

# MUSEUM OF NEW MEXICO

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## OFFICE OF ARCHAEOLOGICAL STUDIES

### THE DATIL MOUNTAIN PROJECT: ARCHAIC, PUEBLOAN, AND ATHABASCAN CAMPSITES ALONG U.S. 60, NEAR DATIL, CATRON COUNTY, NEW MEXICO

by

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## ARCHAEOLOGY NOTES 177

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## ADMINISTRATIVE SUMMARY

Between June 13 and August 26, 1994, the Office of Archaeological Studies (OAS), Museum of New Mexico, excavated three sites along U.S. 60, in Catron County, near Datil, New Mexico. LA 39998, LA 104381, and LA 104382 were investigated at the request of the New Mexico State Highway and Transportation Department (NMSHTD), due to the proposed reconstruction of U.S. 60 within the existing right-of-way.

LA 39998 is a multicomponent chipped stone and ceramic artifact scatter with no cultural features. Artifacts were collected from mixed soil deposits and could not be segregated into separate components. Projectile point types were similar to Middle and Late Archaic styles, and the ceramic assemblage contained protohistoric Athabascan and Piro Pueblo sherds, as well as a few indeterminate ceramics of Formative period Mogollon and Anasazi. Charcoal samples from general cultural fill provided radiocarbon dates of 300-215 B.C., A.D. 1310-1385, and A.D. 1505-1620. Radiocarbon, projectile point, and ceramic data support evidence for Late Archaic, Formative period, and protohistoric occupations of the site.

LA 104381 is a multicomponent chipped stone and ceramic artifact scatter. Excavation revealed three cultural features: two hearths and remains of a burned brush structure with a hearth. Charcoal samples collected from two features resulted in calibrated radiocarbon dates between A.D. 600 and A.D. 680. Artifacts were collected from mixed soil deposits and could not be placed into separate components. Projectile point types are similar in style to Late Archaic atlatl darts, Pueblo and Athabascan arrow points. The ceramics consisted of Formative period Mogollon brown wares and Anasazi white wares, as well as protohistoric Athabascan sherds. They imply a Reserve phase and protohistoric Athabascan occupation at this site. Radiocarbon samples from a burned area provided calibrated dates ranging from A.D. 1520 to 1630, implying an Athabascan occupation of this site.

LA 104382 is a chipped stone artifact scatter with no cultural features. The artifact assemblage consisted primarily of core and bifacial reduction flakes. A charcoal sample was collected from mixed soil deposits and provided a calibrated radiocarbon date of 7020 B.C. Because of its collection context, the radiocarbon date must be considered with caution. It implies, however, a Late Paleoindian or an Early Archaic period site occupation.

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

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## INTRODUCTION

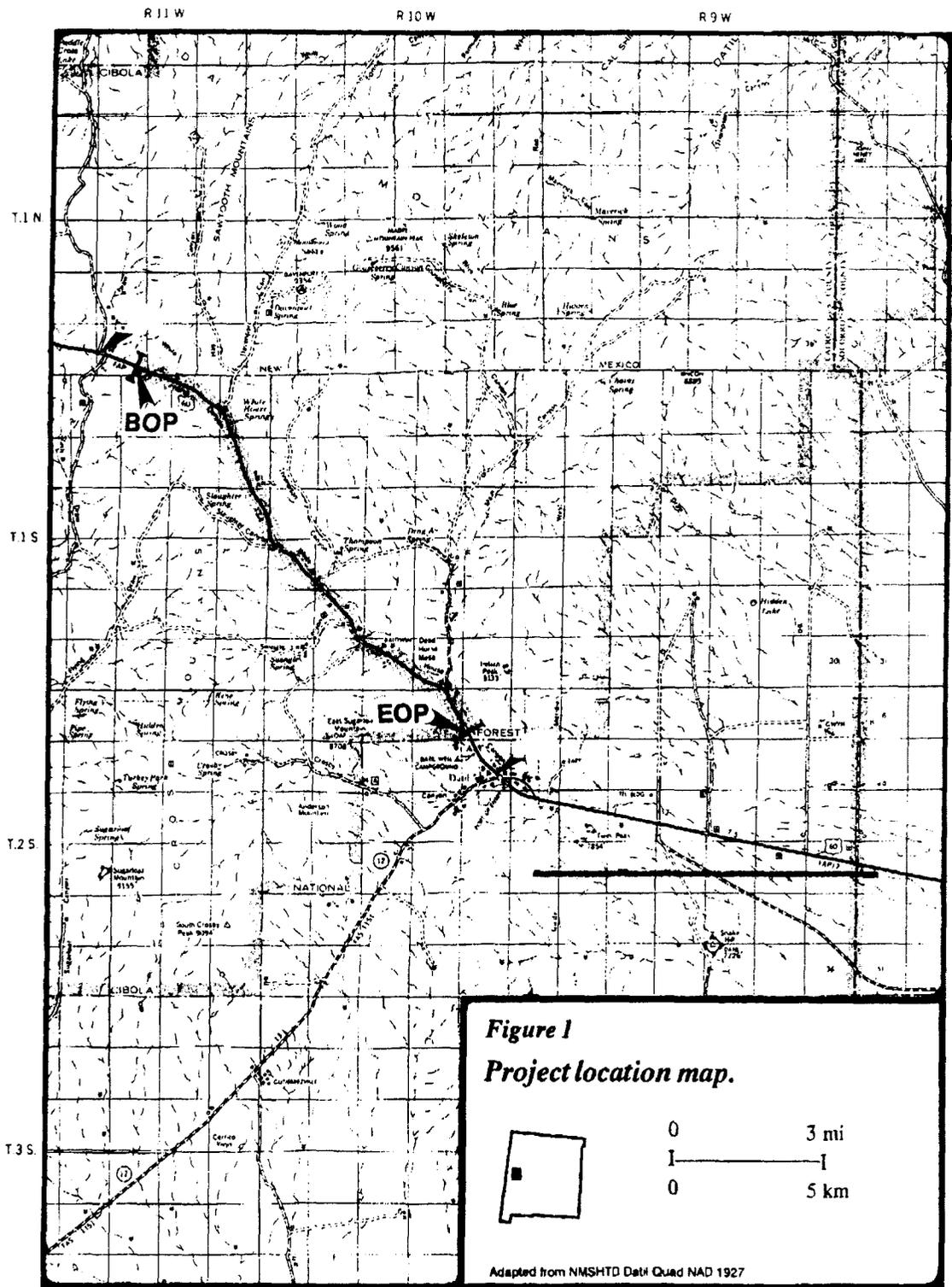
In the spring of 1994, the New Mexico State Highway and Transportation Department (NMSHTD) requested that the Office of Archaeological Studies (OAS), Museum of New Mexico, investigate three sites that lie within the right-of-way along U.S. 60 in Catron County west of Datil, New Mexico.

A cultural resources survey was conducted by the NMSHTD for a proposed resurfacing, rebuilding of shoulders, and horizontal and vertical realignments of the road on March 23, 24, 25, 29, and 30, 1994 (Weidner et al. 1994). The survey covered 17.07 km (10.61 miles): 12.71 km (7.9 miles) of highway right-of-way obtained from private sources and 4.35 km (2.7 miles) of NMSHTD easement from USDA Cibola National Forest. At the beginning of the project (BOP) 1.1 km (0.7 miles) of additional area were surveyed, as well as 1.4 km (0.9 miles) at the end of the project (EOP) (Fig. 1). LA 104381, LA 104382, and LA 39998 were found within the right-of-way acquired from private sources, outside of the USDA Cibola National Forest (Appendix 6). No sites are recorded on the *National Register of Historic Places* or the *State Register of Cultural Properties* within the project area. A data recovery plan for LA 39998, LA 104381, and LA 104382 was prepared by Oakes (1994).

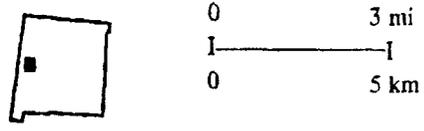
Between June 13 and August 26, 1994, staff from the OAS began the data recovery phase of LA 104381, LA 104382, and LA 39998. The principal investigator and project director was Yvonne R. Oakes. The project supervisor was Dorothy A. Zamora with assistants Lloyd Moiola and David Hayden. Field laborers were Chris Cordova, Terah Lindsey, and Antonio Torres.

LA 39998 is a multicomponent chipped stone and ceramic artifact scatter with diagnostic projectile points and sherds. No cultural features were recorded. Artifacts were collected from shallow, disturbed soil and could not be placed into separate temporal-cultural components. However, projectile points were collected that are similar in style to Middle and Late Archaic atlatl dart points, and the ceramic assemblage contained protohistoric period glaze wares from the Piro Pueblo area in association with Athabascan sherds, as well as a few indeterminate ceramics of Formative period Mogollon and Anasazi. Charcoal samples from general cultural fill provided radiocarbon dates of 300-215 B.C., A.D. 1310-1385, and A.D. 1505-1620. These samples are consistent with the projectile point and ceramic data suggesting Late Archaic, Formative period, and protohistoric occupations of the site, however, they must be considered with caution. Several possible site activities related to resource procurement (bifacial and expedient tool production, and processing of wild plant and animal foods) are indicated in the chipped stone and ground stone assemblages; however, these activities could not be related to any specific occupational episodes.

LA 104381 is a multicomponent chipped stone and ceramic artifact scatter with diagnostic projectile points and sherds. Excavation revealed three cultural features, chipped stone debris, ceramics, ground stone, and burned bone. Feature 1 is the charred remains of a brush structure with a hearth, and Features 2 and 3 are both extramural hearths. Charcoal samples collected from Features 1 and 2 resulted in calibrated radiocarbon dates between A.D. 600 and A.D. 680. Because cultural deposits were from mixed, shallow soil, the artifacts could not be segregated into distinctive components of temporal or cultural affiliation. Projectile points were identified during analysis as similar in style to Late Archaic atlatl dart points, and Puebloan and Athabascan arrow points. The ceramics consisted of Formative period Mogollon brown wares and Anasazi white wares, as well



**Figure 1**  
**Project location map.**



Adapted from NMSHTD Data Quad NAD 1927

as protohistoric Athabascan sherds. They imply a Reserve phase and protohistoric Athabascan occupation for this site. Radiocarbon samples from a burned area provided calibrated dates ranging from A.D. 1520 to 1630. This site may have served as a seasonal Mogollon residence and a short-term Athabascan camp.

LA 104382 is a chipped stone artifact scatter with no identified diagnostic artifacts or features. The artifact assemblage consisted primarily of core and bifacial reduction flakes. Two large, unidentified projectile points were collected from the surface of the site, and are reminiscent of Late Archaic atlatl dart points. A charcoal sample was collected from shallow soil (not associated with any features) and provided a calibrated radiocarbon date of 7020 B.C. The radiocarbon date must be considered with caution, however it implies a Late Paleoindian or an Early Archaic period site occupation. The artifact assemblage suggests a single, short term occupation emphasizing bifacial tool manufacture or maintenance for this site.

## SITE SUMMARIES

David J. Hayden and Lloyd A. Moiola

### LA 39998

LA 39998 was originally recorded by the University of Texas in Cibola National Forest report 1982-03-23; the site was re-recorded by NMSHTD archaeologists in March of 1994 during a cultural resource survey for the reconstruction of U.S. 60, west of Datil, New Mexico. It was described as a lithic artifact scatter of unknown cultural or temporal affiliation with three possible hearths and a historic can dump. The site is located 15.1 km (9.4 miles) west of Datil at Milepost 67.55 (Appendix 6). Cultural materials were reported to cover an estimated 16,000 sq m on both sides of U.S. 60, however the main artifact concentration is on the south side of the highway.

LA 39998 was recommended for data recovery, which was conducted by OAS staff during the months of July and August 1994.

#### *Setting*

LA 39998 lies within and outside the existing U.S. 60 right-of-way at an elevation of 2,430 m (7,975 ft). The site is on a series of small, heavily wooded hills, which are divided by a ravine that flows into White House Canyon. The surrounding terrain is characterized by steep mountain slopes and ridges, and the site overlooks White House Spring, which is located 110 m to the northeast.

Vegetation consists primarily of ponderosa pine, and includes piñon, juniper, oak, various grasses, cactus, four-wing salt bush, and rabbit brush. Soils on the site are shallow, well drained, sloping sandy loams of the Motoqua-Datil and Flugle-Loarc series, which occur on alluvial fans, hills, and ridges (Johnson 1985:75, 90).

#### *Excavation Results*

Cultural deposits were found in both surface and subsurface contexts; the maximum depth (below ground surface) of cultural material was 50 cm, with a mean depth of 13 cm. A total of 1,187 excavation units were removed from 542 1-by-1-m grids (Fig. 4). No cultural features were identified during excavation, and the "hearths" recorded during survey were determined to be recent, natural burns.

Artifacts recovered include 2,078 pieces of chipped stone, 93 ceramics, 46 pieces of ground stone, and 63 pieces of animal bone. The chipped stone assemblage consisted of 520 pieces of angular debris and 1,232 core flakes (39 of which were utilized), 184 biface flakes, 18 cores, 1 cobble tool, 1 end scraper, 1 uniface, 2 drills, 64 undifferentiated bifaces, and 55 projectile points. The ceramic assemblage contained Mogollon brown wares (n = 3), Anasazi white wares (n = 6), protohistoric Athabascan utility wares (n = 61) and Rio Grande ceramics (n = 23) likely of Piro origin. The ground stone included 14 indeterminate fragments, 1 hammerstone, 12 manos (3 indeterminate and 9 one-hand), and 19 metates (5 indeterminate, 4 trough, and 10 slab). Small

and medium mammal bones constituted most of the faunal remains. No human remains were encountered.

A small historic can dump was identified and excavated. No artifacts were encountered below the current ground surface. Analyzed in the field, these artifacts consisted of early 1960s containers for soup, vegetables, beer, chewing tobacco, motor oil, and anti-freeze.

Although no cultural features were identified, several charcoal samples were recovered from general cultural fill. Calibrated radiocarbon dates include: 300-215 B.C., A.D. 1310-1385, and A.D. 1505-1620. Since these samples were not associated with cultural features, and are from shallow, mixed soils, they must be considered with caution. They are, however, consistent with other data suggesting Late Archaic, Formative, and protohistoric occupations.

### *Summary*

Radiocarbon, projectile point, and ceramic data suggest three (possibly four) occupations between the Late Archaic and protohistoric periods. Although this information confirms the presence of Archaic, Formative Mogollon-Anasazi, Athabascan, and possibly Piro Pueblo groups, it is not possible to distinguish these components within the overall assemblage.

### LA 104381

LA 104381 was recorded by NMSHTD archaeologists in March of 1994 during a cultural resource survey for the reconstruction of U.S. 60, west of Datil, New Mexico. It was described as a lithic and ceramic artifact scatter with possible hearths. Surface artifacts included ground stone, flakes, flake tools, and ceramics that consisted of plain and corrugated brown wares, as well as a black on white sherd (Weidner et al. 1994). The artifacts covered an estimated 11,250 sq m on the south side of U.S. 60 at Milepost 72.75 (Appendix 6).

This site was recommended for data recovery, which was conducted by OAS staff, during June and July 1994.

### *Setting*

LA 104381 is located in White House Canyon, within and outside the existing U.S. 60 right-of-way, 7.1 km (4.41 miles) west of Datil, New Mexico. The site is on the lower ridge of a hill-slope at an elevation of 2,310 m (7,580 ft). The artifacts are distributed on both sides of the highway, but the main concentration is on the south side of the road.

This location overlooks a wide valley bottom within White House Canyon and is surrounded by steep rocky slopes and ridges. The terrain is interspersed with hills, mesas, and ravines. There is an intermittent stream 0.28 km northeast, a small drainage southeast of the site, and a perennial spring 2.2 km (1.4 miles) to the northwest.

Vegetation consists of piñon, juniper, ponderosa, oak, various grasses, cactus, four-wing

salt bush, and rabbit brush. Soils on the site are shallow and consist of the Motoqua-Datil and Flugle-Loarc series. These are well-drained, sloping sandy loams that occur on alluvial fans, hills, and ridges (Johnson 1985:75, 90).

Another site, a large lithic scatter (including several Archaic period projectile points), is located outside of the existing right-of-way, approximately 200 m upslope of this site. Although these two sites seem distinct, there may be some mixing of cultural material.

### *Excavation Results*

Cultural deposits were both surface and subsurface; the maximum depth (below ground surface) of cultural material was 31 cm, with a mean of 8 cm. A total of 446 excavation units were removed from 239 1-by-1-m grids. In addition, a trench was mechanically excavated at the base of the hill to confirm the limits of cultural deposits and identify stratigraphy (Fig. 5). No cultural material was recovered in this trench, and soil was, in general, 10 to 50 cm above bedrock. Two artifact concentration areas were identified: Area 2 was located at the base of the slope, and Area 1 was in a semiflat area above it. Three cultural features were encountered during excavation.

Artifacts recovered include 598 chipped stone artifacts, 245 ceramics, 26 pieces of ground stone, and 489 animal bones. The chipped stone assemblage consisted of 115 pieces of angular debris, 424 core flakes (17 of which were utilized), 16 biface reduction flakes (1 utilized), 6 cores, 1 cobble tool, 20 undifferentiated bifaces, and 16 projectile points. The projectile point assemblage included some that were stylistically similar to Late Archaic dart points, and others similar to Pueblo and Athabascan arrow points.

The ceramics were primarily thin, protohistoric Athabascan utility wares (n = 175), although Formative period Mogollon brown wares and Anasazi white wares (n = 70) were also encountered. The ground stone included 10 manos (5 one-hand and 5 indeterminate) and 11 metates (8 slab, 1 basin, and 2 indeterminate), as well as 3 fragments, 1 shaped slab and 1 abrading stone. The majority of the faunal remains were burned, medium-sized mammal bones. Charcoal samples removed from cultural features and the general cultural fill provided radiocarbon dates. No human remains were encountered.

### *Cultural Features*

Excavation revealed three cultural features within artifact area 1. Feature 1 is an area of burned earth, most likely the charred remains of a brush structure with an internal hearth. Features 2 and 3 are both hearths. Feature 2 is located 10 m northeast of subdatum 8 and Feature 3 is 5 m northwest of the same datum.

Feature 1 is a roughly circular-shaped area (6-by-5 m), composed of compact, charcoal-stained soil and a hearth (Figs. 6 and 7). The hearth is oval and measured 90 cm E-W by 65 cm N-S with a depth between 4 and 12 cm. Several large fire-cracked rocks were on the north and east edges of the hearth, and in the fill and surrounding the feature. One small fragment of a charred corn cob was recovered from the hearth fill. The surface around the hearth (and outlying feature stain) was hard, dark grayish brown (Munsell 10YR 4/2), and reddish gray clay (5YR 5/2) with embedded flecks of charcoal. Two possible postholes that contained burned wood were between the hearth



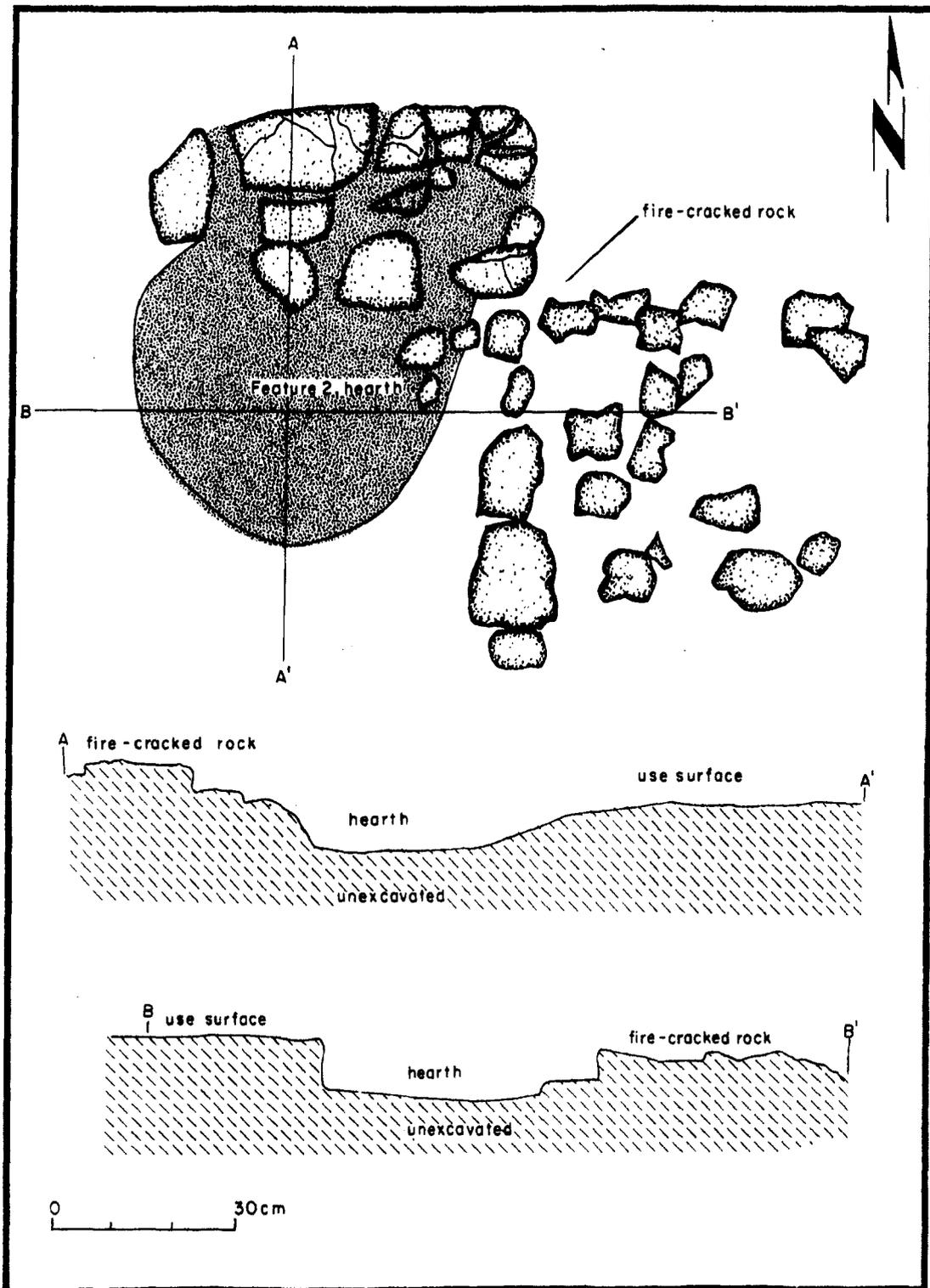
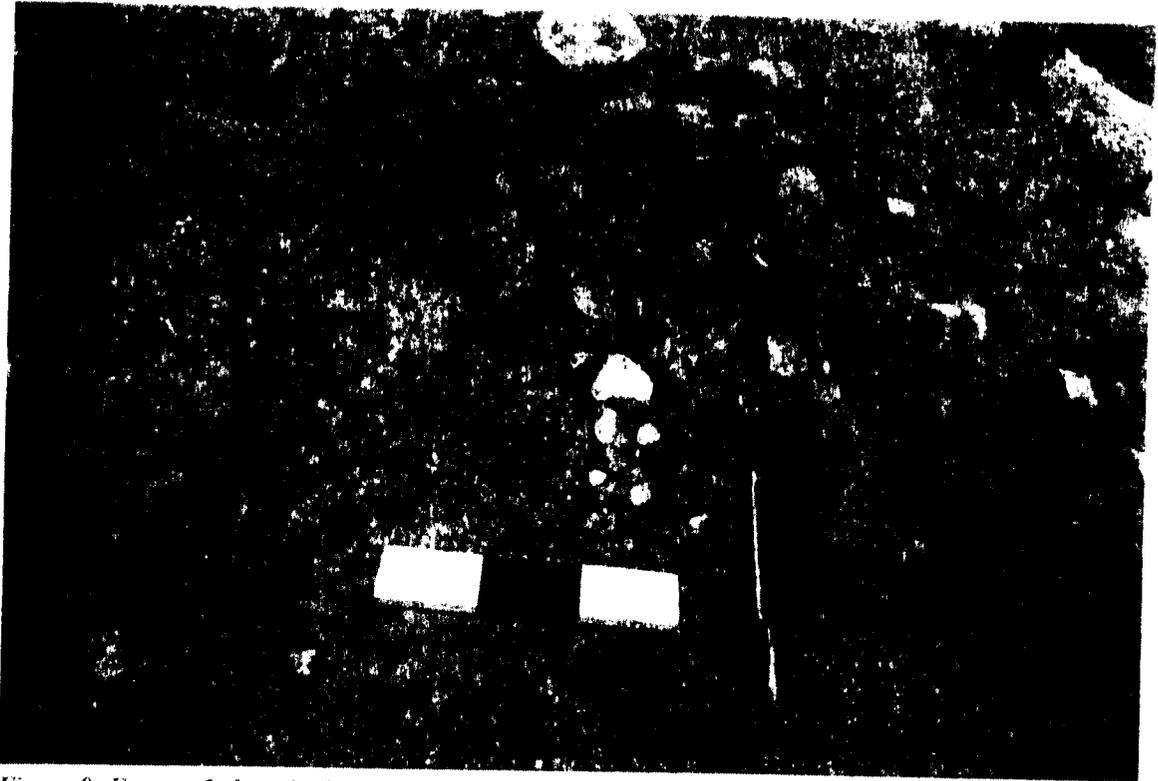


Figure 8. Feature 2, hearth, LA 104381.



*Figure 9. Feature 2, hearth, LA 104381.*

Feature 3 (Figs. 10 and 11) is a shallow, circular hearth in grids 112N/90-91E. The hearth measures 70 cm north-south by 65 cm east-west and is 3-10 cm deep. The fill contained minute charcoal flecks (not enough for radiocarbon dating) and dark gray (10YR 3/1) charcoal-stained soil. A few pieces of fire-cracked rock were on the base and edges of the feature. The base of the hearth was even, compact, dark reddish brown (5YR 4/2) soil. No artifacts were collected from within the feature, but surrounding grids yielded chipped stone, ground stone, and burned bone.

#### *Summary*

Multiple occupations during four time periods are suggested by radiocarbon dates and diagnostic artifacts; however, it is difficult to develop associations between these data and the overall artifact assemblage. A Late Archaic occupation is questionable, since an Archaic site has been identified nearby and is upslope. Two of the three cultural features date to the mid-seventh century based on radiocarbon data and are associated with most of the bone removed from the site. A Reserve phase Mogollon occupation is suggested by the ceramic assemblage, and is not supported by any other data. A protohistoric Athabascan occupation is evidenced by ceramic data, and is supported by a sixteenth-century radiocarbon date, and possibly four projectile points.

#### LA 104382

LA 104382 was recorded by NMSHTD archaeologists in March of 1994 during a cultural resource survey for the reconstruction of U.S. 60, west of Datil, New Mexico. It was described

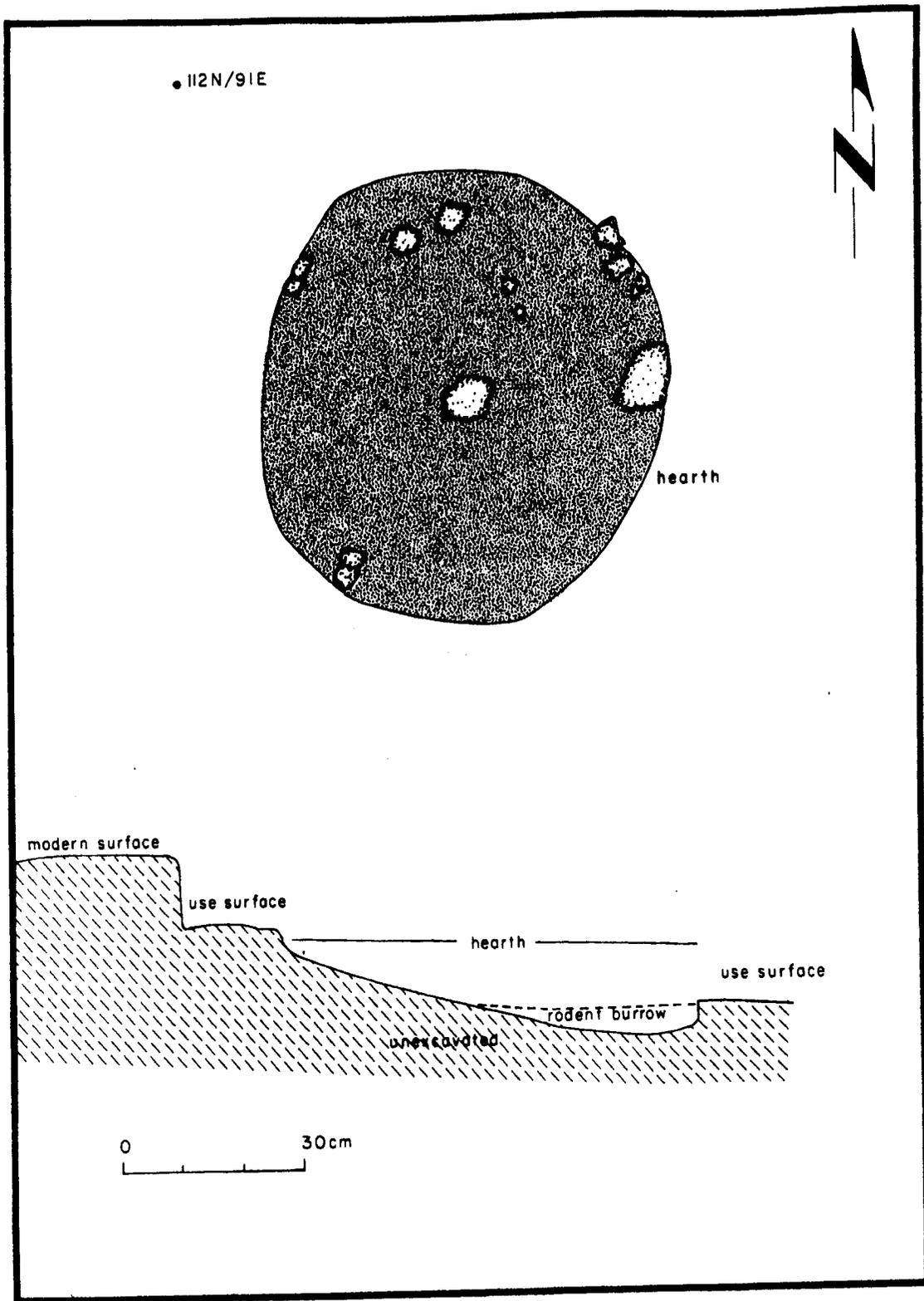


Figure 10. Feature 3, hearth, LA 104381.

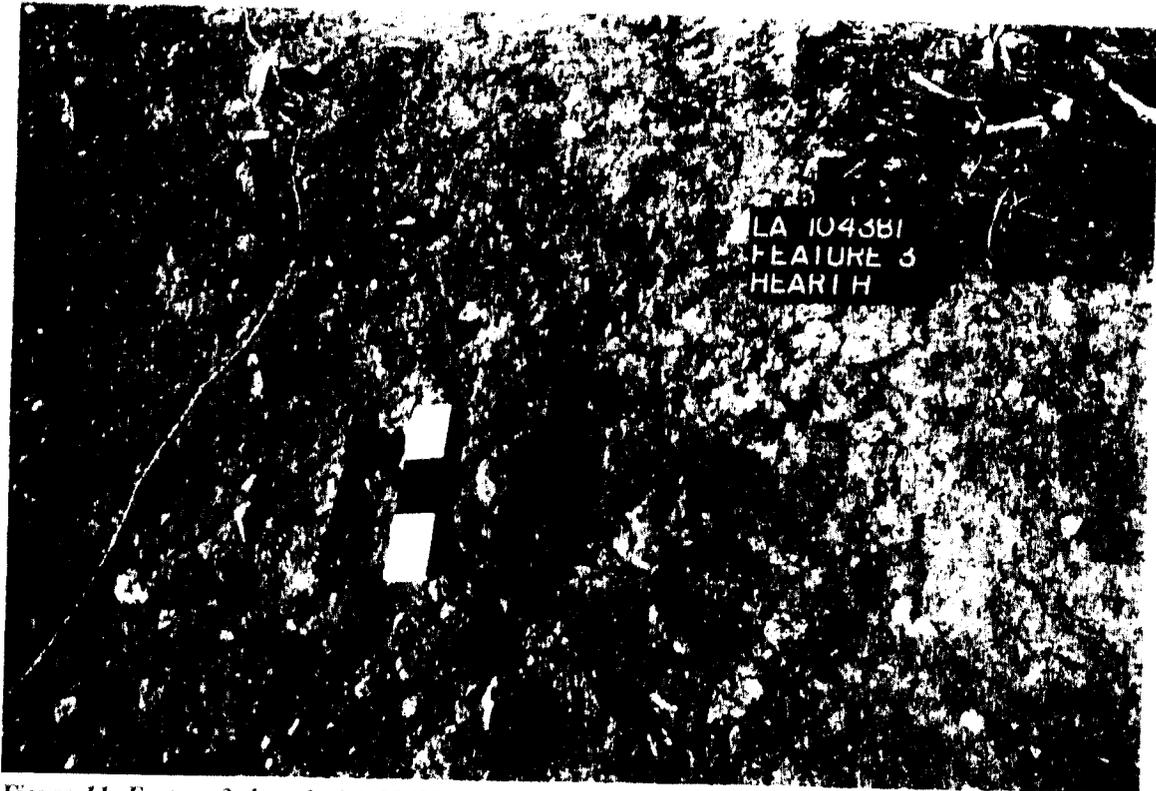


Figure 11. Feature 3, hearth, LA 104381.

as a small lithic scatter of unknown cultural-temporal affiliation. Surface artifacts included chipped stone debris, a "chert knife" (actually a fine-grained rhyolite side-scraper), a unifacial mano, a slab metate fragment, and a chert biface fragment. Surface artifacts covered an estimated area of 245 sq m (804 sq ft), on the south side of U.S. 60 at Milepost 75.65 (Appendix 6) (Weidner et al. 1994).

This site was recommended for data recovery, which was conducted by OAS staff during June and July 1994.

#### *Setting*

LA 104382 is in White House Canyon within and outside the existing right-of-way of U.S. 60, west of Datil, New Mexico. Located on a low slope at the base of a mesa, and approximately 3 m above the canyon flood plain, this site is at an elevation of 2,262 m (7,420 ft), and approximately 0.4 km (0.25 mi) southeast of the confluence of Main Canyon.

This location overlooks a narrow valley, bordered to the southwest and northeast by rocky slopes and mesas. Main Canyon joins White House Canyon to the northwest, and White House Canyon broadens to the southeast toward the town of Datil. Both canyons have intermittent streams, the nearest (White House Canyon drainage) is approximately 200 m from the main site concentration.

Vegetation consists of piñon, juniper, various grasses, cactus, four-wing salt bush, and rabbit brush. Soils are well drained, sloping, sandy loams of the Motoqua-Datil and Flugle-Loare series, which occur on alluvial fans, hills, and ridges (Johnson 1985:75, 90).

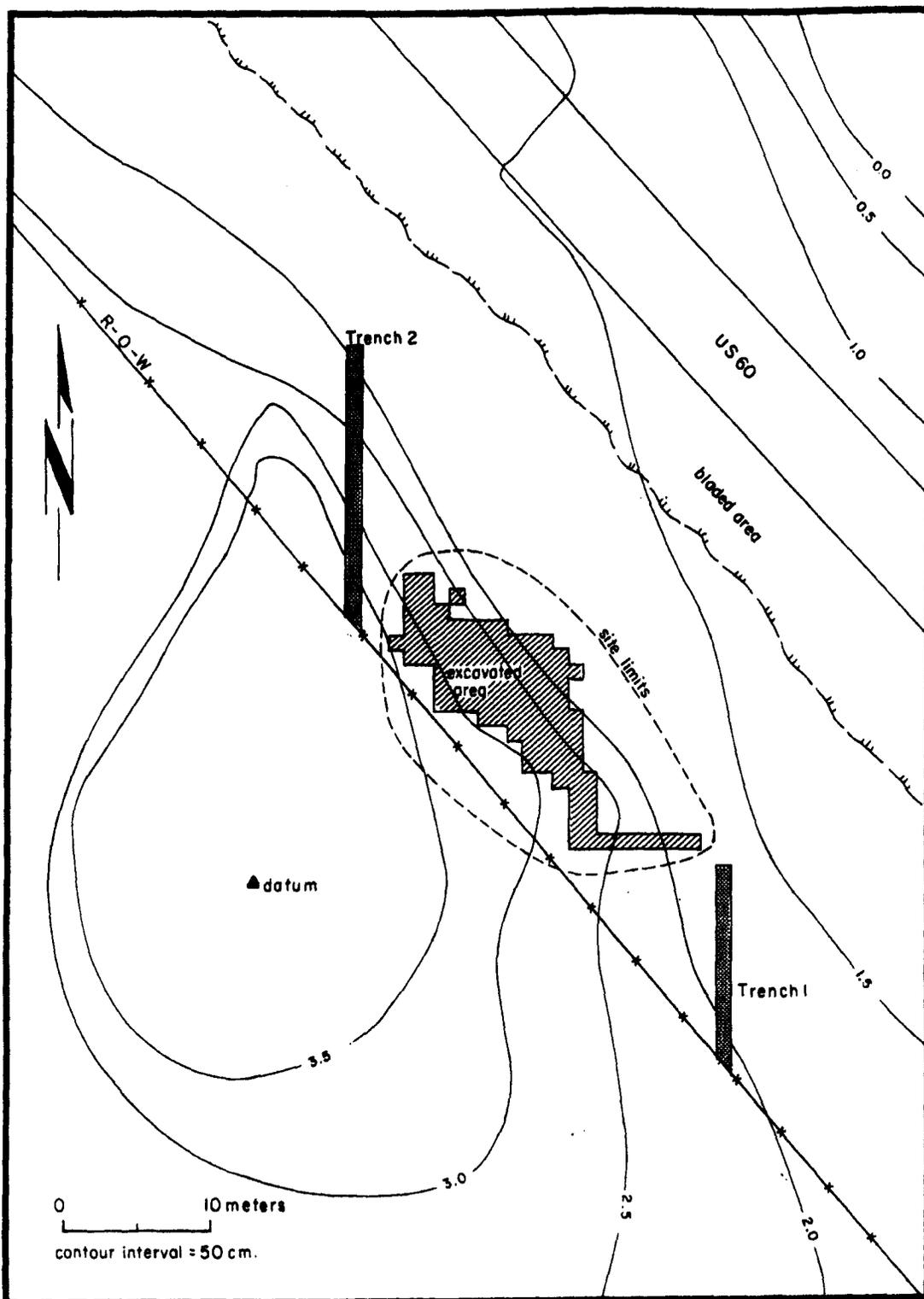


Figure 12. LA 104382 site map.

### *Excavation Results*

A large portion of the cultural fill within the highway right-of-way may have been removed during construction of the existing highway. As a result, cultural deposits were mixed. Artifacts were encountered on the surface and subsurface; the maximum depth of cultural material (below ground surface) was 42 cm, and the mean depth was 13 cm. A total of 215 excavation units were excavated in 122 1-by-1 m grids. In addition, two trenches were excavated with mechanical equipment to establish natural-cultural stratigraphy, and verify site limits (Fig.12). Stratigraphy was limited to natural formations well below the vertical limits of cultural deposits; no cultural material was encountered within these trenches.

Artifacts recovered include 4 pieces of animal bone, 100 biface reduction flakes, 133 core flakes (3 utilized), 53 pieces of angular debris (2 utilized), a blade fragment (utilized), 2 projectile point fragments, a one-handed mano, a fragment of a slab metate, and a side-scraper. Both projectile points were nondiagnostic fragments, but appear to be portions of atlatl dart points. Faunal remains were from small and medium mammals, and were most likely not deposited in a cultural context. No human remains were encountered.

Although no cultural features were encountered, a small charcoal sample was removed from 12 cm below ground surface within the disturbed area of the site. This sample provided a calibrated radiocarbon date of 7020 B.C. Since it is not directly associated with a cultural feature, and is from mixed soil deposits, this date must be considered cautiously.

### *Summary*

It is unclear what percentage of the original site artifact assemblage was recovered during excavation, however, the artifact assemblage collected suggests a single short-term occupation emphasizing bifacial tool manufacture or maintenance. Although both radiocarbon and projectile point data should be considered with caution, they imply a late Paleoindian or Early Archaic period occupation.

## SYNTHESIS

David J. Hayden and Lloyd A. Moiola

### LA 39998

#### *Discussion*

The cultural deposits at this site were mixed and represent an accumulation of material during several occupations over a broad time period. Diagnostic artifacts were identified, and indicate occupations by at least three distinct cultural groups in three general time frames, however it is not possible to discern cultural differences within the nondiagnostic artifact assemblage. There was no evidence to suggest spatial associations between artifacts; erosion seems to have disturbed much of the cultural fill. Several general site activities are indicated though association with specific occupations is not possible in most cases. No cultural features were identified. Several charcoal samples recovered from general cultural fill provided radiocarbon dates. Because of their recovery context, however, these dates must be considered with caution.

The chipped stone assemblage implies an overall emphasis on nonsystematic core reduction, primarily of local materials. Very few informal tools were identified, although this is likely reflective of limitations in the analysis as well as the characteristics of local materials such as rhyolite. In addition, breakage patterns in the formal tool assemblage, and the presence of some bifacial reduction flakes, indicate episodes of bifacial reduction.

Two-thirds of the projectile points (n=36) were culturally and temporally nondiagnostic, yet most were consistent in size with atlatl points most frequently associated with Paleoindian and Archaic period occupations. Eighteen projectile points were similar to specific Middle and Late Archaic styles, including: San Augustin, Chiricahua, San Pedro, and En Medio. No other styles were identified within the projectile point assemblage, although five small points were likely used for arrows.

Morphological criteria and wear pattern analysis of ground stone and palynological and macrobotanical data suggest processing of wild resources such as seeds, acorns, and perhaps some fibrous materials. No evidence of cultigens was identified. A small assemblage of burned animal bone was recovered, and indicates use of medium and large mammals for food; some projectile point fragments also support the idea that meat packages were brought back to this site.

At least three distinct periods of occupation are represented by ceramic, projectile point, and radiocarbon data. A Middle-Late Archaic period occupation is implied by projectile point styles and calibrated radiocarbon dates of 350, 300, and 215 B.C. Breakage patterns in the projectile point assemblage suggest retooling or resharpening of weapons and perhaps game processing during this time frame. It is unclear whether this assemblage represents a single occupation or a series of occupations.

Small numbers of Formative period (Mogollon/Anasazi) ceramics, including Alma Plain, early painted white wares, late polished white wares, and Socorro Black-on-white, indicate a brief occupation, or series of brief occupations between A.D. 600 and A.D. 1400. Although five small projectile points (arrow points) may be related, no other artifacts or site activities could be associated.

Protohistoric (Apache or Piro) occupations are indicated by Athabascan utility wares and Rio Grande (Piro) ceramics. Although the Athabascan pottery was produced until at least the nineteenth century, Piro groups abandoned the Rio Grande and Magdalena areas soon after 1680. It is possible that these assemblages represent distinct occupations. However, it is more likely that both are the result of Apache occupations; historic accounts indicate frequent trade between the Apache and Piro, and intense Apache control over the Datil area during the protohistoric period. It is not clear if this assemblage represents a single occupation or a series of occupations. Five unidentified small projectile points (arrow points) may be related, but no other artifacts or site activities could be associated with this period.

Cultural features were not identified. Several charcoal samples were recovered from general cultural fill. Calibrated radiocarbon dates include 300-215 B.C., A.D. 1310-1385, and A.D. 1505-1620. Since these samples were not associated with cultural features, and are from shallow deposits of mixed soils, they must be considered with caution. They are, however, consistent with other data suggesting Late Archaic, Formative, and protohistoric occupations.

### *Conclusion*

The chipped stone, ground stone, and faunal assemblages indicate several site activities, including hunting and game processing, bifacial tool manufacture or maintenance, informal chipped stone tool production, and processing of wild plant resources. Because of the lack of discrete cultural deposits, these activities cannot be associated with any particular occupation.

Radiocarbon, projectile point, and ceramic data suggest multiple occupations by three (possibly four) groups that included Archaic, Formative Mogollon/Anasazi, Athabascan, and possibly Piro Pueblo populations, though it is not possible to distinguish these components within the majority of the artifact assemblage. Further, it is not clear how many occupational episodes are represented across these time periods. The proximity of the site to a consistent water source, as well as its view of the valley make it an ideal location for resource procurement and continual re-occupation seems likely.

## LA 104381

### *Discussion*

A number of artifacts (including projectile points and ceramics) were diagnostic of distinct temporal or cultural affiliations, but distinguishing these components within the general artifact assemblage was not possible. With the exception of Feature 1 (a burned brush structure), there was little evidence to suggest spatial associations between artifacts; erosion seems to have disturbed much of the cultural fill.

The chipped stone assemblage suggests an emphasis on nonsystematic core reduction, primarily of local materials. The assemblage is indicative of informal, expedient tool manufacture and use, although wear pattern analysis did not support this conclusion. Very few informal tools were identified. This, however, is likely reflective of limitations in the analysis as well as the characteristics of local materials such as rhyolite. Several undifferentiated bifaces were broken during manufacture

and projectile point breakage patterns indicate discard because of use-related breaks or rehafting.

The majority of the projectile points were fragmentary and nondiagnostic, yet several were similar to Late Archaic styles, including San Pedro and En Medio. In addition, five arrow points were identified, including a Mogollon Side Notched and four points similar to Desert Side Notched and Cottonwood Triangular. Mogollon Side-Notched points are most often associated with Highland Mogollon Pithouse and Pueblo period occupations; Desert Side-Notched and Cottonwood Triangular points have been associated with Athabascan occupations in the Four Corners region of New Mexico.

Most of the ground stone recovered from the site was associated with the structure and two external hearths. The assemblage consisted primarily of slab metates and one-handed manos. Pollen analysis of samples removed from the ground stone suggest acorn processing, an activity which is supported by wear pattern analysis. Although one fragment of a corn cob was recovered from the structure's hearth, there is no other evidence to suggest that cultigens were utilized on the site.

An assemblage of 489 animal bones was recovered primarily from two dump areas adjacent to and associated with the structure. The assemblage is highly fragmented and burned, and suggests intensive nutritional recovery and primary disposal in an active fire. Secondary dumping was in close proximity to the structure and demonstrated a discard pattern that may indicate a short-term, cold season occupation or series of occupations.

Four occupational episodes are suggested by projectile point, ceramic, and radiocarbon data. These occupations include possible Late Archaic, seventh century (Mogollon/Anasazi Pithouse Period), Reserve phase Mogollon, and protohistoric Athabascan (most likely Apache). Several projectile points are consistent with Late Archaic styles, although their relationship to this site is uncertain since their presence may be the result of erosional processes or redeposition from an Archaic lithic scatter upslope.

Charcoal samples from the structure and its indoor hearth provide calibrated radiocarbon dates ranging between A.D. 600 and 680. Feature 2, a small hearth, provides a calibrated radiocarbon date of A.D. 645. Concentrations of faunal material associated with the structure suggest game procurement during this time period, however, no projectile point assemblage with attributes indicating a temporal association (with the possible exception of the Mogollon Side-Notched point) were identified. It is possible that several points and point fragments identified as Late Archaic atlatl points were in use at this time, and are associated with this occupation.

The ceramic assemblage indicates two distinct occupational episodes, including Reserve phase Mogollon and protohistoric Athabascan. The former occupation is represented only by ceramic data (although the Mogollon Side-Notched point could be related). The latter occupation is supported by a charcoal sample recovered from a burned area that was not designated as a cultural feature; this provided a calibrated radiocarbon date ranging between A.D. 1520 and 1630. In addition, four projectile points (Desert Side-Notched and Cottonwood Triangular) are likely associated with this occupation. Historic documents concerning Athabascan groups indicate that Chiricahua Apaches occupied the Datil Mountain region from before European contact until the mid-nineteenth century when Navajo refugees began replacing them. It seems most likely that the Athabascan occupation at this site is Chiricahua Apache (Opler 1983; Schroeder 1974).

### *Conclusion*

Multiple occupations during four time periods are suggested by radiocarbon dates and diagnostic artifacts, including Late Archaic period, seventh century (unknown cultural affiliation), Reserve phase Mogollon, and protohistoric Athabascan (Apache). It is difficult, however to develop associations between these data and the overall artifact assemblage. Since an Archaic site has been identified nearby, and is upslope, artifacts attributed to this period may be intrusive. It is also possible that these artifacts are associated with the seventh-century occupation.

Two of the three cultural features date to the mid-seventh century based on radiocarbon data, and are associated with most of the bone removed from the site. This suggests game processing and hunting activities during this occupation. Late Archaic style projectile points and much of the ground stone may also be associated with this time period.

A Reserve phase Mogollon occupation is suggested by the ceramic assemblage, and is not supported or rejected by any other data. A protohistoric Athabascan occupation is evidenced by ceramic data, supported by a sixteenth-century radiocarbon date, and suggested by four projectile points.

Several general site activities are implied, including bifacial tool (including projectile point) manufacture or maintenance, hunting, and processing of wild plant foods. With the exception of faunal and ground stone associations from the seventh-century occupation, few associations between occupations and the nondiagnostic portions of the artifact assemblage could be made. The majority of the cultural material recovered cannot be associated with any cultural group or time frame. Most of the chipped stone material is suggestive of expedient tool reduction, although very few informal tools were identified. It likely represents an accumulation of material from all the occupations considered above.

### LA 104382

### *Discussion*

A relatively small amount of cultural material was removed from LA 104382, almost all of which was chipped stone debitage. This assemblage suggests an emphasis on systematic, bifacial reduction; 35 percent of the assemblage was bifacial reduction debris, and a large number of intact platforms were modified by retouch or abrasion. Following Kelly (1988), such a pattern, in the absence of frequent examples of expedient tool use, may indicate an emphasis on formal, bifacial tool manufacture and/or maintenance, rather than bifacial core reduction for informal tool use. The absence of an adequate tool assemblage (either informal or formal) makes defending or refuting such an argument difficult.

Assigning temporal or cultural affiliation to this site is difficult as well. Based on the size of the assemblage and the lack of cultural features (or any evidence of extended occupation), it is tempting to view this site as a very short-term, single occupation, logistical camp. Although this interpretation is likely accurate, it is difficult to be sure how much of the site (and what cultural manifestations) exists outside of the right-of-way. Some portion of the site may have been removed during the initial construction of U.S. 60. The majority of this site was likely subsurface prior to initial road construction since almost all of the artifacts observed during the project were eroding out of

subsurface fill. Very few surface artifacts were observed outside of the existing right-of-way, although excavation units along the right of way fence yielded significant numbers. It is difficult, therefore, to thoroughly define site limits, and impossible to determine what portion of the cultural material was recovered. As a result, the perceived uniformity and small size of the assemblage may be more a consequence of the site portion that was excavated than the total range of site activities.

Of two projectile point fragments recovered, one was collected away from the main artifact concentration and may not be associated with the rest of the assemblage. Neither projectile point is culturally or temporally diagnostic, although their size suggests that they were probably atlatl dart points, most likely associated with Paleoindian or Archaic groups.

Short-term logistical camps, of which this site is reminiscent, intuitively seem more likely during these periods of high mobility. A calibrated radiocarbon date of 7020 B.C. was obtained, although the context of the sample's recovery prescribes a very cautious application. Further, it is important to realize that many other groups utilizing this area throughout history (including Piro, Zuni, Acoma, Apache, and Navajo) made use of chipped stone, bifacial tools, and conducted extensive logistical forays.

### *Conclusion*

It is unclear what portion of the site was recovered during excavation, however, the artifact assemblage collected suggests a single, short-term occupation emphasizing bifacial tool manufacture or maintenance. Although both radiocarbon and projectile point data should be considered with caution, they imply a late Paleoindian or Early Archaic period occupation.

### General Overview

The data acquired from this project provides general information regarding prehistoric and protohistoric use of the Datil Mountains. Although the condition of each of the three sites excavated precludes extensive, discrete evaluation of individual cultural continuums in the area, they provide confirmation of the presence of several cultural groups across broad temporal periods. With one exception, the relationship between site activities and cultural context is vague, however, the data obtained suggest a broad use of the Datil Mountain area for short-term habitations related to resource procurement over long periods of time. More archeological research in the area is necessary to determine the range of cultural manifestations in the region.

### *Archaic Period Use*

Several Archaic period sites have been documented during cultural resource surveys within and near the project area, although relatively few have been excavated (notably Beckett 1980; Dick 1965; Hannaford 1985; Martin et al. 1952; and Wills 1988) Prior to this project, no Archaic period sites are known to have been excavated in the Datil Mountains.

All three sites excavated during this project show some evidence of an Archaic period occupation. Despite the fact that temporal/cultural assignment is guarded, LA 104382 is distinct

because it represents a single, short-term occupational episode. The artifact assemblage suggests an emphasis on bifacial reduction, probably in the form of tool manufacture or maintenance. Most likely this site served as part of a logistical foray for resource procurement (hunting).

The Archaic period manifestations at LA 39998 and LA 104381 are less clear, because both sites have multiple components and mixed cultural deposits. Several projectile points similar to Middle and Late Archaic styles were recovered from LA 39998, and a charcoal sample recovered from general cultural fill provided a radiocarbon date of 350-215 B.C. Breakage patterns and portions indicate that several Archaic style points may have been manufactured, reworked, or rehafted on site, and that some fragments may have been brought back to the site in meat packages. Since nondiagnostic cultural materials could not be separated, more specific site activities could not be associated with this occupation.

An Archaic period occupation is suggested at LA 104381 only by the presence of diagnostic projectile point styles, though their relationship to other cultural deposits is problematic. A large unrecorded chipped stone artifact scatter (with several Archaic style points) is located upslope. Although these sites seem to be separate, erosion may have mixed some deposits. Further, there is evidence to suggest that some of the projectile points recovered might be associated with a seventh-century (A.D. 600-680) structure, outside the traditional temporal frame for Archaic occupations. What this relationship implies about cultural affiliation or overall subsistence strategy is unclear.

#### *Formative Period Use*

Formative occupations are suggested at two sites by radiocarbon and ceramic data. As described above, an occupation during the early Formative period is suggested by radiocarbon data for LA 104381; the lack of diagnostic materials traditionally associated with this time frame makes clarifying cultural affiliation difficult. Further, the possible association of Late Archaic style atlatl points suggests a departure from the general culture descriptions of this time period. Data from cultural features, faunal remains, and ground stone associated with this occupation indicates an emphasis on procurement and processing of both plant and animal resources.

Ceramics recovered from mixed cultural deposits indicate a Reserve phase Mogollon occupation, however, no other supporting data is available. No features associated with this component were identified, and it was not possible to associate any portion of the nondiagnostic artifact assemblage.

A small portion of the ceramic assemblage from LA 39998 suggests a possible late Formative period Anasazi/Mogollon occupation. A charcoal sample collected from mixed cultural deposits provided a radiocarbon date of A.D. 1310-1385. Since no cultural features could be identified on this site, and cultural deposits were mixed, the nature of this occupation is unclear.

Surveys within the project area have identified several artifact scatters associated with Formative period occupations, which have not been excavated. Few of the architectural features most frequently associated with residential manifestations of this time period, including both pithouse and pueblo units, have been identified within the project area. In this respect, this area is unique from adjacent locations such as the Gallo Mountain/Quemado, Gila, and Magdalena areas, however, further archaeological research is necessary.

### *Protohistoric Use*

Spanish Colonial and Euro-American documents describe several Apachean groups occupying the Datil Mountain area from at least the late sixteenth century until the mid-nineteenth century (Gerow 1994; Opler 1983; Schroeder 1974); it is likely that they began entering the area as early as the 1400s (Brugge 1992). Although references to specific groups are somewhat vague and inconsistent, it is likely that these inhabitants were Chiricahua Apache. Trade ties were maintained between the Apaches and Pueblos (particularly Piro), however, relations are depicted as strained, and it is unlikely that groups other than the Apache utilized this area consistently.

Only a few sites recorded in the project area have been identified as possible Athabascan, and these are most likely Navajo sites from the late nineteenth century. It is likely that a large number of sites recorded as "unspecified lithic scatters," or even as Archaic period sites are of Apachean origin.

Both LA 39998 and LA 104381 showed evidence of protohistoric Athabascan use. The ceramic assemblage from LA 39998 included a significant number of both Athabascan utility and Rio Grande (Piro) sherds. The historical context of Piro/Apache relations suggests that these ceramics represent an occupation by Apachean groups whose tool kit included trade wares from the Piro area. No cultural features were identified, and cultural deposits were mixed, however, a charcoal sample from general cultural fill provided radiocarbon dates of A.D. 1505-1620. No other artifacts could be associated with this occupation.

Most of the ceramic assemblage from LA 104381 consisted of Athabascan utility wares. One charcoal sample recovered from general cultural fill provided a radiocarbon date of A.D. 1520-1630. In addition, four small arrow points were similar to Desert Side-Notched and Cottonwood Triangular styles, both of which have been associated with Athabascan sites elsewhere. No features or other artifacts could be related to this occupation.