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cover

**United States Department of the Interior**
National Park Service



**NATIONAL REGISTER OF HISTORIC PLACES**
**MULTIPLE PROPERTY DOCUMENTATION FORM**

This form is used for documenting multiple property groups relating to one or several historic contexts. See instructions in How to Complete the Multiple Property Documentation Form (National Register Bulletin 16B). Complete each item by entering the requested information. For additional space, use continuation sheets (Form 10-900-a). Use a typewriter, word processor, or computer to complete all items.

__X__ New Submission ___ Amended Submission

**A. Name of Multiple Property Listing**

Rockshelter Sites of the Western Escarpment of the Sacramento Mountains, New Mexico
5500 B.C. - A.D. 1930

**B. Associated Historic Contexts**

Rockshelter Sites of the Western Escarpment of the Sacramento Mountains, New Mexico
5500 B.C. - A.D. 1930

**C. Form Prepared by**

name/title Diane E. White Archaeologist

organization USDA - Lincoln National Forest Date July 28, 1996

street & number 1101 New York Avenue telephone (505) 434-7272

city or town Alamogordo state New Mexico zip code 88310

**D. Certification**

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. ( __ see continuation sheet for additional comments.)

Evan J. DeBlois Federal Preservation Officer 11/21/97
Signature and title of certifying official Date

Forest Service
State or Federal agency and bureau

I, hereby, certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

for Barbara J. Little 4/13/98
Signature of the Keeper of the National Register Date

## E. Statement of Historic Contexts

### Introduction

Rockshelter is a term used to describe a significant and unique feature associated with the prehistoric and historic occupation in the Sacramento Mountains of New Mexico. Rockshelters are not common in the Sacramento Mountains, the state, or nationally. Rockshelters have the potential to contain unique assemblages, since deposits in rockshelters are usually dry. Perishable items like basketry, botanical, and bone remains do not preserve as well in open air sites. The rockshelters in the Sacramento Mountains are comparable to other shelters in state and nationally. They have good preservation and materials dating back to the Archaic. The rockshelters in the Sacramento Mountains may contain some of the oldest vegetal materials in the Southwest.

Evidence suggests the rockshelters in the Sacramento Mountains were occupied during the Archaic, Jornada Mogollon, Apache, and Historic periods. The Archaic period occupation is well documented from the excavations at Fresnal Shelter. It is believed that the rockshelters along the western escarpment of the Sacramento Mountains were used seasonally during the Archaic period as hunting camps. Little is known of the Jornada Mogollon, Apache, and historic Anglo occupation of these rockshelters.

The rockshelters generally consist of a limestone cliff overhang located above a rock ledge or crevice. Caves are also considered to be rockshelters. They may be over 1,000 square meters in size, but most are smaller. The rockshelters may have cultural deposits with or without hearth and pit features, associated artifacts or rock art. Materials recovered from excavations include basketry, cordage, and lithics, along with corn, beans, and wild plant remains. To date 22 rockshelter sites have been recorded in the Sacramento Mountains and several additional sites are known to exist on the adjacent McGregor military range and Bureau of Land Management property. Many more sites may exist in the rugged canyons of the Sacramento Mountains.

### Physical Environment

The western escarpment of the Sacramento Mountains is located on the eastern edge of the Tularosa Basin, the most eastern portion of the Southwestern United States Basin and Range province. The Mountains themselves run in a north-south direction for approximately 170 miles and are about 75 miles wide east-west. Frequent canyons along the western face of the Mountains rise abruptly, cutting deeply into the lower slopes. Along many of the the steep canyons, portions of the Permian Reef are exposed. Limestones, sandstones, and dolomites are found in marine deposits behind the Permian Reef complex. Located in the limestone, along the canyon walls are scattered rockshelters and caverns.

Vegetation in the area is quite varied. The lower elevations contain agave, sotol, yucca, ocotillo, numerous cacti, and grasses. At elevations between 6,000 and 7,500 feet oak, pinyon, and juniper predominate. At higher elevations the canyon heads reach the mountain crests where fir, aspen, and pine are found in thick stands. A wide variety of animals inhabit the area including deer, rabbit, bear, coyotes, and reptiles. The climate along the western escarpment of the Sacramento Mountains varies by elevation. Lower elevations are considered arid with approximately 14 inches of rain annually. Rain fall increases to 25 to 30 inches at the higher elevations. Half of the annual precipitation falls in the summer months from July through September. Very little permanent water is available in the mountains and the majority of the drainages carry water intermittently.

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Culture History

The earliest occupation of the Forest apparently began during the Paleo-Indian period, sometime after 10,000 B.C. This era is characterized by an emphasis on big game hunting supplemented with wild plant foods. The distinctive fluted lanceolate point is the most diagnostic artifact. Most of the evidence for this period in surrounding areas comes from hunting related sites, including preparatory sites, processing sites, and base camps. It ends around 5500 B.C.

Climatic changes throughout the Southwest began around 6000 B.C., resulting in drier conditions than the previous Paleo-Indian period. This led to a decrease in big game and a change in the distribution of plant species. As environmental conditions changed, human adaptations to the environment also changed. Hunting was increasingly supplemented with plant foods, obtained from a variety of environmental zones from the basin floors to the mountain slopes. This type of subsistence system necessitated the seasonal movement of groups of people depending upon the availability of specific floral and faunal resources. A broad spectrum economy involving seasonal rounds lasted for thousands of years. By late Archaic times, population growth coupled with increasing cultural complexity was occurring. Corn and beans first appeared during the Archaic Period, but in general, domesticated crops played only a minor role. The subsequent transition to a more sedentary existence with a greater reliance upon agriculture took several centuries to come about (Spoerl 1983).

Sometime between 300 B.C. and A.D. 700, regionally distinctive cultural traditions developed in the greater Southwest (Spoerl 1983). The Mogollon tradition emerged from an Archaic hunting and gathering base and was defined on the basis of excavations of pithouse villages in western New Mexico. The Jornada variant was defined primarily from ceramic and architectural features. The Jornada Mogollon area includes all of the Lincoln National Forest.

The Jornada Mogollon occupation of this portion of the Sacramentos has received little attention until recently (Lehmer 1948; Kelly 1966). It appears that the area is characterized by a generally low site density throughout the mountains with certain areas exhibiting selective and intensive utilization. The majority of the sites are limited activity locals. Habitation sites are small and scattered. Pithouse villages do occur near the alluvial fans of the western escarpment or in the wider valleys leading into the mountains. Villages are known on the [redacted] They occur at the upper end of the pinyon-juniper belt or just within the transitional zone dominated by ponderosa pine. The evidence indicates that the villages in this area were abandoned somewhat earlier than the other Jornada areas, perhaps pioneering a return to a more mobile existence.

The villages located on the Forest were largely abandoned in the late 1300s and early 1400s. Whether this indicates that the entire area was abandoned or the people returned to a more

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mobile existence is not clear (Spoerl 1983). Whatever occurred, there is no evidence in the archaeological record for occupation of the Forest for over 200 years.

By the 1700s the Sacramento Mountains had become the homeland of the Mescalero Apaches. This group dominated south-central New Mexico for centuries. Their presence slowed the historic development by Europeans until the latter half of the 19th century. Most Apache use of the Forest ended by the late 1800s as settlement on the reservation increased and as permanent Anglo occupation occurred. The Homestead Act of 1862 lead to the establishment of many farms and ranches in Sacramento Mountains.

The Sacramento Mountains in New Mexico are currently managed by the Lincoln National Forest. The mountains are used for recreation, timber, hunting, fuelwood, and grazing.

Property Type

For this multiple property nomination, archaeological properties represented in the historic context and known to exist within the property area will consist of rockshelter sites exhibiting features, associated artifacts, or rock art. Section F provides a more detailed discussion on property types.

Previous Research

The previously recorded rockshelters on the western escarpment of the Sacramento Mountains are described as containing flaked stone, bifaces, cores, and projectile points. Some are noted to have Jornada and El Paso Brown Ware pottery sherds. Some of the rockshelters also contain aboriginal rock art and historic Anglo inscriptions. Both prehistoric petroglyphs and pictographs are found in the rockshelters. Pictographs are images painted on rock in natural or abstract motifs. Petroglyphs are natural or abstract images pecked, carved, or incised on rock surfaces. No specific research has been conducted on the rock art present in the Sacramento shelters, but comparisons can be made with rock art studies in other parts of the region. These studies have described the rock art associated with the Archaic, Mogollon, and Apache periods.

Schaafsma (1986) discusses three styles of rock art which can occur in the rockshelters of the Sacramento Mountains. The first style is the Chihuahuan Polychrome Abstract, which is associated with the Archaic period (Schaafsma 1986:49-54). These pictographs can be yellow, red, orange, black, and white. The elements are generally placed in shelters in a haphazard manner. They tend to occur in series of short parallel lines, rakes, and zigzags. The zigzags can be found singularly or in sets. The zigzags are suggested to represent seed pods (Schaafsma 1986:52). Circles, ovals, dots, and solids are common. Stick figures with spears can also occur (Schaafsma 1986:50). This style of rock art may have continued into the early Mogollon period, with the addition of quadruped, reptile, and animal track elements (Schaafsma 1986:196-197).

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The Jornada style occurred after A.D. 1050 (Schaafsma 1986:196). The Jornada style includes petroglyphs and pictographs of masks with almond shaped eyes, horns, and feathers, blanket designs, animals with bent legs, horned serpents, fish, corn, animal tracks, and clouds. A common element is the Tlaloc or rain god figure which is expressed as having large round eyes above a blanket or kilt. The plumed or horned serpent is also common. The serpent is associated with water and may be a Mexican derived Quetzalcoatl figure (Schaafsma 1986:217).

Apache rock art includes charcoal line drawings, pictographs, and petroglyphs. Apache rock art in the Hueco Mountains to the south of the Sacramento Mountains is characterized by elements executed in thick white paint. Common elements include horses, riders, shields, masks, snakes, animals, and hourglass figures (Schaafsma 1986:335).

Fresnal Shelter is the only rockshelter along the western escarpment of the Sacramento Mountains that has been excavated. In the late 1950s and early 1960s the area was explored by Don McCloud, Mike Marshall, and Mark Wimberly, three amateur archaeologists. They located approximately 30 rockshelters, including Fresnal Shelter. Wimberly and Irwin-Williams collected a radiocarbon sample from the shelter which dated 3615 +/- 120 years B.P. (Foster 1981). This lead Irwin-Williams to conduct excavations in the shelter from 1969 through 1972. Approximately one half of the site was excavated. A large quantity of material was collected from the excavation which enabled numerous past and present research projects.

An important component of the research conducted at Fresnal Shelter has been radiocarbon dating. Several charcoal samples from the site have been submitted for dating. Carmichael submitted six samples of corn, bean, and hearth deposits. The dates from these materials ranged between 7310 +/- 75 years B.P. to 2690 +/- 80 years B.P. (Carmichael 1982). Eastern New Mexico University submitted seven charcoal samples along with a bison dung sample for dating (Jones 1990). The uncalibrated dates ranged from 1890 +/- 60 B.P. to 5090 +/- 60 B.P. The dung sample provided the oldest date. Ten additional samples of cultigens were submitted for dating by the Lincoln National Forest. The corn samples dated between 2945 +/- 55 and 1665 +/-55 B.P., making them some of the oldest corn samples in the Southwest. The beans dated 2085 +/- 60 to 1955 +/- 55 (Tagg 1996:317). Fresnal Shelter appears to have been used repeatedly for thousands of years.

Wimberly and Eidenbach performed the preliminary faunal analysis (1981a). Approximately 28,000 pieces of bone were collected. They also examined the butchering practices evident within the shelter's faunal collection (1981b). Additional analysis compared bone elements in association with hearths. Cameron (1973) found that low muscle mass bone elements were found in high numbers near hearths. She suggested that the shelter was used as a hunting base camp where game was processed. The larger portions of meat would have been removed while the ribs and other low muscle mass portions would have been consumed during temporary stays in the rockshelter. The results of her analysis lead to a hypothesis of seasonal fall occupation of the shelter as a hunting camp (Cameron 1973). The remains of an infant were also found in the shelter. The analysis of the burial was descriptive. The infant was found to have no cranial deformation and no pathologies (Hall 1973).

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The initial botanical analysis also supported a fall seasonal occupation (Carmichael 1982). One hundred corn specimens were collected. Huckell (1990) conducted a short descriptive analysis of some of the corn and beans before they were submitted for dating. The corn cobs were from eight and ten rowed ears of Zea mays. "The earliest examples of Archaic-age sites with maize were found in mountainous regions at relatively high elevations... like Fresnal" (Tagg 1969:321). The beans were all varieties of the common bean Phaseolus vulgaris. Additional limited botanical analysis focused on wild plant species (Bohrer 1981). The existing plant species and soils have also been described (Derr 1973).

The lithic analysis was performed in part to test the hypothesis of the fall seasonal occupation of the shelter as a hunting camp (Jones 1990).. The type of bifaces and lack of primary flake debitage indicated that the shelter could have been seasonally occupied for hunting. The shelter had a predominance of biface thinning flakes and interior flakes, suggesting that the inhabitants carried preforms with them. Jones suggested that mobile hunter gatherers would not have carried any unnecessary weight (1990:99). The analysis of biface forms from Fresnal Shelter found similarities with the Cochise culture and Oshara tradition. The stylistic influences on the bifaces at Fresnal appears to have come from the greater Southwest (Jones 1990:104).

Adavasio (Jones 1990:26) performed the initial description of the basketry samples, including over 400 sandals. Additional analyses of the basketry suggested that local raw materials influenced basketry construction more than cultural relationships (Allan 1973). Fresnal Shelter basketry shares some similarities with Anasazi and Mogollon basketry. There are also some similarities with basketry from the Hueco Mountains to the south, but a type of construction present in the Hueco Mountains is totally absent in the Fresnal Shelter assemblage (Allan 1973:4). Moots (1990) analyzed the cordage assemblage from the shelter. The analysis found that yarns and simple cordage preceded compound cordage and that there was a preference for animal fibers. The assemblage from the shelter did not have any nets, possibly indicating the smaller animals were caught with snares (Moots 1990:81). Five species of birds were also identified by McKusick from approximately 200 feathers (Jones 1990:26).

These analyses have provided a great deal of site specific information on the Archaic period occupation of Fresnal Shelter. Additional research on rockshelters is need in order to determine if the results found are typical. Research into the Jornada Mogollon, Apache, and Historic period occupation of the rockshelters is also need to establish the full range of their use.

Ethnographic Data

Ethnographic data concerning the use of rockshelters by the Apache is scarce. Most sources mention wickiups and tepees as the primary habitation structure of the Apache. Pool (1994:90) indicates that Apaches used rockshelters to cache food stores. Rockshelters also contain Apache rock art. Some Apache rock art may be attributed to shamanism. "The Apache places with markings on the walls or rocks may be considered sacred" (Schaafsma 1986:337). Opler (1965:312)

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discussing the Apache mentions "a specific cave where men go to pray, in which the sun, moon, stars, and mountain spirits are depicted on the walls".

Research Questions

The research value of rockshelter sites on the western escarpment of the Sacramento Mountains is significant. Very little is known about the majority of the rockshelters. The discussion of these rockshelter sites is generally limited to descriptions of location, size, and surface assemblage. Limited research has been conducted on temporality, cultural affiliation, or use.

Several research questions could be addressed using information obtained from rockshelter sites on the western escarpment of the Sacramento Mountains. The research questions listed below include questions on cultural affiliation, temporality, seasonality, and use.

Were the rockshelters used primarily during the Archaic period? At what other times were rockshelters used? Evidence from Fresnal Shelter indicates that it was occupied during the Archaic Period. No ceramics were recovered from Fresnal Shelter. The carbon dates from Fresnal Shelter also support an Archaic occupation. This evidence suggests that the Jornada Mogollon did not occupy Fresnal Shelter. Other rockshelters on the Lincoln National Forest have associated prehistoric brownware pottery suggesting Jornada Mogollon occupation. Is the brownware pottery Mogollon? How intensive was the use of rockshelters by the Archaic and Jornada inhabitants? Is there a difference in rockshelters used by either the Apache or Mogollon? Is there evidence for Apache occupation? Additional information from rockshelter sites could be used to determine their cultural affiliation.

The analysis of materials from Fresnal Shelter suggest that the site was used seasonally in the fall. Do other rockshelters have evidence of seasonal use? Fresnal Shelter faces south. Does cave orientation have any influence on the season it was occupied? Are rockshelters used only as hunting camps during the Archiac period, as evidence from Fresnal Shelter suggests, or were they used for storage by the Apache? Macrobotanical and pollen analyses could provide information on seasonality and climate, enabling research on settlement and subsistence patterns.

Is the location of an occupied rockshelter dependent on topography? Does the location of the shelter in relationship to water or food resources influences its occupations? Are canyon sides preferred over bottoms? A random sample of shelters could provide a variety of data, which would allow for statistical analyses of well developed research questions regarding site distribution. These results combined with radiocarbon analysis could provide information on changes in site use through time.

Are shelters with rock art different? Do the assemblages in shelters with rock art, indicate a more ritualized use? What time period do shelters with rock art date to? This information could provide insight into the development of prehistoric spirituality and beliefs.

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What is the cultural affiliation of the rockshelter occupants? The lithics from Fresnal Shelter indicated a wide variety of cultural contacts, while the basketry had some distinctively unique elements. Is there evidence for a continuum from the Archaic to the Mogollon culture? Answers to these questions could be obtained from information on carbon dating, projectile point typologies, and basketry manufacturing technology.

How were rockshelters used during the historic Anglo period? Can the identity of historic individuals, who have used the shelters be found? To what degree has the historic use of shelters altered their deposits and features? Survey and excavation data could be combined with information from historic records to answer these questions.

**F. Associated Property Types**
(Provide description, significance, and registration requirements.)

Name of Property Type

Rockshelter sites exhibiting cultural deposits, features, artifacts, or associated rock art.

Description

Rockshelters generally consist of a limestone cliff overhang located above a rock ledge or crevice. Some rockshelters are limestone caves. Size and shape varies, with some shelters over 1,000 square meters in size. Most rockshelters are smaller. Rockshelters may occupy a single rock ledge while others have several rooms or chambers. Rockshelters must have had some cultural use or occupation.

Rockshelters frequently have sooting on the walls and ceiling from previous fires. Some have cultural deposits, features, artifacts, and rock art. The artifacts can include burned bone, lithics, charcoal, ceramic fragments, ground stone, textiles, basketry, pollen, and macro botanical remains.

The boundary of a rockshelter site will include all features and any associated artifacts. Rockshelters have been identified in a few geographic locations including cliff faces and canyon walls. Occupied rockshelters tend to be located in areas with access to water. Radio carbon dates are limited to those from Fresnal Rockshelter dating 5360 B.C. to A.D. 60. Rock art, inscriptions, and associated artifact date rockshelters into the historic period. Groups known to have inhabited rockshelters include the Archaic, Jornada Mogollon, Mescalero Apache, and Historic period Anglos. The rockshelters do not appear to have been frequently modified by their occupants. Enclosing walls have been found in shelter entrances, but they can not be attributed to a specific culture. Some rockshelters have also been mined historically.

Significance

Rockshelters are significant examples of habitation sites in the Sacramento Mountains. They can provide vast amounts of information that most open air sites cannot. Rockshelters are valued for their preservation of perishables like basketry and textiles. Information may be gained on cultural affiliation, temporality, subsistence strategies, and settlement patterns. The information could be used to better understand the social and economic forces that helped shape the culture of the prehistoric and historic inhabitants of the Sacramento Mountains.

Registration Requirements

Evaluation may take place at the local, state, or national level to determine significance under criterion D, as the sites may yield information important to the prehistory and history of the Sacramento Mountains of New Mexico. To qualify the site must posses one or more of the following items. The shelter must have intact cultural deposits, one or more features, associated artifacts, or rock art. Many of the research questions listed in Section E of the Multiple Property Documentation Form can be addressed with the aid of radiocarbon dating, therefore, all sites nominated under criterion D must be sufficiently intact to provide samples for dating or contain intact examples of temporal distinct rock art.

## G. Geographical Data

### Legal Location

The Sacramento Mountains are located in south-eastern New Mexico. The area covered by this nomination includes portions of the Sacramento Mountains administered by the Lincoln National Forest (Figure 1). Various sections in the following townships and ranges are represented in this nomination.

The other ownership in this area consists of isolated blocks of privately owned land, the McGregor Range of the United States Army, and the Bureau of Land Management. The properties included in this nomination are located within Otero County. This geographic area represents a portion of the area where rockshelters are found. It is intended to provide a bounded area within which to study rockshelter sites. All of the sites nominated here for the Register are on the Lincoln National Forest.

## H. Summary of Identification and Evaluation Methods

(Discuss the methods used in developing the multiple property listing.)

All ground disturbing projects conducted on the Lincoln National Forest are surveyed by professional archaeologists prior to the initiation of project activities. Survey methods consist of intensive systematic pedestrian coverage of the areas included in the proposed undertakings. Cultural resource sites are often encountered during the course of these surveys. The sites are recorded on Forest Service and Laboratory of Anthropology site forms, mapped, and in some cases a collection of significant artifacts is undertaken. Occasionally rockshelters are identified. Twenty-two rock shelters have been recorded with only one percent of the area having been surveyed. This multiple property nomination does not include all documented rockshelter sites. It is structured to allow for additional previously recorded and newly recorded sites to be added for listing provided they meet the criteria listed in Section F.

The historic context was developed based on the use of rockshelter sites during a period in the cultural development of nomadic groups and historic inhabitants occupying the area between 5500 B.C. and A.D. 1930. The period of time in which the historic context is represented was determined by consolidating a variety of existing C-14 dates and relatively dated pottery types, rock art, and inscriptions. The geographic boundary was defined to included lands in the Sacramento Mountains managed by the Lincoln National Forest. It is not considered to be all inclusive as rockshelters are known to exist on lands adjacent to the Forest as well as in other parts of the region.

The research questions were structured to illustrate the need for additional study of the area in order to gain a better understanding of the prehistoric and historic use of the Sacramento Mountains. This nomination is significant as the sites included represent a unique and specialized form of habitation which greatly influenced the cultural development of nomadic groups and historic inhabitants occupying the area between 5500 B.C. to A.D. 1930.

The sites initially included in this nomination are located along the western escarpment of the Sacramento Mountains and have been previously located or recorded and monitored. The sites were re-examined prior to nomination and site forms were completed and updated. These sites represent a small percentage of rockshelters known to exist in the area. They were chosen for nomination because they represent excellent examples of the type of rockshelters one would expect to encounter while conducting research in the Sacramento Mountains.

Moots, R.
1990 Technological Analysis of a Cordage Sample, Fresnal Rock Shelter, South Central New Mexico. Unpublished Master's thesis, Department of Anthropology, Eastern New Mexico University.

Opler, M.
1965 An Apache Life-way: The Economic, Social, and Religious Institutions of the Chiricahua Indians. Cooper Square Publishing, New York.

Pool, M.
1994 Implications of the Western Apache Settlement System for the Early Mogollon Period. In Mogollon VII. COAS Publishing and Research, Las Cruces, New Mexico.

Schaafsma, P.
1986 Indian Rock Art of the Southwest. School of American Research. University of New Mexico Press, Albuquerque.

Spoerl, P.
1983 Thousands of Years of Use: Prehistory and History of the Lincoln National Forest. Ms. on file, USDA Forest Service, Lincoln National Forest, Alamogordo.

Tagg, M.
1996 Early Cultigens From Fresnal Shelter, Southeastern New Mexico. American Antiquity 61(2):311-324.

Whimberly, M., and P. Eidenbach
1981a Preliminary Analysis of Faunal Remains From Fresnal Shelter, New Mexico. Humans Systems Research, Tularosa, New Mexico.

1981b Preliminary Analysis of Faunal Remains From Fresnal Shelter, New Mexico: Evidence of Differential Butchering Practices During the Archaic Period. The Artifact. El Paso Archaeological Society.

Primary location of additional documentation:

|X| State historic preservation office
|__| Other State agency
|X| Federal agency
|__| Local government
|__| University
|__| Other

Specify repository:_____