

MUSEUM OF NEW MEXICO

OFFICE OF ARCHAEOLOGICAL STUDIES

**TESTING AND MAPPING AT LA 110300,
A MULTI-USE HISTORIC SITE IN THE ANIMAS RIVER
VALLEY, NEW MEXICO**

**Natasha Williamson
H. Wolcott Toll**

**Submitted by
H. Wolcott Toll**

ARCHAEOLOGY NOTES 269

ADMINISTRATIVE SUMMARY

The New Mexico State Highway and Transportation Department (NMSHTD) is engaged in a multiphase project (CN 3000) to widen and straighten U.S. 550 from the city of Aztec north to the Colorado-New Mexico state line. The project was surveyed for archaeological resources by Cibola Research (Marshall 1996). This survey located six sites that were recommended for testing, five of which were tested in 1998 (Toll 1999). This report covers testing of the sixth site, LA 110300, a historic site near the Colorado border. This site straddles a section line; it is privately owned south of the section line outside the right-of-way and it is state land north of the line. Funds provided by the NMSHTD and Federal Highway Administration were used for this project.

Testing was performed on this site within the proposed U.S. 550 right-of-way and mapping and artifact assessment were performed outside the new corridor. The fieldwork on this site was performed by Richard Montoya, Natasha Williamson, and H. Wolcott Toll (project director) from August 10 through 12, 1999. Recording consisted of walking the site area at close intervals to locate artifacts and features, preparing a map, recording surface artifacts, and placing auger tests within the project limits.

Interviews with valley residents and recording cultural remains indicate the site area was used over a number of years, primarily in the twentieth century. Primary among these uses are as a livestock camp, an area adjacent to a one-room school, and a probable trash dump. The site is considerably larger—140-by-110 m—than the original survey indicated. Although there is a large number of artifacts on the surface of the site, cultural material is scarce within the project limits. Auger tests gave no indication of subsurface cultural materials within the project limits, and it is our opinion that land modifications within the project and will not affect cultural remains.

Contract C03783/99/L
MNM project 41.682, On-Call U.S. 550 Riverside
NMSHTD project NH-550-1(29) 14, CN 3000, District 5
5/5/99 plan: project NH-550-1(36) 25, CN 3329

CPRC Annual Survey Permit No. NM-99-027

Table of Contents

Administrative Summary	ii
Introduction: Cultural and Physical Setting	1
Site Background	3
Methods	5
Features and Artifacts	6
Artifact Scatter 1	6
Artifact Scatter 2	10
Artifact Scatter 3	12
Artifact Scatter 4	14
Artifact Scatter 5	14
Feature 1	17
Feature 2	18
Feature 3	18
Feature 4	20
Rock Alignment	20
Point-Provenienced Artifacts	21
Auger Testing	24
Discussion	26
Assessment	27
References Cited	28
Appendix 1. Legal Description and Site Location Maps (removed from copies in general circulation)	31

Figures

1. Location of LA 110300 in relation to historic and modern settlements and features	2
2. LA 110300 showing locations of features, artifact scatters, auger tests, and topography	4
3. Artifact Scatter 1, showing dense area of cans and other materials on the arroyo bank	7
4. Artifact Scatter 2, showing the variety of materials	7
5. New Perfection kitchen range and post at the center of Artifact Scatter 3	13
6. Artifact Scatter 4, one of several dense coal dumps	15
7. Kerosene reservoir located in Artifact Scatter 5	15
8. Overview of the central portion of LA 110300, showing the posts and boulders	17
9. Gate posts to the larger pen in Feature 1	18
10. Feature 2, initials PAW and HOP carved into tall boulder at the west edge of the site	19
11. Edge of the depression which constitutes Feature 3	19
12. Rock alignment near the arroyo at the north edge of the site	20
13. Base of a Dietz Torch; the burner and another piece of metal remain inside	23

Tables

1. Point proveniences by angle and distance from site datum 23
2. Results of auger tests at LA 110300 25

INTRODUCTION: CULTURAL AND PHYSICAL SETTING

LA 110300 is located west of the Animas River and U.S. Highway 550, not far south of the Colorado-New Mexico border. Extensive irrigated fields and increasing settlement by modern houses now characterize this part of the Animas Valley. The former Rio Grande Railroad siding of Riverside, less than 1 km to the north, gave the area its name. This part of the Animas Valley and its immediate vicinity seem to have been frontier-like ever since the Pueblo I period, around A.D. 800. During Pueblo I, significant occupation was present in tributaries of the Animas, notably Cox Canyon, which enters the Animas at Cedar Hill around 5 km south of LA 110300 (Wilshusen and Wilson 1995), and in Ridges Basin near Durango, about 25 km to the north (Fig. 1; Fuller 1988).

Although there were certainly European intrusions into the area during the Spanish and Mexican periods, little is known of settlement prior to the U.S. period beginning in 1846 (Ruppé and Wilshusen 1995). Many of the earliest settlers were Hispanic, followed closely by Anglo settlers. H. W. Cox settled in the Cedar Hill area in 1876 (Ruppé and Wilshusen 1995). Riverside and the railroad were established in 1905. The town of La Posta, around 16 km north of LA 110300, is thought to have been the place where the “Ute Trail” or “old Spanish Trail” left the Animas for the La Plata Valley (Ruppé and Wilshusen 1995). In addition to its importance as a permanently watered valley, the Animas was and is an important route for getting from one place to another. Thus, it provided access from the farms of the Farmington area to the mines of the Colorado high country, as embodied by the Denver and Rio Grande narrow gauge line established in 1905. Similarly, it forms a route from lower winter pasture to higher summer pasture for cattle and sheep. The presence of pens and evidence of ephemeral habitations—tents or herders’ trailers—at the site attest to this being one of the primary uses of the site.

Riverside is now shown by the USGS on the Cedar Hill quadrangle as being just north of the port-of-entry weigh station, which is just north of LA 110300. The 1956 1:250,000 USGS map, however, shows Riverside on the railroad line and to the southeast of the port-of-entry. Since Riverside was railroad related, and since the railroad was still in use in 1956, the location to the southeast is more likely to be correct. As pointed out by Marshall (1996:41), the abandoned building in the location identified by the USGS as Riverside bears the name Clarkdale.

The site is located on a gently sloping fan at the base of a boulder-strewn talus. The sandstone cliff rises about 30 m above the talus to the rugged country between the Animas, the Farmington Glade, and the La Plata Valley. The terrain rises 275 m in less than 2 km from the site to the northwest. The site surface slopes from west to east, and is covered by a dense growth of sage. The plants range from 1 m high away from the talus base to nearly 2 m high toward the base of the talus. The talus is wooded, primarily with junipers, but some piñon is interspersed. There is saltbush on the site as well, but the dominant vegetation is sage. The northern edge of the site is formed by a substantial drainage fed by runoff from the cliff top. The north edge of the site is formed by a substantial drainage fed by a pour-off from the cliff top, and the south edge by where the small rincon, in which the site is located, merges with the main valley. The north end of the site is more open and more nearly flat, while the south end has more slope. The greater slope of the south end of the site is apparent because of the presence of recently deposited material washed from the talus during this rainy year. Cultivated floodplain fields stretch from the east side of the highway to the river.

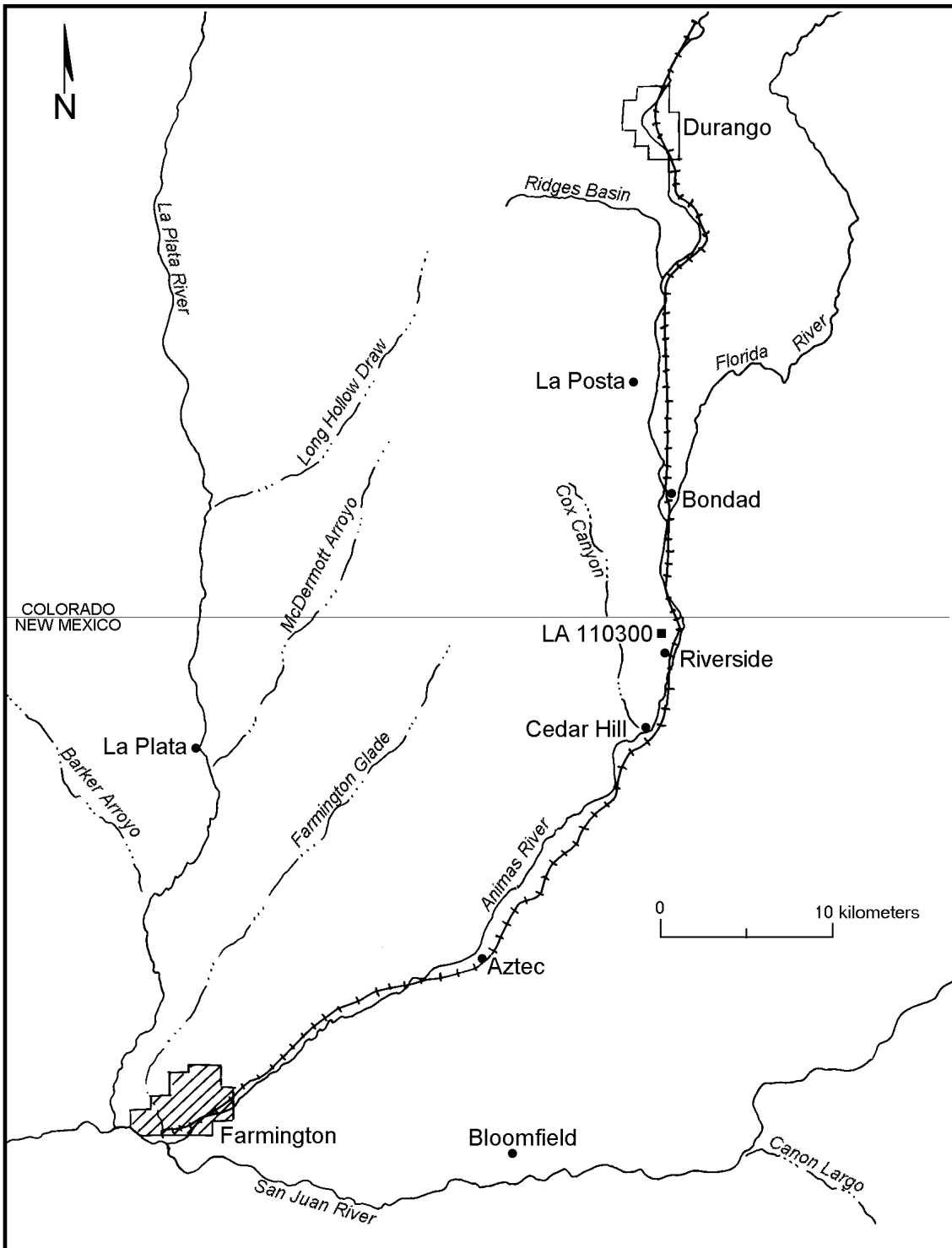


Figure 1. Location of LA 110300 in relation to historic and modern settlements and features mentioned in the text, including the railroad line from Farmington to Durango. Riverside was a siding on that rail line.

SITE BACKGROUND

LA 110300 is a multicomponent historical site that seems to have an effective end date of 1963 when the then-new highway alignment made a steep cutbank that blocked vehicular access to the site. However, except for a very few beverage cans and bottles from that era, it seems that the site was not actively used past circa 1950 (Fig. 2).

Conversations with landowners and their family members and Aztec residents indicated at least three activities at the site. We wish to thank Mr. Jerry Stiffler of Aztec, Mary and John Friend, landowners, and Mary's father, Mr. John Ross of Farmington, for their time, interest, and information. Mr. Stiffler supplied the information that the sheepherders traveled in and lived out of wagons for the most part, later switching to trucks. Most of the herders were Navajo or Hispanic. The sheep were wintered in the Aztec area, with camps along the rim of the mesas bordering the Animas River. Then the sheep were driven back to the high country of Colorado for the summer. Mr. Stiffler said this seasonal round may have persisted for a century or more. Increasing development of the area impinged on the drive until it was no longer practicable. The practice evidently ceased sometime after World War II, perhaps by 1950. Most of the artifacts at the site are related to the end of this era.

The area was ideally suited for a sheep camp. The arroyo is formed by water that falls from the canyon rim, often in quantities large enough to make a true waterfall. It might have been possible to dig or dam a pool. In any case, the Animas River is close by, and grazing would have been good in the valley. The canyon rim offered shelter from the wind, and extra warmth stored in the sandstone rocks would have been useful for a lambing pen. Feature 1 could have served for delivering and caring for lambs.

Mr. Ross stated that his parents bought the place across the road from the site in 1941, and the sheep camp was still in operation. In the 1940s, the sheep were owned by an Anglo, whose name Mr. Ross recalled as Mr. Black. The herders always asked his father's permission to camp there, and usually presented the family with a gift of meat. The meat was not mutton, but usually elk. Mr. Ross recalled that one could sit on the steps of the schoolhouse and shoot a deer almost any evening.

Mr. Ross also stated that it was possible to find black-on-white prehistoric pottery on the site, which evidently washed over the mesa rim from a site somewhere nearby. Both of the prehistoric artifacts found during this project were on the arroyo side of the site, leaving their method of arrival on the site ambiguous.

Contemporary with the main use as a sheep camp, and perhaps prior to that, there was a schoolhouse, not in Section 16, as might be thought, but on an acre in Section 21, donated by two local landowners. After the school ceased operation (at some time yet unknown), the county gave permission for local landowner Mrs. Bonds to use the building for a reading circle. At that time, according to Mr. Ross, the building appeared on the County Assessor's map as the Riverside Study Club. The name Riverside is evidently a transfer from the railroad stop nearby of the same name. Mr. Ross stated that the building was concrete or concrete-covered adobe and had two rooms. When the road was replaced in 1963, the county, instead of returning the land to the original landowners, deeded it to the State of New Mexico. Since it was in the road corridor, the school building was then demolished. Presumably, no archaeology was done at the time because the site was considered too modern and many environmental requirements were not yet in place.

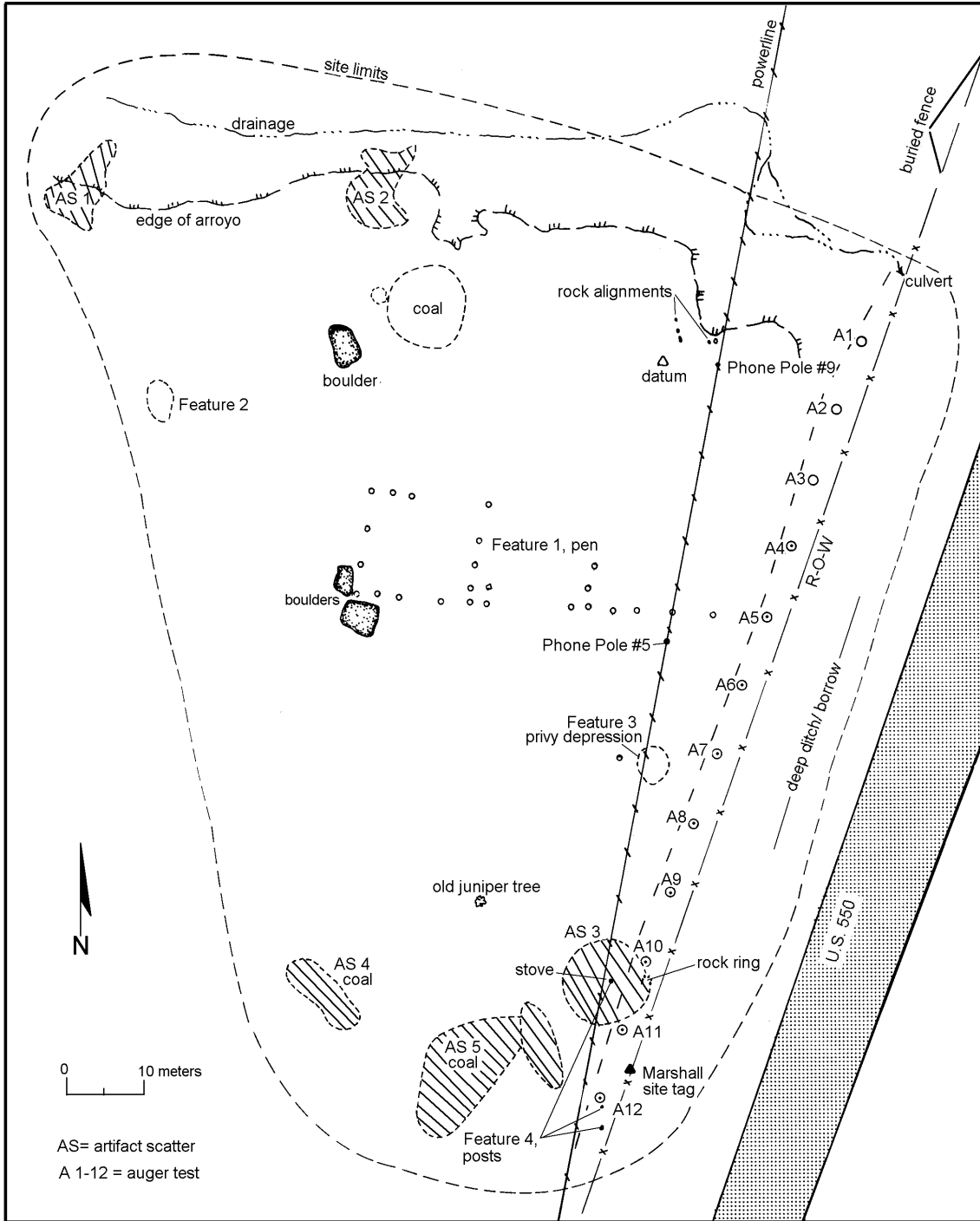


Figure 2. LA 110300 showing locations of features, artifact scatters, auger tests, and topography.

METHODS

We mapped this site using a traditional optical transit and stadia rod. This approach was hampered somewhat by the slope of the site and the size of the sagebrush, but was preferable to using a tape measure. We point-provenienced 20 artifacts using this technique, as well as a number of natural and cultural features, including fences and corral posts, the drainage, and the highway. Having established a base map in this way, we plotted a number of objects and features using tape measurements from known points. Field sketch maps of five areas containing increased cultural material and features were prepared and are on file with the Archeological Resource Management Section (ARMS) in Santa Fe.

Within the large, diffuse artifact scatter that represents LA 110300 are several clusters with higher densities of artifacts. While some of these seem to have some chronological integrity, others are probably artifacts of mapping and physical proximity. Five areas were defined and three were mapped using a Suunto sight-through compass and tape. Artifact Scatters 1 and 2 are in the northwest corner of the site; Artifact Scatter 3 is near the highway on the southeast side of the site, and Artifact Scatters 4 and 5 are on the south end of the site. In addition, three features and a rock alignment were mapped. Many artifacts in the general scatter were point-provenienced and are referenced by their mapping point number. A list of these will be found following the discussion of the more focused areas and in Table 1.

During and following mapping, Williamson inventoried artifacts by artifact scatter and feature. A series of auger holes was placed at 10 m intervals on the portion of the site within the proposed project area. The depth and soil composition of each auger hole was recorded.

The Museum of New Mexico uses a function-based analytical system that has eleven categories, including Economy and Production, Foodstuffs, Indulgences, Domestic Routine, Furnishings, Construction and Maintenance, Personal Effects, Entertainment and Leisure, Transportation, Communication, and Unidentifiable. Although the artifacts at LA 110300 were only inventoried and not formally analyzed, the analytical categories make a useful framework for discussion.

It would certainly be possible to glean much more information from this site, especially through analyzing the cans. Many have at least part of the label still visible, either directly or as a "ghost," where the lithography colors have worn off but left an image behind caused by differential rusting rates. However, the time involved in such an effort is outside the scope of this project, especially because most of the site is not within the highway right-of-way.

FEATURES AND ARTIFACT ANALYSIS

Prominent features of the site are a number of coal scatters of varying size and density. The scatters are more numerous and contain more coal on the south end of the site. Mr. Stiffler stated that coal outcrops are found all along the valley and could easily be dug by hand. Coal could also be scavenged from or delivered by the railroad. The coal scatters vary both in density of coal and quantity of associated artifacts. Artifact Scatter (AS) 4, for example, contains a lot of coal and few artifacts, whereas AS 5 is the reverse. The coal in these scatters is primarily in chunks smaller than 5 cm in diameter. The presence of the densest concentrations at the south end of the site may indicate that the coal was brought to the site for use by the schoolhouse, then scattered across the site by other users, i.e., the shepherders.

The overall impression of the site is that it was heavily used in the 1930-1950 era, with more ephemeral use earlier. In the following discussion, indicators of earlier use will be noted. Another theme to be explored is the incidence of artifact reuse. In a camp populated by itinerant shepherders, one would expect activity of the "use it up, make it do, or do without" mentality. On the other hand, such activity should be lower in any refuse areas associated with the school or the Riverside Study Club, which might be expected to have higher entertainment and leisure, personal effects, and domestic routine artifact counts. Whether the mapping effort was sufficiently fine-grained to pick up such differences is open to question, especially since the sheep camp could also be expected to have its own quota of such artifacts.

Artifact Scatter 1

Artifact Scatter 1 lies in the extreme northwest corner of the site and is roughly 10-by-20 m (Fig. 3). The bulk of the artifacts are on the main site slope (Fig. 4), but part of the artifact scatter lies on a bench between the main site elevation and the arroyo. The scatter probably dates circa 1940-1960. It consists of a can dump and associated larger articles, including vehicle parts and portions of a large steel drum. Vehicle parts present include a muffler, metal from a windshield wiper, and what may be interior pieces of the muffler. Many of the cans also relate to automobiles, including a 4 lb. *SHURWONDER* can, which, according to information still legible on the can, was for removing insects without harming the car's finish. It is doubtful that enough insects were removed on site to justify a 4 lb. can; the can may have been reused. There were also steel and aluminum oil cans (20-20 weight) and another oil can on which *Conoco* was visible. One large *Conoco* can had been opened flat, presumably for reuse. Possible uses might have included roofing, construction of a cooking device, a portable table top, or patching another metal object. It is also possible that most of these items were never actually used on site.

Also present were two large cans originally recorded as rectangular kerosene, cooking oil, or turpentine type cans. These cans have a foil seal inside a raised straight rim placed in the center of what appeared to be the can top. However, an identical can was found in AS 5. That can was well enough preserved to read the labels, which showed that the foil seal is actually on the bottom of the can. The two cans in AS 1 were knife-opened on the top, in a spot that is indicated on the AS 5 can by the words "VENT HERE." The cans contained *Eveready Prestone* antifreeze. The words "SEALED AT THE FACTORY" appeared above the *Eveready* name and "FOR YOUR --- [protection?]" appeared below. However, there was also at least one regular turpentine or kerosene type can with the



Figure 3. Artifact Scatter 1, showing dense area of cans and other materials on the arroyo bank.



Figure 4. Artifact Scatter 2, adjacent to the edge of the arroyo downstream from AS 1, showing the variety of materials.

threaded cap placed in the corner of the can. In addition to its uses as a solvent, turpentine was often used in previous generations as a medicine, especially as a topical dressing.

The drum had been cut and the bottom had been removed, so it is difficult to determine if it was a 55-gallon container. It may have arrived at the site as a fuel drum for kerosene or fuel oil. Another section of what may have been the same drum was lying nearby, but it had been shaped into an oblong ovoid and the top and bottom are missing; diameters were not easily comparable. The top part of the drum had a 27-inch diameter and a 4-inch rim, leaving a 19-inch opening. It is possible the oval section was originally a stove, and the cut top part of the drum was a different artifact altogether. Steel drums cut in such a way could have multiple uses, including an improvised stove, a privy seat, or an impromptu chick corral. Lying nearby was a piece of window screen that could have covered it, and just uphill was a chick feeder of galvanized steel bearing the legend "PURINA STARTER CHOWS IN CHECKERBOARD BAGS." This feeder had been repaired with a wooden end piece neatly nailed through the metal several times.

Also lying near the drum was a metal wheel, 8.25 to 8.5 inches in diameter, with ten holes in the body and a shallow V-shaped rim. The rim was probably designed for a rubber wheel, such as that for a large child's wagon, but the wheel itself could also have been used as a pulley wheel.

There were numerous paint cans present, in at least two sizes, pint and half gallon. Most of the paint was light blue. These cans had replaceable push top lids of the type used on modern paint cans.

Mixed with the auto and other heavy debris was a scatter of more domestic trash, including a stove pipe, coffee, milk and other food cans, beer cans, white glass jars, and *Coca Cola* bottle fragments. The latter was of the hobble skirt type, first introduced in 1915, and bears the legend "TRADEMARKS REGISTERED IN U.S. PATENT OFFICE" twice around the middle of the bottle. This manifestation of *Coke* bottles dates after the expiration of the bottle patent in 1951. The words "IN U.S. PATENT OFFICE" appeared from 1951 to 1959 (Gilborn 1968), although I was unable to find a reference to the entire legend. A *Coke* bottle top, with its crown cap attached, was also present.

Beer cans were steel and opened with a church key, which dates them to 1935- circa 1962, when aluminum tops and pull tabs began to take over the market. A "lard can" was also present, but pail would probably be a better designation because so many products came in such cans, including axle grease, peanut butter, and preserves. Another possible indulgence noted was a round 1-lb. can with an internal push top replaceable lid, such as still used to package *Top Tobacco*.

One-pound coffee cans were also present. One of these bore the legend "--STED AND ROASTED BY PAXTON AND GALLAGHER CO., OMAHA NEBRASKA." Paxton and Gallagher were in business from 1879 to 1958 (Pulati 1973:45), which is not very helpful, as their dates span virtually the entire suspected use of the site. This can, which may date to the 1920s, judging by the "bump" below the rim, still had the lid (rusted on) and some other metal artifact inside, suggesting that it might have been reused as a sheep rattle. Other coffee-related objects included a white glass cup of a style popular at least as far back as the early 1950s. Two sizes of stud-closure milk cans were present, but this is not particularly useful because one milk company continued using stud closures until 1980 (Rock, pers. comm. 1995).

Personal effects were also scattered, including two white glass ointment jars. One bore no label and the other had "*POND'S*" on the base. The latter was probably a cold cream jar, although *Pond's* does make other products. The *Pond's* brand goes back to at least 1872, but the name has been used alone, even after the merger with Cheesebrough, as late as the 1980s (Fike 1987:120). A *Duraglas*

medicine bottle dates from September of 1940 to circa October of 1963, when the *Duraglas* trademark of Owens Illinois went from a script to a block letter format (Toulouse 1971:170). The O in a diamond mark found on the bottle is supposed to carry information on the year of manufacture, but it is not easily read on such a small bottle. Assuming it is there, it would take a microscopic examination to read it. A portion of a leather boot top was also present.

Two other major glass artifacts were present. The first was represented by large sherds probably from a gallon-size square jar body, with heavy ribbing and one large diamond pattern present on each side, truncated top and bottom by the ribbing. The lid and finish for this jar were found downslope, indicating the container was probably broken in situ. Similar jars were used (or perhaps reused) as icebox water jugs during the 1950s. At least two pieces of a jade green Depression era glass plate were present as well. This jade green glass is found scattered all over the site. At least two vessels, a cup and a saucer, are present. All seem to be the same pattern, a raised floral garland encircling the object below the rim.

Most Depression glass, although colored, is transparent. A search of *The Collector's Encyclopedia of Depression Glass* (Florence 1990) showed only two possible candidates in the jade or "jade-ite" color. The most likely is a pattern called "Alice" produced by Fire King Dinnerware, a subsidiary of Anchor Hocking Glass Corporation. The pattern was made from the 1940s to the 1960s. Thus the so-called Depression era glass is actually in line with the rest of the datable artifacts. Florence states the cups and saucers were packed inside *Mother's Oats* as premiums, while the dinner plates had to be purchased, causing them to be much less common (Florence 1990:60).

Two artifacts that do seem out of place in AS 1 are a riveted barrel hoop and a few pieces of leather harness with a roller buckle. The location of these two earlier items on the extreme eastern edge of the scatter probably means they do not belong to the main scatter. They do, however, belong with a more dispersed scatter located between AS 1 and AS 2. This area includes a dropped bottle of CaLiFig Syrup, a proprietary patent medicine manufactured from around 1878 to the 1970s. The syrup had two incarnations, of which this is the second, as shown by the extant label portions, which read: --IG SYRUP CO./CALIFIG/--ERLING PRODUCTS (INC.)/SUCCESSOR. Fike (1987:225) is unclear when Sterling Products Inc. became the successor to California Fig Syrup Co., but states the CaLiFig name was adopted in the 1880s. Combined with the senna and cassia herbs in the formula, CaLiFig Syrup was probably fairly effective at what it advertised itself to be, a remedy for constipation.

The bottle itself can give a better date. It bears the "O in a square" maker's mark of the Owens Bottle Co., which used the mark from 1911 to 1929, as well as Owens machine suction scars. Toulouse (1972:393-395) states that the company began production of proprietary medicine bottles in 1912. Sterling's location in Wheeling, West Virginia, makes it likely that one of the Owens plants in West Virginia made the bottle. On either side of the squared O is an 8 and a 3. If the 3 represents the plant number, it could be the Fairmont plant which was in operation prior to adoption of the trademark. Or it could be the Clarksburg plant, which made proprietary medicine bottles as a major line from 1912 to 1921. The Charleston, West Virginia, plant was in operation from 1918 to 1932 and again from the end of Prohibition to 1962. Several Owens plants were built by Libby to test various incarnations of the Owens Bottle Machines. However, a date of 1912 to 1929 is adequate to separate the artifact from AS 1.

The second artifact of apparently earlier date is a small cluster of window glass. Window glass has been proven to vary in thickness over time, and several researchers (Chance and Chance 1976; Roenke 1978; White 1990) have correlated thickness with dates. Other researchers (Schoen 1990:57-90; Moir 1982) have produced formulae that give a more precise, though not necessarily more

accurate date. In New Mexico, the formula has been found to work well, though a small sample can be misleading and, of course, the possibility of reuse is always present. New Mexico probably had more variation in the source of supply, further complicating its dating.

The glass in the scatter in question ranges in thickness from .050 to .059 inches, with an overall area of about 17 sq cm. The average thickness is .054 inches. Using Schoen's regression formula of $Y = 1725.7 + 1713.0(X)$ where Y is initial date of construction and X is mean thickness in inches, the pane at LA 110300 was made prior to the opening of the Santa Fe Trail (1818) and using Moir's formula, $ID = 84.22(TH) + 1712.7$ where ID is initial date and TH is thickness in mm, the date is 1826. Both of these progressions were built on regional samples where the possibility of glass this early was vanishingly small. Using the more general tables of Roenke (1978), we get a choice of two dates, due to a change in technology around 1840 that caused the progression to not be a linear one. The first would be 1810-1825, agreeing with the formulas, and the second, 1840-1850. Using White's (1990) curves still gives a date solidly pre-1870. This date is not supported by any other artifacts on the site and must be used circumspectly.

There does not seem to have been a structure present that could be related to either of these time periods, so it is obvious that the glass is another recycled artifact. We can discount the pre-Santa Fe Trail dates because of the virtual lack of window glass in colonial New Mexico. Since the glass can only date itself, not a structure, it is only useful to us as an indicator of reuse of artifacts and as an intriguingly early piece of glass for anywhere in New Mexico. The question arises of why window glass at all, but many people who live in wagons frame in the ends, putting in doors and windows. The glass may be from an artifact that was already an antique when it arrived on site.

Animal bone also occurred in this general area, including the epiphysis of a large mammal longbone, perhaps a humerus, and some longbone fragments. There was no fusion of the epiphysis, so the animal was young. Presumably these are remains from food consumed on site.

Artifact Scatter 2

Artifact Scatter 2 is east of AS 1 but in the same relation to the arroyo (Fig. 4). The main concentration is about 12 m long by 7.5 m with outliers down hill for another 10 m. It gives an even stronger impression of a multi-occurrence dump. A purple glass brandy-type bottle finish with cork closure and a head gasket for a V-8 engine are typical of this scatter. Overall, there are more earlier artifacts than at AS 1, including two pieces of window glass of .065-.066 inch thickness, again possibly representing an early manufacturing date in the 1840-1855 time frame (Roenke 1978:116; Chance and Chance 1976, table 27).

The majority of the artifacts, over 100, were food cans and lids. There were also numerous jar lids, although surprisingly few glass shards. However, most of the glass present was clear jar shards. The lids were commercial, not canning lids, and, combined with the modern clear glass, represent dates of post -1930 for the most part. The cans themselves date post-1900, but most seem to have been opened with rotary can openers, which pushes the date to 1925 for the more serrated looking lids and 1935 for the smooth-cut lids. Many of these cans have embossed codes on them such as AC/CGP16 or EST 4A/CF923. The codes are probably American Can Co. codes identifying the associated plant/manufacturer, the product, and even the year the can was made. There were over a hundred canning operations that amalgamated to make up American; tracking the codes down is possible in some cases and is another instance of the kind of information which would be possible to extract from this site.

One can label was recorded. The legend was "WALTER BAKER'S BREAKFAST COCOA." The usual label read BAKER'S BREAKFAST COCOA/LA BELLE CHOCOLATIERE/WALTER BAKER & CO., INC./REGISTERED IN U.S. PATENT OFFICE. *Baker's Cocoa* is considered to be the first product associated with a trademark, since at least 1850, and the product was available in tins since circa 1870 (Clark 1977:54-55). An illustration in the 1897 *Sears Roebuck Catalogue* (Israel 1968) shows the top of the *Baker's Cocoa* can with the legend WALTER BAKER'S BREAKFAST COCOA on it, so this artifact may have been the lid or the back rather than the front side.

Another unusual foodstuff-related artifact was an embossed lead foil device. The usual use for lead foils is as cork covers, and at first glance, that is what this appeared to be. The artifact is 1.5 inches across and the center section is 1 inch. However, as the product advertised is peanut butter, it is difficult to envision how it could have been removed from a 1-inch opening. More likely the foil was on the order of the "Gold Medal" type. The legend that encircles the artifact is "PETER PAN PEANUT BUTTER/AMERICA'S FAVORITE." The center contains "DERBY FOODS INC/CHICAGO 32 ILL."

A partial label was recorded on a rectangular syrup type can approximately 5 inches by 3 $\frac{3}{8}$ inches by 7 inches. The can had a threaded cap on a soldered spout in the corner of the can. Only part of the company name was visible: "--M--IT & ---MBER/NEW YORK BUFFALO & CHICAGO," but the manufacturer was not identified. Again, the can could have held syrup, various oils, both edible and not, or turpentine.

The other foodstuff-related artifact was a portion of a milk bottle. Milk was first put in bottles in the 1880s (Lorrain 1968:44). This bottle was clear and probably dated from the 1920s or later. An epiphysis from a medium to large size mammal was also found in the scatter. Presumably, the animal was used for food.

There were several pieces of cast iron present, most of which were stove parts, including three from an ornamental grill. One piece of the grill held the word "AND" worked into the design. On the back of this piece were the initials "U.S.A." Another piece of the stove, probably a handle or shaker held the legend "H-V213." Two cast iron plates were also present that did not seem to be stove parts. The first was a 12 $\frac{3}{8}$ inch by 14 inch piece with a square hole in one corner, turned 90 degrees off the perpendicular of the plate itself. Surrounding it and along the rest of the plate were eight screw holes. It may have been the mounting plate for a piece of machinery, although it seems rather small for that. An iron bracket was 1-by-2 inches, 24 inches long with five bolt holes for $\frac{1}{4}$ -inch bolts set on 5 $\frac{1}{2}$ -inch centers. The latter piece may have been a wagon part or a piece from heavy machinery.

One piece of scrap iron was cut into a deep crenelation on one edge. Also present was a 15-inch length of chain with a hook link on each end. This may have been a trace chain for a wagon. On the edge of the arroyo were found an iron band from a wagon wheel and a piece of curved iron with a lining that appeared to be a brake band, probably from a truck.

There were also miscellaneous metal objects such as a washer, a sleeved bolt, a piece of plate zinc with a circle cut out, and perhaps a dozen wire nails ranging from 1 $\frac{3}{4}$ inches to 4 inches. Several pieces of wire, including a piece of chicken wire, were found. The chicken wire may relate AS 2 to AS 1. A few board fragments were also present, generally in the same area as the nails.

There were at least three artifacts related to electricity. One was a Delco-Remy switch of fairly antique design and the other was a small ceramic insulator. The insulator bore "5 $\frac{1}{2}$ " and a triangular maker's mark on the bottom. An identical ceramic insulator was offered for sale in the *Sears Roebuck Catalogue* of 1897 (Israel 1968). The other artifacts in this category were dry cell battery bits, in the

C or D size. Such batteries can also date pre-twentieth century (Israel 1968), but this particular type probably postdates that by some years, as the terminal is more modern, but it cannot date too late, as the jacket piece is solid metal; circa 1950 seems reasonable.

Personal effects were represented by only three objects, a metal boot fastener, such as is presently used on men's galoshes, but in former times was also used for work boots (Sears Roebuck 1897). The second personal effect was a green and gray glass marble, somewhat larger in diameter than 1960s or later glass marbles. The best date for opaque swirl marbles is the late 1920s to 1940 (Randall 1977). Without knowing the dates for the school, it is impossible to tell if the marble is associated with the sheep camp or the school. The third is a *Bayer* aspirin tin. *Bayer* began putting aspirin in tins in 1917. What is legible on the tin seems to be an older version of the copy than that used in the 1950-1960 era, but many people reused the tins for years, refilling them from bottles.

Domestic routine was poorly represented, but had an interesting variety nonetheless. The most unusual item was a glass ramekin, or individual serving dish. Several pieces of a small white ware serving bowl with a clapboard exterior and what appears to be a cut-sponged pattern around the rim were present. The pattern was leaves and vines in a dark purplish brown. Spongeware was popular from the mid-nineteenth century to about 1930, but cut sponge is somewhat rarer. The best dates for it are 1840-1920 (Ketchum 1983; Habicht-Mauche 1988).

This scatter gives the impression that a later can dump may have been placed over an earlier, more diffuse scatter. A beginning date of 1895 is not unreasonable and an end date of circa 1960 is assignable based on the new highway cutting off easy access to the site in 1963.

Moving southeast across the site, an isolated cast iron artifact bearing the patent date Feb. 7, 1883 or 1893 was found. The artifact is about 2½ inches in diameter and has a screw through the middle, which ends in a square bolt on the interior. The artifact was probably a draft regulator on a stove. It was found near an ash stain with a light coal scatter about. The artifact was mapped in with azimuth bearings to the datum flags at the southern edges of AS 2 (340 degrees) and AS 1 (280 degrees). Also nearby was a piece of sheet metal and a post with nails.

Artifact Scatter 3

Artifact Scatter 3 is located near the highway right-of-way fence, at the south edge of the site (Fig. 2). The scatter is about 10-by-15 m. The major artifact present is a green enameled kitchen range, New Perfection model R579, designed to run on gas or kerosene (Fig. 5). The stove sits in a large coal scatter. It is conceivable the stove had a multiple fuel capability, but usually that capability is for coal and wood. It is likely that the stove was left on the site after deposition of the coal areas, and is not related to the coal scatters. The stove design, including Bakelite handles, seems to be from the 1930s. It could date as early as the 1920s or as late as 1940. It lies near an upright post that had multiple fastening devices in it, including nails, fence staples, L-bolts that went completely through the wood,



Figure 5. New Perfection kitchen range and post at the center of Artifact Scatter 3.

wire of several including a cable, which post to another nearby.

varieties, multistrand connected the post lying

Downslope from the stove is a semicircular rock alignment that does not seem to have been used as a hearth, although it is overlain with coal and clinkers from the scatter upslope. It is conceivable an ash lens lies buried or has completely washed away. The main coal scatter is about 6-by-7 m, with outlying patches measuring 2-by-3 m. Within the main scatter is a coal scuttle.

Most of the cans in this scatter are beer or soda cans dating 1935 to 1960. One brand, *Mission Soda*, was identified. Soda was not successfully canned until 1953 (Rock 1981). One brake fluid type can and a small coffee type can with replaceable lid, circa 1920, was found, as well as a few small fruit or vegetable type cans. Two sardine cans made of two-piece construction, but not key-opened, were found, as well as one aluminum top beer or soda can, which is more recent than the rest of the scatter. The sardine cans probably date post-1918 (Rock 1981), when a double seamed, open top can was perfected for sardines.

The hood of a small, blue pot-metal toy truck was found, which would be datable by someone more knowledgeable about truck bodies. The hood is "house" shaped, rather than rounded.

Two pieces of flat glass measuring .063 were found, which are probably related to the glass at AS 2. Datable artifacts include a *Coke* bottle with the patent number 105529. The patent number appeared on the bottles from 1937-1951 (Gilborn 1968). A piece of Edwin M. Knowles vitreous white ware bore the trademark registered on May 20, 1920 (Lehner 1988:237-238), although the mark could have been used for some time prior to 1920. Below the mark are the numerals "30-2-5." Various forms of the mark were used for many years, some with no numerals, some with only two, some with three. The numerals could be dates or mold numbers. Another piece of white ware with a gilded rim may be a portion of the same artifact. The interesting thing about the Knowles piece is that the paste body does not seem to be vitrified at all. The Edwin M. Knowles company, located in West Virginia, went out of business in 1963. However, by 1948 the company had generally gone to a different line of trademarks, so this artifact dates circa 1920 to 1950, allowing for inventory backlog and transport.

One cut nail, the only one found on the site, was also in this scatter. While wire nails almost completely replaced cut nails around 1890, cut nails continue to be made today. They are usually sold as masonry nails. If the schoolhouse/study club building was indeed concrete, as stated by Mr. Ross, the nail may be from there. With the cut nail was a 2-inch flat head wood screw. Another metal artifact is a large piece of sheet metal, measuring at least 2-by-3 ft, and perhaps 3-by-4 ft. It is partially buried and too heavy to pull out for inspection. It lies very close to the right-of-way fence.

Nearby, and west of Artifact no. 112, was a scatter of plate glass ranging from .125 to .205 inches in thickness. One piece, at .135, was clear, while the rest was aqua tinted when viewed edge on. This glass was probably auto side or rear window glass. While windshields went to safety glass early on, by 1909, safety glass for all automobile windows was a selling point for autos in the 1960s, implying that they had not had safety glass all around prior to that.

Artifact Scatter 4

Artifact Scatter 4 is situated in the southwest corner of the site (Fig. 6). It consists of a large coal scatter with very few artifacts, including a cast iron stove piece and a piece of burned historic white ware. The stove piece is a portion of the firebox grate, whereon the fire was actually built. It is probably from a kitchen range, judging by the size and shape. The pottery is a wavy rim sherd, decorated with a leafy pattern, probably transfer pattern with hand-painted accents. The burned condition makes it difficult to state with complete confidence that it is transfer ware.

Artifact Scatter 5

Artifact Scatter 5 lies along the southern edge of the site, and consists of a diffuse assortment of artifacts only slightly denser than the background of the site as a whole. The scatter is, again, a



Figure 6. Artifact Scatter 4, one of several dense coal dumps; AS 4 contains mostly coal with only a few artifacts.



Figure 7. Kerosene reservoir located in Artifact Scatter 5, which consists of a coal dump and an area of historic artifacts.

mixed deposit with artifacts from various eras lying side by side. The earliest artifacts are pre-1915

and the latest are probably contemporary with building the 1963 roadway. One artifact here may be the reservoir of a turn-of-the-century kerosene cook stove (Fig. 7). Such reservoirs were separate from the stove and gravity-fed to the burner by a pipe. Alternately, it could be part of a kerosene torch. Most of the pieces of the green Depression glass artifacts were found in this area, including the cup body, as well as a piece of a small, clear glass baking dish that may be Depression era. It had scroll work on both the side and bottom, but the pattern was not identifiable in the field.

In the northeast corner of this scatter was a small bottle dump, containing at least three or four bottles and a canning jar. One was a multifaceted sauce bottle with a flared base, another had a Bakelite cap and the letters "-RBINE" on the shoulder. The fragment was not identified to manufacturer or product, but would date post-1927 based on the Bakelite cap (Lief n.d.). One bottle was a screw thread closure with a short neck. There were also six spalls of white ware with the glass.

To the south of the bottle dump lay another bottle, an oblong paneled-type known as a Blake in the old catalogues. It was made by Owens Illinois Glass Company, bearing an Owens' scar and the diamond O trademark with a "7" on either side. If the bottle follows the usual pattern, the first seven is the plant number, and the second is a code for the year. Plant no. 7 may be the Alton, Illinois, plant that was the original plant of the Illinois Glass Co. prior to the merger with Owens. The problem is that the combined company used two versions of the mark. The first was used by the eastern branch from 1929 to 1954; the second was used by the Pacific Coast company from 1932 to 1943 and by the Coast Division from 1943 to present (Toulouse 1971). Thus, all that is possible is a post-1929 date for the artifact. The base of the artifact also has the words DES PAT 892347. The patent number falls within the time frame of 1908-1909 (U.S. Patent and Trademark Office Web page; <http://www.uspto.gov/web/offices/ac/ido/oeip/taf/issuyear.htm>), illustrating that the patent does not date the artifact. It does suggest that the artifact is closer to 1929 than not, as the patent would expire by this date.

In the southeast corner were six pieces of thick aqua bottle glass, which dates from the 1870s to about 1920 or 1930. Most glass "color by date" lists give aqua a date range of 1880 to 1920, but aqua is one of the oldest colors of glass. Carl Conrad, the originator of *Budweiser*, put his beer in aqua bottles as early as 1873. Six pieces of window glass measuring from .084 to .090 were nearby. Glass with an average thickness .087 should have been manufactured between 1855 and 1885, and closer to the end of that period, so it would fit with the aqua glass. There was also a small brown medicine or extract bottle, round, with a maker's mark of an F in a hexagram. Fairmont Glass Works, Inc., of Indianapolis used this mark from 1945 to 1960 (Toulouse 1971:201).

Two stove parts of sheet metal were found. They were judged to be stove parts by the 6-inch-diameter hole in each, a common size for stovepipe. One was 2-by-1½ ft. One piece of galvanized steel plate with small nail holes had a square-cut hole 6 inches across, snipped in the center. This may have been a ceiling piece used to fireproof the area where the stovepipe went through the roof.

By far the most interesting metal artifact was a tea tin body with the embossed legend "LIPTON/TEA/PLANTER/CEYLON. Lipton was an early importer of teas from England, but opened an American packing house in 1895. The above legend is among the first used by the company, as the original name was Thomas J. Lipton, Tea Planter, Ceylon. The name changed to Thomas J. Lipton, Inc., in 1915 (Yena 1972:48). This artifact was one of the earliest found on the site. It probably arrived on site as an "antique." The lid was found near the boulders at the end Feature 1. Near the tea caddie was a 9-inch square can top with a rolled rim handle in the center, possibly for syrup or kerosene. Also present was a stud hole milk can, circa 1914 to 1980.

Feature 1

Feature 1 is the remains of a fence and corral (Fig. 8). Thirteen poles run from the right-of-way fence uphill to a pair of large boulders. One of the boulders is around 5 m high and the other is lower and more massive. They are separated by less than a meter and the fence ends in the slot between them. This east-west fence is the approximate south line of Section 16. Another 11 poles form at least one, and probably two enclosures north of the fence line. The west enclosure near the boulders is the most complete. The eastern enclosure is represented by a pair of taller poles that seem to have been a gateway (Fig. 9) and by a change in the vegetation. This is the only place on the site where portulaca is found and here it is the dominant ground cover below the sage. The two gate poles had a strand of smooth wire looped between them. The wire, .17 inch in diameter, was probably related to the early electric line, and may have been borrowed for the corral, or was simply looped back on the poles to get it out of the way. It is too loose at present to have served as a brace for the gate, although it could have done so at one time. Some of the fence wire is two strands loosely plied. Only one strand has barbs. Most of the fencing is of the type known as horse wire, with rectangular holes, although there is not enough present to complete the corral. However, in the southeast portion of AS 4, a large piece of fencing similar to that on Feature 1, which may indeed be the missing section, was at least 10 m long.



Figure 8. Overview of the central portion of LA 110300, showing the posts and boulders that constitute Feature 1, a set of livestock corrals. U.S. Highway 550 forms the eastern edge of the site. The Riverside school was in the vicinity of this piece of highway.



Figure 9. Gate posts to the larger pen in Feature 1, looking northeast across the Animas River Valley.

It is possible that the sheep camp merely reused an existing fence and the corral. Probably the schoolhouse and possibly the social club also had need of a corral.

Feature 2

Feature 2 is a boulder on the west side of the site that has two sets of initials pecked into the east surface. The initials are P.A.W. and H.O.P. (Fig. 10).

Feature 3

Feature 3 is a probable privy (Fig. 11). The remains consist of a depression about 1-by-2 m and 10 to 20 cm deep at the present time. A piece of burned board (4.5-by-2 inches) with five 2.5-inch nails in it lies just east of the pit. Along a line on magnetic north azimuth 248 degrees lies the largest nail scatter on the site. Approximately 40 nails from 1 inch to 4.5 inches constituted the scatter, with most of them lying north of the depression. Some of the nails exhibited burning. In general, most of the smaller nails were straight, and most of the larger ones were bent, perhaps implying the remains of the structure were dismantled after it burned. A stove corner piece, some bottle glass, a canning jar fragment and three spalls of white ware were present, as well as six window glass shards with an average thickness of .085, again suggesting a manufacture date of 1855 to 1885. Supporting that date were three aqua bottle glass fragments. This feature may have been more closely related to the schoolhouse than to the sheep camp. Its size suggests a “two-holer” with one side for girls, and the

other for boys.

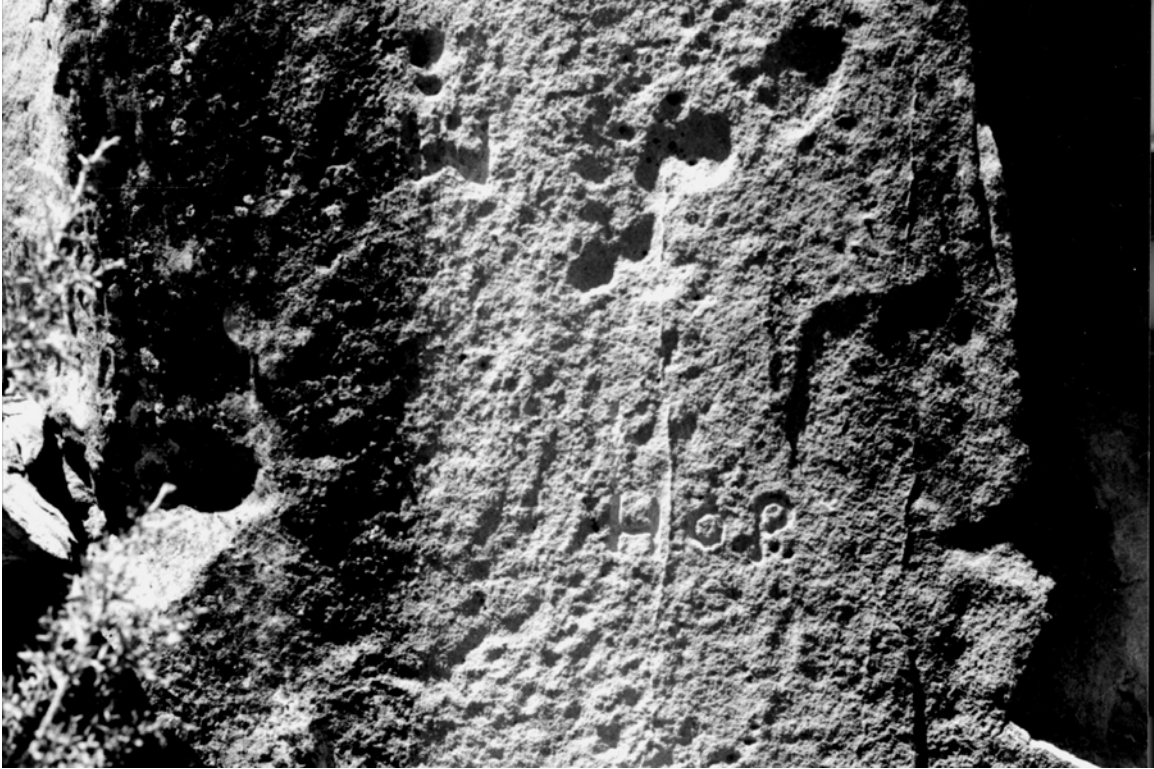


Figure 10. Feature 2, initials PAW and HOP carved into tall boulder at the west edge of the site.



Figure 11. Edge of the depression which constitutes Feature 3; nails, glass, and burned wood ring the depression, which could have been a privy.



Figure 12. Rock alignment near the arroyo at the north edge of the site. These rocks could have supported a tent floor or may have been involved with herder trailer parking.

The canning jar finish, which had a wide thread and a wide ring under the thread, probably dates 1920 to 1940 (Munsey 1970:145-151), as the wide ring is characteristic of many jars produced during that time frame, or, in the case of Anchor Hocking, even later. A Duraglas flask base and body in the area dates later, from 1940 to 1963.

Feature 4

Feature 4 is the remnant of a second fence line located at the south end of the site. It includes the much-used post described in AS 3 and the abandoned stove. There are two closely placed posts (3 m) in a line that intersects at an acute angle with the current right-of-way fence. There is wire associated with these posts, but it is now only barely attached. These posts are in line with the post in AS 3 but separated from it by around 16 m. An additional isolated post is around midway between the AS 3 post and Feature 1, but it is not in line with the three posts of Feature 4 and may not have functioned with them. Feature 4 approximates a north-south alignment and may have been part of a boundary fence.

Rock Alignment

A rock alignment was located in the northeast corner of the site, not far from the arroyo bank (Fig.

12). The alignment consists of five or six rocks in a double row, with another few rocks a short distance away at right angles, the whole outlining two sides of a square about 5 m on a side. There is no sign of a structure except for the rocks. The general lack of surface rock across the site made these stand out. However, the arroyo exposes cobbles and near it there are more rocks on the ground surface, which makes this alignment somewhat suspect. Erosion of the arroyo bank could have removed the other two sides of a square, in which case the rock alignment probably represents the remains of a tent pad. Alternately, they could have been used to make a wagon stop or even a place to get in and out of a wagon.

Point-Provenienced Artifacts

1. On the edge of the arroyo on the east side of the site is a stump that was cut with an axe and hand saw. Such human modifications can document site use prior to widespread chain-saw use, which seems to have occurred in New Mexico post-WWII. Erosion around the stump and a date from it could be used to gauge the amount of arroyo cutting that has taken place since the tree was cut.

2. Also near the arroyo bank was what is commonly called a "lard pail" by archaeologists. Such pails held many more products than lard, however. Among the possible contents were peanut butter, nuts, preserves, candy, coffee, and tobacco. Paints, wood filler, and axle grease also came in "lard" pails. Interestingly, lard oil did not come in lard pails (Israel 1968).

3. This was a small scatter containing a tobacco tin with an external hinge, dating from circa 1909 to circa 1948, two purple glass fragments dating 1880-1920, a sanitary can, post 1904, and an undatable brown glass fragment.

4. South of the arroyo was a 2-lb. coffee type can.

5. This was two triangular iron pieces loosely bolted together. The main piece measured 7 ³/₄ inches by 9 ³/₈ inches. The function is unknown.

6. A bird wing bone located by the east line of the corral. It was of a size that could have been chicken; the bone was broken.

7. South of the corral by the extant fence were two sanitary cans, an old crown top (for cork liner), pre-1960, and a brown bottle fragment with "NO DEPOSIT NO RETURN NOT TO BE REFILLED." The latter is a modern artifact.

Angle and distance from site datum for artifacts 100 to 119 are given in Table 1.

100. North of the corral on the east side was a steel artifact covered in an embossed pattern of diamonds reminiscent of old running boards. Its 69-inch length may indicate that it comes from a large piece of machinery rather than a vehicle.

101. A small scatter consisting of a green-blue glass insulator fragment, a clear pressed glass shard bordered by a semidiamond pattern, another piece of the pressed diamond pattern glass, and a piece of a very large Bristol slip stoneware crock.

102. A key-opened can and a piece of a sheep pelvis.

103. A stovepipe fragment and a square key-opened can.
104. Two articulated artiodactyl cervical vertebrae.
105. Clear plate glass .095 inches thick, implying turn-of-the-century or later manufacture and a steel motor oil can. Oil cans have been cardboard for many years now.
106. A small coal clinker scatter with associated artifacts, including two steel motor oil cans, a paint can type with internal push lid, a .22 cal cartridge with U headstamp, dating from 1869 (beginning of Union Metallic Cartridge Co.) to probably shortly after the turn of the century, as there are no engraved lines on the cartridge, such as later versions have. However, the .22 rimfires are probably the most popular cartridges, made by many companies over the years. This cartridge measures .612 inches long, which is somewhat longer than the .22 longs (usually .595 inches) listed in Barnes (1985), but he notes that there is considerable variation depending on when and where they were made. The round was excellent for pest control, and is even used for hunting deer.
- 107-108. This area has already been described as Feature 3. However, outlying Feature 3 near 108 was a fragment of a glass food plate that had a plain top and scalloped back with a foot ring. Possibly a cake plate, the artifact bore the maker's mark of a star with an R inside it. I was unable to find this mark, although several manufacturers have used the star with another letter inside. Its flawless clear color argues for a post -1930 date.
109. A portion of the large stoneware crock mentioned in 101. This portion is part of a wheel thrown lid, which set inside the crock, with an overhanging lip. The arc of the artifact shows that it was indeed very large, 5 gallons or larger. Straight-sided crocks are characteristic of American stoneware from 1860 to about 1920, so it is impossible to ascribe the artifact to any particular use of the site, although by at least 1900 most stoneware was molded rather than thrown.
110. Not relocated.
111. Beer can, notched seam, steel, post-1935.
112. Sanitary can and a knurled Bakelite bottle cap, post-1927 (Lief n.d.).
113. Dietz Torch. A large sphere, about 6 inches in diameter, with a 25-inch circumference, formed much like a two piece metal bead (Fig. 13). There is a 2-inch diameter hole in the top where a burner sat. The burner is still present inside the sphere, as well as a large ball of what appears to be small scrap iron pieces. This was probably original to the torch, as it would not fit through the opening. If so, it was probably designed to reduce the amount of fuel necessary to fill the reservoir. It would also have functioned as a sheep rattle, although a very heavy one. The artifact bears the legend DIETZ TORCH MADE IN USA USE KEROSENE ONLY around the burner opening. There is a 2.25-inch-diameter ring welded to the top half of the sphere, presumably a mounting bracket/handle.
114. An upright post that may have been part of an electric line.
115. A folded piece of sheet metal of unknown function; it is greater than 9.5-by-8 inches. The object appeared to have a rolled rim, so it may have been part of a larger can. There were also a few scattered can fragments here.
116. One *Mission Soda* can, post 1953, and another can, probably the same, but unreadable. Its



Figure 13. Base of a Dietz Torch; the burner and another piece of metal remain inside.

location near the road suggests this is road trash rather than site-related.

117. A small scatter including a steel beer can, 1935-1960, a small fruit or vegetable can, a small replaceable lid can of the coffee type, and a cast iron object of circular but dished shape. The dishing precludes it being a stove plate. It bears the legend "108." Although the function is unknown, it could have been something like a tractor or other machinery seat.

118. A piece of the green Depression glass, probably a fragment of a saucer.

119. The rock ring previously described with AS 3.

Table 1. Point Proveniences by Angle and Distance from Site Datum

Point	Item	Distance (m)	Angle (MN)
100	Running board	27.5	340E 20'
101	Glass and stoneware	39	173E
102	Can, sheep bone	39.5	186E 20'
103	Stovepipe, can	49.5	174E 60'
104	Artiodactyl vertebrae	47	170E 20'
105	Plate glass, oil can	54	180E
106	Coal clinker scatter, cans, cartridge	55	181E 20'

Point	Item	Distance (m)	Angle (MN)
107	Feature 3	55	186E 20'
108	Feature 3, glass	39	200E 20'
109	Stoneware crock	55	200E
110	Not relocated	–	–
111	Can	55	194E
112	Can, bottle cap	70	181E 20'
113	Torch	64.5	187E 20'
114	Power line post	55	188E 20'
115	Sheet metal	63	188E
116	Cans	70.5	182E 60'
117	Cans, cast iron,	69	180E 60'
118	Glass	73	183E 20'
119	Rock ring (see AS 3)	86	183E 30'

Prehistoric Material

Perhaps surprisingly, we observed only two prehistoric artifacts on this large, favorable location. Both were somewhat remarkable, and may have been collected by historic users of the site. The first is a stone drill bit. This tool is 31 mm long, 6-10 mm wide and 4-6 mm thick, and is diamond shaped in cross section. It is finely retouched on one face and somewhat less so on the other, and there are tiny use flake scars at its tip. It was probably snapped off from a base. The material is dark gray chert or chalcedony (it is slightly translucent, with the transmitted light being brown). The second prehistoric artifact is from a small, perhaps even miniature, well-polished, black-on-white pitcher, as can be seen from its globular shape, diameter, and probable “kicked-up” base. The mineral paint design is eroded, but appears to have been a band of obtuse triangles. This piece is either Mancos or Cortez Black-on-white, placing it in the 900-1100 time span. This sherd was found in the midst of Artifact Scatter 2, and stands a good chance of having been collected by historic occupants of the site rather than having been deposited prehistorically. These two artifacts are widely separated on the site.

Auger Testing

The quantity of artifacts and visible surface features within the slope limits as shown on the preliminary plan dated May 5, 1999, was confined to scattered small items and bits of coal. The slope limit ranged from 3 to 5 m from the existing right-of-way fence. Given the absence of any surface indication for the placement of a test pit, we placed a series of auger holes at 10 m intervals 3 m from the right-of-way fence (Table 2). These tests were similar in their contents and absent of any cultural material. The depth of the looser, darker surface layer varied from 26 to 60 cm, averaging 33.7 cm. In general, this layer was deeper toward the arroyo at the north edge of the site and shallower toward the more sloping south end of the site, but there is considerable variation. In our opinion, neither the surface materials nor the results of the auger tests warranted the excavation of test pits.

Table 2. Results of Auger Tests at LA 110300

Auger Test	Depth cm	Description
1	0-60	Fine grained, loose, light brown; damp
10 m	60-90	Lighter tan, sandier (sterile)
2	0-30	Fine grained, loose, light brown; damp
20 m	30-58	Lighter tan, sandier (sterile)
3	0-37	Fine grained, loose, light brown; damp
30 m	37-60	Lighter tan, sandier (sterile)
4	0-42	Fine grained, loose, light brown; damp
40 m	42-70	Lighter tan, sandier (sterile)
5	0-27	Fine grained, loose, light brown; damp
50 m	27-53	Lighter tan, sandier (sterile). In line with Feature 1.
6	0-30	Fine grained, loose, light brown; damp
60 m	30-50	Lighter tan, sandier (sterile)
7	0-31	Fine grained, loose, light brown; damp
70 m	31-65	Lighter tan, sandier (sterile)
8	0-27	Fine grained, loose, light brown; damp
80 m	27-53	Lighter tan, sandier (sterile)
9	0-35	Fine grained, loose, light brown; damp
90 m	35-63	Lighter tan, sandier (sterile)
10	0-26	Fine grained, loose, light brown; damp
100 m	26-58	Lighter tan, sandier (sterile). Adjacent to AS 3.
11	0-28	Fine grained, loose, light brown; damp
110 m	28	Stopped at rock. Adjacent to AS 3.
12	0-26	Fine grained, loose, light brown; damp
120 m	26-40	Lighter tan, sandier (sterile)

DISCUSSION

The very small number of dish fragments is unusual at this site, especially in light of the number of stoves present. This suggests that the shepherders probably depended on metal implements. It may have only been in the 1930s or 1940s that that practice began to change, with the acquisition of premiums packed in foods, such as the “Alice” pattern cups and saucers in *Mother’s Oats*. Certainly the amount of white ware is not otherwise commensurate with an extensively used site in the 1880-1920 era. It may be telling that the majority of the white ware sherds are spalls. This may indicate that the white ware is associated with the schoolhouse and the vessels went home, even if they were chipped on site. Purple glass, which would be expected at a pre-1920 site, is scarce.

Shepherders of the wagon era were probably fairly isolated from the mainstream supply lines of the day, and may have been essentially self-sufficient for much of the year. Goods were few, durable, and easily packed. Supplies may have been bought and stored in large bags instead of small cans. Even Aztec may have been out of reach of casual access. The proximity of the railroad probably did not increase the shepherders’ access to goods. With the move to motorized transport, greater access to canned and bottled goods, coupled with better roads to transport them, and less time invested in procuring them, changed the pattern to a more mainstream one. Alternately, this particular site may have been used only rarely in the earlier days, with increasing use in the 1940s because this landowner was agreeable to having the camp nearby.

The stove parts scattered across the site almost outnumber the dish fragments. The gas stove, perhaps two cast iron stoves, and one or more sheet metal stoves are represented. The schoolhouse no doubt had a coal-burning stove, probably made of cast iron. It is possible the gas kitchen range was also associated with the schoolhouse since it seems unlikely that anyone would discard it by carrying it up the hill from the highway. The sheet metal stoves would be more easily transported in wagons or trucks, although a small cast iron or combination of the two metals would also be likely. The number of stoves present may be why no campfires or open hearths were found.

The early dates suggested by the flat glass are troubling. Although the date of the schoolhouse construction is unknown, it could not have been early enough to account for the glass, even with reuse of old panes. It is possible that some of the very thin glass was actually from mirrors, not windows, but neither of the earliest samples showed any sign of having been backed with metallic compounds. Again, this question could be better resolved in the laboratory under microscopic analysis. While old bottles may have some very thin flat sections, the shards are almost never truly flat. These particular shards were all laid on the clipboard to ascertain flatness and multiple measurements taken to double check each piece. Either an antique piece of furniture on site, or recycling from abandoned buildings along the sheep route in Colorado, where access to the railroad came 10 years earlier than in New Mexico, seems the likeliest explanation of how the glass got onto the site. White’s (1990) curve of pre-1870 seems the likeliest candidate in this case. Denver was established prior to 1860 and was shipping glass in by wagon. Merchants have been known to unload out of date goods on frontier markets, which could shift the manufacture date back another few years. From Denver, it could have been transported into the high country by miners, where shepherders of another generation found it.

There are a few other indications of earlier use in the artifact assemblage. In some places two or more artifacts of an earlier date were found together, suggesting their temporal placement is valid. The evidence for early use is scant, and the possibility of recycling and heirlooming further complicate the site history. What pre-1900 use there was at this location was slight, and the much heavier subsequent use would have attenuated its remains. Most of the material at the site shows twentieth-century use,

increasing in intensity from perhaps the mid 1920s on. With the exception of road trash, deposition at the site ceased sometime between 1950 and 1963.

Assessment

We regard this site to be considerably larger than was reported by Cibola Research (Marshall 1996:21-22): around 140 m northeast-southwest by 110 m. Their report was clearly focused on the highway right-of-way, but that perspective leaves the material within the project limits as somewhat inexplicable. Interviews and artifact assessment show that this location was heavily used for a number of decades, from around 1890 to around 1963 when U.S. 550 was built. Except for the possible privy hole, and perhaps some of the coal dumps, we saw little evidence of the school building that was located in the current highway corridor. Although there are some materials that suggest earlier dates from the historic period, most of the material on the site dates from the 1930s to the 1960s. However, repeated use of the location for livestock activities, probably involving substantial, though temporary facilities, is evident in the surface remains. The remnants of livestock pens are the clearest evidence of uses of this location, but concentrations of artifacts including window glass, nailed boards, and a probable rock alignment are further indications of multiday or even multiweek use of the location. Recent rains have caused considerable washing from the talus onto and across the site area, illustrating why there is material from the site area within the project limits. Since the auger tests indicate that buried deposits are unlikely, it is our opinion that intact cultural features are improbable within the project limits.

REFERENCES CITED

- Barnes, Frank C.
1985 *Cartridges of the World*, 5th edition. DBI Books, Inc., Northbrook, Illinois.
- Chance, David H., and Jennifer Chance
1976 Kanaka Village/Vancouver Barracks 1974. In *Reports in Highway Archaeology* No. 3. Department of Highways, Seattle, Washington.
- Clark, Hyla M.
1977 *The Tin Can Book: The Can as Collectible Art, Advertising Art and High Art*. New American Library, Times Mirror, New York.
- Fike, Richard E.
1987 *The Bottle Book: A Comprehensive Guide to Historic, Embossed Medicine Bottles*. Gibbs M. Smith, Inc. Peregrine Smith Books, Salt Lake City, Utah.
- Florence, Gene
1990 *The Collector's Encyclopedia of Depression Glass*. Collector Books, a subsidiary of Schroeder Publishing Co., Inc. Paducah, Kentucky.
- Fuller, S. L.
1988 *Archaeological Investigations in the Bodo Canyon Area, La Plata County, Colorado*. U.S. Department of Energy Uranium Mill Tailings Remedial Action Project Archaeological Report 25. Complete Archaeological Service Associates. Cortez, Colorado.
- Gilborn, C.
1968 Pop Pedagogy. *Museum News* 47(4):12-18.
- Habicht-Mauche, Judith A.
1988 *Historic Artifact Analysis Hubbell Trading Post National Historic Site*. Southwest Report No. 200. Prepared for National Park Service, Southwest Region. Southwest Archaeological Consultants, Santa Fe.
- Israel, Fred L. (editor)
1968 *1897 Sears Roebuck Catalogue*. Facsimile edition, Chelsea House Publishers, New York.
- Ketchum, William C., Jr.
1983 *The Knopf Collectors' Guide to American Antiques: Pottery and Porcelain*. Borzoi Books, Alfred A. Knopf, New York.
- Lehner, Lois
1988 *Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay*. Collector Books, a division of Schroeder Publishing Company, Paducah, Kentucky.
- Lief, Alfred
n.d. *A Close-up of Closures: History and Progress*. Glass Containers Manufactures Institute, New York.
- Lorrain, Dessamae

- 1968 Nineteenth Century Glass. *Historical Archaeology* 2:35-44.
- Marshall, Michael P.
 1996 *A Cultural Resource Survey for the Proposed US Highway 550 Improvements Project, San Juan County, New Mexico*. Cibola Research Report No. 141. NMCRIS Project No. 49509.
- Moir, Randall W.
 1982 Windows to our Past: a Chronological Scheme for the Thickness of Pane Fragments from 1635-1982. Ms. on file, Department of Anthropology, Southern Methodist University, Dallas. [This reference was not consulted, but is discussed in Schoen. It is supplied for the convenience of readers who may wish to consult the original work.
- Munsey, Cecil
 1970 *The Illustrated Guide to Collecting Bottles*. Hawthorne Books, Inc. New York.
- Pulati, Evalene
 1973 *Illustrated Tin Container Guide*. Privately published, Santa Ana, California. On file North Carolina State University, Raleigh.
- Randall, Mark
 1977 Identifying and Dating Nineteenth and Twentieth Century Marbles. *Southwest Folklore* 2:1-34.
- Rock, James T.
 1981 *Tin Cans Notes and Comments*. Klamath National Forest Region 5 Department of Agriculture, U.S. Forest Service, Eureka, California.
- Roenke, Karl
 1978 *Flat Glass: Its Use as A Dating Tool for Nineteenth Century Archaeological Sites in The Pacific Northwest and Elsewhere*. Northwest Anthropological Research Notes, vol. 12, no. 2, pt. 2. Memoir no. 4. Moscow, Idaho.
- Ruppé, Patricia, and Richard H. Wilshusen
 1995 Historic Occupation and Use of the Cedar Hill Area. In *The Cedar Hill Special Treatment Project: Late Pueblo I, Early Navajo, and Historic Occupations in Northwestern New Mexico*, compiled by R. H. Wilshusen. La Plata Archaeological Consultants, Dolores, Colorado.
- Schoen, Christopher M.
 1990 Window Glass on the Plains: An Analysis of Flat Glass Samples from Ten Nineteenth Century Plains Historic Sites. Central Plains Archaeology. *Journal of the Nebraska Association of Professional Archaeologists* 2(1):57-90.
- Toll, H. Wolcott
 1999 *Archaeological Testing of Five Sites along U.S. 550, near Cedar Hill, San Juan County, New Mexico*. Museum of New Mexico, Office of Archaeological Studies, Archaeology Notes 258. Santa Fe.
- Toulouse, Julian Harrison
 1971 *Bottle Makers and Their Marks*. Thomas Nelson Inc. New York.
- White, William G.

1990 *A Window to the Past: Analysis of Flat Glass Recovered from West Point, Nevada*. Thesis, University of Nevada, Department of Anthropology. Published by U.S. Department of the Interior, Lower Colorado Regional Office, Boulder City, Nevada.

Wilshusen, Richard H., and C. Dean Wilson

1995 Reformatting the Social Landscape in the Late Pueblo I-Early Pueblo II Period: The Cedar Hill Data in Regional Context. In *The Cedar Hill Special Treatment Project: Late Pueblo I, Early Navajo, and Historic Occupations in Northwestern New Mexico*, compiled by R. H. Wilshusen. La Plata Archaeological Consultants, Dolores, Colorado.

Yena, Louise

1972 *The Handbook of Antique Coffee and Tea Collectables[sic] Price Guide*. Privately published, San Antonio.