MUSEUM OF NEW MEXICO
OFFICE OF ARCHAEOLOGICAL STUDIES

THE TALPA TESTING PROJECT: ARCHAEOLOGICAL TEST EXCAVATIONS ALONG STATE ROAD 518 AND A DATA RECOVERY PLAN FOR LA 77861, TAOS COUNTY, NEW MEXICO

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ADMINISTRATIVE SUMMARY

Between August 20 and October 26, 1990, the Office of Archaeological Studies, Museum of New Mexico, conducted archaeological test excavations at six sites along State Road 518 in Taos County, New Mexico. Jeffrey L. Boyer and Daisy F. Levine acted as project directors. The project was conducted at the request of the New Mexico State Highway and Transportation Department, which plans to reconstruct State Road 518. This portion of State Road 518 runs through the villages of Ranchos de Taos and Talpa. The sites are all located on private land and on highway right-of-way acquired from private sources.

The sites were recorded during a survey of the highway right-of-way and include a Hispanic homestead (LA 77861) and five artifact scatters probably associated with prehistoric pithouse and pueblo sites (LA 51670, LA 69138, LA 69139, LA 70575, and LA 77862). The prehistoric sites were occupied during the late Developmental and Coalition periods (A.D. 1100-1300). Testing demonstrated that important cultural remains are not present within the highway right-of-way at Areas A and B of LA 69138 or at LA 69139 or LA 77862. Testing also shows that the remains present within the right-of-way at Area C of LA 69138 and at LA 51670 and LA 70575 have been disturbed by highway construction activities in the 1940s and by subsequent excavations for underground utility lines and therefore possess no data potential beyond that collected during testing.

Test excavations at LA 77861 revealed the presence of a historic adobe structure and buried trash deposits. The few temporally diagnostic artifacts recovered indicate that the structure may date near the turn of the twentieth century. One landowner, who grew up at the site, was unable to recall anything about the structure and conjectured that it predated his family's occupation of the site. Data recovery is recommended at LA 77861 if the proposed construction proceeds.

Submitted in fulfillment of Joint Powers Agreement DO4322 between the New Mexico State Highway and Transportation Department and the Office of Archaeological Studies, Museum of New Mexico.

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NMSHTD Project SP-OS-1426(205).
State of New Mexico Excavation Permit No. SE-58.

ACKNOWLEDGMENTS

We would like to take this opportunity to thank the people who made the Talpa Testing Project an enjoyable experience. Our crew, Laurie Evans, Vern Lujan, Sibel Melik, and Chris Sterling, worked with diligence and humor in heat, dust, rain, and mud. They more than deserved the field trips we took and even listened with feigned interest as Jeff spouted off about Taos archaeology. Mrs. Peggy Gregory and Mrs. Dorris Boyer provided excellent living accommodations. Mr. Eloy Medina, who lives adjacent to Area C of LA 69138, brought us water, fresh pears and apricots from his trees, and pleasant conversation, during which we learned much about the root cellar feature and the rest of his family's property. The Vigil family at the Vigil Bar in Talpa sold us cold soft drinks and discussed the history of Talpa and their knowledge of local sites. Mr. Benito Vigil discussed the family history of LA 77861 and identified the existing site features. The Schwann Ice Cream truck driver was kind enough to stop the day his refrigerator unit broke and give us free ice cream, a welcome treat during a hot afternoon. Finally, we should mention the many people of Talpa who stopped to talk, ask questions about our activities, and express their interest in their history and Talpa archaeology. In particular, Jeff would like to mention Peter Chase, who always waved on his way to and from school, and Robbie Sturtcman, who always stopped to talk and look.

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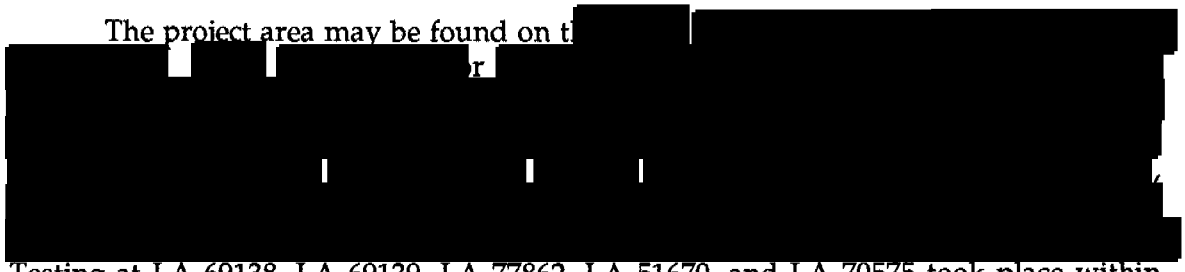
INTRODUCTION

Between August 20 and October 26, 1990, the Office of Archaeological Studies conducted archaeological test excavations at six sites along State Road 518 in Taos County, New Mexico (Fig. 1). The project was conducted at the request of Mr. William L. Taylor of the New Mexico State Highway and Transportation Department (NMSHTD). The NMSHTD plans to reconstruct State Road 518. This portion of State Road 518 runs through the villages of Ranchos de Taos and Talpa. The project was conducted under State of New Mexico Archaeological Excavation Permit No. SE-58.

Jeffrey L. Boyer and Daisy F. Levine acted as project directors. The crew included Laurie Evans, Vernon Lujan, Sibel Melik and Christine Sterling. David A. Phillips, Jr., director of the Office of Archaeological Studies, served as the principal investigator. Levine supervised testing at LA 69138, LA 69139, and LA 51670. She also analyzed and reported the native ceramic artifacts. Boyer supervised testing at LA 77861, LA 77862, and LA 70575. He analyzed and reported the lithic and Euroamerican artifacts and prepared the data recovery plan for LA 77861. Faunal remains were analyzed and reported by Linda Mick-O'Hara.

The Talpa project area involves 3.5 km (2.2 mi) of highway right-of-way from the intersection of State Road 518 and State Road 68 in Ranchos de Taos to the intersection of State Road 518 and Forest Road 437 (Rio Chiquito road) at the southern edge of Talpa. The right-of-way is 30.5 m (100 ft) wide, and the project area totals 10.8 ha (26.6 acres).

The project area may be found on t[redacted]r



Testing at LA 69138, LA 69139, LA 77862, LA 51670, and LA 70575 took place within highway right-of-way. Testing at LA 77861 included both highway right-of-way and private land.

The six sites were recorded or rerecorded during an archaeological inventory survey of State Road 518 conducted during the spring of 1989 and 1990 (Boyer 1990a). Since the sites had artifacts within or immediately outside the highway right-of-way, additional studies were recommended. However, former highway construction and subsequent placement of underground utilities within the right-of-way led us to question the integrity of cultural resources within the right-of-way. Consequently, we recommended test excavations prior to initiating any data recovery efforts. This report discusses the testing project, its results, and a data recovery plan for LA 77861.

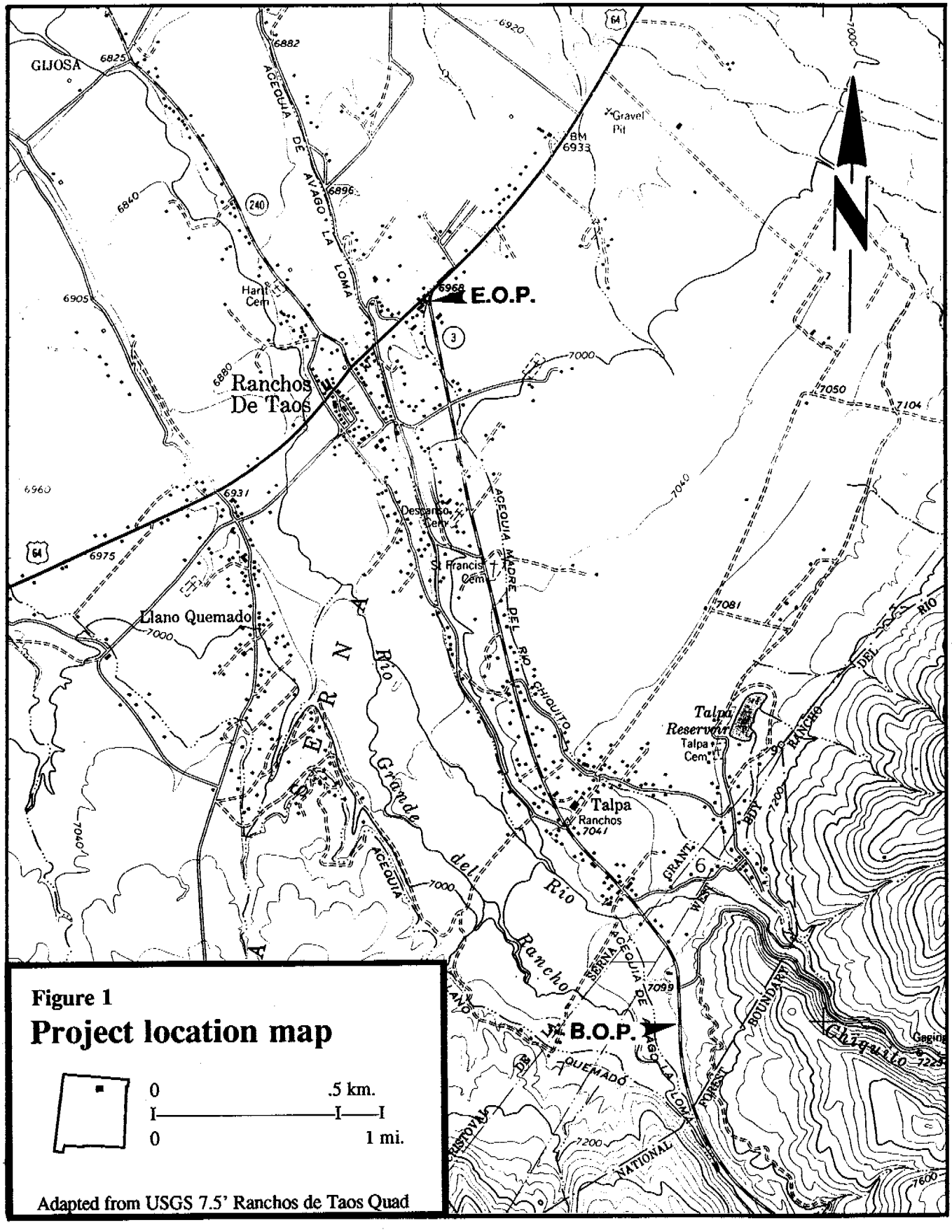


Figure 1

Project location map

0 .5 km.

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0 1 mi.

Adapted from USGS 7.5' Ranchos de Taos Quad

NATURAL ENVIRONMENT

Geomorphology

The project area lies within the Southern Rocky Mountain physiographic province. Three major landforms in the region are in or near the project area: Taos Plateau, Tres Ritos Hills, and the Picuris range. The Taos Plateau is bounded on the west by the San Juan Uplift (the San Juan and Tusas Mountains) and on the east by the Sangre de Cristo Mountains. It was formed by block faulting along the Rio Grande Rift, resulting in a wide trough, the Rio Grande Depression, which has filled with volcanic and sedimentary materials. These materials, consisting of a variety of gravels, sandstones, volcanic rocks, cherts, and clays, make up the Santa Fe formation. A great deal of the area is capped by volcanic material, primarily basaltic flows, which are a major and obvious feature of the region (Heffern n.d.).

Tres Ritos Hills is a low-lying segment of the Taos range of the Sangre de Cristo Mountains. While the Sangre de Cristos are largely made up of granites, schists, and quartzites, the Tres Ritos Hills are sandstones, limestones, and shales. In comparison to the adjacent mountains, the Tres Ritos Hills have generally lower elevations, ranging from near 2,130 m (7,000 ft) in the Talpa-Ranchos area to crests around 3,050 to 3,350 m (10,000 to 11,000 ft). The Tres Ritos Hills are a region of perennial streams, including, in the area of this project, Rio Grande de Ranchos and Rio Chiquito.

The Picuris range is an isolated spur of the Sangre de Cristo Mountains consisting of igneous and metamorphic rocks. The range is a complex series of ridges and deep canyons radiating from Picuris Peak, whose elevation is 3,295 m (10,810 ft). It juts westward into the Taos Valley, forming the southwest corner of the Taos Plateau, and is separated from the adjacent but geologically dissimilar Tres Ritos Hills by a fault that formed the valley of Rio Grande de Ranchos.

The Rio Grande de Ranchos flows from the mountains near Talpa and has cut a canyon through an alluvial apron, a characteristic feature of the eastern side of the Taos Plateau. Benches on either side of the resulting canyon, which is 9-15 m (30 to 50 ft) deep, are the locations of three Hispanic villages: Talpa, Llano Quemado, and Ranchos de Taos (see Wetherington 1968; Herold and Luebben 1968; Schilling 1960).

The major geological features -- the Tres Ritos Hills, the Santa Fe formation, and the volcanos and basalt flows -- are culturally important because they have provided raw lithic materials for the region's prehistoric and historic inhabitants. Of specific importance are chert from the limestone beds, sandstone, chert, and quartzite from the Santa Fe formation gravels, and basalt and obsidian from the volcanic features. Soil accumulation along drainages has provided an important source of clay for pottery manufacture and building materials. However, unlike lithic materials, little study has been focused on clay sources. As part of current research on prehistoric sites in the Pot Creek area, we are analyzing adobe building materials from pithouses and pueblos.

Soils

The project area crosses four major soil associations. From the intersection of State Roads 518 and 68 to the Talpa school, the soils are classified as Silva loams and are described as brown loams over brown and pink clay loams on upland fans and ridges.

From the Talpa school to the crossing of the Rio Chiquito, the soils are Fernando clay loams, described as brown loams over brown silty clay loam and silty loam on alluvial fans. Between the Rio Chiquito and the piñon-juniper line is a small area of Manzano clay loam, which is a brown clay loam found in arroyo channels.

In the immediate area of the intersection of the Rio Chiquito road and State Road 518 are Sedillo-Silva association soils. These soils are brown, very gravelly loams over gravelly clay loams and gravelly sandy loams.

The soils in the project area are considered adequate to good for agriculture (Maker et al. 1974).

Vegetation

The most common natural plant community in the area is the piñon-juniper woodland, with a moderately dense growth of this community on the hillsides. Ponderosa pine (*Pinus ponderosa*) and white fir (*Abies concolor*) are occasionally present along major tributary drainages of the Rio Grande de Ranchos, particularly the Rio Chiquito. Ground cover in the lower area consists mainly of sagebrush (*Artemisia tridentata*), chamisa (*Chrysothamnus greenei*), and wild grasses and annuals. Most of the land below the foothills is used for habitation or irrigated farm and pasture land. Except for family gardens, the common crops are alfalfa and grass hays.

The river bottom supports a thriving riparian community of juniper (*Juniperus* spp.), cottonwood (*Populus* spp.), willow (*Salix* spp.), and other deciduous bushes and wild annuals. This community is particularly dense in places, especially the stands of willow.

The actual right-of-way from the mouth of the Rio Grande de Ranchos canyon to the intersection of State Roads 68 and 518 is the scene of a thick disturbed-ground plant community consisting primarily of grasses but also including weedy annuals.

Climate

Cordell (1978:89, Map 6) shows the mean annual rainfall to be 310 mm (12.24 in) at Taos, increasing to near 380 mm (15 in) in the higher areas of the Tres Ritos Hills.

This agrees with Maker et al. (1974:7), who show Taos's annual rainfall to be 320 mm (12.55 in). Variability from these figures is high, however, ranging from -30 percent to +50 percent in any given year (Cordell 1978:Map 6). Most of the precipitation comes in the form of late summer thunderstorms, while winter snow storms contribute relatively less to the overall available moisture.

Maker et al. (1974:7) record the mean maximum temperature in Taos as 15.5 degrees C (60 degrees F), while the mean minimum is -0.5 degrees C (31 degrees F). Cordell (1978:Map 2) shows the effective temperature in the region to be 11.7 degrees C, making it one of the coolest areas in the state. Taos has an average 140-145 days of growing season, with recorded annual variability ranging from -15 to +20 days (Cordell 1978:71; Maker et al. 1974:7). This figure is generally more than adequate for subsistence agriculture, supporting the contention of Greiser et al. (1990:5) that length of growing season is not and was not a significant limiting factor in prehistoric or historic farming in the Taos Valley. They point to a study conducted at Picuris Pueblo that suggests that corn needs about 533 mm (21 in) of water during its growing season, while the local precipitation is just over half that amount, and conclude that water availability is the primary limiting factor.

The elevation of the project area increases from about 2,121 m (6,960 ft) at the State Roads 518/68 intersection to about 2,176 m (7,140 ft) at the mouth of the Rio Grande de Ranchos canyon.

CULTURAL ENVIRONMENT

The following discussion is intended to provide background for interpreting the current testing results. Because preceramic sites were not included in the project, this discussion begins with the Puebloan (Anasazi) period. The reader is referred to Cordell (1978), Stuart and Gauthier (1981), and Young and Lawrence (1988) for more detailed regional syntheses.

Puebloan Period (ca. A.D. 1100-1500)

Most discussions of the Puebloan period in the Taos region stress the scarcity of Basketmaker and early Puebloan sites (see Cordell 1978; 1984). Remains from Basketmaker and early Puebloan periods (Basketmaker II and III, Pueblo I in the Pecos classification; late Preceramic and early Developmental in Wendorf and Reed's [1955] classification) are identified only by isolated projectile points on later sites. While Woosley (1980; 1986) discusses the Developmental period in Taos prehistory, no sites have been chronometrically dated to the first half of the period (A.D. 600-900).

The earliest phase of the Puebloan period identified in the Taos area is called the Valdez phase. This phase is commonly dated to A.D. 1000-1200 by the presence of Taos/Kwahe'e Black-on-white, which has been dendrochronologically crossdated to A.D. 900-1200 (Wetherington 1968; Green 1976). However, since only four Valdez-phase sites have yielded chronometric dates before A.D. 1100 (Crown 1990b), the phase probably dates between A.D. 1050-1100 and 1200.

Sites from this phase consist of pithouses and small pithouse villages with associated surface work areas or surface rooms of jacal construction (Cordell 1978:36; Woosley 1980:8). In the southern Taos area, pithouses tend to be round, while those in the northern Arroyo Seco-Arroyo Hondo area are usually square or rectangular. Greiser et al. (1990) suggest a possible correlation between this pattern and Taos Pueblo traditions in which different groups of people inhabited the northern and southern parts of the valley prior to aggregation, resulting in the formation of Taos Pueblo. Associated ceramic types include Taos/Kwahe'e Black-on-white and a plain, incised, or neck-banded gray or brown ware known as Taos Gray.

The next phase in the Taos area is the Pot Creek phase, dated to A.D. 1200-1250 by the presence of Santa Fe Black-on-white, a carbon-painted ware. Crown (1990b) suggests dates between 1225 and 1260 or 1270, based on tree-ring dates. This phase was characterized by population aggregation in numerous small "unit pueblos." Examples have been recorded in the Arroyo Seco, Arroyo Hondo, Arroyo Miranda, and Pot Creek-Rio Grande de Ranchos areas, although only two sites have been excavated (Jeancon 1929; Vickery 1969; Ottaway 1975). In this phase, kivas are first present at some sites. Taos/Kwahe'e Black-on-white continued as an important part of the ceramic assemblage. Incised and neck-banded Taos Gray was replaced by a corrugated variety.

The Talpa phase is usually dated to A.D. 1250-1350 by the presence of Talpa Black-on-white, apparently a local variety of Santa Fe Black-on-white. Crown (1990b) suggests beginning dates of 1260 or 1270. During this phase, population aggregation continued, apparently at the expense of the earlier small pueblos. The phase is known only from excavations at Pot Creek Pueblo, a large site first occupied in the Pot Creek phase that grew to perhaps 300 ground-floor rooms during the Talpa phase. The trend of population aggregation and site growth may have set the stage for the establishment of the large pueblos at Cornfield Taos and Old Picuris. The end of the phase is established by the abandonment of Pot Creek Pueblo, which Wetherington (1968) assumes to have occurred before A.D. 1350 because neither Biscuit nor Glaze ceramics are present at the site. Crown (1990b) places the end dates at the site in the 1320s, based on dendrochronological data.

The final phase in the prehistoric Puebloan period is unnamed but corresponds to Dick's (1965) Vadito phase, dated to A.D. 1375-1500 from excavations at Old Picuris. These years are similar to those given by Ellis and Brody (1964) for the occupation of Cornfield Taos. Several other sites in the Taos area apparently date to this phase on the basis of polychrome and glazed ceramics.

Like those of the preceding phase, the sites are generally large, although some smaller sites are known. One site near Llano Quemado may be ancestral to the Feather Clan at Taos Pueblo. Cornfield Taos is evidently directly ancestral to Taos Pueblo. On the basis of ceramics, Ellis and Brody (1964) contend that Cornfield Taos was first occupied about A.D. 1300 or 1350 and abandoned about A.D. 1450, when Taos Pueblo was occupied. Taos Pueblo is still occupied (Boyer 1986b; Greiser et al. 1990).

Historic Period (A.D. 1500-present)

The presence of historic Plains Indian groups in the area is recorded in early historic Spanish documents as well as in the archaeological record. Spielmann's (1983) research indicates that economic interactions between Plains and Pueblo Indians were relatively minor prior to the late 1600s, but increased considerably after this time. Archaeologically, this was reflected in a relative scarcity of materials, indicating puebloan use of plains resources at Pot Creek Pueblo (Girard 1986:11). John Speth has informed me that chemical analyses of bison bones from the site may demonstrate that they were obtained from the Taos plateau. Certainly, by the time of Spanish contact in 1540, the Indians of Taos Pueblo had established relations with Apaches, Kiowas, Utes, and other groups, facilitated by annual trade fairs at the pueblo. Girard (1986:11) notes:

> Apachean groups from the Plains (Querechos, Vaqueros) regularly visited Taos Pueblo at the time of initial Spanish contact and there is some indication that some Apachean groups (Quinia Apaches, Apaches del Acho) may have resided permanently in the Taos area during the 17th century. Comanche attacks drove the Jicarilla Apaches eastward from the Cimarron area into the Sangre de Cristo Mountains during the 1720's. Some Jicarillas settled in the mountain valleys between Taos and Picuris.

Research in the Pot Creek area is intended to clarify the nature of the Apachean presence in the region (Girard 1988).

The increasing presence of Spanish culture in northern New Mexico produced dramatic changes in the region's cultural and economic fabric (see Cordell 1978:103; Cordell 1979:150-151). The Spanish brought to the area a different religion, social organization, and economy, including domestic animals and new plant foods.

First seen by the Spaniards in 1540, the pueblo of Taos became the location of a Franciscan mission in the early 1600s, and a community of Spanish settlers began to grow in the valley. The settlers first lived just outside the pueblo walls for security, but soon they also moved out into the valley (Jenkins 1966). Small agricultural villages grew up along many river valleys in northern New Mexico, and missions were established at most pueblos.

Cordell (1978:121-129) suggests that the important research questions for the late historic period are concerned with four issues: the development of Hispanic settlement, the use of the region for subsistence and commercial pastoralism, the introduction and development of logging and logging railroads, and mining in the late 1800s and early 1900s. Mining was apparently not a significant activity in the Tres Ritos Hills (Schilling 1960).

Pratt and Snow (1988:220) contend that by the late 1700s, the dominant Hispanic settlement pattern was one of scattered ranches. Exceptions included formal plazas at Taos, Los Cordovas, Truchas, and Las Trampas de Taos, a village now known as Ranchos de Taos.

In 1778, Fray Juan Agustín de Morfí observed that the settlers preferred to live in isolation, a situation which he deplored and contrasted with the "well-ordered" pueblos of the Indians (Simmons 1977:14). Simmons (1969) states that in 1778, Teodoro de Croix ordered Governor Anza to force the settlers into compact settlements and that progress toward that end was being made by the following year. However, Pratt and Snow (1988) argue that the pattern observed by Fray Morfí continued to be the norm. Detailed studies of Spanish sites in the Taos area have not been carried out, and so there is, at present, no body of data to contrast with information on Spanish sites in the Rio Chama, Cochiti Reservoir, and Santa Fe areas.

"Anglos" began moving into the area in the early 1800s, and Taos became a central location for a group of independent mountain men and trappers known as the "Taos trappers" (Weber 1968). Because of the presence of the trappers, Taos was also an important center for merchants and traders and an important port for merchandise in the Santa Fe trail trade.

One important Anglo site from this period in the Rio Grande de Ranchos Valley is St. Vrain's mill. This may be the location of a mill, distillery, and trading post owned by the firm of Roland and Workman in the 1830s. Before leaving for California, Roland and Workman were major competitors of Simeon Turley in the production of wheat flour

and wheat whiskey ("Taos lightning"). The mill was used by Ceran St. Vrain, a partner of the Bent brothers, from 1849 to 1864, when the structure burned and St. Vrain built his famous mill at Mora. Archaeological evidence suggests that the mill was rebuilt after 1864 and used until about 1903, when it was again abandoned (Newman et al. n.d.).

Archaeological remains apparently associated with pastoral activities have been recorded on the "floor" of the Taos plateau, in the mountains west of the valley between Tres Piedras and Tierra Amarilla, and in the Tres Ritos Hills. On the plateau floor, sheep camps tend to be scatters of artifacts, primarily steel food and tobacco cans, occasionally with small clearings in the brush or rock structures that may have been pens (Boyer 1983, 1984, 1985a, 1988). Since the herders used wagons or tents, habitation structures are not known. Warm-weather camps in the mountains are seen archaeologically by the presence of carved aspen trees near large meadows. The carvings usually consist of Hispanic names, place names, and dates in the warm months (May through September) of the 1900s through the 1930s. Reoccurrence of names with dates from succeeding years indicates the continued use of areas, and spatial distributions of names indicates a degree of territoriality in pastoral land use (Boyer 1987).

Previous Research

Archaeological research in the Rio Grande de Ranchos area has a long history. Bandelier (Lange and Riley 1966) noted the presence of several ruins in the Ranchos de Taos area, including the pueblo at Llano Quemado, which was partly excavated in 1920 by J. A. Jeancon. Jeancon (1929:6) was the first to describe the large pueblo at Pot Creek, which he called "one of the largest adobe-walled remains the writer has seen in the Southwest." In contrast, the Llano ruin, which Jeancon chose to study, was apparently a much smaller pueblo, what would later be called a "unit-type" pueblo, common during the Pot Creek phase (Jeancon 1929:27-28). However, since only part of the site was excavated, the actual size of the site remains unknown.

In 1956, Blumenschein (1956:55-56) reported that the Taos Archaeological Association had carried out excavation at Pot Creek Pueblo in 1953. She reported evidence of two occupations based on stratigraphic relations between structures and on the presence of both Taos/Kwahe'e and Santa Fe Black-on-white pottery.

Also in 1956, the Museum of New Mexico carried out salvage excavations at two sites along the Rio Grande de Ranchos, LA 3569 and LA 3570. LA 3569 was a four-room jacal structure with possible associated pits. Based on pottery frequencies, the site apparently dated to the Valdez phase (Peckham and Reed 1963:2-4, 10). LA 3570 was a circular pithouse from the same phase (Peckham and Reed 1963:4-6, 10). The site was relocated by Boyer (1989), and additional excavations were conducted in 1989 by the Office of Archaeological Studies. Analyses are in progress at the time of this report.

In 1968, Herold reported on a 1960 survey of the Rio Grande de Ranchos canyon in which he located 110 archaeological sites. He classified these sites according to types of structures present and dated pottery groups ranging from A.D. 1000 to 1875 (Herold

1968). In the same volume, Luebben (1968) reported on the 1960 excavations at TA 32, a pithouse site approximately 0.75 mile (1.2 km) north of Fort Burgwin on the second terrace east of the river.

Also in 1968, the results of Wetherington's excavations at Pot Creek Pueblo were published (Wetherington 1968). This seminal volume not only describes the pueblo, its features, and artifacts, but also defines puebloan occupational phases in the Taos Valley, a sequence still used today, and attempts to relate what was then known of Taos archaeology to the rest of the upper Rio Grande.

In 1969 and 1975, Vickery reported on excavations at TA 26, a small pueblo near Pot Creek (Vickery 1969; Ottaway 1975).

In 1976, Green reported on excavation at a Valdez-phase pithouse near Pot Creek (Green 1976). In the same year, Morenon et al. (1976) discussed a noncollection survey and the utility of predictive models in the Tres Ritos Hills. These same issues were again addressed by Morenon and Quinn (1977) after further survey the following year.

Research in the 1980s by the staff and students of the Fort Burgwin Research Center has led to new information on the region, including lithic procurement (Newman 1983), plant use (Baker 1983), painted ceramics (Proctor-Weiss 1983), agriculture (Woosley 1983), and settlement (Woosley 1986; Kriebel 1983), as well as a preliminary synthesis (Woosley 1980; 1986). Unfortunately, most of this material is in the form of individual papers, and a unified collection and synthesis of the material awaits further work. Crown (1987, 1990a, 1990b; Crown and Kohler 1990) has begun to summarize data from the Fort Burgwin excavations.

In 1985, Boyer and McCrary conducted a survey of the highway right-of-way from Ranchos de Taos to Fort Burgwin for a seismic mapping project (Boyer 1985b). They recorded four sites, one of which, LA 51670, was tested during this project and is discussed below.

McCrary (1988) recorded LA 69138, a very large sherd and lithic artifact scatter possibly representing midden deposits from pueblos now located under houses on the Talpa Rim. Also along the highway is LA 69139, another sherd and lithic artifact scatter. Both sites were tested during this project and are discussed below. On the south side of the mouth of Rio Chiquito road (Forest Road 437), east of State Road 518, McCrary recorded LA 69141, a sherd and lithic artifact scatter with an early 1900s component. The site was not tested during this project.

Finally, in 1985, Boyer made a search of the files of the Fort Burgwin Research Center for site locations in the survey area. The region, including the Ranchos de Taos-Talpa-Llano Quemado area, has been intensively surveyed by the staff and students of the center. However, site files and maps for the Rio Grande de Ranchos valley have been removed from the center, and so only those sites on Fort Burgwin property and those located by Herold (1968) are located on currently accessible maps.

TESTING METHODS

At each site, a 1 by 1 m test pit was placed in an area that promised the best data potential, usually identified as the area with the highest surface artifact density. While the test pit was being excavated, auger transects were placed on one or both sides of the highway, depending on the presence of surface artifacts. Within sites and within the three "areas" of LA 69138, auger tests were placed at 2 m intervals. If auger tests showed the presence of subsurface artifacts, they were used to establish the locations of additional 1 m by 1 m test pits. If augering showed little or no subsurface cultural material, the interval was increased to 4 m. At the north end of LA 77862 and between the "areas" of LA 69138, the interval was further increased to 10 m.

The exception to this procedure was LA 77861. Because highway construction at this site will entail expanding the right-of-way into the site, our testing was not restricted to the existing right-of-way. A 4 m by 4 m auger grid system was extended across the site. When augering showed subsurface remains, the interval was decreased to 2 m and 1 m to define the depth and extent of the remains.

Excavations were conducted in 10 cm levels, except at LA 77861, where Test Pits 3, 4, and 5 were excavated in strata defined by augering. Excavated material was screened through ¼ inch hardware cloth, and artifacts were collected by provenience. No chronometric, botanical, or architectural samples were collected. Each level in an excavation unit was recorded on grid level forms. Features were recorded on feature forms. All collected materials were logged on field specimen forms. Existing site maps were modified using compass and tape to reflect more detailed knowledge of the sites. Photographs of features were taken when they were encountered.

Human tooth and cranial fragments were found in an auger hole at LA 69138 (see site discussion, below). Because their context was disturbed and the site will not be revisited for data recovery, the remains were photographed in the field and reburied. In accordance with OAS procedures for handling sensitive materials, reburial took place after consultation with the Office of the Medical Investigator and the State Historic Preservation Division confirmed that they were prehistoric.

ANALYTIC METHODS

Native Ceramics

Sherds were analyzed and classified by ceramic type, vessel form, and frequency. Temper was examined when necessary to determine ceramic type. Taos Gray was recorded as plain, incised, punctate, and corrugated. Because there is some confusion in distinguishing Taos Black-on-white from Kwahe'e Black-on-white, they were lumped as Taos/Kwahe'e. Carbon-painted black-on-white sherds with tuff temper and a fine paste were coded as Santa Fe Black-on-white. A possible local variety of Santa Fe Black-on-white with coarse sand temper was coded as Talpa Black-on-white. Indeterminate white wares were those lacking any design.

Tewa wares were mainly classified by color because almost all of the sherds were too small to make accurate type designations. Thus, a red-slipped sherd with a Tewa paste was called Tewa Red because it could be from the upper portion of a San Juan Red-on-tan vessel or the lower portion of a polychrome vessel. A Tewa gray sherd could be part of an all-gray vessel, or the lower unslipped portion of a Tewa black vessel. Tewa painted sherds without enough design to specify a type were classified as indeterminate Tewa Polychrome.

Sherds were assigned to jar, bowl, and indeterminate vessel form categories (one ladle sherd was collected at LA 70575). Taos Gray and Micaceous utility ware vessels are generally jars, but unless we had rim sherds or sherds large enough to accurately discern vessel form, sherds from these types were categorized as "indeterminate vessel form."

Lithic Artifacts

Chipped stone artifacts were analyzed using the OAS standardized lithic artifact format (OAS 1990). Eight variables are recommended for all analyses: material type, material texture, artifact morphology and function, dorsal cortex, flake platform type, portion, and dimensions. Although all eight variables are not discussed in the site descriptions in this report, they were all monitored. In addition, we monitored six variables considered optional in the standardized format: cortex type, platform lipping, wear patterns, distal termination, edge angle, and edge shape. In this report, we will emphasize material, artifact morphology, and artifact function as a means of describing the lithic artifacts collected during testing.

The single ground stone artifact was analyzed using the OAS standardized ground stone format (Bullock et al. 1990).

Euroamerican Artifacts

Euroamerican artifacts were analyzed using an early version of the OAS standardized historic artifact format (Boyer et al. 1991), which focuses on artifact function and is designed to monitor function regardless of material of manufacture. The function of each artifact is described in a hierarchical framework comprised of functional categories, types, and specific functions. For this project, analysis emphasized function and chronological data. In this report, we focus on artifact function and dating information as a means of describing the Euroamerican artifacts collected during testing.

Most of the dates obtained are actually ranges, expressed as "pre dates" (e.g., pre-1930), "post dates" (post-1750), or ranges (1840-1920). Since there were very few exact dates, the artifacts associated with each date range could have come from any year within the range. Three techniques were used to arrive at site dates. The first technique was to recognize the minimum date range, which is the smallest time span within which all datable artifacts could fall (Gilpin 1982). Usually, this technique results in the largest range of dates for an assemblage. It does not, however, account for the relative weight of the number of artifacts in each range. On the assumption that an artifact could come from any year during its date range, the numbers of artifacts that could date to any year within each date range were calculated. These numbers were converted into percentages of the total number of datable artifacts, which reflect the relative frequencies of dates for each five-year period. The percent of artifacts dating to each year rises from the earliest dates to a peak and then usually decreases in a bell-shaped pattern. This technique generally results in narrowing the dates from the minimum date range and often suggests an even narrower peak period within which the highest number of artifacts could date. Finally, South's (1977) mean ceramic date formula was used to calculate mean dates for groups of datable artifacts and for assemblages. Comparing mean artifact dates with the midpoint of the minimum date ranges and the artifact date ranges by percentage suggests which range is the most accurate.

Faunal Remains

All bone was identified using the comparative materials housed at the Office of Archaeological Studies, Santa Fe, and the osteological collection maintained at the Museum of Southwest Biology, Albuquerque. Gilbert's (1980; Gilbert et al. 1981) and Olsen's (1964, 1979) guides for the osteological identification of birds and mammals were used as preliminary aids in identification. Boessneck (1969) was used along with comparative materials in the differentiation of sheep and goat remains.

All specimens were identified to the most specific taxonomic level possible. Other variables identified include element, portion, side, and relative age. Processing and taphonomic alterations were also considered and recorded if present. The variables documented include environmental alterations, animal alterations, burning, and butchering marks. These alterations will be discussed as appropriate in reviewing the assemblage analysis.

TESTING RESULTS

The following discussion describes the sites and the results of testing at each, proceeding from north to south. Site descriptions are taken from the survey report (Boyer 1990a) but have been updated for this report. Appendix 1 presents legal and UTM locations for the sites.

LA 69138

LA 69138 was recorded by McCrary (1988) as a large sherd and lithic artifact scatter on the Talpa Rim (Fig. 2). Ceramics observed include Taos/Kwahe'e, Santa Fe Black-on-white, Talpa Black-on-white, Tewa Red, Kapo Black, and plain, corrugated, incised, impressed, and micaceous sherds. Six projectile points and several pieces of ground stone were noted. No evidence of structures was observed. The surface ceramics indicate both Developmental/Coalition (Pot Creek-Talpa phases) and Historic occupations. Woosley (1986:151) shows a Developmental/Coalition site in this location but does not indicate a historic occupation. It is reasonable to assume that the site is related to one or more of the numerous pueblos known to line the Talpa Rim.

The site was originally described as consisting of two areas of high surface artifact density separated by scattered artifacts and extending for 280 m along the west side of State Road 518. During the 1990 right-of-way survey, the number of artifact areas was increased to three, and the size of the site was lengthened to about 340 m. The third area consists of a small concentration of sherds and lithic artifacts. Artifacts were also found on the east side of the highway across from Area B, indicating that the highway actually crosses the site, at least in that area. The presence of three artifact areas may point to an association with several pueblos along the rim. However, we have chosen to treat them as parts of one large site, since we could not accurately disassociate them as a result of our testing.

During his 1988-89 monitoring of transmission line construction at LA 69138, McCrary observed that construction of transmission line structures brought up artifacts from at least 0.5 m below the surface. Because this transmission line is located just outside the right-of-way fence, McCrary's observations suggested that extensive subsurface deposits would be present within the proposed highway construction zone.

The testing phase confirmed the presence of subsurface deposits, although disturbance from three buried utility lines has affected the integrity of the site. Testing occurred in areas of artifact concentrations and where cultural material was found in the auger tests. Nine test pits and 50 auger tests were excavated on the west side of the highway. Augering on the east side, in Area B, did not reveal any cultural material.

Test Pits 1 and 2 were placed in Area A at the north end of the site. The remains of a possible feature were uncovered, but because of the utility disturbance we could not

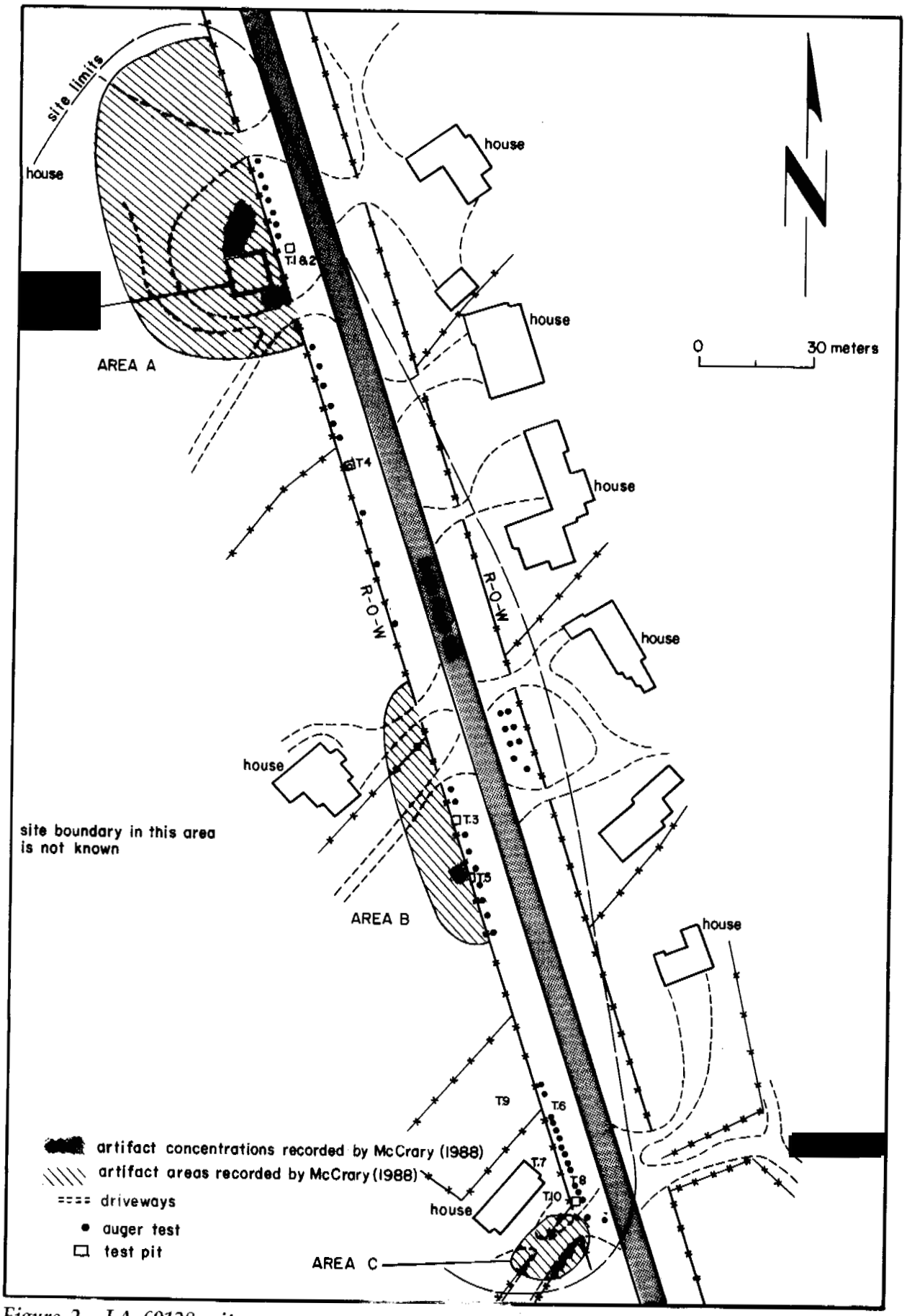

Figure 2. LA 69138, site map.

determine its nature. Excavation revealed an amorphous stratum of dark brown soil mixed with charcoal and caliche, which contrasted sharply with the surrounding light tan fill. Some artifacts were included in this stratum, though the amount of caliche and the undefined nature of the dark fill suggests that most of the feature was destroyed by the installation of the underground utility lines.

Test Pit 3 was placed in Area B adjacent to the right-of-way fence. A light to moderate amount of artifacts was found to Level 5, where we hit a culturally sterile layer. The fill was a dark brown loamy fill, but no features were encountered here.

Test Pit 4 was placed next to the deepest auger test in the transect between Areas A and B and near a mounded C-shaped feature located out of the right-of-way. We were not certain whether this feature was a stock tank that had been partially bladed or a room block, and we hoped the test pit might clarify its identity. The fill was a dark loam with sherds and lithic artifacts occurring to 60 cm below the surface. Except for a chunk of concrete at 2-18 cm below the surface, no historic trash was found in this test pit. Immediately below Level 4, we hit a culturally sterile red clay layer. No features were encountered, and it is likely that the artifacts have been washed in from a nearby alfalfa field, as they would have been uncovered by plowing.

Test Pit 5 was in Area B, adjacent to an auger test in which a human tooth and cranial fragments were found 5 to 7 cm below the surface. On the surface of a large ant hill next to the test pit and under the right-of-way fence were tertiary flakes, sherds, and one projectile point, suggesting a subsurface site. The first level of the test pit produced a large number of sherds and lithic artifacts and one human tooth. Medium to large-sized cobbles and caliche were also present. By the bottom of level 2, we found culturally sterile orange clay. Again, it appears that the utility lines have disturbed this area, and very little is still intact. In fact, the location of the cranial fragments at the edge of a utility trench suggests disturbance of a burial by utility excavation. The burial location could not be determined, however, and the remains were reburied in the auger hole.

Test Pits 6 through 10 were placed in Area C at the southern end of the site. Test Pit 6 was situated in an area where rodents had brought up subsurface charcoal and sherds between the right-of-way fence and a buried telephone line. This suggested subsurface cultural remains. Charcoal and mixed prehistoric and historic trash were found throughout the test pit. A small pit with dark brown soil mixed with charcoal was present at the base of Level 3 (Fig. 3). The test pit was extended to the north as Test Pit 9 to determine the extent of this feature. Fill was dark, loose soil, with modern trash (beer bottle glass and white ware sherds) mixed with prehistoric sherds, lithic artifacts, and butchered (sawed) bone. A smaller "pit within the pit" appeared at the base of Level 3 in the northeast corner of Test Pit 9 (Fig. 4). It contained burned rock, caliche, charcoal, and burned bone. Augering revealed that it extended to a depth of 1.15 m below the surface. Within this pit, artifacts were also mixed. For instance, a piece of melted glass and a possible Red Mesa Black-on-white sherd were found in close proximity. It is likely that this was a historic trash pit and possibly a roasting pit (suggested by the amount of burned rock). Rodent action and mechanical disturbance have caused sufficient jumbling of artifacts to make assigning a temporal affiliation to this area nearly impossible.

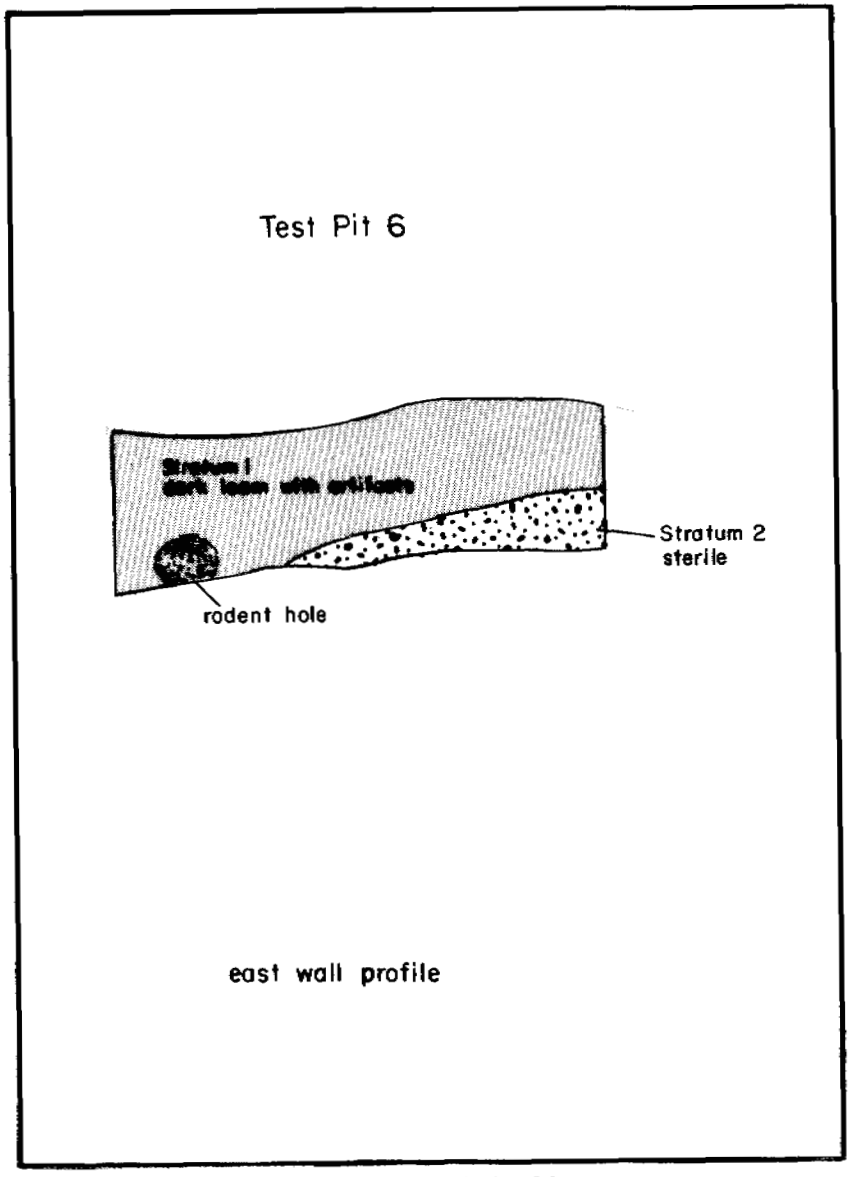

Figure 3. Profile of Test Pit 6, LA 69138.

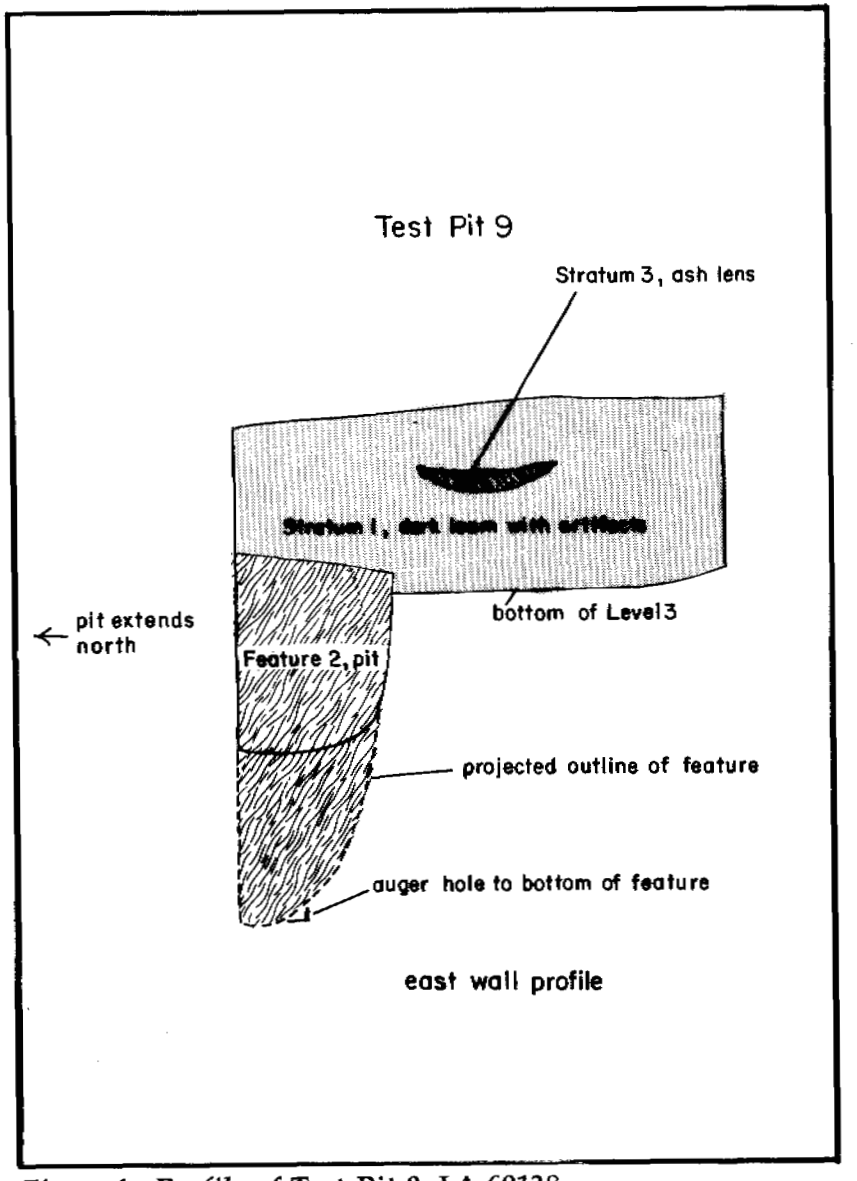

Figure 4. Profile of Test Pit 9, LA 69138.

Test Pits 7 and 8 were contiguous grids placed over a filled-in root cellar (Feature 1; Fig. 5) that extends into the right-of-way. Mr. Eloy Medina owns the property on which the west half of the cellar is situated, and his house is 2 m from the northwest corner of the cellar. Level 1 in both test pits exposed a rock alignment outlining the top of the wall. Test pits were only excavated to 20 cm below the surface, enough to see some of the construction, which, combined with Mr. Medina's information, presented an accurate description of the cellar. Testing revealed a thick layer of adobe under the rock alignment and a yellow-brown fill with a high gravel content. This apparently was base course from a gravel quarry used to fill in the root cellar when it was abandoned.

Mr. Medina, who is 80 years old, told us that the cellar was built when he was about 15, which would have been 1925. It was constructed by him and his father, who dug it by hand using a horse-drawn sledge. The cellar was originally about 2.5 m (8 ft) deep. The walls were plastered with adobe, and large rocks were placed around the tops of the walls to support the vigas, which were covered with boards and dirt.

When the cellar was first built, State Road 518 did not exist. The highway was built in the mid-1940s, and the cellar was then half in and half out of the right-of-way. However, the family continued to use it until the mid-1970s, when they noticed that the walls, particularly in the southeast corner, were getting wet due to the proximity of an irrigation ditch. They then decided to fill the cellar rather than repair the walls. According to Mr. Medina, it took three dump truck loads of gravel to fill the cellar, which explains the fill we observed in level 2. Dishes, pots and pans, and jars of canned fruit and jellies were in the cellar when it was filled in. These items are still buried at the bottom of the feature and probably date from its latter period of use (1960s and 1970s). The irrigation ditch is still present within the highway right-of-way and is used by Mr. Medina to water a garden area behind the house.

Test Pit 10 was placed in an area where auger testing brought up sherds from 40 cm below the surface. An alignment of large cobbles, which seems to be the result of clearing a now-abandoned ditch just south of the test pit, was present immediately below the surface. Mixed prehistoric and historic artifacts were found through Level 3 (30 cm below the surface). As with most of the other test pits, this area appears to have been disturbed by placement of underground utilities.

During testing, we had the opportunity to examine a backhoe trench excavated for a new telephone line on the east side of the highway right-of-way within the site limits of LA 69138. This trench was approximately 1 m wide and 1 m deep. A pit measuring about 6 m long and 80-90 cm deep was visible in the east wall of the trench, filled with dark soil, charcoal, and a mixture of prehistoric and historic trash (Fig. 6). Prehistoric plain ware sherds, lithic artifacts, historic white ware sherds, and bone were found in very small amounts in the sample of fill we screened. Judging from the types of artifacts recovered and the proximity of two other underground utility lines, we concluded that very little of this feature is intact.

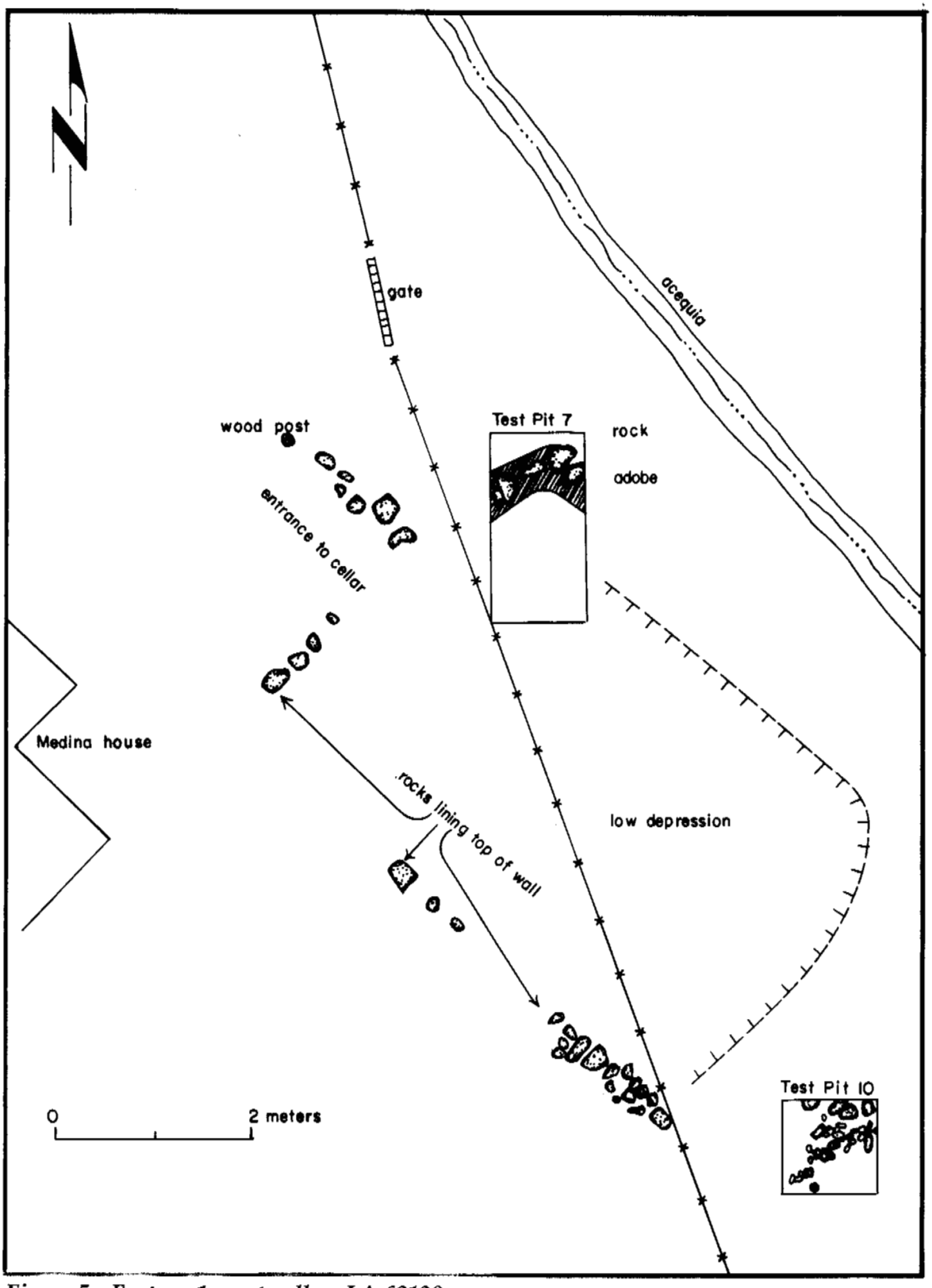

Figure 5. Feature 1, root cellar, LA 69138.

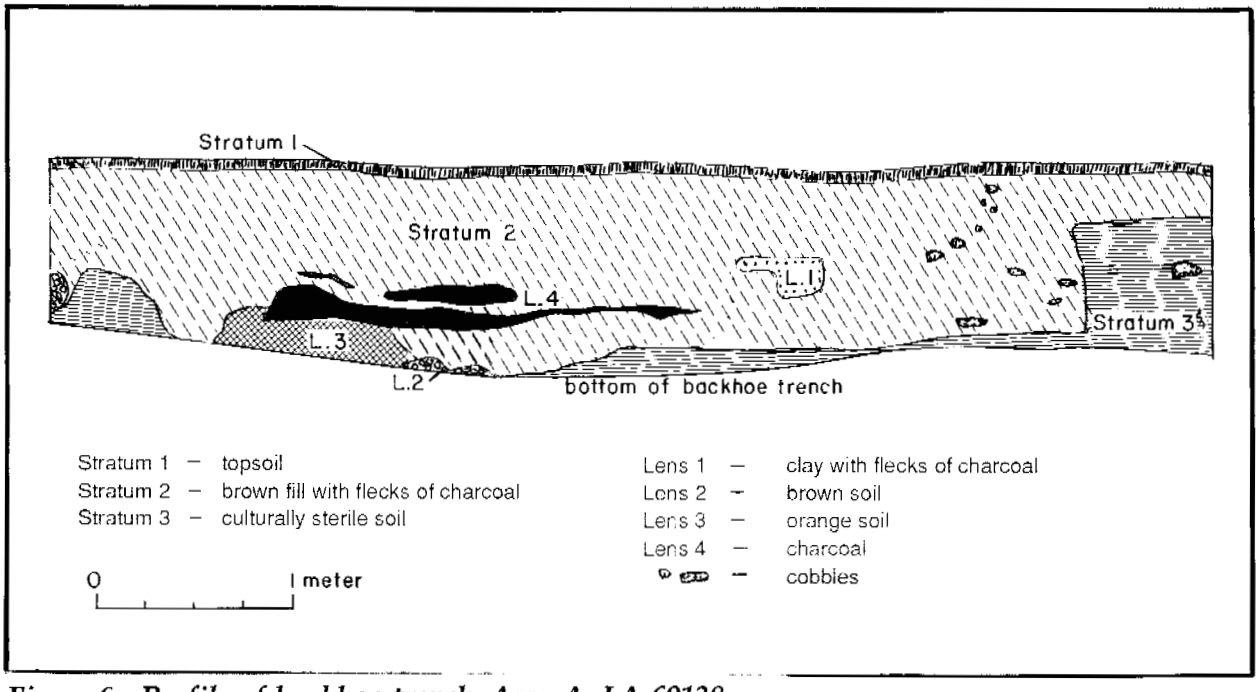

Figure 6. Profile of backhoe trench, Area A, LA 69138.

Native Ceramic Artifacts

Of the 278 native sherds collected at LA 69138 (Table 1), 257 (92.4 percent) are prehistoric, and the remaining 21 (7.6 percent) are historic. Ceramic artifacts suggest two mixed occupations, as was noted during the initial survey of this site. The prehistoric assemblage dates to the Developmental/Coalition period (Valdez-Pot Creek phases). Ceramics from this occupation include Taos Gray (Plain, Incised, Punctate, and Corrugated), Taos/Kwahe'e Black-on-white, and Talpa Black-on-white. The historic assemblage represents a post-1600 occupation. It is not possible to accurately date this assemblage because none of the Tewa sherds found is a good temporal indicator.

Almost 80 percent (n=220) of the sherds could not be classified by vessel form. Of the 58 sherds whose vessel form could be recognized, 43 (74 percent) are jar sherds, and 15 (26 percent) are bowl sherds. Most of these (40 jar sherds and 14 bowl sherds) are prehistoric types. Although these numbers are small, there is an apparent contrast in vessel forms by ceramic types. As seen in Table 2, over 72 percent (n=29) of the prehistoric jar sherds are some variety of Taos Gray, while over 92 percent (n=13) of the bowl sherds are painted wares.

Table 1. Native ceramic types by vessel form, LA 69138

Ceramic Type	Jar	Bowl	Indeter.	Total	%
Taos Gray Plain	10	1	185	196	70.5
Taos Gray Incised	11	0	5	16	5.7
Taos Gray Punctate	1	0	0	1	0.4
Taos Gray Corrugated	7	0	1	8	2.9
Red Mesa B/w	1	0	0	1	0.4
Taos/Kwahe'e B/w	2	5	1	8	2.9
Talpa B/w	2	2	0	4	1.4
Indeterminate White Ware	6	6	11	23	8.2
Peñasco Micaceous	0	0	3	3	1.1
Tewa Black	1	0	0	1	0.4
Tewa Red	1	0	0	1	0.4
Indeterminate Tewa Buff	1	1	12	14	5.0
Indeterminate Tewa Polychrome	0	0	2	2	0.7
Total	43	15	220	278	100.0
Total Percent	15.5	5.4	79.1	100.0	100.0

Table 2. Prehistoric vessel forms by ceramic types, LA 69138 (numbers are percentages of each column)

Ceramic Type	Jar	Bowl
Taos Gray Plain	25.0	7.7
Taos Gray Incised	27.5	0
Taos Gray Punctate	2.5	0
Taos Gray Corrugated	17.5	0
Red Mesa B/w	2.5	0
Taos/Kwahe'e B/w	5.0	35.7
Talpa B/w	5.0	14.3
Indeterminate White Ware	15.0	42.8
Total	100.0	100.0

Lithic Artifacts

Table 3 lists the 179 lithic artifacts collected at LA 69138 by morphology and material. Two materials, undifferentiated chert and basalt, comprise over half of the assemblage. Much of the chert is a gray, fine-grained material found in the limestone beds in the Tres Ritos Hills east and southeast of the project area. Basalt is also a local material, available from quarries and stream bed deposits along the Rio Pueblo near Los Cordovas about 5.6 km (3.5 mi) northwest of the project area, and in the Arroyo Seco-Arroyo Hondo area some 20 to 25 km (12 to 15 miles) north of the project area. The third most common material is quartzite, available in the terraces and stream beds in and around Talpa. Together, these local materials make up 69 percent of the assemblage. If we include rhyolite, which is available in the Picuris Mountains southeast of the project area, the amount of local lithic material in the assemblage climbs to almost 74 percent.

Most of the remaining 26 percent comes from the Jemez Mountain region and includes Jemez and Polvadera obsidians and Pedernal chert. Of the obsidians, Polvadera is more frequent than Jemez, echoing a pattern seen by Newman (1983) at three other pueblo sites in the area. Polvadera obsidian is also the most common found on nonstructural sites along the Taos-Black Lake transmission line (Rudecoff 1982:26), on large lithic scatter sites near Llano Quemado (Woosley 1986), and on sites south of Carson along the Hernandez-Taos transmission line (Boyer 1986a:40). This contrasts distinctly with sites at San Antonio Mountain (Boyer 1985c), where Jemez obsidian was most common. Winter (1983) has contended that obsidian may have been moved from the sources along specific trails into "consumer zones." If so, differential distribution in the region may represent avenues of exchange.

Table 3. Chipped stone artifact morphology by material, LA 69138 (numbers in each cell are the number of artifacts, the percentage of each row, and the percentage of each column)

Material	Artifact Morphology					
	Angular Debris	Core Flake	Biface Flake	Resharp. Flake	Late-Stage Biface	Total
Chert, undifferentiated	16 32.0 27.1	30 60.0 28.3	1 2.0 20.0	1 2.0 20.0	2 4.0 33.3	50 100.0 27.9
Chert, pedernal	4 30.8 6.8	8 61.5 7.5	0	0	1 7.7 16.7	13 100.1 7.3
Chalcedony, undifferentiated	3 20.0 5.1	10 66.6 9.4	1 6.7 20.0	1 6.7 20.0	0	15 100.0 8.4
Silicified wood	0	1 100.0 .9	0	0	0	1 100.0 .6
Obsidian, Jemez	0	4 80.0 3.8	0	0	1 20.0 16.7	5 100.0 2.8
Obsidian, Polvadera	4 33.3 6.8	3 25.0 2.8	2 16.7 40.0	1 8.3 33.3	2 16.7 33.3	12 99.8 6.7
Obsidian, No Agua	0	1 100.0 .9	0	0	0	1 100.0 .6
Basalt	17 36.2 28.8	30 63.8 28.3	0	0	0	47 100.0 26.2
Rhyolite	3 37.5 5.1	5 62.5 4.7	0	0	0	8 100.0 4.5
Quartzite	12 44.4 20.3	14 51.8 13.2	1 3.7 20.0	0	0	27 99.9 15.1
Total	59 33.0 100.0	106 59.2 99.8	5 2.8 100.0	3 1.7 99.9	6 3.4 100.0	179 100.1 100.1

Almost 60 percent of the lithic artifacts are core flakes, while only eight biface or resharpening flakes were found, suggesting that core rather then biface reduction was responsible for most tool manufacture. Six late-stage bifacial tools were collected. They include two drills, one knife, a small, stemmed projectile point, a small corner-notched point, and a Basketmaker II point (Table 4). Four other tools, including a knife, a Pueblo side-notched point, and two side scrapers, are actually utilized and retouched debitage. Chert was apparently the preferred material for informal and formal tools, while obsidian was preferred for projectile points.

Figure 7 shows the projectile points from LA 69138. The Basketmaker II point resembles Thoms's (1977) Pindi-Convex base point, which he assigns to the En Medio phase of the Oshara Archaic and dates between 1000 B.C. and A.D. 400. The small, stemmed point resembles Thoms's parallel-sided asymmetrical tang point, which he dates to the late Developmental period (A.D. 900-1300). The small, corner-notched point resembles his Tesuque or Gallina narrow base points, also from the late Developmental period. Finally, the Pueblo side-notched point resembles his Pueblo straight base point, which occurred after A.D. 700 but was most common after 1300. With the exception of the Basketmaker II point, these dates agree with the ceramic chronology, substantiating a late Developmental-Coalition, Valdez-Pot Creek phase occupation. Because there is no evidence of a Basketmaker component at LA 69138, we assume the point was collected and brought to the site by later occupants.

In addition to the chipped stone artifacts, a single, small edge fragment of a quartzite metate was also collected.

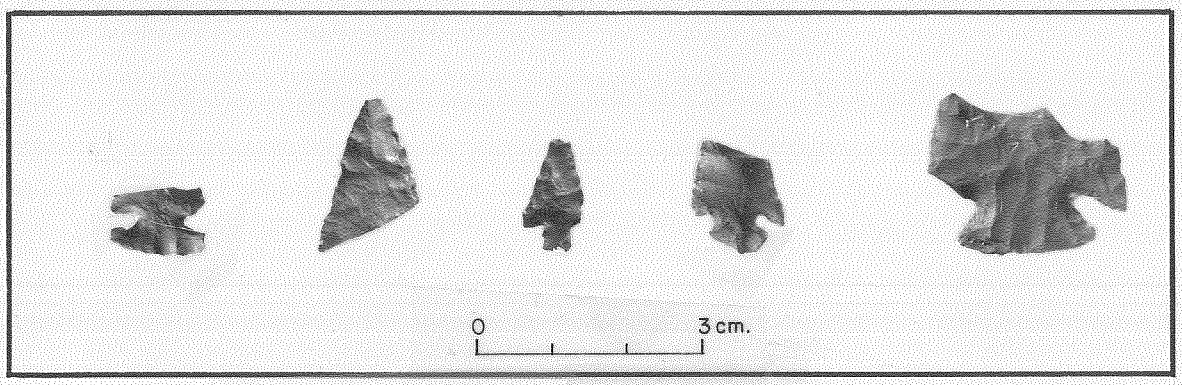

Figure 7. Projectile points, LA 69138.

Table 4. Chipped stone artifact function by material, LA 69138 (numbers in each cell are the number of artifacts, the percentage of each row, and the percentage of each column.

Material	Artifact Function										
	Unutilized Angular Debris	Unutilized Flake	Utilized Debitage	Drill	Side Scraper	Knife	Small Stemmed Proj. Pt.	Small Corner-Notch Proj. Pt.	BM II Proj. Pt.	Pueblo Side-Notch Proj. Pt.	Total
Chert, undifferentiated	16 32.0 27.1	31 62.0 29.2	0	1 2.0 50.0	1 2.0 50.0	0	0	0	1 2.0 100.0	0	50 100.0 27.9
Chert, Pedernal	4 30.8 6.8	6 46.2 5.7	1 7.7 25.0	1 7.7 50.0	0	1 7.7 50.0	0	0	0	0	13 100.1 7.3
Chalcedony, undifferentiated	3 20.0 5.1	11 73.3 10.4	1 6.7 25.0	0	0	0	0	0	0	0	15 100.0 8.4
Silicified wood	0	1 100.0 .9	0	0	0	0	0	0	0	0	1 100.0 .6
Obsidian, Jemez	0	4 80.0 3.8	0	0	0	0	1 20.0 100.0	0	0	0	5 100.0 2.8
Obsidian, Polvadera	4 33.3 6.8	4 33.3 3.8	1 8.3 25.0	0	0	1 8.3 50.0	0	1 8.3 100.0	0	1 8.3 100.0	12 99.8 6.7
Obsidian, No Agua	0	1 100.0 .9	0	0	0	0	0	0	0	0	1 100.0 .6
Basalt	17 36.2 28.8	29 61.7 27.4	1 2.1 25.0	0	0	0	0	0	0	0	47 100.0 26.2
Rhyolite	3 37.5 5.1	5 62.5 4.7	0	0	0	0	0	0	0	0	8 100.0 4.5
Quartzite	12 44.4 20.3	14 51.8 13.2	0	0	1 3.7 50.0	0	0	0	0	0	27 99.9 15.1
Total	59 33.0 100.0	106 59.2 100.0	4 2.2 100.0	2 1.1 100.0	2 1.1 100.0	2 1.1 100.0	1 .6 100.0	1 .6 100.0	1 .6 100.0	1 .6 100.0	179 100.1 100.1

Table 5. Euroamerican artifacts, LA 69138

Category		#	%
Domestic		2	12.3
	Unidentifiable sherd	1	6.6
	Plate sherd	1	6.6
Construction/Maintenance		2	12.3
	20d box nail	1	6.6
	Washer	1	6.6
Personal Effects		2	13.3
	4-hole shirt/dress button	1	6.6
	Overall button	1	6.6
Unassignable		9	60.0
	Unidentifiable sherds	3	20.0
	Unidentifiable glass	1	6.6
	Unidentifiable bottle fragments	3	20.0
	Brass ring	1	6.6
	Brass rivet	1	6.6
Total		15	100.0

Euroamerican Artifacts

Only 15 Euroamerican artifacts were collected at LA 69138. Table 5 lists them by functional category. Nine artifacts (60.1 percent) are in the unassignable category, including three unidentifiable sherds and one unidentifiable glass fragment, three bottle fragments, one brass ring, and a brass rivet. Three other categories each have two artifacts.

Ten artifacts are datable, yielding dates between 1820 and 1990. The minimum date range within which all artifacts could date is 1880 to 1930. Converting the number of artifacts to percentages for each year between 1800 and 1990 also reveals an artifact date range of 1880 to 1930. However, the highest percentage of artifacts could date between 1900 and 1930. The mean artifact date is 1918. This date is three years after the midpoint of the 1900-1930 range and 13 years after the midpoint of the 1880-1930 range. While 10 datable artifacts certainly do not constitute a large assemblage, it seems that 1900 to 1930 is the best date for the assemblage.

Faunal Remains

Eighty bone fragments were recovered during the test excavations at LA 69138. Bone was recovered from the backhoe trench and from Test Pits 6 through 10 in Area C. Carnivore gnawing was noted on only five specimens (6.2 percent), and weathering of various degrees was noted on 29 fragments (36.2 percent). Evidence of human butchering was apparent on 28 specimens (35.0 percent), and burning occurred in 44 cases (55 percent). These cultural and environmental alterations will be more specifically dealt with in the taxonomic descriptions.

Of the 80 bone fragments, 54 pieces (67.5 percent) could only be identified as medium mammal, and one rib could be identified only as bird. The remaining 25 fragments (31.2 percent) were identified -- the family Bovidae, the combined genera *Ovis/Capra*, and three species. Table 6 presents a summary of the taxa identified.

A brief review of the taxa identified will provide information supplemental to the summary table. The bone recovered during testing limits any synthesis, but some interesting patterns are observable.

Sus scrofa (domestic pig). Three partial elements and one tooth fragment could be identified as domestic pig. Two cranial fragments and the tooth fragment were recovered from Level 1 of Test Pit 7. A phalange was recovered from Level 3 of Test Pit 9.

Domestic pigs were introduced to the Southwest during the Spanish entradas of the 1700s (Bakker and Lillard 1972). Historically, the use of domestic pigs was common, though less so than that of sheep or goat (Jordan and Cooke 1983). The phalange recovered may represent the use of low meat utility parts such as pigs feet, while the other fragments suggest use of the cranium or the carcass (Bull 1951).

Table 6. Faunal remains, LA 69138

Taxa	#	%
Medium mammal	54	67.5
Sus scrofa (domestic pig)	4	5.0
Bovidae (cattle, bison, sheep, goat)	1	1.2
Ovis/Capra (sheep, goat)	17	21.3
Ovis aries (domestic sheep)	1	1.2
Capra hircus (domestic goat)	2	2.5
Bird	1	1.2
Total	80	99.9

Bovidae (cattle, bison, sheep, goat). One innominate fragment was isolated from Level 1 of Test Pit 9. This specimen was an ischium fragment that had been sawn along an oblique axis. The circular pattern on the sawn edges would suggest the use of a meat saw and thus the late historic nature of the deposit. This cut could have resulted in a roast from an element with a high meat utility (Bull 1951).

Ovis/Capra (sheep, goat). Sheep and goat are osteologically very similar. Only specific attributes on the innominate and long bone distinguish the two (Boessneck 1969). Consequently, 17 pieces of bone could be identified only to this combined genera. Remains assigned to sheep/goat were recovered from the backhoe trench and Test Pits 6, 8, 9, and 10 in Area C. All but one of these elements exhibited some evidence of butchering in the form of chop or cut marks and saw cuts. The butchering marks would indicate that these bone fragments were late historic farmstead trash. Only two elements showed evidence of burning. Ten specimens exhibited some weathering, but the extent of the weathering seems random in the various contexts in which *Ovis/Capra* was isolated. This would agree with the loss of integrity in the deposit noted during excavation.

Ovis aries (domestic sheep). One right distal humerus could be securely identified as domestic sheep. This element was recovered from Level 1 of Test Pit 9 and had spiral saw cuts on the distal end and at approximately midshaft. The level and the cuts would indicate that this element was late historic in nature.

Capra hircus (domestic goat). A right proximal femur and a left innominate fragment could be assigned to domestic goat. Both of these elements were recovered from the backhoe trench, so the actual depth of these elements in the deposit is unknown. The femur exhibited a spiral fracture, and both elements were weathered and gnawed by carnivores. These were high meat utility elements that may have been

thrown to or dug up by the family dog.

Aves (bird). One rib fragment recovered from Level 1 of Test Pit 7 could only be identified to this class. The elements size would suggest that was from a chicken-like bird. It exhibited an oblique cut mark that indicates it was processed for consumption.

The species identified in this sample indicate that Area C was a historic farmstead trash dump. Butchering patterns evident on the faunal remains reflect the use of several processing techniques. Chopping through elements and removing muscle mass with an axe or other heavy, thick-bladed instrument and the use of a rotary saw were both noted in the assemblage. Both of these techniques would suggest that this deposit was late historic in nature. The random degree of weathering suggests that the area was disturbed prior to this testing episode. The remains identified from LA 69138 provide evidence of historic butchering as well as discard of some high meat value elements for consumption by the family dog. The species identified are those typical on historic homesteads.

The burning evidence from this assemblage was predominately apparent on specimens only identifiable as medium mammal and indicate the disposal of these fragments into a fire or hearth prior to their removal to the general trash area. This pattern has been noted historically among the Navajos (Kent 1984).

LA 69139

LA 69139 was recorded by McCrary (1988) as a small sherd and lithic artifact scatter on the Talpa Rim, [redacted] As first recorded, the site measured 10 by 15 m, but during the right-of-way survey for this project, it became clear that the site was much larger, covering an area at least 80 m by 80 m (Fig. 8). The site lies primarily along the west side of the highway and may also be related to a Talpa Rim pithouse or pueblo site.

Ceramics observed during the survey include Taos/Kwahe'e Black-on-white and Taos Gray Plain and Corrugated, possibly indicating a Developmental, Valdez-phase occupation, although the corrugated utility pottery is more common in the succeeding Pot Creek and Talpa phases. McCrary's dates agree with Woosley (1986:151), who shows a Developmental site at this location.

During the testing phase, one test pit and 11 auger tests were excavated on the west side of State Road 518, and two auger tests were dug on the east side of the highway. Several sherds were observed on the east side of the highway during the survey, but no cultural remains were found in this area during testing. Augering revealed that the topsoil above the gravel terrace on the east side was very shallow, as rocks and culturally sterile soil were hit at a maximum depth of 23 cm below the surface. The test pit was placed in an area that was recorded as an artifact concentration by McCrary, although due to the heavy vegetation cover we could not observe any artifacts here. Only a handful of artifacts was recovered from this test pit, and culturally sterile

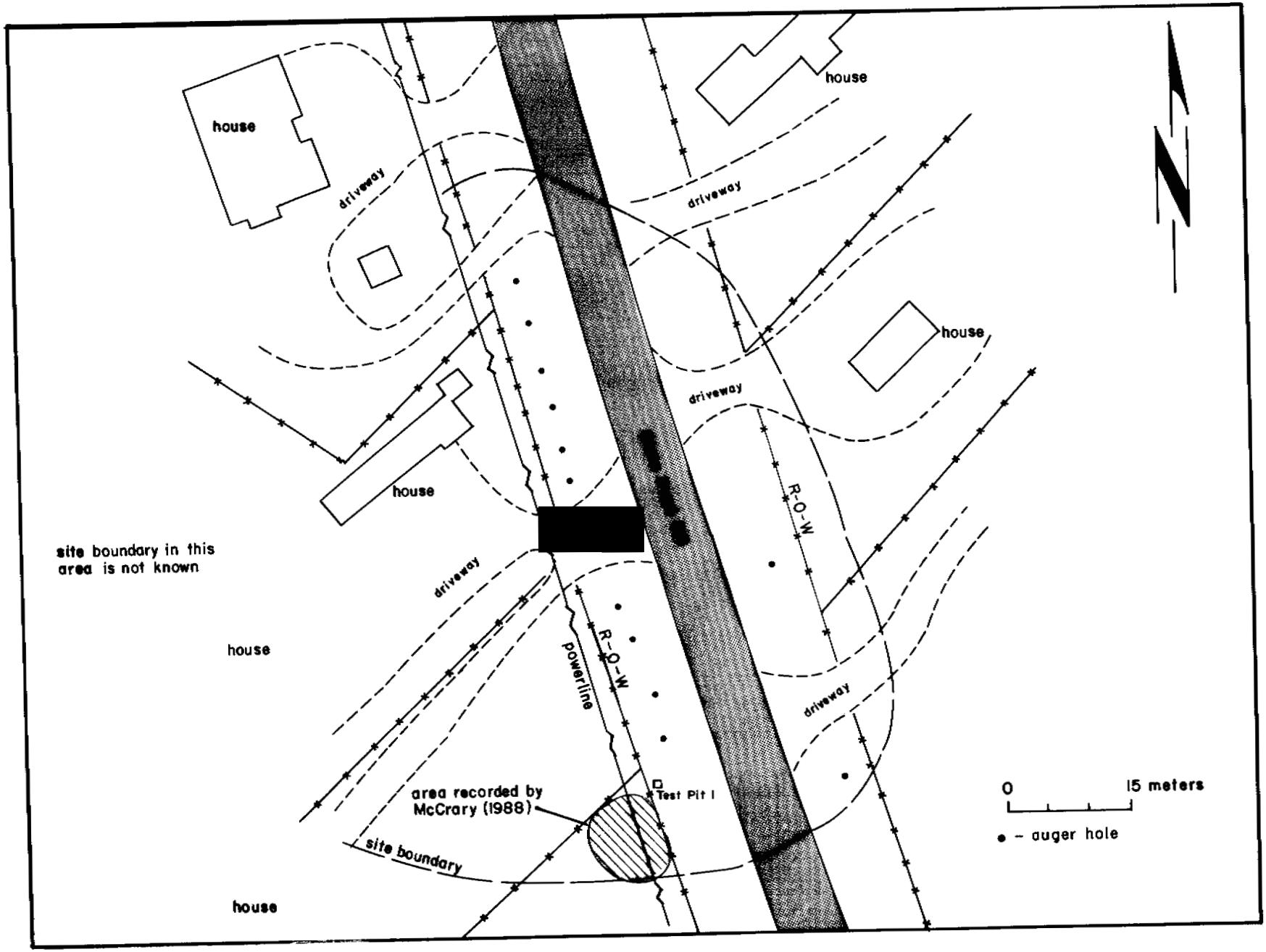

Figure 8. LA 69139 site map.

soil was found at 40 cm below the ground surface. Augering reached a depth of 20 to 30 cm and did not reveal any subsurface features.

Since so little cultural material was recovered during testing, it appears that the artifactual material recorded during the survey was eroding from a nearby site. The area was very disturbed, due to the presence of three underground utility lines, and the shallow gravel terrace indicates that there are no subsurface features within the right-of-way.

Native Ceramic Artifacts

Only six sherds were collected from LA 69139. Table 7 lists ceramic types by vessel form. They suggest Developmental, Valdez-phase, and later historic occupations.

Table 7. Native ceramic types by vessel form, LA 69139

Ceramic Type	Jar	Bowl	Indeter.	Total	%
Taos Gray Plain	0	0	2	2	33.3
Taos/Kwahe'e B/w	0	2	0	2	33.3
Peñasco Micaceous	0	0	1	1	16.7
Tewa Black	1	0	0	1	16.7
Total	1	2	3	6	100.0
Total percent	16.7	33.3	50.0	100.0	100.0

Lithic Artifacts

Only three lithic artifacts were recovered from LA 69139. Two are basalt, the third is chert. They are listed in Table 8 by morphology, function, and material.

Faunal Remains

The only bone collected from this site during testing was a single fragment of medium mammal long bone. This specimen was recovered near the present ground surface and exhibited moderate weathering. This fragment indicates that faunal remains may be preserved at this site, but the quality and quantity of these remains is not known.

Table 8. Chipped stone artifact morphology and function by material, LA 69139 (numbers are actual counts)

Material	Artifact Morphology		Artifact Function
	Core Flake	Biface Flake	Unutilized Flake
Chert, undifferentiated	0	1	1
Basalt	1	1	2
Total	1	2	3

LA 77862

LA 77862 was recorded during the right-of-way survey as a large sherd and lithic artifact scatter on t[redacted] The site is primarily on the west side of the right-of-way although artifacts were observed across the highway. It covers an area 80 by 75 m (Fig. 9). Ceramics observed on the surface of the site include Taos/Kwahe'e Black-on-white and Taos Gray Plain and Incised. These ceramics indicate a Developmental, Valdez-phase occupation. However, we were shown artifacts collected by adjacent landowners that indicate either a second Classic occupation or perhaps continuous occupation through the Coalition and into the Classic period. No evidence of structures or features was present on the surface. The site is probably associated with a pueblo, but the location of the structure is not known.

Within the right-of-way, artifacts are restricted to a narrow bench along the west right-of-way fence. Two adjacent 1 by 1 m test pits were excavated in this bench, forming a 1 by 2 m test unit crossing the bench into the disturbed bar ditch area. Excavation revealed that the artifact-bearing stratum within the right-of-way is only 10 to 20 cm thick and consists of naturally redeposited soils containing artifacts and modern road trash. This stratum lies on top of terrace gravels.

In addition to the test pits, an auger transect consisting of 10 auger tests was placed parallel to the fenceline. No cultural materials were recovered from the auger tests.

Native Ceramic Artifacts

Only 25 sherds were collected at LA 77862. Most of these (68 percent) were Taos Gray Plain (Table 9). The sherds appear to be from a Valdez-Pot Creek-phase site, and the one Tewa sherd from a later historic-period occupation. Although small, the

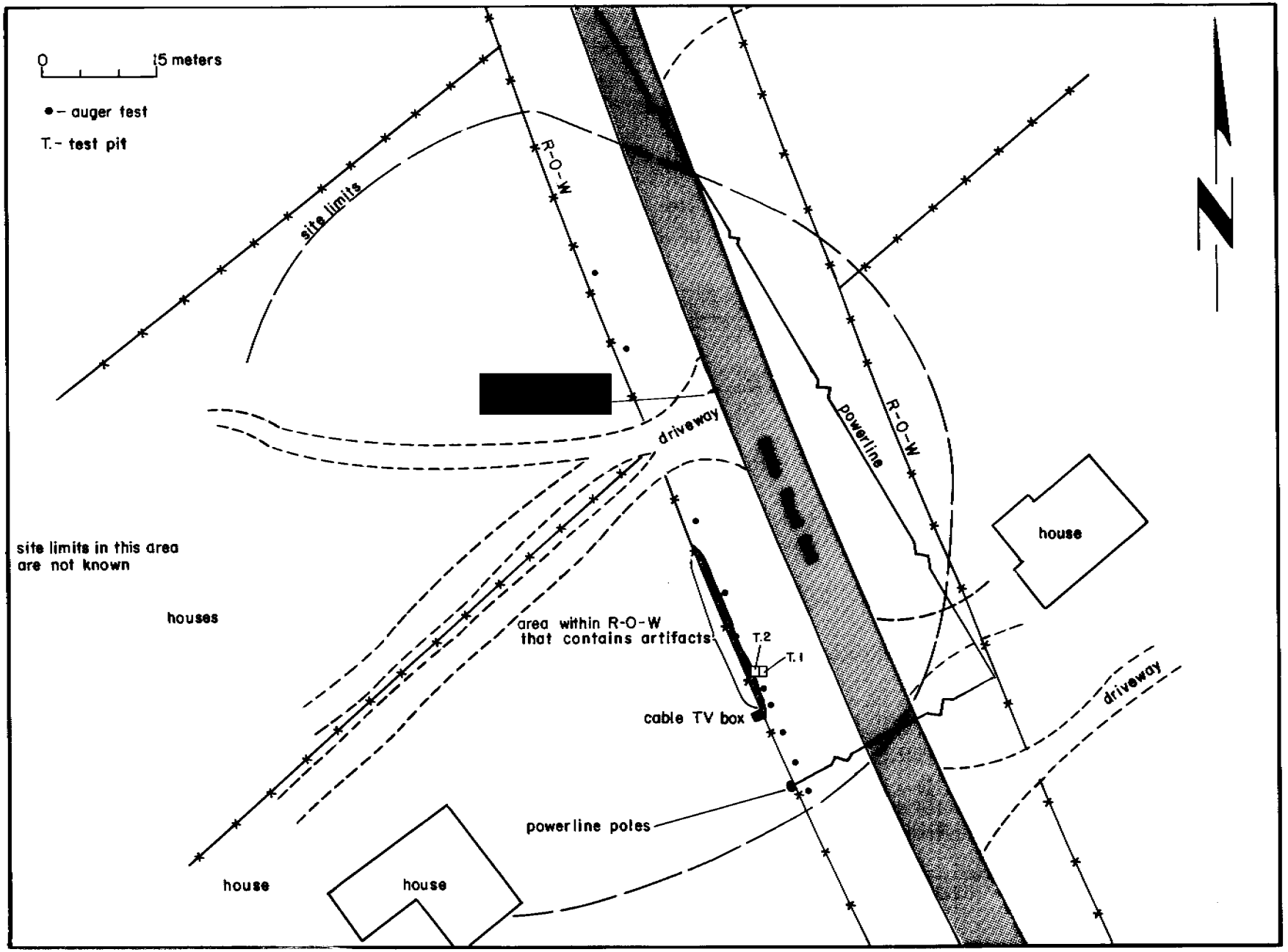

Figure 9. LA 77862 site map.

assemblage reflects the surface artifacts seen outside the right-of-way and shown to us by nearby landowners.

Table 9. Native ceramic types by vessel forms, LA 77862

Ceramic Type	Jar	Bowl	Indeter.	Total	%
Taos Gray Plain	0	0	17	17	68.0
Taos Gray Incised	3	0	0	3	12.0
Indeterminate white ware	1	3	0	4	16.0
Indeterminate Tewa Buff	1	0	0	1	4.0
Total	5	3	17	25	100.0
Total percent	16.7	33.3	50.0	100.0	100.0

Lithic Artifacts

Five lithic artifacts were collected at LA 77862. Tables 10 and 11 list them by morphology, function, and material. The projectile point fragment could not be otherwise identified.

Table 10. Chipped stone artifact morphology by material, LA 77862 (numbers are actual counts)

Material	Artifact Morphology				
	Angular Debris	Core Flake	Biface Flake	Biface, Undifferentiated	Total
Chert, undifferentiated	1	0	0	0	1
Chert, Pedernal	0	0	0	1	1
Obsidian, Polvadera	0	0	1	0	1
Quartzite	1	1	0	0	2
Total	2	1	1	1	5

Table 11. Chipped stone artifact function by material, LA 77862 (numbers are actual counts.

Material	Artifact Function			
	Unutilized Angular Debris	Unutilized Flake	Unidentified Proj. Pt.	Total
Chert, undifferentiated	1	0	0	1
Chert, Pedernal	0	0	0	1
Obsidian, Polvadera	0	1	0	1
Quartzite	1	1	0	2
Total	2	2	1	5

Faunal Remains

Testing at this site recovered three pieces of animal bone. The remains included one medium mammal carpal fragment that was burned and two fragments of medium mammal long bone that were heavily weathered. All three fragments were recovered from the upper levels of Test Pit 2. The heavily weathered specimens had been exposed on the surface for some time. The burned bone found above these weathered specimens appears to have been later trash discarded in this area.

LA 51670

LA 51670 was recorded by Boyer (1985b) as a small sherd and lithic artifact scatter on both sides of the highway (Fig. 10). Ceramics observed include Taos/Kwahe'e Black-on-white, Taos Gray Plain, and two micaceous sherds. Several fragments of fire-cracked rock were present. The ceramics point to a Valdez-phase occupation, agreeing with Woosley (1986:151), who shows two Developmental sites in the vicinity. The two micaceous sherds may indicate a later Historic occupation.

The site area has been extremely disturbed by underground utilities since the site was first recorded in 1985. McCrary did not relocate the site and observed no subsurface materials during monitoring for construction of a transmission line structure in the site area. However, surface artifacts were observed within the right-of-way during the 1990 survey for this project.

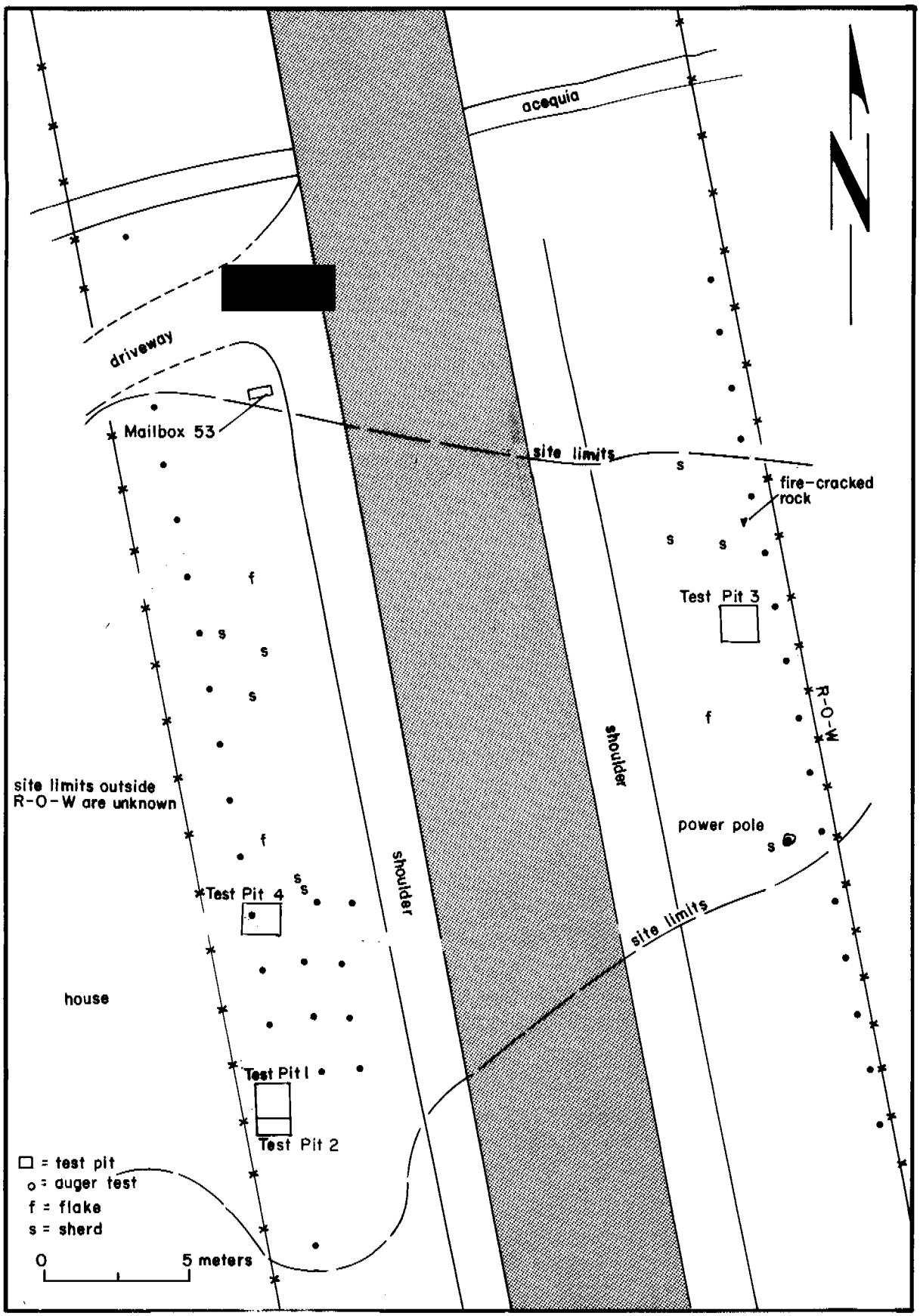

Figure 10. LA 51670 site map.

Four test pits and 38 auger tests were excavated during testing. Three test pits and 22 auger tests were placed on the west side of State Road 518, and one test pit and 16 auger tests were dug on the east side. Test Pit 1 was placed on the west side of State Road 518 in an area where sherds were observed on the surface adjacent to the right-of-way fence. Historic trash and charcoal were encountered in Level 2 (10-20 cm below the surface), as well as indications of a possible shallow trash pit. Artifacts consisted of metal scraps, late 1800s-early 1900s glass, micaceous sherds, prehistoric sherds, lithic artifacts, and bone. Square nails and more charcoal were found in Level 3 (20-30 cm below the surface). Trash was still present in Levels 4 and 5 (50 cm below the surface), and an ash lens was visible in the profile. By Level 6, the number of artifacts dropped off, but there was still a mixture of Euroamerican and native types. A few micaceous sherds, lithic artifacts, and bone were present in Level 7. By Level 8 the fill was culturally sterile.

Since it was not clear whether there was a buried feature here, Test Pit 2 was placed on the south side of Test Pit 1. Only the north half of this pit was excavated because of the proximity of the right-of-way fence. Historic trash was encountered immediately under the surface and extended west out of the right-of-way. No features were defined, and again the area appears to have been disturbed. Taos/Kwahe'e Black-on-white sherds were found in the same levels as metal scraps and leather.

Test Pit 3 was placed on the east side of the highway adjacent to an auger test in which an incised sherd was found at 10 cm below the surface. Caliche, cobbles, and culturally sterile fill were encountered by Level 2 (10-20 cm below the surface). Augering along the east side of the road confirmed that the cobble level was present just beneath the surface along the length of the right-of-way, as most auger tests could not go deeper than 20 cm below the surface.

Test Pit 4 was on the west side of State Road 518 near an auger test in which sherds were encountered at depths of 30, 40, and 50 cm below the surface, and charcoal at 60 cm. This test pit was placed 6 m north of Test Pit 1. A mix of Euroamerican and native artifacts were found starting in Level 1 and increasing with each successive level to Level 5 (50 cm below the surface). At Level 5, it became apparent that we were directly above a buried utility line (probably an abandoned water line), and most of the artifacts were coming from the trench fill (Fig. 11). To determine whether there was a buried feature under the utility line, the west half of the test pit was excavated another two levels. Culturally sterile fill was encountered at Level 7. The utility trench did not show in profile, further confusing interpretation until we were right above it.

Augering on the west side of the highway produced mixed results. Charcoal and sherds were found in several holes at depths ranging from 20 cm to 50 cm below the surface. However, recent trash (glass and metal) was also found, confirming the amount of disturbance at the site.

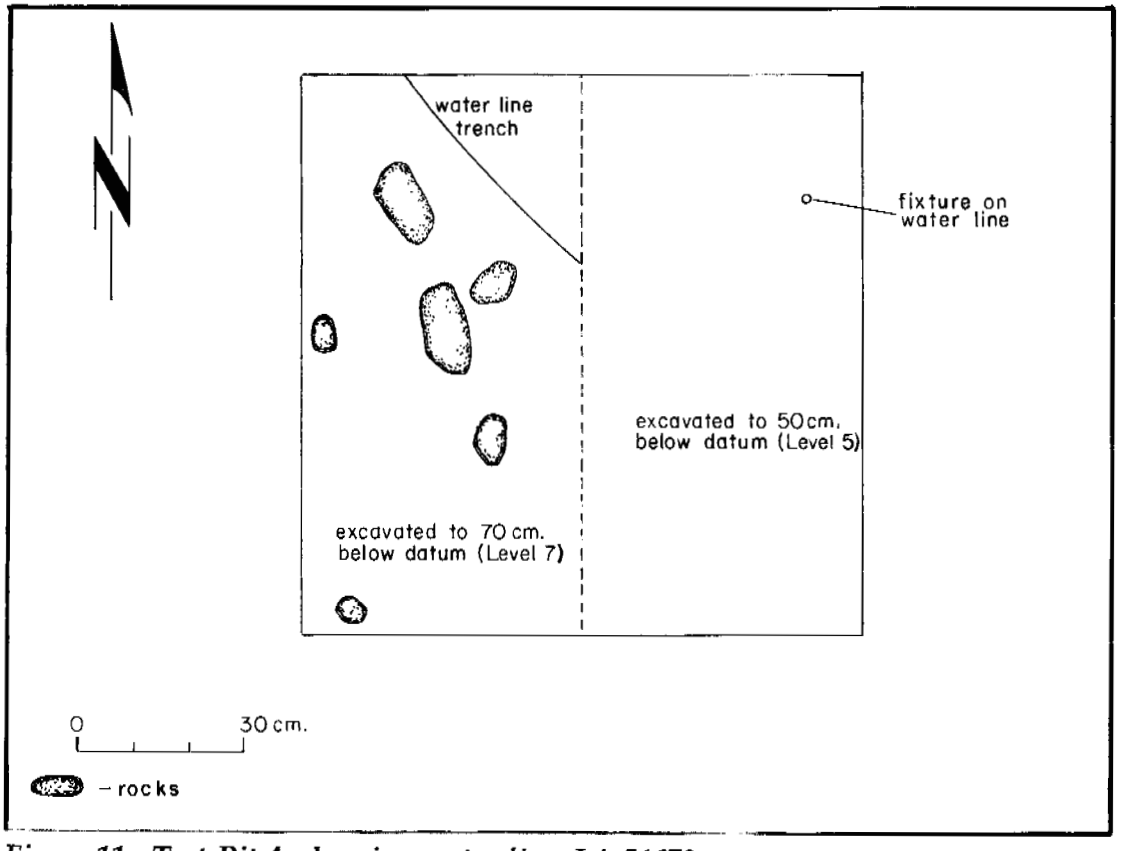

Figure 11. Test Pit 4, showing water line, LA 51670.

Native Ceramic Artifacts

LA 51670 yielded 251 sherds representing two mixed occupations. Thirty percent of the ceramics point to a Valdez-Pot Creek-phase occupation, while 70 percent belong to a historic assemblage (Table 12). Of the 75 prehistoric sherds, most were Taos Gray, followed by indeterminate white ware and Taos Gray Incised. Most sherds were very small, and those that could be identified were Taos/Kwahe'e and Santa Fe Black-on-white.

Peñasco Micaceous comprised half of the historic assemblage. Tewa wares, mainly Tewa Gray and Tewa buff sherds, also made up a large part of the assemblage. Two Cimarron Micaceous sherds (an Apache ware) and two unidentified Mexican polychrome sherds from the same jar were found. The polychrome sherds had a highly vitrified paste with a red, black, and blue design on a buff-gray slip. As at the other sites where Tewa wares were present, none of the types found was diagnostic, either because of long periods of use, as with Tewa Red and Black, or because the polychrome sherds were too small to determine design style. Therefore, the assemblage can only be assigned a post-1600 date.

Table 12. Native ceramic types by vessel forms, LA 51670

Ceramic Type	Jar	Bowl	Indeter.	Total	%
Taos Gray Plain	3	0	38	41	16.3
Taos Gray Incised	11	0	0	11	4.4
Taos Gray Punctate	1	0	0	1	0.4
Taos Gray Corrugated	1	0	0	1	0.4
Taos/Kwahe'e B/w	1	5	1	7	2.8
Santa Fe B/w	1	1	0	2	0.8
Indeterminate white ware	4	1	7	12	4.8
Vadito Micaceous	1	0	10	11	4.4
Peñasco Micaceous	6	0	81	87	34.7
Cimarron Micaceous	2	0	0	2	0.8
Tewa Black	6	2	1	9	3.6
Tewa Red	2	1	1	4	1.6
Tewa Gray	7	6	15	28	11.0
Indeterminate Tewa buff	3	2	20	25	10.0
Indeterminate Tewa polychrome	3	3	2	8	3.2
Indeterminate Mexican polychrome	2	0	0	2	0.8
Total	54	21	176	251	100.0
Total percent	21.5	8.4	70.1	100.0	100.0

Of the 75 prehistoric sherds, only 29 (38.7 percent) can be classified by vessel form (Table 13). Twenty-two (76 percent) are jar sherds and seven (24 percent) are bowl sherds, a similar ratio to that seen at LA 69138. Also similar is the distribution of vessel forms by ceramic types. Over 72 percent (n=16) of the jar sherds are a variety of Taos Gray plain ware, while all (n=7) bowl sherds are painted wares.

Table 13. Prehistoric vessel forms by ceramic types, LA 51670 (numbers are percentages of each column)

Ceramic Type	Jar	Bowl
Taos Gray Plain	13.6	0
Taos Gray Incised	50.0	0
Taos Gray Punctate	4.5	0
Taos Gray Corrugated	4.5	0
Taos/Kwahe'e B/w	4.5	71.5
Santa Fe B/w	4.5	14.3
Indeterminate white ware	18.2	14.3
Total	99.8	100.1

Of the 176 historic sherds, 46 (26 percent) can be classifies by vessel form (Table 14). Thirty-two (69.5 percent) are jar sherds, and 14 (30.4 percent) are bowl sherds, a slightly higher frequency of bowl sherds than in the prehistoric assemblage. Of the jar sherds, 47 percent (n=15) are Tewa polished monochromes (black, red, or gray), 28 percent (n=9) are micaceous wares, and 25 percent (n=8) are Tewa and Mexican polychromes. If the micaceous and Tewa polished monochromes are combined as plain wares, they make up 75 percent of the jar sherds, a figure similar to the prehistoric assemblage. If they are not so combined, the jar sherds are much more evenly distributed among ceramics types than their prehistoric counterparts.

Unlike the prehistoric assemblage, the plain ware sherds, in this case Tewa polished monochromes, make up over 64 percent (n=9) of the bowl sherds, while painted sherds make up only 36 percent (n=5). It is important to note, however, that only Tewa wares are represented in the historic bowls.

Lithic Artifacts

Only 17 lithic artifacts were recovered at LA 51670. Twelve are undifferentiated chert, mostly local gray chert (Table 15). Four of the remaining five artifacts are also of silicious materials. Fifteen artifacts are unutilized debitage, while two are late stage bifaces. They include a knife and a thumbnail scraper (Table 16).

Table 14. Historic vessel forms by ceramic types, LA 51670 (numbers are percentages of each column)

Ceramic Type	Jar	Bowl
Vadito Micaceous	3.1	0
Peñasco Micaceous	18.8	0
Cimarron Micaceous	6.2	0
Tewa Black	18.8	14.3
Tewa Red	6.2	7.1
Tewa Gray	21.9	42.8
Indeterminate Tewa buff	9.4	14.3
Indeterminate Tewa polychrome	9.4	21.4
Indeterminate Mexican polychrome	6.2	0
Total	100.0	99.9

Table 15. Chipped stone artifact morphology by material, LA 51670 (numbers are actual counts)

Material	Artifact Morphology				
	Angular Debris	Core Flake	Biface Flake	Late-stage Biface	Total
Chert, undifferentiated	3	6	1	2	12
Chert, Pedernal	1	1	0	0	2
Chalcedony, undifferentiated	0	0	1	0	1
Silicified wood	1	0	0	0	1
Quartzite	1	0	0	0	1
Total	6	7	2	2	17

Table 16. Chipped stone artifact function by material, LA 51670 (numbers are actual counts)

Material	Artifact Function				
	Unutilized Angular Debris	Unuti -lized Flake	Thumbnail Scraper	Knife	Total
Chert, undifferentiated	3	7	1	1	12
Chert, Pedernal	1	1	0	0	2
Chalcedony, undifferentiated	0	1	0	0	1
Silicified wood	1	0	0	0	1
Quartzite	1	0	0	0	1
Total	6	9	1	1	17

Euroamerican Artifacts

LA 51670 yielded 433 Euroamerican artifacts, the largest assemblage from the sites tested during this project. Table 17 lists the Euroamerican artifacts by functional category. The largest category consists of artifacts unassignable to any other category. Over half of these artifacts are otherwise unidentifiable bottle fragments, but the group also includes 32 unidentifiable artifacts of six different materials, 30 can fragments, 15 can lid fragments, and several other artifacts.

The next largest category is construction/maintenance, comprising just over half of the assemblage. However, most of the artifacts in this category are window glass fragments from the building material type. The 76 window glass fragments represent one single glaze (1/8 in) 6 by 8 in pane, or about one-half of a 8 by 10 in pane. Other building material items include paint can lid fragments and pieces of adobe plaster, some with remnants of *tierra blanca* whitewash. The next most common artifacts in this category are hardware items. Of the 26 hardware artifacts, 23 are nails, including 16 box nails, three finish nails, one each of common, roofing, and indeterminate wire nails, and one 8 inch spike (Table 18). Eighteen (78.3 percent) nails are machine-made wire nails; the remaining five (21.7 percent) are machine-cut "square" nails. According to Gillio et al. (1980), this ratio should characterize an assemblage dating after 1895. In size, the nails cluster at 6d and smaller, suggesting that the nails in this assemblage represent light construction activities rather than major building construction. The only tool recovered is a small, apparently hand-wrought pry bar (Fig. 12).

Table 17. Euroamerican artifacts, LA 51670

Category			#	% of total
Economy/Production			1	.2
	Stock Supplies		1	.2
		Horseshoe nail	1	.2
Food			7	1.6
	Canned Goods		7	1.6
		Unidentifiable can fragment	1	.2
		Key/Strip	5	1.2
		Meat can	1	.2
Indulgences			3	.7
	Wine		3	.7
		Bottle fragments	3	.7
Domestic			67	15.5
	Dishes, Serving & Eating		49	11.3
		Unidentifiable sherds	17	3.9
		Bowl sherds	5	1.2
		Crock sherds	2	.5
		Cup sherds	4	.9
		Plate sherds	18	4.2
		Plate/saucer sherds	3	.7
	Glassware		3	.7
		Vase	3	.7
	Canning		3	.7
		Jar fragments	3	.7
	Cleaning		12	2.8
		Bottle fragments	12	2.8
Construction/Maintenance			124	28.6

Category			#	% of total
	Tools		1	.2
		Pry bar	1	.2
	Hardware		26	6.0
		Brad	1	.2
		Roofing nail	1	.2
		Indeterminate wire nail	1	.2
		Finish nail	3	.7
		Box nail	16	3.7
		Rivet	1	.2
		Spike	1	.2
		Lag bolt	1	.2
		Common nail	1	.2
	Building Materials		91	21.0
		Unidentifiable	1	.2
		Paint can lid fragments	3	.7
		Adobe plaster fragments	11	2.5
		Window glass fragments	76	17.6
	Electrical		1	.2
		Battery core	1	.2
	Fencing		5	1.2
		Unidentifiable wire	5	1.2
Personal Effects			27	6.2
	Clothing		2	.5
		Overall button	2	.5
	Boots/Shoes		9	2.1
		Eyelet fragments	4	.9

Category			#	% of total
		Heel fragments	2	.5
		Sole fragments	3	.7
	Medicine		16	3.7
		Bottle fragments	16	3.7
Entertainment			2	.5
	Toys		1	.2
		Marble	1	.2
	Music		1	.2
		Bell	1	.2
Unassignable			202	46.7
	Unidentifiable		32	7.4
		Metal	12	2.8
		Glass	7	1.6
		Tinned steel	3	.7
		Ceramic	2	.5
		Brass	2	.5
		Leather	1	.2
	Bottle fragments		111	25.6
	Can fragments		30	6.9
	Can lid fragments		15	3.5
	Handle		1	.2
	Strap/strip		10	2.3
	Wire		7	1.6
	Screw		1	.2
Total			433	100.0

Table 18. Nails, LA 51670

Size	Cut	Wire
8" spike	0	1
1 1/4" roofing	0	1
Indeterminate wire	0	1
Unknown box	2	0
40d box	0	1
12d box	0	1
10d box	0	1
8d box	1	1
7d box	1	0
6d box	1	3
6d finish	0	3
5d common	0	1
4d box	0	3
Total	5	18

The third largest category is domestic, of which most artifacts are sherds representing serving and eating dishes. Identifiable vessel forms include plates, bowls, cups, crocks, and plate/saucers. With the exception of two crockery sherds and several porcelain sherds, most of the vessels represented are white ware. Most sherds are undecorated. An exception is the several sherds making up most of a small plate (Fig. 12) decorated with a polychrome transfer flower design and molded rim. Three fragments of two glass vases are present, as are fragments of canning jars. Finally, most of a small Lysol bottle was recovered (Fig. 12).

The personal effects category is represented by 16 prescription bottle fragments and several clothing items. These include two overall buttons, three shoe/boot sole fragments, two shoe/boot heel fragments, and four shoe eyelet fragments.

The food category is only minimally represented. Artifacts include a small meat can and an otherwise unidentifiable can fragment. The most common items in this category are key strip can opener parts, including one key, one tab for attaching the key to the can, and three pieces of thin strip. These could all have come from the meat can.

Figure 12. Hand-wrought pry bar; small white ware plate with polychrome transfer design and molded rim; and Lysol bottle, LA 51670.

Three wine bottle fragments make up the indulgences category, while entertainment is represented by a marble and a small bell and economy/production by a single horseshoe nail.

With the exception of the bottle fragments and the meat can, most of the Euroamerican artifacts from LA 51670 reflect items with relatively long use-lives. Unlike food items, for instance, most of these items would normally be expected to remain in their cultural system for a relatively long time before being discarded and so do not represent daily trash disposal. An informant living near the site told us that the house immediately outside the right-of-way was once part of a row of houses that paralleled the right-of-way fence on the west side of LA 51670. The artifacts collected during testing are probably associated with this structure. If the artifacts reflect disposal of long use-life items, there may be other areas where daily or short use-life trash was disposed. No such area was encountered during this project. Further, this discussion assumes some integrity to the deposit from which the artifacts were recovered. However, while the Euroamerican assemblage from LA 51670 has provided some information on domestic activities in the area, the disturbed nature of the deposits precludes the conclusion that the deposit accurately reflects trash disposal patterns at the site. Consequently, the results of these analyses cannot be used to derive implications about the deposit within the context of local settlement, household growth, site structure, or on-site land use, nor can they be used for comparison with other functional studies.

Of the 433 Euroamerican artifacts, 224 (50.6 percent) are datable, yielding dates between 1790 and 1990. The minimum range within which all artifacts could date is 1870 to 1940. Converting the number of artifacts in each date range to percentages for each year narrows the date range for the assemblage to 1885 to 1930. Within that period, the highest percentages of artifacts could date between 1905 and 1920. The mean artifact date is 1906.7, which is 5.8 years earlier than the midpoint of the 1905-1920 range but less than one year earlier than the midpoint of the 1885-1930 range. Since both South's mean artifact date formula and the process of converting artifact numbers to percentages by year account for the relative weight of each date range, we would expect some correlation between the results. In this case, while most artifacts could date to the narrow 1905-1920 period, the percentages are not high (<90 percent), suggesting that the 1885-1930 range may be the most accurate for the assemblage.

Faunal Remains

Testing at LA 51670 resulted in the recovery of 71 bone fragments and one piece of eggshell. Fifty fragments (70.4 percent) could be assigned only to the general categories of small, medium, or large mammal, or bird. The one piece of eggshell was also not identifiable to species. The remaining 21 pieces could be assigned to two orders, one family, two genera, and three species. Table 19 gives a summary of the identifications made.

The following is a brief description of the 21 identifiable specimens recovered from the test pits and auger tests at LA 51670. The species represented would be

common to any historic farm site in the region.

Aves (bird). Two pieces of bone and one fragment of eggshell could be assigned only to the class Aves. The eggshell was recovered from Test Pit 1, and the two bone fragments were isolated from Test Pit 4. The specimens did not exhibit any notable environmental or cultural alterations.

Table 19. LA 51670, faunal remains, LA 51670

Taxa	#	%
Small mammal	3	4.2
Medium mammal	42	59.2
Large mammal	3	4.2
Artiodactyla (even-toed hoofed mammals)	1	1.4
Sus scrofa (domestic pig)	3	4.2
Bovidae (cattle, bison, sheep, goat)	2	2.8
Ovis/Capra (Sheep, goat)	1	1.4
Ovis aries (domestic sheep)	1	1.4
Equus sp. (Horse, burro)	1	1.4
Bird	2	2.8
Galliformes (chicken-like)	1	1.4
Gallus gallus (domestic chicken)	1	1.4
Total	71	99.9

Galliformes (chicken-like). One avian rib could be assigned to this order using shape and size criteria. Most likely the rib of a domestic chicken, it could not be positively assigned to that species.

Gallus (domestic chicken). One complete thoracic vertebra could be identified to this species. It was recovered from the first level of Test Pit 2 and may be recent in the depositional history of the site.

Artiodactyla (even-toed hoofed mammals). One tooth fragment recovered from the second level of Test Pit 1 could be assigned to this order. It is most likely from a sheep or goat but could not be identified to that level.

Sus scrofa (domestic pig). Two teeth and a partial mandible with dentition could be identified as domestic pig. One molar fragment was recovered from Auger Test 23. The partial left mandible of a 1.5 to 2 year old individual (Silver 1969) and a right lateral incisor were recovered from Level 2 of Test Pit 1. The mandible was split along the inferior border of the horizontal ramus. This cut would be consistent with processing for the removal of the tongue (Bull 1951).

The estimated age of this individual from tooth eruption patterns would suggest that time of death was early spring to summer. Though Daudet and Roberts (1980) suggest that primary butchering season was fall, early spring is routinely a time of decreased stores among subsistence farmers. The use of domestic animals during this period of food stress would be an efficient response, providing food and decreasing the need for feed. The optimal slaughter age for domestic pig is from 1.5 to 2.5 years (Bull 1951), making this a prime-age individual used during a period of probable food stress.

Bovidae (cattle, bison, sheep, goat). Two pieces of bone recovered from Test Pit 1 could be assigned only to the family Bovidae. All of the domestic species that are members of this family were introduced to the Southwest during the initial Spanish colonization (Bakker and Lillard 1972). A complete tarsal identified to this family was isolated in Level 1, and a vertebral fragment came from Level 6. The vertebra had been split longitudinally, severing the transverse process and centrum from the dorsal body. This cut would also have removed muscle masses.

Ovis/Capra (sheep, goat). Eleven bone fragments could be identified as sheep or goat, but further differentiation was not possible. Elements assigned to this category were excavated from several levels in Test Pits 1 and 4. Fragments of cranium, mandible, vertebra, innominate, and tibia were identified. With the exception of the innominate fragment, all of the identified elements are of low meat utility (Binford 1978). Indications of carnivore gnawing occur on two of the specimens and ten of the pieces were split during processing.

Ovis aries (domestic sheep). One right humerus of a mature individual could be assigned to this species using the criteria set forward by Boessneck (1969). Carnivore bite marks were evident on the diaphysis and distal end of the element. This may have been refuse from the dinner table that was subsequently given to the farm dogs.

Equus sp. (horse, burro). One distal epiphysis fragment from a metapodial identified to this genus was recovered from Level 3 of Test Pit 1. The fragment was moderately weathered and had a chop mark on the medial aspect. Cut marks on equid elements are fairly common historically, but it is unclear whether these animals were consumed.

Only two elements exhibited evidence of burning, but butchering marks were

present on 24 fragments (33.8 percent). Nineteen fragments (26.8 percent) were weathered to varying degrees. The weathering was not consistent throughout excavation areas or levels and may be the result of mixing in the depositional context.

The species identified would be consistent with the trash from an historic farm occupation. Saw marks and metal tool butchering marks were noted on several elements, indicating that the occupation of this farmstead was later historic and not colonial in nature. The remains identified from LA 51670 provide evidence of historic butchering as well as discard of some high meat value elements for consumption by the family dog. The species are those typical on historic homesteads.

LA 70575

LA 70575 was recorded during the right-of-way survey as a sherd and lithic artifact scatter located in a field on the [redacted] (Fig. 13). Ceramics observed during survey include Santa Fe or Talpa Black-on-white, Tewa Red, micaceous sherds, and one possible Agua Fria Glaze sherd. No concentrations of artifacts or evidence of structures was noted.

The presence of Santa Fe Black-on-white points to a Coalition, Pot Creek- or Talpa-phase occupation at LA 70575, while the polished red and micaceous sherds indicate a Historic occupation, probably associated with the largely abandoned Talpa plaza across the highway. Woosley (1986:151) shows two Developmental sites in this area.

This site is located across the highway from LA 69247, a sherd and lithic artifact scatter centered around an adobe house built on a low mound (McCrary 1988). There is some evidence that LA 69247 and LA 70575 may be parts of a single large site. The ceramic assemblages are similar and indicate that both sites were occupied in the Historic period. Boyer informally interviewed a member of a family who has lived near both sites for over 20 years. The informant stated that excavations for water and sewer lines revealed artifacts in the ground around the house and that this situation is common in the immediate vicinity. Further, dirt used to roof her house apparently contains artifacts. The informant's house is part of the Talpa plaza, located between LA 70575 and LA 69247. Another informant in Talpa stated that an earlier highway project in the area was halted because of the discovery of two burials near the Talpa church. This may point to a pueblo site, portions of which have been recorded with these two site numbers.

Five 1 m by 1 m test pits were excavated within the right-of-way. Test Pits 1 and 3 were excavated on the west side of the highway to search for features or deposits part of or associated with the Talpa plaza. Test Pit 1 was placed over a possible rock alignment. However, the only artifacts recovered were modern road trash. By the bottom of Level 2, it was obvious that the alignment was probably caused by road construction or maintenance grading. An auger test in the northeast corner of the pit yielded charcoal at 20 cm below Level 2 and charcoal with a clear glass fragment at 40 cm, suggesting redeposition of road trash and supporting the conclusion that the alignment represents roadwork.

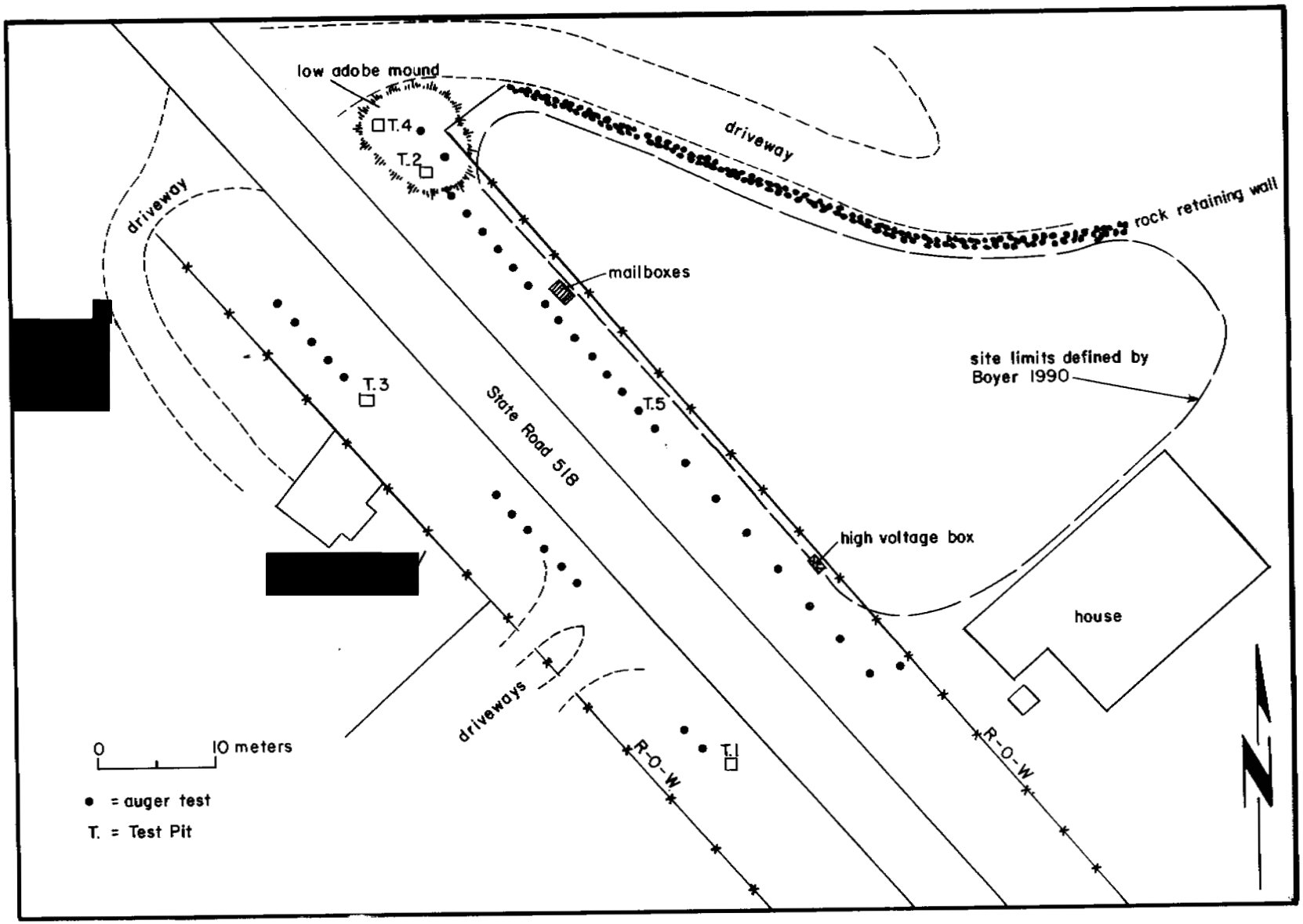

Figure 13. LA 70575 site map.

Test Pit 3 was placed near a building identified by local informants as both the old Talpa school and the original Vigil bar. The test pit was intended to determine whether remains of the building, which once extended into what is now the right-of-way, are still present. No structural remains were revealed by excavation. A few polished and micaceous sherds were found along with road trash. A thin ash lens with charcoal was observed at the bottom of Level 3. An auger test in this area showed no additional ash or charcoal, and culturally sterile clay was reached at 40 cm below the surface. Five auger tests at 2 m intervals in a transect northwest of the test pit encountered a lens of charcoal and ash between 15 and 40 cm below surface. This may indicate weed burning within the right-of-way or a very thin trash deposit possibly associated with the school/bar building. A series of nine auger tests between Test Pits 1 and 3 revealed no other subsurface cultural materials on the west side of the highway.

Three test pits were excavated on the east side of the highway. Test Pit 2 was placed in a low mound at the northwest corner of the triangular field defined as the site area during survey. The soil of the mound is grayer than that of the graded shoulder, and this color coupled with surface prehistoric artifacts suggested an adobe mound or a trash area. Nine levels were excavated in Test Pit 2. The profile of the east wall of the pit (Fig. 14) shows a single large stratum consisting of dark gray-brown clayey soil with artifacts, charcoal, and gravel mixed throughout. The artifact count in this stratum rose with each level until Level 8, where it began to drop. This stratum probably represents naturally redeposited prehistoric trash, perhaps from a midden or structural area on the hill overlooking the highway.

In the upper northeast corner of the profile is a second stratum consisting of soil similar to the large stratum but mixed with chunks of red, orange, and pink clay. The clay was first thought to represent adobe and burned adobe. However, the same clay was found in auger tests in a transect running south from Test Pit 2 at depths of 40 to 90 cm below surface. It was hard and culturally sterile, and we realized that the stratum containing the clay chunks represents the edge of a utility line trench cut through the redeposited trash into sterile clay. The trench contains artifacts and charcoal mixed with chunks of clay. It is probable that the trench also mixed modern road trash with prehistoric material, resulting in the presence of road trash in the lowest levels of the test pit.

Two smaller deposits of gray and pink clay were present in Levels 7 and 8. Whether these were natural deposits or the result of earlier utility excavations is not known. That they may have been the latter is suggested by a plan view of the bottom of Level 7 (Fig. 15), in which the clay is seen crossing the grid from southeast to northwest. Artifacts were present in both clay strata.

A second test pit, Test Pit 4, was excavated in the mound about 3.5 m northwest of Test Pit 2. The south and west profiles (Fig. 16) of Test Pit 4 show two utility line trenches cutting through the same gray-brown artifact-bearing deposit observed in Test Pit 2. Because the utility companies had spotted their lines prior to our excavations, we could determine that the northern trench is a US West telephone line, while the southern trench is a cable TV line. In both cases, chunks of red and orange clay demonstrate that the trenches hit the natural, culturally sterile clay stratum and mixed this material with artifacts, charcoal, and modern road trash.

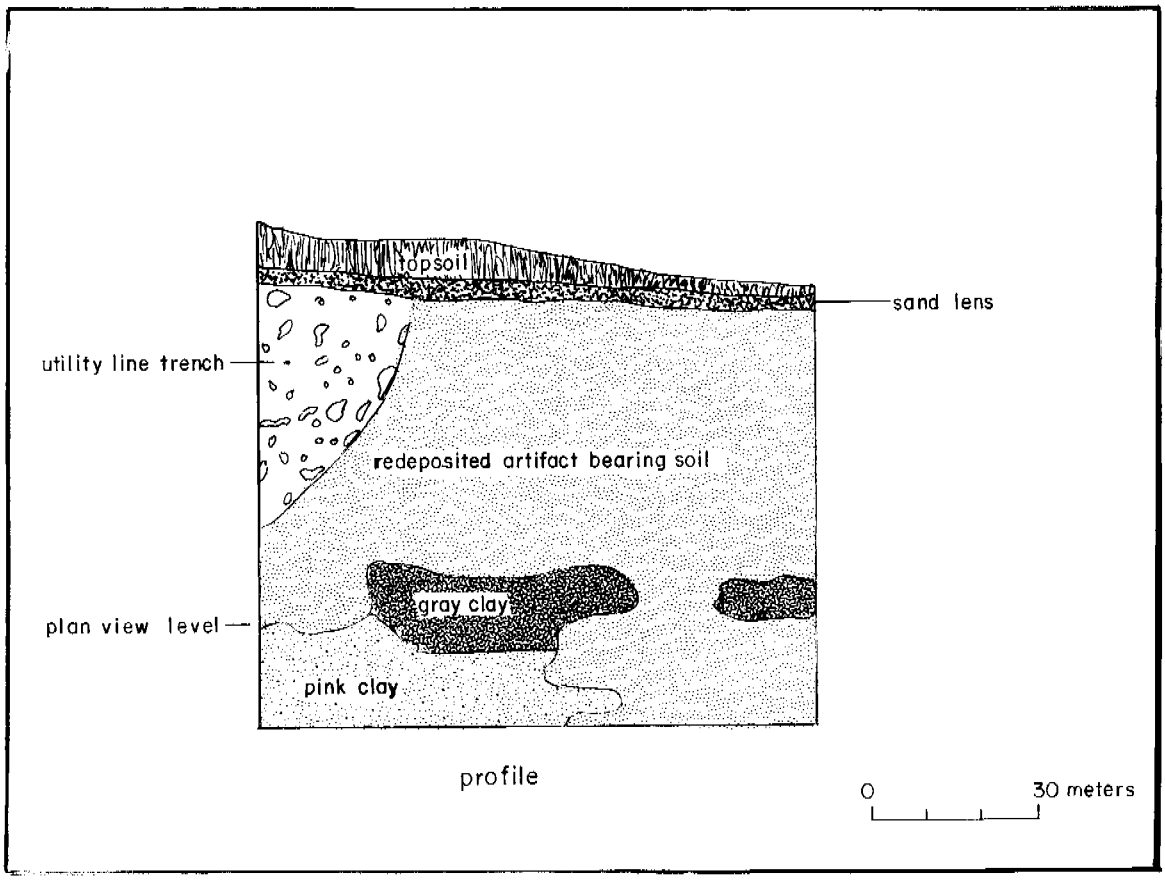

Figure 14. East profile of Test Pit 2, LA 70575.

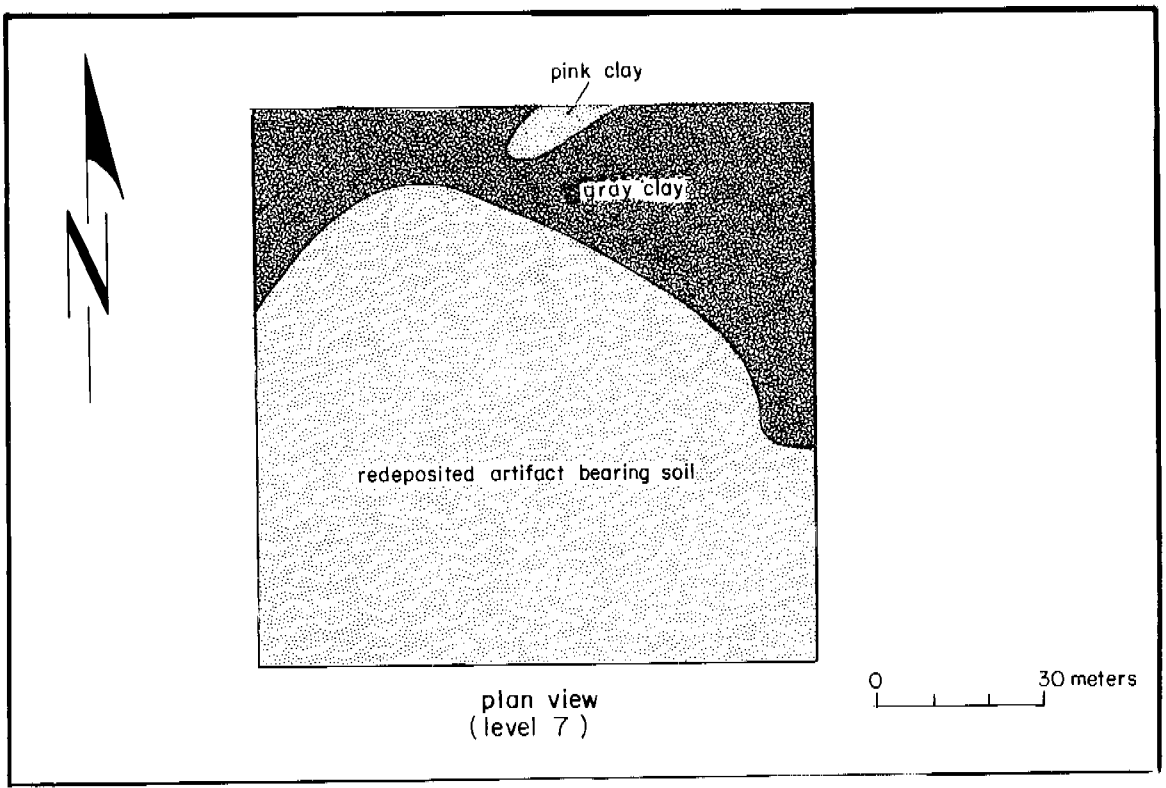

Figure 15. Plan view of Test Pit 2 at base of Level 7, LA 70575.

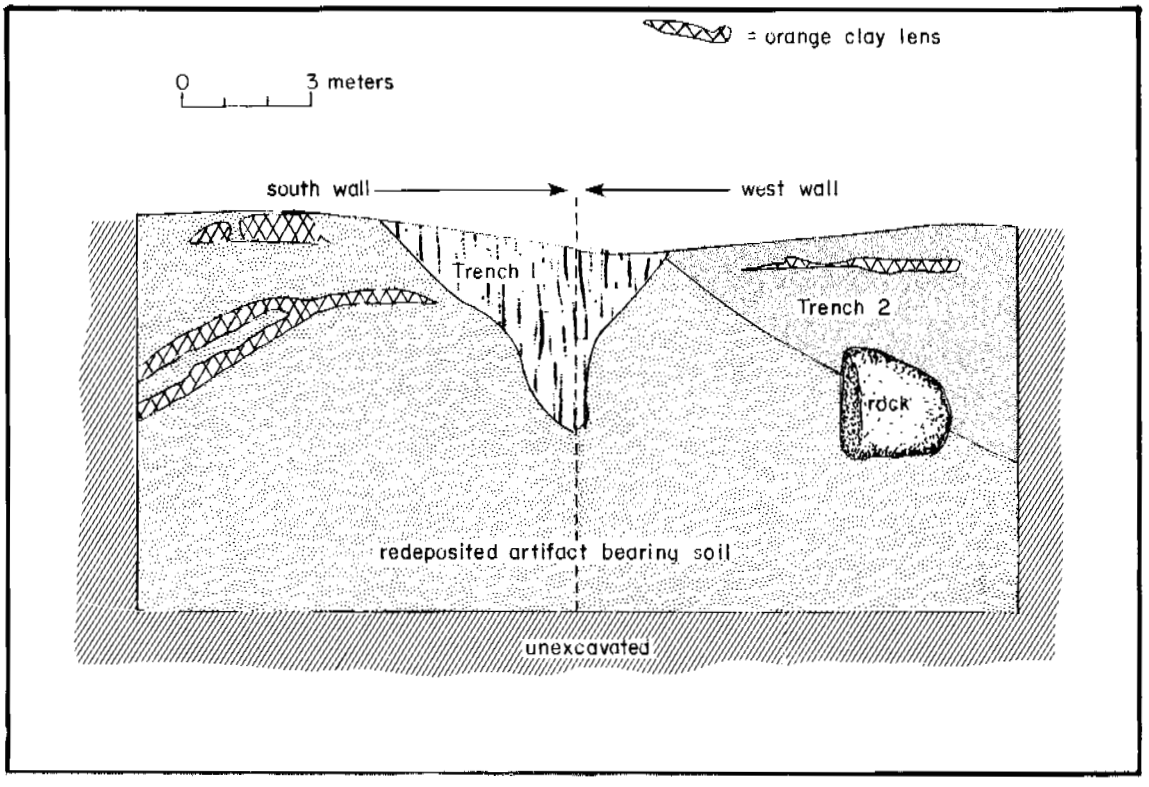

Figure 16. South and west profile of Test Pit 4, LA 70575.

Auger tests were excavated in a transect running southeast from Test Pit 2. The first 14 holes were 2 m apart, after which the interval was increased to 4 m for an additional 28 m. Artifacts were present at depths to 60 cm below surface in the first 14 holes, showing that artifact-bearing deposits extended about 30 m south of Test Pit 2. Past that point, two holes had a single sherd each, and the remaining holes were culturally sterile.

Because artifacts were particularly plentiful in auger tests at 28 m from Test Pit 2, another test pit, Test Pit 5, was excavated in that area. Like Test Pit 4, two utility trenches were discovered crossing Test Pit 5. However, unlike Test Pit 4, where both trenches reach to the present ground surface, one of the trenches in Test Pit 5 was covered by redeposited artifact-bearing gray-brown soil. This trench was shallow, and a pipeline was encountered at 53 to 60 cm below the surface. The pipeline trench is shown in the plan view of Test Pit 5 and in the east wall profile (Fig. 17). The second trench, probably the US West telephone line, is also seen in the plan view and in the south wall profile (Fig. 17). Unlike the pipeline trench, which was too shallow to hit the culturally sterile clay stratum, the second trench contained chunks of the red and orange clay.

Excavation of the three test pits on the east side of the highway in LA 70575 shows that the artifact-bearing deposit found within the right-of-way is naturally

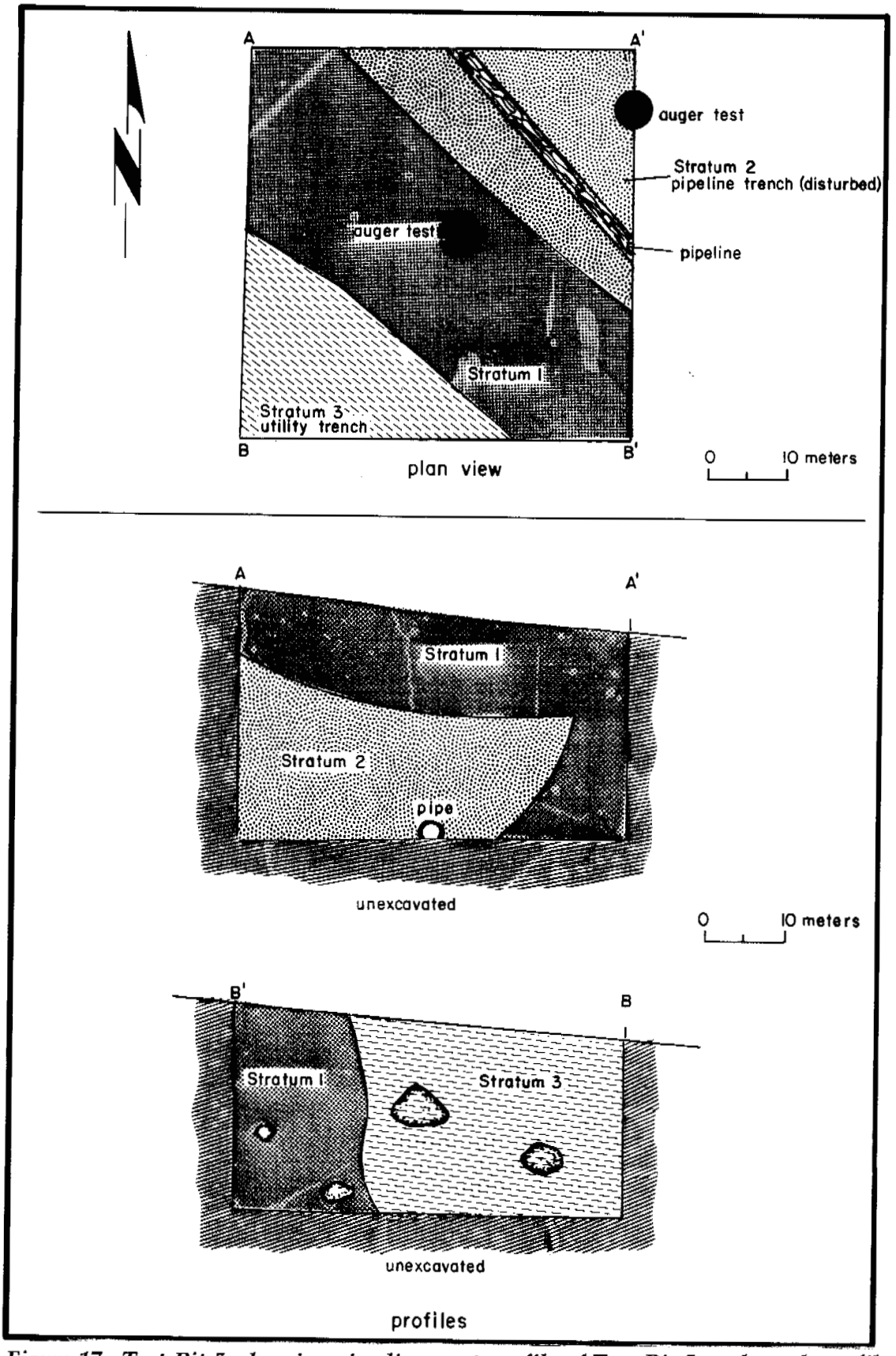

Figure 17. Test Pit 5, showing pipe line; east profile of Test Pit 5; and south profile of Test Pit 5, LA 70575.

redeposited and has been severely disturbed by utility line excavations, resulting in considerable mixing of prehistoric artifacts with both culturally sterile clay and modern road trash. Auger tests in all three test pits confirm the other auger tests, showing the sterile clay at 1 to 1.05 m below surface. The artifact-bearing deposit is, then, about 1 m thick and has been disturbed so that only thin strips of this deposit no more than 1 m wide exist within the right-of-way.

Native Ceramic Artifacts

LA 70575 yielded 937 sherds, the highest number from any of the sites tested. As with most of the other sites, both prehistoric and historic ceramics were present. At LA 70575, however, the historic sherds comprised only 5 percent of the entire assemblage. This was a post-1600s assemblage, consisting mainly of Peñasco Micaceous and indeterminate Tewa buff sherds. Indeterminate Tewa polychromes, Tewa Black, Tewa Red, Tewa Gray, Vadito Micaceous, and Apache Micaceous were also found.

The prehistoric occupation appears slightly later than at the other sites, indicated by the higher frequency of Santa Fe Black-on-white and the presence of small amounts of Talpa Black-on-white, Wiyo Black-on-white, glaze ware, and two sherds of Springerville or Cedar Creek Polychrome from the Little Colorado area (Table 20). None of these latter types was present at the other sites, and this is also the only site where the frequency of Santa Fe Black-on-white is higher than that of Taos/Kwahe'e Black-on-white. At LA 70575, the percentage of Santa Fe is almost double that of Taos/Kwahe'e. The proportion of Taos Gray corrugated is also higher, as would be expected on a site dating to the Pot Creek or Talpa phases.

Of the 891 prehistoric sherds, only 171 (19.2 percent) can be classified by vessel form. One hundred nine (63.7 percent) are jar sherds, and 62 (36.3 percent) are bowl sherds. While these figures reflect the pattern seen at the other sites, they represent the lowest frequency of jar sherds and the highest frequency of bowl sherds of the sites. Whether this is due to the size of the assemblage or the different time period is not known. That it might be the former is indicated by the fact that, among the three sites with ceramic assemblages large enough to see the pattern, as the number of sherds increases, the ratio of jar to bowl sherds decreases.

It is not so easy to explain the distribution of vessel forms by ceramic types (Table 21). As at LA 69138 and 51670, almost all (98.3 percent) of the bowl sherds are painted wares, the most common being Santa Fe Black-on-white and indeterminate white wares. However, the jar sherds are split equally between varieties of Taos Gray plain ware (50.5 percent) and painted wares (49.5 percent). At the other sites, over 72 percent of jar sherds are plain wares. No reason for this pronounced difference is known.

Table 20. **Native ceramic types by vessel form, LA 70575.**

Ceramic Type	Jar	Bowl	Indeter.	Total	%
Taos Gray Plain	3	1	665	669	71.4
Taos Gray Incised	33	0	3	36	3.8
Taos Gray Punctate	5	0	0	5	0.5
Taos Gray Corrugated	14	0	0	14	1.5
Taos/Kwahe'e B/w	15	10	0	25	2.4
Santa Fe B/w	14	25	4	43	4.6
Talpa B/w	2	1	(1 ladle)	4	0.4
Wiyo B/w	3	1	0	4	0.4
Indeterminate white ware	19	22	50	91	9.7
Vadito Micaceous	0	0	2	2	0.2
Peñasco Micaceous	6	0	13	19	2.0
Apache Micaceous	3	0	0	3	0.3
Tewa Black	2	1	1	4	0.4
Tewa Red	0	0	1	1	0.1
Tewa Gray	0	1	0	1	0.1
Indeterminate Tewa Buff	1	2	6	9	1.0
Indeterminate Tewa polychrome	2	1	1	4	0.4
Indeterminate glaze ware	1	0	0	1	0.1
Springerville/ Cedar Creek Polychrome	0	2	0	2	0.2
Total	123	67	746	937	100.0
Total percent	13.1	7.3	79.6	100.0	100.0

Table 21. LA 70575, prehistoric vessel forms by ceramic types (numbers are percentages of each column)

Ceramic Type	Jar	Bowl
Taos Gray Plain	2.8	1.6
Taos Gray Incised	30.3	0
Taos Gray Punctate	4.6	0
Taos Gray Corrugated	12.8	0
Taos/Kwahe'e B/w	13.8	16.1
Santa Fe B/w	12.8	40.3
Talpa B/w	1.8	1.6
Wiyo B/w	2.8	1.6
Indeterminate white ware	17.4	35.5
Springerville/ Cedar Creek Polychrome	0	3.2
Indeterminate glaze ware	.9	0
Total	100.0	99.9

Lithic Artifacts

LA 70575 yielded 194 lithic artifacts, the largest assemblage of the six sites. Table 22 lists them by morphology and material. Like LA 69138, undifferentiated chert and basalt are the most common materials. While basalt is apparently the most common material at sites on Guadalupe Mountain (Seaman 1983), between Taos and Questa (Viklund 1983), near Valdez (Rule 1973), on Garrapata Ridge (Hume 1973), at San Antonio Mountain (Boyer 1985c), and along the Taos-Black Lake transmission line (Rudecoff 1982), it is less prevalent on the Talpa sites. It is important to note that the areas listed above are in the northern part of the Taos Valley, closer to volcanic features including basalt flows. Two references suggest that basalt may have been used primarily in response to its immediate availability. Woosley (1986) states that on lithic scatter sites in the area west of Llano Quemado, obsidian is the most common material, comprising over 60 percent of assemblages. Boyer (1986a:40) notes that along the Hernandez-Taos transmission line, basalt is the predominant material on sites near the Rio Grande gorge and the Comanche Rim, both basalt-capped features. However, in the sand hills between the gorge and the Comanche Rim, obsidians and cherts are the most common materials. He suggests that basalt was used most frequently where it was available but was not commonly transported to other areas in significant quantities. While basalt is certainly

Table 22. **Chipped stone artifact morphology by material, LA 70575**

Material	Artifact Morphology											
	Indeter.	Angular Debris	Core Flake	Biface Flake	Resharp. Flake	Notch Flake	Uniface, Undiff.	Late-stage Uniface	Biface, Undiff.	Mid-stage Biface	Late-stage Biface	Total
Chert, undifferentiated	5 6.8 55.6	20 27.0 38.5	34 46.6 36.2	10 13.7 52.6	1 1.4 33.3	0	1 1.4 100.0	0	0	2 2.7 66.7	0	73 100.0 37.6
Chert, Pedernal	0	7 46.7 13.5	5 33.3 5.3	0	0	1 6.7 100.0	0	0	2 13.3 40.0	0	0	15 100.0 7.7
Chalcedony, undifferentiated	0	0	0	1 100.0 5.3	0	0	0	0	0	0	0	1 100.0 .5
Silicified wood	0	0	1 100.0 1.1	0	0	0	0	0	0	0	0	1 100.0 .5
Obsidian, Jemez	0	1 10 1.9	6 60 6.4	1 10 5.3	0	0	0	0	0	0	2 20 33.3	10 100.0 5.2
Obsidian, Polvadera	0	1 11.1 1.9	2 22.2 2.1	2 22.2 10.5	2 22.2 66.7	0	0	0	2 22.2 40.0	0	0	9 99.9 4.6
Basalt	2 5.1 22.2	6 15.4 11.5	22 56.4 23.4	4 10.3 21.1	0	0	0	0	1 2.6 20.0	0	4 10.3 66.7	39 100.1 20.1
Rhyolite	1 4.5 11.1	6 27.3 11.5	14 63.6 14.9	1 4.5 5.3	0	0	0	0	0	0	0	22 99.9 11.3
Limestone	0	1 100.0 1.9	0	0	0	0	0	0	0	0	0	1 100.0 .5
Sandstone	0	0	1 100.0 1.1	0	0	0	0	0	00	0	0	1 100.0 .5
Quartzite	1 4.5 11.1	10 45.5 19.2	9 40.9 9.6	0	0	0	0	1 4.5 100.0	0	1 4.5 33.3	0	22 99.9 11.3
Total	9 4.6 100.0	52 26.8 99.9	94 48.5 100.1	19 9.8 100.1	3 1.5 100.0	1 .5 100.0	1 .5 100.0	1 .5 100.0	5 2.6 100.0	3 1.5 100.0	6 3.1 100.0	194 99.9 99.8

Table 23 Chipped stone artifact function by material, LA 70575

Material	Artifact Function														
	Unutilized Angular Debris	Unutilized Flake	Utilized Debitage	Retouched Debitage	Utilized/Retouched Debitage	Drill	Uniface, Unidiff.	Side Scraper	End/Side Scraper	Biface, Undiff.	Unidentified Proj. Pt.	Corner-notched Proj. Pt.	Small Corner-notched Proj. Pt.	Pueblo Side-notched Proj. Pt.	Total
Chert, undiff.	19 26.0 37.3	46 63.0 40.4	3 4.1 60.0	0	1 1.4 50.0	0	1 1.4 50.0	0	0	1 1.4 33.3	1 1.4 50.0	0	1 1.4 14.3	0	73 100.0 37.6
Chert, Pedernal	7 46.7 13.7	6 40.0 5.3	1 6.7 20.0	0	0	0	0	0	0	1 6.7 33.3	0	0	0	0	15 100.0 7.7
Chalcedony, undiff.	0	1 100.0 .9	0	0	0	0	0	0	0	0	0	0	0	0	1 100.0 .5
Silicified wood	0	1 100.0 .9	0	0	0	0	0	0	0	0	0	0	0	0	1 100.0 .5
Obsidian, Jemez	1 10.0 2.0	6 60.0 5.3	0	0	0	0	0	0	0	0	1 10.0 50.0	1 10.0 100.0	1 10.0 14.3	0	10 100.0 5.2
Obsidian, Polvadera	1 11.1 2.0	4 44.4 3.5	0	2 22.2 100.0	1 11.1 50.0	1 11.1 50.0	0	0	0	0	0	0	0	0	9 99.9 4.6
Basalt	6 15.4 11.8	25 64.1 21.9	0	0	0	0	1 2.6 50.0	0	0	1 2.6 33.3	0	0	5 12.8 71.4	1 2.6 100.0	39 100.0 20.1
Rhyolite	6 27.3 11.8	14 63.6 12.3	1 4.5 20.0	0	0	0	0	0	1 4.5 100.0	0	0	0	0	0	22 99.9 11.3
Limestone	1 100.0 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 100.0 .5
Sandstone	0	1 100.0 .9	0	0	0	0	0	0	0	0	0	0	0	0	1 100.0 .5
Quartzite	10 45.5 19.6	10 45.5 8.8	0	0	0	1 4.5 50.0	0	1 4.5 100.0	0	0	0	0	0	0	22 99.9 11.3
Total	51 26.3 100.2	114 58.8 100.2	5 2.6 100.0	2 1.0 100.0	2 1.0 100.0	2 1.0 100.0	2 1.0 100.0	1 .5 100.0	1 .5 100.0	3 1.5 99.2	2 1.0 100.0	1 .5 100.0	7 3.6 100.0	1 .5 100.0	194 99.9 99.8

ubiquitous on sites throughout the Taos Valley, differential distribution may suggest conclusions about its desirability.

In any case, the most common materials at LA 70575, chert, basalt, rhyolite, and quartzite, are local and make up 80 percent of the lithic assemblage. Like LA 69138, most of the remaining artifacts are from the Jemez Mountain region and include Polvadera and Jemez obsidians and Pedernal chert.

Almost 50 percent of the lithic artifacts are core flakes, while about 13 percent are biface, resharpening, and notching flakes. This suggests that tool manufacture was primarily a result of core reduction rather than biface reduction. Two unifacial and 14 bifacial tools were collected from the site. One uniface and four bifaces cannot be more specifically identified. The other tools include a side scraper, two drills, and seven projectile points. Of the latter, four are small, corner-notched points, one is a Pueblo side-notched point, and two are otherwise unidentified. Fourteen other tools are actually utilized and retouched debitage. They include four corner-notched projectile points, an end scraper, five pieces of utilized debitage, two pieces of retouched debitage, and two pieces of utilized/retouched debitage (Table 23). Six of the 11 projectile points are basalt, three are Jemez obsidian, and two are chert. Chert appears to have been the preferred material for the other tools, both formal and expedient.

Figure 18 shows the projectile points from LA 70575. The site is remarkable for its collection of projectile points, all of which came from the surface and three test pits on the east side of the highway. Three points resemble Thoms's (1977) Tesuque narrow base points, which he places in the late Developmental period and dates between A.D. 500 and 1300. Two points resemble Thoms's parallel sided-asymmetrical tang points, also late Developmental, between A.D. 900 and 1300. One point resembles his Gallina narrow base points, which he dates between A.D. 500 and 1230. Together, these points suggest a pre-1300 date and, combined with the ceramic data, indicate a Pot Creek-phase occupation.

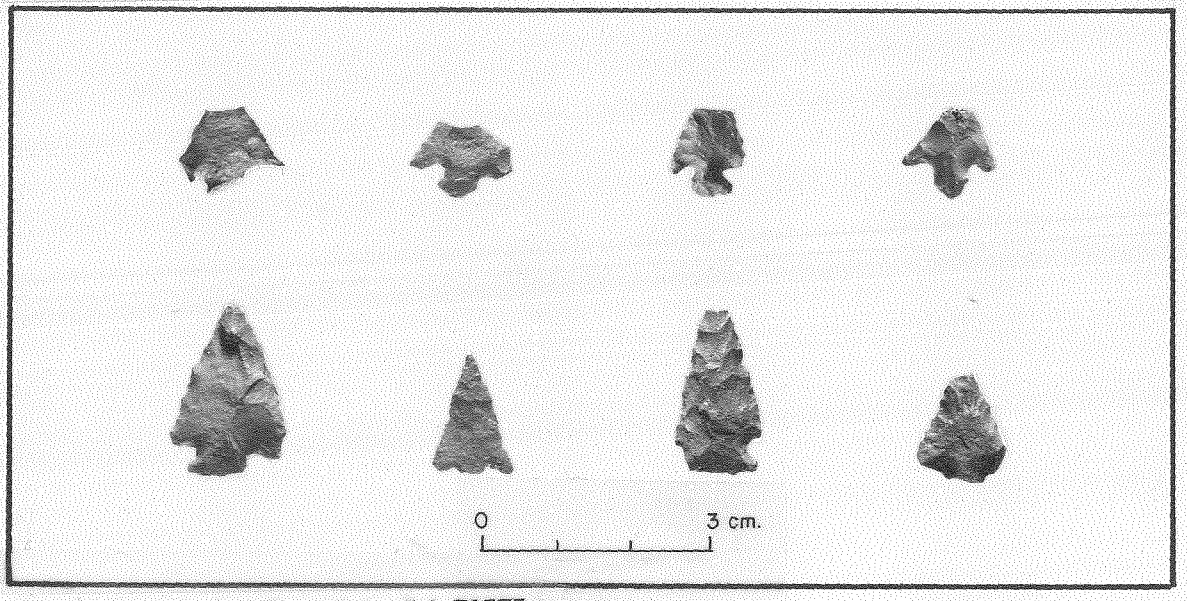

Figure 18. Projectile points, LA 70575.

Euroamerican Artifacts

One hundred seventeen Euroamerican artifacts were collected from LA 70575. Table 24 lists the artifacts by functional category. The vast majority of the artifacts are in the unassignable category, most unidentifiable metal and glass fragments. The rest are bottle fragments. About 15 percent of the artifacts are beer bottle fragments from the indulgences category. Most of the other 10 percent (11 artifacts) are box nails and window glass fragments from the construction/maintenance category. Three artifacts are sherds from the domestic category.

Forty-seven artifacts (40.2 percent) are datable, yielding dates from 1820 to 1990. The minimum range within which all artifacts could date is 1873 to 1935. Converting the number of artifacts in each date range to percentages for each year narrows the date range for the assemblage slightly to 1880 to 1930. Within that period, the highest percentages of artifacts could date between 1904 and 1920. The mean artifact date is 1914.8, which is 2.8 years after the midpoint of the 1904-1920 range and 9.8 years after the midpoint of the 1880-1930 range, suggesting that the 1904-1920 range may be the most accurate for the assemblage.

Table 24. Euroamerican artifacts, LA 70575

Category	#	%
Indulgences	18	15.4
Beer bottle fragments	18	15.4
Domestic	3	2.6
Unidentifiable sherd	1	.9
Plate sherds	2	1.7
Construction/Maintenance	8	6.8
Box nails	4	3.4
Window glass fragments	4	3.4
Unassignable	88	75.2
Unidentifiable glass	2	1.7
Unidentifiable metal	71	60.7
Bottle fragments	15	12.8
Total	117	100.0

Faunal Remains

Test excavations at LA 70575 produced 67 pieces of bone. Faunal remains were recovered from the five test pits and several auger tests within the site boundary. Butchering in the form of chop marks and splitting was present on 12 pieces of bone (17.9 percent), and weathering was observed on 49 specimens (73.1 percent). Carnivore alteration of the assemblage was low, and evidence of gnawing occurred on only four fragments (6 percent). Fifty-three bone fragments (79.1 percent) could only be identified to the general class mammal or to small, medium, or large mammal depending on the cylinder or the thickness of the compact tissue layer. One specimen could only be identified to the class Aves.

The remaining 13 bone fragments (19.4 percent) were assigned to one order, one family, three genera, and two species. Table 25 provides a summary of these identifications. A brief review will include all of the environmental and cultural alterations observed in the collection.

Castor canadensis (beaver). One fragmented and weathered mandible with dentition could be identified as beaver. Almost all of the horizontal ramus was present but fragmented during excavation because of its poor state of preservation. Beaver occur in the northern mountain areas of the state and build houses and dams in the streams throughout the area (Findley et al. 1975:188). This specimen was isolated in Level 2 of Test Pit 5. This species was taken both prehistorically and historically in the area for its pelt and meat.

Canis sp. (dog, coyote, wolf). One innominate fragment from Test Pit 1, Level 1 could be assigned to this genus. The specimens exhibited carnivore tooth marks and had been split transversely. Since dog was used as a food item by native populations both prehistorically and historically, this piece could have been part of the discarded food remains during either period represented in these deposits. Collection from the first level would suggest that it was associated with the later component.

Artiodactyla (even-toed hoofed mammals). One cervical vertebra fragment was recovered from an auger test and could be identified only to this order due to the fragmentary nature of the specimen. The specimen was weathered and split along a transverse axis. It appears to be refuse from processing, but it cannot be assigned to a level or time period.

Odocoileus sp. (deer). The three elements that could be assigned to this genus come from lower levels in the cultural deposits and may be associated with prehistoric use of the area. The glenoid fossa from a scapula was recovered from Level 8 of Test Pit 2 and has been split longitudinally. A lateral lumbar vertebra fragment and a maxillary premolar were recovered from Levels 5 and 6 of Test Pit 4.

Deer occur throughout the area. They could have been hunted in the surrounding mountains or occasionally in the nearby fields.

Table 25. Faunal remains, LA 70575

Taxa	#	%
Mammal	3	4.5
Small mammal	2	3.0
Medium mammal	29	43.3
Large mammal	19	28.3
Castor canadensis (Beaver)	1	1.5
Canis sp. (dog, coyote, wolf)	1	1.5
Artiodactyla (even-toed hoofed mammals)	1	1.5
Odocoileus sp. (deer)	3	4.5
Bovidae (cattle, bison, sheep, goat)	2	3.0
Ovis/Capra (sheep, goat)	4	6.0
Bird	1	1.5
Corvus corax (common raven)	1	1.5
Total	67	100.1

Bovidae (cattle, bison, sheep, goat). Two cranial fragments from Test Pit 3, Level 2 could be identified only to the family Bovidae. Both specimens exhibit chop marks that appear to be from a metal tool and may be associated with the later component in this trash area.

Cattle, sheep, and goats were introduced during the Spanish entradas, and these fragments could be the result of utilization of any of these species. The primary species occurring in historic component would be sheep, but the size of these fragments suggests a larger species such as cattle.

Ovis/Capra (sheep, goat). Four bone fragments could be assigned to this combined genera. One premaxilla fragment from the surface of Test Pit 2 was identifiable only to

these combined genera. It was heavily weathered and had been split from the rest of the cranium with an oblique blow to the medial axis nearly following the suture line between the premaxilla and the maxilla. The reasoning behind such a reduction technique is unclear, but it would separate the nose from the rest of the cranium.

The other three fragments identified to this combined genera were isolated from Level 3 of Test Pit 3. These consisted of one carpal fragment and two fragments of mandible which lacked dentition. All fragments showed evidence of impacts, being split during the processing of the carcass.

Aves (bird). One bone fragment recovered from Level 3 of Test Pit 5 could be identified only as tissue from a bird because of its thin cortical layer and reduced cancellous tissue. It may have been bone related to the fragment of raven carpometacarpus also isolated from this unit.

Corvus corax (common raven). A distal fragment of carpometacarpus recovered from Level 3 of Test Pit 5 was identified as common raven. The element shows considerable carnivore gnawing and may suggest that the presence of this species was due to the activities of dogs rather than humans. The common raven occurs throughout the state (Ligon 1961).

Identification of remains from LA 70575 indicates the utilization of wild game. These species were identified from Test Pits 2, 4, and 5 on the east side of the right-of-way, while domestic species were more commonly found in Test Pits 1 and 3 on the west side. This suggests that the wild game was associated with the prehistoric component, although disturbance of the deposits may not support this conclusion. The butchering evidence contained a predominance of splitting, which is a method of reduction used both historically and prehistorically. Weathering noted in this sample varied from bone to bone rather than from test pit to test pit or between levels. This would support the observations about the mixing of deposits at LA 70575.

LA 77861

As originally defined during the right-of-way survey, LA 77861 consists of an adobe house, an acequia (irrigation ditch), two midden areas, a deep trash-filled pit, three shallow depressions, and an associated artifact scatter (Fig. 19).

The most conspicuous feature is the adobe house, consisting of two room blocks connected by a single wall. The eastern room block contains two definable rooms and a U-shaped room with no definable fourth wall. This room block is about 10 m (30 ft) north-south by 7 m (21 ft) east-west. The western room block consists of three definable rooms and is also about 10 m (30 ft) north-south by 7 m (21 ft) east-west. The two room blocks are about 12 m (35 ft) apart and are connected by a tall wall between the north rooms of the blocks. No wall could be defined connecting the southern ends of the blocks, giving the impression of an open patio between the blocks. A concrete slab is present along the north side of the connecting wall, as is the remnant of a low concrete and rock wall. A pile of large stones is present at the southeastern corner of the house.

An informant who grew up at the site and now owns the western room block identified the two room blocks as separate houses occupied by members of his family.

Artifacts around the eastern room block appear to be from the mid-1900s, although this observation may be the result of the proximity of the highway and the consequent presence of road trash. At any rate, surface artifacts do not point to an occupation at or before 1900. This observation was confirmed by our informant, who said that the eastern room block was built in the 1930s. Adobes in the large south room of the western room block contain prehistoric sherds (Taos Gray Plain and Corrugated were observed), lithic artifacts, and charcoal. The melted adobe in and around the western rooms also contains artifacts. Our informant identified this portion of the structure as the oldest. He said it had once been owned by his grandfather. The informant also lived there during the first years of his marriage, 40 to 45 years ago. However, he did not say how old the structure is. Immediately west of the western room block is an area of low mounds of adobe rubble containing charcoal, prehistoric artifacts, and historic polished red and black and micaceous sherds. Our informant identified the rubble mound as the remains of another house, in which he was born. The house apparently once had a portal on its west side overlooking the river valley. Historic sherds are also present near the acequia on the west side of the house and in the large midden deposit north of the acequia. Also noted in the area west of the house was amethyst glass.

The acequia is apparently abandoned but was fed by the Rio Chiquito and may have emptied into the Rio Grande de Ranchos. Baxter (1990:114-115, 126) identifies this as the Acequia Antonio Maria Graham, named for Antonio Graham, who bought a parcel of land bounded by this ditch. Since that land sale took place in 1862, the ditch is clearly older than that date. It follows the edge of the natural terrace around the north, west, and south sides of the site. About 12 m (35 ft) of the acequia near the northeast corner of the site is partly rock-lined.

A trash-filled pit is located about 13 m (42 ft) north of the house. Our informant identified this feature as a well. The trash includes cans, bottles, and bone and appears to date to the mid-1900s. Two shallow depressions are located on opposite sides of the acequia near the northeastern corner of the site. Our informant could not identify these features and suggested that they may date from the last occupation of the eastern room block in the 1960s. This was confirmed by our excavations.

There are two midden areas, one on the west side of the acequia west of the house and the other much larger one on the north side of the acequia and terrace north of the house. Artifacts from historic to modern time are present in both areas.

Flattening the curve immediately north of LA 77861 will necessitate moving the right-of-way into the east side of the site and will involve a TCP area, effectively widening the construction zone to and beyond the northeast corner of the standing house. This area is shown on the site map. Consequently, our activities at LA 77861 were not restricted to the existing right-of-way, but included an area up to 15 m wide and 55 m long within the site.

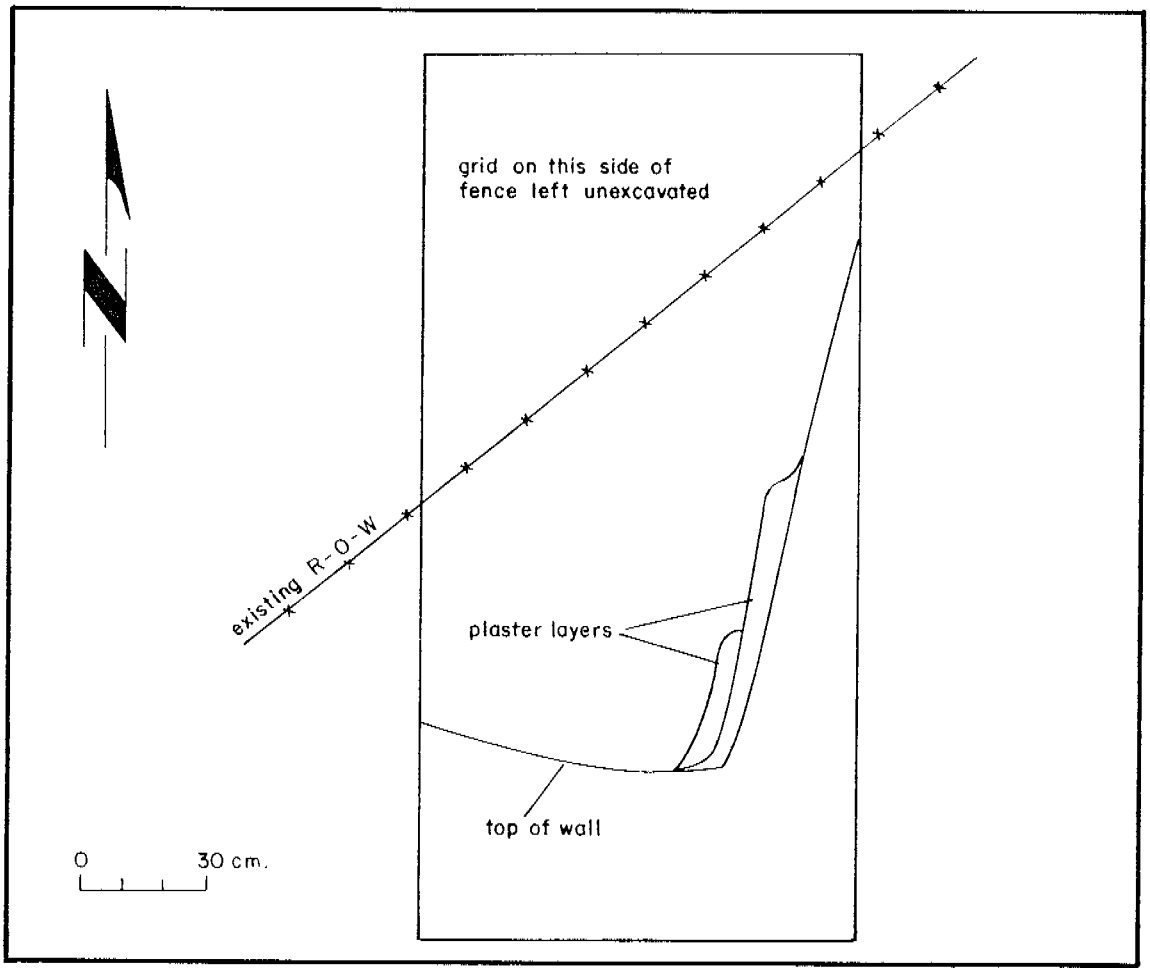

Figure 20. Test Pit 4, LA 77861

Test excavations at LA 77861 included five test pits and a series of auger tests. Test Pit 1 was placed in the shallow depression (number 2) on the north side of the acequia. Three levels were excavated in the pit. The artifacts recovered were very recent and included pantyhose, plastic toys, and bottle fragments. Three auger tests were placed in and around the test pit. While one piece of amethyst glass was found at 40 to 50 cm below surface in one hole and several rusted can fragments were recovered between 90 cm and 1.5 m, these items are not necessarily indicative of early 1900s deposits. We also found rusted, disintegrated metal in Level 3 of the test pit, which, being a depression, holds moisture. Auger notes state that the feature fill was wet for a considerable depth. Thus, the moisture could well account for the rusted metal and, since late 1800s and early 1900s artifacts are common on the site, the presence of a single amethyst glass fragment is not conclusive evidence of early deposits. Because most artifacts is this feature appeared to be very recent, excavation was stopped at Level 3.

Test Pit 2 was a 1 m by 2 m unit placed across the rock-lined part of the acequia. It was intended to reveal the depth of the acequia and the construction and possible function of the rock lining. Only two partial levels were excavated.

Four auger tests were excavated in and near the shallow depression (number 1) on the south side of the acequia. The presence of plastic and wallpaper fragments along with glass and metal indicates that the depression, which was at least 1.2 m deep, was filled with recent trash.

A 4 by 4 m grid system was extended over the construction zone. Twenty-two grid corners were tested by augering. Five additional auger tests were excavated within the highway right-of-way. Twenty-five of these 27 holes revealed no subsurface cultural materials. Two holes near the property fence yielded possible adobe fragments with *tierra blanca* plaster adhering to them. Test Pits 3 and 4 were excavated near these holes. Because of time constraints and because no artifacts were recovered from the auger tests, both test pits were excavated in strata defined by augering.

Test Pit 3 revealed two strata but no evidence of structural remains. Stratum 1 was a 32 cm thick layer of dark yellow-brown soil with chunks of clay originally thought to be adobe. Stratum 2 was a clay layer at least 23 cm thick. The clay is mixed with caliche, and it appears that the clay was mistaken for adobe and the caliche for plaster. A single historic sherd was recovered from this stratum. An auger test excavated to 95 cm below surface in the center of the pit found no evidence of cultural material.

Test Pit 4, on the other hand, yielded pieces of adobe with *tierra blanca* plaster from immediately below the thin topsoil layer. At about 23 cm below surface, the southeast corner of an adobe wall was revealed (Fig. 20). The wall was constructed of adobe bricks, several large pieces of which were removed from the fill. At least six layers of adobe plaster and four layers of *tierra blanca* were present, particularly on the east wall. The test pit was enlarged to include a second 1 by 1 m unit. Two possible adobe floors were revealed about 1 m below surface. On the north side of Test Pit 4, the auger grid was extended in 2 m intervals to define the size of the feature. Based on the results of augering north and west of Test Pit 4, Test Pit 5 was excavated immediately west of Test Pit 4 in hopes of finding the southwest corner of the structure. Although chunks of adobe were found, no wall was defined.

The feature appears to be a semisubterranean structure, as evidenced by the depth of the fill. However, the quantity of adobe bricks and chunks also suggests a superstructure. The presence of several adobe and *tierra blanca* layers and two possible floors indicates that the structure was in use for many years and underwent several maintenance episodes. Augering indicates that the structure size is about 5 to 6 m north-south by 4 to 5 m east-west. Very few temporally diagnostic artifacts were recovered from the excavations. They include both machine-cut "square" and round wire nails, white ware sherds, polished native sherds, and a rectangular proprietary medicine bottle probably dating between 1903 and 1915. These items may indicate a date near 1900. While the nails may represent building materials associated with the structure, the presence of the other artifacts in the rubble fill makes their association with the structure

questionable. No artifacts were found on the small portion of the floor exposed during testing. Our informant insisted that no structure was present in this location during his lifetime and suggested that the feature predates his family's occupation of the site. Because he was able to identify the other historic features of the site, we have no reason to doubt his denial that this feature was associated with the others, unless it was abandoned before he was born or while he was a small child.

Augering west of the structure revealed the presence of buried trash deposits. Remains recovered by augering included charcoal, wood and burned wood, bone, and native sherds at depths ranging from 10 cm to 1.1 m.

Test excavations at LA 77861 demonstrate that the site has data potential beyond that recovered during testing. Because we are recommending data recovery for LA 77861, as discussed below, the artifacts recovered from the site have not been analyzed as of the preparation of this report. They will be included in analysis of artifacts collected during data recovery.

RECOMMENDATIONS

Given the extent and results of archaeological testing at sites LA 69138, LA 69139, LA 77862, LA 51670, and LA 70575, we feel that no further archaeological work at these sites is warranted. Given the information collected during testing, we recommend that a data recovery program be undertaken at LA 77861 to define the buried structure and investigate possible relationships with buried trash deposits and the other site features.

LA 69138

LA 69138 was extensively tested by both test pits and auger transects. Cultural remains within the right-of-way may have been intact before the installation of underground telephone, gas, water, and cable TV lines, but these utilities have caused major disturbance and mixing of artifactual material. Based on the information collected from Mr. Medina concerning the dates and nature of the root cellar in Area C, we do not feel it is necessary to conduct further work at this feature. Test excavations demonstrate that the part of LA 69138 within the highway right-of-way has no data potential beyond that recovered during testing.

LA 69139

Test excavations at LA 69139 showed that the topsoil within the right-of-way is very shallow and does not contain cultural deposits. Artifacts found along the edge of the right-of-way are apparently part of a scatter associated with deposits and perhaps structural areas outside the right-of-way. Testing demonstrates that the part of LA 69139 within the highway right-of-way has no data potential beyond that recovered during testing.

LA 77862

Like LA 69139, test excavations at LA 77862 show very shallow topsoil with no cultural deposits, suggesting that artifacts are part of a scatter associated with deposits and perhaps structures outside the right-of-way. Testing demonstrates that the portion of LA 77862 within the highway right-of-way has no data potential beyond that recovered during testing.

LA 51670

From the density of subsurface artifacts at LA 51670 and the amount of charcoal found both in test pits and auger tests, two explanations for the presence of the cultural material can be suggested. One is that cultural material deposited in the portion of the site now in the right-of-way is extremely disturbed by the installation of three buried utility lines so that it is impossible to make an accurate determination of its nature or extent. The second possibility is that fill was brought in from another location, possibly nearby, either to fill in the trench, or for road fill during construction. In either case, we feel that test excavations demonstrate that the portion of LA 51670 within the highway right-of-way has no data potential beyond that recovered during testing.

LA 70575

Test excavations at LA 70575 showed that the artifact-bearing deposit on the east side of the highway has been naturally redeposited and subsequently disturbed by excavations for underground utility lines. This is confirmed by test pits and auger tests. Testing on the west side of the highway showed no cultural deposits within the right-of-way. Taken together, these results demonstrate that the portion of the site within the right-of-way has no data potential beyond that recovered during testing.

Testing at LA 77861 revealed the presence of a historic structure, semisubterranean with a surface superstructure. Artifacts indicate that the structure may date from near 1900, although our informant could not confirm this. Because he apparently had no knowledge of this feature and even initially denied its existence, we cannot currently identify the structure or speculate on its function or its association with the rest of the site. Further, the presence of nearby subsurface trash deposits suggests that these features may predate and not be associated with the features defined during survey and known by our informant. Consequently, they may represent an earlier component at the site.

LA 77861 is a complex site. According to our informant, the two room blocks and the rubble mound represent three separate households occupied by members of a large extended family. Temporal differences between the eastern and western room blocks point to site formation through time. There are numerous other features at the site, but their relationships to each other and the major site features, the room blocks, are not clearly defined in a temporal or spatial sense. That is, we do not know with certainty when the other features originated, which household was responsible for which features, or how many households used the features. This confusion is compounded by the features discovered during testing. As the descriptions of these features indicate, they are not well defined archaeologically. Further, our informant's lack of knowledge about them and, indeed, his initial denial of their existence suggest that their relationships to the rest of the site are even more problematic. These relationships may be best explored through archaeological and ethnohistorical research and will be the focus of data recovery at LA 77861.

Historic Hispanic Settlement

Although Bunting (1964:3) states that "all through the Colonial and Mexican periods, settlers were grouped closely in villages," other historians are adamant in denying the historical importance of the plaza community, insisting instead that the normal pattern of Hispanic settlement was one of dispersion. Snow (1979:46) points out that this pattern of dispersion began at the first settlement at San Gabriel and that "except for Santa Fe . . . the 17th century rural landscape lacked villages; community organization existed, if at all, only in a very limited fashion" (see also Simmons 1969).

Snow (1979:47) contends that after the Reconquest, "The major thrust of 18th century settlement was toward the limits of effective military and administrative control and toward unoccupied agricultural lands, primarily in the narrow tributaries of the Rio Grande and the Chama River. Ranchos proliferated as individuals applied for and received minuscule *mercedes* for themselves, their relatives and friends in more and more marginal locations along such tributaries."

Simmons (1969) cites two reasons for this situation: a decrease in the Indian population, which resulted in a reduced labor force, and an increase in Hispanic immigration, which resulted in population growth.

However, by the last half of the 1700s, the largely rural population increasingly left their isolated ranches and congregated in small fortified plazas (Simmons 1969). The impetus for this significant settlement change was a period of intense hostility on the part of mobile Indian groups such as Apaches, Navajos, Utes, and particularly Comanches. In 1772, Governor Mendinueta recommended to the viceroy that the scattered settlers be made to form plaza communities. Four years later, Antonio de Bonilla described the New Mexican settlements as scattered and unable to defend themselves. Finally, in 1778, a council held in Chihuahua recommended swift action to unify the New Mexican population. As a result, Commandant Teodoro de Croix ordered Governor De Anza to "regularize" settlements by making the populace live in compact units. Although Simmons (1969) contends that by 1780, considerable progress had been made toward that end, in 1782, Father Morfí complained that the settlers still preferred dispersed settlement, a preference that he blamed on moral depravity (Simmons 1977). Nonetheless, by 1830, Josiah Gregg reported that the New Mexicans were congregated into villages because of Indian depredations (Snow 1979:48). Thus, Snow (1979:50) argues: "Rural Hispano villages in New Mexico are a product, for the most part, of the last quarter of the 18th century and of the 19th century. If we examine destructive pressures since 1848, we are looking at village or community structures which, in most cases, were less than 75 years in existence prior to that date -- a space of only two generations or so."

A dispersed settlement pattern is characteristic of the farthest reaches of frontier expansion. Casagrande et al. (1964:311-315) discuss characteristic features of colonization settlement in what they call a "colonization gradient." This gradient consists of five kinds of settlement that have both temporal and spatial aspects. They include the "entrepot," the "frontier town," the "nucleated settlement," the "semi-nucleated settlement," and "dispersed settlement." The differences between these types and levels of settlement have to do with the strength of their direct ties to the core area from which colonization emanates and with their levels of internal integration. For instance, the nucleated settlement "consists of a cluster of households which are organized politically at least to the extent of having some form of municipal government. It is linked with the frontier town and to some extent with the higher level organized political bodies through its municipal government" (Casagrande et al. 1964:313).

In contrast, "seminucleated settlements have no formally constituted municipal governments. In fact, the seminucleated settlement is characterized more by its lack of integration and community facilities than by their presence" (Casagrande et al. 1964:313). Finally, "There are many zones within an area of colonization characterized by the presence of scattered houses. This feature we have termed *dispersed settlement*. Although formally these individual households may be included in a larger corporate entity such as a municipality, they are but loosely integrated within it." (Casagrande et al. 1964:314).

Taking a synchronic view, these levels of settlement on the frontier may characterize communities at a particular point in time. Thus, we can compare

Casagrande's lower levels of settlement with Snow's (1979:46) statement that "the 17th century rural landscape lacked villages; community organization existed, if at all, only in a very limited fashion," and his contention that this situation continued into the late 1700s, and see that Spanish Colonial settlement in north-central New Mexico reflected the far reaches of frontier expansion. As Casagrande et al. (1964:314-315) state, "As one proceeds away from the metropolitan area toward the frontier, settlements diverge more and more from those of the settled area." This is seen in the 1779 Miera y Pacheco map of the Interior Province of New Mexico (Adams and Chavez 1956:2-4), in which the Alcaldia de la Villa de Santa Cruz de la Cañada consisted of the *villa*, several *pueblos de los Indios Cristianos*, and numerous small communities characterized by *poblaciones dispersas de los Españoles*. In the Alcaldia de Taos, Miera y Pacheco noted only the location of Taos Pueblo and a community of dispersed Españoles along the Rio de las Trampas, now known as the Rio Grande del Rancho. In northern Spanish Colonial New Mexico, then, we may postulate that Santa Fe, as territorial capital, was the frontier town, that Santa Cruz de la Cañada was a nucleated settlement, that the mission communities were seminucleated settlements, and that, until the late 1700s, there were many dispersed settlements such as that on the Rio de las Trampas. This situation changed in the late 1700s and early 1800s as seminucleated settlements began to grow in the province in response to the change to a plaza-centered settlement pattern.

Hispanic Settlement in the Rio de las Trampas/Rio Grande del Rancho Valley

These patterns can be seen in the Rio de las Trampas/Rio Grande del Rancho Valley, where Wroth (1979) has documented settlement on the Durán y Chávez/Cristobal de la Serna grant, stretching from the Taos Pueblo league to the Picuris range. In his discussion of settlement in the Ranchos de Taos/Talpa area, Wroth (1979:16) notes that by 1765 a community known as San Francisco de la Trampas was established on the Rio de las Trampas. However, he states, the settlement pattern was one of scattered ranches spread along waterways close to arable lands. When Bishop Tamerón crossed the Rio de las Trampas in 1760, he noted the presence of several acequias apparently watering the lands of these ranches. Following the Comanche raid on the Villalpando hacienda in 1760 and other attacks in the following years, including a 1770 Comanche raid on a plaza, perhaps in the El Prado area, the settlers temporarily abandoned their homes and lands. By 1776, all Hispanic settlers in the Taos Valley were living at Taos Pueblo (Adams 1954; Adams and Chavez 1956; Jenkins 1966). However, Fray Domínguez noted that the settlers were building a plaza "in the cañada where their farms are," probably referring to the Rio de las Trampas (Adams and Chavez 1956:113). The plaza may have been completed around 1779 (Wroth 1979:17-18), although it is not present on the Miera y Pacheco map.

The case of San Francisco de las Trampas points out the temporal aspect of the colonization gradient. As Casagrande et al. (1964:314) point out:

> These several types of settlements may be seen as graded stages in a developmental process by which the area of colonization may achieve a higher level of socio-cultural integration . . . . The stages in this process, as we have

labeled them, are then: dispersed settlement, semi-nucleated settlement, nucleated settlement, frontier town, and possibly eventually, entrepot. But while these are recognizable stages in a general developmental process, not every individual settlement goes through all of them.

At San Francisco de las Trampas, the community changed from a scatter of ranchos along the Rio de las Trampas before the severe Comanche raids of the 1760s and 1770s to a plaza-centered community in the 1780s and beyond. This community was the origin and center of settlement in the Talpa, Llano Quemado, and Cordillera area. Even today, however, the structure of this community, now know as Ranchos de Taos, is informal and centers around the church, the school, the acequias, and the community's involvement in regional political issues. Thus, the community never moved past the level of a seminucleated settlement.

Wroth (1979:18) contends that this was the beginning of the small plazas in the Taos Valley. He argues that Hispanic population growth and the decreased Comanche threat after De Anza's 1786 treaty with Cuerno Verde encouraged a return to a dispersed settlement pattern. Unlike the former pattern, however, dispersed settlement in the 1800s was plaza-centered. Farms and ranches were scattered around small plazas, which gave the settlers a community focus and identity. Thus, while the 1779 Miera y Pacheco map shows Hispanic settlement focused at Taos Pueblo and along the Rio de las Trampas, in the course of only 17 years, settlement shifted to plaza-centered communities, as a 1796 census of the valley lists six plazas with a combined population of 779.

There is no record of formal settlement in the Talpa area before the early 1800s. The community is not listed in the 1796 census. However, its location at the mouth of the Rio Chiquito, an important tributary of the Rio Grande de Ranchos and the source of several acequias, suggests that the area should have seen early settlement as population outgrew the confines of the plaza at San Francisco de las Trampas. According to Baxter (1990:100-120), settlement and irrigation agriculture in the Serna grant has a complex history. It is clear, however, that settlers were present on the eastern side of the grant in the Talpa area after about 1795. Water and land requests and disputes suggest that until the 1820s, settlement in the Rio Chiquito area consisted of scattered farms and ranches.

In 1823, Manuel Lucero, a wealthy land owner and perhaps son of Bernardo Lucero, who was given a large tract of land crossing the Rio de las Trampas and Rio Chiquito in 1795, donated a plot of land to 20 settlers. They were to build a plaza on the land, which was 105 *varas* on a side and situated "between the public road (*'camino real'*) and the Rio Chiquito" (Wroth 1979:24; Baxter 1990:106). This is the location of the now largely abandoned plaza between LA 69247 and LA 70575. By 1827, the settlers of the plaza and "its respective ranches" numbered "a little more than 30 heads of families" (Wroth 1979:24). That same year, Don Bernardo Luján petitioned Don Antonio José Martínez, the parish priest in Taos, that the community be allowed to recognize as its patroness Nuestra Señora de San Juan de los Lagos. In the petition, Luján identified himself as a "citizen of the department of Rio Chiquito, Barrio of San Francisco de las Trampas" (Wroth 1979:76). The chapel was built the following year. Wroth (1979:24) states that the chapel was built in the center of the plaza. However, this contradicts

information given to us by local residents, who locate the plaza north of the chapel. This would not be unusual since the plaza predated the chapel. An obvious example is Nuestra Señora de Guadalupe in Taos.

Although identified with Nuestra Señora de San Juan, the community continued to be called Rio Chiquito well into the 1900s. The name Talpa, officially bestowed on the post office in 1904 (Dike 1958-59), came from a family chapel dedicated to Nuestra Señora de Talpa, named for the famous shrine in Talpa, Jalisco, Mexico (Wroth 1979:26-27, 45). This chapel is located immediately west of LA 51670, about 0.8 km (0.5 mi) north of the plaza.

On December 28, 1862, Antonio María Graham, son of an Anglo carpenter and a Hispanic woman, paid one burro to José Esquípula Mestas for a small tract of *tierra de pan llevar* (land to raise wheat, usually referring to irrigated farmland) south of the Rio Chiquito. The tract was bounded on the east by "la sequiacita que va al pie del cerro" (the little ditch that runs at the foot of the hill). Baxter (1990:115) identifies this ditch as the one now known as the Antonio María Graham Acequia. Six years later, Graham bought additional land, also bounded on the east by the little ditch. Since the ditch was a boundary call for the 1862 transaction, its presence prior to that year is certain. The ditch, which runs through LA 77861, waters about 8 ha (20 acres) between the Rio Chiquito and the Acequia Madre del Rio Grande. The location of Graham's land is not clear as any irrigated land actually bounded on the east by the Graham acequia would more likely have been watered by the Acequia Madre (see map in Baxter 1990:126). Assuming the use of magnetic poles in determining directions, however, the area between the Rio Chiquito and the Acequia Madre del Rio Grande could well have been the land bought by Graham.

This information is supported by our informant. He claims that his family has owned land that includes LA 77861 since the 1860s, coinciding with Graham's 1862 and 1868 purchases. While at the site, he showed us what had been family land and what had been watered by the small ditch, which was the area between the Acequia Madre and the Rio Chiquito. This may indicate that LA 77861 was the family home, dating back to the mid-1800s. If so, it would not be surprising to find features at the site that could not be identified by living family members.

Research Questions for Data Recovery

LA 77861 represents one of the many farms and homesteads that have surrounded the plaza at Rio Chiquito/ Talpa since the inception of the community in the early 1800s. As such, it has the potential to provide information on the occupation and development of the families and homesteads that are part of plaza-centered communities. This includes processes of site formation, relationships between site features, and relationships between sites and families in local and regional contexts. Data recovery at LA 77861 will address three specific questions.

Research Question 1: What are the functions of the features discovered during testing?

LA 77861 represents one of the many homesteads and farms that have surrounded the plaza at Rio Chiquito/Talpa since the inception of the community in the early 1800s. If it is in fact the homestead of Antonio Graham, then the history of the occupation of the site could be traced through documentary records. However, we do not know with certainty that such is the case. Further, there is the problem that our informant identified features dating to the second and third quarters of the 1900s but could not identify the features discovered during testing. This suggests but does not specify some antiquity for those features. It does not clarify their relationships to the rest of the site.

Test excavations at LA 77861 served only to demonstrate the presence of features within the proposed right-of-way construction area. Description of the subterranean structure suggests that it was a root cellar, but without a more complete description based on extensive excavations, we cannot be sure of this definition. Likewise we have referred to the subsurface deposits as trash deposits. However, because they were discovered only in auger tests and without excavation, we cannot be sure of the accuracy of that identification. Consequently, our first priority is simply to define the features and determine their functions.

Research Question 2: What are the relationships between the features at LA 77861?

Data recovery at LA 77861 will focus on obtaining information necessary to define interfeature relationships. Two relationships will be examined. The first is temporal and has to do with site history. This relationship is critical because of the confusion resulting from a lack of informant data. As discussed above, the few artifacts collected from the test pits and auger tests cannot, at this time, be conclusively associated with the structure. Consequently, it is not possible to date the structure or the buried trash deposits. Without accurate information on dates of these features, we cannot define their relationships to the rest of the site. It is therefore necessary to collect accurate chronological data for the features discovered during testing. It is also necessary to collect temporal information on the other site features. Using these data, it may be possible to at least partially reconstruct the sequence of site formation.

The second relationship is functional and spatial. While our informant has provided preliminary information on the functions of several features, particularly the habitation areas, the well, and a root cellar, he was not able to identify the features discovered during testing. He maintained that the adobe structure found in Test Pit 4 was too close to the old road for him to believe that the structure was really there. This may have implications for the timing of the construction of the old road. It may also suggest changing use of space within the site. For instance, the semisubterranean nature of the feature may indicate that it was a root cellar. Our informant showed us a root cellar location on the opposite side of the site. It is possible that, with construction of the road, the north side of the site was no longer an acceptable location for food storage. Similarly, trash disposal activities may have shifted to the northwest and west sides of the site. With information on the function of features, it may be possible to reconstruct

spatial relationships between features and, in conjunction with chronological data, to examine changing use of space.

Research Question 3: How does LA 77861 fit into the context of the historic Hispanic occupation of the Talpa area?

LA 77861 may be able to provide information on the formation of a rural Hispanic homestead and the family that occupied it. This involves more than understanding the relationships between on-site features. It also involves understanding the occupants' local and regional relationships. It will be important in this regard to examine the site in terms of local and regional settlement, land use, and economy. How typical is the site of other rural Hispanic homesteads? What are the local and regional familial, social, and economic relationships of the site occupants? This is the approach taken by Maxwell (1983), Oakes (1983), and Stewart-Abernathy (1986) at homesteads in eastern New Mexico and Arkansas. While we may not be able to excavate as much of LA 77861 as was excavated at these other sites, we hope to begin to address the issue of the site's local and regional contexts through both archaeological and ethnohistoric research.

Field Methods

Excavation

Procedures to be used in the field are designed to recover data needed to define temporal and functional/spatial relationships at LA 77861. The 4 by 4 m grid system established during testing will be extended across the site. This system is oriented to cardinal directions. Surface artifact collection and excavation will be restricted to the right-of-way expansion area. Prior to excavation, surface artifacts will be collected in the 4 by 4 m units. Excavation in and around the structure will proceed in 1 by 1 m units, beginning with Test Pit 4, which will be expanded. Excavation will follow stratigraphy defined during testing. Excavation of the buried trash deposits will also proceed in 1 by 1 m units. However, these units will be excavated in 10 cm arbitrary levels until natural or cultural stratigraphy can be defined, after which time excavations will follow the strata. Plans and profiles of excavation units will be drawn as necessary to define and describe subsurface features and deposits.

Hand tools will be used for most excavation. Mechanical equipment may be used to remove sterile fill or to trench subsurface deposits.

Because site structure is critical to Research Questions 1 and 2, attention will be paid to definition of features. Features will be excavated to the extent necessary to accurately define their size, depth, and depositional history. Attention will be paid to evidence of superimposition and remodeling. Architectural samples such as adobe bricks and plaster will be collected from structural remains. These samples may be helpful in defining interfeature relationships and the sequence of feature construction (Research Question 2). Structural information will be recorded in field notes and on plan and profile drawings.

Because dating of the features is also critical to Research Question 2, attention will be paid to collecting a variety of samples for dating, including archaeomagnetic, dendrochronological, and radiocarbon samples. Samples will be provenienced by grid, level or stratum, and feature. Artifacts collected during excavation will also be critical in this regard. In particular, Euroamerican artifacts can often provide relatively precise chronological data. We will collect as large an assemblage as possible to refine the artifact dates.

Within the structure, pollen and flotation samples will be taken from internal features and from the edges of the floor near the wall. These samples may be useful in defining feature function and perhaps seasonality of use (Research Question 1). Pollen and flotation samples will also be taken from strata in the buried trash deposits. Samples from these contexts may point to feature function by showing what kinds of trash were disposed in the features and to trash disposal patterns at the site (Research Question 2). They may also provide data on plant use at the site, important in understanding land use and economy (Research Question 3).

Cultural materials recovered from undisturbed contexts will be screened through 1/4 inch mesh hardware cloth. The exception may be the fill of the structure, which testing indicated to be largely culturally sterile. Cultural material will be collected for analyses. Materials will be provenienced by feature, grid, and level or stratum.

The site has been photographed prior to excavation. All features and the site as a whole will be photographed after excavation. The site will be mapped using transit and stadia rod or 30 m tape.

Documentation of work at the site will consist of field specimen sheets, grid level forms, feature forms, field notes, plans and profiles of excavation units and features, photographs, and the site map.

Because the site was occupied by Hispanic settlers, it is unlikely that human remains will be found at the site. Human burial in a habitation context would generally be contradictory to the practices of historic Catholic Hispanics. OAS has developed a set of standard procedures for recovery of human remains (Phillips and Mick-O'Hara 1990) that would be followed in the case of discovery of human remains.

Ethnohistoric Research

Because the research goals for LA 77861 involve defining relationships between features in the right-of-way expansion area and the rest of the site, information must be gathered on features outside the expansion area. However, archaeological investigation at the site will be restricted to the existing right-of-way and the expansion area. In addition to archaeological investigation, therefore, information will be gathered using ethnohistoric methods. These will include informant interviews with members of the families who own the site as well as documentary research. Ethnohistoric research will focus on the research goals of defining temporal and functional/spatial relationships

between the features at the site. It is anticipated that ethnohistoric research may also provide information on inter- and intra-family relationships, which may be useful in understanding on-site activities, site structure, and local and regional social structure and economics.

We anticipate that family members and documentary sources may be able to provide information on what features were used for, how feature function may have changed through time and what prompted changes, and how feature locations were selected (Research Questions 1 and 2).

With regard to temporal and spatial relationships, ethnohistoric research will gather informant and documentary data on the timing of origins and abandonment of features and areas of the site. It is anticipated that members of the family will be able to provide detailed information about when features were first used, when they were abandoned, and which household was involved at each step. This information may be supplemented with documentary information involving land or estate transactions (Research Question 2).

Finally, ethnohistoric research will attempt to define familial, affinal, social, and economic relationships that will place the site within its local and regional contexts. We anticipate that ethnohistory may be able to reveal information on local land use and production, participation of family members in local and regional economics, growth and expansion of the family, and relationships with other rural families and with more "urban" neighbors in Talpa, Ranchos, and Taos (Research Question 3).

Laboratory Analyses

Native Ceramic Artifacts

Native ceramic artifacts may be expected to provide data relevant to each of the research questions. Sherds will be identified by existing type names and described using characteristics such as rim form and shape, surface finish, and surface treatment or decoration. Analyses will also monitor the use of ceramic vessels on the site by studying attributes such as vessel form and evidence of use such as burning, smudging, mending, and reuse. This will include monitoring the abundance of vessel forms relative to each other and within pottery types. These data will be important to defining feature function (Research Question 1) and on-site activities to assess relationships between site features (Research Question 3).

Analyses focusing on diversity in availability, selection, and use of pottery vessels will be used to examine issues such as market access and local/regional economy (Research Question 3).

Lithic Artifacts

Because lithic artifacts are found on Hispanic sites, we anticipate finding them in or near features. Chipped stone artifacts will be analyzed using the OAS standardized lithic artifact format (OAS 1990). Eight variables are recommended for all analyses. They are material type, material texture, artifact morphology and function, dorsal cortex, flake platform type, portion, and dimensions. We will also monitor variables considered optional in the standardized format, including cortex type, platform lipping, wear patterns, distal termination, edge angle, and edge shape, as they will provide more specific information on tool use. Ground stone artifacts will be analyzed using the OAS standardized ground stone format (Bullock et al. 1990).

The presence and location of lithic tools may provide information on feature function (Research Question 1), while locations of debitage may help us discern disposal patterns (Research Questions 1 and 2). Data on material selection, reduction, and tool use may be important in addressing local and regional land use and participation in local and regional economics, including market access to other tools (Research Question 3). In addition, these data will add to a growing body of data on Hispanic lithic technology.

Euroamerican Artifacts

Euroamerican artifacts will be analyzed using the OAS standardized historic artifact format (Boyer et al. 1991). We will monitor artifact function as a means to define feature function (Research Question 1) and to discern feature relationships on the site (Research Question 2). We will also monitor artifact dates to establish feature dates and the sequence of site formation (Research Question 2). In addition, we will monitor attributes such as manufacturer, decoration, and design to study market access availability and the selection and use of Euroamerican artifacts (Research Question 3).

Floral Remains

Floral remains recovered from pollen and flotation samples will be identified to specific level when possible. Analysis will focus on economic uses of plants for food, fuel, and construction. The results will assist in defining feature functions, including trash disposal patterns (Research Questions 1 and 2), interfeature relationships (Research Question 2), and local and regional land use, production, social structure, and economics (Research Question 3).

Faunal Remains

Faunal analysis will concentrate on identification of species and bone elements to aid in documenting food procurement and consumption patterns. The ages of individual animals will be determined when possible. Information on butchering and processing methods will also be collected. The results will assist in defining feature functions,

including trash disposal patterns (Research Questions 1 and 2), interfeature relationships (Research Question 2), and local and regional land use, production, social structure, and economics (Research Question 3).

Architectural Samples

Analysis of architectural materials has proven to provide significant information on site structure and formation (Boyer 1990b). Adobe samples from structural features and natural, on-site soils will be subjected to analyses to determine liquid and plastic limits, particle sizes, and the presence of soluble salts using techniques outlined by Teutonico (1988). The results will be used to compare structural features at the site and to assess construction sequences (Research Questions 1 and 2). The use of on-site soil versus imported material for adobe will also provide information on local and regional land use (Research Question 3).

Research Results

The results of field data recovery and laboratory analyses will be used to address the research questions by evaluating feature functions and dates, relationships between features, and the place of features and the site within the contexts of local and regional relationships. The final data recovery and analysis report, published in the Office of Archaeological Study's Archaeology Notes series, will present the excavation, analysis, and interpretive results. Included will be photographs, site and feature plans, and data summaries. Field notes, maps, analytic notes and forms, and photographs will be deposited with the Archaeological Records Management System of the State Historic Preservation Division, located at the Laboratory of Anthropology in Santa Fe. Artifacts will be curated at the Museum of New Mexico's archaeological repository.

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