

**ARCHAEOLOGICAL TESTING RESULTS FROM
LA 115266 AND LA 115268 AND A DATA RECOVERY
PLAN FOR LA 115266, ALONG U.S. 285, NEAR
ELDORADO, SANTA FE COUNTY, NEW MEXICO**

Stephen S. Post

**Museum of New Mexico
Office of Archaeological Studies**

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Stephen S. Post

**Submitted by Timothy D. Maxwell,
Principal Investigator**

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ADMINISTRATIVE SUMMARY

Between May 5 and May 13, 1998, the Office of Archaeological Studies, Museum of New Mexico, completed archaeological test excavations along U.S. 285 near Eldorado in Santa Fe County, New Mexico. Archaeological testing was completed at the request of the New Mexico State Highway and Transportation Department. The NMSHTD intends to widen the pavement within the highway corridor. The two archaeological sites were LA 115266 and LA 115268, which were originally recorded in 1996 by Michael P. Marshall.

LA 115266, the remnant of a jacal field structure, is a multicomponent artifact scatter with a deflated thermal feature and a burned surface. The deflated thermal feature could not be dated from associated artifacts or samples, but it appears to result from highly transient activities related to travel or low-intensity foraging. The probable jacal field structure remnant probably dates to the early A.D. 1200s, concurrent with the settlement of nearby LA 4. Excavation within and adjacent to the structure yielded sherds, lithic artifacts, animal bone, and oxidized adobe. The variety but low frequency and restricted distribution of the cultural materials suggests a short-term, probably seasonal, residential occupation. Based on the testing results, it is highly probable that intact cultural deposits exist at LA 115266 and that they have the potential to yield information important to the prehistory of the Santa Fe area and the eastern periphery of the Galisteo Basin. Data recovery is recommended, and a data recovery plan for LA 115266 excavation is included with this report.

LA 115268 is an artifact concentration within a stratum of charcoal-infused soil. This thin layer, extended over a 25 m area, but was only 1.5 to 2 m wide within the right-of-way. The artifact assemblage is diverse and reflects a full range of domestic, processing, and consumptive activities. Besides the midden deposit, no features were encountered in the right-of-way. Artifact dating suggests occupation during the early A.D. 1200s. Based on the testing results, LA 115268 has intact, buried cultural trash deposits. However, the cultural deposits occur in a narrow strip, which does not appear to contain architectural or processing features. It is expected that additional excavation would yield redundant information. The portion of LA 115268 within the project right-of-way does not have the potential to yield information important to the prehistory of the Santa Fe area and the eastern periphery of the Galisteo Basin, and no further archaeological work is recommended.

NMSHTD Project No. NH-285-5(11)285, CN 2981, and NH-285-5(12)284, CN 3275.
MNM Project No. 41.664 (Eldorado)

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INTRODUCTION

Between May 5 and May 13, 1998, the Office of Archaeological Studies, Museum of New Mexico, completed archaeological test excavations along U.S. 285 near Eldorado in Santa Fe County, New Mexico. Archaeological testing was completed at the request of the New Mexico State Highway and Transportation Department. The NMSHTD intends to widen the pavement within the existing highway corridor. Stephen Post and Tess Fresquez conducted testing at LA 115266 and LA 115268. Timothy Maxwell served as principal investigator.

The project area is within the reconstruction and partial realignment of a seven-mile section of U.S. 285 in Santa Fe County, New Mexico. The project extends from its south terminus at the junction of [REDACTED] to its north terminus at the junction of [REDACTED] [Fig. 1]). Legal descriptions of the sites are in Appendix 1.

The archaeological testing followed the procedures outlined in *Testing and Site Evaluation Proposal*. Archaeological testing focused on determining the age, nature, extent, and condition of the sites identified by Marshall (1996). This information is used to evaluate the potential of the sites to yield information important to the prehistory of the Santa Fe area and the eastern periphery of the Galisteo Basin.

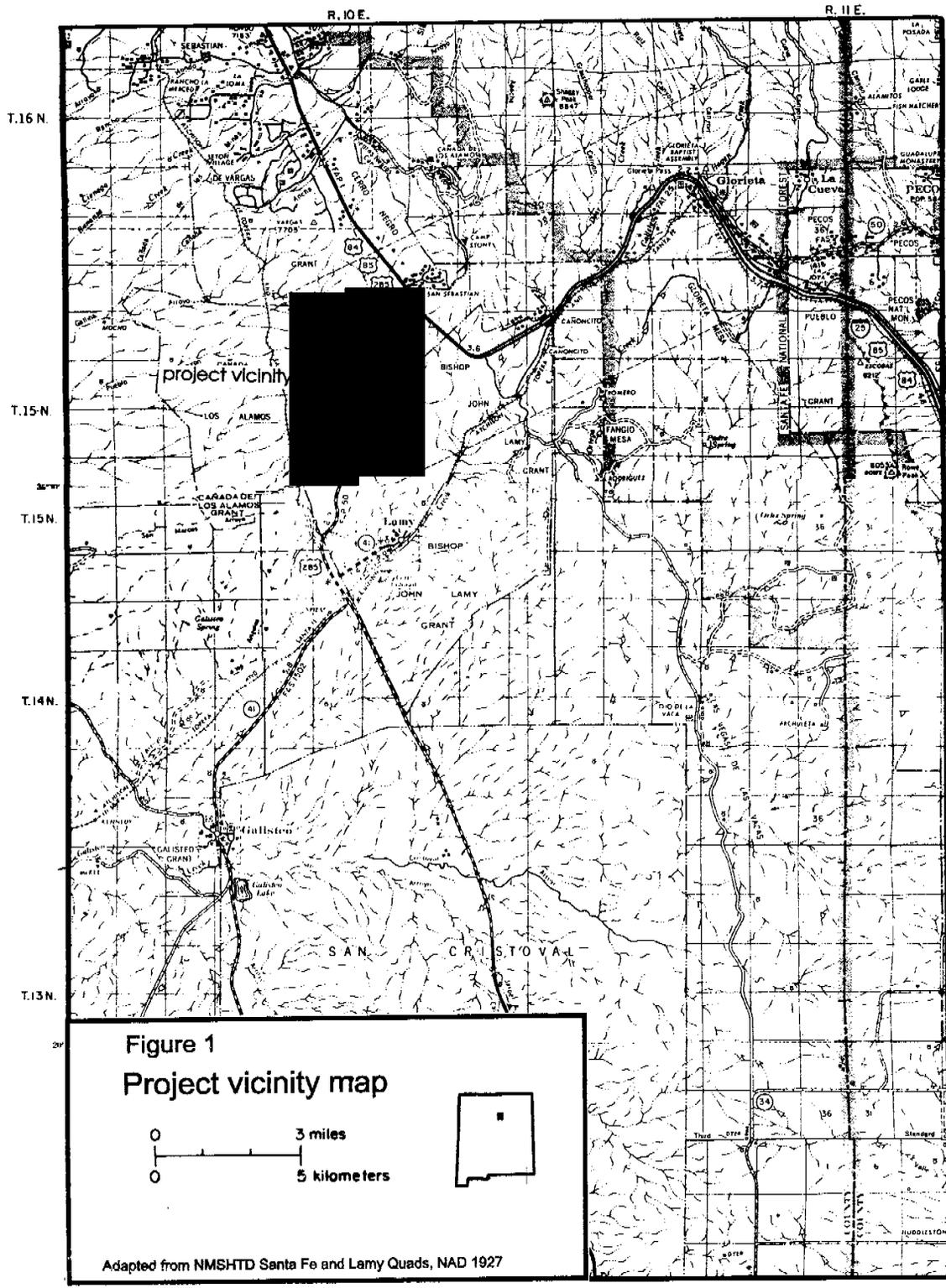
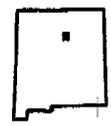


Figure 1
Project vicinity map

0 3 miles
0 5 kilometers



Adapted from NMSHTD Santa Fe and Lamy Quads, NAD 1927

PHYSICAL ENVIRONMENT

The sites are in the rolling plain that extends west from the base of the Sangre de Cristo foothills. This piedmont slope is drained by Cañada de los Alamos and Pueblo Arroyo and their tributaries. The major watercourses flow southwest and eventually empty into Galisteo Creek. The sites are at the interface between the sedimentary formations of the Galisteo Basin and the rugged Precambrian granite, gneiss, schist, and diabase of the foothills. Area soils are largely formed from the decomposing gravel of sedimentary and metamorphic origin, including the Ancha formation. Loamy terrace deposits along the watercourses and tributaries provide potentially arable land.

Important to the project area is the lithology of the Ancha formation. It contains reworked gravel deposits of pre-Cambrian age, primarily metamorphic granite, schist, and gneiss (Spiegel and Baldwin 1963). Large tabular cobbles of these materials outcrop on the terrace slopes and are found within the channels of the major arroyos, including Cañada de los Alamos. These cobbles were a primary source of raw material for grinding tools. North of the Santa Fe River, similar pre-Cambrian gravel is more heavily reworked and occurs in smaller sizes, affecting their utility as grinding implements. Lacking from the Ancha formation are the reworked gravel deposits of the Rio Grande and the Pennsylvanian age deposits of the Sangre de Cristo foothills. These deposits contain chert and quartzite that were sought for stone tool manufacture. Because no suitable chipped stone raw materials are locally available, all tools had to be made from imported materials. The lack of suitable raw material strongly conditions the frequency and density with which chipped stone artifacts occur in the archaeological record (Andrefsky 1994).

The soils in the project area correspond to Kelley's (1980:53-54) Piedmont Soil I, as defined by the Arroyo Hondo project. Piedmont Soil I associations in the project area include the Silver-Pojoaque association, undulating; Pojoaque-Rough Broken Land complex; and Fivemile loam.

The majority of the project area is covered by the Silver-Pojoaque association, undulating soils. Silver loam makes up 50 percent of the association and occurs on slopes of 1 to 5 percent. It is primarily a silty clay loam that has a subangular, blocky structure, moderately to very when wet, and ranges from alkaline to highly calcareous. Silver loam is mainly on the ridge tops. The Pojoaque clay loam makes up 30 percent of the association. It occurs on 5 to 9 percent slopes and is similar to other Pojoaque series soil, except that it has a clay surface layer. These soils are not suitable for dry farming (Folks 1975:47).

Fivemile loam is in the floodplain of Cañada del Rancho. Fivemile loam grades from loam to silty loam and has low alkalinity. Calcium carbonate content increases with depth. It has a water-holding capacity from 6 to 25 cm deep and effective rooting depth of 16 inches, with poor to moderate irrigation potential. Dry-farming potential is poor, though under optimal conditions, these soils could have been farmed (Folks 1975:87).

The biotic community is part of the Plains and Great Basin Grassland (Brown 1982). Kelley (1980) identified four plant communities within the Arroyo Hondo Pueblo sustaining area. Two plant communities described by Kelley (1980) are prominent near the project area: the piñon-juniper woodlands and the rabbitbrush community.

Piñon-juniper woodlands had 135 of the 271 plant species observed within the Arroyo Hondo pueblo catchment (Kelley 1980:60). Of these, 63 species are edible or have medicinal qualities.

However, with the exception of piñon, most of the species are not abundant or are most productive in disturbed soils. Economic plant species besides piñon found in the piñon-juniper woodland and in archaeological context include yucca, pricklypear, pincushion cacti, *Chenopodium* sp., *Amaranthus* sp., and Indian ricegrass. Wetterstrom (1986) suggests that intensive gathering of these species might offset years of moderately poor agricultural production. However, consecutive years of poor moisture would affect the productivity of wild plants and cultigens alike, rendering their buffering potential unpredictable. The availability of economic plant species in the piñon-juniper woodland indicates high wild-resource productivity, but conditions that favor grasses and shrubs might offset piñon-juniper productivity.

The rabbitbrush community of the arroyo channels and terrace slopes might provide the abundance and variability in plant species that is unpredictable for the piñon-juniper woodland. As a result of runoff, flooding, and erosion, arroyo channels and terraces are more disturbed and support the grasses, shrubs, and succulents that are favored in disturbed conditions. The arroyo channels or terraces also may have been dry farmed, which would have left disturbed soils while lying fallow. Plant species of the rabbitbrush community include pricklypear, yucca, *Chenopodium* sp., *Amaranthus* sp., and Indian ricegrass.

The area has a semiarid climate. Most of the local precipitation occurs as intense summer thunderstorms that produce severe runoff and little usable moisture. The area receives an average of 229 to 254 mm of precipitation per year and a mean snowfall of 356 mm (Kelley 1980:112). The growing season ranges from 130 to 220 days and averages 170 days. The last spring frost usually occurs in the first week of May, and the first fall frost occurs around the middle of October. The mean yearly temperature is 10.5 degrees C.

CULTURAL-HISTORICAL BACKGROUND

The cultural-historical background will cover the adaptations and periods that are represented by the archaeological record of LA 115266 and LA 115268. The review is general, and specific information is drawn from investigations along the Arroyo Hondo and Cañada de los Alamos. For detailed information on sites occurring along but outside the project corridor, the reader is referred to Marshall (1996). For general syntheses of northern Rio Grande prehistory, Dickson (1979), Stuart and Gauthier (1981), Cordell (1979), and Peckham (1984) are good sources of information.

The Pueblo Period

The chronology and cultural sequence of the Pueblo period traditionally follows Wendorf and Reed's Rio Grande sequence. Though this cultural sequence has been refined and subdivided, it still serves as a basic chronological and developmental baseline for ancestral Pueblo settlement dynamics in the middle and northern Rio Grande.

Developmental Period (A.D. 600-1200)

The Developmental period (Wendorf and Reed 1955) has been divided into Early (A.D. 600-900), Middle (A.D. 900-1000), and Late (A.D. 1000-1200) subperiods (Dickson 1979). These more refined temporal frameworks roughly correspond to the Pecos Classification, developed by Kidder (1924).

Early Developmental sites are uncommon in the northern Rio Grande (Wendorf and Reed 1955:138). Archaeological survey at Cochiti Reservoir found only 12 sites that could be assigned to this period (Biella and Chapman 1977:203). Current excavation along NM 22 near Cochiti Reservoir has revealed several sites with substantial residential occupations that may date to the late A.D. 700s or 800s. These sites may represent the earliest settlement of the lower northern Rio Grande by ancestral Pueblo farmers. McNutt (1969:70) found no Early Developmental components north of La Bajada and White Rock Canyon. Only two nonresidential components from the early Developmental period have been recorded in the south Santa Fe area (Dickson 1979; Scheick and Viklund 1989). In the eastern Galisteo Basin only five components may date to this period (Lang 1977; Scheick and Viklund 1989). The lack of extensive sedentary settlement suggests that there was a long-term hunter-gatherer pattern in the northern Rio Grande. This continued focus on hunting and gathering may be attributed in part to the rich resource diversity of the northern Rio Grande Valley, forestalling an early reliance on small-scale farming (Cordell 1979:2).

The Middle Developmental period (A.D. 900-1000) showed an increase in sites in the northern Rio Grande. Excavations in the Santa Fe and Tesuque river valleys revealed pithouses associated with contiguous surface rooms, and perhaps a kiva (Honea 1971; McNutt 1969:58). These sites do not necessarily suggest that population increased. Instead, the settlement and subsistence pattern had shifted from highly mobile, seasonal occupations, which left ephemeral archaeological remains, to a more sedentary lifestyle, which left substantial structural remains and artifact accumulations. The overall picture is still one of low population density. No sites from this period have been identified in or near the project area.

The Late Developmental period (A.D. 1000-1200) showed the first substantial population increase in the Santa Fe area, as inferred from increased site numbers and size (Wendorf and Reed 1955:140-41). Larger sites for the first time indicate village-size settlements with year-round residential occupation. The predominant pottery was Kwahe'e Black-on-white, originally identified by Mera (1935) as a local Rio Grande variant of Chaco-style pottery. The occurrence of this pottery style coincided with the growth of the Chaco system in the San Juan Basin in northwestern New Mexico. Site size in the northern Rio Grande area ranges from 1 to 100 rooms. Known sites include LA 835, north of Santa Fe; LA 114 (Arroyo Negro), along the Santa Fe River; and LA 191 (Mocho), along the Arroyo Hondo south of Santa Fe, one of the largest sites in the surrounding area (Stuart and Gauthier 1981). Pindi Pueblo (LA 1) had a minor Late Developmental component, indicating that some large Coalition sites had their origins in this period (Wiseman 1989:5). McNutt (1969:76-77), in providing a detailed description of this period, noted an abundance of manos, trough metates, and animal bones at the Tesuque Bypass site, suggesting that farming and hunting were the subsistence mainstays.

Coalition Period (A.D. 1200-1325)

The Coalition period is marked by three major changes in the archaeological record in the northern Rio Grande: (1) a significant increase in the size and number of sites, suggesting an increase in population and an extension of the early village-level organization noted in the Late Developmental period; (2) pithouses as domiciles were replaced by contiguous arrangements of adobe and masonry surface rooms; and (3) a change in pottery decoration from mineral paint to organic base paint (Wendorf and Reed 1955:143-144). These changes were of sufficient import to warrant a new period in the northern Rio Grande cultural sequence, which was divided into two phases: Pindi (A.D. 1220-1300) and Galisteo (A.D. 1300-1325) (Wendorf and Reed 1955:144). The decorated pottery was divided into Santa Fe Black-on-white and all its local variants (Stubbs and Stallings 1953) for the Pindi phase, and Galisteo Black-on-white (Mera 1935) for the later phase. Most of the large sites were established during the Pindi phase, and the largest continued to grow into the Galisteo phase in anticipation of the large villages of the Classic period. Site sizes ranged from 2 to 200 rooms, most often between 15 and 30 (Stuart and Gauthier 1981:51). Site numbers in all areas of the northern Rio Grande increased enormously at this time (Biella and Chapman 1977:203; Orcutt 1991; McNutt 1969; Lang 1977).

In the south Santa Fe area, villages were established at upper Arroyo Hondo Pueblo (LA 76 [Dickson 1979]), Arroyo Hondo Pueblo (LA 12 [Dickson 1979]), Pueblo Alamo (LA 8 [Allen 1973]), Chamisa Locita (LA 4 [Dickson 1979]), and Peña Negra (LA 235 [Allen 1973]). Previously uninhabited resource areas of the south Santa Fe area would have been divided as each village claimed the land and resources necessary for survival (Dickson 1979:79-81). Small sites that reflect a logistical resource procurement and processing strategy (Binford 1980) occur within a 2 km radius of Chamisa Locita (Viklund 1989) and Arroyo Hondo Pueblo (Ware 1991; Dickson 1979).

Upper Arroyo Hondo and Pueblo Alamo and Chamisa Locita were occupied contemporaneously during the Pindi phase. Continued growth occurred during the Galisteo phase at Arroyo Hondo and Chamisa Locita, but upper Arroyo Hondo and Pueblo Alamo were abandoned, suggesting that the sustaining areas along Arroyo Hondo and Cañada Ancha were shared by the neighboring villages but not between residents of the two drainages.

Classic Period (A.D. 1325-1600)

Wendorf and Reed (1955) mark the beginning of the Classic period (A.D. 1325-1600) by the appearance of Glaze A and locally manufactured red-slipped pottery (see also Mera 1935; Warren 1979). During this period, characterized by Wendorf and Reed as a "time of general cultural florescence," regional populations reached their maximum extent, and large communities with multiple plaza and room block complexes were established. Although the reasons for the appearance and proliferation of the glaze wares are debatable, many researchers, including Eggan (1950), Hewett (1953), Mera (1935, 1940), Reed (1949), Stubbs and Stallings (1953), and Wendorf and Reed (1955), believe that the similarity of the new pottery to White Mountain Red Ware is evidence for large-scale immigration into the area from the San Juan Basin and Zuni region. However, Steen (1977) argues that the changes seen during this period resulted from rapid indigenous population growth. Steen believes that the population growth was enabled by favorable climatic conditions, allowing Rio Grande populations to practice dry farming in previously unusable areas. Steen also suggests that there was "free and open" trade between the northern Rio Grande region and other areas, accounting for the observed changes in Classic material culture.

It is therefore unclear how much of the population increase during this period resulted from immigration or intrinsic growth. In addition to populations migrating from the west, it has been suggested that people came from the Jornada branch of the Mogollon to the south, and perhaps from northern Mexico (Schaafsma and Schaafsma 1974).

Large villages of this period found in the Santa Fe vicinity include the Aqua Fria School House site (LA 2), Arroyo Hondo (LA 12), and Cieneguilla (LA 16). However, by the time that Glaze B pottery appeared (ca. 1425), only Cieneguilla was still occupied by a substantial population. Dickson (1979) believes that abandonment of the large villages was due to drought, revealed by tree-ring studies (Fritts 1965; Rose et al. 1981), and subsequent agricultural failure.

ARCHAEOLOGICAL TESTING METHODS

Archaeological testing followed the procedures outlined in the previously approved testing and site evaluation proposal. Archaeological testing focused on determining the age, nature, extent, and condition of the sites identified by Marshall (1996).

Each site was relocated using the survey description and locational maps. One to two hours were spent flagging the surface artifacts and features to redefine the artifact distribution and the site limits. Artifact concentrations and features were expected to provide the best information on the depth, nature, and age of the cultural deposits.

A baseline was established for a 1 by 1 m grid system to provide the horizontal controls for the testing units. At least one 1 by 1 m excavation unit was established in each artifact concentration or at the edge of each surface feature. The modern topsoil was removed and screened through ¼ inch mesh. Excavation of the 1 by 1 m unit within an artifact concentration proceeded in 10 cm levels until the depth of the cultural deposit was determined. This depth ranged from 10 to 30 cm below the surface strip, depending on the setting and soil type. An auger test placed in the bottom of the 1 by 1 m unit reached bedrock, an impenetrable stratum, or a stratum that lacked cultural material between 30 to 60 cm below the surface strip. Recording of the excavation unit included provenience information, nature of the cultural deposit, artifact types and counts from excavated levels, a description of the soil type, and a stratigraphic drawing of the trench when multiple soil strata were encountered.

Portions of features were excavated to expose the profile of the feature fill and content. All of the feature area within the selected 1 by 1 m unit was excavated, unless it would have constituted excavation of more than one-half of the feature. Feature analysis included collecting a flotation sample for ethnobotanical analysis and radiocarbon dating, drawing a plan and profile map, describing the feature fill, and taking scaled photographs.

After the test excavations were complete, the site was transit-mapped, showing the site limits, artifact concentrations, excavation areas, important topographic features, and road features. A sample of all surface artifacts were recorded using standard OAS attribute lists. The chipped stone attributes included material type and texture, artifact type and function, dorsal cortex percentage, dorsal scar counts, artifact dimensions, and flake condition and platform type. Pottery was recorded by type, vessel form, and portion. Temporally or functionally diagnostic artifacts were collected for laboratory identification.

The excavations were backfilled when recording was complete. Sufficient stakes were left at the site to reestablish the baseline and excavation unit locations, if data recovery was determined to be necessary.

TESTING RESULTS

LA 115266

LA 115266 is along the west edge of U.S. 285, approximately 1.4 miles south of Interstate 25 and 60 m south of the second entrance to Eldorado (Marshall 1996:12-14). On the highway plans, LA 115266 is between centerline stations 19+000 and 19+100.

At an elevation of 2,134 m (7,000 ft), LA 115266 is on the eastern edge of the Cañada de los Alamos arroyo channel on the low bench or terrace that forms the limit of the prehistoric floodplain. The ground cover is predominantly grama grass and rabbitbrush with pricklypear and cholla cactus. Piñon-juniper is sparse to moderately abundant.

LA 115266 is in good condition, and the cultural deposit is 51 to 75 percent intact. Erosion has been retarded by the gentle slope, but Feature 1, along the right-of-way fence, is quite deflated. The surface context of the feature and artifacts indicate that post-abandonment deposition has been minimal.

LA 115266 is described by Marshall (1996:12-14) as "a single hearth area and a scatter of artifacts which extend over an area approximately 22 m in diameter. The hearth is defined by an area of charcoal stained soil and concentrated fire-cracked rock. The hearth area is six meters in diameter and is bisected by the west highway right-of-way fence. Surrounding the hearth is a diffuse scatter of artifacts and fire-cracked rock. The estimated depth of the hearth is 25 cm. Fire-cracked rocks in the hearth area average about 5 cm across and occur with moderate density."

The artifact assemblage includes "five chipped stone specimens and three ceramic sherds. The chipped stone artifacts consist of two small flakes of obsidian, two small white chalcedony flakes and one basalt flake. The ceramics include one plain gray utility ware with slightly micaceous paste and two unidentified carbon-painted white area sherds" (Marshall 1996:14).

Reexamination of the site and transit-mapping confirmed the site limits within the right-of-way that were described by Marshall (1996) (Fig. 2). Seven chipped stone artifacts and two Coalition period sherds were identified on the surface, and the deflated hearth was relocated. The artifacts were highly dispersed and low in number. However, the surface soil was charcoal-infused across most of the site in the right-of-way. Test units were placed at a three-artifact cluster at 99N/97E, at an exposed portion of the charcoal-infused deposit at 98N/101E, and at a Santa Fe Black-on-white sherd at 90N/99E. The latter unit was intended to provide information on the extent of the subsurface cultural deposit or artifact distribution, if such a deposit or distribution existed.

Excavation of 98N/101E exposed a burned surface overlaid by a 7 cm thick stratum of brown, charcoal-infused sandy loam. Two large daubs of burned adobe and numerous small oxidized fragments were mixed in the fill. The burned surface occurred throughout most of the grid. An artifact laden midden deposit was densest in the west half of the unit. Level 1, excavated to 10 cm below the modern ground surface, contained 14 sherds, 5 pieces of animal bone, 1 lithic artifact, and 5 daubs of burned adobe. The burned surface and oxidized adobe suggested a burned ramada or jacal structure (Feature 1).

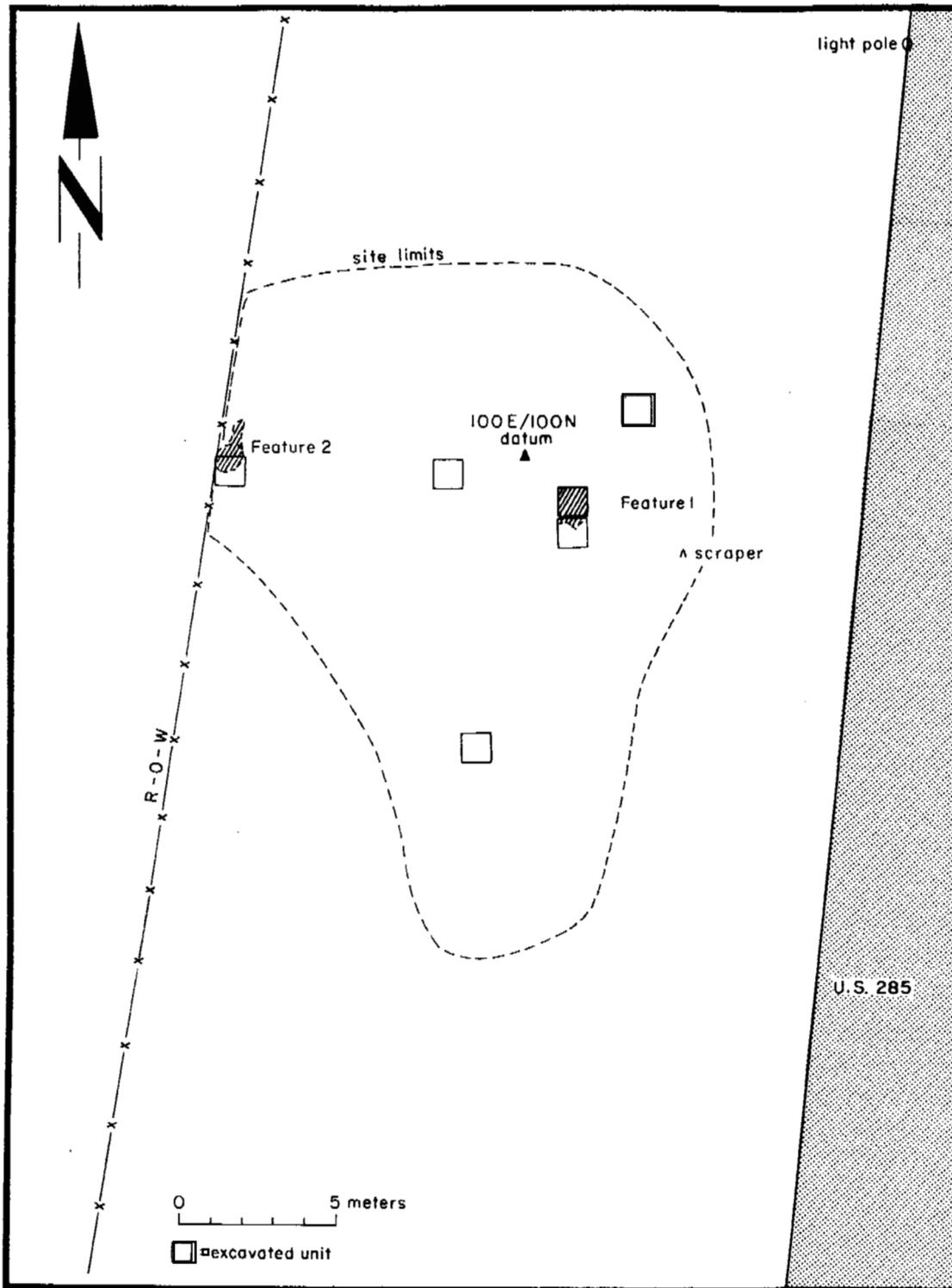


Figure 2. LA 115266 site map.

To more accurately evaluate the data potential of the deposit, 97N/101E was excavated to the same burned level. The burned surface only extended 10 to 15 cm to the south, and the artifact count decreased to one sherd and one lithic artifact. An auger test placed in the center of the unit was bored to 73 cm below Level 1. No cultural material or deposit was encountered in the auger test. The auger test revealed a series of colluvial and alluvial fine to coarse, sandy or sandy loam layers. Excavation of the test pit determined that the burned portion of Feature 1 did not extend to the south.

Excavation of 101N/103E further defined the extent of Feature 1. No artifacts or cultural deposits were encountered in 101N/103E. A few dispersed charcoal flecks and a charcoal infused stain 5 cm in diameter were present in the northeast corner, but there were no other indications that the grid was cultural. An auger test placed in the center of the unit revealed fine to coarse sand or sandy loam to 65 cm below the modern ground surface. Testing results showed that the possible structure and associated artifact-bearing deposit did not extend 3 m to the northeast.

Excavation of 99N/997E focused on the three-artifact cluster, 3 m west of Feature 1. The top soil in this area was also charcoal-infused. Four utility sherds and a Kwahe'e Black-on-white sherd were recovered from surface and surface strip. Excavation of Level 1 and 2 to 20 cm below the modern ground surface yielded one small utility sherd that was probably transported into the subsurface soil by root action or insect burrowing. The lower 5 cm of the excavation were a dense, blocky, clay loam. Auger testing to 55 cm revealed the same layers of sand or sandy loam with embreccated pea gravel. Besides the sherds, no other cultural material or deposit were encountered. Apparently, the cultural deposit associated with Feature 1 did not extend downslope to the west.

Test Unit 90N/99E was placed at one Santa Fe Black-on-white sherd 9 m south of Feature 1. Excavation focused on defining the relationship between the sherd and Feature 1 and associated refuse deposit or determining if the sherd represented a separate temporal component. Level 1 and 2 excavation yielded a sherd, partly burned peach pit, an obsidian biface tip, and part of a partially burned root that remained from a tree burn. The tree burn spread charcoal throughout the upper 20 cm, masking any charcoal or stained deposit that was left by cultural occupation. Level 3, excavated to 34 cm below the modern ground surface, a sandy loam mixed with calcium carbonate, was transitional to the heavy calcium carbonate sandy loam that underlies the cultural deposit. The presence of the biface tip within Level 2 suggests that the ground surface associated with Feature 1 sloped gently to the south away from the structure. The limited nature of the cultural deposit indicates that it dissipates to the south and downslope from the structure. The relationship between the downslope artifacts and Feature 1 was not precisely defined, but the occurrence of the biface tip on the old ground surface indicates that the areas are at least roughly contemporaneous, if not from the same occupation.

Based on the 90N/99E, 99N/97E, and 101N/103E excavations, it is clear that the main portion of the cultural deposit and Feature 1 are restricted to a 25 sq m area in the upslope portion of the site. The few artifacts that occurred in the test units reflect post-abandonment dispersion and probably some right-of-way modification associated with earlier road construction. The cultural deposit is shallow. No more than a 10 cm depth is indicated in the densest area in 98N/101E.

During survey, a thermal feature (Feature 2) was found along the west right-of-way fence, 10 m west of Feature 1. Feature 2 was described as a concentration of fire-cracked rock and charcoal-infused soil. The feature may have been disturbed by a utility line installation outside the right-of-

way. Within the right-of-way, Feature 2 appeared deflated and eroded. The south half of the feature was selected for investigation. The fire-cracked rocks and the limit of the charcoal-infused soil stain were defined by removing the upper 4 cm of loose sandy loam. This revealed a curved outline of stained soil, suggesting that the feature was oval-shaped. A 30 cm east-to-west by 50 cm north-to-south test pit was excavated within the southwest pit limit to determine the depth and condition of the feature fill. Excavation revealed an 8 cm deep deposit that was a mixed and deflated secondary sandy loam stained by disintegrated charcoal to a very dark gray (5YR 3/1, dry). No artifacts were recovered from within the feature, though an obsidian flake was recovered from the feature edge. No charcoal was available for a radiocarbon sample. A 4 l flotation sample was collected for ethnobotanical analysis.

Excavation of a portion of Feature 2 revealed a shallow, deflated, oval-shaped thermal feature (Fig. 3). Feature 2 had 27 fire-cracked or burned metamorphic cobbles lying on top of the very dark gray charcoal-infused feature fill. The fire-cracked rocks had 5 to 10 cm maximum dimensions and were not arranged in a formal manner. They appeared to be placed into an active fire, perhaps to form a platform for roasting or cooking. The estimated dimensions of the feature are 130 cm long by 85 cm wide by 7 cm deep. It is likely that erosion has reduced the original pit by at least 10 cm, exposing the fire-cracked rock and charcoal-infused soil. Feature 2 is 10 m from Feature 1, lacks temporally diagnostic artifacts, and seems to remain from a short-term hunting or foraging visit. It is not functionally associated with Feature 1 and cannot be assigned to a particular period, though it is probably prehistoric.

Artifact Assemblage

Test excavation and selective surface collection yielded 25 pottery sherds, 5 chipped stone artifacts, 1 nonhuman bone fragment, and 2 daubs of oxidized adobe. An obsidian flake and a flotation sample were collected from within or near Feature 2. The remainder of the cultural materials were recovered from the vicinity of Feature 1. In the Feature 1 area, the highest density of artifacts was recovered from the edge of the feature (97N/101E) and west of it (99N/97E).

Pottery. Pottery was the most common type of artifact recovered. The sherds tended to be small and represented minimal portions of 6 to 10 vessels. The pottery included decorated types, Kwahe'e and Santa Fe Black-on-white and utility wares, smeared indented corrugated, and plain wares. Pottery type frequencies by vessel form and temper type are provided in Tables 1 and 2. An inventory of pottery is presented in Table 5.

The utility wares, smeared indented corrugated, and plain ware are typical of assemblages associated with late Pueblo II and Pueblo III occupations (A.D. 1050 to 1325). Utility pottery is the most common found at large village sites, such as Arroyo Hondo Pueblo and Pueblo Alamo in the near vicinity, and small field camps or foraging sites such as those excavated at Dos Griegos (Lang 1992) and Rancho Viejo (Post 1998). Considerable variability in surface treatment and temper has been recorded for the larger sites (Habicht-Mauche 1993) and small sites (Lang 1992). Lang (1992:42) segregated a sample of the LA 75680 sherds by surface treatment into light, light to medium, medium, and heavy coil smearing. He found that the highest percentage of the sherds exhibited heavy smearing, which in his estimation was counter to the general trend from light to heavy smearing from early to late. LA 75680 was occupied in the late A.D. 1200s yet exhibited trends similar to the early A.D. 1400s component at Agua Fria Schoolhouse (LA 2 [Lang and Scheick 1989]). The small sherd size and low frequency assemblage have made surface treatment analysis less productive for the LA 115266 assemblage. The LA 115266 assemblage generally can

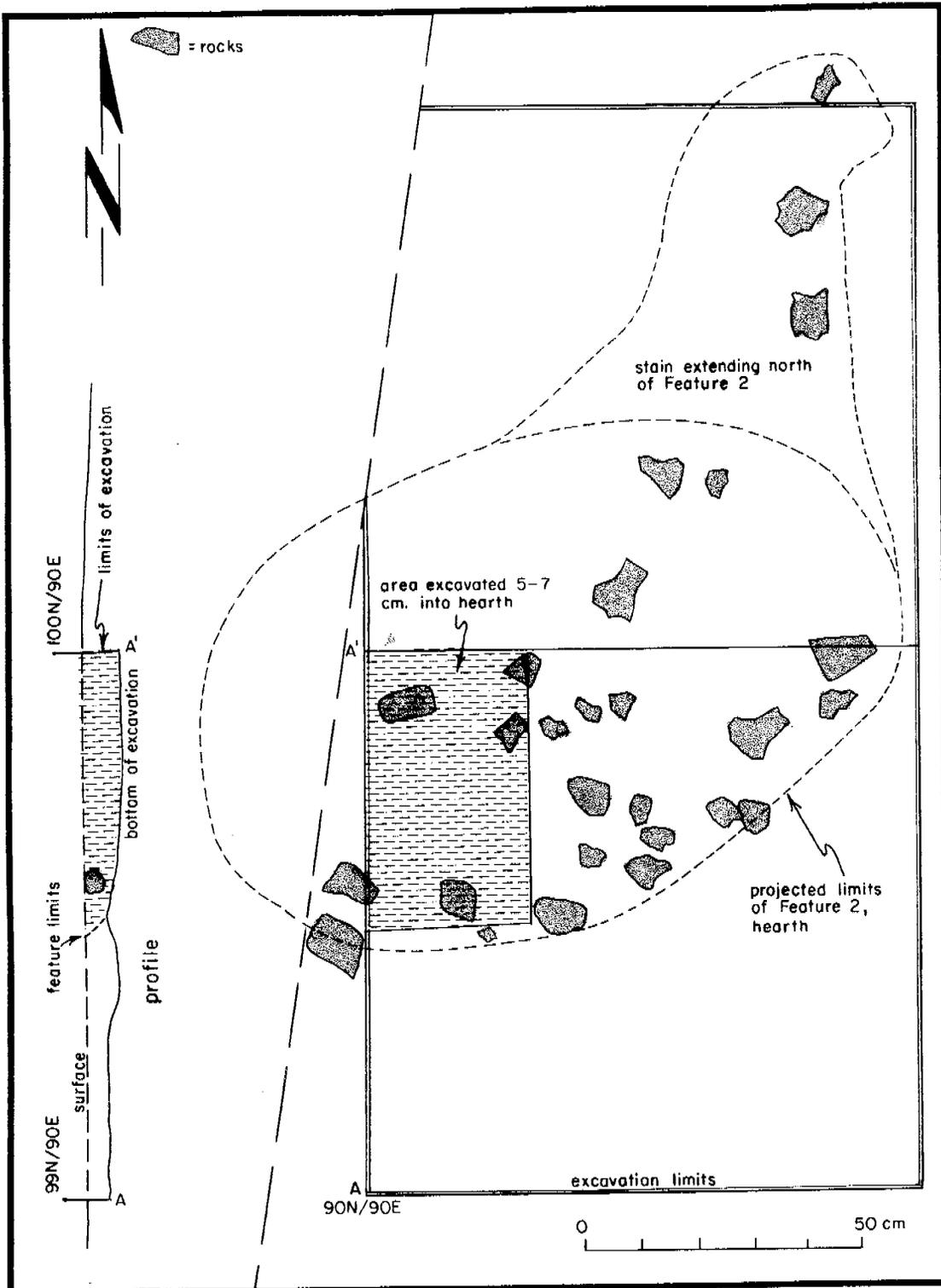


Figure 2. Plan and profile of Feature 2, LA 115266.

be said to have had a full range of light to heavy smearing, similar to that of LA 75680. This suggests some regional continuity in utility ware production or acquisition for sites along the Cañada de los Alamos.

The LA 115266 utility pottery exhibited limited variability in temper types. The three temper types, coarse quartz and feldspar, coarse quartz and crushed metamorphic rock, and coarse quartz and mica in a micaceous paste, reflect Sangre de Cristo foothill manufacture. These temper/paste types combined with the dark gray to black, high carbon content clays could have been obtained locally. Similar clays have been reported in the drainages of the Santa Fe River (Lakatos 1997) and along Arroyo Hondo (Habicht-Mauche 1993). The abundant mica paste plain ware is most likely from further north in the Tesuque or Nambe areas. No high-mica sources have been reported in the southern foothills, eastern Galisteo Basin, or Glorieta Mesa area. The temper types of the Pueblo Alamo assemblage are unreported (Allen 1973). From Arroyo Hondo Pueblo, two main temper groups were identified (Habicht-Mauche 1993:75). Granitic/gneiss temper was from local sources available in the immediate Arroyo Hondo area. It was suggested that the second group, a highly micaceous residual clay, occurred in the Nambe to Taos area. The micaceous paste sherds increased in frequency in the post-A.D. 1370 contexts. Neither temper type was abundant at LA 115266. The micaceous paste is similar to that of the plain ware sherds recovered from LA 115266. Lang (1992:43) describes three main temper types from the LA 75680 assemblage. These temper types were combinations of quartz, feldspar, biotite and muscovite micas, amphibolite, and other less abundant minerals. He also observed a low percentage of highly micaceous pastes that probably originated in the northern Tewa Basin and Picuris and Taos areas. The utility sherds from LA 115266 are more similar to those of the LA 75680 assemblage than those of the Arroyo Hondo Pueblo assemblage. This similarity indicates that the majority of the utility ware sherds were produced using raw materials that were locally available to the residents of Pueblo Alamo and Chamisa Locita, but different in geological composition from the Arroyo Hondo sources.

The decorated pottery included 10 sherds of Kwahe'e Black-on-white and 2 Santa Fe Black-on-white sherds. The Kwahe'e and Santa Fe Black-on-white pottery came from different excavation units and may represent different components, or their combined presence may reflect an early A.D. 1200s occupation, when both types were produced.

The Kwahe'e Black-on-white sherds were small (less than 1 cm maximum dimension), allowing minimal characterization of the paste and surfaces. Kwahe'e Black-on-white is most commonly recognized by its mineral paint decoration and fine-grained paste with sherd or fine quartz or crushed rock temper. Seven bowl sherds were from a single vessel, and the other sherds represented a single bowl and two jars. Kwahe'e Black-on-white temper from the LA 115266 sherds was fine quartz and fine silty paste quartz. Lang (1992:46) suggests that these tempers originated in the Tewa Basin. Kwahe'e Black-on-white is best dated between A.D. 1050 and 1225 (Breternitz 1966: 81; Lang 1982:175-177).

The Santa Fe Black-on-white sherds are from a single bowl. The sherds were classified based on the presence of an eroded carbon-painted design and light, blue-gray, fine-grained paste with very fine quartz and probably self-tempered. This paste type is the classic attribute for identifying Santa Fe Black-on-white. Santa Fe Black-on-white was the primary decorated pottery from A.D. 1200 to 1325 in the northern Rio Grande (Breternitz 1966: 95; Habicht-Mauche 1993). It was the first carbon-painted pottery produced in the northern Rio Grande and is typically considered to indicate social or economic connections with the northern San Juan Basin. Santa Fe Black-on-white was the primary decorated pottery recovered from Pueblo Alamo (Allen 1973) and LA 75680

(Lang 1992). The occurrence of Santa Fe Black-on-white at LA 115266 strongly indicates a connection between the larger pueblo communities along the Cañada de los Alamos and LA 115266.

Chipped Stone Artifacts. Five chipped stone artifacts were recovered from test units or selective surface collection. The artifact inventory is provided in Table 7. Though small, the artifact assemblage is interesting because of the high proportion of formal tools or utilized debitage.

The range of material types is similar to that of the Dos Griegos sites, where obsidian, chert, and chalcedony were recorded (Lang 1992). Chert and chalcedony could have been obtained from the gravel of the eastern Galisteo Basin or the Ancha formation gravel along the Santa Fe River. The obsidian, from the Jemez Mountains, was commonly used for tool production at Dos Griegos sites and Pueblo Alamo (Allen 1973: Plates 9 and 10; Lang 1992).

Artifact types include three core flakes, a piece of angular debris, and a late-stage biface fragment. The core flakes were fragmentary and lacked dorsal cortex. They originated from partly reduced cores and probably represent expedient tool production. The obsidian core flake was associated with the deflated hearth or roasting pit, Feature 2. It may not be temporally or functionally associated with the Feature 1 burned structure assemblage.

One of the core flakes has a modified edge and was probably used as a scraper. It exhibited unidirectional retouch along one margin. The edge angle was 60 degrees, and it exhibited heavy step fractures, indicating that the scraper had been repeatedly used on hard or very rough materials, such as wood or coarse fiber (Schutt 1983).

The late stage biface fragment is the tip and upper portion of an obsidian blade. One surface of the tool fragment exhibits an imperfection that interrupted flake scar termination and eventually resulted in breakage and discard. It is possible that this tool was brought into the field in unfinished condition or broken and was discarded when replacements were available or its use became impractical due to its small size.

Animal Bone. A single unburned black-tailed jackrabbit pelvis fragment was recovered from 97N/101E at Feature 1. Small mammals are common inhabitants of riparian and field environments.

Adobe Daub. The two adobe daub clumps recovered from 97N/101E at Feature 1 remain from a burned shade shelter or field structure. Many smaller oxidized adobe clumps were observed in the shallow feature fill, but they were not collected. The daubs are very hard, oxidized (7.5YR 5/4 yellow red) sandy clay. One daub shows a beam or post impression, indicating that the adobe may have been placed at the base of posts to stabilize a shade or jacal structure. The occurrence of the adobe mixed with trash and associated with a burned surface suggests that the deposit has undergone postabandonment disturbance.

Summary

LA 115266 test excavations revealed a more complex site than indicated by the survey. The testing results suggest that at least two temporal or functional components are represented. These components are deduced from the spatial separation of Feature 1 (the burned structure remnant),

Feature 2 (the deflated thermal feature), and the different manufacture periods for Kwahe'e and Santa Fe Black-on-white pottery. The Kwahe'e and Santa Fe Black-on-white pottery were spatially separated by 8 m, and the Santa Fe Black-on-white pottery may represent a third component.

Regardless of whether the artifact and feature assemblages represent two or three components, it is clear that they remain from ephemeral or seasonal occupations. Feature 1 exhibits the best evidence of a domestic occupation and is likely the remains of an agricultural field structure. Domestic occupation is indicated by the structural remains, the mix of serving and utility pottery, mixed expedient and formal tool production and use, and the single jackrabbit bone. This high-diversity, low-frequency assemblage may have accumulated from a single-season occupation, when a shallow sheet trash midden accumulated and spread out by postabandonment processes.

Feature 2, the deflated thermal feature, has been truncated by right-of-way fence construction and utility line construction outside the right-of-way. It is deflated and eroded and exhibits limited integrity and data potential. The single obsidian flake recovered from the feature perimeter is probably associated. Feature 2 could not be dated, but its distance from Feature 1, 10 m, indicates separate functions.

LA 115266 is a multicomponent site that has been formed by successive brief overnight or seasonal occupations. Two components can be dated to the A.D. 1050 to 1325 period. The third component (Feature 2) is temporally unknown. The discontinuous formation of LA 115266 undoubtedly reflects seasonal use of Cañada de los Alamos for foraging, farming, and travel by ancestral Pueblo and perhaps later Pueblo or Hispanic populations.

LA 115268

LA 115268 is along the west edge of U.S. 285, approximately 1.6 miles south of Interstate 25 and 60 m north of the south entrance to Eldorado (Marshall 1996:12-14). On the highway plans, LA 115268 is between centerline stations 18+500 and 18+600.

At an elevation of 2,098 m (6,880 ft), LA 115268 is approximately 100 m east of the eastern edge of the Cañada de los Alamos arroyo channel on a low rise that is oriented northeast to southwest. This low rise overlooks swales that may have been suited to dry farming. The ground cover is predominantly grama grass and rabbitbrush with pricklypear and cholla cactus. Piñon-juniper is sparse to moderately abundant.

The condition of LA 115268 is difficult to evaluate. To the west of the right-of-way, the potential for extensive intact cultural deposits is high. Along the 1.5 to 2 m wide strip within and along the west right-of-way fence, an intact sheet trash deposit exists. It is eroded and deflated at the roadcut edge with no intact cultural deposits extending beyond the 1.5 to 2 m zone. While it is tempting to assign the midden deposit to the potential pit structures that Marshall has suggested are outside the right-of-way, it is just as likely that the midden remains from a residential component that was removed by earlier road construction. Therefore, the association between the 1.5 to 2 m wide strip and other components is uncertain.

LA 115268 is described by Marshall (1966:16-18): "This site probably contains one or two pithouses and exhibits a rather dense scatter of artifacts over an area, approximately 30 to 40 m. Dark charcoal laden sediments, in an area 8 by 15 m, are either a midden or midden apron

surrounding a pithouse. Artifact density in the midden area is high and scattered artifacts are present throughout the site area. No evidence of surface rooms is visible."

The artifact assemblage includes chipped and ground stone artifacts and decorated and utility ware pottery. "Chipped stone artifacts include two flakes of obsidian and three specimens of white chalcedony. One of the chalcedony specimens is a large side scraper. A single fragment of a ground sandstone artifacts was also found. Ceramic artifacts include 19 plain gray utility sherds, 15 corrugated indented sherds, one neckbanded sherd, and one Santa Fe Black-on-white sherd. The utility ware ranges from brown to gray and is slightly micaceous. The indented specimens are occasionally smoothed and indentations are irregular. The ceramics suggest a Pueblo III occupation of probable Santa Fe Phase affinity" (Marshall 1996:16-18).

Reexamination of the site and transit-mapping identified a charcoal-infused soil lens mixed with decorated and utility ware pottery and few pieces of chipped and ground stone. The apparent midden deposit was 25 m long and 1.5 to 2 m wide. Many artifacts were on the roadcut slope and had eroded out of the intact portion of the cultural deposit. (Fig. 4). Test units were placed within the main portion of the midden at 81N/98E and 89N/98E near the south extent of the deposit at 74N/98E and the north extent of the deposit at 93N/98E. The test units were surface stripped and excavated in 10 cm levels to depths ranging from 30 to 38 cm below the modern ground surface. Five auger tests were placed between test units to investigate the condition and continuity of the cultural deposit. Auger tests were bored from 65 to 90 cm below the modern ground surface.

Excavation of the four test units revealed three natural strata with cultural material mixed in the upper portion of the highest subsurface level, recorded as a separated stratum. Stratum 1 was a 5YR 4/3 reddish brown (dry) loose, modern, sandy loam that was somewhat stabilized by grama grass roots. It was poorly consolidated. It had a loose blocky structure and a wavy and indistinct boundary. It was slightly plastic when moistened. It contained 1 to 2 percent pea gravel of metamorphic origin. This is the modern topsoil that covers the excavation area.

Stratum 2 was a 5YR 3/3 dark reddish brown (moist), consolidated clay sandy loam with a moderately blocky structure and an abrupt, wavy boundary. It contained 1 to 3 percent pea gravel of metamorphic origin. The soil was charcoal-infused and contained variable densities of artifacts. This layer was the cultural midden, which was 12 to 18 cm thick. The soil contained abundant charcoal flecks and fragments with small clods of oxidized adobe from hearth or thermal feature clean-out and maintenance. Large bowl sherds lying flat indicate that this portion of the midden deposit is relatively intact.

Stratum 3 was a 5YR 4/4 reddish brown (moist) consolidated clay loam with moderately blocky structure, an abrupt, wavy boundary, and moderate to high calcium carbonate content. The soil contains 2 to 5 percent pea gravel of metamorphic origin and a few fist-sized metamorphic clasts. The calcium carbonate and gravel content increase with depth. This stratum is 12 to 20 cm thick. No cultural material was recovered from this stratum.

Stratum 4 was a 5YR 6/4 light-reddish brown (dry), sandy loam that was poorly consolidated. It had a weak blocky structure and decreased to a complete absence of gravel or clasts. This stratum was of unknown depth but clearly represents the Pleistocene soil that underlies the gently sloped piedmont of the Cañada de los Alamos drainage basin. No cultural material was found in this stratum.

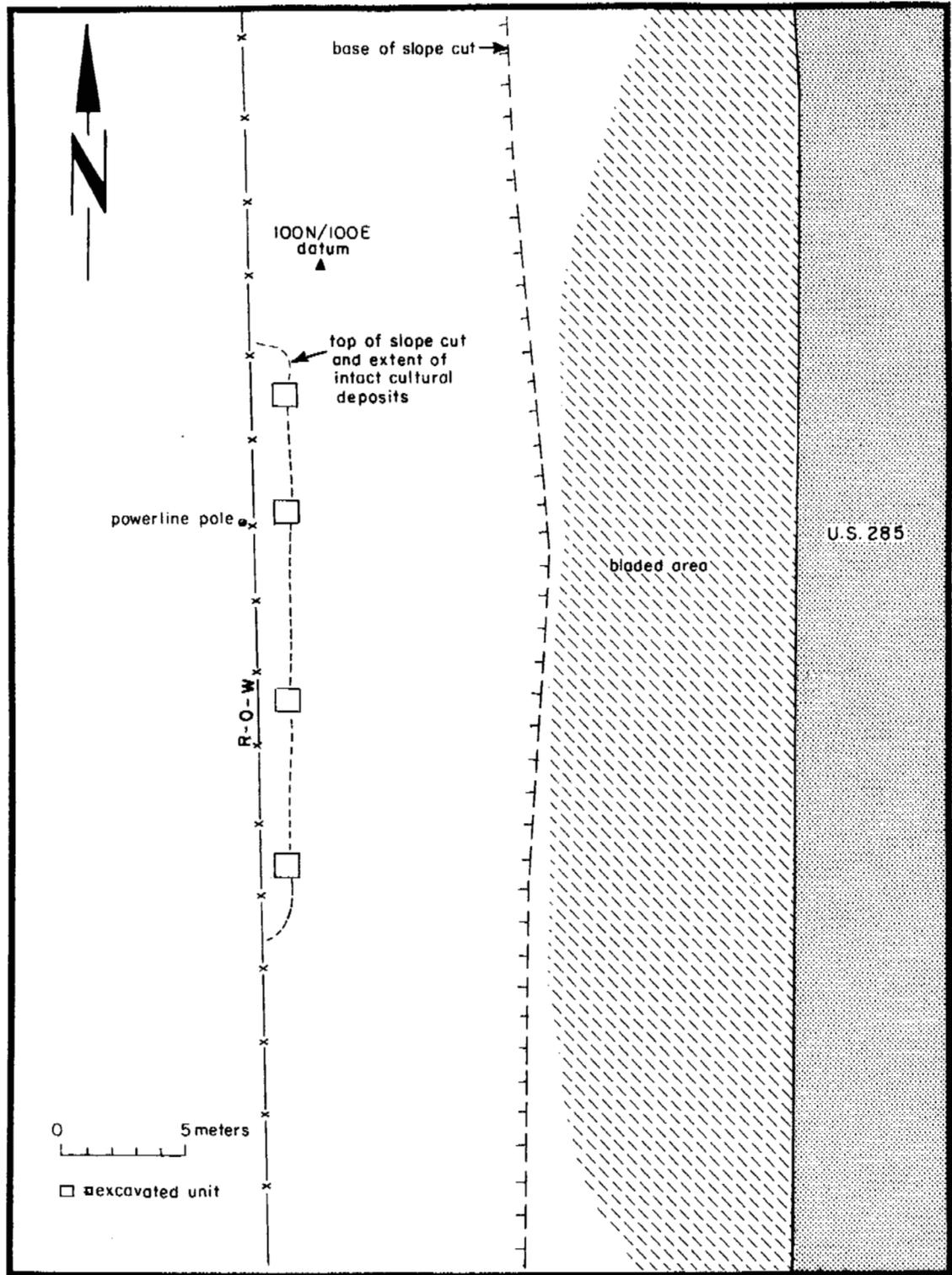


Figure 4. LA 115268 site map.

Auger tests at the southwest corners of 79N/97E, 86N/97E, 92N/97E, 96N/97E, and 99N/97E confirmed the stratigraphy defined by the test pit excavations. Auger tests suggested that the density and thickness of the cultural deposit varied across the 20 m extent.

Artifact Assemblage

Test excavation and selective surface collection and field recording yielded 189 pottery sherds, 11 chipped stone artifacts, 3 ground stone artifacts, and 5 animal bone fragments. All artifacts were recovered from Stratum 2 or eroded contexts on the surface of the roadcut.

Pottery. Pottery was the most common artifact recovered. Most of the sherds were small, with the exception of a large Santa Fe Black-on-white bowl sherd. The assemblage represented minimal portions of an estimated 10 to 20 vessels. The pottery types included decorated types, Kwahe'e and Santa Fe Black-on-white and utility wares, smeared indented corrugated, corrugated, undifferentiated, and plain wares. Pottery type frequencies by vessel form and temper type are provided in Tables 3 and 4. An inventory of pottery is presented in Table 6.

The utility wares, smeared indented corrugated, corrugated, undifferentiated, and plain ware are typical of assemblages associated with late Pueblo II and Pueblo occupations III (A.D. 1050 to 1325). Smeared indented corrugated and undifferentiated corrugated are most commonly found at large village sites such as Arroyo Hondo Pueblo and Pueblo Alamo, in the near vicinity, and small field camps or foraging sites such as Dos Griegos (Lang 1992) and Rancho Viejo (Post 1998). Considerable variability in surface treatment and temper has been recorded for the larger sites (Habicht-Mauche 1993) and small sites (Lang 1992). Lang (1992:42) segregated a sample of the LA 75680 sherds by surface treatment into light, light to medium, medium, and heavy coil smearing. He found that the highest percentage of the sherds exhibited heavy smearing, which in his estimation was counter to the general trend from light to heavy smearing from early to late. LA 75680 was occupied in the late A.D. 1200s yet exhibited trends similar to the early A.D. 1400s component at Agua Fria Schoolhouse (LA 2 [Lang and Scheick 1989]). Habicht-Mauche (1993) found no consistent patterning in corrugated pottery that was temporally significant. The LA 115268 assemblage generally can be said to have had a full range of light to heavy smearing, similar to LA 75680. This suggests some regional continuity for sites along the Cañada de los Alamos.

The LA 115268 utility pottery exhibited surprising variability in temper types. Four temper types--coarse quartz and feldspar, coarse quartz and mica in a micaceous paste, coarse crushed rock with quartz feldspar, and mica and amphibolite--and coarse quartz, feldspar, and mica account for almost 84 percent of the utility ware. All temper types reflect Sangre de Cristo foothill geologic sources. These temper/paste types combined with the dark gray to black, high-carbon-content clays could have been obtained locally. Similar clays have been reported in the drainages of the Santa Fe River (Lakatos 1997) and along the Arroyo Hondo (Habicht-Mauche 1993). Of interest are the 33 sherds of CQMP (coarse quartz, feldspar, mica, and micaceous paste), which were most likely produced further north in the Tesuque or Nambe areas. No high-mica-content sources have been reported for the southern foothills, eastern Galisteo Basin, or Glorieta Mesa area. The temper types of the Pueblo Alamo assemblage are unreported (Allen 1973). From Arroyo Hondo Pueblo, two main temper groups were identified (Habicht-Mauche 1993:75). Granitic/gneiss temper was from local sources available in the immediate Arroyo Hondo area. The second group, a highly micaceous residual clay, may have occurred in the Nambe to Taos area. The micaceous paste sherds increased in frequency in the post-A.D. 1370 contexts at Arroyo

Hondo Pueblo. LA 115268 does not date to the A.D. 1370 period, but displays variability in temper or paste type frequencies that result from changing social-economic relations over a 150 year period. Lang (1992:43) describes three main temper types from the LA 75680 assemblage. These temper types are combinations of quartz, feldspar, biotite and muscovite micas, amphibolite, and other less abundant minerals. He also observes a percentage of highly micaceous pastes that probably originated in the northern Tewa Basin and Picuris and Taos areas. The utility sherds from LA 115268 are definitely more like the LA 75680 assemblage than the Arroyo Hondo Pueblo assemblage. This similarity indicates that the majority of the utility ware sherds were produced using raw materials that were locally available to the residents of Pueblo Alamo and Chamisa Locita, but are different in geological composition from the Arroyo Hondo sources.

The decorated pottery included one sherd of Kwahe'e Black-on-white and nine Santa Fe Black-on-white sherds. The Kwahe'e and Santa Fe Black-on-white pottery came from the same excavation unit, suggesting an occupation during the transitional period from A.D. 1175 to 1225. If this is true, then there may be similarities in paste and temper that reflect a continuity in clay and temper sources and design styles, even when the pigment type changed. Unfortunately, the relatively small sample size restricts detailed examination of these production changes.

The Kwahe'e Black-on-white sherd was small (less than 1 cm maximum dimension), allowing minimal characterization of the paste and surfaces. Kwahe'e Black-on-white is most commonly recognized by its mineral paint decoration and fine-grained paste with sherd or fine quartz or crushed-rock temper. The temper was fine quartz, similar to some of the LA 115266 Kwahe'e Black-on-white sherds, and suggesting a similar production area. Lang (1992:46) suggests the fine quartz originated in the Tewa Basin. Kwahe'e Black-on-white is best dated between A.D. 1050 and 1225 (Breternitz 1966: 81; Lang 1982:175-177).

The Santa Fe Black-on-white sherds are from four or five bowls. The sherds were classified by means of an eroded carbon-painted design and light, blue-gray, fine-grained paste. This paste type is the classic attribute in identifying Santa Fe Black-on-white. Five different temper classes were identified. All classes except for fine tuff probably originated in the alluvial clays of the Tewa Basin. The fine tuff is evidence of Pajarito Plateau manufacture and may have originated in a village that had access to the Culebra Lake clay source (Hill 1996). Santa Fe Black-on-white was the primary decorated pottery from A.D. 1200 to 1325 in the northern Rio Grande (Breternitz 1966:95; Habicht-Mauche 1993). It was the first carbon-painted pottery produced in the northern Rio Grande and is typically considered to indicate social or economic connections with the northern San Juan Basin. Santa Fe Black-on-white was the primary decorated pottery recovered from Pueblo Alamo (Allen 1973) and LA 75680 (Lang 1992). The occurrence of Santa Fe Black-on-white at LA 115268 strongly indicates a connection with the establishment and growth of pueblo communities along the Cañada de los Alamos.

Chipped Stone Artifacts. Eleven chipped stone artifacts were recovered from test units or selective surface collection or field recorded. The artifact inventory is provided in Table 8. Though small, the artifact assemblage reflects a wide range of activities associated with residential occupation.

The material types display a range similar to that of the Dos Griegos sites: obsidian, chert, silicified wood, quartzite, and chalcedony. Chert and chalcedony could have been obtained from the gravel of the eastern Galisteo Basin or the Ancha formation gravel along the Santa Fe River. Lang (1992) suggests that mossy chalcedony originated in the axial gravel of the Rio Grande. The

obsidian is from the Jemez Mountains and was commonly used for tool production at Dos Griegos sites and Pueblo Alamo (Allen 1973: Plates 9 and 10; Lang 1992).

Artifact types include six core flakes, three pieces of angular debris, and two late-stage biface fragments. Four of the six core flakes were whole, and all flakes lacked dorsal cortex. All but one of the chipped stone artifacts were in the small to medium size range (1 to 29 mm), indicating late stages of core reduction or that original raw material was small, as would be expected if raw materials had to be carried from a source more than 5 km away.

One obsidian core flake has a continuous utilized edge that was used as a scraper and a knife. It exhibits unidirectional and bidirectional step fracturing and rounding. The edge angle ranges from 40 to 60 degrees. Step fracturing and rounding indicate that it was used on a wide variety of materials, leading to the interpretation that it was a multipurpose tool.

The late stage biface fragments were made from quartzite and obsidian. The obsidian biface fragment is a small unidentifiable portion of a formal tool. The quartzite late-stage biface fragment is the tip and upper portion of a triangular blade with convex sides. The biface started as a thin flake that was marginally retouched to create the tool outline. The stem and tangs are missing, and it is likely that they were broken by use rather than in manufacture. The blade width is 19 mm, and the thickness is 3 mm. It appears to be a typical triangular-bladed Pueblo III form (Thoms 1977).

Ground Stone Artifacts. Three ground stone artifacts were recovered from near-surface and subsurface contexts within the midden deposit. FS 1, a small edge fragment of a medium-grained sandstone slab metate weighing 37 g, was recovered from 89N/98E, surface strip. FS 2, an indeterminate metate edge fragment of fine-grained sandstone weighing 48 g, was recovered from 89N/98E, Level 1. FS 24, an indeterminate metate edge fragment of fine-grained sandstone weighing 130 g, was recovered from 81N/98E, Level 2. All fragments were small, and their form could not be identified. There was no evidence of a trough or basin on any fragment, suggesting that they were from slab metates. Slab metates were the most common type recovered at Arroyo Hondo Pueblo, and they are closely associated with corn grinding (Phagan 1993).

Animal Bone. Four fragments of animal bone were recovered from two test units. The unburned distal end of a desert cottontail (*Sylvilagus auduboni*) humerus was recovered from 81N/78E, Level 1. Two jackrabbit (*Lepus californicus*) mandibles and a large mammal rib fragment were recovered from 89N/98E, Level 1. Both mandibles are from mature or adult jackrabbits. The jackrabbit and large mammal specimens are unburned and weathered. The rabbit and large mammal bones reflect ancestral Pueblo exploitation of field and woodland environments. The rabbit/large mammal mix is common for residential occupations throughout the area. LA 75680, a seasonal residence at Dos Griegos, yielded a wide variety of animal bone, including bird, squirrel, jackrabbit, and deer, suggesting that residents exploited the Cañada de los Alamos drainage and adjacent foothills and juniper grasslands (Kelley 1980; Lang and Harris 1984).

Summary

LA 115268 test excavations have demonstrated that an intact cultural deposit exists within the west U.S. 285 right-of-way. The cultural deposit is 12 to 18 cm thick, 1.5 to 2 m wide, and a maximum of 25 m long. The cultural deposit contains a diverse array of artifact classes and animal bone. Pottery types and forms include Kwahe'e and Santa Fe Black-on-white bowls and indented corrugated and plain utility jars. The jar and bowl sherds remain from a vessel assemblage that

supported a full range of storage, processing, and consumption activities typical of a residential occupation. Chipped stone artifacts reflect late-stage core reduction and formal and expedient tool use. Chipped stone frequencies are low compared to pottery, suggesting that raw materials for tool production were not locally abundant and represent a conservative use of raw material. Late-stage biface fragments indicate that hunting was staged from the site. The presence of animal bone also indicates that hunting occurred and that meat was consumed at the site. The small ground stone fragments indicate plant processing, probably corn grinding and the processing of wild plants. The fragmentary condition of the grinding implements prevents further interpretation.

The material culture data strongly point to a residential occupation. The length of the occupation cannot be estimated from the artifacts, but the extent of the cultural deposit suggests that accumulation occurred over an extended period, but within a tight time span. Kwahe'e Black-on-white and Santa Fe Black-on-white pottery co-occur in early Coalition period contexts. Pueblo Alamo (Allen 1973:8) had a low frequency of Kwahe'e Black-on-white with Santa Fe Black-on-white pottery and may have been first settled in the early A.D. 1200s. Only one Kwahe'e Black-on-white sherd was recovered from a pit room beneath Room 12-11-6 at Arroyo Hondo Pueblo (Habicht Mauche 1993:15). Its paste is similar to that of the Santa Fe Black-on-white pottery and suggests both an early previllage occupation and continuity in trade or exchange relations through the early A.D. 1200s and 1300s. One Kwahe'e Black-on-white bowl sherd was recovered in association with Santa Fe Black-on-white at LA 75680 in Dos Griegos. Lang (1992:104) suggests a late A.D. 1100s to mid-1200s occupation. From the above discussion, it is apparent that low frequencies of Kwahe'e Black-on-white are commonly associated with early Coalition period settlement of the south Santa Fe area. It is likely that occupation of LA 115268 began in the early A.D. 1200s, when villages were established along the Santa Fe and Galisteo Rivers and their tributaries.

The combined evidence suggests that concurrent with village founding, field or agricultural locations were also formalized by the placement of fieldhouses or seasonal villages. Marshall (1996) suggests that LA 115268 has one or two pit structures, which could not be confirmed by test excavation. Clearly, an extended occupation occurred at LA 115268 that may have included pit structure and surface architecture. It is also possible that a portion of the site was removed by early road construction, and that the site area was much larger than it is presently evident. LA 115268 could be a seasonal residence contemporaneous with the establishment of Pueblo Alamo, or it may represent early settlement of the Cañada de los Alamos drainage that established its agricultural potential and led to the settlement and growth of Pueblo Alamo. Even though the temporal relationship between LA 115268 and Pueblo Alamo is only speculative, it is clear that LA 115268 represents the early expansion of Coalition period settlement patterns out of primary and into secondary drainage basins of the Santa Fe and Galisteo Rivers.

RECOMMENDATIONS

LA 115266 is a multicomponent artifact scatter with a deflated thermal feature (Feature 1) and a burned surface that is the remnant of a jacal field structure (Feature 2). The probable jacal field structure remnant probably dates to the early A.D. 1200s, encompassing the settlement of LA 8. Excavation within and adjacent to the structure yielded sherds, lithic artifacts, animal bone, and oxidized adobe. The variety but low frequency and restricted distribution of the cultural materials suggests a short-term and probably seasonal residential occupation. The deflated thermal feature (Feature 2) identified by the inventory could not be dated from associated artifacts or samples. It appears to remain from highly transient activities related to travel or low-intensity foraging. Based on the testing results, it is highly probable that intact cultural deposits exist within and surrounding Feature 1 at LA 115266 and that they have the potential to yield information important to the prehistory of the Santa Fe area and the eastern periphery of the Galisteo Basin. Data recovery is recommended for Feature 1 and its adjacent activity space, and a data recovery plan is included with this report. Test excavation indicates that Feature 2 has limited data potential, and no further investigation is recommended.

LA 115268 is an artifact concentration within a stratum of charcoal-infused soil. This thin layer, extends over a 25 m area but is only 1.5 to 2 m wide within the right-of-way. The artifact assemblage is diverse and reflects a full range of domestic, processing, and consumptive activities. Besides the midden deposit, no features were encountered in the right-of-way. Artifact dating suggests occupation during the early A.D. 1200s. Based on the testing results, LA 115268, has intact, buried cultural deposits. However, the cultural deposits occur in a narrow strip that does not appear to contain architectural or processing features. It is expected that additional excavation would yield redundant information. Therefore, the portion of LA 115268 within the project right-of-way does not have the potential to yield information important to the prehistory of the Santa Fe area and the eastern periphery of the Galisteo Basin, and no further investigation is recommended.

DATA RECOVERY PLAN FOR LA 115266

Test excavation of LA 115266 revealed a multicomponent artifact scatter with a deflated thermal feature and a burned surface that is the probable remnant of a jacal field structure (Feature 1). The probable jacal field structure remnant (Feature 1) may date to the early A.D. 1200s, encompassing the settlements of LA 4 and LA 8. Excavation within and adjacent to the structure yielded sherds, lithic artifacts, animal bone, and oxidized adobe. The variety but low frequency and restricted distribution of the cultural materials suggests a short-term, seasonal, residential occupation. The deflated thermal feature (Feature 2) identified by the inventory could not be dated from associated artifacts or samples. It appears to remain from highly transient activities related to travel or low-intensity foraging. No further investigation of Feature 2 is proposed. The data recovery effort will focus on Feature 1 and the adjacent activity space.

Preliminary work on and analysis of artifacts recovered from LA 115266 indicate a short-term and perhaps single-season occupation involving domestic activities in conjunction with farming. Hunting, resource processing, and food consumption are indicated by the artifact assemblage and animal bone. Ceramic manufacture dates for Kwahe'e Black-on-white and Santa Fe Black-on-white pottery suggest an early A.D. 1200s occupation.

Small sites, such as LA 115266, that were occupied during the early Coalition period allow testing of settlement and economic models proposed by investigators at Arroyo Hondo Pueblo, LA 12 (Dickson 1979; Habicht-Mauche 1993). These models have been used to interpret the strong patterns observed in the archaeological record of the northern Rio Grande for the Coalition and Classic periods. The LA 115266 research effort will focus on the local applicability of these models and the intervillage relationships that may have existed between founding populations at Arroyo Hondo Pueblo and Pueblo Alamo (LA 8) and Chamisa Locita (LA 4). It is recognized that these models may have regional explanatory power, but expectations for data recovered from LA 115266 suggest this research is more suited to a local scale. The data recovery effort will focus on the relationships between small seasonal field houses or residences and the founding and sustaining of middle Coalition period villages in the Cañada de los Alamos area and the relationships between the Cañada de los Alamos villages and Arroyo Hondo Pueblo.

Population Dynamics and Settlement during the Early and Middle Coalition Period in the South Santa Fe Area

The ceramic types recovered from LA 115266, Santa Fe Black-on-white and Kwahe'e Black-on-white, strongly suggest an early A.D. 1200s occupation, during the beginnings of the Coalition period. Three major trends in population and settlement are widely recognized for this period.

First, a substantial population growth is inferred from the increase in the number and size of residential sites. It has been suggested that this growth resulted from migration from the upper San Juan Basin during the thirteenth century or intrinsic growth interpreted as a sudden increase based on a change in village size (Wendorf and Reed 1955; Dickson 1979; Stubbs and Stallings 1953; McNutt 1969; Steen 1977; Cordell 1989). Recently, it has been suggested that Developmental period sites had been underestimated by early investigators due to their less visible architectural style and that sufficient Developmental period sites exist to account for much of the perceived population growth (Lentz 1996). Another contribution to increased population may have come

from the southwest as a widespread drought fueled settlement collapse and was followed by migration to the Rio Grande Valley (Peckham 1984). Connections between populations of the Santa Fe District and southern villages is evident in the occasional occurrence of Socorro and Chupadero Black-on-whites in a variety of site types and assemblages (Habicht-Mauche 1993; Allen 1973; Lang 1992; Stubbs and Stallings 1953). Clearly, there were major changes in settlement size and configuration that reflected population growth during the thirteenth century and resulted in changing architectural styles and increased site visibility.

The second trend observed in thirteenth-century sites is their increased occurrence at higher elevations. Villages were established along narrow secondary and tertiary drainages of the upper piedmont of the northern Rio Grande (Cordell 1979; Peckham 1984; Dickson 1979; Orcutt 1991). Villages were established at above 1,829 m (6,000 ft) and occupied year-round. Villages near primary water sources and optimal arable land and settlement of previously unsuitable secondary and tertiary drainages was facilitated by a major climatic shift in the early A.D. 1200s. This shift entailed a change in precipitation patterns to a winter-dominant pattern in the northern Rio Grande that favored aggradation in secondary and tertiary floodplains (Rose et al. 1981). Concurrently, rainfall patterns across the Colorado Plateau began to change in a way that negatively affected farming, perhaps initiating the early migratory trickle of families to the better-watered lands of the Rio Grande and Chama River. This climatic change was accompanied by changes in agricultural and water management techniques as growing populations sought to exploit the cooler, drier high elevation settings, allowing a wider distribution of field locations (Anschuetz 1994; Maxwell and Anschuetz 1992). Year-round settlement and expansion of field locations also contribute to the increased archaeological visibility of Coalition period sites.

The third trend is the increase in village size, which is interpreted as a coalescence or unification of new populations from many areas into coherent communities and cooperating regional groups (Wendorf 1954). Cordell (1979) has suggested that disparate small groups aggregated into larger communities to increase their subsistence options and facilitate sharing within and between groups. Early A.D. 1200s expansion of settlement and village growth may reflect the early movement of families from the upper San Juan or southwest New Mexico into the northern Rio Grande and villages of kin-related families. These new families needed agricultural lands and may have had to choose from secondary or tertiary drainages that were not yet heavily cultivated by their relatives or relative's neighbors. Establishment of small communities in these less desirable areas may have facilitated the increased migration that occurred after the A.D. 1250s and may have peaked at the end of the thirteenth and beginning of the fourteenth centuries. The timing of village growth for the large Coalition period villages is based on tree-ring dating. Tree-ring dates from Pueblo Alamo (Allen 1973; Dickson 1979), Chamisa Locita (Dickson 1979), Arroyo Hondo Pueblo (Rose et al. 1981; Creamer 1993), and Pindi Pueblo (Stubbs and Stallings 1953; Ahlstrom 1989) indicate periods of growth during the early A.D. 1300s and between 1325 and 1340. While the A.D. 1300s growth is well documented, the early settlement of these villages is poorly understood. Pueblo Alamo and Pindi Pueblo were reported to have late Developmental period or early Coalition period components, but they were not intensively investigated. This lack of investigation is unfortunate, because their importance is paramount in understanding the social and economic conditions that preceded migration and population growth. Investigation of small sites that date to this early Coalition period may then provide an avenue by which some of the preexisting conditions may be studied.

Clearly, the interpretation of the change in site size, frequency, and distribution is closely linked with the migration of populations into the middle and northern Rio Grande from

disintegrating settlements to the north and southwest. The early effects of climatic change may have begun the Colorado Plateau exodus by the A.D. 1220s. Within this framework of changing population size and composition and settlement expansion, the Santa Fe District is interesting because it is in an intermediate position relative to the Tewa Basin, Pajarito Plateau, and Galisteo Basin, which may have absorbed populations from the upper San Juan and the areas to the southwest.

The importance of LA 115266 as an A.D. 1200 to 1250 fieldhouse is that it may have been established by early residents of Pueblo Alamo (LA 8). Also, it represents an attempt to expand farmlands by Santa Fe or Galisteo River villagers faced with increased competition as new populations entered the area. As a one- or two-season occupation fieldhouse, it represents a discrete slice of the social and economic dynamics that preceded the more prominent growth of villages as they accommodated larger populations and subsistence strategies expanded and intensified.

Research Questions and Data Needs

As briefly discussed above, there is little known about the conditions that existed preceding the apparent population explosion of the late Coalition period. This deficiency has been promoted by investigation of large village sites that suffer from the poor chronological resolution and the recovery of temporally mixed assemblages that hamper reconstruction of village founding and growth. That is not to say that poor dating of the major villages exists, only that dating of early site components may be poor. Furthermore, the artifact assemblages are abundant, but they are so mixed that it is almost impossible to use them to understand the early social and economic dynamics that may have influenced village founding and growth. Thus, the study of small sites peripheral to the larger sites may yield information that is critical to understanding the dynamics of early social and economic organization. LA 115266, Feature 1, may represent a one- or two-occupation seasonal structure from the early 1200s (A.D. 1200 to 1250) and should contain an assemblage that reflects the social or economic connections of a single family at that time. These connections may be inferred from the paste and temper characteristics of the pottery they made or acquired, used, broke, and discarded in the course of fieldhouse activities.

Thus, this investigation is concerned with the contribution that a small, seasonally occupied site can make to understanding the settlement dynamics that preceded or coincided with the onset of the "Little Ice Age," the early migration of populations into the middle Rio Grande, and the establishment of large villages in higher-altitude, secondary-drainage settings by the end of the thirteenth century. There are a number of basic issues that must be addressed to understand the place of LA 115266 in the settlement pattern.

Was LA 115266 occupied during the early part of the thirteenth century?

To speculate that LA 115266 reflects the expansion of settlement or farming implies that it dates to the first half of the thirteenth century. Archaeological testing yielded minimal evidence that conclusively support this hypothesis. The A.D. 1200 to 1250 date is based on the co-occurrence of Kwahe'e Black-on-white and Santa Fe Black-on-white pottery, though their spatial, and perhaps even their temporal association, is tenuous. Nevertheless, it is their co-occurrence that suggests this early Coalition period date.

Excavation of LA 115266 may yield contexts or samples that are suitable for C-14 or archaeomagnetic dating. Obtaining samples for these absolute dating methods will be the primary focus. In the absence of or in conjunction with suitable samples or samples that have fine temporal resolution (for example, 25 year estimates of error), trends in ceramic production or decoration may be used to assign a probable occupation period.

The success of archaeomagnetic dating depends on the iron content of soil and exposure of soil to sufficiently high temperatures to reorient the iron in the soil. Probable iron content can be gauged in the field by the level iron oxidation that is evident in burned contexts. At LA 115266, the soil is clayey and has moderate plasticity when moistened. Also, the soil color as gauged by the Munsell Soil Color Chart is in the red color ranges of 5YR and 7.5YR, suggesting a moderately high iron content. These two factors combine to increase the likelihood that sufficient in situ oxidized soil may be present within the burned structure area (Feature 1). Archaeomagnetic dating has an obvious advantage over C-14 dating in that no "old wood" error needs to be taken into account. Also, the archaeomagnetic curve defined by Dr. Daniel Wolfman for the period between A.D. 1200 and 1300 is relatively firm and should provide reliable date ranges (Cox and Blinman 1996).

Radiocarbon dating is a favored method because carbonized material tends to be abundant or at least present on sites in a wide range of environmental and geographic settings. As Smiley (1985) pointed out, the error factors that affect radiocarbon small error and can be more or less ignored. However, factors such as use of old or i in errors of up to 500 years. Because these large error factors can heavily skew an absolute date, care is necessary in selecting carbon samples for processing. Charcoal will be collected whenever it is abundant or comes from a well-controlled provenience, such as the bottom of a feature. The charcoal samples will be sorted in the laboratory. Seeds, twigs, or annuals will be given first priority for processing. If only small quantities are available, extended count or accelerated methods will be considered. Samples that may be affected by the old wood problem will be collected, but with the knowledge that error may result.

If absolute dates cannot be obtained, relative dating techniques will be employed to provide a probable date range for occupation. For the middle and northern Rio Grande, relative dating relies primarily on ceramic typology and changes in technology and decoration. Four attributes that can be used for relative dating will be employed in the LA 115266 analysis.

Little is known about the early Coalition period for the South Santa Fe area or the eastern Galisteo Basin. LA 3333, which is along U.S. 285 12 miles south of the project area, dates to the early A.D. 1200s and appears to be a seasonally reoccupied cold-weather residence. Multiple pit structures, a possible kiva, well-developed midden and refuse deposits, skeletal remains, and evidence of a subsistence pattern that was predominantly based on game exploitation with a special focus on antelope procurement represent a full-blown domestic occupation situated at the edge of the Galisteo Basin, removed from the major population centers of the time. With respect to the pottery assemblage, LA 3333 decorated wares were dominated by Santa Fe Black-on-white and locally available granite-tempered, friable to hard paste utility wares. The utility wares were indented corrugated, both smeared and unsmeared. Some investigators have suggested that there was a temporal trend in indented corrugated pottery: unsmeared indented corrugated pottery was more common prior to A.D. 1300, and smeared indented corrugated after A.D. 1300. However, Habicht-Mauche (1993) found little correlation between time and indented corrugated surface treatment at Arroyo Hondo Pueblo. Corrugation or surface treatment on utility wares will be monitored for temporally sensitive patterning or trends that may combine with other attributes to

provide better temporal resolution.

Blinman and Price (1998:4) have suggested that during the Developmental period, interior and exterior coiling methods were used to construct utility vessel walls. They observe that exterior coiling was exclusively used on the Colorado Plateau, while interior coiling was common in some northern Rio Grande assemblages and is the predominant method used by modern potters. An implicit assumption is that migration in the early A.D. 1200s resulted in an influx of exterior coil utility ware mixed with interior coiled utility ware that followed local tradition. For instance, Blinman and Price (1998:4) observed predominantly exterior coiled and unsmearred indented corrugated pottery in the LA 3333 assemblage, which dated to the first quarter of the thirteenth century. The abundance of exterior-coiled utility ware may indicate Colorado Plateau influence. Even though the coiling method study is preliminary, it does seem to have valid application for recognizing outside influence within a seemingly locally produced assemblage. It appears that indented corrugated, exterior-coiled utility pottery may date to the thirteenth century and reflect the movement of populations into the middle and northern Rio Grande. Certainly, the LA 15266 excavation will yield ceramics that can be examined from this perspective and could provide an avenue to test hypotheses of migration and settlement.

Another observed pattern in ceramic production prior to A.D. 1300 is consistency in the clay sources from which "classic" Santa Fe Black-on-white was made. The classic blue-gray, fine-silt paste in Santa Fe Black-on-white pottery defined by Kidder and Amsden (1931), examined by Shepard (1936), recognized at Pindi Pueblo (Stubbs and Stallings 1953), found over a large area of northern New Mexico by Mera (1935), and identified in large quantities by Habicht-Mauche (1993) at Arroyo Hondo Pueblo predominates for the thirteenth century. It seems that for a century Santa Fe Black-on-white was primarily made from alluvial clays found in the Tewa Basin and on the fringes of the Pajarito Plateau (Shepard 1933; Lang 1981; Lang and Scheick 1989; Habicht-Mauche 1993). After A.D. 1300, and perhaps as late as A.D. 1325, local clays were more commonly used in the production of Santa Fe Black-on-white and several variants, including Galisteo, Poge, Rowe, Arroyo Hondo, and Pindi black-on-whites (Habicht-Mauche 1993; Stubbs and Stallings 1953). Therefore, paste type in decorated pottery may be helpful in placing site occupation in a general period before or after A.D. 1325. Based on the testing, it is expected that a low frequency of decorated pottery will be recovered. Because the occupation occurred over one or two seasons, it should represent pottery used by a single family, perhaps when social and economic relations were undergoing subtle but important change.

Finally, ongoing research in Bandelier National Monument and on the Pajarito Plateau has fueled an interest in determining if there are temporal trends in design elements that would be useful for dating low-frequency or surface assemblages from small sites or sites lacking other chronological controls. Ruscavage-Barz (1997) has analyzed a suite of elements from Santa Fe Black-on-white pottery for nine temporal components from seven sites that have firm absolute dates. The sites included Pueblo Alamo and Arroyo Hondo, which are near LA 115266. Her principal components analysis delineated some changes in decoration through time. Early sites were characterized by "low proportions of rim lines and rim decoration, along with high proportions of hatched design" (Ruscavage-Barz 1997:5). Santa Fe Black-on-white from later sites exhibited higher proportions of rim lines and decoration and a decrease in hatched designs (Ruscavage-Barz 1997:5). Admittedly, this is a preliminary study, but its results suggest that upper portions and rims of Santa Fe Black-on-white bowls can be used to identify pottery that was made in the A.D. 1250 to 1300 period or later. The applicability of these patterns to LA 115266 will depend on the quantity of Santa Fe Black-on-white pottery recovered during the data recovery

effort.

Was LA 115266 occupied for only one or two seasons, and does it therefore represent a temporally discrete slice of early Coalition period settlement or farming expansion?

Determining if LA 115266 remains from one or two seasonal occupations is critical to the research effort. Determining occupation intensity, duration, and frequency is one of the trickiest tasks required of site formation and site structure analysis. Site formation is affected by a wide range of environmental and cultural conditions that may result an artifact assemblage representing the sum of the site activities but that rarely informs on the sequence or nature of activities producing the spatial patterning or associations. This was shown to be the case with cold-weather hunter-gatherers (Binford 1980, 1982) and arid foragers (Yellen 1976), for whom extraction sites may become residential sites and residential sites may be used as hunting blinds, for example. Hence, the materials discarded from different activities or the facilities that were used become mixed and exhibit characteristics that may reflect more complex activities or protracted occupations. Obviously, this situation is further exaggerated in residential or pueblo sites, where space use may change many times over the course of a 10- to 20-year occupation. Room remodeling, use of rooms as refuse areas, reuse of construction materials, borrowing of soil from one area to level another area, and excavation of facilities into the fill of older facilities or structures result in the mixing of noncontemporaneous or functionally unrelated deposits. Therefore, sites that were occupied for a short time by a single family may not yield abundant archaeological remains, but they may produce small assemblages that can be used to address larger questions of settlement, land use, and migration.

What can be expected concerning the organization of site activities that would allow determination of occupation intensity and duration? Cross-cultural studies indicate that there are relationships between site structure and actual or anticipated occupation duration (Kent 1992:638-642). Structure and site size, presence of storage facilities, and refuse discard patterns are all archaeologically measurable and are affected by actual or intended length of occupation. Sites that are intended to be occupied for short periods may have smaller structures, incorporate less site area as activity and discard space, lack storage features, and have refuse dispersed around the site perimeter. Sites that are intended for lengthy occupation have larger structures, are spread over a larger area, and may have storage features, and refuse is concentrated peripheral to living or activity space. One or two repeated occupations of a small site should not substantially alter the spatial relationships or distribution of artifacts and facilities. Many occupations or a significant change in the intended occupation duration should change the site structure and mask associations and distributions from earlier occupations. This scenario makes it more difficult to isolate components that can be tied to broader regional issues.

Test excavation of LA 115266 revealed the remains of a small burned structure, a low-frequency midden, a restricted site area, and no evidence of extramural facilities or features. A provisional interpretation is that LA 115266 was occupied for a brief time but was intended for longer occupation, since refuse was concentrated and probably reflected early stages of midden development. Site occupation or use may have been prematurely halted by the structure burning. Excavation of the structure should provide size data. Surface stripping to the cultural level within a 5 m radius of the structure center should expose extramural features or document their absence. More complete excavation will reveal the composition and structure of the refuse deposit. These data will provide good indications of the occupation history.

Test excavation revealed a rather high proportion of tools to debris in lithic artifacts and an overall unexpectedly high variability in the range of tool or artifact types across chipped stone and pottery. It appears that a wide range of activities occurred and that tools were used and discarded without replacement tools manufactured from curated raw materials or replaced by tools brought from the main residence. A short seasonal occupation might result in use of tools brought to the site with little replacement through on-site manufacture if replacements could be obtained from the residence. In the absence of suitable raw materials, procurement of replacement stone tools or pottery from the residence would be unavoidable. Thus, there would be little production of debris from tool or pottery manufacture, resulting in a low-frequency, low-density midden. High-density concentrations might result if raw materials were brought from the residence and tools were produced at the seasonally occupied site. Concentrations of stone tool manufacture debris might also remain from unrelated use of the seasonal site as a staging area for hunting or foraging activities. It is expected that LA 115266 will yield low artifact counts with relatively high artifact class variability reflecting short, seasonal occupations and only limited on-site tool production, especially since lithic raw materials are not locally abundant.

It is also expected that excavation will yield artifacts from the midden deposit. Test excavation results revealed low artifact frequency, which would allow sherd matching and perhaps identification of individual specimens within the faunal assemblage. Estimations of the total vessels discarded or resources consumed may provide support for inferences about occupation duration and frequency that were based on excavation evidence. Large assemblages make sherd or specimen matching difficult and often not cost effective. The ability to match sherds within an assemblage is a definite advantage of a small assemblage.

FIELD AND LABORATORY METHODS

Investigation of LA 115266 will focus on the fieldhouse component, which appears to date to A.D. 1200 to 1250 and was only occupied for one or two seasons. Field and laboratory methods are geared to collecting site structure and artifact data that can be used to address the research and underlying questions.

Field Methods

The following field methods will be used at LA 115266:

1. The site surface will be reexamined, and the concentrations, artifact scatters, features, and site limits will be pinflagged.
2. A 1 by 1 m grid system will be superimposed within the limits of the surface artifact distribution. Each 1 by 1 m unit will have a north and east designation. The signature corner will be the southwest corner.
3. All surface artifacts within the site limit will be collected in 1 by 1 m units.
4. Excavation will emphasize data collection from contiguous units to support site structure analysis. The excavation methods will employ surface stripping by shovel outside the structure limits to examine the spatial distribution of refuse. Within the structure, surface stripping will be by trowel to provide better locational control of adobe clumps and recover artifacts that may represent structure construction or use. Artifacts within the structure
5. Feature excavation will proceed to floor level, if possible. The feature will be excavated in 5 cm levels to differentiate between artifacts that may have entered the feature after abandonment and artifacts that were left as part of abandonment. One-half the feature will be excavated in this manner. Then, the exposed cross section will be profiled and the soil levels described using a Munsell Color Chart and standard geomorphological terms. The second half of the feature will be excavated in natural levels or 5 cm arbitrary levels. At least 3 l will be collected from each 5 cm level or natural level or from any concentrations of burned organic material for water-screening and ethnobotanical analysis. In this way, seeds or small twigs may be recovered that can be used for AMS dating. Any oxidized patches or features will be protected until archaeomagnetic samples can be collected. All sample locations will be plotted on a feature plan.
6. Once the feature is completely excavated, feature maps and profiles will be drawn and tied into the grid system and site elevations. Written description will be on standard forms that will include provenience, dimensions, soil matrix, artifact, construction, time frame, excavation technique, and other data. Photographs will record the feature excavation progress and the final excavated form. Photographs will include a metric scale, north arrow, and mug board with the LA, feature number, and date. All photographs will be recorded on a photo data sheet.

All excavation will be by hand, using standard archaeological hand tools. All fill will be screened, with the mesh size determined by the excavation context. Screen mesh no larger than ¼ inch will be used. Within the structure, 1/8 inch mesh will be used to recover microflakes or bone chips that may

remain from intramural activities.

7. Excavation documentation will consist of field notes and grid forms compiled by the excavator. The forms will contain locational, dimensional, stratigraphic, and contextual information. General notes outlining excavation strategy and rationale, field interpretations, and decisions will be kept by the project director and site assistants.

Artifacts recovered from each provenience will be bagged and labeled by unit, stratigraphic or arbitrary level, date, and excavator's name. A specimen number will be assigned to all bags by provenience and a running field artifact catalogue maintained for each site. Materials necessary for immediate preservation of fragmentary and unstable faunal and ethnobotanical remains will be used. Large lithic artifacts will be bagged separately to minimize bag wear. Very small flakes and angular debris will be placed in vials or bags within the artifact bag, so they are not lost during cleaning.

8. C-14 samples will be collected from features and other possible cultural contexts. Samples will be ranked according to their context and data potential. If burned seeds or wood are encountered, up to 20 g will be collected for radiocarbon analysis. All samples will be collected with a dry, clean trowel or tweezers and placed immediately into a bag or aluminum foil. Archaeomagnetic samples will be collected according to the processing laboratory standards.

Sample locations will be plotted on plan and profile drawings of features and proveniences. The sample bags will be labeled with the provenience designation, feature number, location within the feature, and stratigraphic position. The samples will also be recorded on sp information, environmental data, contextual information, and any other comments that may be useful to the laboratory analyst.

9. It is highly unlikely that human remains will be encountered. If they are, the guidelines of *Policy on Collection, Display and Repatriation of Culturally Sensitive Materials* (Appendix 3) will be followed.

Laboratory Methods

Before artifact analysis, all recovered materials will be cleaned, and any materials requiring conservation will be treated. Collected samples of charcoal and ethnobotanical remains will be processed and prepared for shipment to the appropriate laboratory. The specialists will be consulted for special preparations required before shipment. Working copies of field maps and feature drawings will be prepared and made available to the special analysts.

Lithic artifact analysis should be structured to address aspects of technological organization. Analysis of morphological and functional attributes should emphasize reduction stage, manufacture and maintenance, and tool use and discard. Information derived from a technologically oriented analysis should be applicable to the research orientation and implementation.

The ceramics should be identified according to existing regional typologies for the middle and northern Rio Grande. Sources of information may include Habicht-Mauche (1993), Mera (1935), and Lang (1992). The primary foci of the ceramic analysis should be typological for dating, technological in terms of raw materials and vessel construction techniques, and stylistic in terms of utility ware surface treatment and decorated pottery styles and elements, vessel function, and use-life.

Animal bone will be analyzed by a qualified specialist who has extensive experience with assemblages from northern Rio Grande sites. Depending on the size, condition, and preservation of the specimens, they should be monitored for species, sex, age, portion, condition, evidence of butchering, and evidence of taphonomic processes. Faunal remains are important indicators of subsistence strategy and site formation. The detail of the analysis will be regulated by the abundance and condition of the faunal remains.

Upon completion of the attribute identification, the coded data should be computerized to facilitate data summaries and statistical analyses. Statistical tests may be geared toward examining patterns in artifact distribution that reflect technological organization. Tests and analytical techniques that may be used include chi-square tests for independence, correspondence, and cluster analysis to identify similar assemblages within the South Santa Fe area. Results of the tests will be illustrated with graphs, tables, charts, and distribution maps. The computerized data base may be used to generate a project artifact catalogue. Artifacts with attributes important to analysis and site interpretation will be illustrated for the report.

The flotation and macrobotanical remains should be completed by a qualified specialist with extensive experience in assemblages from the northern Rio Grande. Qualified analysts should be familiar with the processes that influence recovery rates and assemblage variability for assemblages from shallow, open-air sites dating to the ancestral Pueblo period. All chronometric dating will be completed by qualified consultants with a proven track record in the Southwest.

Research Results

The final report will be published as a monograph. The monograph should present all important excavation, analysis, and interpretive results. Included will be photographs, maps, and tables. Raw data such as field notes, maps, photographs, and artifact catalogues will be given to the New Mexico State Historic Preservation Division, Archeological Records Management System, currently in the Laboratory of Anthropology in Santa Fe. The artifact collection will be curated in the Museum of New Mexico's Archaeological Research Collection.

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APPENDIX 2: TABLES

Table 1. Pottery types by vessel form and portion, LA 115266

Count Row Pct Column Pct	Indeterminate Form	Bowl Body	Jar Body	Total
Plain, undifferentiated	2 28.6 100.0		5 71.4 38.5	7 28.0
Smearred indented corrugated			6 100.0 46.2	6 24.0
Kwahe'e Black-on-white		8 80.0 80.0	2 20.0 15.4	10 40.0
Santa Fe Black-on-white		2 100.0 20.0		2 8.0
Total	2 8.0	10 40.0	13 52.0	25

Table 2. Pottery types by temper types, LA 115266

Count Row Pct Column Pct	CQF	CQCR	CQMP	FQ	FShQ	Total
Plain, undifferentiated		1 20.0 33.3	4 80.0 100.0			5 21.7
Smearred indented corrugated	4 66.7 100.0					6 26.1
Kwahe'e Black-on-white				7 70.0 77.8	3 30.0	10 43.5
Santa Fe Black-on-white				2 100.0 22.2		2 8.7
Total	4 17.4	1 13.0	4 17.4	9 39.1	3 13.0	23

CQF, coarse quartz and feldspar; CQCR, coarse quartz and crushed metamorphic rock; CQMP, coarse quartz and mica in a micaceous paste; FQ, fine quartz; FSIQ, fine silty quartz

Table 3. Pott

Count Row Pct Column Pct	Bowl Rim	Bowl Body	Jar Rim	Jar Neck	Jar Body	Total
Plain, undifferentiated					36 100.0 22.2	36 19.0
Corrugated, undifferentiated			6 17.1 75.0		29 82.9 15.9	35 18.5
Smearred indented corrugated			2 2.0 25.0	1 1.0 100.0	96 97.0 59.3	99 52.4
White ware, undifferentiated		6 85.7 40.0			1 14.3 0.8	7 3.7
Kwahe'e Black-on- white	1 100.0 33.3					1 0.6
Santa Fe Black-on- white	2 18.2 66.7	9 81.8 60.0				11 5.8
Total	3 1.6	15 7.9	8 4.2	1 0.5	162 85.7	189

Table 4. Pottery types by temper type, LA 115268

Count Row Pct Column Pct	CQF	CQCR	CQMP	FQ	FShQ	FQCa	CCRQFMH	CQFM	FQMCa	CS	FSIQ	FT	Total
Plain, undifferentiated	4 16.0 15.4		9 36.0 27.3				2 8.0 10.0	10 40.0 20.0					25 16.2
Corrugated, undifferentiated	3 12.5 11.5		4 16.7 12.1	3 12.5 37.5		1 4.2 20.0	5 20.8 25.0	8 33.3 16.0					24 15.6
Smearred indented corrugated	19 21.6 73.1	2 2.3 100.0	20 22.7 60.6			1 1.1 20.0	13 14.8 65.0	32 36.4 64.0		1 1.1 100.0			88 57.1
White ware, undifferentiated				1 14.3 12.5	1 14.3 50.0	3 42.9 60.0			2 28.6 66.7				7 4.5
Kwahe'e Black- on-white				1 100.0 12.5									1 0.6
Santa Fe Black- on-white				3 33.3 37.5	1 11.1 50.0				1 11.1 33.3		3 33.3 100.0	1 11.1 100.0	9 5.8
Total	26 16.9	2 1.3	33 21.4	8 5.2	2 1.3		20 13.0	50 32.5	3 1.9	1 0.6	3 1.9	1 0.6	154

CQF: coarse quartz and feldspar; CQCR: coarse quartz and crushed metamorphic rock; CQMP: coarse quartz and mica in a micaceous paste; FQ: fine quartz; FShQ: fine crushed sherd and quartz; FQCa: fine quartz with caliche; CCRQFMH: coarse crushed rock with quartz, feldspar, mica, and hornblende; CQFM: coarse quartz, feldspar, and mica; FQMCa: fine quartz, mica, and caliche; CS: coarse sand; FSIQ: fine silty quartz; FT: fine tuff

Table 5. Ceramic inventory of LA 115266

FS	Temper	Type	Form and Portion	Count	North	East	Level	Upper (cm bs)	Lower (cm bs)
2	5	7066	3	1	99	97	90	0	6
2	3	7000	17	3	99	97	90	0	6
2	2	7038	17	1	99	97	90	0	6
3	2	7000	17	1	99	97	2	16	26
5	4	7075	3	1	90	99	90	0	4
5	1	7038	17	1	90	99	90	0	4
6	4	7075	3	1	90	99	1	4	14
8	1	7038	17	1	97	101	1	2	6
10	2	7038	17	1	98	101	0	0	3
11	4	7066	3	7	98	101	1	3	10
11	5	7066	17	2	98	101	1	3	10
11	1	7038	17	2	98	101	1	3	10
11	3	7000	17	1	98	101	1	3	10
11	.	7000	1	2	98	101	1	3	10

Temper: 1, coarse quartz and feldspar; 2, coarse quartz and crushed metamorphic rock; 3, coarse quartz and mica in a micaceous paste; 4, fine quartz; 5, crushed sherd and quartz

Type: 7000, plain gray, undifferentiated; 7038, smeared indented corrugated; 7066, Kwahe'e Black-on-white; 7075, Santa Fe Black-on-white

Vessel form and portion: 1, indeterminate form and portion; 3, bowl body; 17, jar body

Table 6. Ceramic inventory of LA 115268

FS	Temper	Type	Form and Portion	Count	North	East	Level	Upper (cm bs)	Lower (cm bs)
1	6	1001	3	1	89	98	90	.	.
1	6	1001	17	1	89	98	90	.	.
1	4	1001	3	1	89	98	90	.	.
1	1	7038	17	5	89	98	90	.	.
1	7	7031	17	2	89	98	90	.	.
1	7	7038	17	8	89	98	90	.	.
1	8	7031	17	2	89	98	90	.	.
1	8	7000	17	1	89	98	90	.	.
1	8	7038	17	8	89	98	90	.	.
1	1	7031	17	2	89	98	90	.	.
1	1	7038	17	7	89	98	90	.	.
1	1	7000	17	1	89	98	90	.	.
1	4	7031	17	1	89	98	90	.	.
1	4	7066	2	1	89	98	90	.	.
1	1	7038	17	1	89	98	90	.	.
1	2	7038	17	2	89	98	90	.	.
2	4	7075	2	1	89	98	1	8	18
2	71	7075	3	1	89	98	1	8	18
2	3	7000	17	2	89	98	1	8	18
2	8	7000	17	3	89	98	1	8	18
2	8	7000	17	1	89	98	1	8	18
2	1	7000	17	1	89	98	1	8	18
2	8	7038	17	4	89	98	1	8	18
2	4	7031	17	2	89	98	1	8	18
2	6	7031	17	1	89	98	1	8	18
2	8	7031	17	1	89	98	1	8	18
3	3	7000	17	1	89	98	2	18	28
3	1	7038	17	1	89	98	2	18	28
3	7	7031	17	1	89	98	2	18	28
3	3	7038	17	3	89	98	2	18	28
3	8	7038	17	5	89	98	2	18	28
4	4	7075	3	1	89	98	3	28	38
4	8	7038	17	2	89	98	3	28	38
4	7	7038	17	1	89	98	3	28	38
5	3	7031	17	1	74	98	90	0	8
5	3	7000	17	1	74	98	90	0	8
5	1	7031	17	1	74	98	90	0	8
6	9	1001	3	1	74	98	1	8	18
6	7	7000	17	1	74	98	1	8	18
7	8	7000	17	1	74	98	2	18	28
7	8	7031	17	2	74	98	2	18	28
8	8	7038	8	1	74	98	3	28	38
9	3	7000	17	3	93	98	90	.	.
9	8	7000	17	1	93	98	90	.	.
9	6	1001	3	1	93	98	90	.	.
9	8	7038	17	1	93	98	90	.	.

9	8	7031	17	1	93	98	90	.	.
9	1	7038	17	3	93	98	90	.	.
10	5	1001	3	1	93	98	1	0	10
10	8	7031	7	2	93	98	1	0	10
10	1	7000	17	2	93	98	1	0	10
10	7	7000	17	1	93	98	1	0	10
10	8	7000	17	3	93	98	1	0	10
10	10	7038	17	1	93	98	1	0	10
10	7	7038	17	1	93	98	1	0	10
10	1	7038	17	2	93	98	1	0	10
10	8	7038	17	8	93	98	1	0	10
10	3	7038	17	2	93	98	1	0	10
11	4	7075	3	1	93	98	2	10	20
11	8	7038	17	1	93	98	2	10	20
11	7	7038	17	2	93	98	2	10	20
12	3	7038	17	2	93	98	3	20	30
12	8	7038	17	1	93	98	3	20	30
14	3	7038	17	2	65	99	0	.	.
15	8	7038	7	1	90	98	0	0	.
16	6	7038	7	1	88	98	0	.	.
17	7	7031	17	1	86	100	0	.	.
18	3	7000	17	1	78	101	0	.	.
18	7	7031	7	1	78	101	0	.	.
19	11	7075	3	1	94	97	0	.	.
20	5	7075	3	1	83	97	0	.	.
21	3	7038	17	1	71	98	0	.	.
21	7	7038	17	1	71	98	0	.	.
22	3	7000	17	1	81	98	90	0	6
23	11	7075	3	1	81	98	1	6	16
23	3	7031	17	2	81	98	1	6	16
23	3	7038	17	5	81	98	1	6	16
24	3	7031	17	1	81	98	2	16	26
24	3	7038	17	5	81	98	2	16	26
24	11	7075	3	1	81	98	2	16	26
24	9	7075	3	1	81	98	2	16	26
24	9	1001	3	1	81	98	2	16	26

Temper: 1, coarse quartz and feldspar; 2, coarse quartz and crushed metamorphic rock; 3, coarse quartz and mica in a micaceous paste; 4, fine quartz; 5, fine crushed sherd and quartz; 6, fine quartz with caliche; 7, coarse crushed rock with quartz, feldspar, mica, and hornblende; 8, coarse quartz, feldspar, and mica; 9, fine quartz, mica, and caliche; 10, coarse sand; 11, fine silty quartz; 71, fine tuff

Type: 1001, undifferentiated white ware; 7000, plain gray, undifferentiated; 7031, undifferentiated indented corrugated; 7038, smeared indented corrugated; 7066, Kwahe'e Black-on-white; 7075, Santa Fe Black-on-white

Vessel form and portion: 1, indeterminate form and portion; 2, bowl rim; 3, bowl body; 7, jar rim; 8, jar neck; 17, jar body

Table 7. Chipped stone artifact inventory, LA 115266

FS/provenience	Material Type	Texture	Artifact Type	Function	Cortex	Portion	Platform	Dorsal Scars	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
1/surface, piece-plot	1	3	2	1	0	4	12	3	22	30	7	5.1
4/99N/90E, S/SS, F. 2 perimeter	201	1	2	91	0	4	12	3	11	18	5	.8
7/90?99E, L.2 (14-24 cm bs)	202	1	53	150	0	2	.	.	17	15	5	1.2
9/97N/101E, L.1 (2-6 cm bs)	80	3	1	90	60	.	.	1	25	20	15	6.1
11/98N/101E, L.1 (3-10 cm bs)	1	3	2	91	0	4	12	2	7	8	2	.2

Material Type: 1, chert; 80, chalcedony; 201, Jemez obsidian; 202, Polvadera obsidian

Texture: 1, glassy; 3, fine

Artifact type: 1, angular debris; 2, core flake; 53, late stage biface

Function: 1, utilized debitage; 90, unutilized angular debris; 91, unutilized flake; 150, biface, probable projectile point

Cortex : in increments of 10 percent

Portion : 2, proximal; 4, distal

Platform: 12, missing

Dorsal scars: number of visible scars on dorsal surface

Provenience: S/SS , surface/surface strip; L.1, Level 1; L.2, Level 2; bs, below surface

Table 8. Chipped stone artifact inventory, LA 115268

FS	Material Type	Texture	Artifact Type	Function	Cortex	Portion	Platform	Dorsal Scars	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
0/74N/98E, S	201	1	2	91	0	1	10	3	14	9	2	.
0/87N/98E, S	80	3	1	90	16	11	8	.
0/65N/98E, S	81	3	2	91	0	1	5	3	19	14	4	.
1/89N/98E, S	1	3	1	90	0	.	.	.	22	17	12	4.5
2/89N/98E, L.1 (8-18 cm bs)	510	5	2	91	0	4	12	1	31	30	5	6.2
2/89N/98E, L.1 (8-18 cm bs)	80	3	1	90	0	.	.	3	31	20	11	7.1
2/89N/98E, L.1 (8-18 cm bs)	201	1	2	1	0	1	10	5	43	13	9	3.3
3//89N/98E, L.2 (18-28 cm bs)	100	3	2	91	0	2	3	2	16	12	4	1.0
4//89N/98E, L.3 (28-38 cm bs)	1	3	2	91	0	1	3	5	23	13	5	1.7
16/88N/98E, S	510	3	53	150	0	2	.	.	28	19	3	2.1
24/81N/98E, L. 2 (16-26 cm bs)	201	1	53	150	0	4	.	.	9	9	2	.3

Material type: 1, chert; 80, chalcedony; 81, mossy chalcedony; 201, Jemez obsidian; 202, Polvadera obsidian; 510, quartzite

Texture: 1, glassy; 3, fine; 5, medium

Artifact type: 1, angular debris; 2, core flake; 53, late stage biface

Function: 1, utilized debitage; 90, unutilized angular debris; 91, unutilized flake; 150, biface, probable projectile point

Cortex : in increments of 10 percent

Portion : 1, whole; 2, proximal; 4, distal

Platform: 3, single-faceted; 5, multifaceted; 10, crushed; 12, missing

Dorsal scars: number of visible scars on dorsal surface

Provenience: S, surface; L.1, Level 1; L.2, Level 2; L.3, Level 3; bs, below surface

APPENDIX 3

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:
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.
- 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) claim 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 and care of 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.
- 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.
- 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 collection.
- 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 restriction on use, care, and/or exhibition; the lending of objects whether permanently or temporarily for use to a community; and the holding in trust of culturally sensitive materials for the concerned party.

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.
 - 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.