

MUSEUM OF NEW MEXICO

OFFICE OF ARCHAEOLOGICAL STUDIES

**DATA RECOVERY PLAN FOR THREE SITES ALONG U.S. 60 NEAR DATIL,
CATRON COUNTY, NEW MEXICO**

Yvonne R. Oakes

**with contributions by
Dave Hayden
Lloyd A. Moiola
Patrick H. Severts**

Submitted by Timothy D. Maxwell
Principal Investigator

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ADMINISTRATIVE SUMMARY

In March 1994, New Mexico State Highway and Transportation Department (NMSHTD) archaeologists conducted a cultural resource survey for 17.07 km (10.6 miles) of highway right-of-way acquired from private sources and on an easement from the Cibola National Forest along U.S. 60 west of Datil, Catron County, New Mexico. The NMSHTD proposes to reconstruct U.S. 60 in this area within the existing right-of-way.

Three cultural properties were located within the survey area (Weidner et al. 1994)--LA 39998, LA 104381, and LA 104382--all within the existing right-of-way on land acquired from private sources. The sites represent short-term campsites, with hearths and burn areas at LA 39998 and LA 104381. Several brown ware sherds were also present at LA 104381, suggesting a Mogollon occupation. LA 39998 has one isolated brown ware sherd and could range in age from Archaic through Apache or Navajo. Cultural material is eroding out of a cutbank at LA 104382, indicating the presence of a buried site. The lack of ceramics and the presence of ground stone suggest LA 104382 may be an Archaic site.

A data recovery plan is presented for each of the three sites emphasizing site structural variation between campsites of potentially different cultural groups. It also proposes to relate each site to known habitation sites of comparable age in the Mogollon area.

Submitted in fulfillment of Joint Powers Agreement DO4635 between the New Mexico State Highway and Transportation Department and the Office of Archaeological Studies, Museum of New Mexico, Office of Cultural Affairs.

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INTRODUCTION

The NMSHTD conducted a cultural resource survey along U.S. 60 near Datil, Catron County, New Mexico (Fig. 1) on March 23, 24, 25, 29, and 30, 1994 (Weidner et al. 1994). The survey covered 17.07 km (10.61 miles) of highway right-of-way acquired from private sources and NMSHTD easement of the Cibola National Forest (4.35 km or 2.7 miles). Additional areas of 1.1 km (0.7 miles) and 1.4 km (0.9 miles) were surveyed at the beginning of the project (BOP) and the end of the project (EOP). The NMSHTD proposes to reconstruct U.S. 60 through this area, including resurfacing of the road, building shoulders, horizontal and vertical realignments, and placing pipe culverts into existing boxes (Project No. NM-060-1(10)65 CN 2093). Yvonne Oakes and Dean Wilson of the Office of Archaeological Studies (OAS), Museum of New Mexico, reexamined the sites on April 21, 1994.

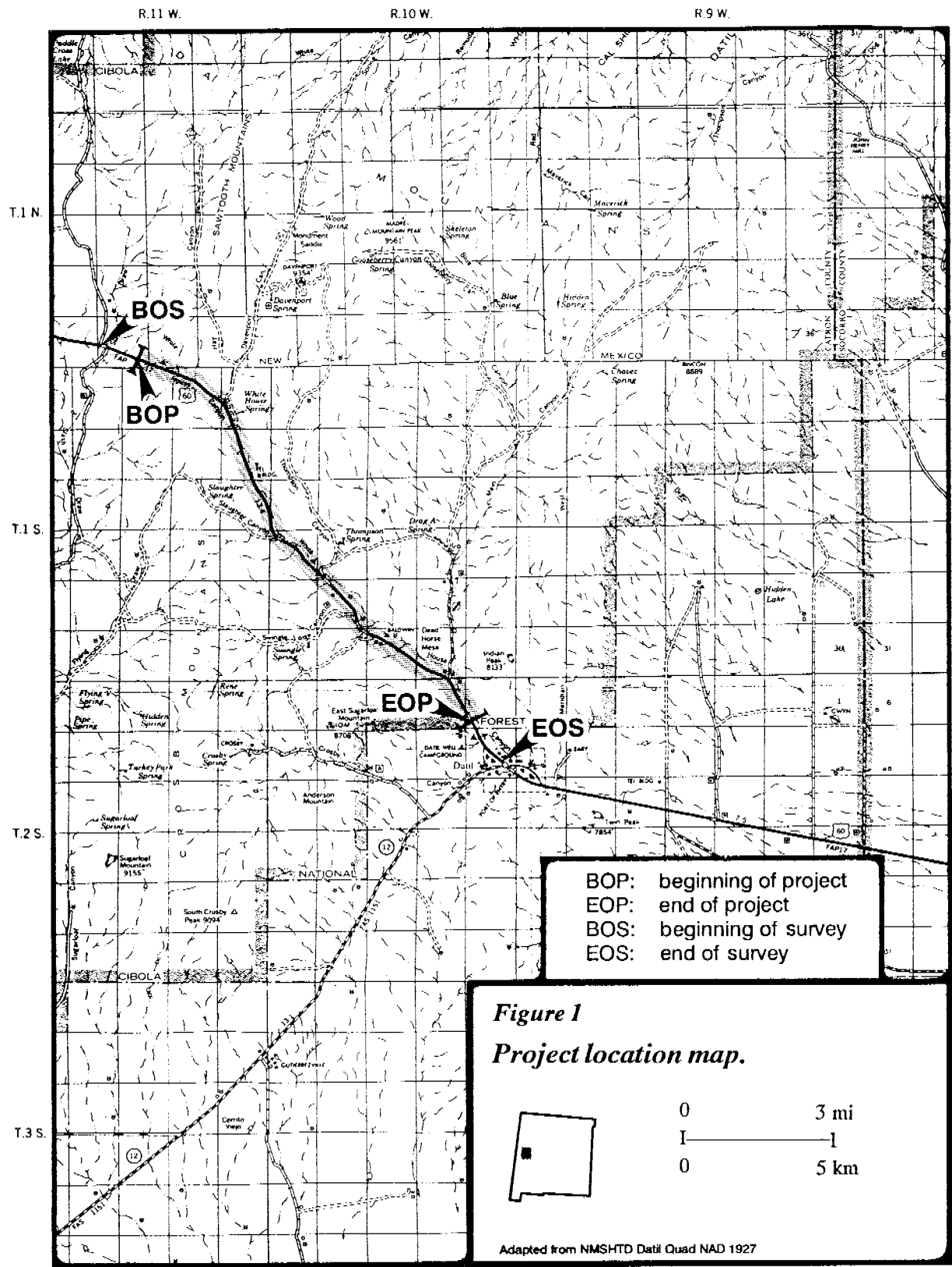
Three cultural resources were located on the NMSHTD survey: LA 39998, LA 104381, and LA 104382. All are within the existing highway right-of-way acquired from private sources. No sites were found on the Cibola National Forest easement. Also, no sites listed on the *National Register of Historic Places* or the *State Register of Cultural Properties* are within the project area.

All of the sites may have been short-term campsites occupying knolls and ridges along White House Canyon within the Datil Mountains. LA 39998 is a dispersed lithic artifact scatter on both sides of U.S. 60 within the highway right-of-way. Three discrete concentrations of lithic artifacts are present, one with an area of burned soil and an Alma Plain brown ware sherd. The cultural association of the site is unknown. A small historic can dump is also within site boundaries.

LA 104381 is a lithic and sherd artifact scatter. Lithic artifacts are varied, and the sherds consist of several types of brown wares. One Socorro Black-on-white sherd was noted at the base of the hill. At least two hearths are present on the site and contain burned bone. The site seems to have a Mogollon affiliation.

LA 104382 is a lithic and ground stone artifact scatter eroding out of a slope cut within the highway right-of-way. It appears to be 50 to 60 cm deep within the cut, indicating a buried site. Artifacts are fairly sparse, but a variety of materials is represented. Because of the depth of the artifacts and the lack of ceramics, this assemblage may be a buried Archaic site.

The three sites have the potential to yield information important to the prehistory of the region. Therefore, a data recovery plan is recommended and presented for studying the sites along with a description of each one. Site locations are given in Appendix 1.



ENVIRONMENTAL SETTING

Lloyd A. Moiola

The project area is northwest of Datil along U.S. 60 in White House Canyon. White House Canyon lies within the Cibola National Forest and is surrounded by the Datil Mountains to the north and the Crosby Mountains to the south. It contains an intermittent stream which flows through the length of the canyon, southeast into Datil and on to the Plains of San Agustín. "The surrounding terrain consists of foothills, canyon walls, escarpments, and steep mountain slopes" (Maker et al. 1972:27).

Physiography

The sites lie within the Datil-Mogollon Volcanic Highlands of the Colorado Plateau (Chronic 1987:34) at elevations ranging between 2,255 and 2,438 m (7,400 and 8,000 ft). The geology of the region is characterized by Tertiary sediments consisting of welded and crystal rhyolite tuffs, andesite, latite breccias, and flow banded latite (Dane and Bachman 1965). Soil associations of the project area are made up of the Motoqua-Datil-Abrazo and the Flugle-Loarc-Typic Ustorthents series. These soils are shallow to deep, well-drained, sloping sandy loams that occur on alluvial fans, hills, plains, and ridges (Johnson 1985:77, 90).

Flora

The project area lies within the ecotone of the Upper Sonoran and Transitional zones. Vegetation in the Upper Sonoran zone consists of piñon, juniper, oak, yucca, grasses, and various species of cacti. The Transitional zone is dominated by ponderosa pine and gambel oak yet also contains rabbitbrush, broom snakeweed, mountain mahogany, and bearberry (Berman 1979:7).

Fauna

The project area is abundant in wildlife resources. Animals that may be found in the area include elk, mule deer, jackrabbit, cottontail, spotted skunk, rock squirrel, porcupine, coyote, small rodents, snakes, and lizards, turkey, red-tailed hawk, piñon and scrub jay, quail, and golden eagle (Kayser and Carrol 1988:2-5).

Climate

The climate of New Mexico is characterized by arid, semiarid, and subhumid/humid areas (Tuan et al. 1969:186). The project area lies within the semiarid and subhumid zones. These

areas differ from an arid climate in that they have lower average temperatures and greater precipitation. "The snow of winter is the result of cyclonic storms, whereas the rain of summer is frequently from local orographic and convectional storms" (Tuan et al. 1969:194). The average annual precipitation for the area is 304 mm to 381 mm (12 to 15 in). The frost-free period is 115 to 160 days, with average annual temperatures ranging between 8 and 12 degrees C (47 to 54 degrees F) (Johnson 1985:77).

PREVIOUS ARCHAEOLOGICAL WORK IN THE STUDY AREA

Patrick H. Severts

The project area lies at the break between the Mogollon and the Anasazi cultural areas. However, not enough work has been done in the area to determine if this break is geographic or cultural, or if it even exists. This gray area is sometimes referred to as "Mogasazi" because of the mixture of artifact assemblages representing both cultures. The study area is northwest of Datil and is located in the Madre Mountain within the Cal Ship, Datil, and Crosby Springs USGS 7.5' quadrangles. It covers 61,643 ha (152,320 acres), or 238 sq mi, with a total of 35 cultural sites recorded (Table 1).

Except for a few small-scale surveys associated with fiber optic lines, USDA Forest Service road closures, water lines, and a survey conducted by the NMSHTD, very little archaeological work has been done in the region. The following is a list of the surveys to date and their findings: (1) Western New Mexico Telephone Company, survey by Mallouf and Neely (1982) along Forest Road 66, five sites recorded. (2) Western New Mexico Telephone Company, survey by Mallouf and Neely (1982) along Forest Road 63, three sites recorded. (3) Western New Mexico Telephone Company, survey by Nightengale and Neely (1982-83), two sites recorded. (4) USDA Forest Service, Magdalena district, survey for water system by Garber and Gomez (1985), three sites recorded. (5) USDA Forest Service, Magdalena district, survey along Forest Roads 66 and 100 by Wandsnider (1988), six sites recorded. (6) USDA Forest Service, Magdalena district, clearance survey for rabbitbrush eradication and arroyo rebuild by Redmond (1990), three sites recorded. (7) USDA Forest Service, Magdalena district, survey for road closures and reclamation by Izard (1992), two sites recorded. (8) USDA Forest Service, Magdalena district, survey for road closures and reclamation by Peralta and Gomez (1992), two sites recorded.

There are several probable reasons for the low number of sites found in the study area. First, few extensive cultural resource inventories have been conducted in the area. Second, only 40 percent of the land located in the area can be considered habitable; the remaining is steep mountain terrain of over 40 percent grade. Third, there are few perennial water sources, and the majority of them are intermittent. Further investigations are necessary before the settlement system of the area can be properly evaluated.

Table 1. Cultural resources in study area

LA Number	Unknown Lithic Scatter	Archaic	Basketmaker III	Pueblo				Navajo	Historic (statehood to present)	Total
				I	II	III	IV			
68212								1	1	
69577		1	1		1				3	
50311				1	1				2	
87806	1							1	2	
32832	1								1	
39998	1								1	
43815								1	1	
43816	1								1	
43817		1							1	
43841	1								1	
43842	1								1	
43843	1								1	
43844				1					1	
43845								1	1	
68207								1	1	
68208								1	1	
68209								1	1	
68210	1								1	
77173		1				1			2	
77174							1		1	
77175								1	1	
3648							1		1	
79693				1					1	
79694				1					1	
79695				1					1	
81908					1	1			2	
89622				1					1	
89623				1					1	
101004								1	1	
101005	1								1	
47920								1	1	
64501								1	1	
64502								1	1	
68211	1								1	
Total	10	3	1	7	3	2	1	1	40	

CULTURAL SETTING

Dave Hayden

The project area, in the Datil Mountains of the Cibola National Forest, is part of a greater cultural area that includes several adjoining montane areas and the Plains of San Agustín. Within this general area, occupation is documented from the late Pleistocene era to present and includes several overlapping cultural continuums. The lack of archaeological work near the project area, in contrast to the more intense attention given to the adjacent Gila and Zuni areas, necessitates a broad chronology and explanation of occupation. Further, as an area of contact and overlap between different, contemporaneous cultural traditions, the borders of which are vague, the definition of temporal and cultural components is poorly understood.

Paleoindian Period (9500 to 6000 B.C.)

Paleoindian culture is characterized by a highly mobile subsistence based primarily on specialized hunting strategies in the context of climactic change (Cordell 1984). Early economies utilized now-extinct late Pleistocene fauna, including camel, horse, tapir, mammoth, and *Bison antiquus* (Irwin-Williams and Haynes 1970; Berman 1979). Later manifestations are associated with early Holocene species such as antelope, deer, and bison.

The majority of documented sites occur along the edges of playas (Oakes 1989), as well as bordering low relief areas (Berman 1979). Although some sites have been recorded in montane areas such as the Sangre de Cristos to the north, occurrences of such sites are rare and have not been noted locally in similar contexts (Berman 1979). No sites dating to this period have been documented in the Datil Mountain area; however, many of the recognized complexes have been identified in the adjoining San Agustín Plains (Kayser and Carroll 1988; Berman 1979; Beckett 1980).

With few exceptions, notably the AKE site (Beckett 1980), Paleoindian components in the area have been identified by surface deposits and scatters. Because of this, cultural and temporal affiliations are most often derived from the diagnostic characteristics of formal tools, particularly projectile points and knives.

The most frequently documented cultural complexes in the area include Clovis (9500 to 9000 B.C.), Folsom and Midland (8800 to 8300 B.C.), and Cody (7000 to 6000 B.C.) (Kayser and Carroll 1988). Sandia points, which have also been found in and near the study area, have previously been associated with dates much earlier than Clovis (Wormington 1957), although subsurface contexts are limited, and the dates obtained may be questionable (Berman 1979). Other complexes such as Plainview, Allen, Hell Gap, Concho, Agate Basin, Ventana, and Amargosa may be present in the vicinity but have not been documented (Kayser and Carroll 1988).

Archaic Period (6000 B.C. to A.D. 200)

The development of the Archaic period is characterized by a departure from the specialized hunting strategies of the Paleoindian period and the adaptation of a more broad-based hunter-gatherer subsistence base (Judge 1982; Kayser and Carroll 1988). It is thought that hunting remained the dominant subsistence investment throughout the early part of this period, but that by the Middle Archaic, plant resources began to play an increasingly significant role (Hogan et al. 1985). This development is indicated in the archaeological record by the increased use of manos, metates, mortars, and pestles (Kayser and Carroll 1988). By the Middle to Late Archaic, there is evidence of the use of cultigens, including corn (Dick 1965; Hogan et al. 1985; Wills 1988).

Archaic sites and isolated artifacts have been recorded in a wide range of elevational and topographic contexts near the study area. The greatest number of occurrences have been noted in the San Agustín Plains, particularly above the limits of former lake terraces and playas. They are also common in montane areas, including portions of the Cibola National Forest, especially along arroyo banks and streams, and near springs (Berman 1979). Cave and rock shelter sites occur as well, and have yielded significant stratified deposits (Martin et al. 1952; Dick 1965). Temporal and cultural affiliations in this time period are defined primarily by the diagnostic characteristics of formal tools, particularly projectile points.

Two major cultural traditions have been identified in or near the study area: the Oshara, considered the forerunner of the Anasazi culture (Irwin-Williams 1973), and the Cochise, the equivalent of the Mogollon (Sayles and Antevs 1941; Sayles 1983). Each is characterized predominantly in terms of stylistic attributes in formal tools.

The Oshara, as defined by Irwin-Williams (1973), consists of six temporal periods: Jay complex (5500 to 4800 B.C.), Bajada complex (4800 to 3200 B.C.), San Jose complex (3000 to 1800 B.C.), Armijo complex (1800 to 800 B.C.), En Medio complex (800 B.C. to A.D. 400), and Trujillo complex (A.D. 400 to 600).

The Cochise culture was originally defined by Sayles and Antevs (1941) in southeastern Arizona and later refined by Sayles (1983). Its development is defined temporally by four phases: Sulphur Springs (10,500 to 9000 B.C.), Cazador (9000 B.C. to 6000 B.C.), Chiricahua (6000 to 1500 B.C.), and San Pedro (1500 B.C. to A.D. 1) (Sayles 1983). Other researchers, notably Irwin-Williams (1979), have eliminated the Cazador phase, particularly outside southeastern Arizona. Further, she presents a different chronology: Sulfur Springs (9000 to 6000 B.C.), Chiricahua (3500 to 1000 B.C.), and San Pedro (1000 B.C. to A.D. 200). Sulfur Springs components have not been documented in New Mexico (Hogan et al. 1985), and only Chiricahua and San Pedro have been identified in the vicinity of the project (Berman 1979).

The introduction of horticultural use of corn into the Chiricahua tradition near 3500 B.C. was suggested by Dick (1965) based on excavations near the study area at Bat Cave. This date has been challenged by several researchers, including Wills (1988), and more recent interpretations of C-14 samples place associated strata at a later date. Corn, as well as other cultigens, have also been associated with the San Pedro phase, based on excavations at Tularosa Cave (Martin et al. 1952).

Boundaries of these two traditions are vague and may overlap in many areas. Irwin-Williams (1967) places the Oshara roughly north of the Quemado area, and the Cochise to the south. Current evidence has revealed no representation of Oshara components in the area (Berman 1979). Further research, including excavation, is necessary to better define the limits and interaction of these two cultures.

Pithouse and Pueblo Periods
(A.D. 1-200 to ca. A.D. 1350-1600)

The Pithouse (or Formative) period, ranging roughly from A.D. 1 to 1000, with local variation, represents the development of the mobile, hunting and gathering groups of the Archaic period into increasingly sedentary and aggregated systems. Ultimately, it is defined by an intensification of cultigen-based subsistence strategies and the development of distinct pithouse architecture (Berman 1979). The beginning of this period is usually identified locally by the introduction of ceramic technologies (Stuart and Gauthier 1981).

The Pueblo period, beginning at about A.D. 1000, with earlier development in some areas, lasts until abandonment near A.D. 1350 in the Gila area, and until historic times further north. Characterized by further emphasis on aggregated communities and cultigen-based subsistence, it also incorporates the widespread use of above ground structures (Berman 1979).

Two cultural groups, presumably descendants of the Archaic groups mentioned above, overlap in and around the Plains of San Agustín and the Datil/Quemado area. The Mogollon, defined by Haury (1936), occupied the Gila area and other montane areas throughout the southern portion of the study area. The Anasazi were generally based on the Colorado plateau to the north and are represented within the study area less intensively (Berman 1979).

The Zuni claim the entire region as part of their ancestral use areas and currently use portions of it for various purposes (Ferguson and Hart 1985). Land-use sites extend to the Magdalena Mountains to the east, Willow Mountain at the head of the Gila River to the south, and well into eastern Arizona. Zuni tradition indicates ancestry from both the Anasazi and Mogollon culture areas (Crampton 1977).

The basic sequence and nature of developments within each cultural group is similar; however, the particular timing and manifestations vary somewhat. Further, because of their contemporaneous occupation in the area and their presumed interaction, local representations of each cultural tradition diverge from the well-defined depictions developed in more distinct cultural areas (Danson 1957). For this reason, sites in the vicinity of the project can be difficult to classify in terms of cultural affiliation.

The cultural phases of the Mogollon, defined by Haury (1936) for the Pine Lawn area of the Mogollon Highlands, are: Pine Lawn (150 B.C. to A.D. 500), Georgetown (A.D. 500 to 700), San Francisco (A.D. 700 to 900), Three Circle (A.D. 900 to 1000), Reserve (A.D. 1000 to 1100), and Tularosa (A.D. 1100 to 1350). The majority of the Mogollon area was abandoned by about A.D. 1350.

The Anasazi, considered to be the predecessors of groups north of the study area such as the Zunis and Acomas, as well as groups in the Rio Grande area, are discussed in Plog (1979), Berman (1979), and Kayser and Carroll (1980). They are defined in terms of the Pecos Classification System. The cultural sequence is: Basketmaker II (ca. 100 B.C. to 400 A.D.), Basketmaker III (A.D. 400 to 500-700), Pueblo I (A.D. 700 to 900), Pueblo II (A.D. 900 to 1100), Pueblo III (A.D. 1100 to 1300), and Pueblo IV (A.D. 1300 to 1600 or European contact).

Basketmaker II sites are often considered a Late Archaic manifestation because ceramic technologies were not yet in use. Within the project area, and in the general study area, no Basketmaker II sites have been recorded. Further, only a few Pueblo IV sites have been recorded to the north of the project area (Danson 1957; Berman 1979; McGimsey 1980).

Expanding on Berman (1979), the taxonomies of both cultural traditions are combined into a broader chronology that considers generalized development and eliminates the Anasazi components above that are not represented in the area. Berman groups them as follows: Early Pithouse period (Pine Lawn, Georgetown, and Basketmaker III), Late Pithouse period (San Francisco, Three Circle, and Pueblo I), Early Pueblo (Reserve and Pueblo II), and Late Pueblo (Tularosa and Pueblo III).

Ceramic technology and style has long been considered an important cultural difference between Anasazi and Mogollon groups (Martin and Rinaldo 1950). Earlier interpretations of ceramics were based on presumed differences in firing technologies. More recent research (Wilson 1993) has shown that this is not the case, and that distinct ceramic traditions are due to the nature of local clays. According to Wilson (1993), Mogollon clays are homogeneous throughout most of the region, of colluvial deposits derived from igneous sources, and generally fire to brown colors. In contrast, Anasazi clays from the Colorado Plateau are derived from shale and fire to a white or gray color. In the absence of more numerous excavations, cultural affiliations of sites near the project area are most frequently determined by the proportions of observable ceramic types in surface deposits.

Most researchers have claimed that Mogollon Early Pithouse sites were located almost exclusively in elevated areas, particularly on mesas, knolls, and ridge tops (Berman 1979). Current research of the settlement patterns in the area are indicating that this is not the case (Yvonne Oakes 1994, personal communication). Architecture is variable, with no consistent patterning in postholes or entryways. Pit size is largest in the Pine Lawn area, some approaching 30 sq m; however, size throughout the area generally decreases through time. Spatial organization of villages is loose and inconsistent; extramural hearths, storage pits, use areas, and burials occur in and around structures with no consistent patterning. Population increases in the area during the Late Pithouse period, and site location becomes broader.

Anasazi Early Pithouse sites exist in a wide range of areas, including elevated areas, gentle slopes, and along drainages. Pits tend to be deeper than Mogollon structures but are loosely organized in a similar way. Later pithouses exhibit more defined architectural features and organization. Exterior storage cists are frequently arranged in rows or arcs located northwest of the pithouses. Late Pithouse villages also incorporate surface structures in the form of square, contiguous blocks. Although surface structures sometimes appear in late Mogollon pithouse villages, they do not occur as consistently as at Anasazi sites, and they are often considered an Anasazi trait (Berman 1979).

Site density increases dramatically during the Early Pueblo phase, and occupation occurs in many areas previously uninhabited. Sites are particularly frequent along drainages (Danson 1957). In the Mogollon area, above-ground structures are common and are usually arranged in L-shaped room blocks (Oakes 1989). Masonry consists mainly of poorly modified or unworked river cobbles. In addition, black-on-white ceramics, presumably from the Anasazi area, become common (Berman 1979).

Late Pueblo sites in the Mogollon area are less numerous than earlier, tend to be larger, and range in size from a few rooms to multistoried villages with hundreds of rooms. Masonry is often of worked, laminated sandstone and basalt (Danson 1957). Late villages in the Pine Lawn area have occurrences of White Mountain Red wares, including St. Johns Polychrome, and some Zuni glazes (Stuart and Gauthier 1981), in addition to painted white wares and local brown wares (Berman 1979). The Pine Lawn area was abandoned sometime after A.D. 1300, and regional abandonment of the area occurred not long after.

It is difficult to discern the cultural affiliation of Pueblo-period sites in the study area. Sites in and near the project, particularly in the Gallinas Mountains (adjacent to the Datil Mountains), seem to reflect trends of the Pine Lawn area in terms of settlement patterns and architecture. However, ceramic assemblages have an increased variation and include higher frequencies and more types of Anasazi sherds (Berman 1979). Extensive work is necessary to determine the effect and nature of cultural overlap within the area.

Historical Period (ca. A.D. 1600 to Present)

This section is, unless otherwise noted, summarized from Gillio (1979), who provides a much more thorough depiction and bibliography of the era.

The historical period is generally thought of as beginning in 1539, with Spanish contact in the Zuni area. During this period, and presumably preceding it, the area was occupied by several Apache bands, whose early history in the region is not well documented. In addition, there were varying degrees of settlement by Spanish colonists, Navajo groups from the northwest, and later, Euroamerican settlers and ranchers.

Although several Navajo sites have been recorded in the region, including the project area, it is unclear in some cases what criteria are being used for their identification. Gillio notes that Apache and Navajo sites may be similar in an archaeological context, and that both groups were involved in an ongoing resistance with American troops in the area during the mid to late nineteenth century. Navajo groups were raiding the Zuni and Acoma areas in the seventeenth century, and possibly before, but are not well documented in this area. Apaches and Navajos were frequently confused by Early Spanish accounts. Further, earlier Apache, and possibly Navajo, manifestations may be represented in unspecifiable lithic scatters often attributed to the Archaic period. More intensive research is necessary for a better understanding of the existence of both groups in the area before and during Euroamerican occupation. Navajo groups currently reside on tribal land at Ramah, north of Zuni, and at the Alamo reservation to the northeast.

American forts in the area during the mid- to late nineteenth century included Fort

Tularosa (1872-74) in Apache Creek, the Ojo Caliente Post (1874), and Fort Conrad (1851-54) along the Rio Grande to the east. U.S. troops frequented the area throughout this period in response to conflicts with Navajos and Apaches.

Ranching in the area has taken place since the introduction of sheep to the area by the Spaniards. An increased emphasis on cattle in the 1880s paralleled Euroamerican influence and local settlement. A large, central portion of the San Agustín Plains was part of the Magdalena Stock Driveway, used to transport cattle to the stock and rail yards of Magdalena from as far away as Springerville, Arizona. Land in and around the area was used historically by local ranchers, and several large ranches and stockyards existed. Ranching is still much practiced in the area, particularly in the plains.

SURVEY RESULTS

Site location information for each site is provided in Appendix 1. Artifacts were not collected during the NMSHTD survey; however, they were recorded on standard site survey forms of the Archeological Records Management Section, New Mexico Historic Preservation Division.

LA 39998 (WNMT 309)

Site Type: Lithic artifact scatter and historic dump.

Cultural Association: Unknown and ca. 1940s.

Land Status: Existing highway right-of-way.

Elevation: 2,432 m (7,980 ft).

Description: This is a dispersed lithic artifact scatter along both sides of U.S. 60 (Fig. 2). It extends sporadically for 180 m southeast-northwest and 60 m northeast-southwest within the highway right-of-way. An intermittent drainage, White House Canyon, flows 110 m to the northeast. A spring is located within the canyon at the same distance. The primary concentration is focused on the crest of a low knoll on the southwest side of the highway.

An area of stained soil and several bone fragments (Feature 1) lie on the edge of the present highway cut. Varied lithic artifacts and material types are spread over the ground surface in a 35 by 25 m area. These include small tertiary and secondary flakes of chert, chalcedony, quartzite, and obsidian. Because of the looseness of the soil, artifacts could number from 100 to 1,000. A pinflag placed in the stained area reached a depth of 30 cm of cultural fill. One Alma Plain brown ware sherd was observed on the surface in this locale, but no other sherds were seen on the site.

Another light concentration of lithic artifacts (Feature 2), including a possible tool, is located approximately 90 m to the southeast. A small amorphous patch of burned soil with several sandstone rocks is within this 12 m by 12 m concentration. It was not possible to determine if this patch is prehistoric or one of a number of recent tree or hearth burnings in the area.

A similar small group of lithic artifacts (Feature 3) is located across the highway, northwest of Feature 2. Along the banks of a small drainage are several lithic artifacts (including two possible scrapers) of varied materials. A broken white chert projectile point is also within this 10 m by 10 m area. Charcoal flecking is present in the soil in the drainage. Artifact densities outside of these four feature areas are very low.

On the northwest edge of the site is a historic can dump (10 m by 8 m) dating probably to the 1940s, as suggested by the sanitary, sardine, and condensed milk cans (Feature 4). One can has "Hunt's Best" embossed on the bottom. There are about 70 cans.

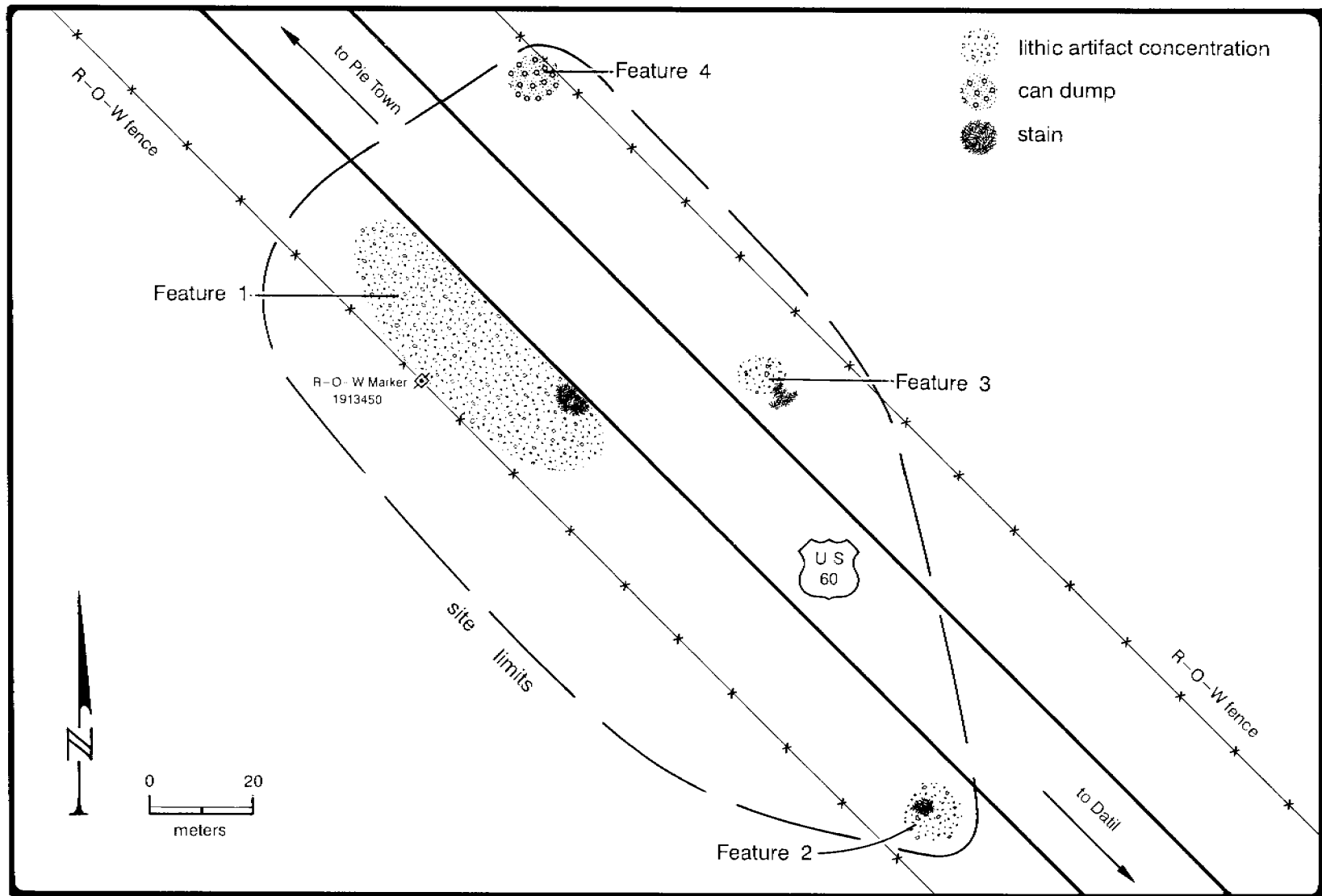


Figure 2. Plan of LA 39998.

Portions of the site extend outside of both highway rights-of-way for a total site area of 180 by 80 m, or 14,400 sq m. Approximately 75 percent of the site lies within the highway right-of-way.

Evaluation: LA 39998 has the potential to yield hearths or pits, which, if dated, could produce important information on the prehistory of the region and allow the cultural affiliation of the site to be determined. If the cultural fill extends to a depth of 30 cm, enough artifact material may be present to learn the function of the site and compare it with other sites of the same time period. At present, it appears to be a short-term campsite of unknown cultural association. A data recovery program is recommended. The small historic can dump from the 1940s has little data potential and is not likely to yield information important to the history of the area. We suggest in-field recording of the dump.

LA 104381

Site Type: Lithic and ceramic artifact scatter with hearths.

Cultural Association: Mogollon, possibly A.D. 700 to 900.

Land Status: Existing highway right-of-way.

Elevation: 2,310 m (7,580 ft).

Description: The site is located on a ridge near the base of a high hill. The location overlooks White House Canyon to the north and has a good view of several high rock prominences in the vicinity. It consists of a sherd and lithic artifact scatter concentrated on the level area of the ridge. The artifact scatter extends for about 100 m along the ridge, although most of it is concentrated in a 50 by 20 m area (Fig. 3). Artifacts extend outside of the right-of-way to the southwest. At the top of the hill is a dispersed light lithic artifact scatter. This scatter does not appear to be eroding downslope onto the level bench and may be a separate cultural component of the site.

Two hearth areas, 10 m apart, are visible at the site. Both are covered with loose soil and have charcoal flecking and portions of burned bone; one has some burned sandstone. A brown ware, neck-corrugated sherd was within Hearth 1 and a piece of chert in Hearth 2. Another hearth may be nearby but is less well defined. Several hundred lithic artifacts are dispersed over the site. Material types include chert, rhyolite, chalcedony, mudstone, and quartzite. Several choppers, a possible scraper, and large modified flakes are present in the assemblage. A few one-hand manos were also observed. Approximately 15 brown ware sherds were seen on the surface, including Alma Plain, neck-banded, and corrugated. One sherd, near the base of the slope, was identified as Socorro Black-on-white. It is not clear whether this ceramic artifact is part of the site.

The site covers a total area of 100 by 40 m, or 4,000 sq m. Of this area, 100 m by 18 m (45 percent), or 1,800 sq m, is within the highway right-of-way. A small portion of the site may have extended to the northeast beyond the roadcut for U.S. 60.

Evaluation: LA 104381 appears to be a campsite used for a short time for gathering and possibly processing of subsistence items by a Mogollon group. The presence of a variety of textured

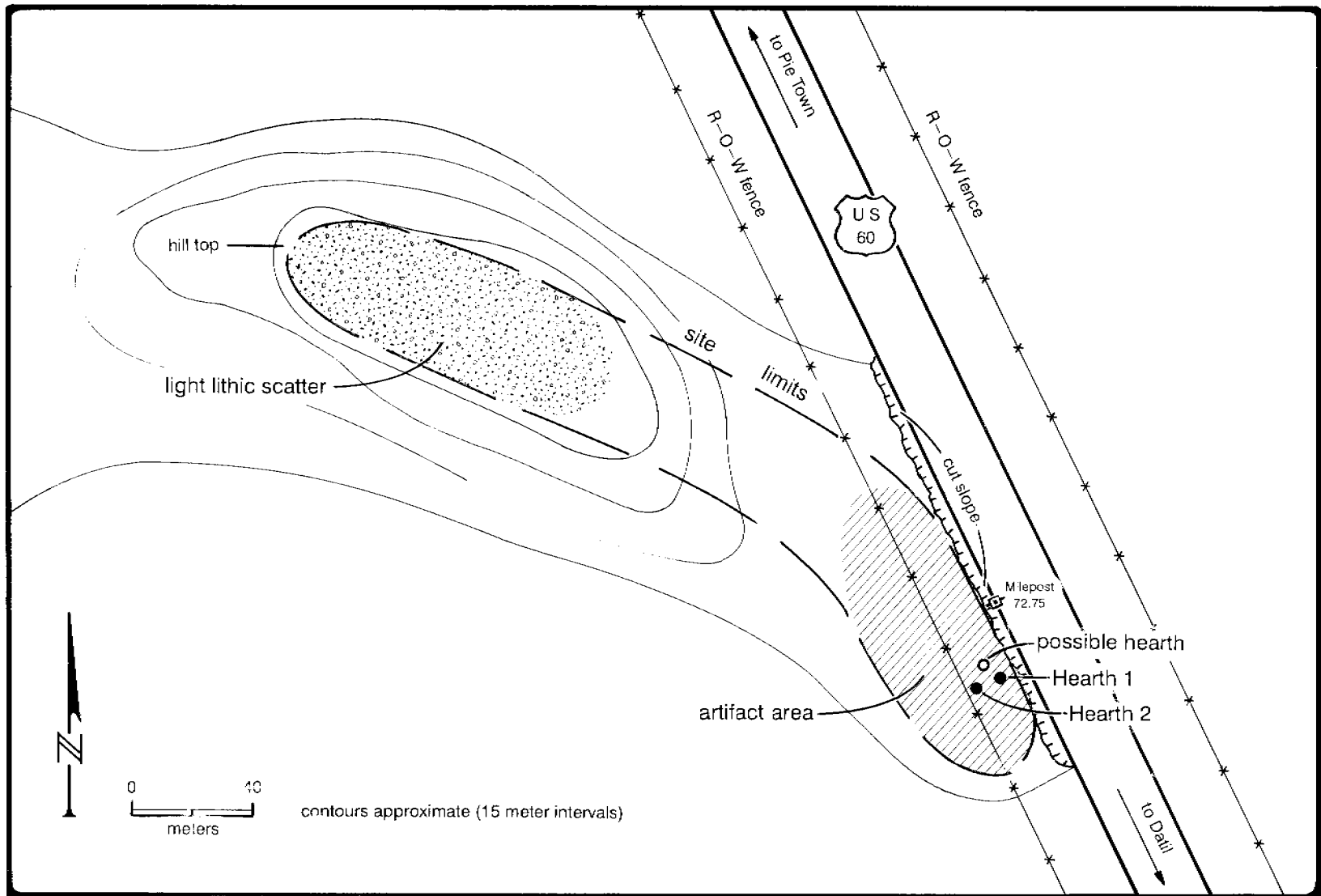


Figure 3. Plan of LA 104381.

brown wares suggests a tentative A.D. 700 to A.D. 900 date. Because of the possibilities for dating the hearths, assigning a cultural affiliation, and determining the function of the tools and artifacts present, the site has the potential to provide information important to the prehistory of the region. Data recovery is recommended.

LA 104382

Site Type: Lithic and ground stone artifact scatter.

Cultural Association: Possible Archaic (6000 B.C. to A.D. 200).

Land Status: Existing highway right-of-way.

Elevation: 2,261 m (7,420 ft).

Description: The site is located at the base of a hill on a low rise which has been cut by previous activities (Fig. 4). White House Canyon flows to the east at a distance of .18 km (.11 mi). Artifacts are situated along this low slope cut, suggesting that they are eroding out of the cut at a depth of 50 to 60 cm. Artifacts consist of approximately 30 lithic items, including a possible knife, broken biface, and several flakes. Material types are obsidian, chert, chalcedony, rhyolite, and silicified wood. Also observed were a one-hand mano and a metate fragment.

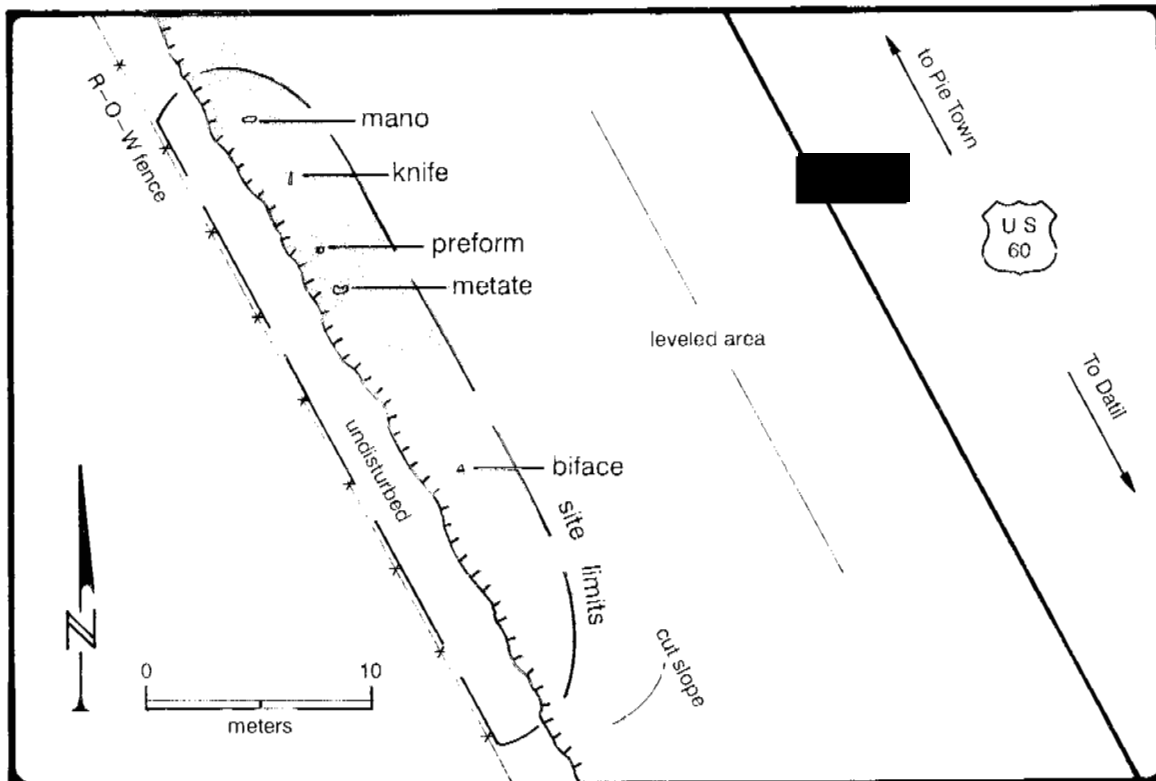


Figure 4. Plan of LA 104382.

The site extends 35 m east-west and 7 m north-south within the existing highway right-of-way, an area of 245 sq m. The site may extend south outside of the right-of-way. The limits of the site are not determinable because it is buried.

Evaluation: Although of unknown size, LA 104382 appears to be a buried campsite used to grind and possibly process subsistence resources. It also is evident that bifaces and knives were used on the site, perhaps as part of hunting equipment. Because of the potential depth of the cultural material, 50 to 60 cm below ground surface, the site could represent an Archaic occupation of the area. Numerous Archaic sites are present on the nearby Plains of San Agustín. An Archaic site such as LA 104382 in the mountainous area above the Plains could provide contrasting information on subsistence adaptations during this period. LA 104382 has the potential to provide data important to the prehistory of the area. A data recovery program is recommended.

DATA RECOVERY PLAN

The three archaeological sites recorded by the NMSHTD (LA 39998, LA 104381, and LA 104382) all appear to represent short-term campsites in different localities along White House Canyon. They may all have hearths or pits, and lithic artifacts are dispersed over the surfaces of all three, but there may also be substantial differences. The sites may each be of a different cultural orientation or exhibit varying seasonality of use and varying mobility strategies.

Seldom has a study focused on campsites alone. Usually these small hearth and artifact scatters are embedded within the research programs of larger residential sites in an area. This study provides the opportunity to examine the site structure of short-term occupation camps, compare their artifact assemblages and subsistence adaptations, and relate these sites to their appropriate cultural context. Currently, only stratified Archaic cave sites to the southeast and pithouse and pueblo villages to the south and west have been excavated in the surrounding areas. There is a lack of smaller, open-air sites to balance the skewing of the existing data base. We believe the project sites have the integrity and the variety to provide such a balance.

Some questions may prove to be easily addressed through the implementation of the research plan. Were Archaic populations present in White House Canyon? Do sites indicate a seasonal taking of resources? What resources were used by the various groups in the area? Where were the brown wares and gray wares coming from? Were both made in the area? From how far away were lithic raw materials obtained?

Answers to these proposed research questions may be obtained through the compilation of appropriate data sets. Artifacts will be subject to traditional analyses and those proposed in this report. To address the question of mobility, analysis will also include a detailed study of biface manufacture and discard, following Kelly's (1988) model. We will also look at the amount of lithic manufacture versus the amount of lithic maintenance, the investment in storage facilities, length of site occupation, and amount of reuse or reconstruction.

Sourcing of resources (floral, faunal, lithic raw material, ceramics, and ceramic clays) is important for understanding the subsistence adaptations of each prehistoric group. When necessary, specialists will be employed to undertake these studies. Also, we will take palynological and macrobotanical samples from available pits, hearths, utilized surfaces, and cultural fill.

Data will be compared to those from other excavated prehistoric sites in surrounding regions to place these sites within a broader cultural context.

Theoretical Orientation

The Datil and Quemado (78 km to the west) areas lie topographically at the very core of the little-understood Mogollon-Anasazi contact zone. The northern region of the Mogollon Highlands lies 80 km (50 mi) to the southwest, and Cebolleta Mesa, of Anasazi affiliation, is 64 km (40 mi) to the north. Several testing and excavation projects have taken place in the Quemado

area (Kayser and Dart 1977; Hogan et al. 1985; Oakes 1986). None has occurred in the Datil Mountain area.

Archaeological sites occurring south of U.S. 60 have generally been classified as Mogollon, while to the north they are Anasazi. However, there is much mixing of the gray and brown ware ceramic assemblages, and there is some stylistic architecture overlap. The problem of what cultural groups occupied this interface zone has not been resolved. Many have offered opinions and presented provocative models to examine the problem.

Ruppé (1953) defines the Acoma culture province as an area of similar artifactual and cultural attributes. Dittert (1959) later divided it into six subregions, the south edge of which delineates the southern boundary of the Anasazi culture area. This southern border is just north of the project area. Dittert considers most sites to be Anasazi because of the presence of gray wares and the accompanying Mogollon brown ware sherds to be intrusive, even though brown wares sometimes outnumbered gray wares. He believes Mogollon population from the highlands actually migrated to the Acoma culture area and brought with them their brown ceramics. Others say Anasazi populations moved southward. As Stuart and Gauthier (1981) indicate, it would be highly improbable for migration to have occurred simultaneously from both north and south at the same time. Tainter (1980) and Tainter and Gillio (1980) have devised an approach for examining the problem. Tainter (1980) believes we should look at these contact populations as local groups in an economic interaction sphere with areas to the north and south. A study of burial data in the Puereco area by Tainter found that populations were homogenous beginning about A.D. 750 and does not suggest migrations of Mogollon peoples into the area. Stuart and Gauthier (1981:126) propose a wider study of burial data covering most of the southwestern quarter of New Mexico.

This blending of Mogollon and Anasazi traditions is readily apparent in the Datil area, although very little work has been conducted here. Sites were usually recorded as Anasazi because of the presence of gray wares; however, brown wares are also found on many of these sites.

Because of the scant and poorly understood data base for the Datil area, our research orientation must focus on basic theoretical issues. Are there both Mogollon and Anasazi sites within this mountain region? If so, how have they been distinguished? Are the distinctions valid? Could both site types be represented by a single population? Were Archaic and Apache or Navajo people also occupying the same zone? Given that the project sites are campsites of possibly differing time periods, how do artifact assemblages and site structure differ from period to period? Are adaptations similar, or are the same resources being exploited for all sites? Is the high altitude of the project area, 2,255 to 2,438 m (7,400 to 8,000 ft) restrictive for permanent settlements, and does it explain their lack in the area? The dating of these sites is critical in addressing cultural variation and these specific questions.

The data recovery plan for the campsites of the Datil Mountains will focus on three areas of research: (1) placement within temporal and cultural context; (2) variability in artifact assemblages and site structure; (3) subsistence adaptations. These research foci will allow us to address the Mogollon-Anasazi issue and assess the structural nature and function of these short-term campsites in terms of site structure and subsistence activities.

Research Expectations

Temporal and Cultural Context

Determining the dates of occupation of the three campsites is critical to establishing cultural continuity or diversity between the sites. Presently, we have only a few broadly dated sherds to indicate the time of occupation. Several chronometric controls can be used to provide a temporal context for the sites. Dendrochronological and radiocarbon samples can supply absolute dates. Hearths or surfaces that have burned thoroughly can provide archaeomagnetic dates for the sites. Obsidian hydration, even though its accuracy is sometimes questioned, can also be employed as a supplemental dating methodology. Finally, diagnostic artifacts such as projectile points and sherds can be used to provide a relative date for the sites.

Establishing an accurate temporal framework for a site often leads to its placement within a specific cultural context. For example, very early dates often allow for classification of sites as Paleoindian or Archaic. However, for the Datil area, sites dating between ca. A.D. 200 and the mid-1800s may frequently be considered of unknown cultural affiliation because Mogollon and Anasazi adaptations run the same gamut from early to late pithouses and from early to late pueblos within the same general time period. Apache and Navajo occupations are also roughly contemporary.

To make cultural assessments, archaeologists often look at diagnostic traits for the various groups. Certain cultural characteristics that show up in this area are assumed to be Mogollon in nature: the use of brown ware ceramics, square kivas, and masonry structures. Anasazi traits are identified by gray ware pottery, round kivas, and adobe structures. This system of site classification is currently in use today in the area. We believe that this is a simplistic approach; it virtually ignores the less dominant assemblage and offers no explanation for the mixture.

We do not argue that diagnostic artifacts or architectural styles are useless; at times, they have limited utility. In this region of Mogollon-Anasazi blending, we must explain this duality of cultural diagnostics. We must ask what it signifies and be open to several possibilities: (1) people migrated from the south and north, meeting at the same time in this borderland area; (2) the people were of one group but adopted traits of the other for political or socioeconomic reasons; (3) a local population selectively adapted to characteristics of areas to both the north and south.

The three campsites do not represent a complete picture of any of the cultural groups possibly inhabiting the Datil area. They are, at best, small portions of much larger socioeconomic systems. We cannot understand the whole system from the study of only one part, but we can learn about that part, i.e., the role and function of campsites within the larger regional context.

Site Structure

Analysis of site structure will focus on structural diversity between the campsites. We expect that site structure should reflect short-term occupation of the three sites. Therefore, there should be expedient investment of labor in hearths, storage facilities, or any dwellings that may

be present. Artifacts should be limited to their variability, consistent with short-term occupation patterns. Evidence of domestication of cultigens is not likely, although possible, given the high elevations of the sites. As campsites, only seasonal resources should appear in the archaeological record. As part of the studies, we must ask if there is a plan to site layouts. Are hearths formally constructed, or do they exhibit expediency in preparation? Are there specific work areas?

If these groups are representative of both mobile and sedentary societies, the sites may show evidence of different lithic tool assemblages. Expedient lithic tool reduction is generally associated with sedentary populations of the Pithouse and Pueblo populations, while formalized tools are more characteristic of Archaic populations (Parry and Kelly 1987). These differences between these technological modes can be monitored and quantified for the sites.

The sites should represent either residential or base camps or field camps for collection of resource goods. A residential base camp, as when foraging groups move to a resource locale as part of a seasonal round (Binford 1980), will exhibit a broad range of maintenance production as well as food processing activities. There should be a concomitant low investment in habitation units or storage. Structures, if present, should be ephemeral and indicate short-term use. When residential camps are used for collecting, they may have the same broad range of activities but with higher construction investment, indicating a longer, perhaps seasonal occupation. Field camps are temporary locales used for specialized activities (such as hunting), with no storage (except perhaps caching), and ephemeral structures if any.

Lithic artifacts may also be used to distinguish short-term camps of foragers versus those of collectors (Moore 1989:21). He affirms that biface manufacture in general reflects mobility in a group. Kelly's (1988) model, which examines variation in biface production, will be employed to compare the variations in site assemblages.

Length of site occupation may be determined from an examination of site structure, presence of seasonal resources, and artifact analyses. A seasonal occupation might be evidenced by presence or absence of interior hearths, storage facilities, labor investment in structures, and types of resources recovered from the sites. Repeated use of a site may be evidenced by ample storage facilities, overlapping features, reconstruction of hearths, and varying occupation levels.

Subsistence Adaptation

The study of subsistence adaptation will focus on the type of resources used by each group of site occupants, whether the resources were expediently exploited, and whether food processing occurred on the sites. Seasonality of resource availability will be calculated and potential seasonal rounds proposed. At this point, archaeologists have not confirmed seasonal rounds between highlands, such as the Datil mountains, and lowland areas. Sourcing of specific resources such as lithic raw material, clay beds for ceramics, and trade wares may provide information on the mobility of people and resources through a cultural system. We will also study the balance between utilized floral and faunal resources as a key to determining seasonal strategies. Variations in ceramic vessel form, ground stone assemblages, and lithic tool use will also aid in determining subsistence practices at each site.

If any of the groups were fully mobile, then subsistence activities should represent only

the range of resources available or easily transported in the immediate environment. However, if they employed a collecting strategy, a wider range of resources could be expected in site assemblages. Fully mobile people would tend to prepare items for immediate consumption or use, while those less mobile might be expected to cache or store resources.

Dependence on cultigens is not expected. However, the materials from hearths and any pits will be carefully processed to ensure that any cultigens or other food items are recovered. The presence of storage pits should suggest repeated or seasonal use of a site and may indicate constrained mobility.

Ground stone implements, as well as hearths and interiors of ceramic vessels, may retain some of the materials that were ground.

The analysis of floral and faunal resources should help determine if these sites were used for short-term exploitation within a definite season of availability.

Site-Specific Research

LA 39998

LA 39998 is a widely dispersed lithic artifact scatter of unknown cultural association. There are several burned localities on the site which may indicate hearths or pits. These may contain floral and faunal remains that will identify types of resources used by the site occupants and allow for an assessment of the season of use. Each of the three prehistoric concentrations on the site will be stripped and dug with a minimum of two excavation units each to determine if subsurface remains are present. The historic cans will be recorded in the field. Expansion of excavation units will depend upon preliminary findings.

Site structure studies and presence of expedient or formalized lithic tools should inform on residential mobility patterns. Evidence of site reuse will allow for estimates of occupation length, seasonal use or reuse, and labor investment in the site.

Artifact analysis will be used to document site function and the type of resources exploited. Sourcing of the lithic material assemblage will be attempted and compared with source information for the other sites.

The several burned areas on the site should provide appropriate material for dating the site.

LA 104381

LA 104381 appeared to be a campsite dating somewhere within the broad Mogollon period, from ca. A.D. 200 to 1350. Several hearths are visible on the surface, and more may be present. A minimum of 20 by 35 m of artifact concentration and features on top of the hill will be excavated or surface stripped. A variety of Mogollon brown wares are present on the site.

These will be placed within the appropriate Mogollon sequence upon analysis. An attempt to locate clay sources for these ceramics will also be made. LA 104381 should provide valuable site structure data in terms of seasonality of use, evidence of reuse or additional construction, and evidence of long-range planning.

Subsistence activities should be discernible from the number of artifact types present. Care will be taken to retrieve all possible subsistence items from cultural features. Tool use will be evaluated in terms of expediency versus long-range use. Raw material sources will be tracked. Ground stone will be examined for types of resources exploited.

Hearth areas will be carefully excavated to retrieve datable materials.

LA 104382

LA 104382 may be buried beneath 50 to 60 cm of soil. Because of the presence of only lithic and ground stone artifacts, the site may represent an Archaic occupation (ca. 1500 B.C. to A.D. 200) of the area. The site provides an excellent opportunity to examine a site of this time frame in a highlands setting, compared to the numerous Archaic sites on the nearby Plains of San Agustín. Because of the small size and potential importance of this site, the entire 20 m by 70 m area of dispersed artifacts will be excavated. Dating of this site is critical to its cultural placement. Hearth areas will be sampled for radiocarbon material and macrobotanical remains. If tree-ring and archaeomagnetic samples are not available, obsidian from the site will be submitted for hydration tests.

The chipped stone material will provide data for the comparative study of biface manufacture and maintenance following Kelly's model (1988). Tool function as related to hunting, foraging, or collecting strategies should be addressed with this assemblage. If subsistence items are recovered from the site, they should provide important information on resource use, seasonality of acquisition, and the question of long-range planning. Raw-material sourcing of the lithic material will also be attempted.

Field and Analysis Methods

The following standard field and analysis techniques will be used to extrapolate the specific structural and temporal data required by the data recovery plan. These include an accurate chronometric ordering of sites through available dating mechanisms such as radiocarbon analysis, archaeomagnetic sampling, dendrochronology, and possibly obsidian hydration. The research design commits us to examine site structure in detail in terms of expedient versus reuse or long-term use. We hope to collect enough macrobotanical and palynological samples to assess subsistence adaptations. These will be taken from hearths, utilized surfaces, pits, ground stone, and cultural fill on each site. Ceramic artifacts will also be used to augment the dating of sites and assess site function through vessel form and type. For determining the functional differences of the sites, the variations in artifact assemblages will be statistically measured. Lithic artifacts will be examined for type of reduction strategy and compared between sites.

Field Methods

A primary datum will first be established for each of the three sites on the project, from which at least two baselines will be run with a stadia rod and transit. From these, a 1 m by 1 m grid system will be imposed over each site. All surface collections and excavation units will be made within the grid system. Hand tools such as trowels, shovels, picks, brushes, and dental picks will be used for the excavation of cultural material and features.

Mechanical equipment will be used, if necessary, to strip disturbed or sterile overburden from portions of the sites. It may also be used to ensure that all cultural features are located upon completion of hand excavations. At LA 104382, where cultural material is buried, mechanical trenching at the limits of the artifact distribution will be used as an exploratory technique to document any stratigraphy that may be present and to use that stratigraphy as a basis for excavation of the site proper.

Excavation units will consist of 1 m by 1 m grids placed over the site. They will be dug in 10 cm arbitrary levels unless natural or cultural stratigraphic breaks are evident. If natural breaks are defined, excavations will continue in levels determined by the depth of the strata. The excavation units will be expanded from the exploratory grids to determine the nature and extent of any cultural deposits and features that are encountered. Surface stripping of all artifact concentrations will be used to ensure that all subsurface features are found.

Soil recovered from excavation procedures will be screened through 1/4 inch mesh hardware cloth. A 1/8 inch mesh screen will be available if very small thinning or biface reduction flakes are present. All artifacts will be bagged by excavation level and by artifact type within that level. Artifacts recovered from utilized surfaces will be mapped in place and bagged separately. Flotation and pollen samples will be collected from all cultural strata and features. If available, radiocarbon, archaeomagnetic, and tree-ring samples will be collected to determine the dates of the sites.

Soil augers will be used to investigate areas of the site not previously subject to excavation. Any artifacts collected in this manner will be bagged by grid unit and depth. Subsurface cultural deposits encountered in auger tests will be further examined through grid excavations or mechanically trenched to determine their extent.

We will attempt to locate all site features through the above methods. All cultural features will be completely excavated. Individual field forms will be completed for each level excavated, detailing depth of level, soil types and color (based on the Munsell scale), and type and amount of artifacts or architecture found.

All stratigraphic levels and features will be profiled and plan views drawn of each feature. In addition, features will be photographed before and after excavation. The sites, including all cultural features, locations of excavation units, and topographic relief will be mapped with a transit and stadia rod.

It is not likely that human remains will be found. Should they be discovered through the data recovery program, standard archaeological excavation techniques will be employed. These include the definition of the burial locale, the use of small hand tools to expose skeletal material,

mapping and photographing the skeleton and any associated grave goods, and retrieval of soil for pollen and coprolite analysis.

The field treatment of any human remains and other sensitive cultural materials will be based on the Museum of New Mexico Rule 11, "Policy on Collection, Display, and Repatriation of Culturally Sensitive Materials," adopted January 17, 1991. If human remains or other sensitive materials are recovered, appropriate law enforcement agencies and Indian tribal groups will be notified. No person will be allowed to handle or photograph the remains except as part of scientific data recovery efforts. Photographs of sensitive materials will not be released to the media or general public.

If human remains (including any associated burial goods) are recovered, their disposition will be based on consultations with the appropriate review authorities. If an alternative disposition is not established through the consultation process, the remains will be submitted to the Museum of New Mexico Archaeological Research Collection (ARC) for physical storage at the Department of Anthropology, University of New Mexico. Remaining artifacts will be submitted to ARC for physical storage.

Laboratory Analysis

Laboratory analyses will be conducted by the staff of OAS and specialized professional consultants. When brought in from the field, artifacts will first be sorted, washed, and catalogued. Any remains that do not appear to be stable will be treated in consultation with the museum's conservation department.

Ceramic Artifacts. To assign dates, function, and cultural affinity to the ceramic artifacts, a detailed analysis of morphological attributes will be undertaken. Artifacts will be identified by existing type name, vessel and rim form, vessel and diameter, paste texture, and color, temper material, surface color and finish, slip, design style, thickness, presumed function, and presence of attributes such as burning, smudging mending, or reworking. A binocular microscope will be used to facilitate the analysis. A sample of sherds may be submitted for petrographic analysis and for X-ray refraction analysis to determine the origins of the sherds. Clay sources for pottery production will be sought and matched with clay samples obtained from the Datil area.

Lithic Artifacts. Lithic artifacts will be analyzed for material type and texture, artifact type, breakage pattern, use, and presence of thermal treatment. Attributes to be monitored with formal and informal tools include edge angle and shape, type of modification, and/or wear. A binocular microscope will be used to identify retouch and wear patterns. Debitage will be examined for evidence of reduction strategy, reduction stage, platform type, percentage of dorsal cortex, platform lipping, artifact portion, direction of dorsal scarring, and size. Formal tools will be examined for morphology and wear patterns. Expedient tools will be examined for marginal retouch or use-wear patterns. These studies should allow for an evaluation of reduction technology, tool production and use, and raw material procurement strategies.

Comparison of lithic artifact data with that from other sites in the project area and the nearby region may assist in the identification of specific manufacturing techniques and wear patterns that may help identify the various subsistence strategies of the different cultural groups in the area.

Ground Stone Artifacts. An analysis of morphological attributes will be conducted on the ground stone assemblages. This will include material type, common classification, portion represented, how used, texture, number of used sides, plan-view form, and metric measurements. The types of ground stone present will provide information on the kinds of resources processed. The morphology of ground stone tools can be used to determine whether they were used in food processing or other activities. Pollen washes will be performed on any buried ground stone to possibly retrieve subsistence materials.

Faunal Remains. The faunal analysis will focus on the identification of species, age, and bone element to assist in determining species used as food resources and portions used by each prehistoric group. Season of death for faunal remains will be determined for young species, if possible. Butchering and processing methods will be examined. We will also investigate the use of faunal materials as tools. Information from the faunal analysis will be used to aid in the determining season of occupation at the sites, hunting dependency, and subsistence strategies pursued.

Floral Remains. Floral remains will be identified by macrobotanical analysis to specific species when possible and compared with plant data from the other sites to determine floral resources used by the various groups. It will also be used to help determine the season of use and subsistence strategy employed at each site.

Human Remains. The main goal of the skeletal analysis, if any, will add to the data base on prehistoric populations from this overlapping area of the Mogollon and Anasazi sites. The analysis will include standard metric studies, aging and sexing of the remains, and documentation of pathologies, particularly those related to subsistence stress.

Analysis Results

A final data recovery and analysis report will be published in OAS's Archaeology Notes series. The report will present methodologies used in the excavations, findings of the fieldwork, analysis, and interpretation of the data. It will include photographs, site and feature maps, and data summaries. Field notes and maps, analytic data sheets, and photographs will be deposited with the Archeological Records Management Section, Historic Preservation Division.

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APPENDIX 2: TREATMENT OF HUMAN BURIALS



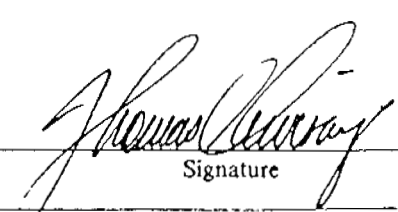
State Records Center
 404 Montezuma
 Santa Fe, New Mexico 87503

STATE RECORDS CENTER

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Rule Cover Sheet

Side B - Modifying Rule

1 Instructions		(Above Space for SRC Use Only)
Please Read The Instructions On Side A Of This Rule Cover Sheet.		
2 Entire Name Of Agency		
Office of Cultural Affairs Museum Division (Museum of New Mexico)		
3 Agency Address		
113 Lincoln Avenue P.O. Box 2087 Santa Fe, New Mexico 87504		
4 Title Of Existing Rule To Be Modified		
Collection, Display and Repatriation of Culturally Sensitive Materials		
5 Number Of Existing Rule To Be Modified	6 Filing Date Of Existing Rule To Be Modified	
Rule No. 11	February 5, 1991	
7 The Existing Rule Is To Be Modified By A (Check One)		
<input type="checkbox"/> Superseding Rule (which replaces in its entirety an existing rule) <input checked="" type="checkbox"/> Amending Rule (which changes only part of an existing rule) <input type="checkbox"/> Repealing Rule (which removes in its entirety an existing rule)		
8 Title Of Modifying Rule		
Collection, Display and Repatriation of Culturally Sensitive Materials		
9 Modifying Rule Number	10 Number Of Sheets	
Rule No. 11, Amendment No. 1	1	
11 For Amendments List Pages Added	12 For Amendments List Pages Deleted	
-2-	-2-	
13 Authorization		
Name: Thomas A. Livesay Title: Director Date: April 2, 1991		
		 Signature

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Office of Cultural Affairs
Museum Division
(Museum of New Mexico)
P.O. Box 2087, 113 Lincoln Ave.
Santa Fe, New Mexico 87504

Rule No. 11 POLICY ON COLLECTION, DISPLAY AND REPATRIATION OF CULTURALLY SENSITIVE MATERIALS Adopted: 01/17/91

I. INTRODUCTION

The policy of the Museum of New Mexico is to collect, care for, and interpret materials in a manner that respects the diversity of human cultures and religions.

Culturally sensitive materials include material culture as well as the broader ethical issues which surround their use, care, and interpretation by the Museum. The Museum's responsibility and obligation are to recognize and respond to ethical concerns.

II. DEFINITIONS;

- A. "Culturally sensitive materials" are objects or materials whose treatment or use is a matter of profound concern to living peoples; they may include, but are not limited to:
1. "Human remains and their associated funerary objects" shall mean objects that, as a part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later;
 2. "Sacred objects" shall mean specific items which are needed by traditional religious leaders for the practice of an ongoing religion by present-day adherents;
 3. Photographs, art works, and other depictions of human remains or religious objects, and sacred or religious events; and

- 4. Museum records, including notes, books, drawings, and photographic and other images relating to such culturally sensitive materials, objects, and remains.
- B. "Concerned party" is a museum-recognized representative of a tribe, community, or an organization linked to culturally sensitive materials by ties of culture, descent, and/or geography. In the case of a federally recognized indian tribe, the representative shall be tribally-authorized.
- C. "Repatriation" is the return of culturally sensitive materials to concerned parties. Repatriation is a collaborative process that empowers people and removes the stigma of cultural paternalism which hinders museums in their attempts to interpret people and cultures with respect, dignity, and accuracy. Repatriation is a partnership created through dialogue based upon cooperation and mutual trust between the Museum and the concerned party.
- D. The Museum of New Mexico's Committee on Sensitive Materials is the committee, appointed by the Director of the Museum of New Mexico, that shall serve as the Museum of New Mexico's advisory body on issues relating to the care and treatment of sensitive materials.

III. IDENTIFICATION OF CONCERNED PARTIES

- A. The Museum shall initiate action to identify potentially concerned parties who may have an interest in culturally sensitive material in the museum's collections.
- B. The Museum encourages concerned parties to identify themselves and shall seek out those individuals or groups whom the Museum believes to be concerned parties.

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- C. The Museum's sensitive materials committee shall review all disputed individual claims of concerned-party status in consultation with the tribe, community, or organization which the individual(s) claims to represent. The Museum's sensitive materials committee shall assist, when necessary, in designating concerned parties who have an interest in culturally sensitive materials contained in the collections of the Museum of New Mexico.
- D. The Museum shall provide an inventory of pertinent culturally sensitive materials to recognized concerned parties.
- E. The Museum shall work with concerned parties to determine the appropriate use, care and procedures for culturally sensitive materials which best balance the needs of all parties involved.

IV. IDENTIFICATION AND TREATMENT OF CULTURALLY SENSITIVE MATERIALS

- A. Within five years of the date of adoption of this policy, each Museum unit shall survey to the extent possible (in consultation with concerned parties, if appropriate) its collections to determine items or material which may be culturally sensitive materials. The Museum unit shall submit to the Director of the Museum of New Mexico an inventory of all potentially culturally sensitive materials. The inventory shall include to the extent possible the object's name, date and type of accession, catalogue number, and cultural identification. Within six months of submission of its inventory to the Director of the Museum of New Mexico, each Museum unit shall then develop and submit, a plan to establish a dialogue with concerned parties to determine appropriate treatment of culturally sensitive items or materials held by the unit.

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- B. As part of its treatment plans for culturally sensitive materials, the Museum reserves the right to restrict access to, or use of, those materials to the general public. The Museum staff shall allow identified concerned parties access to culturally sensitive materials.
- C. Conservation treatment shall not be performed on identified culturally sensitive materials without consulting concerned parties.
- D. The Museum shall not place human remains on exhibition. The Museum may continue to retain culturally sensitive materials. If culturally sensitive materials, other than human remains, are exhibited, then a good-faith effort to obtain the advice and counsel of the proper concerned party shall be made.
- E. All human skeletal remains held by the Museum shall be treated as human remains and are de facto sensitive materials. The Museum shall discourage the further collection of human remains; however, it will accept human remains as part of its mandated responsibilities as the State Archaeological Repository. At its own initiation or at the request of a concerned party, the Museum may accept human remains to retrieve them from the private sector and furthermore, may accept human remains with the explicit purpose of returning them to a concerned party.

IV. REPATRIATION OF CULTURALLY SENSITIVE MATERIALS

- A. On a case-by-case basis, the Museum shall seek guidance from recognized, concerned parties regarding the identification, proper care, and possible disposition of culturally sensitive materials.

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- B. Negotiations concerning culturally sensitive materials shall be conducted with professional discretion. Collaboration and openness with concerned parties are the goals of these dialogues, not publicity. If concerned parties desire publicity, then it will be carried out in collaboration with them.
- C. The Museum shall have the final responsibility of making a determination of culturally sensitive materials subject to the appeal process as outlined under section VII A.
- D. The Museum of New Mexico accepts repatriation as one of several appropriate actions for culturally sensitive materials only if such a course of action results from consultation with designated concerned parties as described in Section III of this policy.
- E. The Museum may accept or hold culturally sensitive materials for inclusion in its permanent collections.
- F. The Museum may temporarily accept culturally sensitive materials to assist efforts to repatriate them to the proper concerned party.
- G. To initiate repatriation of culturally sensitive materials, the Museum of New Mexico's current deaccession policy shall be followed. The curator working with the concerned party shall complete all preparations for deaccession through the Museum Collections Committee and Director before negotiations begin.
- H. Repatriation negotiations may also result in, but are not limited to, the retention of objects with no restrictions on use, care, and/or exhibition; the retention of objects with restrictions on use, care and/or exhibition; the lending of objects either permanently or temporarily for use to a community; and the holding in trust of culturally sensitive materials for the concerned party.

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- I. When repatriation of culturally sensitive materials occurs, the Museum reserves the right to retain associated museum records but shall consider each request for such records on an individual basis.

VI. ONGOING RECOVERY OR ACCEPTANCE OF ARCHAEOLOGICAL MATERIALS

- A. In providing sponsored archaeological research or repository functions, the Museum shall work with agencies that regulate the inventory, scientific study, collection, curation, and/or disposition of archaeological materials to ensure, to the extent possible under the law, that these mandated functions are provided in a manner that respects the religious and cultural beliefs of concerned parties.
- B. When entering into agreements for the acceptance of, or continued care for, archaeological repository collections, the Museum may issue such stipulations as are necessary to ensure that the collection, treatment, and disposition of the collections include adequate consultation with concerned parties and are otherwise consistent with this Policy.
- C. In addition to the mandated treatment of research sites and remains and in those actions where treatment is not mandated, defined, or regulated by laws, regulations, or permit stipulations, the Museum shall use the following independent guidelines in recovering or accepting archaeological materials:
 1. Prior to undertaking any archaeological studies at sites with an apparent relationship to concerned parties, the Museum shall ensure that proper consultation with the concerned parties has taken place.

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2. When so requested by concerned parties, the Museum shall include an observer, chosen by the concerned party, in the crew of an archaeological study.
3. The Museum shall not remove human remains and their associated funerary objects or materials from their original context nor conduct any destructive studies on such remains, objects, and materials, except as part of procedures determined to be appropriate through consultation with concerned parties, if any.
4. The Museum reserves the right to restrict general public viewing of in situ human remains and associated funerary objects or items of a sacred nature and further shall not allow the public to take or prepare images or records of such objects, materials, or items, except as part of procedures determined to be appropriate through consultation with concerned parties. Photographic and other images of human remains shall be created and used for scientific records only.
5. The Museum reserves the absolute right to limit or deny access to archaeological remains being excavated, analyzed, or curated if access to these remains would violate religious practices.

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- D. Twice each calendar year, the State Archaeologist shall compile and distribute a listing of all proposed, ongoing, and complete state-permitted archaeological work in New Mexico and all Museum of New Mexico archaeological projects state-permitted or not. The list shall be public information and, in consonance with this policy, shall be distributed to all tribal governments in New Mexico, as well as to other recognized organizations that may be concerned with ongoing archaeological excavations and their findings.

VII. APPEAL PROCESS

- A. A museum-recognized concerned party, or a party that claims to be a concerned party but which is not recognized to have such status by the Museum's committee on sensitive materials, may appeal in writing to the Director of the Museum of New Mexico. The Director shall issue a written response to the appeal within thirty (30) calendar days of its receipt. The decision of the Director may be contested by written appeal to the Board of Regents of the Museum, which shall take such final action as it deems appropriate.
- B. Museum staff may appeal a decision of the sensitive materials committee in writing to the Director of the Museum of New Mexico. The Director shall issue a written response to the appeal within thirty (30) calendar days of its receipt. The decision of the Director shall be final.