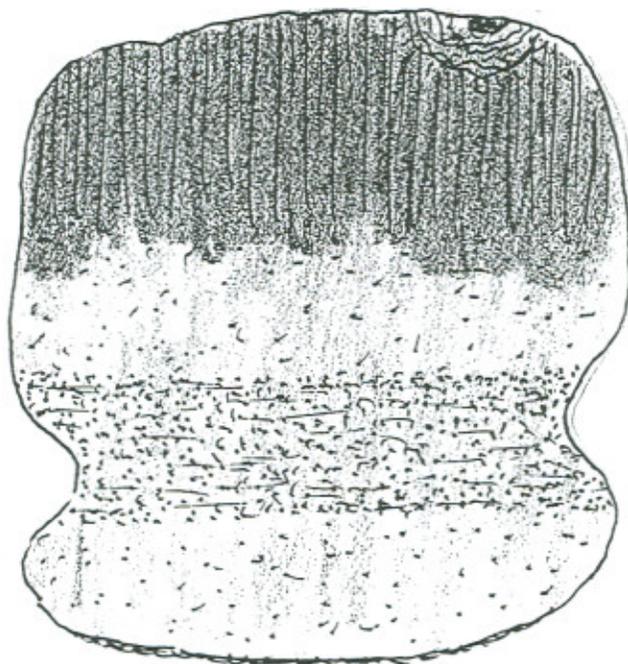


Notes on the Surface Archaeology of the Sierra Fría  
State of Aguascalientes, Mexico

by

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for

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Mexico

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## Introduction

In September, 1993 I traveled to the State of Aguascalientes, Mexico at the invitation of the Governor to review a proposed park or reserve area in the mountains along the western boundary of the state. Aguascalientes is located in the central highlands of Mexico approximately 120 miles NE of Guadalajara ( Figure 1). Although small in size, this state is exceedingly rich in cultural history and natural resources.

I was accompanied by W. James Barry (CPS), Richard A. Minnich (UC Riverside) and Ernesto Franco (Michigan State University) as part of a delegation invited to review the Sierra Fria resource area and provide ideas on possible management and administrative policies that might be applicable in conserving the resources of the upland area. The government is aggressively protecting wildlife and forest resources on these lands. The hope is to establish a permanent reserve boundary to encompass the most significant natural and cultural values as well as allow for public recreation in the forested lands.

This is an ambitious effort. The Sierra Fría reserve study area encompasses some 76,000 hectares (about 13.7% in area of the State of Aguascalientes). In recognition of the vital role parks and reserves play in an ever increasingly crowded world, the administration of Governor Roldan has committed to protecting the Sierra Fría for present and future generations to enjoy. The future reserve will be made up primarily of large private cattle ranches, Ejido and communal lands, and some small areas donated to the public domain for camping and recreational use.

For a total of five days I was accompanied by staff to various locations within the Sierra Fría range. My primary goal was to examine those areas thought to contain archaeological values, to record any that were discovered and to provide an assessment of the overall cultural resource potential within the reserve boundary. I was also able to discuss observations of long time residents and "Vigilantes" assigned to protect resources there. What follows are my observations and thoughts on the subject of archaeology. These should be considered preliminary and based on a very brief exposure to the Sierra Fría. Even so, it is my hope that they are of use in managing these important resources and protecting heritage values in the long term. I have attempted to present descriptive information collected in field notes along with some



Figure 1. Location of the State of Aguascalientes.

contextual data concerning Sierra Fría regional prehistory. Interpretations and management recommendations are also presented.

### Sierra Fría Reserve Area

The study area encompassed by the proposed park or reserve includes a vast region on the western boundary of the state of Aguascalientes, extending slightly into the neighboring state of Zacatecas. The municipalities of San Jose de Gracia, Calvillo and Rincon de Ramos are included. The reserve boundary is preliminary, but it is anticipated that the vast portion of forested lands as well as a significant amount of tropical scrub vegetation will be included. Elevations range from 3050 m at the peak of Monte Grande to about 2050 m near the south shore of Presa Presidente Calles at the ruins of Cerro de Enmedio. Figure 2 depicts an approximate boundary for the Sierra Fría reserve; it is not exact.



In general, the Sierra Fría is an oak-pine woodland with extensive stands of chaparral on the highest slopes. Although somewhat affected over the years by cattle grazing and wood cutting, the forest ecosystem appears healthy and dynamic. Dominant species include the pines *Pinus chihuahuana*, *P. tecote*, and *P. lumholtzii*. Oaks occur throughout the forest, but are particularly abundant on the lower mesas. Prominent types include *Quercus eduardii*, (Palo Colorado) *Q. resinosa* (Palo blanco), and *Q. microphilla*. Two species of madrone (*Arbutus glandulosa* and *A. xalapensis*) can be found in the mixed forest, while a number of cacti and yuccas testify to the overall xerophytic conditions. They include *Opuntia robusta*, *O. rastera*, *Yucca filifera* and *Dalea argyrea* (C.N.F. 1993). Professor Minnich has analyzed aerial photos from 1942, and has detected expansion of the juniper stands and some oak forest coverage with a concomitant reduction in pine forest over the last half century. Chaparral areas appear to have remained fairly constant. This vegetation change he attributes to a decrease in the number of understory fires which tend to limit the invasion of young junipers. Natural fires may be less common due to long term cattle grazing and the reduction in fuels that results from it. At the moment, these are hypotheses from which to test different models of forest dynamics in the Sierra Fría (Minnich n.d.:2).

Geology in the Sierra Fría is dramatic. The upland mesas and peaks are covered by rhyolite formations in many hues and consistencies. This volcanic extract outcrops in boulders as well as cobble sized pieces. The Sierra Fría landscape is cut by a series of steep barrancas trending NW to SE. These formations contain numerous fault blocks forming deep fissures and caverns in the upright walls. The western escarpment of the range is exceedingly precipitous. Along the eastern boundary, a series of stream channels find a twisted route from the forested lands into the valley below. In earlier times they would have emptied into the Aguascalientes River. They currently drain into the President Calles reservoir, built in the 1930s to improve agricultural production. Soils are thin and poorly developed over most of the terrain, although valley floors tend to have the richest soils. After a rain, the ground is quickly saturated and shallow pools appear. Subsurface flows are visible where bedrock exposures allow it to emanate. In many areas, sheet erosion has exposed subsurface bedrock and broken cobbles.

Streams are shallow and intermittent over most of the study area. The beds contain flat rhyolite exposures where deep pools have been formed. These tend to retain water throughout the year, even if stream flows are greatly reduced. Abundant stream cobbles are present in most channels. These consist of quartzite, rhyolite and andesite materials. Sierra Fría rhyolite fractures cleanly and is imbedded with quartz and feldspar crystals. It is suitable in size, density and fracture characteristics for manufacturing large chopping and scraping tools, but appears to not to have served as material for projectile tips, gravers and knives. Chert and quartz seem to have been preferred for this purpose.

Sierra Fría rainfall occurs primarily in the summer months. It averages 650 mm over the whole range, although considerable variation exists from north to south. The climate is temperate with daily temperatures ranging from -14° C to 25° C. Average temperature is 14° C (C.N.F. 1993: 2).

The planned reserve will take on a different form from California state parks and reserve areas. The land will not, for the most part, be owned by the government, rather, it will be managed by agreements negotiated with the landowners in order to protect resources and provide recreational opportunities for the public. Planned facilities include day-use areas for hiking and fishing, campgrounds for overnight use, and a research station to coordinate management activities and scientific studies.

### Ethnographic Background

The Sierra Fría falls within the geographic area assigned to the Chichimeca at the time of historic contact. This term applies to a widely diverse group of peoples who occupied the drier central plateau of Mexico north of the Aztec empire. All or parts of the present states of Aguascalientes, Guanajuato, Jalisco, Zacatecas, San Luis Potosi, Coahuilla, Nuevo Leon, Durango and Queretero were claimed by them. The term "Chichimec" has a derogatory connotation -- meaning "lineage of a dog" (Valencia Cruz n.d.:7). This connotation has colored the interpretation of native cultures and prehistory in the area, especially in comparison to the Maya and Aztec "civilizations."

Chichimec tribes spoke mutually intelligible dialects of the Nahuatl language. They are close linguistic relatives of the Aztecs of Mexico. It is said that warfare was a constant feature of Chichimec culture. Status was attained by exploits in war, and the many prehistoric fortifications in the region are a result of defensive necessities.

Five individual Chichimec tribes have been recognized: Guamares, Pames, Zacatecos, Caxcanes (who claimed the Sierra Fría) and Guachichiles (Powell 1984 in Valencia Cruz n.d.:8). Chichimec origins are poorly understood. As Stone has observed:

After the abandonment of Teotihuacan, if not somewhat earlier, Chichimec tribes invaded the Mexican plateau from the extreme northwest. A branch of these, the Toltec-Chichimec governed by warrior-priests, became discontented. Ce Acatl Topiltzin, the posthumous son of one of the most aggressive warrior-priests, left the plateau of Mexico and settled in the present state of Hidalgo, making Tula his capital (1972:163).

This places them north of the Mesoamerican culture area. Chichimec tribes have been described in the sixteenth century:

They lived among the peaks and in the harsh places of the mountains where they lived a bestial existence. They had no human organization, and went stark naked without any covering on their private parts. They hunted all day for rabbits, hares, weasels, moles, wildcats, birds snakes, lizards, mice, and they also collected locusts, worms, herbs, and roots.

Their whole life was reduced to a quest for food. These people slept in the hills inside or under bushes, without any heed for sowing, cultivating, or gathering. They did not worry about the morrow, but ate what they hunted each day (Duran 1964 as quoted in Adams 1991).

It should be acknowledged that this observation by Diego Duran was made after Chichimec culture had been thoroughly disrupted by Spanish contact. It should not be considered representative of aboriginal subsistence and culture by these foraging bands.

Chichimec material culture was relatively simple. The bow and arrow was employed for hunting along with a diverse array of stone tools. Vegetal foods were ground on a basin metate. Simple pottery was made in most areas. Some Chichimec groups practiced agriculture. They raised maize, beans, chiles and squash and supplemented these with acorns, grass seeds, tunas, nappoles and other wild food products. Yucca was also an important commodity. The hearts were roasted in stone ovens.

It seems likely that the Sierra Fría area and Aguascalientes were influenced by agricultural peoples in prehistoric times. Michael Coe (1962) postulated that the extent of Mesoamerican agriculture and monumental architecture extended north to varying degrees depending on the availability of rainfall and the social integration of farming groups carrying these cultural traits. The dry plateau of the Gran Chichimeca was marginal for agriculture in many areas. And as a result, civilization was spread as "a thin veneer over the landscape."

### Archaeological Background

Scant mention appears in the literature of archaeological sites in the state of Aguascalientes. A notable exception is the recent summary article by Valencia Cruz (n.d.). The surrounding region, however, has been observed and analyzed by scientists for over 100 years. Focus has been drawn to the area of La Quemada, Zacatecas, only 30 km from the Sierra Fría. Therefore, although something of an extrapolation, it is useful to briefly consider La Quemada and what it may reveal of Sierra Fría prehistory.

La Quemada is a massive defensive structure with many mounds, temples a ball court, and residence blocks. It probably served as a theocratic center and defensive fortification. Much of the site is surrounded by a stone wall three meters high and two to three meters wide. One of its most impressive features is its connection with areas up and down the Juchipila Valley by a series of engineered roadways. These measured some 3 m wide and were finely made.

The noted paleoanthropologist Ales Hrdlicka at the turn of the century carried out excavations at the site with the purpose of gathering skeletal material he calculated would help resolve questions over cultural affinity at La Quemada. "The ruin is

situated on a low, isolated mountain with three summits...(it) is unquestionably a remnant of the most remarkable structure north of the Rio Santiago. In compactness and plan, in structural quality, and especially in differentiation of purpose, it exceeds not only the northern Casas Grandes of Chihuahua or Zape in Durango, but also the celebrated Tula in the south. It represents a vast amount of labor and must have been occupied, even with swarms of workmen, many decades in construction; yet the entire structure seems to show unity of plan and continuity of execution" (1971:124).

The question relevant here is the relationship between La Quemada and the Sierra Fría highlands. Proximity of one to the other would seem to imply a connection. The natural resource needs of a settled population only 30 km away would have led them to exploit the lithic sites, caves and wild animals of the highlands. Pine nuts may have also been an important dietary consideration. It would be typical to see trade networks develop between a farming people and the nearby bands following a more migratory subsistence pattern. The fact that La Quemada was a fortified site with evidence that it was destroyed by conquest sometime in the 12th century may also have a bearing on Sierra Fría archaeology. Perhaps the conquerors of the city, or ever its survivors, found refuge in the mountains.

In his recent summary article, Valencia Cruz describes a number of archaeological sites from the state of Aguascalientes and nearby regions that may provide a basis for interpreting those of the Sierra Fría. One such site is "Monte Huma" in the vicinity of Calvillo. This site, first described in 1926, is reported to contain architectural structures, caverns and fortifications (n.d.:3). Its exact location seems to be in question, but it may be within, or very near, the proposed reserve. Another study from 1986 recorded two sites in the Calvillo municipality. These are registered as Tepotzan I and II. Regional studies summarized by Valencia Cruz include excavated sites from northeast Jalisco and southern Zacatecas. He notes that within the Bajío region, 17 ceramic types have been identified from at least two prehistoric eras. One dating 500 - 750 A.D. and the other 750 - 1000 A.D. (n.d.:5). The earliest radiocarbon dates extend occupation to the first century A.D. In general, the archaeological sites range from fortified villages with temples and residence blocks in the well watered valleys, to pictographs and rock shelter occupations in more remote settings.

The lack of systematic archaeological studies in the region has, according to Valencia Cruz, led to a general misconception that the state of Aguascalientes was occupied solely by "primitive" cultures ancestral to the Chichimecs (n.d.:7). Clearly, there is still much to be discovered and interpreted about the complexity of cultures that occupied this area over the course of many centuries.

### Field Survey Methods

The methods employed in this brief survey of the Sierra Fría were standard ones used

by archaeologists to locate sites and document their findings. It is important to emphasize that only a very few areas could be visited. Therefore, every attempt was made to focus on the locations most likely to produce cultural resources within the potential reserve. When a site was found, it was measured, photographed and sketches were made of representative artifacts. Again, because of time constraints, only a brief reconnaissance of the site itself was possible. In accord with I.N.A.H. guidelines and accepted principles of conservation archaeology, no artifacts were collected or disturbed from their original settings. No excavations of any kind were done.

Discussions with SEDUE (now SEDESOL) staff, landowners and long time residents were used to identify possible archaeological sites and activity areas. Especially valuable were observations of Armando Vasquez, a Vigilante assigned to Sierra Fría. As a long time resident, he knows of many locations that have produced artifact collections over the years. He also has developed an intimate knowledge of the Sierra Fría region -- its resources, trails and wildlife. This knowledge was freely conveyed to me in attempting to locate cultural resources.

The American delegation operated from the Rancho Antriago, some 5 km NW of the small municipality of Congoja. This setting allowed us to concentrate on the central portion of the Sierra Fría study area. The extreme northern and southern reserve study areas could only be viewed from a distance given the minimal time available for field review. Where information was offered on archaeological values, it is included in this report.

### Survey Results

A series of areas with cultural resource potential were observed. Some areas were also noted as having high archaeological potential, but could not be visited. What follows are annotated notes on various locations within the Sierra Fría reserve study area.

Three archaeological sites were recorded. They are:

**Playa de los Cebollitas** -- is a very high meadow of 25+ acres in the shadow of Monte Grande. The whole basin is a catchment area of lush vegetation. *Mulenburgia rigens* (a prime basketry material) is especially abundant. The meadow is bisected by a small stream flowing north. It connects shallow pools of water that grow larger and more numerous as one travels north through the meadow to its lowest point. The meadow is retained by an escarpment of solid rock. At a constriction between high boulders, the small stream plunges over the escarpment into the narrow Barranca de Cebollitas. In this constriction is a very protected area with grand vistas, permanent water and scattered lithic material. A small prehistoric archaeological site is visible on the east and west banks of this stream.

The site consists of a light scatter of quartzite, quartz and chert flakes and scraping tools over an oblong area some 30 m N-S by 35 m E-W. No artifacts of rhyolite were seen; all tools were fashioned from imported materials. Artifacts are visible on the ground surface and in small pools in the stream. Protected alcoves in the rocks on the west side also contain lithic debris. No evidence of a developed midden was noted -- the site appears to be a small hunting camp at the north end of this meadow.

Six small sherds of pottery were noted on the surface. There was some variety to the specimens, but in general they were tan to orange in color, thin walled (3-5 mm in

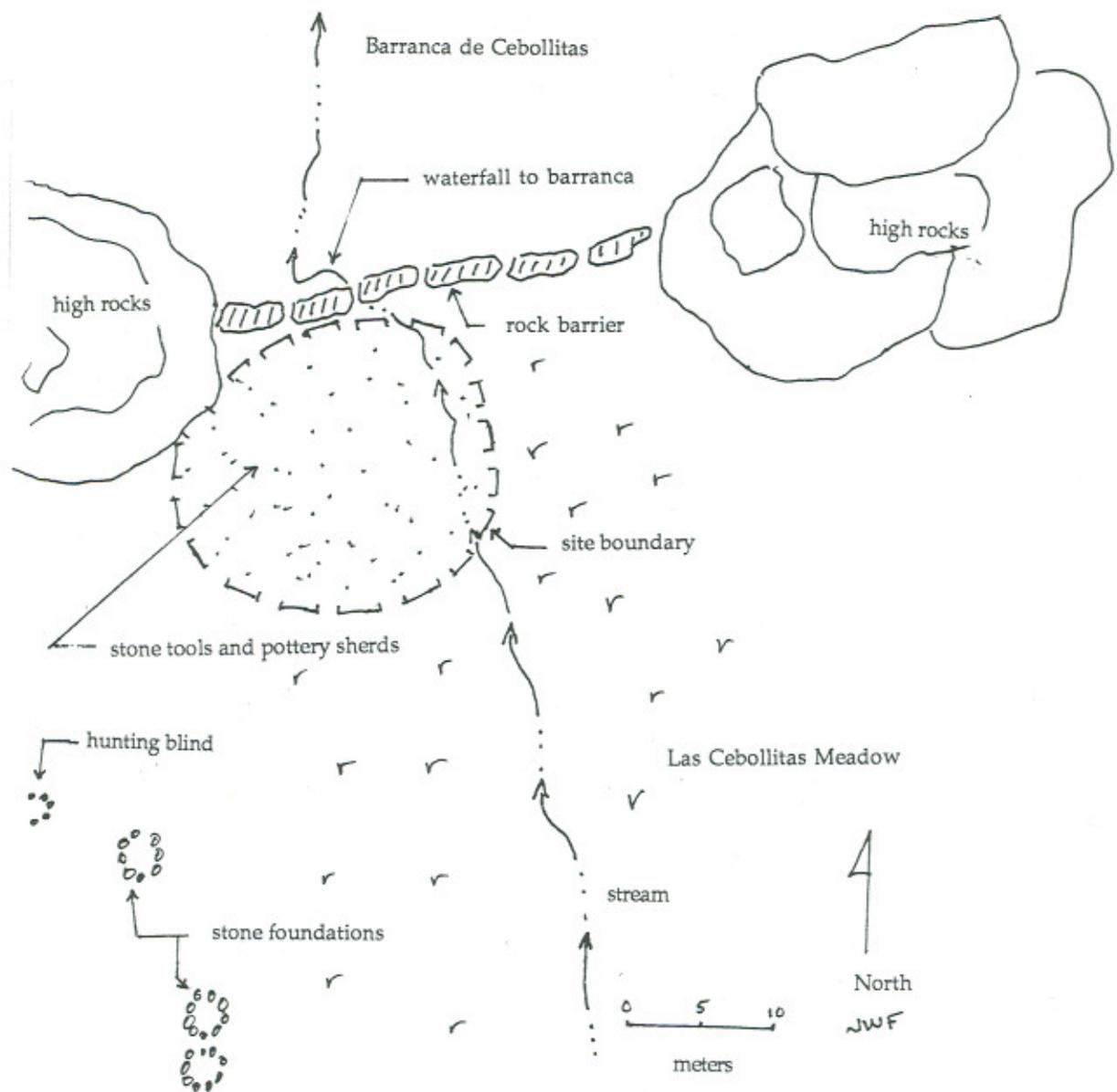
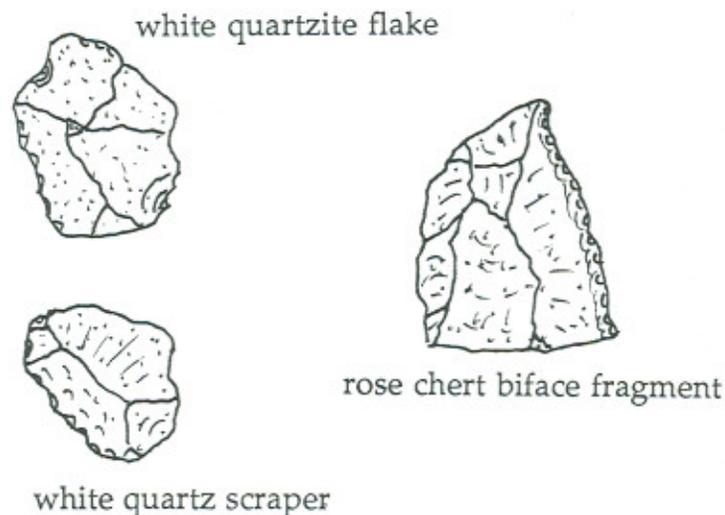


Figure 3. Las Cebollitas Archaeological Site. This is a small prehistoric hunting camp at the north end of Las Cebollitas meadow.

thickness), with black designs on a red or yellow base. They may have been from a single small vessel. Modern red ceramic sherds were also seen in small numbers.

Unrelated to the prehistoric site are three stone foundations on the west side of the creek to the south of the lithic scatter. They are unmortared stone enclosures about 1 to 2 m high. These may be house structures used in historic times by vaqueros or wood cutters in the Monte Grande vicinity. A light scatter of tin cans (solder-top), modern pottery and trash surrounds the features. A small stone feature closed on three sides is found 15 m uphill toward the high rocks. It may have served as a hunting blind or storage shelter.

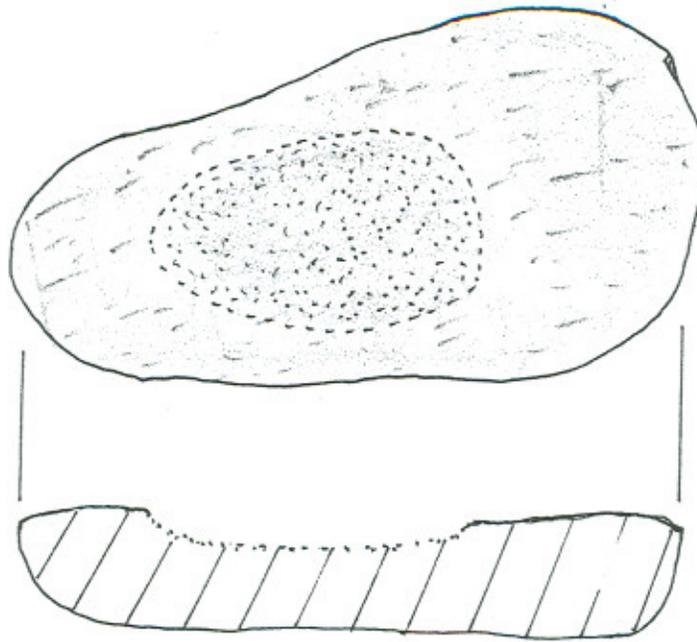


**Figure 4.** Stone tools from Las Cebollitas (actual size).

**Cueva Barranca del Rico** -- is a deep rock shelter in an upright rhyolite face at the edge of a small stream. The site is reached by hiking from Barranca Pansion to the confluence with Barranca Del Rico, then upstream some 2.5 km to the site. The cavern is found on the south side of the stream at a point where the rhyolite bedrock forms a constriction in the steep canyon bottom. A deep pool in the stream marks the site location. The name is derived from a persistent rumor that gold and silver occur in this drainage. It was not clear whether any has actually been found.

We were escorted to this setting by Don Lupe of Rancho Antriago. Lupe recalled a family, living on napoles and tunas grown on steep hillsides of the barranca, occupying the site some 30 years prior. A man, his wife and several children made their home there. As he remembered, they did not live in the cave, but used it to store their belongings. This no doubt accounts for some of the human evidence, but a prehistoric component is also present.

There are two interesting features which exhibit evidence of prehistoric use at the site. One is the cave itself. It consists of a large opening in solid rock. The cave mouth



**Figure 5.** A small basin metate was seen at the entrance to Cueva Barranca del Rico. It measured 62 cm in length.

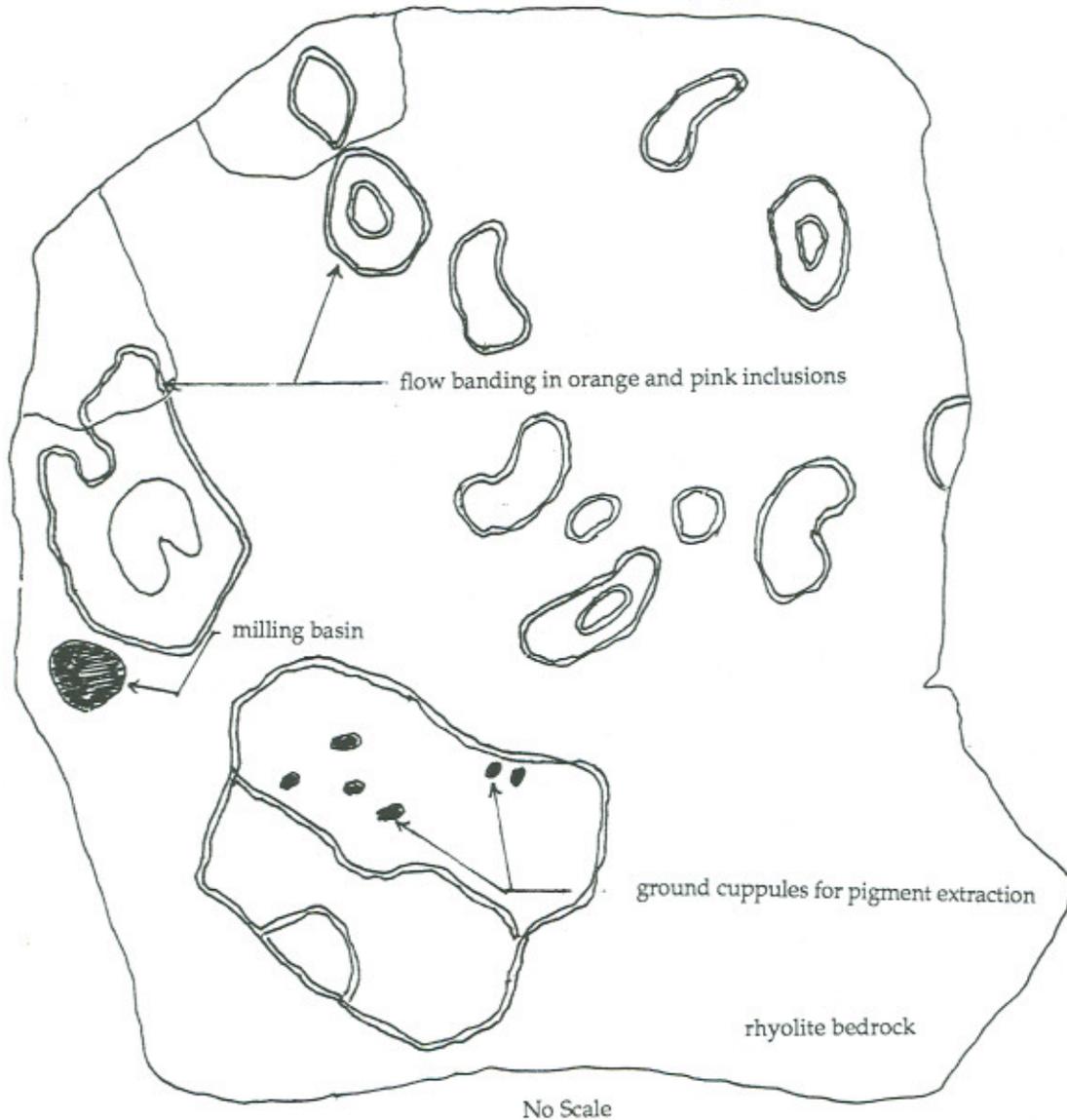
measures about 6 m wide and 2 m high, with an oblong central chamber 15 m deep. A low rock wall has been laid across across the opening . Fine sandy silt mixed with charcoal covers the floor. A shallow excavated pit (possible relic collecting) is found near the mouth. At the rear of the chamber, the floor rises, making access limited. A small opening through the deepest recesses of the first chamber, however, reveals a much larger interior one . We did not penetrate the cave any further than the first chamber, but an important clue as to its prehistoric past was provided by Don Lupe. He stated that years ago he crawled through the opening into the interior chamber. There he noted a buried human femur protruding from the floor. He pulled it out and noted its huge size. In comparing it to his own leg, it was substantially larger. As Don Lupe is a very robust person, the skeleton, he says, must have been from a giant.

Although it was not directly observed in this review, Cueva Barranca del Rico may be a burial cave from the ancient past. It is common in North America to find interior cave chambers used for funerary purposes. Sometimes the outer openings are also used as shelters or storage locations during the same period. In any event, it is highly likely that this cave has yet to give up its archaeological secrets. The inner chamber shows no sign of disturbance.

A second feature of this site is found immediately upstream from the cavern. It consists of flat exposure of dark reddish rhyolite bedrock measuring approximately 4 by 5 m in the stream bed and along the banks. This exposure is distinctive because of its flow banding. A series of circular geometric designs are formed on the rock surface by a

lighter shade of viscous flow in the rock itself. They occur as oblong and kidney-shaped enclosed ovals. Several appear to take the shape of footprints. While flow banding is a common characteristic in rhyolite (Putnam 1964:46,47), it is especially dramatic at this site, and apparently attracted the attention of prehistoric peoples. A close examination of the rock revealed a large milling basin and six small cupule depressions with highly polished surfaces. These may have been used for extracting and grinding the light orange and pink banded flow material for pigment.

An alternate interpretation of this feature would ascribe ceremonial use. The argument could be made that the designs have been enhanced in several places from abrasion with a stone hammer. In several places, the design loop appears to have been enclosed



**Figure 6.** Flow banding in rhyolite bedrock has created distinctive designs at the Cueva Barranca del Rico site. A series of milling surfaces for preparing mineral pigment were recorded next to the stream.

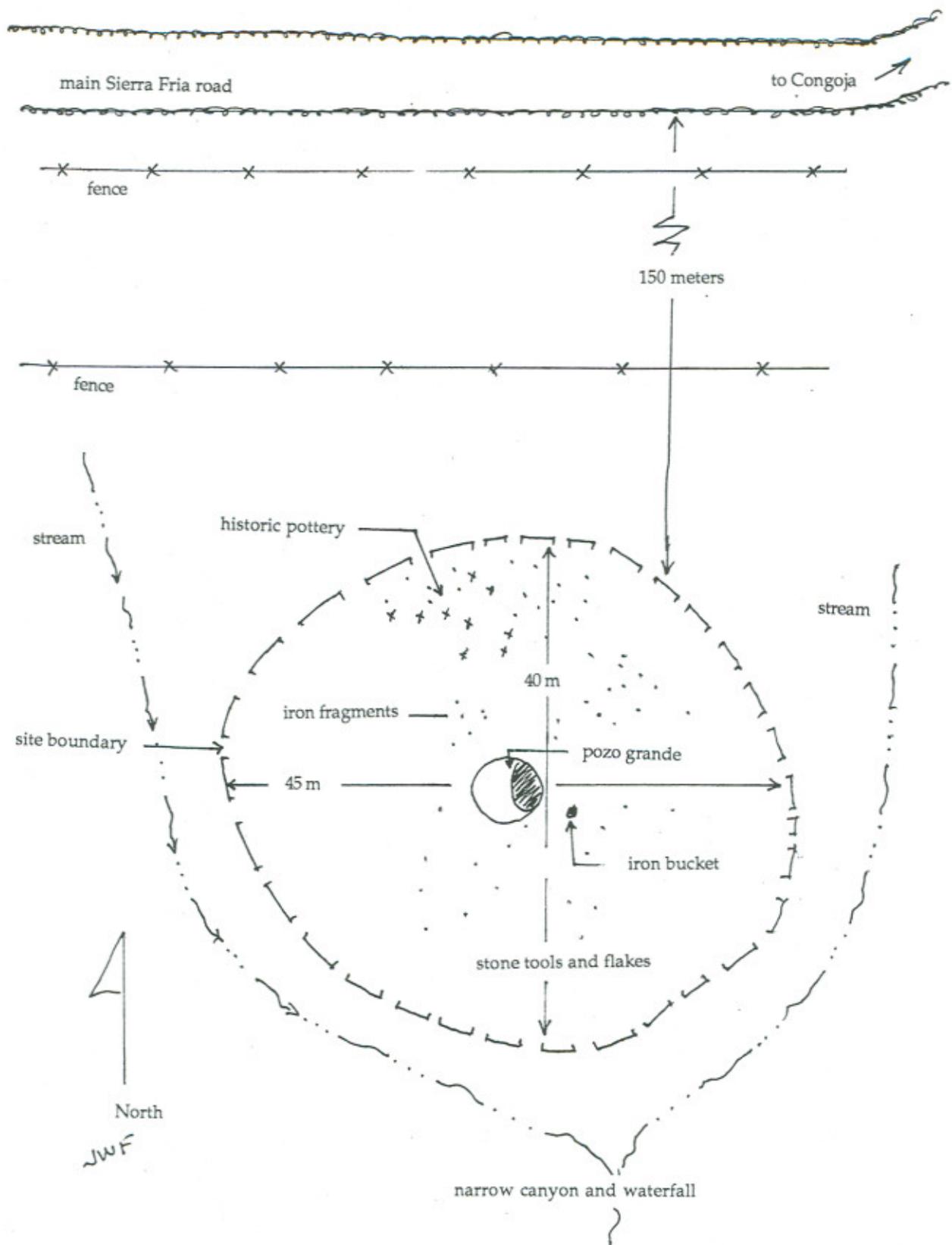


Figure 7. Agua Escondida Archaeological Site. This is said to be the most reliable water source in the central region of the Sierra Fría. Both historic and prehistoric artifacts are scattered around the deep rock water tank.

by surface pecking. No stone tools were seen at the site. Therefore, one is left with a sense of puzzlement as to its function and antiquity.

These two features at the Cueva Barranca del Rico may or may not be archaeologically related. Taken together, however, they form a remarkable site that warrants protection and further investigation.

**Agua Escondida** -- is a remarkable site. It is reached by the main Sierra Fría entrance road through Congoja. The site is found about 150 m south of the road, approximately 5 km west of the entrance to Rancho Antriago. The site consists of an extensive lithic

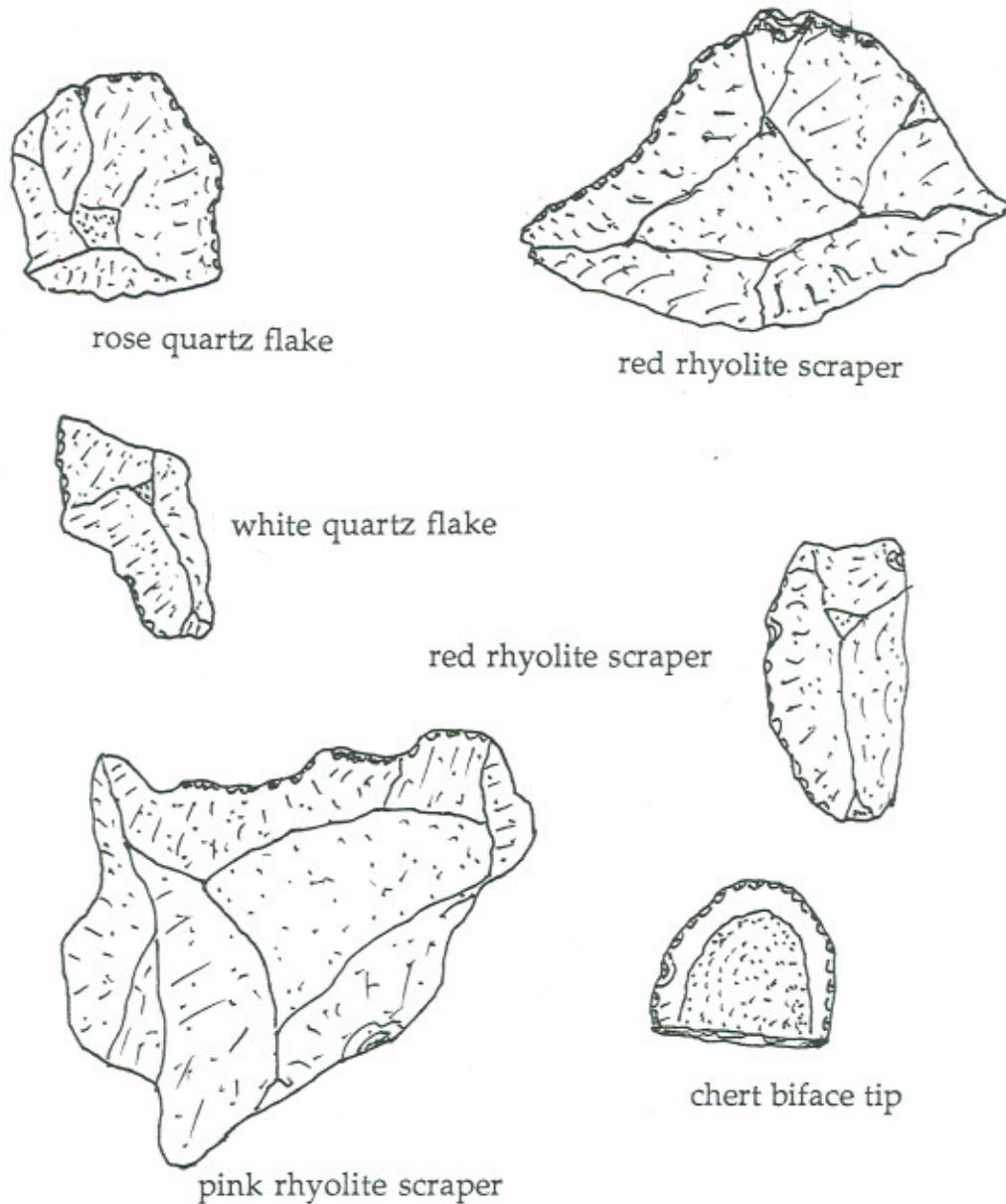


Figure 8. Stone tools from Agua Escondida. A wide variety of percussion-flaked lithics can be seen around this reliable water source.

scatter with pottery fragments over the floor of a large rock basin. Two small streams are formed around the outer margins of the basin. They converge on its southern margin and cascade into a small barranca below.

A central feature of the site is a *pozo grande*. It is reported to be the most reliable water source in the vicinity -- it has never been known to go dry. The well is a natural tank formed in solid rock midway between the streams on a low rise. It is not a simple *tinaja* fed by surface water, but a deep chamber flooded by hydrostatic pressure from the basin itself. At the time of this visit the tank held a pool some 3 m in diameter and 3 m in depth. The tank walls are steep sided. Without assistance, there would be no escape if one were to fall into the tank enclosure.

Archaeological evidence implies this water source has attracted human visitors since ancient times. A large number of stone tools can be seen on the ground surface. Artifacts are large and percussion flaked. Scraping implements, utilized flakes and cores were noted over a circular area measuring 40 m NS by 45 m EW. Rhyolite, quartz andesite and chert implements were seen. Many have original cortex surfaces on the dorsal sides and large flake scars. Some edge retouching was noted on several specimens although the primary manufacturing technique was cold percussion.

Ample evidence of historic use is also present. A concentration of historic pottery was recorded on the north edge of the site. This may have been the location of a temporary dwelling or camp, because iron fragments and glass could also be seen.

The Agua Escondida site clearly deserves protection and further study. In two brief visits, many questions remain unanswered at this location. The depth of archaeological materials is unknown and time-sensitive artifacts from the prehistoric period have yet to be recorded. The site is in excellent condition and is well protected at the present time.

### Additional Observations

In discussions with Sierra Fría residents, mention was made of other areas with archaeological potential. This information is included with the expectation that future studies will expand the survey sample. Also included in this section are observations made of specific locales covered only briefly in the four days allotted for field review. While archaeological deposits have not yet been documented at these locations, they may, upon closer inspection, prove to contain significant evidence of an ancient past.

**Agua Encompanada** -- is another reliable water source in the Sierra Fría range. Since surface water seems to be an important variable in site distribution, this locale can be expected to produce evidence native occupation and use. The location is known by SEDUE staff assigned to the reserve.

large cobble chopper or core tool



gray andesite scraper

red rhyolite scraper

white quartzite flake

pink rhyolite core

Figure 9. Stone tools from Agua Escondida (actual size).

Cueva de Los Flechaderos -- (arrowmaker's cave) as the name implies, this site is said to contain arrow points and other stone tools. The exact location is somewhat vague,

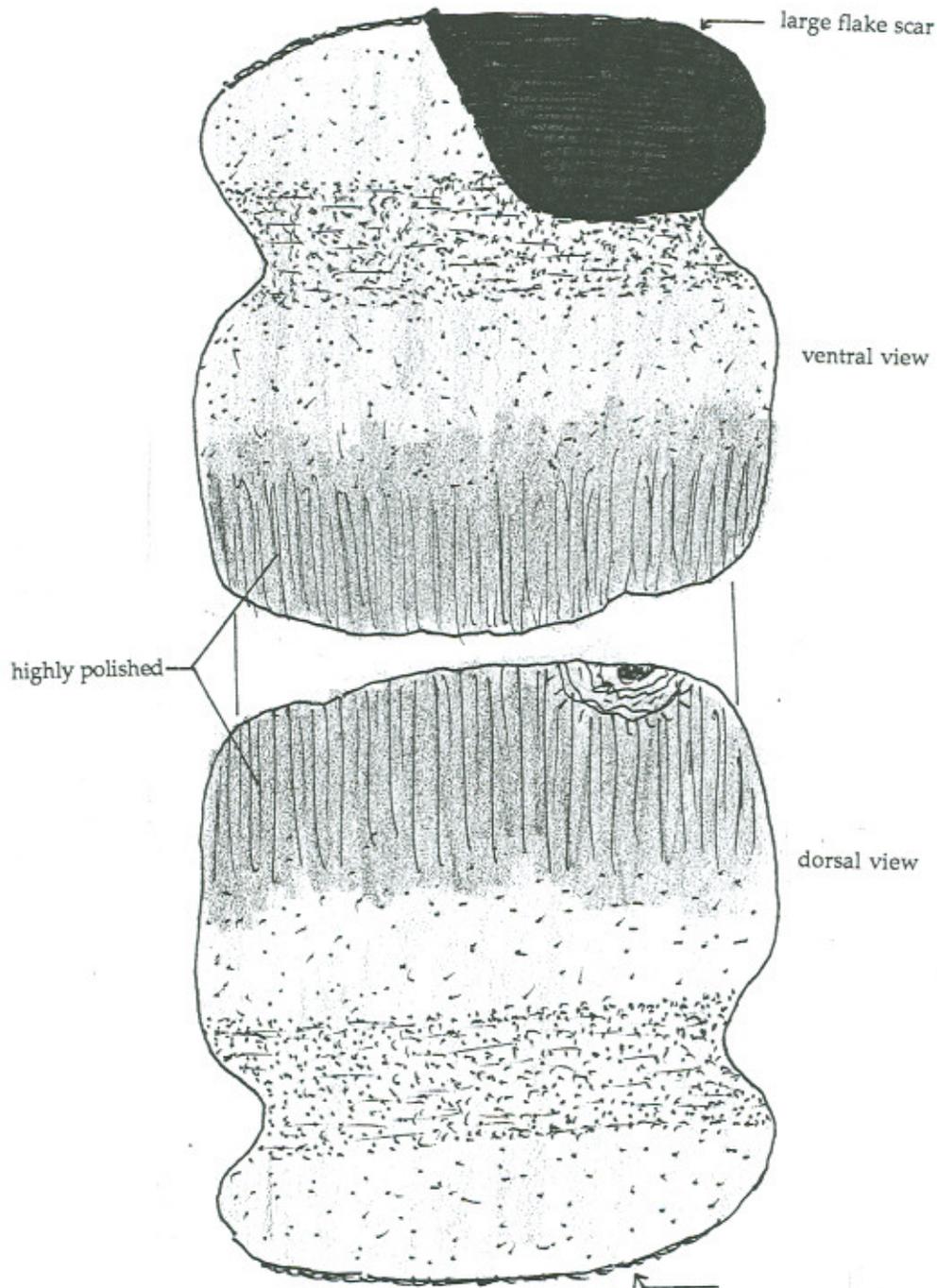


Figure 10. This fully grooved axe made from serpentine is said to have come from the Sierra Fría. Exact provenience could not be determined. Specimen is shown actual size.

but it appears to be north of Monte Grande on a high slope. Don Jose, an 80 year old Indian man from the nearby ejido, provided a general location. A road from San Jose de Gracia leads to the general vicinity. If the name and description are accurate, this would be an important site in establishing time depth for Sierra Fría occupation. Obsidian hydration studies of arrow points as well as a comparison with dated sites, would yield important chronological information.

**Mesa Aguila** -- is a large gentle mesa with scattered oak groves and grasses on the south side of Barranca Rico. A spectacular view of this barranca is afforded from the rim on this mesa. High quality rhyolite outcrops are visible in the graded road crossing the mesa. The combination of concentrated oaks and lithic source material would assign a high priority to this area in future surveys. No water source was apparent in a brief review.

**Cueva Chamuco** -- is a shallow cavern in the upright rhyolite formations forming the north wall of Barranca Rico. Access to the site is by foot from Mesa Aguila where a small mobile home and covered patio have been positioned on the rim. I was escorted to the vicinity by Armando and Jesus Vasquez. Armando had been taken to the site as a young boy. He remembers paintings in the cave, but time did not permit a thorough enough search to find the exact site. The general setting is excellent for pictographs and petroglyphs. Upright rhyolite walls with many fault block failures form deep crevices. The rock talus and eroded blocks form small enclosures and shelters on a narrow terrace below the upright walls. The pinkish rhyolite can be pecked to form a contrasting design. I would expect this area to produce many archaeological sites.

**Barranca del Rico** -- is a main corridor from the Aguascalientes valley to the forested uplands. It contains a reliable stream with gentle open terraces on either bank. A detailed survey of this drainage would no doubt produce many archaeological sites. If large prehistoric villages are to be found in the sierra, a likely setting would be where this major drainage opens wide enough to permit agricultural fields. Hills and terraces in this vicinity should be checked for fortified occupation sites.

**Puerto del Aire** -- is a geological vent on the north side of Monte Grande east of the Las Cebollitas archaeological site. The exact location could not be determined, but Don Jose, a Caxcane native remembers as a young man (70 years ago) that a large Indian group would gather on a hillslope and watch the cold wind emanating from this vent blow hats high in the air. People thought this was great fun. Whether any archaeological remains would mark this site is unknown, but ethnographic interviews might be able to pinpoint the location. The Caxcane name was not remembered.

**Cerro de Enmedio** -- is a terrace site with ruins near the south boundary of Presa Presidente Callas. This site is reportedly within the reserve boundary. It is apparently part of a large archaeological complex at San Jose de Gracia impacted by reservoir construction. Although time did not permit a visit, the archaeological features and artifacts from this village site provides an important basis for assessing materials from the Sierra Fria. Were these farmers the same people using the mountains, or were they trading with more nomadic bands who made their home there? Pottery samples may

reveal contact with other areas. If well preserved, the ruins could be used as an interpretive site for reserve visitors.

### Management Recommendations

The Sierra Fría project has identified as its goal the protection of natural and cultural resources within a 76,000 ha region within the state of Aguascalientes. This effort is extremely worthwhile. From the standpoint of archaeology, a great deal remains to be learned about the ancient history of this region. The chronology and antiquity of human occupation of the mountains has yet to be determined. This will only be possible with the meticulous study of these important sites. Considerable insight is also possible from long time residents and native Caxcanes who have intimate knowledge of their homeland, but many questions will only be answered through the study of preserved sites.

At the onset of this field review, it was said that nothing was known of Sierra Fría archaeology. That's not accurate. A great deal of information is available from SEDUE and INAH staff, native peoples and local residents. What is has yet to be done is a report assimilating this information and documenting the cultural sites known to exist in the reserve. Hopefully, this brief report provides an initial outline for such an effort.

Several specific management recommendations are submitted:

1. All planned recreation sites within the reserve should be surveyed for archaeological materials. If prehistoric deposits or artifacts are located, they should be protected if possible by redesigning new facilities to avoid direct impacts. This is particularly needed at the Pensa de Aranjó site. Present plans call for recreational development below this reservoir. While no artifacts were seen in a brief visit, the site should be considered sensitive for archaeological values. If avoidance is not feasible, salvage excavations should be carried out to recover information that would otherwise be destroyed.

2. Interpretive efforts within the reserve should include information on its prehistory. The interrelationship between human culture and the natural world is a proven theme in park interpretation and one that is relevant today. Many important lessons can be learned from studying the past...if we are prepared to learn them. The resource conservation philosophy needs to be explained in interpretive messages in the reserve so that the public can understand and support these efforts. This should include cultural as well as natural resources.

3. Although none were documented in this brief visit, rock art sites should be expected in the Sierra Fría. The geology and topography are suitable. Caves with paintings or inscribed designs are remembered by long time residents. It would be particularly important to document and protect these sites. This category of

archaeological expression is extremely vulnerable to weathering and vandalism. These are also sites with high interpretive potential. Rock art reveals insights into the culture, symbolism, religious system and world view that are very difficult to reconstruct from artifacts alone. Therefore, a high priority should be placed on locating these areas, and, if possible, making them accessible to the reserve visitors. An excellent way to do so is by guided tour.

4. Another general archaeological concern would be with the major barrancas of the Sierra Fría. These canyons provided early occupants with access to the upland resources from the valley below. Rock art sites, fortifications, agricultural features, hunting camps and lithic workshops should be expected in the barrancas and on the adjacent mesas.

One cannot visit the Sierra Fría without being impressed by its spectacular beauty. This rugged landscape has an equally spectacular cultural history that is only now beginning to make itself known. The sites identified in this study are potentially major deposits of prehistoric artifacts and features. They have benefitted from the wise stewardship of this land by the ranchers and ejido members who control it. In the future, a designated reserve will further safeguard these archaeological sites and allow for greater public appreciation of them. On the basis of surface evidence, they constitute a valuable heritage resource for the State of Aguascalientes and the people of Mexico.

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