DATA RECOVERY PLAN FOR TWO PREHISTORIC SITES ALONG NM 48 FROM ANGUS TO ALTO, LINCOLN COUNTY, NEW MEXICO

DOROTHY A. ZAMORA

MUSEUM OF NEW MEXICO

OFFICE OF ARCHAEOLOGICAL STUDIES ARCHAEOLOGY NOTES 241

1998

MUSEUM OF NEW MEXICO

OFFICE OF ARCHAEOLOGICAL STUDIES

DATA RECOVERY PLAN FOR TWO PREHISTORIC SITES ALONG NM 48 FROM ANGUS TO ALTO, LINCOLN COUNTY, NEW MEXICO

by Dorothy A. Zamora

with a contribution by Yvonne R. Oakes

Submitted by Yvonne R. Oakes Principal Investigator

ARCHAEOLOGY NOTES 241

SANTA FE

1998

NEW MEXICO

ADMINISTRATIVE SUMMARY

From September 29, 1997, to October 10, 1997, the Office of Archaeological Studies, Museum of New Mexico. tested three sites along NM 48 between Angus and Alto in Lincoln County, New Mexico. The project was conducted at the request of the New Mexico State Highway and Transportation Department (NMSHTD), which plans to construct a shoulder and replace the bridge over the Rio Bonito, and reconstruct the intersection of NM 37 and NM 48, and widen NM 48. All of the sites are located within the existing highway right-of-way.

LA 2924 and LA 111747 are small ceramic and lithic artifact scatters with an average depth of 30 cm. Limited testing produced subsurface materials but no cultural features; however, it is possible that architectural features lie under NM 48. LA 3334 (the Angus site), was partially excavated by Stewart Peckham in 1956 prior to construction along NM 48. He excavated five rooms, of which four were linearly aligned. Architecturally the rooms were rectangular in shape with one D-shaped at a depth of approximately 1 m. During testing the deposits at the Angus site ranged between 30 cm to 88 cm in depth.

The sites fall into Kelley's (1984) phase sequence for the Sierra Blanca region. LA 2924 consisted of mostly Jornada Brown and Chupadero Black-on-white ceramics and probably dates to the Middle Glencoe phase (ca. A.D. 1100). LA 3334 dates to the Late Glencoe phase (A.D. 1100 to A.D. 1350). Ceramics recovered by Peckham (1956) consisted of El Paso Polychrome, Chupadero Black-on-white, Corrugated, Lincoln Black-on-red, Three Rivers Red-on-terracotta, Glaze I Red, Gila Polychrome, Ramos Polychrome, Playas Red Incised, and Heshotauthla Polychrome. These types were also recovered during testing. On LA 111747 the ceramics recovered included Jornada Brown, Chupadero Black-on-white, and some Redwashed Brown, also indicating a Middle Glencoe phase.

This report describes the results of the testing program and presents a data recovery plan for the retrieval of archaeological information from LA 3334 and LA 111747. The sites were not listed on the *National Register of Historic Places*. This data recovery plan is consistent with *Treatment of Archaeological Properties: A Handbook* (Advisory Council on Historic Preservation).

Submitted in Fulfillment of Contract Number CO 3541/98 between the New Mexico State Highway And Transportation Department and the Office of Archaeological Studies, Museum of New Mexico.

MNM Project No. 41.652 NMSHTD Project No. TMP-BR-0048(16) CN 1245.

TABLE OF CONTENTS

Administrative Summary ii
Introduction
Environment
Cultural History4Early Glencoe Phase4Middle Glencoe Phase4Late Glencoe Phase5Corona Phase5Lincoln Phase5
Previous Archaeological Work in the Area
Testing Results 7 LA 2924 (Alto Site) 7 LA 3334 (Angus Site) 10 LA 111747 (Little Creek Site) 13
Discussion
Data Recovery Plan by Yvonne R. Oakes17Introduction17Research Domains18General Field Methods20Site-Specific Field Methods22Laboratory Analysis23Research Results25References Cited26
Appendix 1. Policy on Collection, Display and Repatriation of Culturally Sensitive Materials 29 Appendix 2. Site Location and Legal Descriptions

<u>Figures</u>

1. Project vicinity map				 				•						 •		•				2
2. LA 2924 site map				 										 -		•	•	•	•	8
3. LA 3334 site map				 		 ٠		•						 •	•	•				12
4. LA 111747 site map				 	•			•						 •					-	15

Tables

1. Results from the LA 2924 test pits	9
2. Auger tests results	-9
3. Results from the LA 3334 test pits	10
4. Results from the LA 111747 test pits	13

INTRODUCTION

The Office of Archaeological Studies (OAS) tested three sites at the request of the NMSHTD at the junction of NM 37 and NM 48 near Angus and along NM 48 in Alto, New Mexico, Lincoln County (Fig. 1) from September 29, 1997, to October 10, 1997. All are within the existing highway right-of-way. Staff members included Dorothy A. Zamora and Yvonne R. Oakes. Ms. Oakes also served as principal investigator.

The NMSHTD proposes to improve a segment of NM 48 between Angus and Alto in Lincoln County by constructing shoulders and truck-climbing lanes. The bridge over the Bonito River near Angus will be replaced and reconstruction of the intersection of NM 37 and NM 48 will occur in association with the bridge construction.

The three sites tested were LA 2924, LA 3334, and LA 111747. All of the sites had subsurface deposits consisting of ceramics and lithic artifacts. At LA 2924 and LA 111747 the average depth of the test units was 30 cm. LA 3334, the Angus site, has depths ranging from 20 cm to 88 cm and had been partially excavated by Peckham in 1956. Two of the sites (LA 3334 and LA 111747) have a potential to provide important information on the prehistory of the area and therefore a data recovery plan was prepared.



ENVIRONMENT

The project lies on the east side of the Sierra Blanca Mountains within the Rio Bonito Valley and surrounding uplands at elevations of 2,073 m (6,800 ft) to 2,256 m (7,400 ft). Sierra Blanca at an elevation of 3,660 (12,000 ft), Monjeau Peak at 2,939 m (9,641 ft), and Mills Peak at 2,515 m (8,252 ft) top the mountain range to the west (Fletcher 1997).

The Sierra Blanca mountain complex is volcanic in origin and is of the Oligocene Age consisting of four geologic formations (Thompson 1972). These include Walker andesite breccia. Church Mountain latite, Nogal Peak trachyte, and Godfrey Hill trachyte. The Upper Cretaceous Mesaverde Formation and the Cretaceous/Early Tertiary McRea Formation are the sedimentary formations found in the Rio Bonito drainage. Sandstone and shale from the Mesaverde Formation and thin-bedded conglomerates of quartzite and chert pebbles comprise the McRea Formation. Outcrops of the McRea Formation are found in the project area by numerous diabase dikes (Farwell et al. 1992:6). The Rio Bonito system drains the northeastern flanks of the Sierra Blancas joining the Rio Ruidoso at Hondo forming the Rio Hondo (Fletcher 1997).

Soils of the area consist of the Caballo-Peso-Supervisor Association and Deama-Limestone-Rockland Association (Maker et al. 1971). The Caballo-Peso-Supervisor Association generally is dark colored with rocky soils having a moderate to high organic content ranging from mildly alkaline to slightly acidic. The Deama-Limestone-Rockland Association is formed from gray-brown stony loam, 6 to 20 inches deep, overlying limestone bedrock.

There are wide temperature extremes in the high mountain valleys (Fletcher 1997). In the project area temperatures range from -1.1 degrees Celsius (30 degrees Fahrenheit) to 1.6 degree Celsius (35 degree Fahrenheit) in January and 16.7 degree Celsius (62 degree Fahrenheit) to 20.6 degree Celsius (69 degree Fahrenheit) in July (Gabin and Lesperance 1977).

Rainfall is among the highest in the state (Tuan et al. 1973) with mean annual precipitation ranging from 355 mm to 533 mm (14 to 21 inches) (Gabin and Lesperance 1977). Most of the precipitation occurs in the form of summer thunder showers; however, snow in winter months also accounts for a relatively large proportion of moisture.

The project area crosses between the Rocky Mountain conifer forest and Great Basin conifer woodland biotic communities (Brown 1994:52-57; Case 1994:49-51), alternating in appearance, depending upon elevation and steepness of the slope. The vegetation consists of ponderosa pine, Gambel oak, juniper, piñon, narrowleaf yucca, prickly pear, blue grama, blue grass, chokecherry, Indian paint brush, rabbit brush, cottonwood, willows, cattail, horsetail, and wild iris.

Most common fauna include mule deer, elk, wild turkey, cottontail, coyote, porcupine, raccoon, skunk, squirrel, mountain lion, bighorn sheep, and black bear.

Most of the area consists of land administered by the Lincoln National Forest with scattered rural areas of residences and businesses.

CULTURAL HISTORY

The three sites located within the project area are associated with the Jornada Branch of the Mogollon. The phases and chronological sequences are based on few excavated sites. Lehmer's (1948) sequences are most commonly used in the Basin and Range area, whereas, Kelley's (1984) are used for the Sacramento-Sierra Blanca-Capitan-Jicarilla Mountain chain.

Lehmer's (1948:75-84) phases--Mesilla phase (A.D. 450 to A.D. 1100), Doña Ana phase (A.D. 1100 to A.D. 1200), and El Paso phase (A.D. 1200 to A.D. 1450)--generally correspond with Kelley's (1984) sequences for the Sierra Blanca area. These include the Glencoe phase, Corona phase, and Lincoln phase. She divides the Glencoe phase into early and late, which correspond with Lehmer's Mesilla phase. The Corona phase is contemporary with the Late Glencoe phase in the northern portion of Kelley's study area. The Lincoln phase corresponds with Lehmer's El Paso phase. Discussed in the following paragraphs are Kelley's phase designations.

Early Glencoe Phase (A.D. 450 to A.D. 900)

The Early Glencoe phase is characterized as consisting of open villages with scattered arrangements of five or ten pit houses ranging from circular to subrectangular in shape. Ventilators and antechambers are absent and lateral entries are rare (Kelley 1984:66-67). Dates are based on cross-dated ceramics that include Chupadero Black-on-white, Mimbres Boldface, Three Rivers Red-on-terracotta, and San Andres Red-on-terracotta (Farwell et al. 1992). The time span for this pottery is between A.D. 800 and A.D. 1350. Some place the beginning of the phase as late as A.D. 900 (Sebastian 1989). The placement of the beginning date for the phase is a matter of major concern for understanding cultural development in the Sierra Blanca region.

Sites are located on terrace tops and ridges overlooking streams. Kelley (1979:113) suggests a minor role for hunting, with a diet consisting of mostly cultivated and gathered plants because of the small number of projectile points found. However, the Early Glencoe phase villages could have taken advantage of a wide variety of flora and fauna given the diverse environmental zones (Farwell et al. 1992).

Middle Glencoe Phase (A.D. 900 to A.D. 1100)

Wiseman (1992) suggests a Middle Glencoe phase for the Crockett Canyon site, near Angus. He states that ceramics such as Chupadero Black-on-white and El Paso types are later than Mimbres ceramics, which date to the Early Glencoe phase. Also, Lincoln Black-on-red and the Rio Grande Glazes are absent and are only found in the Late Glencoe phase.

Late Glencoc Phase (A.D. 1100 to A.D. 1350)

The Late Glencoe phase consists of shallow rectangular pit structures usually contiguously arranged. Jacal structures and slab-lined rooms are present and site size is similar to the Early Glencoe phase. Jornada Brown pottery is a major ceramic type. Other types include Three Rivers Red-on-terracotta, Chupadero Black-on-white, and Lincoln Black-on-red. There also is an increase of trade wares such as Rio Grande Glaze I, St. Johns Polychrome, Heshotauthla Polychrome, Ramos Polychrome, Gila Polychrome, Babicora Polychrome, and Playas Red Incised. El Paso Polychrome is significantly higher, and corrugated sherds are frequently found. Hunting became more important during the Late Glencoc phase as evident by the large number of arrow points and faunal remains at the Bonnell site (Kelley 1984:48).

Corona Phase (A.D. 1100 to A.D. 1200)

The Corona phase sites are primarily found in the Rio Gallo and Rio Macho drainages (Fletcher 1997) to the northeast of the project sites. Corona phase sites consist of small houses in an open and scattered arrangement. They range in size from a few to 50 or more. The structures appear to be shallow pithouses, slab-lined rooms, and jacal superstructures. Common pottery types are Jornada Brown and Chupadero Black-on-white.

Lincoln Phase (A.D. 1200 to A.D. 1450)

Lincoln phase sites seem to be in the piñon-juniper belt of the Upper Sonoran Zone (Kelley 1984) to the north of the project sites. Sites are situated in various topographic areas. Sites such as the Block Headquarters, Frank Sultemeier site, and Hiner site 1 are in flat areas away from major streams (Kelley 1984).

The architecture during the Lincoln phase consists of large pueblos with stone masonry and coursed adobe. The pueblos range from 10 to 120 rooms. The subterranean structures are ceremonial and usually have a bench, ventilator, hearth deflector, and sipapu. Ceramics from the Lincoln phase show that, during this time, trade wares from the Little Colorado and Rio Grande regions increased. Corner-notched projectile points are common; however, side-notched points are present. Disc beads and copper bells have also been found on sites. Corn agriculture was supplemented with wild vegetable products and hunting (Kelley 1984). Fauna such as deer and elk along with small animals were numerous on sites such as Block Lookout, a Lincoln phase site, suggesting that game was substantial in their diet.

PREVIOUS ARCHAEOLOGICAL WORK IN THE AREA

Most of the archaeological work done in the area has been surveys with the exception of Farwell's (Farwell et al. 1992) excavations along NM 37 and Kelley's (1984) work along the Rio Bonito. Most of the sites fall within the later part of the Glencoe phase (A.D. 1100 to A.D. 1350). One, LA 2315, the Crockett Canyon site, was a large pithouse village of ten rooms. Two were historic sites, which included the Bonito Pipeline that ran from Bonito Lake to Nogal Lake, and a 1920s homestead. Noyes (1988) excavated five prehistoric artifact scatters on Fort Stanton Mesa.

Higgins (1984) and Dunham (1980) conducted surveys on Fort Stanton Mesa for the Sierra Blanca Airport. Dunham (1980) recorded two lithic artifact scatters of unknown age or affiliation, an Apache site (ca. 1850 to 1917), and a modern trash scatter, and one modern 1960s site. Higgins's (1984) survey found eight prehistoric lithic scatters, two prehistoric isolated occurrences, two dual components of prehistoric lithic scatters (unknown age or affiliation), a modern trash dump (ca. 1880 to 1904), and two historic sites. Kelley (1984) surveyed east of LA 3334 along the Rio Bonito and found several large Mogollon sites ranging from the Glencoe phase to the Lincoln phase. Human Systems Research (1987, 1988) surveyed east of LA 111747, approximately 1.6 km (1 mile), and recorded a historic homestead and a ceramic and lithic artifact scatter.

Several more sites have been recorded on the Angus USGS quadrangle map (N=27) and are in the New Mexico Cultural Resource Information System (NMCRIS) at the Archeological Records Management Section at the Laboratory of Anthropology. However, we noted sites only within a 13 km radius of the project sites. It is obvious that a limited amount of archaeological work has been conducted in this area.

TESTING RESULTS

Field work was completed on October 10, 1997. The field crew consisted of Yvonne Oakes and Dorothy Zamora. At each site all surface artifacts were located and pin flagged. A datum was established and a north-south and an east-west baseline was run from the datum. Test pits, measuring 1-by-1 m, were placed in areas of artifact concentrations within the grid system. Each grid was dug in 10-cm arbitrary levels until sterile soil was reached. The soil was screened through ¹/₄-inch hardware mesh. All artifacts were collected by level and bagged by artifact type with provenience information. A field specimen number was given to each bag and catalogued. Each site was mapped using a compass, tape, and line level.

LA 2924 (Alto Site)

Site Type: Ceramic scatter.

<u>Cultural Association</u>: Mogollon, possible Middle Glencoe phase, ca. A.D. 1100.

Land Status: Existing highway right-of-way.

<u>Elevation</u>: 2,262 m (7,420 ft).

<u>Description</u>: LA 2924 was first recorded by Richard Woodbury in 1952. He described the site as being on the edge of the road (NM 48) where a large, dead pine tree was present. The site is in a flat area with a thick growth of pine and juniper trees. Ceramics found were Chupadero Black-on-white, Three Rivers Red-on-terracotta, and Plain Brown (Woodbury 1952). Today the site is surrounded by development on all sides. Immediately to the south is a mobile home and across the road is a welding business.

The site measures 27 m north-south by 16 m east-west and covers 432 sq m (Fig. 2). Approximately 90 percent of the site lies within the existing right-of-way. The highway (NM 48) could possibly cover a portion of the site. No new right-of-way is needed at this location. Work will be confined to the existing right-of-way.

Very few ceramics were found on the surface. Two were found in the road cut. A total of four 1-by-1-m test pits were hand-excavated. Three test pits were placed in areas where at least one artifact was present. Table 1 shows the results of the testing program. Test Pit 4 was the shallowest pit, reaching bedrock at 10 cm.

Auger tests were also employed to locate subsurface manifestations. No features were found in the auger tests or the test pits. We found that a yellowish decomposing sandstone underlies the site and is soft when wet. Directly below it is bedrock. Table 2 shows the results of the auger tests.



Figure 2. LA 2924 site map.

TEST PIT	SOIL	DEPTH (CM)	ARTIFACTS
1	very dark sandy clay	0 to 10	3 ceramics 1 lithic artifact
1	very dark sandy clay with root and rocks	10 to 20	2 ceramics 1 lithic artifact
2	very dark grayish brown sandy clay	0 to 10	2 ceramics 1 lithic
2	dark yellowish brown sandy clay	10 to 20	2 ceramic
3	very dark grayish brown	0 to 10	
3	brown sandy clay	10 to 20	1 ceramic
4	very dark grayish brown	0 to 10	

Table 1. Results from LA 2924 Test Pits

Table 2. Auger Tests Results

AUGER TEST	DEPTII (cm)	COMMENTS
103N/98E	27	Reached sterile yellow decomposing rock at 23 cm and solid bedrock at 27 cm.
101N/92E	18	Reached sterile at 15 cm and bedrock at 18 cm.
102N/92E	24	Reached sterile at 21 cm and bedrock at 24 cm.
103N/92E	19	Reached sterile
104N/92E	17	Reached sterile
107N/92E	27	Hit large root
105N/90E	17	Reached sterile
105N/93E	29	Reached sterile
105N/94E	27	Sherd at 10 cm. Reached sterile
102N/99E	33	Reached sterile

Although there were few artifacts found on the site, it produced a total of 12 ceramics and 4 lithic artifacts. The ceramics consist of Chupadero Black-on-white (n=4) and Jornada Brown (n=8). The lithic artifacts were core flakes of chert.

Evaluation: LA 2924 is a small artifact scatter that has produced more subsurface artifacts than surface artifacts. When Woodbury (1952) found the site he described several different ceramics that are no longer present. Because of the lack of ceramics found both on the surface and in subsurface testing, it is believed that the site has been eliminated by previous road work. No further work is recommended.

LA 3334 (The Angus Site)

Site Type: Pithouse village.

Cultural Association: Mogollon, Late Glencoe phase ca. A.D. 1100 to A.D. 1350.

Land Status: Existing NMSHTD right-of-way and private.

Elevation: 2,088 m (6,850 ft).

Description: The Angus site was previously excavated by Stewart Peckham in 1956. The excavations uncovered four contiguous rectangular rooms, one oval-shaped pit structure and two partial walls (Fig. 3). The site lies partially within the existing right-of-way. It is located in an abandoned pear orchard on an alluvial fan. Several ceramic types were found by Peckham (1956) and include El Paso Polychrome, Chupadero Black-on-white, Corrugated, Lincoln Black-on-red, Three Rivers Red-on-terracotta, Glaze I Red, Gila Polychrome, Ramos Polychrome, Playas Red Incised, and Heshotauthla Polychrome. During the testing phase most of these types were also recovered.

The site measures 135-by-80 m covering 10,800 sq m. Approximately 60 percent of the site is within the existing right-of-way. Depressions from Peckham's excavations are still visible, making it easy to define the site. The soil is a sandy clay with a high content of clay. The soils range from a 5YR 3.2 dark olive gray to a 2.5YR 3/2 dusty red on the Munsell scale. Excavations were stopped when the dusty red soil was reached.

Four test pits were placed away from the previous excavations with the exception of Test Pit 1, which was placed in the backdirt of Peckham's excavations. The pits had an average depth of 48.25 cm. Excavation in Test Pit 4 was stopped, however, before sterile soil was reached because of time limits. Artifacts were abundant throughout the levels. Table 3 shows the type of soils, depth, and the artifact counts from each test pit.

TEST PIT	SOIL	DEPTH (cm)	ARTIFACTS
1	dark olive gray soft loam with charcoal flecks	0 to 10	51 ceramics 18 lithic artifacts
1	drier and loamy with large charcoal fragments	10 to 20	18 ceramics 5 lithic artifacts 1 NH bonc*
1	loose and loamy with charcoal	20 to 30	31 ceramics 6 lithic artifacts
1	loose and loamy with charcoal	30 to 40	34 ceramics 14 lithic artifacts
1	burned oxidized soil and heavy charcoal	40 to 50	34 ceramics 13 lithic artifacts 2 NH bone*

Table 3. Results from LA 3334 Test Pits

TEST PIT	SOIL	DEPTH (cm)	ARTIFACTS
1	wet sandy clay reached the bottom of the back dirt at 53 cm	50 to 60	21 ceramics 14 lithic artifacts
1	rodent disturbance heavy and ccramics are larger	60 to 70	34 ceramics 7 lithic artifacts
1	reddish clay	70 to 80	11 ceramics 1 lithic artifact
1	clay, river cobbles at the bottom	80 to 88	3 ceramics
2	dark olive gray	0 to 10	45 ceramics 29 lithic artifacts 1 ground stone
2	very dark grayish brown silty sandy clay	10 to 20	4 ceramics 19 lithic artifacts
2	dark brown sandy clay	20 to 30	56 ceramics 13 lithic artifacts 1 ground stone
2	dark brown sandy clay	30 to 40	31 ceramics 9 lithic artifacts 2 ground stone
3	very dark grayish brown sandy clay with small gravels	0 to 10	34 ceramics 1 RC ** 8 lithic artifacts 1 ground stone
3	dark brown sandy clay	10 to 20	89 ceramics 10 lithic artifacts 2 NH bone*
3	dark brown sandy clay	20 to 30	79 ceramics 24 lithic artifacts 1 projectile point 3 NII bone*
3	dark brown sandy clay	30 to 40	46 ceramics 11 lithic artifacts 1 bonc awl fragment
3	dark brown sandy clay	40 to 50	7 ceramics 9 lithic artifacts
4	dark olive gray sandy clay	0 to 10	50 ceramics 32 lithic artifacts
4	dark olive gray sandy clay with an increase in charcoal	10 to 20	80 ceramics 17 lithic artifacts
4	olive clay	30 to 40	72 ceramics 9 lithic artifacts

* NH bone=Nonhuman bone

** RC = Reconstructible vessel



Figure 3. LA 3334 site map.

In Test Pit 1 a possible surface was encountered. It was a compact reddish clay with two post holes and posts. The post holes may be modern since the existing right-of-way fence is 50 cm west of the test pit. In Test Pit 4 there was a high density of artifacts suggesting a possible feature nearby.

<u>Evaluation</u>: The Angus site was partially dug by Stewart Peckham in 1956. After testing in areas away from his excavations, we found sufficient depth and cultural remains to suggest the presence of more features. Specifically, two areas, Test Pit 1 and Test Pit 4, did exhibit potential for more rooms or pit structures. Excavation of the portion within the existing right-of-way will give us a better understanding of the prehistory of the area and will add to the existing data base for future site comparisons.

LA 111747 (Little Creek)

Site Type: Ceramic and lithic artifact scatter.

<u>Cultural Association</u>: Mogollon, possible Middle Glencoe phase, approximately A.D. 900 to A.D. 1100.

Land Status: Existing NMSHTD right-of-way.

<u>Elevation</u>: 2,210 m (7,250 ft).

Description: The site is located at the base of a gentle slope between Little Creek and an unnamed intermittent drainage flowing into Little Creek. The site has been disturbed by an underground natural gas line along the eastern edge (Fig. 4). The artifacts are concentrated on the berm of the trench. It is possible that prior construction of NM 48 has removed a portion of the site and cultural remains are under the highway.

The site measures 23 m north-south by 22 m east-west and covers 506 sq m. At least 85 percent of the site is within the existing highway right-of-way. The eastern portion of the site may have been cut away by construction of NM 48. Three test pits were situated away from the pipeline trench. Subsurface artifacts were encountered. Test Pit 1 had the highest frequency of artifacts with most coming from 10 to 30 cm below the present ground surface. The soil on this site was very compact and hard. The results of the test pits are shown in Table 4.

Jable 4. Results Hold LA 111/4/ 1650	able 4. r	counts .	irom	LA	111	./4/	rest	PILS
--------------------------------------	-----------	----------	------	----	-----	------	------	------

TEST PIT	SOIL	DEPTH (cm)	ARTIFACTS
1	very dark grayish brown clay	0 to 4	2 ceramics 3 lithic artifacts
1	very dark grayish brown clay with flecks of charcoal	4 to 10	12 ceramics 1 NH bonc *
1	dark brown clay with charcoal	10 to 20	13 ceramics 1 lithic artifact 1 NH bonc*

TEST PIT	SOIL	DEPTH (cm)	ARTIFACTS
1	strong brown clay	20 to 30	5 ceramics
1	strong brown clay, sterile	30 to 35	
2	dark brown clay	0 to 10	4 ceramics 10 lithic artifacts
2	dark grayish brown clay with rock beginning to show	10 to 20	13 ceramics
2	bedrock	20 to 30	2 ceramics
3	dark brown clay with rocks	0 ю 10	
3	dark brown clay with lots of rock, charcoal flecks present	10 to 20	20 ceramics 21 lithic artifacts
3	bedrock	30 to 40	

* NH bone - Nonhuman bone

Seven auger tests were placed on the site in the northwest corner of the related grid units. The depths of the augers ranged from 20 cm to 52 cm. Three of the tests did produce artifacts. Grid 98N/97E recovered 3 ceramics at 32 cm, 99N/97E had 1 ceramic at 32 cm, and 100N/95E had 1 sherd at 12 cm. All the auger tests reached sterile soil and the augers continued down until bed rock was encountered. The strong brown soils underlie the site at 30 to 33 cm below the present ground surface.

A total of 66 artifacts were collected from the site. The ceramics totaled 63 and consisted of Jornada Brown, Chupadero Black-on-white, El Paso Polychrome, and Redwashed Brown. The lithic artifacts consisted of chert core flakes with no retouch.

<u>Evaluation</u>: The Little Crcek site has the potential to produce subsurface features even though a natural gas pipeline has cut through the site. Artifacts are present on the berm of the backdirt and a fair amount of recovered subsurface artifacts suggests that cultural remains may be present. Excavation of this site will help us develop a much needed data base for the area. Additional excavation is recommended for this site because it is likely to yield important information on the prehistory of the area.



Figure 4. LA 111747 site map.

DISCUSSION

The three sites within the project area range from the Middle Glencoe (A.D. 900 to 1100) to Late Glencoe (1100 to 1350) phases. The testing revealed the possibility of subsurface features, especially at LA 3334, which may have more pithouses below the surface. It is anticipated that the site will yield datable remains through archaeomagnetic sampling, radiocarbon analysis, and ceramic typologies.

A total of 1,175 artifacts were recovered from the sites. This includes 861 ceramics, 301 lithic artifacts, 1 biface, 3 pieces of ground stone, and 10 faunal remains. The Angus site produced ceramic types that are indicative of the Late Glencoe phase. They consist of Rio Grande Glaze A, Chupadero Black-on-white, El Paso Polychrome, Indented Corrugated, Lincoln Black-on-red, Three Rivers Red-on-terracotta, Redwash Brown, Broadline Red-on-terracotta, and Jornada Brown.

LA 2924 and LA 111747 are thought to represent Middle Glencoe phase sites. Although the artifact assemblage is small, the ceramics have allowed the chronological placement of the sites. Chupadero Black-on-white and Jornada Brown were found on both sites. According to Wiseman (1992) these types fall between the Early and Late Glencoe phases. Testing revealed that both sites had depths of 30 cm. No features were found during the testing program; however, it is a possibility that most of the sites have been covered over by NM 48.

The lithic artifacts were mostly core flakes and angular debris. The material types were mostly chert, of various colors and quality, and chalcedony. At LA 3334 one broken biface of white chert was recovered from Test Pit 3. No other formal tools were found. The Alto site and the Little Creek site had a very small chipped stone assemblage.

One two-hand mano and two indeterminate ground stone fragments were recovered from the Angus site. No ground stone was present at LA 2924 and LA 111747. It is possible that more ground stone will be recovered from the sites since only a portion of the sites were tested.

The artifact assemblages at the Alto site (LA 2924) and Little Creek site (LA 111747) were small. However, there are subsurface materials present, suggesting that only a small portion of the cultural materials were recovered and there may be buried features. Pit structures may be present at the Angus site (LA 3334) along with outside use-areas and hearths.

16

DATA RECOVERY PLAN

Yvonne R. Oakes

Introduction

The two sites recommended for data recovery by OAS are all Ceramic period, Glencoe phase occupations probably dating between A.D. 1000 and 1350. LA 111747 is a small lithic and sherd artifact assemblage but may contain habitation units. It likely dates between A.D. 1000 and 1200, based on the recovered ceramics. LA 3334 has previously excavated domestic units and dates to the Late Glencoe phase, between A.D. 1200 and 1350. Because of the placement of all of the sites within the Glencoe phase of the Jornada Mogollon culture, we believe they may be able to answer important questions regarding cultural adaptations during this particular time period in the Sierra Blanca region of south-central New Mexico.

All are high-elevation sites, ranging between 2,088 m (6,850 ft) and 2,262 m (7,420 ft). The small site is within a ponderosa pine forest, while LA 3334 lies in the Rio Bonito Valley between the mountains.

Prehistoric populations of this time period in the Sierra Blanca Mountains are thought to be sparse. However, while a few larger sites have been excavated, the lack of systematic survey in the region precludes accurate assessment of site density. Sites have been considered basically agricultural with the presence of permanent settlements and a subsistence based upon a combination of faunal and wild plant resources along with agriculture (Kelley 1984). Storage facilities have been recorded and thus sites of this period could be either residential or logistical resource acquisition areas where overnight or short-term camping occurred. Storage allows for the collection of resources from site environs and their return to the residential base in either a processed or unprocessed form, depending on the amount of resources, their preservability, and the distance to be conveyed. Extended resource monitoring could require the use of fieldhouses in some cases.

The degree of dependence on agriculture versus hunting and gathering can vary greatly among ceramic period groups. Therefore, sedentism for such populations can no longer be automatically assumed, with seasonal mobility currently thought to be more common than previously realized (Kelly 1992; Young 1993; Nelson and Anyon 1996). The degree of mobility for these ceramic-using groups, particularly LA 3334, will be examined in terms of use of storage facilities, permanent architecture, interior hearths, and seasonality of subsistence resources. The degree of dependence on agriculture may or may not correlate with residential mobility (Lightfoot and Jewett 1986; Rocek 1996).

Cultural material recovered from the sites will be used to address these questions of mobility and subsistence adaptations in the Sierra Blanca region. For example, expedient lithic tool manufacture is often considered evidence of more sedentary groups (Moore 1993). In general, artifacts will be subject to traditional analyses and those specifically proposed in this report. We will also examine the investment in domestic architecture, storage facilities, and the type and amount of structural re-use or reconstruction, as indicators of long-term residence. Sourcing of recovered resources (floral, faunal, lithic raw material, and ceramics) is also important for understanding the mobility adaptations of site residents.

Specialists will be employed to undertake these studies, where necessary. Palynological, phytolith, and macrobotanical samples will be taken from appropriate pits, structures, hearths, floors, and cultural fill.

The data will be compared to the other Glencoe phase sites excavated in the Sierra Blanca region to broaden the subsistence data base for the area. Through the examination of mobility patterns and subsistence resources, our knowledge regarding the diversity that might be displayed by the various sites should be expanded significantly.

Research Domains

Because LA 111747 is somewhat unknown in its potential to address specific theoretical questions, we have selected basic areas of concern that can be fleshed out if substantive data are recovered. These research domains include determining the accurate chronological placement of the site, assessing site function and type, and examining the subsistence adaptations as they vary between sites and between other sites in the region.

Chronometric Placement of Sites

Correct placement of sites within a regional settlement system is important for understanding temporal distinctions in ceramic usages, development of trade, fluctuations in subsistence resources, and general systemic change through time. Ceramic sites in south-central New Mexico are dominated by a variety of brown wares, often too broadly dated to accurately assign a site to a tight diachronic sequence. Thus, we see a Glencoe phase designation ranging from A.D. 450 to A.D. 1350 used by many archaeologists in the Sierra Blanca region. However, Sebastian (1989) suggests the date of A.D. 900 for the beginning of the phase and Farwell et al. (1992) use A.D. 1100. To employ a dispersion as broad as 900 years, with its implications for similarities in cultural adaptations, is clearly not useful nor is it probably accurate. There is definite change through time, at least in decorated wares and, almost assuredly, in architectural styles as well. Therefore, the Glencoe phase should be considered to be poorly defined and dated with only seven absolute dates obtained from nearby sites (five dendrochronological dates from Kelley's Rio Bonito work [1984] and two archaeomagnetic dates from Farwell et al.'s [1992] sites). The majority of dates for Glencoe and other phases in the region have been derived solely from ceramic cross-dating. But because painted and white wares do evolve systematically, they will provide a basis for chronometric site placements on this project. Presently, we have only a sampling of temporally diagnostic sherds from the two smaller sites to indicate the time of occupation. However, every effort will be made to obtain absolute dates.

Architectural features are present, at least at LA 3334, and cultural units both within and outside of these features, such as hearths, roasting pits, and storage pits, should provide charcoal or burned surfaces for radiocarbon, archaeomagnetic, and possibly tree-ring sampling. (LA 3334 is probably the only site where tree-ring dating may be possible.)

Site Function

Because of the limited nature of the testing program, it is unclear if LA 111747 is a short-term

campsite or specialized resource acquisition area (limited activity site), or if it is actually a small residential site. Data recovered from the excavations regarding the types of artifacts and structures present, as well as the range of activities represented, should resolve this issue and provide the means to assess site function for all sites. An examination of subsistence items, such as floral and faunal species utilized, will inform on availability of resources, their seasonality of use, and degree of processing. The types of existing features will also allow for a determination of site functions. Are there walled units for habitation with ancillary hearths, storage pits, and roasting ovens? Are the hearths interior or exterior to the rooms? Also, the analysis of structural diversity on the three sites and other Glencoe phase sites should reflect potential mobility strategies of site occupants. Expedient investment of labor in dwellings, hearths, and storage facilities should be indicative of more mobile adaptations. More mobile assemblages should contain less diversity and density than sedentary ones. Also, the types and amount of artifact debris (ceramics, lithic artifacts, ground stone, nonhuman bones), can be used to determine what activities were carried out and for how long the site was occupied, based on amounts of debris accumulation (Varien and Mills 1997).

Length of occupation is always meshed with site function. How long each site was occupied is critical when assessing activities that occurred on the site. Intensity of investment in architectural construction, variety and amount of ceramics, multiplicity of lithic artifact types, for example, will be examined in this regard. The study of above-mentioned accumulation rates of discarded materials is another approach to determining relative duration of site use.

Subsistence Adaptations

The recovery of macrobotanical and palynological remains is key to understanding subsistence utilization on the sites. Flotation and pollen samples will be taken from all obtainable cultural features. Comparing these data from the sites with other excavated sites in the vicinity (Kelley 1984; Farwell et al. 1992) should provide a strong characterization of Glencoe phase adaptations. The morphology of ground stone implements and their relative abundance will also be studied in light of Hard's model (1990) of changing form and function through time as related to dependency of site inhabitants on agriculture. He uses a mean mano length index to show that, through time, manos increase in length and grinding surface, which he believes suggests greater dependence on cultigens. Hard's methodology is currently being tested on sites in the Mogollon Highlands of west-central New Mexico (Oakes 1990). Also of interest is whether or not site inhabitants relied solely on available regional resources or traded for subsistence goods with groups from other regions, for example, the Rio Grande area.

It will be difficult to determine if economic stress was a factor in any resource utilization choices because of the restriction of data to a single period in the Jornada Mogollon cultural sequence. Therefore, comparisons with nearby sites from other periods will also be made. However, focus will be on intersite variability within this particular phase in hopes of arriving at some broad adaptational patterns, while being aware of possible individual site anomalies.

Dependency on agriculture is expected for LA 3334; however, it is unknown for LA 111747. Hearths, roasting pits, and storage facilities will be carefully sampled to ensure that potential cultigens are recovered. Ground stone implements may retain some of the materials previously ground on them; therefore, pollen samples or washes will be taken from as many ground stone surfaces as is feasible.

If site residents are limited in their mobility, then subsistence activities should be more

labor intensive and also indicate planning for future anticipated usc. If any of the sites maintained a seasonal round between the mountains and surrounding valleys or lowlands, only seasonally specific resources should be present. However, resource items may include those brought, or traded, into the sites from longer distances as well as those locally available.

Certain food items, such as maize and squash, sometimes require intensive scheduled monitoring, harvesting, or processing before being consumed or stored. If site assemblages indicate a stronger dependence on other floral and faunal resources, then we may assume that site dwellers were not to the point of being constrained by agricultural pursuits. Whether crops were necessary subsistence items, however, must be ascertained from comparison with other food resources. We shall look at percentage of storage and cooking vessels present, mano lengths and grinding surfaces, amount and kind of storage facilities, and relative percent of faunal resources utilized to assist in determining dependency on other food items.

Resources present in the forest surrounding the sites include fauna such as deer, antelope, probably bighorn sheep and elk, jaguar, cougar, bobcat, wolf, fox, coyote, rabbit, squirrel, prairie dog, rodents, muskrat, porcupine, badger, dove, turkey, quail, and freshwater fish (Kelley 1984:10-12). Available plant resources include piñon nuts, acorns, walnuts, berries, grasses, pigweed, saltbush, sunflower, mesquite beans, cactus parts, purslane, wild potato, and agave, to name a few. However, many of these resources are susceptible to variation in availability, amount of moisture present, seasonality, shifting in locale, amount of yield, and overutilization by humans. The question becomes whether these and similar resources would have been sufficient to maintain a semipermanent or year-round residence. What part did agriculture play, if any, in the decision to either move or remain in place? Was there an option involved in the employment of agriculture?

Speth and Scott (1985) examined over 4,500 faunal remains from nearby LA 2315, the Crockett Canyon site (incorrectly identified in their report as the Angus site). They noted an increasing use of faunal resources, such as larger mammals and turkey, between approximately A.D. 1100 and 1350. Eliminating climatic perturbations and population decreases, among other issues, they conclude this increase was due to changes in settlement and socioeconomic systems in the Late Glencoe phase as exemplified in site aggregation. Does this pattern prevail at LA 3334 and are the implications the same as arrived at by Speth and Scott?

Wills (1988a) believes high mountain environments would not have yielded enough surplus foods for winter consumption; therefore, if the decision to remain sedentary was in place, the practice of agriculture would have been necessary. He further states that evidence of agriculture in mountain areas may indicate a conscious decision to stay at these high elevations year-round (Wills 1988b:477). This is not to suggest that agriculture is a necessary prerequisite of sedentism, because if agriculture is intended as a supplement to hunting and gathering, then the two are not necessarily linked.

General Field Methods

A primary datum will first be reestablished for each of the three sites on the project, from which at least two baselines will be run. From these, a 1-by-1-m grid system will be laid out over each site. The elevation of each grid in relationship to the main datum will be taken from the northwest corner of each grid. All surface collections and excavation units will be made within this grid system. Hand tools such as trowels, shovels, picks, brushes, and dental picks will be used for

the excavation of cultural materials and features. Mechanical equipment will be used as an exploratory tool in conjunction with hand excavation at LA 111747 to ensure that no cultural features exist within the right-of-way. It will be used at LA 3334 to remove deep overburden from the site to expose subsurface cultural features that likely exist.

Excavation units will consist of 1-by-1-m grids placed initially in areas of artifact concentrations or possible locations of cultural features. 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 out from the exploratory grids to determine the nature and extent of any cultural deposits and features that are encountered. Surface-stripping by hand tools, and possibly mechanical equipment if overburden is deep, will be used to ensure that all subsurface features will be found.

Soil recovered from excavation procedures will be screened through ¹/₄-inch mesh bardware cloth, and all artifacts will be bagged by level. However, artifacts recovered from floors or other use surfaces will be mapped in placed and bagged separately. Pollen and flotation samples will be collected from all cultural features including middens, floors, or other use surfaces. In addition, an off-site pollen control sample will be collected for comparison with other site samples. Flotation samples will be taken from each cultural feature encountered. If available, charcoal, 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 sites where cultural features are not visible or where excavation units have not been placed. Any artifacts collected in this manner will be bagged by provenience and depth and saved for later analysis. Subsurface cultural deposits encountered in any auger tests will be further examined through grid excavations or trenched by a backhoe to determine their extent.

All features will be completely excavated and individual field forms filled out for each level excavated, detailing depth of level, type and amount of artifacts recovered, and soil type and color based on the Munsell scale.

All stratigraphic levels and profiles will be drawn along with plan views of each feature. Features will be photographed before and after excavation. The site, including all cultural features, locations of excavation units, and topographic changes will be mapped with a transit and stadia rod or a total station.

The discovery of human burials during the data recovery program may be likely. Should human remains be discovered, standard archaeological excavation techniques will be employed. These include the definition of the burial locale, the use of small hand tools to expose skeletal materials, 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 found and other sensitive cultural discoveries will be based on the Museum of New Mexico policy adopted March 20, 1986, "Collection and Display of Sensitive Materials" (SRC Rule 11) (see Appendix 1). If human remains or other sensitive materials are uncovered, 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.

Site-Specific Field Methods

LA 111747

This is a very light scatter of ceramic and lithic artifacts with subsurface depth of up to 20 cm. Earlier investigations by Woodbury (1952) recovered many more ceramics indicative of a Glencoc phase occupation. It is possible that any subsurface remains may now be under NM 48. The limited testing conducted on the site did not reveal any cultural features. Because all areas were not fully investigated, a minimum of six more excavation units and the placement of auger tests between those units at 1 m intervals will be carried out with hand tools.

If these further excavations do not reveal the presence of cultural features, mechanical equipment will be used to excavate two trenches running north-south through the length of the site to confirm the presence of culturally sterile soil. If cultural features are revealed by any of these methods, excavation will proceed according to the standard field methods outlined above. If subsurface deposits are not confirmed, no further hand excavations will be carried out on the site.

LA 3334

The site consists of known architectural features previously located at approximately 1 m depth in 1956. Today the site is covered with dense underbrush, head-high grasses, and an overrun pear orchard. Limited testing was conducted in four generally open areas of the site away from the known features. Testing reached depths of 88 cm indicating great cultural depth to the site.

Because of the dense ground cover, initial efforts will be spent in removing this material from the site surface through the use of axes, chain saws, and other nonground-disturbing tools. Excavation units will then be placed adjacent to those already opened up to further assess these areas for the presence of cultural features. Excavation procedures will also entail the opening up of at least one room that was dug in 1956 as a point of reference for our work and to ensure comparability in the associating of cultural levels. Other areas not investigated through testing will also be opened up through the placement of at least ten 1-by-1-m grids over the site surface. As cultural features are found they will be excavated according to the standard field methods outlined above. If no cultural features are located, mechanical equipment will be used to strip the remaining deep overburden on the site to ensure that other cultural features are not present.

Laboratory Analysis

Laboratory analyses will be conducted by the staff of the Office of Archaeological Studies and by specialized professional consultants where necessary. Analysis procedures will follow those standards established by the OAS. When brought in from the field, artifacts will first be washed or cleaned, sorted according to types, and then catalogued. Any remains that do not appear to be stable will be treated in consultation with the Museum of New Mexico's Conservation Department.

Ceramic Artifacts

Critical to the data recovery plan is the assignment of recovered ceramics to specific cultural sequences. These sequences are in need of much refinement as discussed earlier and particular attention will be paid to the chronometric placement of these sherds within dated cultural features. Therefore, a detailed analysis of morphological attributes will be undertaken. Artifacts will be identified by existing type name, vessel and rim form, vessel 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 from each site will be submitted for petrographic analysis to determine the composition or origin of the sherds. Clay sources for pottery production will be sought during the field excavations by a ceramicist and matched with sherd samples in the laboratory.

Issues concerning ceramic exchange are also important to the data recovery plan. Distinctions between the various brown wares found in southeastern New Mexico are important for determining the source of the sherds. It is possible that many of the decorated ceramics from the sites may have been produced in other regions and imported to the sites. Thus, temper from painted wares will be compared with that from similar sherds found in other areas.

Lithic Artifacts

Lithic artifacts will be analyzed to determine sources of material types, use-wear as related to site function, and degree of expediency in reduction and re-use. Attributes that will be studied include material type and texture, artifact type, use, and presence of thermal alteration. Attributes that will be monitored on 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. These studies should allow for an evaluation of reduction technology, tool production and use, and raw material production strategies.

Material type, texture, and presence of cortex will provide data on raw material selection and where procurement may have occurred. The presence of nonlocal materials will inform on the relative degree of mobility in acquiring lithic resources (Binford 1983). A cursory analysis of materials obtained from the testing program revealed that a variety of materials were selected with most being a local chert. These frequencies will be compared with those from other sites.

The type of lithic reduction strategies employed on the sites can be used to also assess mobility of site residents. Highly mobile groups tend to invest substantial amounts of labor in the production of multipurpose tools and also rework them for extended use. Less mobile groups use a more expedient technology with more locally available materials and the discard rate tends to be higher (Kelly 1988).

Comparison of lithic artifact data with other Glencoe phase sites in the area may assist in the identification of specific manufacturing techniques and use patterns that may inform on varying subsistence strategies of the different site types in the study area.

Ground Stone

Ground stone implements will be used to assist in the determination of site function and degree of dependency on agriculture. The artifacts will be examined for morphological type, shape, material selection, manufacturing techniques, and evidence of specific processing activities. Types of resources ground on the implements, as retrieved from pollen and macrobotanical samples, will supply information on the variety of substances exploited, their seasonality, and dominance of either agricultural or wild foods.

Fauna

The faunal analysis will focus on the identification of species utilized, age and season when procured, and bone elements selected. Butchering and processing methods will also be examined. Information from the faunal analysis will be used to aid in the determination of season of occupation on sites, hunting patterns, the degree of dependency on hunted food, and the overall subsistence strategies employed. The study by Speth and Scott (1985) on faunal resources from the nearby Glencoe phase Crockett Canyon site will be used to address their conclusions that large-game hunting increased toward the end of the phase.

Floral Remains

Floral remains obtained through macrobotanical and palynological samples will be identified by specific species when possible in order to inform on the plant selections made by site inhabitants. Their form of utilization will also be determined, as in ground vs. stored corn. The scason of acquisition of the various plant forms can be used to assess duration of site occupation. Plant typologies will identify whether domestication of cultigens occurred. Comparison with other floral assemblages in the area should give a more complete picture of floral resources used by Glencoe phase peoples.

Human Remains

If human remains are found, the analysis will include standard metric studies, aging and sexing of the remains, and documentation of pathologies, particularly those related to food stress. If bone tissue samples can be taken, they will be submitted for carbon isotope studies to determine the relative proportion of maize in the diet of site occupants. Burial removal will follow policies established by the Museum of New Mexico (see Appendix 1). Final disposition of human remains will be based on consultations carried out in accordance with federal regulations. This usually implies reinterrment near the place of discovery. However, no disposition will be completed until the wishes of the nearest Native American community, the Mescalero Apache Tribe, are known.

Chronometric Dating

All cultural materials that have the potential to produce absolute dates for the sites will be submitted to specialized laboratories for analysis. Radiocarbon samples will be sent to Beta Analytic, Inc. Standard counting procedures will be followed. Extended counting time or AMS (accelerator mass spectrometry) will be employed on a selected few samples, if warranted.

Archaeomagnetic samples will be analyzed by the OAS Archaeomagnetic Dating Laboratory. Treering samples will be submitted to the Laboratory of Tree-Ring Research, University of Arizona.

Research Results

A final report on the excavations and analyses will be published by the Office of Archaeological Studies in the *Archaeology Notes* series. This report will describe the excavations, types of analyses, and present interpretive results. 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 of the State Historic Preservation Division. A data set will also be produced and stored on computer disks for use by other researchers.

REFERENCES CITED

Binford, Lewis R.

1983 Working at Archaeology. Academic Press, New York.

Brown, David E.

1994 Great Basin Conifer Woodland. In *Biotic Communities: Southwestern United States and Northwestern Mexico*, edited by David E. Brown, pp. 52-57. University of Utah Press, Salt Lake City.

Case, Charles P.

1994 Rocky Mountain (Petran) and Madrean Montane Conifer Forest. In *Biotic Communities:* Southwestern United States and Northeastern Mexico, edited by David E. Brown, pp. 49-51. University of Utah Press, Salt Lake City.

Dunham, Roxanne K.

1980 An Archaeological Reconnaissance of the Proposed Sierra Blanca Airport, Lincoln County, New Mexico. Cultural Resources Management Division, Report No. 348. New Mexico State University, Las Cruces.

Farwell, Robin, Yvonne R. Oakes, and Regge N. Wiseman

1992 Investigations into the Prehistory and History of the Upper Rio Bonito Lincoln County, Southeastern New Mexico. Laboratory of Anthropology Notes No. 297. Office of Archaeological Studies, Santa Fe, New Mexico.

Fletcher, Thomas, F.

1997 Cultural Resource Survey for Proposed Improvements to NM 48 from NM 532 to NM 37 Lincoln County, New Mexico. Keystone Environmental and Planning, Inc. Albuquerquc.

Gabin, Vickie L., and Lee Lesperanace

1977 New Mexico Climatological Data: Precipitation, Temperature, Evaporation, and Wind: 1850-1975. W. K. Summers and Associates, Socorro.

Hard, Robert J.

1990 Agricultural Dependence in the Mountain Mogollon. In *Perspectives on Southwestern Prehistory*, edited by P. E. Minnis and C. L. Redman, pp.135-149. Westview Press, Oxford.

Higgins, Howard C.

1984 A Cultural Resource Inventory of Site "B" for the Proposed Sierra Blanca Airport, Lincoln County, New Mexico. Office of Contract Archeology, University of New Mexico, Albuquerque.

Human Systems Research, Inc.

- 1987 Site survey files. New Mexico Cultural Resources Information System, Archeological Records Management Section, Historic Preservation Division, Santa Fe.
- 1988 Site survey files. New Mexico Cultural Resources Information System, Archeological Records Management Section, Historic Preservation Division, Santa Fe.

Kelley, Jane

- 1979 The Sierra Blanca Restudy Project. In Jornada Mogollon Archaeology, Proceedings of the First Jornada Mogollon Conference, edited by P. H. Beckett and R. N. Wiseman, pp. 107-132. New Mexico State University, Las Cruces.
- 1984 The Archaeology of the Sierra Blanca Region of Southeastern New Mexico. Anthropological Papers no.74. Museum of Anthropology, University of Michigan, Ann Arbor.

Kelly, Robert L.

- 1988 The Three Sides of a Biface. *American Antiquity* 53:717-734.
- 1992 Mobility/Sedentism: Concepts, Archaeological Measures, and Effects. *Annual Review Anthropology* 21:43-66.

Lehmer, Donald J.

1948 *The Jornada Branch of the Mogollon.* University of Arizona Science Bulletin No. 17. Tucson.

Lightfoot, Kent, and Roberta Jewett

1986 The Shift to Sedentary Life: A Consideration of the Occupation Duration of Early Mogollon Pithouse Villages. In *Mogollon Variability*, edited by C. Benson and S. Upham, pp.9-34, New Mexico State University, The University Museum, Occasional Papers 15, Las Cruces.

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

1971 Soil Associations and Land Classification for Irrigation, Lincoln County. Agricultural Experiment Station Research Report No. 212. New Mexico State University, Las Cruces.

Moore, James L.

1993 Testing of Nine Archaeological Sites along State Road 502 near San Ildefonso, Santa Fe County, New Mexico. Office of Archaeological Studies, Archaeology Notes 32, Museum of New Mexico, Santa Fe.

Nelson, Ben, and Roger Anyon

1996 Fallow Valleys: Asynchronous Occupations in Southwestern New Mexico. *Kiva* 61(3): 275-294.

Noyes, Peter

1988 Historic and Prehistoric Land Use on Ft. Stanton Mesa: The Sierra Blanca Airport Archeological Project (Draft Final). Office of Contract Archeology Project No 185-272, University of New Mexico, Albuquerque.

Oakes, Yvonne R.

1990 Testing Results and Data Recovery Plan for Sites in the Mogollon Highlands, Catron County, New Mexico. Office of Archaeological Studies, Archaeology Notes 3, Museum of New Mexico, Santa Fe.

Peckham, Stewart

1956 Site survey files. New Mexico Cultural Resources Information System, Archeological

Records Management Section, Historic Preservation Division, Santa Fc.

Rocek, Thomas R.

- 1996 Sedentism and Mobility in the Southwest. In Interpreting Southwestern Diversity: Underlying Principles and Overarching Patterns, edited by P. R. Fish and J. J. Reid, pp.17-22. Arizona State University, Anthropological Research Paper 48, Tempe.
- Sebastian, Lynne
- 1989 The Ceramic Period. In Living on the Land: 11,000 Years of Human Adaptation in Southeastern New Mexico, by L. Schastian and S. Larralde, pp. 73-92. Office of Contract Archeology, University of New Mexico, Albuquerque.
- Speth, John, and Susan Scott
- 1985 Late Prehistoric Subsistence Change in Southeastern New Mexico: The Faunal Evidence from the Sacramentos. In *Proceedings of the Third Jornada-Mogollon Conference*, edited by Michael S. Foster and Thomas C. O'Laughlin, pp 137-148. *The Artifact*. El Paso Archaeological Society, vol. 23 (1-2). El Paso.

Thompson, T. V.

1972 Sierra Blanca Igneous Complex, New Mexico. *Geological Society of America Bulletin* 83(8):2341-2356.

Tuan, Yi-Fu, Cyril E. Everard, Jerold G. Widdison, and Iven Bennett

1973 The Climate of New Mexico. New Mexico State Planning Office, Santa Fe.

Varien, Mark D., and Barbara J. Mills

1997 Accumulations Research: Problems and Prospects of Estimating Site Occupation Span. Journal of Archaeological Method and Theory 4:141-191.

Wills, W. H.

- 1988a Early Prehistoric Agriculture in the American Southwest. Cambridge University Press, Cambridge.
- 1988b Early Agriculture and Sedentism in the American Southwest: Evidence and Interpretations. Journal of World Prehistory 2(4):455-488.

Wiseman, Regge

1992 Conclusions: The Crockett Canyon and Filingin Sites. In *Investigations into the Prehistory and History of the Upper Rio Bonito Lincoln County, Southeastern New Mexico*, edited by R. Farwell, Y. Oakes, and R. Wiseman. Laboratory of Anthropology Notes No. 297, Museum of New Mexico, Santa Fe.

Woodbury, Richard

1952 Site survey files. New Mexico Cultural Resources Information System, Archeological Records Management Section, Historic Preservation Division, Santa Fe.

Young, Lisa C.

1993 Mobility and Farmers: Adaptive Diversity in the American Southwest. Dissertation research proposal, University of Michigan, Ann Arbor.

APPENDIX 1: POLICY ON COLLECTION, DISPLAY, AND REPATRIATION OF CULTURALLY SENSITIVE MATERIALS

FILED WITH STATE RECORDS CENTER

1971 FEB - 5 MI 11: 14

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 Adopted: 01/17/91 AND REPATRIATION OF CULTURALLY SENSITIVE MATERIALS

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:
- "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;
- "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

MNM: Rule No. 11

-1-

- 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.

MNM: Rule No. 11 Amendment No. 1

(

-2-

Adopted 03/27/91

1 -2 /1 9 **15**

FILED WITH STATE RECORDS CENTER

1991 FEB - 5 AN 11: 14

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

Within five years of the date of adoption of Α. 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.

7.**T**

· (

c.

STATE RECORDS CENTER

1091 FEB -5 AM 11: 14

- 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 <u>de</u> <u>facto</u> 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.

MNM: Rule No. 11

-4-

FILED WITH STATE RECORDS CENTER

1991 FEB - 5 AN 11: 14

- 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.

- ---

(

STATE RECORDS CENTER

1991 FEB - 5 AH 11: 14

- 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.
 - в. entering into agreements for the When 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.

(

FILED WITH STATE RECORDS CENTER

1991 FEB - 5 All 11: 14

- . 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.
- The Museum reserves the right to 4. 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 such records of objects, or 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.

MNM: Rule No. 11

-7-

Adopted 01/17/91

2.

s. 1

(*

ł

· • • • • STATE RECORDS CENTER

1991 FEB - 5 AM 11: 14

calendar year, the D. Twice each 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.

-8-