

*LA 70188 (AR-03-06-06-00830)*  
*RAVEN'S ROOST*

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Raven's Roost is a multicomponent site with a terminal Archaic and a later Athabaskan occupation. The site was first recorded as an extensive lithic artifact scatter extending over two ridges for 165 m along U.S. 180 (Oakes 1989). Because of the numerous lithic materials, it was recommended for testing. During the testing program, it became obvious that the high frequency of concentrated artifacts in the western area of the site was spatially separated from the ridge-top artifacts to the east, warranting two site numbers—LA 70188 and LA 78439. The site described here is LA 70188, the westernmost designation.

Therefore, site limits during testing were reduced from 165 m in length to 50-by-16 m for a site area of 800 sq m. Two test pits on the site revealed considerable cultural depth to at least 70 cm. Sixteen auger tests found varying depths of up to 1.07 m of cultural fill. A total of 325 artifacts were recovered from the test units, including 3 projectile points, 2 bifaces, 4 sherds, and 20 pieces of burned large mammal bones. We concluded that there were probably pit structures on the site with the ceramics suggesting a late Pinelawn phase occupation of the Early Pithouse period. A data recovery plan was prepared for the site.

Excavations began in 1990. The cultural features were concentrated in a small area of 7-by-6 m on the eastern edge of the site (Fig. 2.224). Here were located one pit structure, three associated pits, a small stone ring, and a pile of burned rock. Artifacts were densely packed within and around these features and extended for a short distance to the west. The recovery of over 100 Late Archaic period San Pedro-style projectile points and the return of Late Archaic radiocarbon dates caused us to adjust our designation of the site to Late Archaic from late Pinelawn with a nominal amount of ceramics actually present. There is still a minor Athabaskan presence on the western edge of the site. Site limits were adjusted to 60-by-23 m with an area of 1,380 sq m.

A total of 215 grids were excavated on the site with 89.2 cu m of dirt removed. Excavation units ranged from .15 m to 1.07 m depth with an average depth of 34.8 cm. Included in the total dirt removal was soil from three backhoe trenches.

#### SITE SETTING

LA 70188 is situated in a protected, small rincon at the base of Prairie Point Peak in the San Francisco Mountains. It is surrounded on the north and west by steep slopes and on the east by a low ridge (Figs. 2.225, 2.226). Site elevation is 2,054 m (6,740 ft) dropping off sharply to the south toward the Leggett Canyon drainage at .2 km distance. The area is heavily forested and vegetation on the site consists of ponderosa pine, large alligator junipers, oak, piñon, a few yucca, and short grasses. It is a somewhat unusual location for a site as it is tucked into a small area at the base of steep hills. There are no other sites further upslope within the area; however, Archaic and Athabaskan sites do occupy the ridges to the east as elevation drops and useable areas level out.

The large number of projectile points and biface flakes suggests that hunting was a primary activity on the site, and elk and deer are plentiful in the area today. In addition, gathering acorns and piñon nuts from nearby stands would also have been attractive. Agriculture would not have been feasible in the immediate environs given the dense forest cover and steeply sloping terrain. However, there are small areas along the Wet Leggett drainage that would have provided crop land.

#### RESEARCH OBJECTIVES

The data recovery plan focused research toward an understanding of the Early Pithouse period thought to be represented by the presence of a pit structure and several early brown ware sherds recovered during testing. The emphasis of the study was on the extent of residential mobility of early pithouse populations. Expedient use of flakes, minimal labor investment, and few storage facilities on the site should be indicative of more mobile populations. A less mobile group should invest more in construction of dwellings, cooking units, and storage facilities.

Seasonality of occupation could be suggested by depth of dwellings, presence of interior hearths, storage facilities, and season of availability of flora and faunal resources recovered. Traditionally, pithouse populations are characterized as generally sedentary with occupation

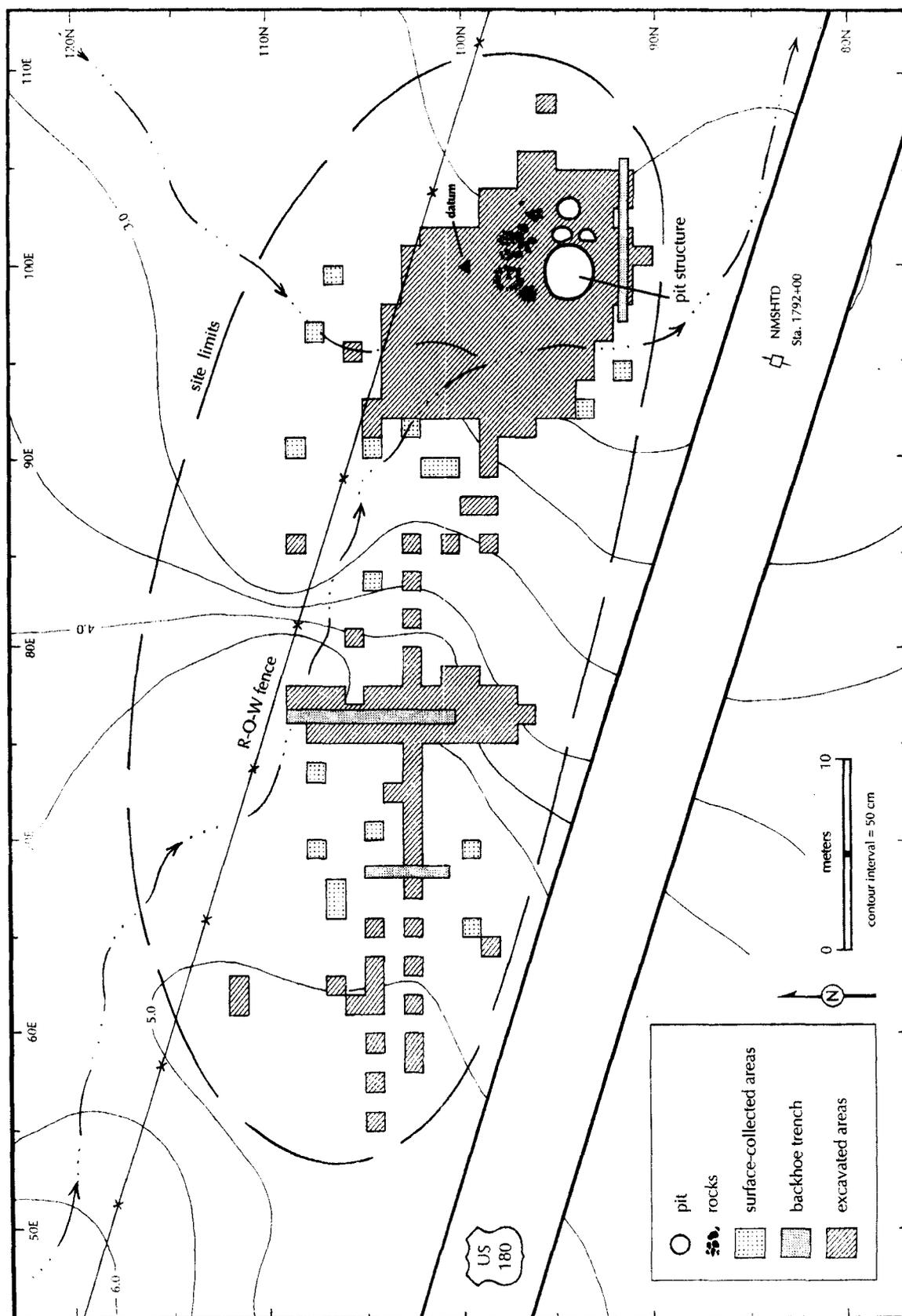


Figure 2.224. LA 70188, plan view of Raven's Roost.



Figure 2.226. Terrain at 14 701N

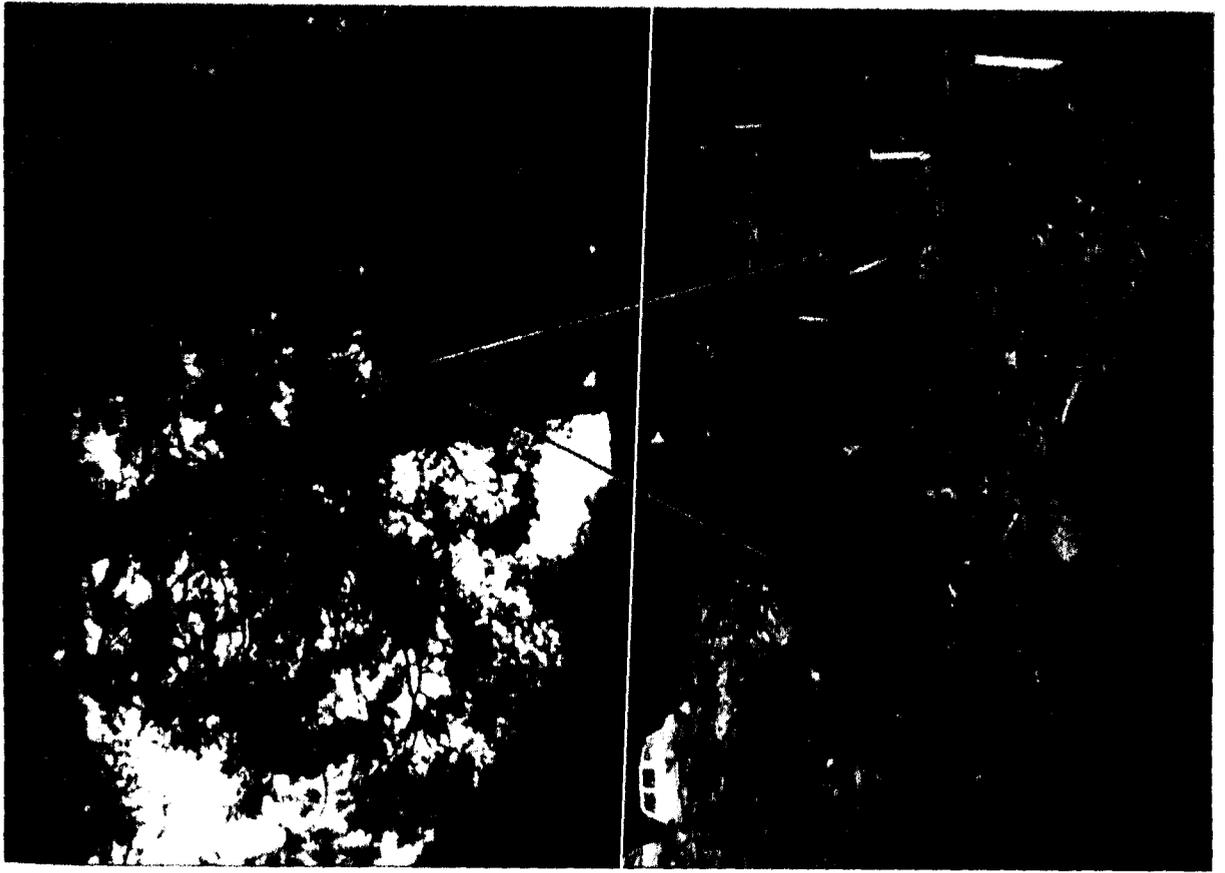


Figure 2.225. Mountainous terrain at 14 701N

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lengths varying from seasonal to annual or more. Seasonal or repeated use of structures might be evidenced by reconstruction within features, remaking of floors, and overlapping features.

Dependence on cultigens is generally assumed for pithouse sites. However, this may not be true for the earlier Pithouse period. Utilizing Hard's model (1990) for quantifying the degree of agricultural dependence through mano length indices will assist in evaluating agricultural investment. Ground stone implements and hearths should provide data for addressing this question.

As it now appears, the site extends from the Late Archaic period into the historic Athabaskan period. Questions of mobility and seasonality of use are still pertinent. The later Athabaskan occupation may also be addressed from the standpoint of mobility patterns and seasonality of use.

#### EXCAVATION PROCEDURES

Datum was reestablished at 100N/100E and a 1-by-1-m grid system was set up with a transit and stadia rod. The surface of the site around the deep cultural deposits found during testing was surface stripped first. Those units with darkened soil, charcoal flecking, and numerous artifacts were then excavated to the yellowish red sterile clay underlying the site. Generally, a hard-packed cultural surface was located at 30 to 45 cm below ground

level throughout this area. As a result of excavations, all of the cultural features on the site were located in this eastern area. Excavation of numerous grids, mostly by random selection, to the west revealed no further features.

During excavations, no stratigraphic levels were encountered because the site was situated on top of alluvial deposits from the surrounding hills. Units outside of cultural features were taken down to the sterile clay substrate underlying the site. Levels used during excavations were:

Level 1: Surface collecting and surface stripping to a maximum depth of 20 cm. Numerous artifacts were recovered. Soil color was 7.5YR 3/2, dark brown. In the eastern portion of the site along the south edge, near the road, a red-orange clay lens was encountered, overlaying cultural features (Fig. 2.227). This was obviously laid down in modern times.

Level 2: General fill, outside of cultural features, to a maximum depth of 72 cm. Artifacts and charcoal flecking were present in most grids. Same soil color as Level 1: 7.5YR 3/2, dark brown.

Level 3: Fill within cultural features to a maximum depth of 1.07 m. Artifacts were present, soil is more charcoal-flecked and darker; 10YR 3/2, very dark grayish brown.

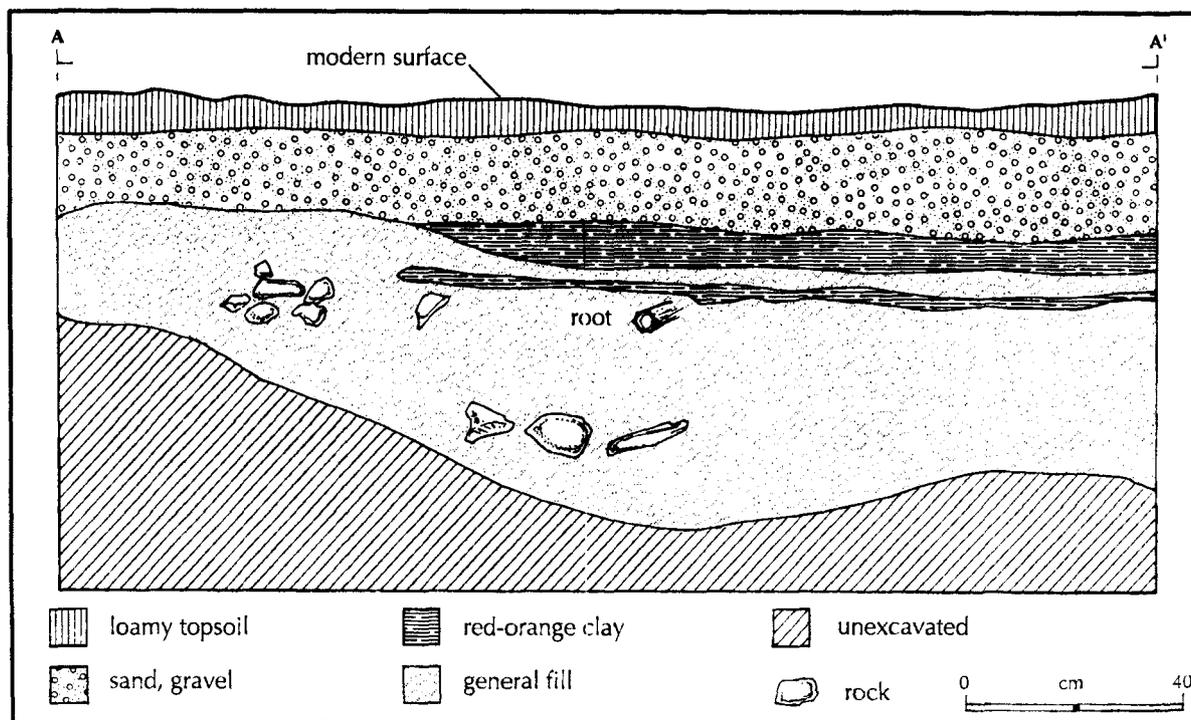


Figure 2.227. Profile of cultural levels, facing south.

After a number of subsequent excavation units were placed outside of the main occupation area of the site, three backhoe trenches were dug to insure that no other cultural features were present (see Fig. 2.224). All soil on the site was screened through ¼-inch screen except in the fill of pit features where 1/8-inch screen was used to recover small biface thinning flakes. Artifacts were bagged by grid and level. Profiles and plan views were drawn of all cultural features. Photographs documented the work and a topographic map was produced using a transit and stadia rod.

## CULTURAL UNITS

All of the cultural features at Raven's Roost were focused in the eastern portion of the site. These include a small pit structure, three ancillary pits, a stone ring, a rock pile, and a possible rock-paved surface (Figs. 2.228, 2.229).

### *Pit Structure*

The pit structure was found because of darkened charcoal-stained soil in the area and the presence of a number of artifacts on the surface. The oval-shaped structure had gently sloping sides and no internal features. The fill of the unit contained a high frequency of artifacts (N=1,993) and charcoal-flecked soil; however, the fill contained no recognizable stratigraphic levels. Some rodent activity was evident in the fill.

*Dimensions.* The pit structure was fairly small, measuring 2.30-by-2.85 m, with a floor area of 6.55 sq m (Fig. 2.230). Depth of the unit was 1.07 m below ground surface and .85 m below the prehistoric surface.

*Walls.* Walls of the pit structure sloped gently inward. The structure has been dug into the surrounding alluvium and clay substrate. The walls were not prepared.

*Floor.* The floor of the pit structure was generally level with a few undulations. It was unprepared and consisted basically of a packed-down surface. Small gravels and caliche-flecked clay lay directly beneath the floor. Small charcoal flecks were embedded within it. No artifacts were recovered from the floor surface.

*Hearth.* None present.

*Postholes.* None present.

*Roof.* No roof fall present.

*Entry.* No evidence of an entry was found.

### *Pits*

Three pits were located directly east of the pit structure, all sharing the same prehistoric surface and therefore presumed contemporary with it (see Fig. 2.228). Pit 1

measured 1.08-by-0.84-by-0.40 m depth (.76 m below ground surface). The fill was loamy with numerous artifacts. No burning had occurred within the pit. Its function may have been as a storage unit.

Pit 2 was slightly smaller, measuring 0.94-by-0.74-by-0.78 m deep. The fill was also loamy and contained numerous pieces of burned bone (N=63), several fragments of ground stone, and some projectile points. This may have served as a roasting pit.

Pit 3 had dimensions of 1.16-by-1.04-by-0.72 m. Within the charcoal-flecked fill were numerous pieces of burned and fire-cracked rock. Burned faunal remains (N=62) were also present. This was also apparently a roasting pit. Several burning episodes are suggested by the presence of three compaction levels at the bottom of the pit. An unusual feature within the pit was the occurrence of three possible postholes on the bottom surface. They averaged 8 cm in size and all were 6 cm deep. A small flat rock was found in the bottom of each posthole. If these were indeed postholes, the posts may have been part of a roasting rack, keeping the meat up off of the heated rocks.

### *Rock Pile*

Extending to the edge of the pit structure on the northwest side, was an intentionally piled stack of rocks on the prehistoric surface, contemporary with the pit structure (Figs. 2.232-2.234). The pile measured 1.0-by-1.0-by-.36 m high. The bottom layer of rocks rested on the use surface and contained the largest of the rocks at 15-20 cm in width. As the pile rose, rocks got somewhat smaller (10-15 cm) in size. In the middle of the layering was a lens of burned rocks and charcoal-flecked soil. Smaller rocks were on top of the pile and some were wedged between the medium-sized rocks that were lower in the pile. Several artifacts were recovered within the rock pile.

The function of this pile is problematic. At first, the rocks were thought to have come from a roasting pit, but this does not explain the obvious sorting by size and why a burned dirt lens appears in the middle of the stack. We then expected a burial to be under the rocks as a plausible explanation for the pile. None was found.

### *Stone Ring*

Another anomalous feature was immediately northeast of the rock feature, a carefully laid-out circle made from selected tabular rocks with the long axes placed outward from the center, similar to spokes of a wheel (Figs. 2.232, 2.235, 2.236). This feature was not contemporary with the other ones. It did not rest on the prehistoric surface,

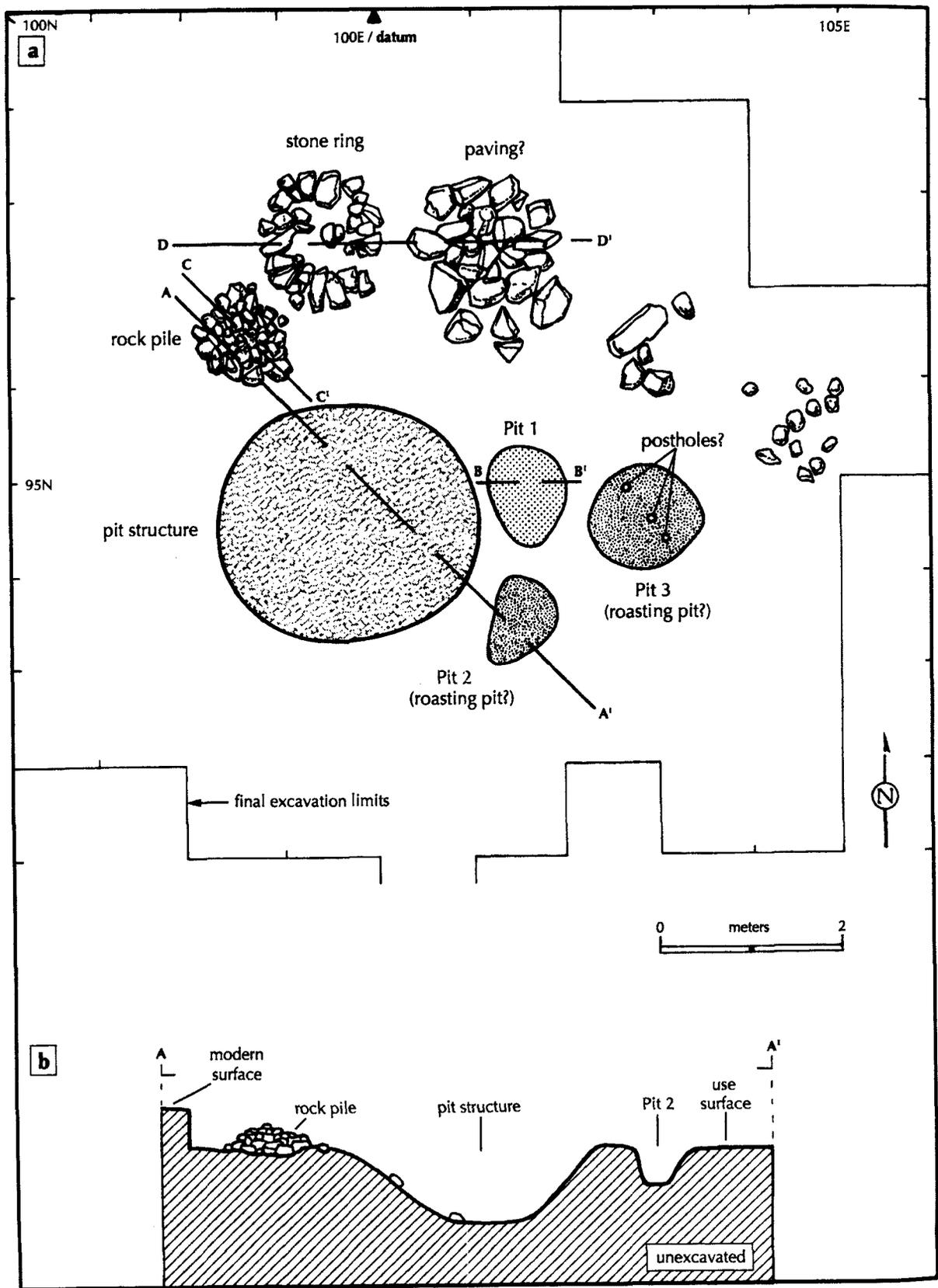
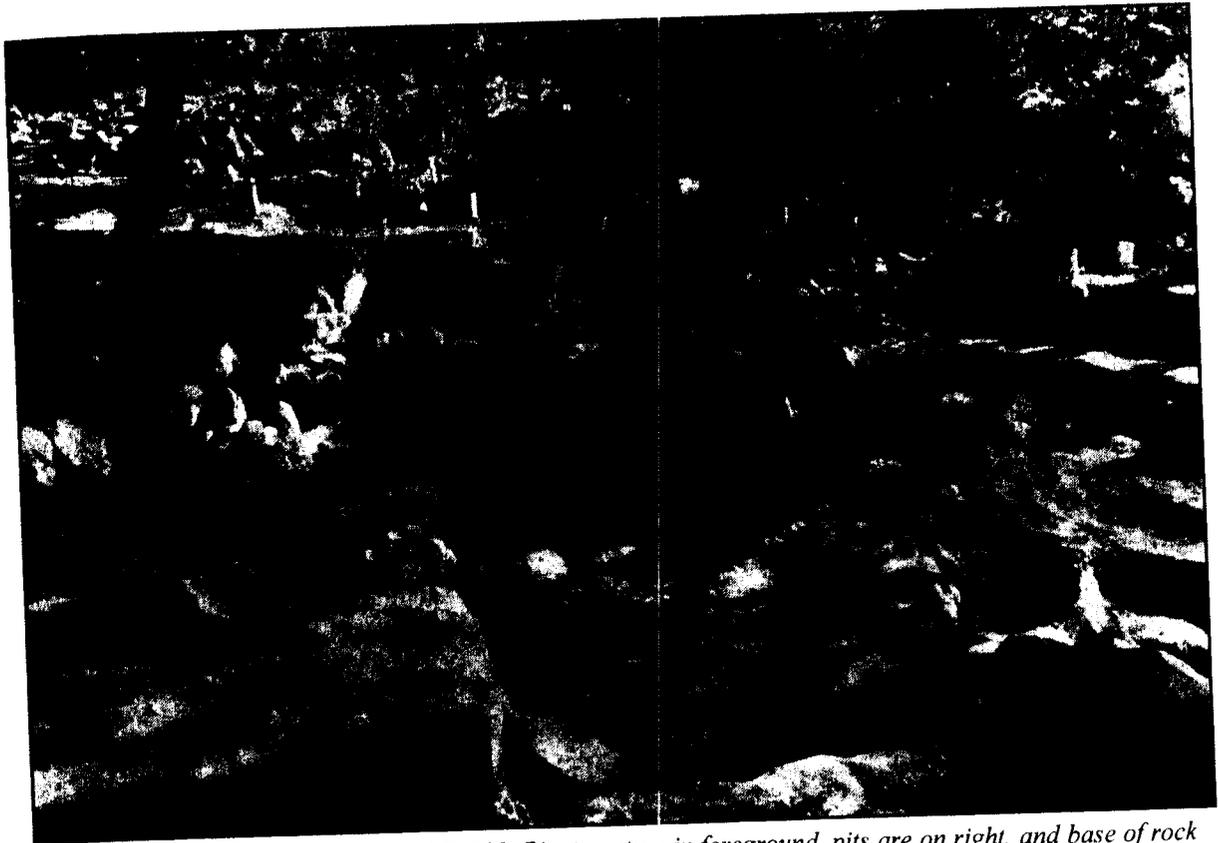


Figure 2.228. Plan view and profile of cultural features at LA 70188.



*Figure 2.229. Cultural features at LA 70188. Pit structure in foreground, pits are on right, and base of rock pile, stone ring, and possible stone paving are on upper left of structure.*



*Figure 2.230. Pit 1, adjacent to the pit structure.*

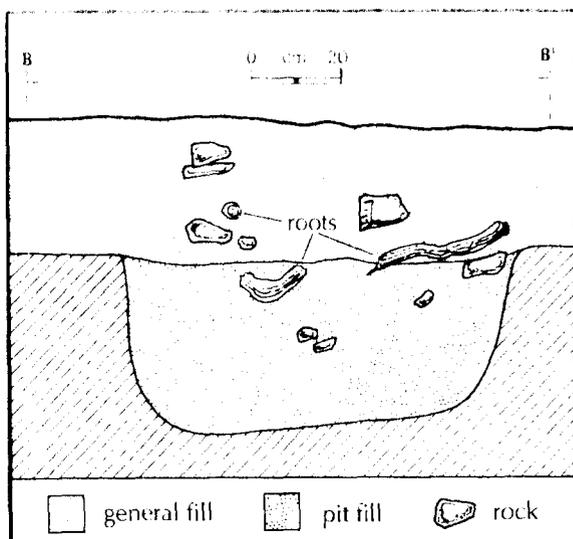


Figure 2.231. Profile of Pit 1, facing north.

but on the alluvial fill 15 cm above the prehistoric surface. The stone ring is 1.0-by-1.5 m in diameter. Excavation of the interior of the ring yielded no interior pit. Fill was loamy with a few artifacts and it continued down to the hard-packed prehistoric surface. It was defi-

nitely not a hearth and it does not appear that it would have served any practical function. It may be purely esoteric. The feature was constructed sometime after the pit structure occupation.

### Stone Paving

An amorphous layering of rocks occurred just east of the stone ring (Fig. 2.236). All were found at the same depth as the ring and they generally formed a circle measuring 1.8-by-1.6 m. However, as opposed to the stone ring, the rocks were flat and they fill in the entire circle. It is possible that this may be a fortuitous collection of rocks. No artifacts were recovered between them.

### ARTIFACTS

Raven's Roost is primarily an Archaic site with a minor deposit of Mogollon ceramics and a later Athabaskan presence. For the site, there were 57 sherds, 16,062 lithic artifacts, 106 projectile points, 29 pieces of ground stone, 37 miscellaneous items, and 663 faunal remains for a site total of 16,954 artifacts.



Figure 2.232. Stone features near pit structure. Stone paving on left, stone ring in center, and rock pile in upper right.

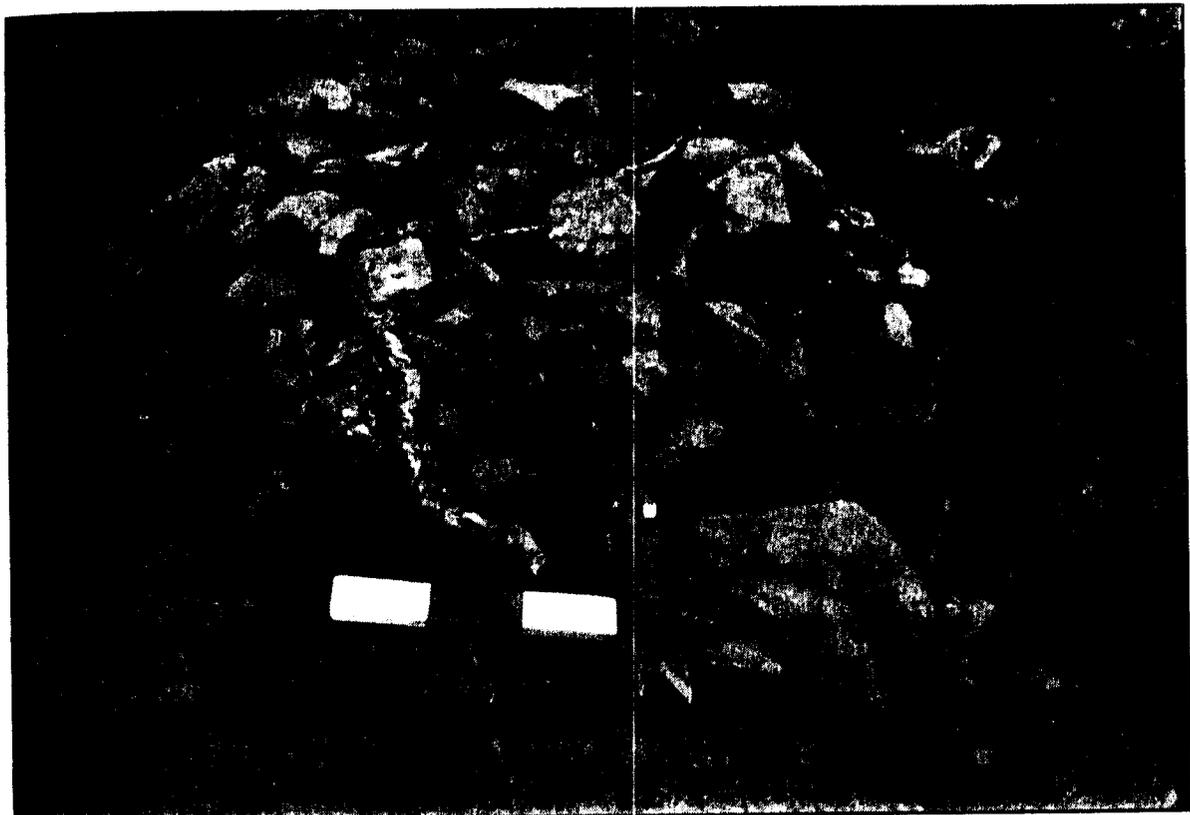


Figure 2.233. Rock pile near pit structure.

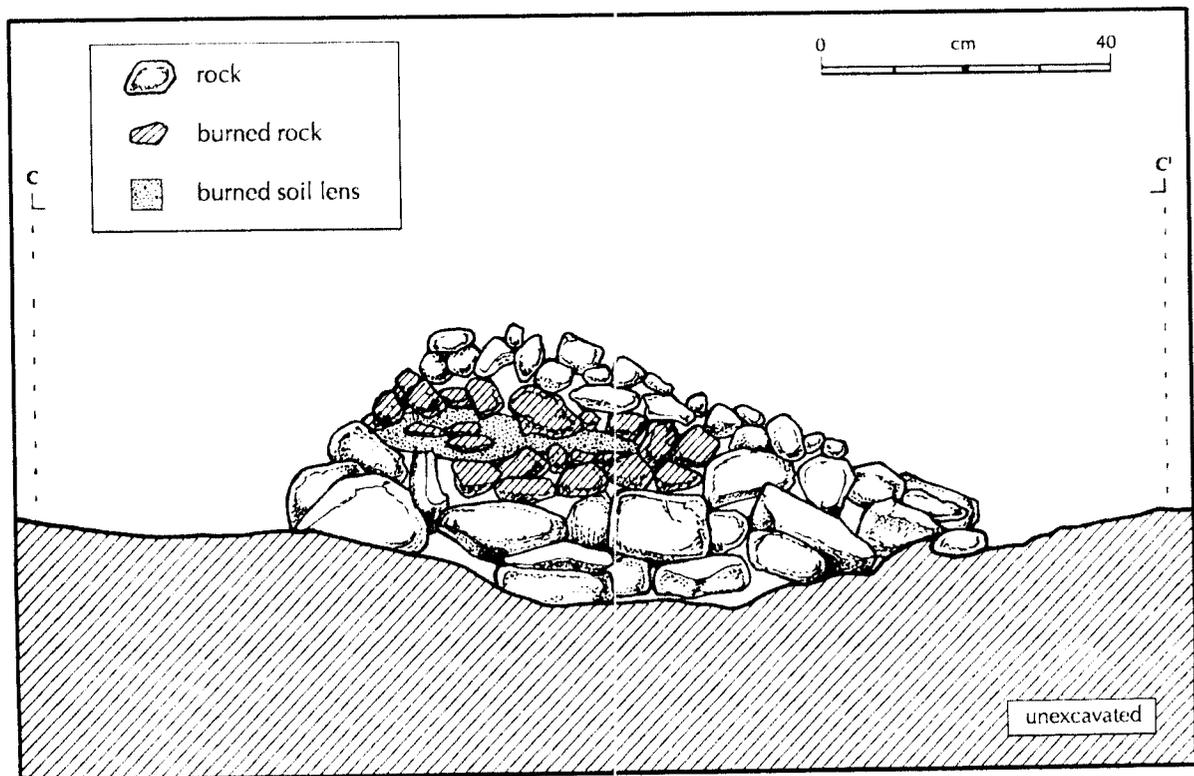


Figure 2.234. Cross section of rock pile, from northwest to southeast.

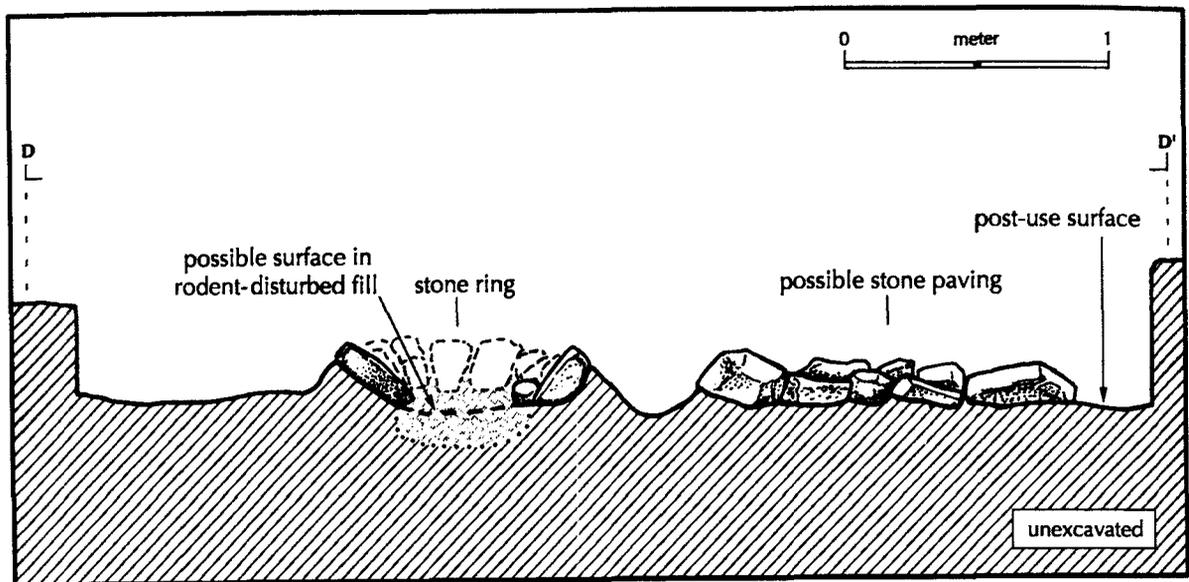


Figure 2.235. Profile of stone circle and stone paving.

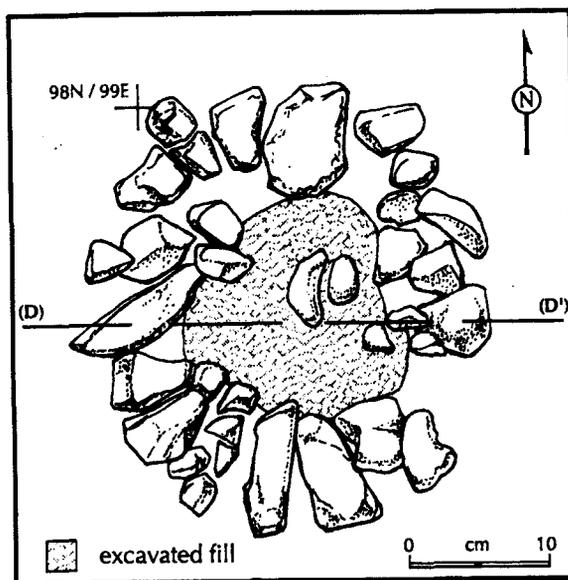


Figure 2.236. Plan view of stone circle near pit structure.

### Ceramics

Sherds constitute only 0.3 percent of the total artifact assemblage. Of these, 91.2 percent are early Mogollon varieties—Alma Brown Wares and San Francisco Red (Table 2.125). Only five sherds represent a later Mogollon presence. It was, at first, considered that these 52 early sherds might correlate with the Late Archaic occupation and represent the transition from the Archaic to the early ceramic period in the Mogollon Highlands.

However, sherds were plotted by their location and depth on the site and 90.5 percent came from either the

surface, the upper 20 cm (Level 1), or general fill (not associated with any cultural feature). Only five sherds were found at varying depths in cultural structures, either within the pit structure (N=4) or Pit 3 (N=1). None was more than 20 cm deep and two within the pit structure represented the early Mogollon sequence and two were late. No correlation could be found between the early sherds and the Late Archaic structures. They did, however, cluster more in the eastern portion of the site. This site locale seems to have been favored through time as a short-term stop through the surrounding mountains and early ceramic users may simple have passed through this moderately level area at varying times.

### Lithic Artifacts

A large quantity of lithic artifacts were recovered from LA 70188 (N=16,062). Most of these are core flakes (53.5 percent of the assemblage, Table 2.126), followed by a high recovery of biface flakes (26.0 percent, or 4,181 flakes). Another 232 bifaces were found, not including projectile points. One of these was a probable agave knife recovered from the Athabaskan area of the site (Fig. 2.237). Cores and angular debris are somewhat low suggesting that primary reduction of material did not occur on this site. The large number of bifaces and biface flakes are characteristic of Archaic assemblages and the radiocarbon dates for the site verify this pattern.

Over 55 percent of the material types are chert, distantly followed by Luna blue agate, rhyolite, and basalt (Table 2.127). Obsidian represents only 1.4 percent of the assemblage. Only the obsidian, silicified wood, and palm wood may be considered potentially not available

Table 2.125. Ceramics from LA 70188

Cells: Count Row Percent Column Percent	Provenience			Row Total
	General Fill	Rocks	Pit Structure	
Alma Plain	16 84.2% 32.0%	2 10.5% 100.0%	1 5.3% 20.0%	19 100.0% 33.3%
Alma Rough	15 93.8% 30.0%		1 6.3% 20.0%	16 100.0% 28.1%
San Francisco Red	16 94.1% 32.0%		1 5.9% 20.0%	17 100.0% 29.8%
Late Whiteware	2 66.7% 4.0%		1 33.3% 20.0%	3 100.0% 5.3%
Tularosa Black-on-white	1 100.0% 2.0%			1 100.0% 1.8%
Hachure Black-on-white			1 100.0% 20.0%	1 100.0% 1.8%
Column Total	50 87.7% 100.0%	2 3.5% 100.0%	5 8.8% 100.0%	57 100.0% 100.0%

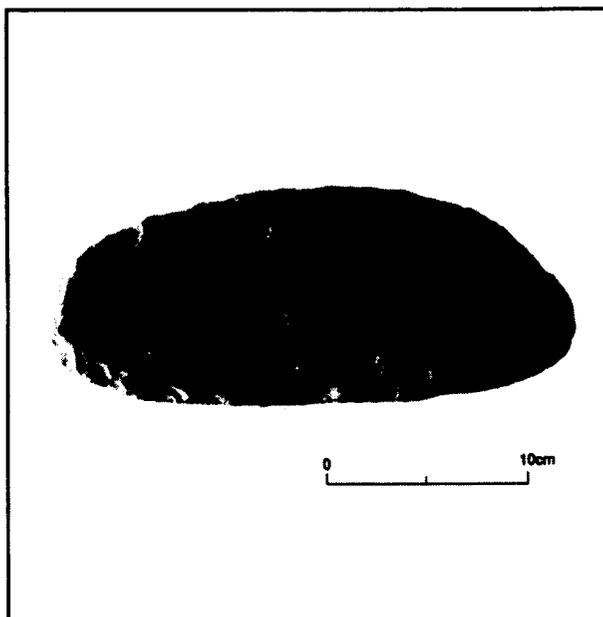


Figure 2.237. Probable agave knife related to the Athabaskan occupation of the site.

in the site vicinity.

The projectile points (N=106), separated according to size, include 36 large dart points (San Pedro), 41 medium-sized points (including both dart and arrow points), 3 small projectile points, 1 Bajada, 1 Bajada-San Jose, and 2 Chiricahua (Table 2.128). Material types for points follow those types generally preferred on the site;

chert dominates at 49.1 percent, followed by basalt, Luna blue agate, and obsidian. The obsidian shows a 12.3 percent ranking among projectile points, but is only 1.4 percent of all material types on the site.

#### Ground Stone

A limited number of ground stone (N=28) artifacts were recovered at Raven's Roost. Most of these, 46.4 percent, are metate fragments, of which three are slab metates. Less than half that number of one-hand manos were found. While 68 percent were from general fill, nine pieces were associated with cultural features. Pit 3 contained the most and the stones may have served as roasting stones after grinding usage; other features had one each. Correlating the ground stone with the Archaic occupation was a matter of concern. An examination of the proveniences for these artifacts revealed that most (67.9 percent) were from general fill, leaving nine that may be considered culturally related to the Late Archaic occupation. These include three metates (one slab and two indeterminate), two manos (one one-hand and one indeterminate), three lapidary stones, and one indeterminate piece of ground stone.

Rhyolite dominates the material type used for the manufacture of ground stone (Table 2.130). This is a commonly preferred and easily available material for sites of all periods in the project area.

Table 2.126. Lithic Artifacts from LA 70188

Cells: Count Row Percent Column Percent	Provenience							Row Total	
	General Fill	Pit 1	Pit 2	Pit 3	Rock Pile	Stone Circle	Rocks		Pit Structure
Angular Debris	1994 68.5% 19.3%	95 3.3% 19.6%	105 3.6% 15.4%	237 8.1% 18.0%	23 .8% 10.5%	11 .4% 11.6%	88 3.05 8.7%	360 12.4% 18.8%	2913 100.0% 18.1%
Core Flake	5617 65.4% 54.3%	218 2.5% 45.0%	271 3.2% 39.7%	726 8.5% 55.1%	111 1.3% 50.75	60 .7% 63.2%	388 4.5% 38.2%	1196 13.9% 62.5%	8587 100.0% 53.5%
Biface Flake	2439 58.3% 23.6%	164 3.9% 33.9%	285 6.8% 41.8%	345 8.3% 26.2%	79 1.9% 36.1%	17 .4% 17.9%	517 12.4% 50.9%	335 8.0% 17.5%	4181 100.0% 26.0%
Resharpening Flake						1 100.0% .1%			1 100.0% 0%
Notching Flake	5 71.4% 0%		1 14.3% .1%					1 14.3% 1%	7 100.0% 0%
Tested Cobble	8 100.0% .1%								8 100.0% .0%
Core	104 83.2% 1.0%	1 .8% .2%	2 1.6% 3%	5 4.0% 4%	2 1.6% 9%		4 3.2% .4%	7 5.6% 4%	125 100.0% .8%
Cobble Tool	3 60.0% .0%						2 40.0% .2%		5 100.0% 0%
Uniface	2 100.0% 0%								2 100.0% .0%
Biface	162 69.8% 1.6%	6 2.6% 1.2%	18 7.8% 2.6%	5 2.2% .4%	4 1.7% 1.8%	7 3.0% 7.4%	15 6.5% 1.5%	15 6.5% .8%	232 100.0% 1.4%
Agave Knife	1 100.0% 0%								1 100.0% .0%
Column Total	10335 64.3% 100.0%	484 3.0% 100.0%	682 4.2% 100.0%	1318 8.2% 100.0%	219 1.4% 100.0%	95 .6% 100.0%	1015 6.3% 100.0%	1914 11.9% 100.0%	16062 100.0% 100.0%

Table 2.127. Lithic Artifacts Material Types, LA 70188

Cells: Count Row Percent Column Percent	Provenience							Row Total	
	General Fill	Pit 1	Pit 2	Pit 3	Rock Pile	Stone Circle	Rocks		Pit Structure
Chert	5490 61.3%	283 3.2%	404 4.5%	816 9.1%	140 1.6%	52 .6%	619 6.9%	1154 12.9%	8858 100.0%
Chalcedony	181 61.8%	5 1.7%	5 1.7%	31 10.6%	2 .7%	30 10.2%	30 10.2%	39 13.3%	293 100.0%
Luna Blue Agate	2475 72.5%	112 3.3%	115 3.4%	212 6.2%	30 .9%	19 .6%	125 3.7%	328 9.6%	3416 100.0%
Palm Wood	1 100.0%	1 .1%							1 100.0%
Obsidian	160 72.1%	6 2.7%	13 5.9%	10 4.5%	3 1.4%		14 6.3%	16 7.2%	222 100.0%
Silicified Wood	1 100.0%								1 100.0%
Igneous		1 100.0%							1 100.0%
Basalt	693 55.9%	42 3.4%	81 6.5%	91 7.3%	20 1.6%	8 .6%	102 8.2%	202 165.3%	1239 100.0%
Silicified Andesite	4 57.1%	2 26.6%					1 14.3%		7 100.0%
Rhyolite	1033 68.4%	30 2.0%	43 2.8%	129 8.5%	20 1.6%	15 1.0%	98 6.5%	142 9.4%	1510 100.0%
Silicified Rhyolitic Chert	16 84.2%	2 10.0%		1 5.3%				2 10.5%	19 100.0%
Sedimentary	24 80.0%	1 3.3%	1 3.3%	2 6.7%				2 6.7%	30 100.0%
Limestone	1 100.0%								1 100.0%
Sandstone	2 100.0%								2 100.0%

Table 2.127. Continued.

Cells Count Row Percent Column Percent	Provenience							Row Total
	General Fill	Pit 1	Pit 2	Pit 3	Rock Pile	Stone Circle	Rocks	
Siltstone	1 100.0% 0%							1 100.0% 0%
Metamorphic	1 100.0% 0%							1 100.0% 0%
Quartzite	195 73.9% 1.9%	1 4% 2%	11 4.2% 1.6%	19 7.2% 1.4%	3 1.1% 1.4%	12 4.5% 1.2%	23 8.7% 1.2%	264 100.0% 1.6%
Quartzitic Sandstone	57 60.6%	1 1.1% .2%	8 8.5% 1.2%	6 6.4% .5%	1 1.1% .5%	14 14.9% 1.4%	6 6.4% .3%	94 100.0% .6%
Quartz Crystal				1 100.0% .1%				1 100.0% 0%
Massive Quartz	1 100.0% 0%							1 100.0% 0%
Column Total	10335 64.3% 100.0%	484 3.0% 100.0%	682 4.2% 100.0%	1318 1.4% 100.0%	219 1.4% 100.0%	95 .6% 100.0%	1914 11.9% 100.0%	16062 100.0% 100.0%

Table 2.128. Projectile Points from LA 70188

Cells: Count Row Percent	Material Type							Row Total
	Chert	Chaicedony	Luna Blue Agate	Silicified Wood	Obsidian	Basalt	Rhyolite	
Unidentified	23 53.5%		6 14.0%	1 2.3%	1 4.7%	9 20.9%	2 4.7%	43 100.0%
Medium Lateral- Notched	5 35.7%				5 35.7%	2 14.3%	2 14.3%	14 100.0%
Medium Lateral- Eccentric	2 100.0%							2 100.0%
Small Side- Notched						1 100.0%		1 100.0%
Unnotched			2 100.0%					2 100.0%
Flake Point	1 100.0%							1 100.0%
Preform	1 100.0%							1 100.0%
Bajada	1 100.0%							1 100.0%
Bajada/San Jose	1 100.0%							1 100.0%
Chiricahua	1 50.0%				1 50.0%			2 100.0%
San Pedro	18 50.0%	1 2.8%	4 11.1%		4 11.1%	7 19.4%	2 5.6%	36 100.0%
Column Total	52 49.1%	1 .9%	12 12.3%	1 .9%	13 12.3%	20 18.9%	6 5.7%	106 100.0%

Table 2.129. Ground Stone from LA 70188

Cells: Count Row Percent Column Percent	Provenience					Row Total
	General Fill	Pit 1	Pit 2	Pit 3	Pit Structure	
Indeterminate Fragment	4			1		5
	80.0%			20.0%		100.0%
	20.0%			20.0%		17.9%
Lapidary Stone	2			2		4
	50.0%			50.0%		100.0%
	10.0%			40.0%		14.3%
Mano	1			1		2
	50.0%			50.0%		100.0%
	5.0%			20.0%		7.1%
One-hand Mano	3			1		4
	75.0%			25.0%		100.0%
	15.0%			20.0%		14.3%
Metate	8		1		1	10
	80.0%		10.0%		10.0%	100.0%
	40.0%		100.0%		100.0%	10.7%
Slab Metate	2	1				3
	66.7%	33.3%				100.0%
	10.0%	100.0%				10.7%
Column Total	20	1	1	5	1	28
	71.4%	3.6%	3.6%	17.9%	3.6%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2.130. Ground Stone Material Type from LA 70188

Cells: Count Row Percent Column Percent	Provenience					Row Total
	General Fill	Pit 1	Pit 2	Pit 3	Pit Structure	
Basalt	1 50.0% 5.0%			1 50.0% 20.0%		2 100.0% 7.1%
Rhyolite	17 73.9% 85.0%	1 4.3% 100.0%	1 4.3% 100.0%	3 13.0% 60.0 <sup>A</sup>	1 4.3% 100.0%	23 100.0% 82.1%
Andesite	1 100.0% 5.0%					1 100.0% 3.6%
Sandstone				1 100.0% 20.0%		1 100.0% 3.6%
Quartzite	1 100.0% 5.0%					1 100.0% 3.6%
Column Total	20 71.4% 100.0%	1 3.6% 100.0%	1 3.6% 100.0%	5 17.9% 100.0%	1 3.6% 100.0%	28 100.0% 100.0%

Table 2.131. Miscellaneous Artifacts from LA 70188

Cells: Count Row Percent Column Percent	Provenience				Row Total
	General Fill	Pit 1	Pit 3	Pit Structure	
Pendant Blank	1 100.0% 5.6%				21 100.0% 2.7%
Quartz Crystals	17 47.2% 94.4%	3 8.3% 100.0%	9 25.0% 100.0%	7 19.4% 100.0%	36 100.0% 97.3%
Column Total	18 48.6% 100.0%	3 8.1% 100.0%	9 24.3% 100.0%	7 18.9% 100.0%	37 100.0% 100.0%

*Miscellaneous Artifacts*

All but one of the 37 miscellaneous items were quartz crystals (Table 2.131). Many came from general fill and thus their cultural association could be suspect. However, 51.3 percent came from within cultural features, primarily the pit structure and Pit 3, suggesting their collection by prehistoric peoples (Sayles 1945; Bluhm 1957; Lekson 1990). Seven of the crystals from the pit structure came from the floor fill or lower fill of the unit. The single other item was a pendant blank made from sedimentary material recovered from general fill. It cannot be associated with a particular cultural occupation at the site.

ANCILLARY STUDIES

*Faunal Remains*

Burial beneath accumulations of alluvial materials allowed for good preservation of faunal bone; 663 pieces were recovered (Table 2.132). Most were in general fill (57.4 percent), but the pit structure and Pits 2 and 3 were well represented. The fauna recovered were predominantly large mammals (58.9 percent), including indeterminate artiodactyl, deer, and elk. Medium-sized mammals, including dog, made up 16.4 percent of the assemblage; only 4.9 percent were small mammals, including rabbits.

Large mammal remains were found within every

Table 2.132. Faunal Remains from LA 70188

General Fill	Provenience														Total			
	Pit 1		Pit 2		Pit 3		Rock Pile		Stone Circle		Rocks		Pit Structure					
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.				
Indeterminate Mammal	49	12.9	7	31.8	22	34.9	23	37.1	7	58.3	4	18.0	6	16.7	11	16.7	129	19.5
Small Mammal	12	3.1	1	4.5	4	6.3	5	8.1			5	23.8	1	2.8	2	3.0	30	4.5
Medium Mammal	67	17.6			6	9.5	1	1.6	4	33.3	1	4.8	5	13.9	24	36.4	108	16.3
Large Mammal	216	56.7	8	36.4	21	33.3	24	38.7			11	52.4	21	56.3	25	37.9	326	49.2
Cottontail					1	1.6											1	.2
Jack Rabbit	1	.3			1	1.6											2	.3
Dog Family	16	4.2			8	12.7	4	6.5	1	8.3			3	8.3	2	3.0	34	5.1
Artiodactyl	1	.3					5	8.1									1	.2
Deer	19	5.0	6	27.3											1	1.5	1	.2
Birds									12	100	21	100	36	100	66	100	663	100
Total	381	100	22	100	63	100	62	100	12	100	21	100	36	100	66	100	663	100

Table 2.133. Pollen Recovered from LA 70188

Provenience	Pine	Cheno-am	Composites	Grasses	Sagebrush	Mormon Tea	Prickly Pear	Nightshade	Corn
Pit Structure 1									
Fill	X	X	X	X	X			X	X
Floor Fill	X	X					X		X
Floor	X	X	X	X					X
Pit 3	X	X	X						
Fill	X	X	X	X	X	X			X

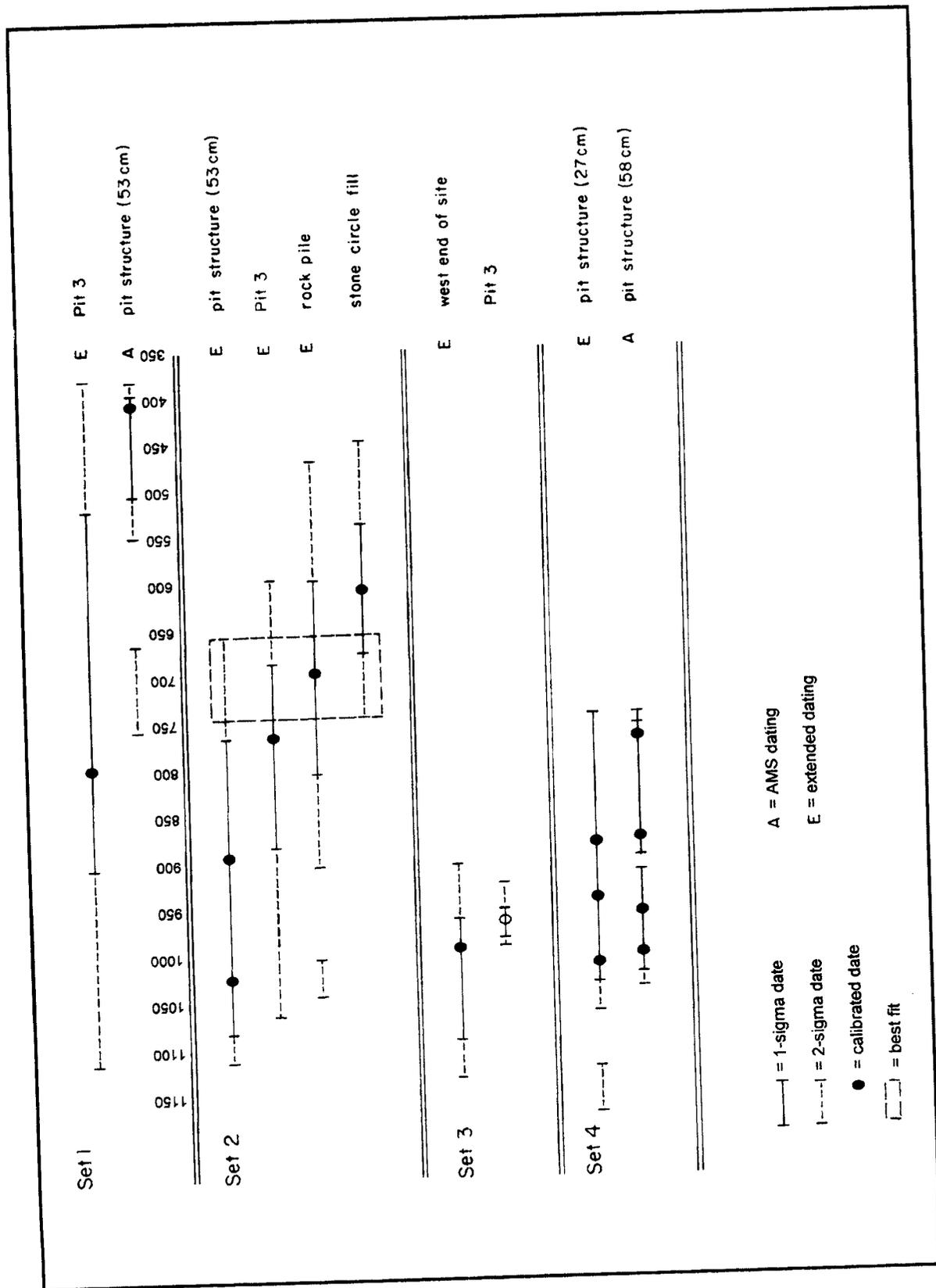


Figure 2.238. Stratification of C-14 dates, LA 70188.

Table 2.134. C-14 Dates for LA 70188

Unit	Beta No.	Age B. P.	Calibrated 1-Sigma Date	Calibrated 2-Sigma Date	Calibrated Date	Context
95N/101E	76773	2390±50	B.C. 505-395	B.C. 780-670 550-380	B.C. 405	Pithouse (53 cm)
95N/103E	69807	2090±90	B.C. 190-A.D. 10	B.C. 370-A.D. 100	B.C. 70	Pit 3
94N/99E	69808	160±90	A.D. 1680-1950	A.D. 1520-1570 1630-1950	A.D. 1680, 1750, 1810, 1930	Pithouse (27 cm)
94N/99E	69809	2200±110	B.C. 390-70	B.C. 420-A.D. 40	B.C. 330, 330, 200	Pithouse (53 cm)
95N/102E	69810	2610±160	B.C. 910-520	B.C. 1120-380	B.C. 800	Pit 3
103N/71E	69811	580±100	A.D. 1300-1430	A.D. 1280-1490	A.D. 1400	Far Area Fill
95N/99E	69812	2010±100	B.C. 110-A.D. 100	B.C. 350-310 B.C. 210-A.D. 230	B.C. 0	Interior of Rock Pile
97N/99E	69813	3430±160	B.C. 1920-1520	B.C. 2140-1400	B.C. 1730	Pithouse (58 cm)
94N/99E	57455	1950±80	B.C. 20-A.D. 140	B.C. 110-A.D. 240	A.D. 70	Pithouse (53 cm)
95N/99E	57456	1920±70	A.D. 20-180	B.C. 50-A.D. 250	A.D. 90	Stone Circle
95N/99E	57458	1740±100	A.D. 210-420	A.D. 80-550	A.D. 330	Interior of Rock Pile
97N/99E	78271	140±60	A.D. 1670-1780 1795-1945	A.D. 1655-1950	A.D. 1680, 1735, 1815, 1923	Pithouse (58 cm)
94N/99E	64066	220±90	A.D. 1640-1690 1730-1810 1930-1950	A.D. 1490-1950	A.D. 1670	Pithouse (27 cm)
95N/103E	64067	500±50	A.D. 1410-1440	A.D. 1400-1470	A.D. 1430	Pit 3

cultural feature on the site. Pits 2 and 3, in particular, are thought to have been roasting pits for cooking meat because of the larger numbers of mammals and the charcoal-stained soil present in these features. Given the high number of large-sized mammals (N=391) on the site and the corresponding high number of projectile points and biface fragments, it is evident that hunting activities were a primary concern when selecting site location. Raven's Roost is well suited for the pursuit of game, being a slight distance uphill from a flowing stream and surrounded by heavy forest cover in the foothills of Prairie Point Peak. Wild game is prevalent in the area today.

#### *Macrobotanical Remains*

Five macrobotanical samples were examined from the pit structure, two from extramural pits, and one from the stone ring. Although maize pollen was identified from several contexts, evidence of maize is absent from the macrobotanical record at this site. Cultural plant remains consisted of charred pigweed and seepweed seeds, along with juniper leaves and nonreproductive pine plant parts. Pigweed was widely used as a potherb and the seeds were ground into a meal. Seepweed grows in saline and alkaline soils and was used by the Pima to flavor foods (Curtin 1949:71). The juniper leaves and pine plant parts are probably related to firewood use. Evidence of fuel-

wood use is predominately coniferous, including piñon, ponderosa pine, and juniper. Small quantities of oak and box elder were also recovered.

Intrusive uncharred plant remains were minimal, consisting of evening primrose seeds and unidentified seeds and embryos.

#### *Pollen Remains*

Fifteen pollen samples or washes from the site were submitted for detailed analysis (Table 2.133). Proveniences sampled include the pit structure, Pit 3, and the general fill around the pit structure.

Of most interest is the presence of corn pollen and starch grains from the fill, floor fill, and floor of the pit structure and in an adjacent grid in the general fill. This is the only area on the site where corn was recovered. The dense forest cover, sloping terrain, and high elevation of the site environs are not suited for corn agriculture. The closest potential agricultural land would have been .5 km away along the Wet Leggett drainage. Prickly pear cactus and sagebrush were also found in the floor fill and floor of the pit structure and, given the environmental conditions of the site, it would seem that these two items, plus corn, were brought into the site from lower, more open areas. Other items from Table 2.133 could have been retrieved from the nearby stream area.

Pine, cheno-ams, composites, and grasses are commonly found in most pollen samples taken from sites in the Mogollon Highlands. Pollen from the nightshade family found in the pit structure is less common and may represent the use of the plant for tobacco.

In sum, a mixture of plants were exploited by the occupants of Raven's Roost, including corn during the Late Archaic period at ca. 50 B.C.-A.D. 40. While some items probably were imported, a wide variety was still probably obtained from the immediate environment.

### DATING METHODS

Fourteen radiocarbon samples from Raven's Roost were submitted to Beta Analytic, Inc. Four received extended counting times and four others were rerun with either extended counting or accelerator mass spectrometry. The remaining ten dates were varied and indicated that there were several cultural occupations of the site (Table 2.134). Results were separated into four sets of dates representing four discrete dating episodes (Fig. 2.238).

Set 1 includes aberrant dates that are incompatible with the main body of C-14 dates. They may be a result of the use of old wood.

Set 2 contains a cluster of four dates and seems to represent the main occupation of the site. Using the 2-sigma range, there is good correspondence between 50 B.C. and A.D. 40 with a mean at ca. 5 B.C. This range of dates associates well with the Late Archaic lithic assemblage, particularly the projectile point styles at Raven's Roost. Included in this set of dates are the pit structure, Pit 3, rock pile, and the fill beneath the stone ring. Pits 1 and 2 could not be dated for lack of sufficient charcoal, but would seem to be contemporary with the other features because of their close proximity and similar depths. Also, because the stone circle rested on fill, a date for the placement of that configuration is not possible.

Set 3 comprised two tight dates between A.D. 1400 and 1470. One derives from a burned area 27 m west of the pit structure and the other comes from Pit 3, a roasting pit with an earlier Late Archaic date. Numerous artifacts were recovered in the upper 30 cm of fill over the site and these 1400s dates may represent an early Athabaskan presence overlying the Late Archaic occupation. It is possible that the stone ring associates with this later use of the site. None of the sherds from the site corresponds with these later dates; all were too early. Admittedly, an Athabaskan occupation is a tenuous conclusion, but there is a precedent for it in that two other sites that are very close by that have early Athabaskan occupations, LA 37917 and LA 37919.

Set 4 has several dates from the late 1600s, mid-1700s, early 1800s, and mid-1900s. All but one (from

general fill near the pit structure) are from the upper levels of the pit structure. There are several possibilities for these dates. The 1600, 1700, and 1800 dates could represent repeated late Athabaskan use of the site area. The mid-1900s dates are undoubtedly from the original construction of the adjacent highway. A reddish clay lens from that activity was found overlying the pit structure and surrounding area.

An additional sample of eight pieces of obsidian was submitted for dating. Five are clearly too early, ranging from 4762 to 1570 B.C. Two others, at 1029 and 716 B.C., correspond to early dates obtained through radiocarbon analyses, but were rejected in favor of later C-14 dates. One other date at A.D. 1784 matches two 1700-1800s dates and may verify an Athabaskan presence on the site.

The ceramics on the site are somewhat problematic. We believe they do not correspond to the Late Archaic dates of 50 B.C.-A.D. 40. These dates seem too early for the presence of ceramics; however, it is not impossible. We simply cannot make a supported case for this correlation of sherds and the Late Archaic dates, particularly since the sherds do not associate with any features on the site. The few later decorated and corrugated sherds do not correspond at all to any of the recovered radiocarbon dates and are probably representative of pot drops.

In order to best explain the wide range of dates for the site, we believe we are looking at a site that has had multiple occupations from the Late Archaic up to the recent past. The large number of Archaic projectile points, biface fragments, and comparative lack of ceramics indicate the main occupation of Raven's Roost was during the Late Archaic period, likely between 50 B.C. and A.D. 40. Architectural features also date to this time. Based on a small ceramic presence, an apparent minor use of the site occurred throughout the Mogollon Pithouse period. An Athabaskan occupation may have occurred around A.D. 1430 and possibly between 1660 and the early 1800s.

### SITE INTERPRETATION

LA 70188, Raven's Roost, is an important site for several reasons. The recovery of a large number of Late Archaic projectile points from the site has allowed for a rare opportunity to examine projectile point function and technology within the Mogollon Highlands for this time period in particular (see Chipped Stone Analysis). The small pit structure (probably used for shelter), several adjacent pits, and several anomalous features such as a rock pile, and a small area of rock paving, all associated with an open-air Archaic occupation are the first Archaic structures recovered for the Mogollon region. Recently,

several Late Archaic sites in southeastern Arizona have been uncovered that contain shallow pit structures similar to that at Raven's Roost (Thompson 1987; Roth and Huckell 1992; Mabry and Clark 1994). We are apparently beginning to find this same pattern in southwestern New Mexico, although dates are currently somewhat earlier in Arizona.

Raven's Roost was buried beneath 30 cm of alluvium and this may be a pattern for many Archaic sites within the Mogollon Highlands. Two other Archaic sites (LA 43766 and LA 89846) excavated on this project were found beneath soil deposits of up to a meter in depth. In all cases, only a handful of Archaic material was found on the surface; and in fact, all had later ceramic period occupations overlying them, masking their presence.

Utilization of a broad variety of plant material is evident at Raven's Roost. The presence of corn within several features dating to the Late Archaic period is signifi-

cant. Transport of this economic item (as well as several others) to the site from lower, more open areas is indicated. This, therefore, implies the employment of a seasonal round between highlands and lowlands by the Archaic occupants of the site. This form of subsistence strategy has been previously suggested for early inhabitants of the Mogollon Highlands (Minnis 1985; Hunter-Anderson 1986; Wills 1988a, 1994).

The possibility of an Athabaskan occupation of the site and of others nearby, forces us to consider how widespread the Athabaskan use of this portion of the Mogollon Highlands may have been. While seemingly ephemeral, we have found hearths, roasting pits, and shallow basin structures. Athabaskan sites may be more ubiquitous than previously thought and they may be present at a much earlier time than previously thought. There is a huge untapped opportunity for future archaeological investigations to determine the nature of the Athabaskan occupation of the region.