Fresquez house, which is still occupied. The house was once used as butcher shop, which explains the butchered bone throughout the site area. The artifacts from the test pits show overall that the lower deposits are older than those from the upper levels. However, it is not possible to accurately date the test pit levels because of the extensive chronological mixing of artifacts and scarcity of datable artifacts in some levels. Mean dates for the various levels within the test pits range from 1887 to 1933.

The mixed artifact types and their imprecise manufacturing dates indicate that these deposits do not have the potential to yield significant information on the Fresquez and Watson houses, residential and commercial occupations, and the town of Lincoln. It is recommended that clearance for the new septic and line alignment project for the Lincoln State Monument be granted. However, care should be taken to avoid the retaining wall and the acequia. If any future activity should affect these areas, a data recovery plan needs to be put into action.

In summary, archaeological testing at the Watson and Fresquez houses revealed two previously unknown features near these buildings—a stone retaining wall and an acequia. The only record of the acequia is an 1878 map of the area. The artifacts have been analyzed and dated. We do not believe that the project area has the potential to yield further significant information on local history. Provided that these two features are avoided, archaeological clearance is recommended.



Figure 20. Stone wall with privy in the background, facing west.

# **References Cited**

Ashbrook, Frank G.

1955 Butchering, Processing and Preservation of Meat: A Manual for the Home and Farm. Van Nostrand Reinhold, New York.

Basehart, Harry W.

1974 Mescalero Apache Subsistence Patterns and Sociopolitical Organization. In *Apache Indians*, vol. 12. Garland Publishing, New York.

Beck, Colleen M.

1980 Mitigation of ENM 10484 for the Proposed Lincoln County Visitor Center. Llano Estacado Center for Advanced Professional Study and Research, Eastern New Mexico University, Portales.

Caperton, Thomas

1983 Historic Structure Report, Lincoln State Monument, Lincoln, New Mexico. Office of Cultural Affairs and Historic Preservation Division, Santa Fe.

Coe, George W.

1951 Frontier Fighter: The Autobiography of George C. Coe. 2nd ed. University of New Mexico Press, Albuquerque.

Cremony, John C.

1868 *Life among the Apaches*. University of Nebraska Press, Lincoln.

Dart, Al

1980 Vegetation and Plant Resources. In A Cultural Resource Management Plan for Timber Sales and Forest Development Areas on the Mescalero Apache Indian Reservation, vol.
1, edited by B. Harrill, pp. 19–35. Forestry Archaeological Program, Bureau of Indian Affairs, Albuquerque.

Dudley, N. A. M.

1878 Map in *Historic Structure Report, Lincoln State Monument, Lincoln, New Mexico,* by Thomas Caperton. Office of Cultural Affairs and Historic Preservation Division, Santa Fe.

Fenneman, Nevin M.

1931 *Physiography of Western United States.* McGraw-Hill, New York.

Fulton, Maurice G.

1954 Adventures and Exploits of Pecos Pioneers. 5th Field Conference, Geological Society.

Greenly, Dee Dwight

1986 The Military Career of Nathan Augustus Monroe Dudley, 1843–1889. M.A. thesis, History Department, New Mexico State University, Las Cruces.

Hart, Linda P.

1989 The Restroom Project, Lincoln County Courthouse, Lincoln, New Mexico. Human Systems Research, Tularosa.

Henn, Nora

1982 History of Lincoln State Monument. On file, New Mexico State Monuments, Santa Fe.

Hillson, Simon

2005 *Teeth.* Cambridge University Press, Cambridge.

Keleher, William A.

- 1952 *Turmoil in New Mexico, 1846–1868.* University of New Mexico Press, Albuquerque.
- 1982 Violence in Lincoln County, 1869–1881. 2nd ed. University of New Mexico Press, Albuquerque.

Kirkpatrick, David T., and Linda P. Hart

1989 Archaeological Test Excavations at the Alexander McSween Site, Lincoln State Monument, Lincoln County, New Mexico. Human Systems Research, Tularosa.

Lavash, Donald R.

1986 Sheriff William Brady, Tragic Hero of the

*Lincoln County War*. Sunstone Press, Santa Fe.

Lyman, R. Lee

1987 On Zooarchaeological Measures of Socioeconomic Position and Cost Efficient Meat Purchases. Historical Archaeology 21(1):58–66.

Maker, H. J., M. T. Turner, W. B. Gallman, and J. U. Anderson

1971 Soils Associations and Land Classification for Irrigation, Lincoln County, New Mexico. New Mexico State University, Agricultural Experiment Station Research Report 212.

McCright, Grady E., and James H. Powell

1983 *Jessie Evans: Lincoln County Badman.* Creative Publishing, College Station, Texas.

Mullin, Robert N.

1968 Maurice Garland Fulton's History of the Lincoln County War. University of Arizona Press, Tucson.

Nolan, Frederick W.

1965 *The Life and Death of John Henry Tunstall.* University of New Mexico Press, Albuquerque.

Oakes, Yvonne R.

- 1983 The Ontiberos Site: A Hispanic Homestead near Roswell, New Mexico. Laboratory of Anthropology Notes 311. Museum of New Mexico, Santa Fe.
- 1986 Archaeological Testing at Three Historic Sites at Lincoln State Monument, Lincoln County, New Mexico. Laboratory of Anthropology Notes 357. Museum of New Mexico, Santa Fe.

Reitz, Elizabeth J., and Wing, Elizabeth S.

1999 *Zooarchaeology*. Cambridge Manuals in Archaeology, University Press, Cambridge.

Schermer, Scott

1980 Testing of ENM 10484 for the Proposed Location of a Visitors Center by the Lincoln County Heritage Trust. Llano Estacado Center for Advanced Professional Study and Research. Eastern New Mexico University, Portales.

Schmidt, E.

1972 Atlas of Animal Bones for Prehistorians, Archaeologists, and Quaternary Geologists. Elsevier Science Publishers, Amsterdam.

Schulz, Peter D., and Sherri M. Gust

1983 Faunal Remains and Social Status in 19th Century Sacramento. *Historical Archaeology* 17(1):43–53.

Silver, I. A.

1970 The Ageing of Domestic Animals. In *Science and Archaeology: A Survey of Progress and Research,* 2nd ed., edited by D. R. Brothwell and E. S. Higgs, pp. 283–302. Praeger Publishing, New York.

Taylor, Michael

- 1983 Archeological Monitoring of the Installation of Septic Tanks at the Watson House and Fresquez House, Lincoln State Monument. On file, New Mexico State Monuments, Santa Fe.
- 1984 Archeological Investigation for Installation of French Drain, Tunstall Store, Lincoln State Monument. On file, New Mexico State Monuments, Santa Fe.
- 1986 The Watson House. In Archaeological Testing at Three Historic Sites at Lincoln State Monument, Lincoln County, New Mexico, by Yvonne R. Oakes, pp. 54–59. Laboratory of Anthropology Notes 357. Museum of New Mexico, Santa Fe.

Terrell, John Upton

1974 *Apache Chronicle*. Thomas Y. Crowell, New York.

Tuska, Jon

1983 *Billy the Kid, a Bio-bibliography.* Greenwood Press, Westport, Connecticut.

Utley, Robert M.

1986 Four Fighters of Lincoln County. University of New Mexico Press, Albuquerque.

Wilson, John P.

1987 Merchants, Guns and Money: The Story of Lincoln County and Its Wars. Museum of New Mexico Press, Santa Fe.