

## **Pueblo on the Plains: The Merchant Site (LA 43414) of Southeastern New Mexico**

**Author(s) / Editor(s):** Myles Miller

**Published:** 2021

**Document Type:** other

**Stable URL:** <https://core.tdar.org/document/466187/pueblo-on-the-plains-the-merchant-site-la-43414-of-southeastern-new-mexico>

**DOI:** doi:10.48512/XCV8466187

**Note:** Public education and outreach brochure

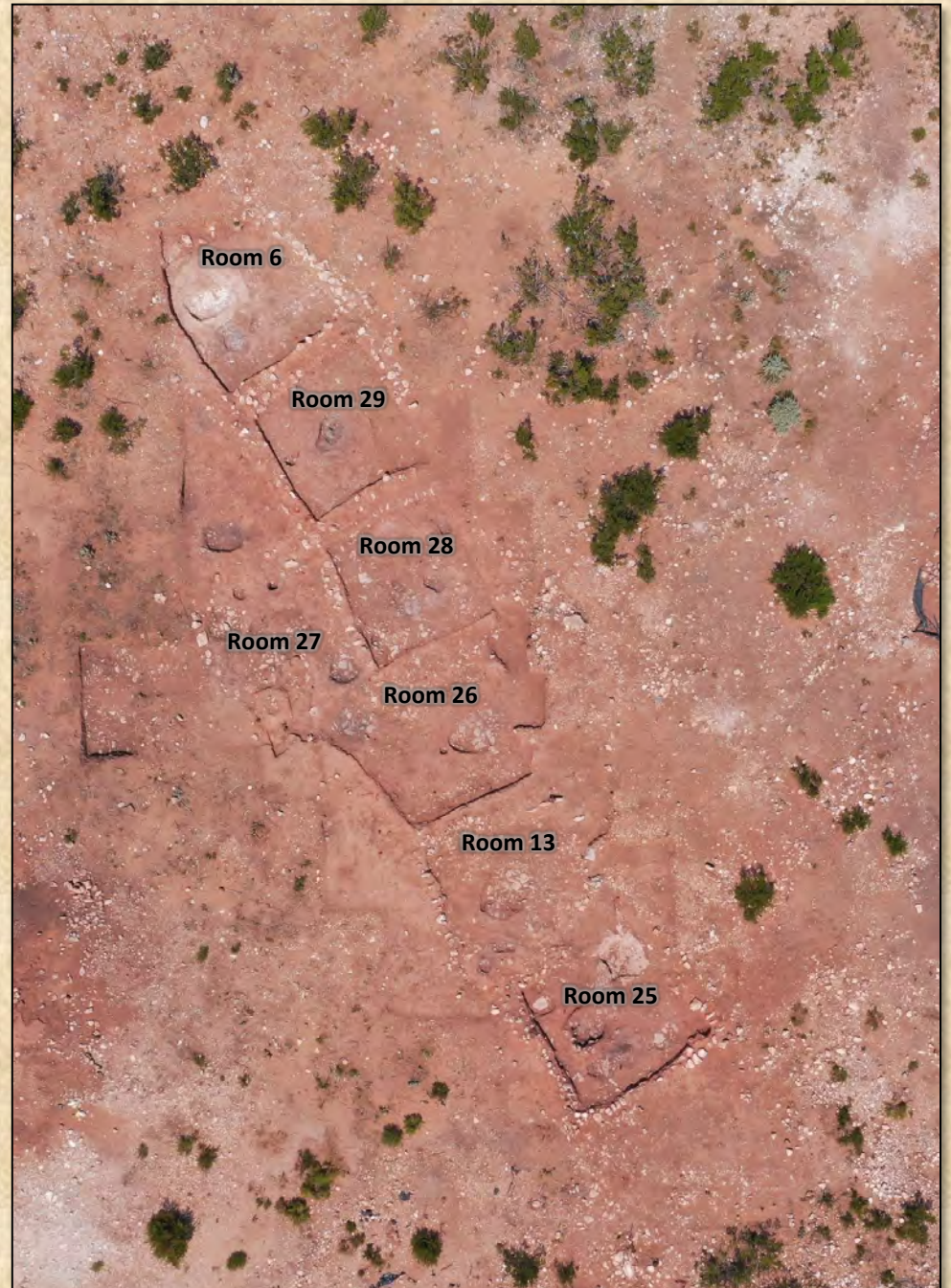
**Downloaded:** by Ellen Dornan on 11/16/21 5:36 PM

---

Your use of tDAR indicates your acceptance of the Terms & Conditions of Use, available at <http://www.tdar.org/support/policies/term-of-use/>. tDAR is an international digital repository developed and maintained by the Center for Digital Antiquity, a not-for-profit organization that helps scholars, researchers, educators and students, and interested members of the general public discover, use, and preserve a wide range of information about archaeology and archaeological resources. For more information about the Center for Digital Antiquity, visit our web site <http://digitalantiquity.org>. For more information about tDAR, see <http://www.tdar.org>. We welcome your comments via email at [comments@tdar.org](mailto:comments@tdar.org) or phone at 480-965-1387.

# Pueblo on the Plains:

## *The Merchant Site (LA 43414) of Southeastern New Mexico*



Permian Basin Programmatic Agreement  
BPA Project No. 10  
Carlsbad Field Office  
Bureau of Land Management  
Carlsbad, New Mexico



Versar, Inc.



Bureau of Land Management  
Carlsbad Field Office  
New Mexico

**October 2021**

The Permian Basin Programmatic Agreement is the mechanism by which the Bureau of Land Management complies with Section 106 of the National Historic Preservation Act of 1966, as amended, in permitting energy extraction in the Basin. It is an agreement among the Advisory Council on Historic Preservation, the New Mexico State Historic Preservation Officer, the New Mexico State Office of the Bureau of Land Management, the Mescalero Apache Tribe, the New Mexico Archeological Council, the New Mexico Oil and Gas Association, and the Independent Petroleum Association of New Mexico to identify and preserve historic properties eligible for listing on the National Register of Historic Places, while streamlining the process for new oil and gas extraction.

This publication is in compliance with Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S. C. 794d).

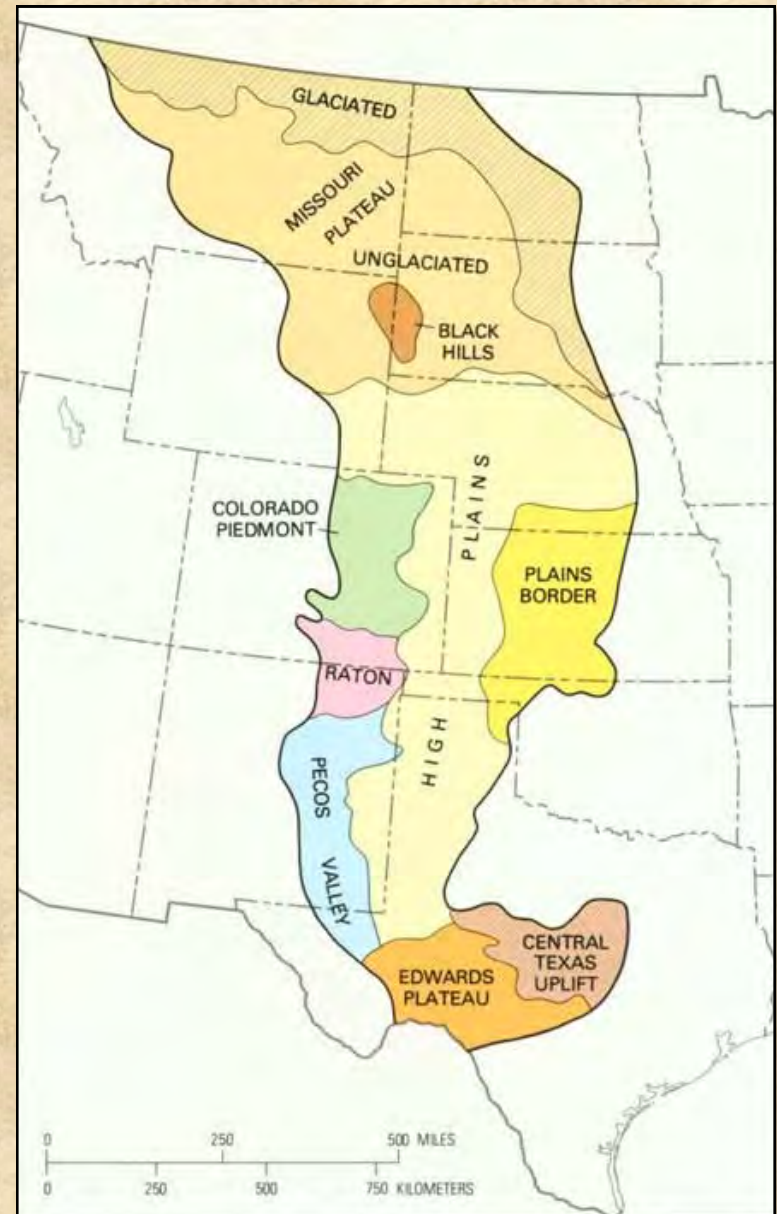
# *Pueblo on the Plains*

The Great Plains Province extends from Canada to central Texas and includes several sections or subareas. The Pecos Valley and High Plains sections include southeastern New Mexico. The local manifestation of the Great Plains is called the Mescalero Plain after the Mescalero Apache tribe who inhabited the region during Historic times and continue to do so today.

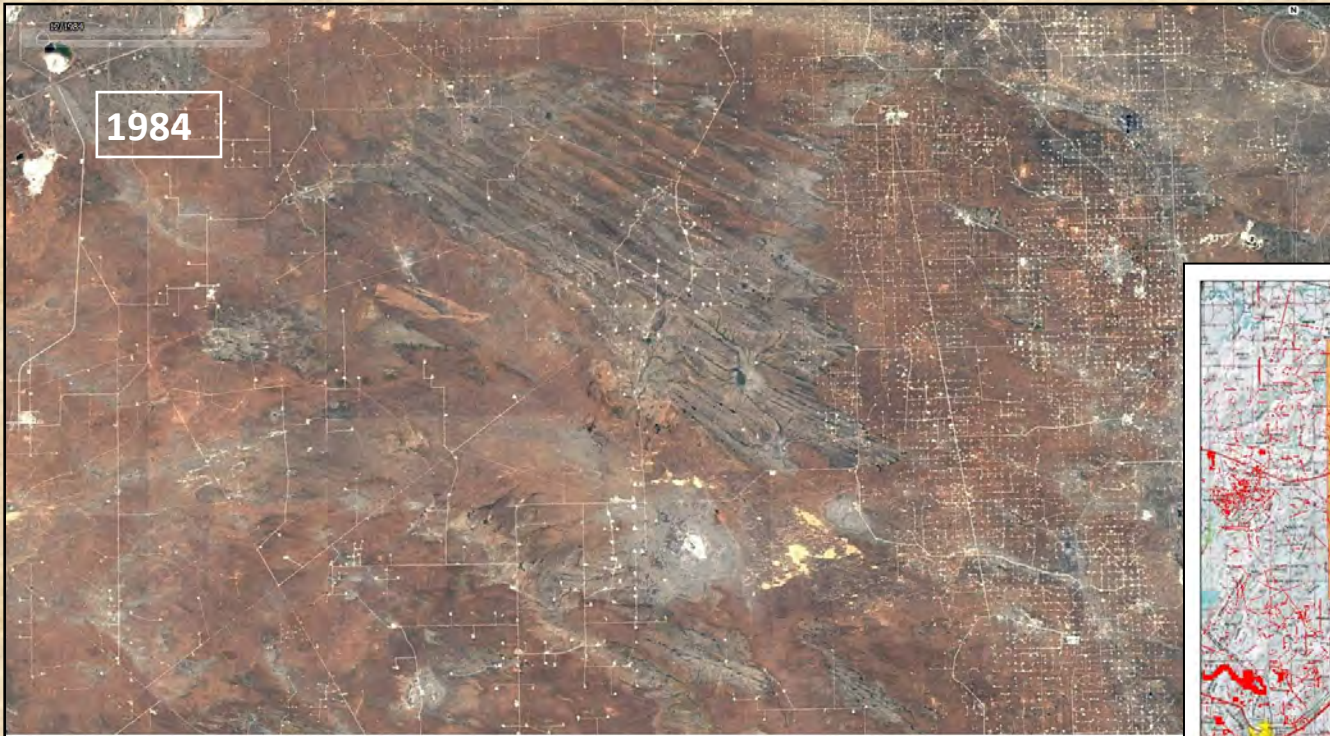
Humans have lived on the Mescalero Plain for over 10,000 years. The traditional view of past Native American societies inhabiting the plains is one of ancient hunters and gatherers moving across the landscape according to the seasons or the more recent arrival of horse-mounted groups after Europeans introduced horses to the region in the 1600s.

This publication presents a new side to the story of the Mescalero Plain. Sometime around 600 years ago, a pueblo was built on a small ridge in what is now southeastern New Mexico. The site is called The Merchant Site.

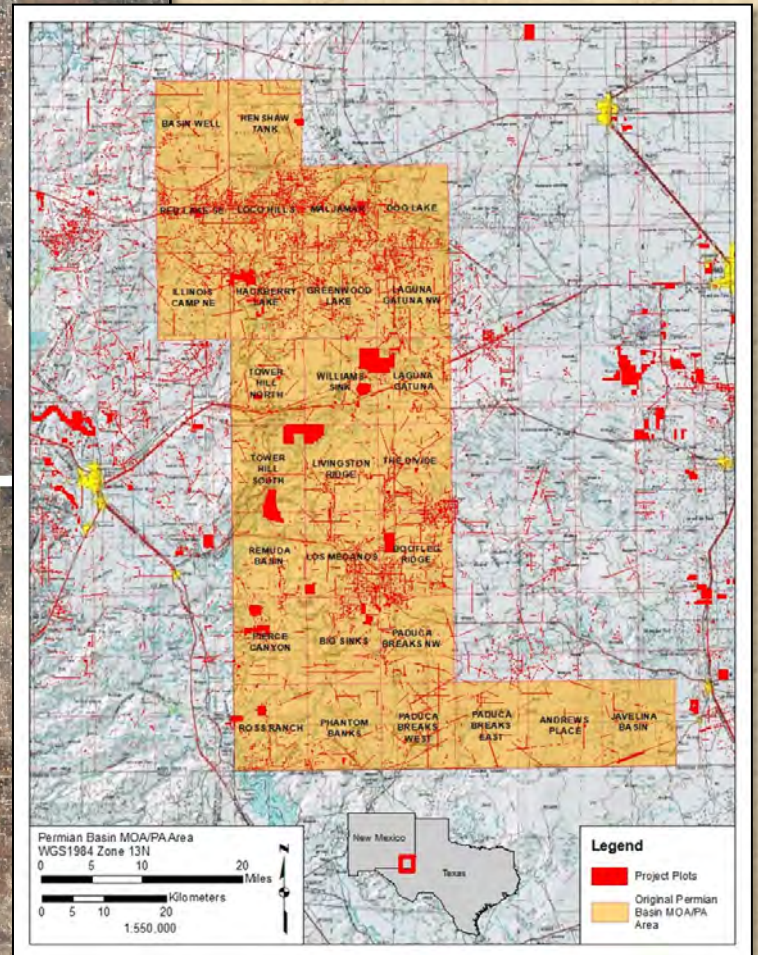
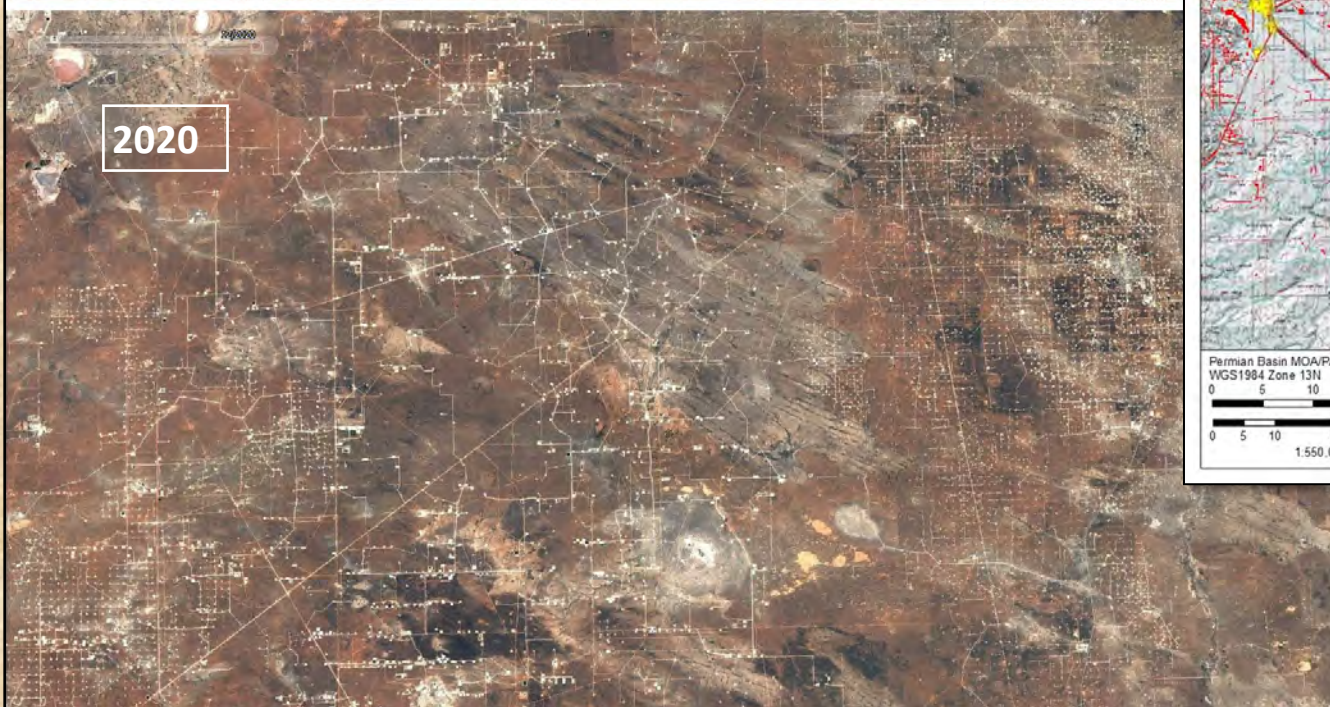
The inhabitants of the Merchant Site grew corn in local fields, made pottery with elaborate textures, built ceremonial rooms, and hunted buffalo and other large game on the nearby plains. The study of villages of this period can reveal fascinating insights into how people adapt to new environments and interact with their neighbors.



Sections of the Great Plains Province  
(from USGS Geological Survey Bulletin 1493 [1990])



Google Earth images from 1984 and 2020 showing the spread of oil and gas exploration and extraction across the 25 by 50 mile area surrounding the Merchant Site



Red lines and filled areas mark the locations of thousands of archaeological surveys for oil and gas wells, pipelines, seismic lines, mines, and other developments across the Permian Basin of southeastern New Mexico.

# Permian Basin Programmatic Agreement

The archaeological study of the Merchant Site and other areas of the Mescalero Plain were funded under the Permian Basin Programmatic Agreement Program administered by the Carlsbad Field Office of the Bureau of Land Management (BLM).

The Merchant Site is located in the northern part of the Permian Basin of southeastern New Mexico and western Texas. The Permian Basin is a geological feature—an ancient sea— but since the 1920s it has also been known as one of the major oil and gas producing regions of the United States. It is part of the Mid-Continent Oil Field that stretches from Kansas to Louisiana.

The status as a major oil and gas producing region was revived with the widespread use of hydraulic fracturing (“fracking”) extraction methods over the past twenty years. Before an oil and gas exploration well, a pipeline, or storage

facility can be built on BLM lands, an archaeological review is required under the National Historic Preservation Act that was enacted in 1966.



A typical area of the Permian Basin showing the multiple overlapping archaeological surveys completed over 30 years. Known archaeological sites are outlined in red. Oil and gas projects approved under the PA are in pink (from Schlanger, McDonnell, Larralde, and Stein 2013)

Over the past 40 years, over 25,000 archaeological surveys have been completed for oil and gas developments on BLM lands in the Permian Basin. Hundreds of locations have been surveyed over and over again as new wells and new extraction methods are used.

Archaeologists and land managers working with the BLM and in private companies came to realize that the small-scale surveys of the same locations were

providing limited results in terms of our knowledge about the prehistory and history of the region. Perhaps the money spent by the oil and gas industry on archaeological work could be used more productively.

In 2008, the Bureau of Land Management, the New Mexico State Historic Preservation Office, the Advisory Council on Historic Preservation, and seven Native American tribes assisted in the development of the Permian Basin Programmatic Agreement (PBPA) signed in 2013.

Basically, when an oil and gas development project takes place in the PBPA region, the oil and gas development company can choose to participate in the PBPA program or do a conventional archaeological survey.

If the company chooses the PBPA procedure, they contribute the cost or fee that they would have paid for the archaeological survey to a fund. Multiple firms contribute to the fund each year. This fund is managed by the Carlsbad Field Office for research.

The PBPA research program funds studies to help better understand and manage archaeological sites as well as supporting research projects that expand our knowledge of the prehistory and history of southeastern New Mexico (see the list to the right).

The PBPA program also includes publications, such as this booklet, that broaden public awareness and appreciation of the prehistory and history of the region.



## Notable Permian Basin PA Projects

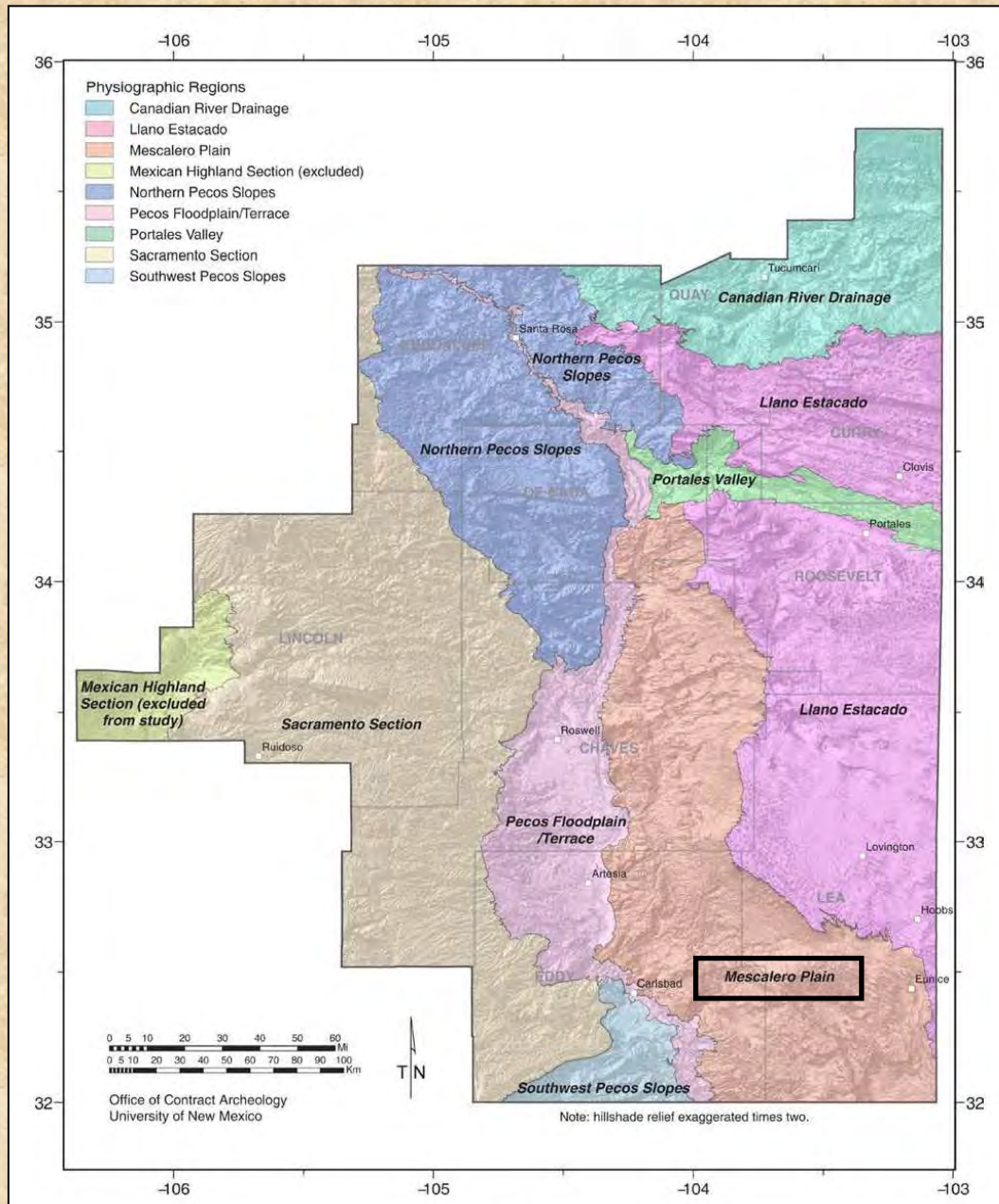
- ◇ Selection of Sites to Address Questions in the Southeastern New Mexico Regional Research Design: A Landscape Approach
- ◇ An Assessment of Transect Recording Unit Survey and Subsurface Testing Methods at Four Sites in the Permian Basin, New Mexico
- ◇ Plant Utilization in Southeastern New Mexico: Botany, Ethnobotany, and Archaeology.
- ◇ The Merchant Site: A Late Prehistoric Ochoa Phase Settlement in Southeastern New Mexico
- ◇ Permian Basin Research Design 2016—2026 (2 volumes)
- ◇ Survey and Evaluation of Rock Art Sites within the Carlsbad Field Office, New Mexico in Federal Fiscal Year 2017
- ◇ Camping and Hot-Rock Cooking: Hunter-Gatherer Land Use in the Southwest Pecos Slopes
- ◇ Evaluation of the Effect of the Permian Basin Programmatic Agreement on the Archaeological Record within the PBPA Area: Field Survey and Document Review of 164 Projects
- ◇ Archaeological Survey of Rock Ring Midden Sites in the Carlsbad Field Office, New Mexico
- ◇ **Additional Investigations at the Merchant Site (LA 43414) and TRU Survey of 51 Sites in the Carlsbad Field Office, New Mexico (the project described in this booklet)**
- ◇ TRU Archaeological Survey of the Salado Draw Drainage, Geomorphological Investigations within Salado Draw, and Preliminary Investigations at 35 Sites in Salado Draw, Carlsbad Field Office, New Mexico
- ◇ Survey and Evaluation of Potential Mescalero Apache Traditional Cultural Property (TCP) Sites within the Carlsbad Office , New Mexico



A rock art scene that was studied as part of a project funded by the PBPA



# The Mescalero Plain



The Mescalero Plain is a geographic section of the southern Great Plains. It lies between the Pecos River floodplain and the Llano Estacado (the “staked plains” as the Spanish called them). The word “plain” does not truly describe the region. The region includes vast areas of small, shrub like shinnery oak trees, areas of coppice dunes topped by mesquite bushes, and gravel ridges.

Dozens of small lakebeds offered reliable sources of water for prehistoric and historic settlers.

Bison and antelope provided meat, hides, sinew, and bone for food, tools, and clothing.

Mesquite and shinnery oak were available for food, firewood, and building materials.

Rabbits, other small animals, and seed plants found among the sand dunes were also used for food.

Stone materials used to make tools or for cookstones in fire hearths were found in the gravel ridges.

View across the Mescalero Plain from the Merchant Site



Gravel ridges were sources of stone for tools and cookstones in hearths



Mesquite bean pods

Shinnery oak acorns

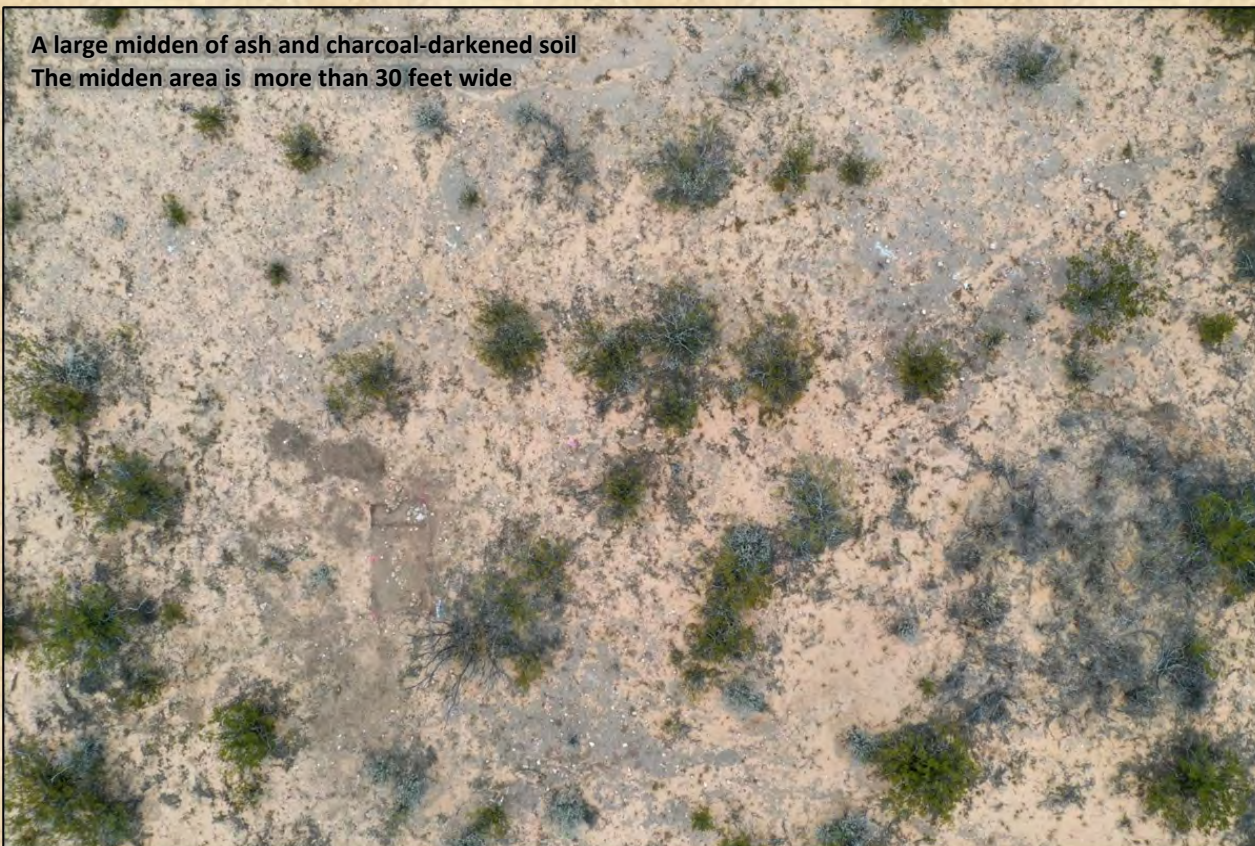


Sand dunes (called "coppice dunes") are a common landscape feature

# ***BPA 10: Survey of the Mescalero Plain***

***The BPA 10 project had four parts: (1) survey of village sites on the Mescalero Plain; (2) survey of the vicinity of the Ochoa Phase Merchant village; (3) excavations at the Ochoa phase Merchant Site; and (4) survey and report on bedrock grinding features***

Four land parcels and several isolated locations with village settlements were surveyed on the Mescalero Plain. Several locations had been settled for hundreds of years, creating large areas of ash-darkened soil and artifacts called “middens” that were sometimes two feet in depth. Buried pithouses, hearths, and agave baking pits were present at such sites. Locally made and imported pottery was often found in such locations, along with animal bone, flaked stone tools, and grinding tools. A surprising discovery of the survey was that very few Ochoa Phase villages like the Merchant Site were found.



**Burned rock from an agave baking pit at a depth of 1.5 feet below the surface is present in this excavation unit in the village midden area.**



The surveys of the Mescalero Plain documented over 6,000 years of prehistoric and historic occupation, with settlements ranging from ancient hunting camps to agricultural villages to modern ranching and oil extraction sites.

Stone spear and arrow points that span 6,000 years of settlement and game hunting across the Mescalero Plain



A circular arrangement of rocks marking the location of a tipi ring or other form of short-term historic Native American house structure



A Chupadero Black-on-white pottery sherd. This pottery was traded from areas in the Sierra Blanca and Gran Quivira areas of central New Mexico.

# ***BPA 10: The Merchant Site Surroundings***

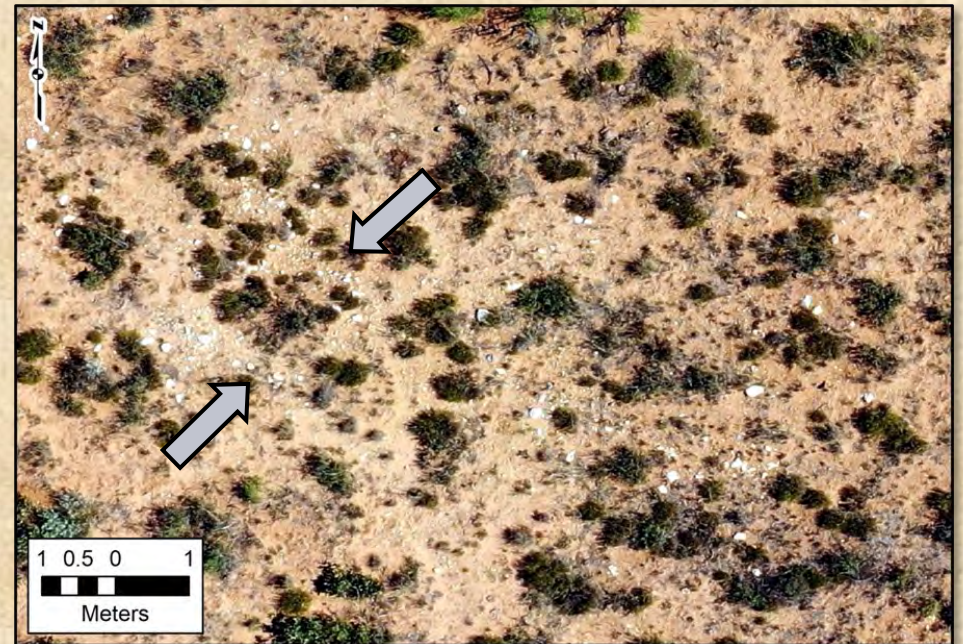
A 1,257 acre area around the Merchant Site was surveyed to determine if additional villages were present and to determine if they were from the same time period as the Merchant Site—the Ochoa phase of A.D. 1300-1450. No major Ochoa phase villages were found, but instead a landscape of past and present settlements spanning thousands of years was documented.

The survey shows that the Merchant Site was just one small part of the story of how people used and adapted to this region of southeastern New Mexico.

Midden areas like those found at other villages of the Mescalero Plain were found near the Merchant Site.

The stone foundations of houses were often recorded near the midden areas, and trade pottery from northern and central New Mexico was found.

**A house foundation (arrows mark the walls)**



**A large village midden near the Merchant Site**



**Glaze-painted pottery sherd**

**A possible agricultural field on a terrace near the Merchant Site**



Prehistoric agricultural fields in the area were linear arrangements of caliche cobbles that bordered small plots where corn was grown. Grinding tools, used to make corn meal and grind seeds and other plants, were often found on the surface of villages near the fields.

The area was also used during historic times. The remains of ranch houses, corrals, and fence lines were recorded. The numerous abandoned oil wells from the 1920s through the 1940s are part of the history of oil and gas exploration in the Permian Basin.

**The remains of an oil well dating to the 1920s**



**A metate, a stone used to grind corn and other foods before cooking**



# BPA 10: Bedrock Grinding Features

Grinding features were present on outcrops of sandstone and limestone throughout the Mescalero Plain. These features ranged from simple flat, slick surfaces where a few seeds were ground to deep oval or round-shaped holes called bedrock mortars.

The mortar holes were usually 9 inches wide and sometimes reached depths of 15 inches.

The bedrock mortars were used to grind certain foods using a tool called a pestle—a long, oval-shaped stone (example shown on the next page). Mesquite beans and acorns were two foods that were probably processed into flour using bedrock mortars and pestles. Other uses are possible, such as preparing



A large collection of bedrock mortars at location M25 on the Mescalero Plain. A total of 92 mortars were present, covering almost the entire surfaces of the sandstone outcrops

bone meal or even using the holes to ferment the juice squeezed from baked agave plant to create an ancient form of alcohol called *mescal*.

The number and concentration of such features shows that they were an important technology over thousands of years.

Closeup view of one cluster of bedrock mortars





A stone pestle that was used to grind seeds and acorns in a bedrock mortar

*Mesquite and acorns were important foods for thousands of years*

Other types of bedrock grinding features included slicks and cupules. The uses of these types of grinding features has long been a point of debate. Some feel they might have been part of village shrines and used as part of religious ceremonies to communicate with spirits. Cupules at rock art sites sometimes have remains of pigments used to paint the rock art images.

Below the Merchant Site is a boulder with an unusual linear arrangement of 17 small cupules. They are oriented north-south. It is unclear what this feature was used for. It is possible it was another form of a village shrine and may have had something to do with the alignment of the sun during the solstice or equinox (the location of the sun on the horizon during the longest and shortest days of the year). Such observations were important to agricultural societies because they marked the seasons.



A combination of bedrock grinding slick and cupules



An unusual linear arrangement of cupules on a boulder below the Merchant village



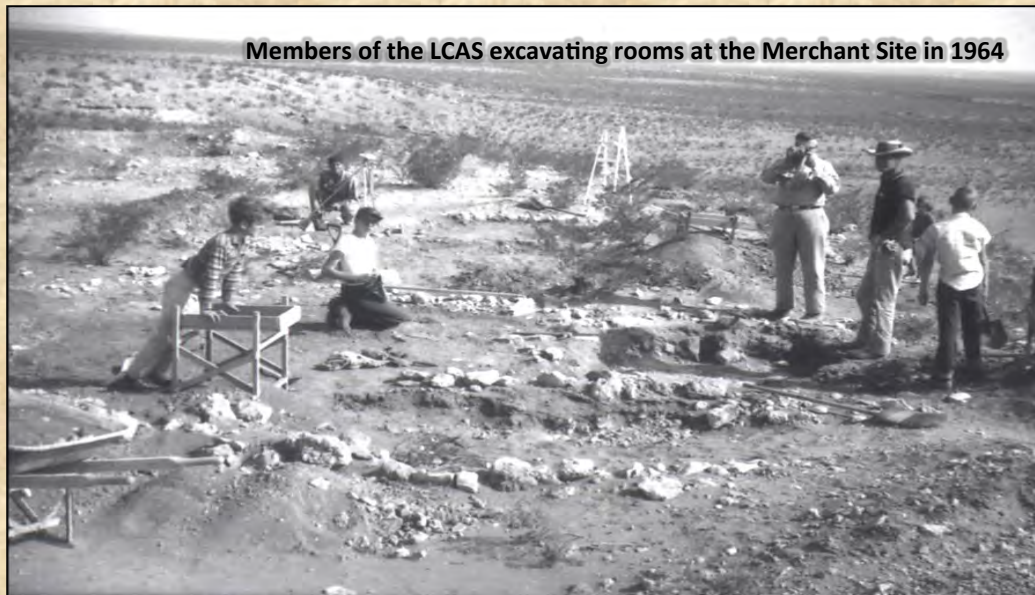
# BPA 10: The Merchant Site

The main goal of the BPA 10 project was to learn more about the Merchant Site, an unusual and fascinating village on the Mescalero Plain.

The site was first excavated by the Lea County Archaeological Society (LCAS) from 1959 to 1965. A few short reports were published by Robert Leslie of the LCAS, but the site remained poorly known for the following 50 years.

Using the PBPA program, in 2015 the CFO funded a project that reviewed the status of the site and stabilized the excavation areas left open to the elements since the 1960s. A few excavations were completed, the most important being the two large pit structures that were determined to be similar to kivas found at prehistoric and historic pueblos in the Southwest. The excavations provided new information on plant foods, on the tens of thousands of bison bones, the types of pottery and stone stools used by people who lived at the site, and the possible discovery of gridded agricultural fields located 600 feet north of the pueblo.

The current project funded a second season of excavations during the spring and summer of 2019. The excavations focused on a group of seven rooms in the eastern room block, two rooms in the southern block, two midden areas, and the possible agricultural fields.

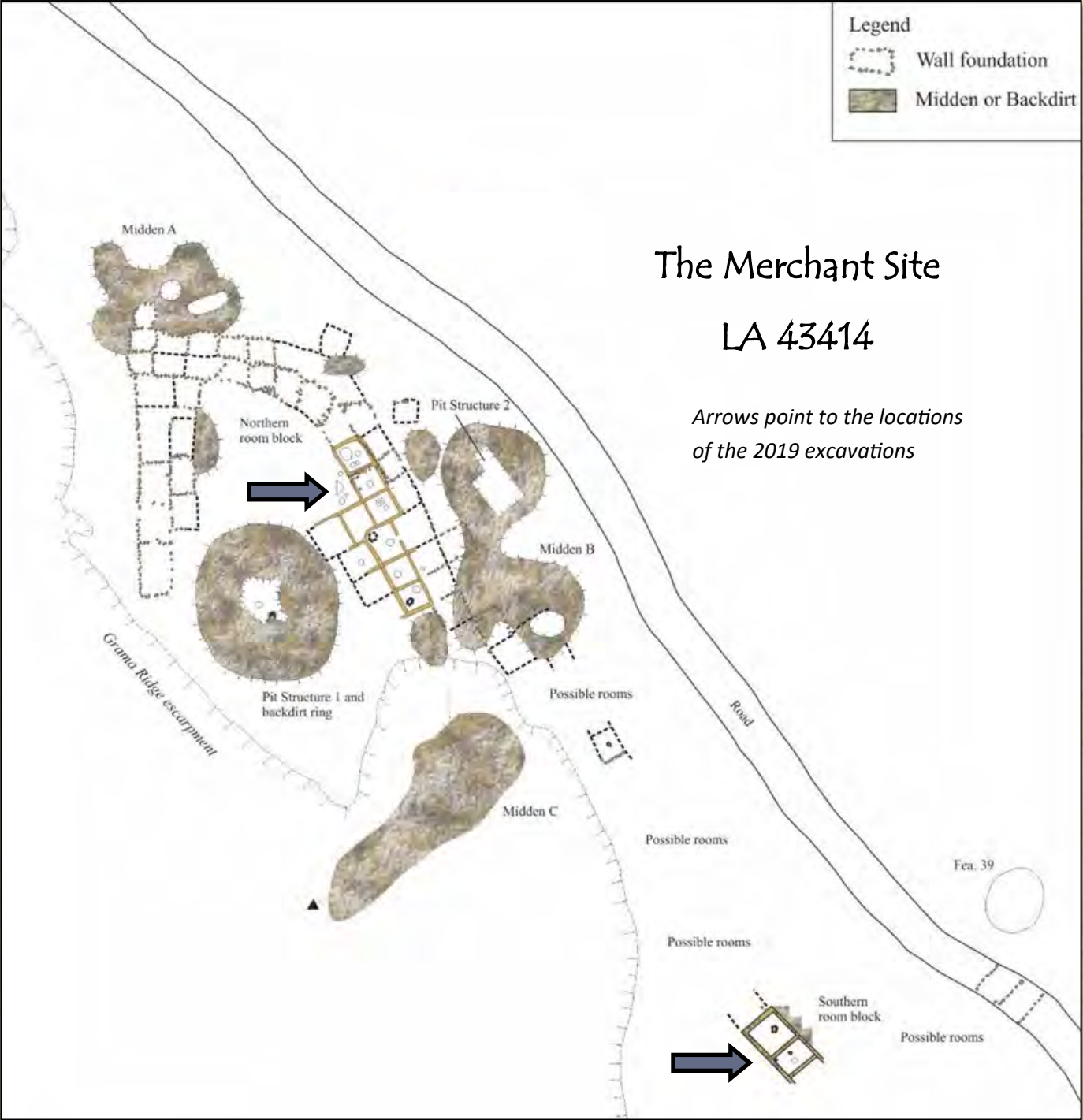


Members of the LCAS excavating rooms at the Merchant Site in 1964

The six decades of work at the Merchant Site has revealed much about this important village. The Merchant Site was a pueblo village, but the rooms were made of *jacal*—a form of wattle and daub or mud and stick wall construction—rather than adobe bricks or layers. It is estimated that 60 to 80 rooms

were present at the peak of occupation. The rooms were arranged in a “U” shape, with additional rooms to the south.

Pit Structures 1 and 2 were ceremonial rooms or “kivas.” The primary kiva was positioned at the southern edge of the main room block. A second kiva was to the east of the rooms. Trash disposal mounds, called “middens,” were located at the edges of the room blocks.



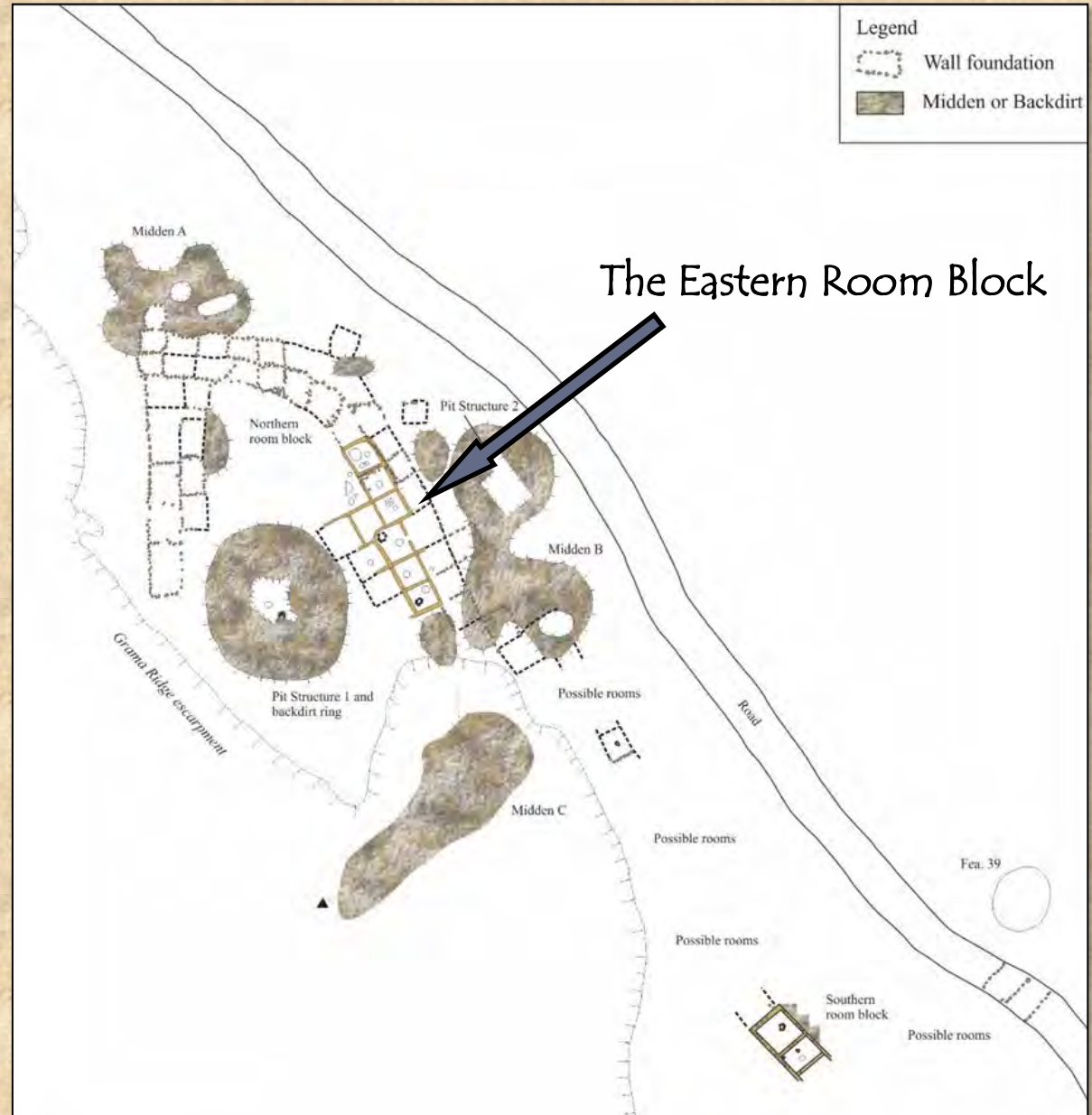
# The Eastern Room Block

One of the surprises of the 2019 excavations was that a large area of pueblo rooms remained intact in a location that had been heavily looted in the 1960s.

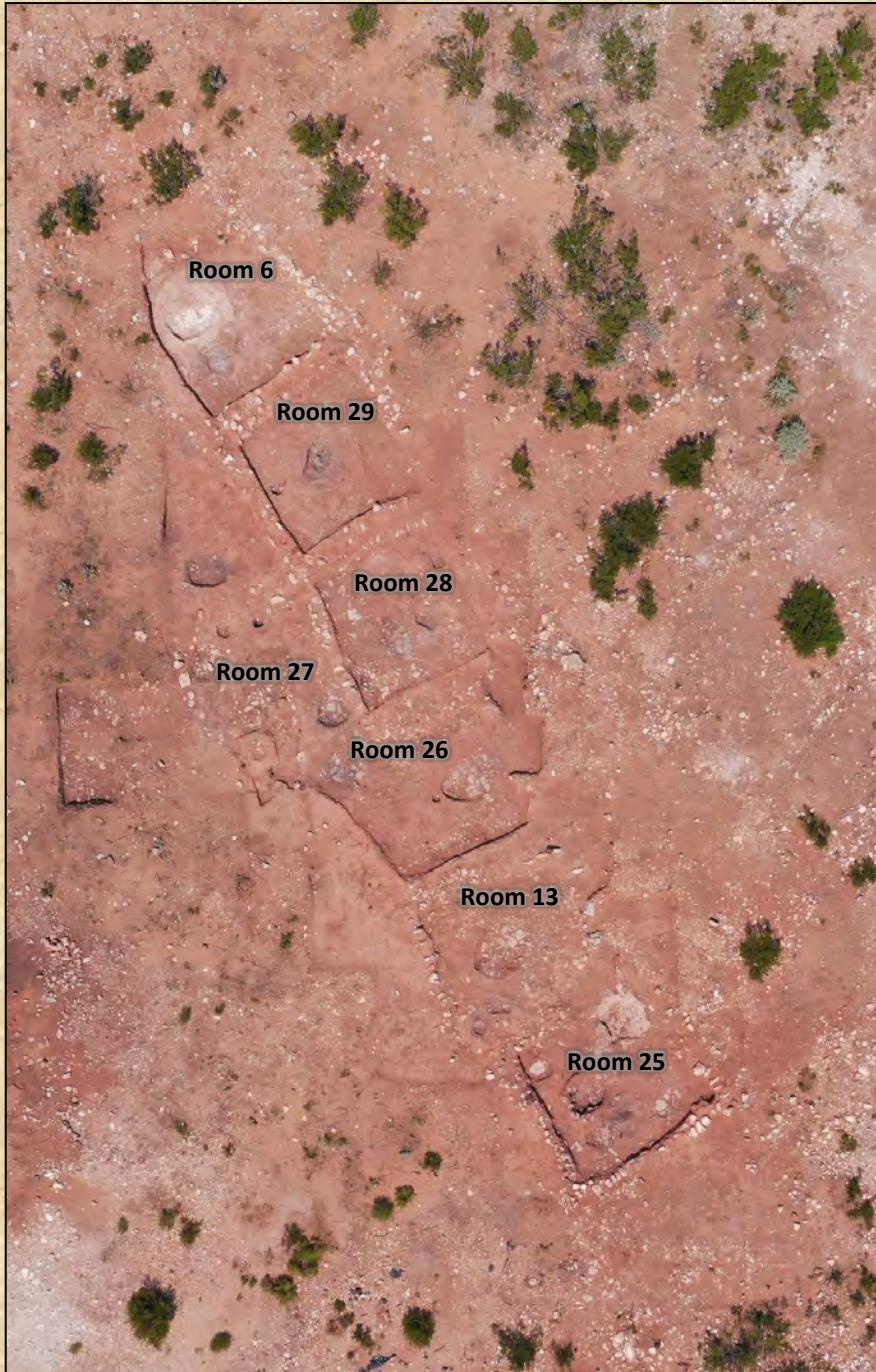
Room 6 was probed by the LCAS in 1963. In 2019, the partial walls of Room 6 could be seen on the ground surface of the site. Excavations started with that room and discovered that Room 6 was attached to another room (Room 29). Excavation of Room 29 revealed another room and it was discovered that an entire series of rooms was present along the eastern side of the pueblo.

Rooms 6, 13, 25, 26, 27, 28 and 29 were completely excavated. Small segments of walls were found leading from these seven rooms, showing that more rooms are present to the east and west. It is estimated that 15 to 20 rooms were present along the eastern side of the pueblo.

The eastern rooms were re located between the two ceremonial rooms (Pit Structures 1 and 2). A trash disposal area (Midden B) was present to the east of the rooms.



# Excavations in the Eastern Room Block



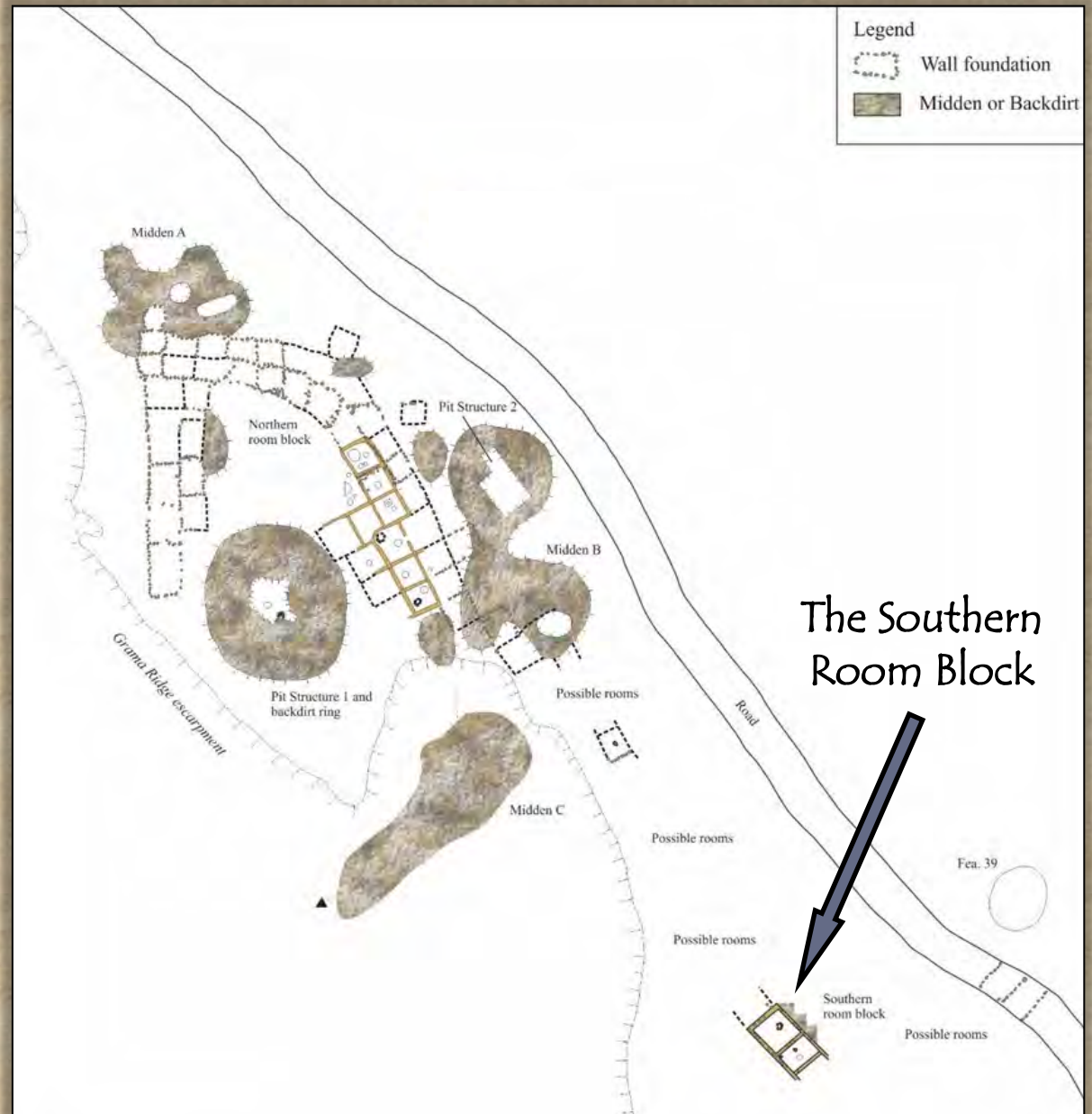
# The Southern Room Block

The LCAS investigations found a single room to the south of the main pueblo. It was called Room 7.

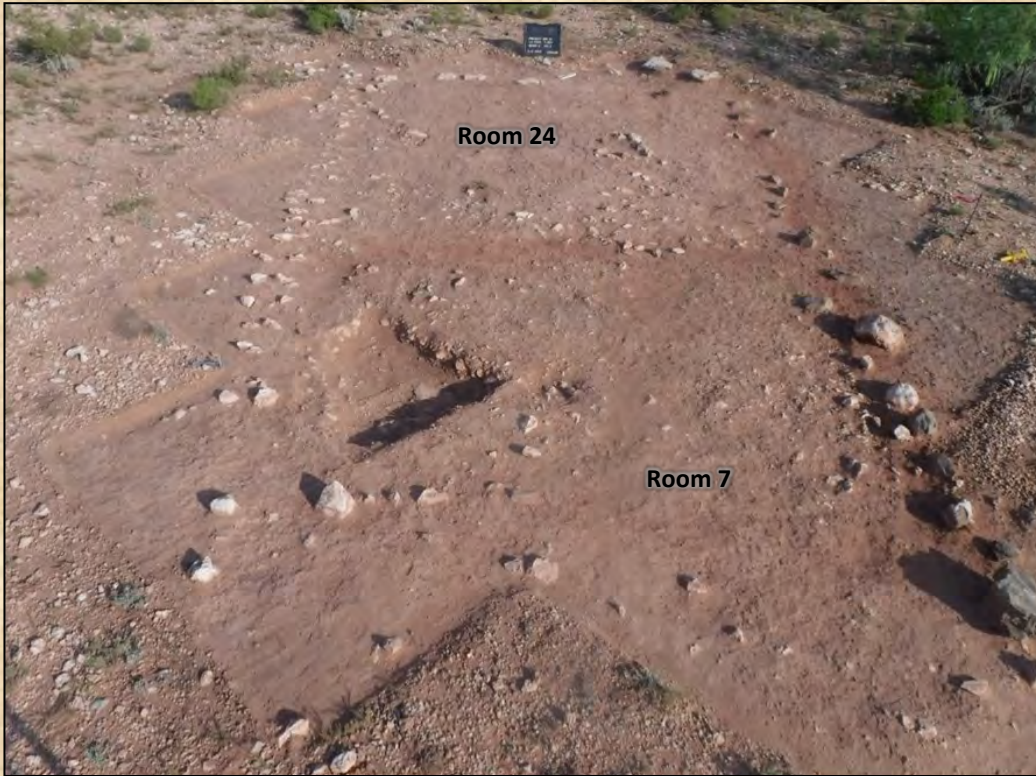
During the 2015 project (BPA 4), a ground-penetrating radar (GPR) survey was completed in this area. GPR is the same method as aircraft or weather radar, except that the radar pulses are directed into the ground instead of the air. It can detect buried houses and other features. The survey found that additional houses were around Room 7 and several pits could also be present.

Room 7 was excavated during the 2019 project (BPA 10). The excavation confirmed what the GPR survey had found. Additional rooms were attached to Room 7. This proved that another small room block was present to the south of the main pueblo.

Room 7 and the adjacent Room 24 were excavated. These were two of the best preserved rooms because they had not been damaged by looters. A small area of trash disposal was also found along the eastern walls.



## Excavations in the Southern Room Block



Floor and wall foundations of Rooms 7 and 24

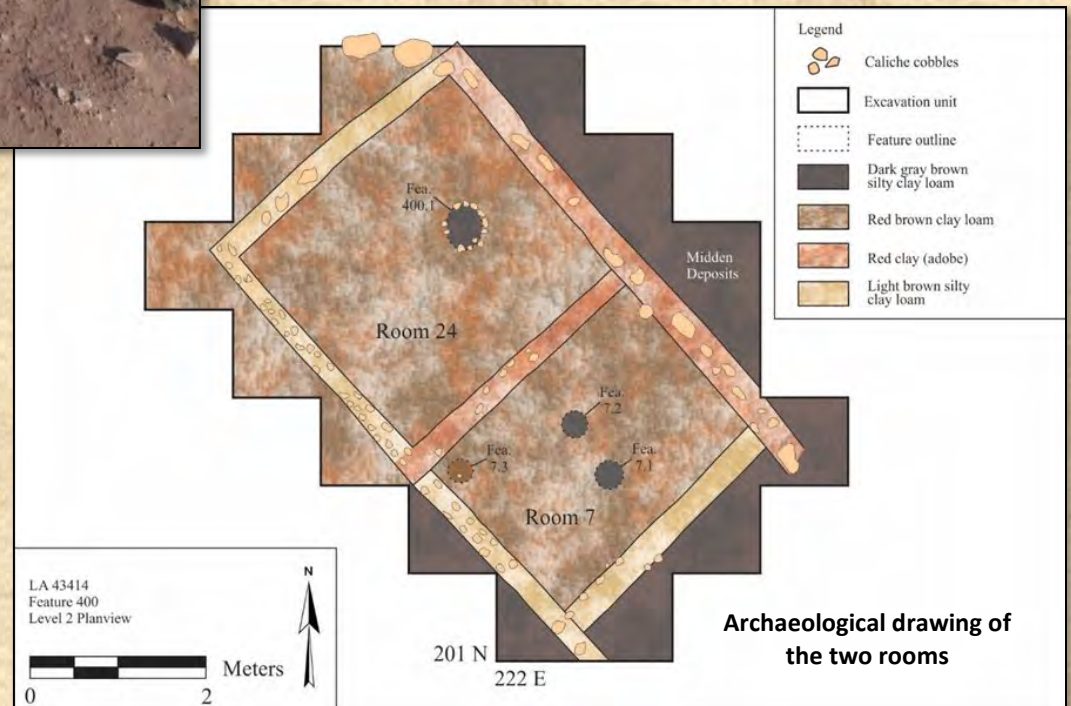
The remnants of the clay-adobe walls could be seen along the lines of stones marking the wall foundations. In the picture to the left, the clay-adobe was a slightly orange-tinted soil that follows the wall outlines.

A stone-lined hearth was present in the floor of Room 24.

Photographs and drawings were made of each room. Each shows different things and will allow future archaeologists to fully study the architecture of the site.



Stone-lined hearth in floor of Room 24



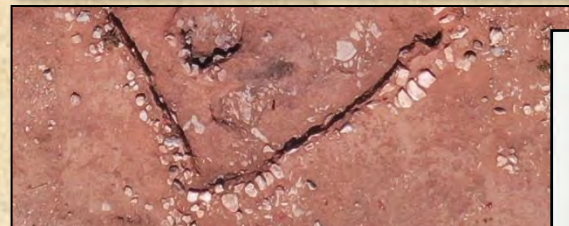
# The Architecture of the Rooms

The walls of rooms of the Merchant Site were not made of stone masonry or layers of adobe as found at many pueblos in the American Southwest.

The walls were made of *jacal*—a Spanish name for mud-and-stick construction. What the archaeologists found is the lower remnants of the wall foundations. These were made of stones placed in lines or layers to support the wall.

Between or upon the lines of stone, the walls were made of lines of sticks and branches that were bound together and then coated in a plaster made of clay-adobe.

The roofs were probably a thin layer of thatching and branches covered by a thin coating of clay-adobe. A clue to the nature of the roofs was that very few post holes were found in room floors. Post holes were holes in the floor where small tree trunks would be placed to support roofs. The absence of these features shows that the roofs were very light.



Post holes were found in the corners of two rooms, similar to the example in the photograph below.

A few burned fragments of branches used in the walls and roofs were found. In most cases, after the room was abandoned, the wood in the walls and roof rotted away or was eaten by desert termites. The adobe-clay melted and was eroded by wind and rain.

The rooms were also small. They averaged a little over eight feet in width. A single small family lived in each room.

**A historic *jacal* house in Ojinaga, Chihuahua, Mexico. The walls of this house are probably similar to the walls of the Merchant Site rooms. Photography courtesy of Rescuing Texas History 2016 Archive, Texas A&M University, Kingsville.**



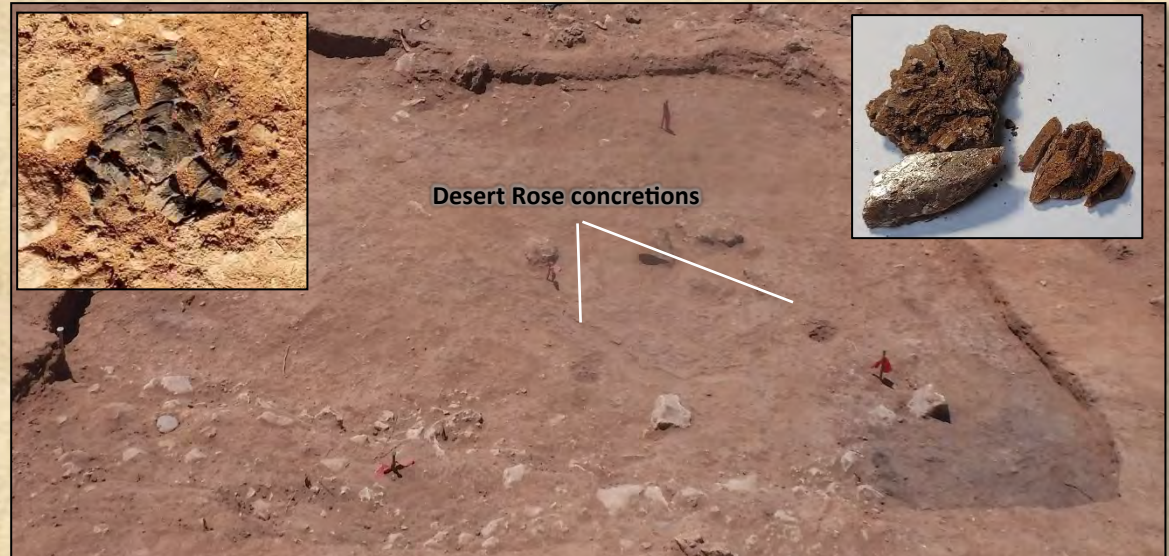


Burned mesquite branch that was part of the *jacal* wall or roof

The main feature of the rooms was a central hearth as seen in the photograph of Room 29 at the right. Some hearths had raised adobe linings, or “collars” around them. Collared hearths are a distinctive feature of adobe pueblos in the Southwest. Burned mesquite seeds were found in some of the hearths.

Few things were left on the floors when the people moved away from the pueblo. A few grinding tools, some stone stools, and a few arrowheads were the only items left in most rooms.

Room 26 had some unusual artifacts. Five gypsum “desert rose” concretions had been placed in the floor as part of a ceremonial act. It is unknown if they were placed when the floor was made or when the room was abandoned.



Desert Rose concretions



# The Agricultural Fields

About 600 feet north of the pueblo is a swale, a low area that leads to a shallow arroyo drainage. Around the margins of the swale were linear patterns of caliche cobbles.

These areas were examined during the BPA 4 project and were thought to be agricultural fields. This interpretation was controversial as some thought the patterns were natural. Therefore, a second season of work was needed. The additional work was completed in 2019.

Many lines of evidence were used to confirm that these features were probably a type of gridded agricultural field.

First of all, linear arrangements of caliche cobbles do not occur naturally. Second, the features were placed along the highest elevations on the sides of the swale, the best location for water drainage in the area. A series of small dams (called

“check dams”) were found crossing the arroyo. These helped conserve water and soil. Third, the size and arrangement of the fields match those found in prehistoric fields throughout

New Mexico and Arizona.

The most convincing evidence was that corn pollen was found in two locations. A soil sample from the field of Feature 82 contained corn pollen. Pollen was also found in a sample from a check dam.

Soil samples were also examined for diatoms. Diatoms are small organisms that thrive in wet environments. The

numbers of diatoms

were much higher in soil samples from the gridded fields compared to samples from houses and trash areas at the pueblo. This indicates that the fields held water after rains for growing corn and other crops.



Check dams across the arroyo leading from the swale



### Excavation of Feature 82, a Gridded Field

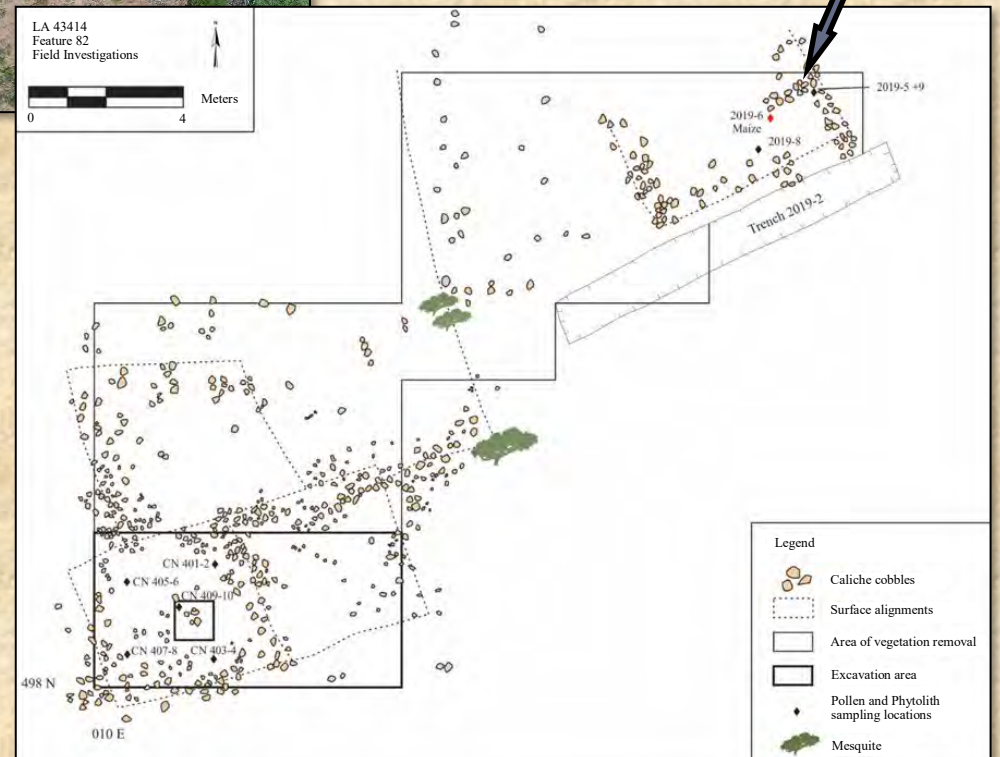
Feature 82 was a large agricultural grid garden that was excavated in 2019. A 65-by 52-foot area was cleared of vegetation. A few inches of sand was then brushed and scraped away. The linear patterns of caliche bordering the gridded fields were then seen.

A corn pollen grain found in a soil sample collected from the corner of the gridded field of Feature 82



Left: Closeup photograph of the corner of two lines of caliche cobbles marking the border of a gridded field. Corn pollen was found in a soil sample in this feature.

Right: Archaeological drawing of the excavations of Feature 82 showing the boundaries of excavation, locations of caliche cobbles, and the locations of soil samples collected for pollen and diatom analysis.

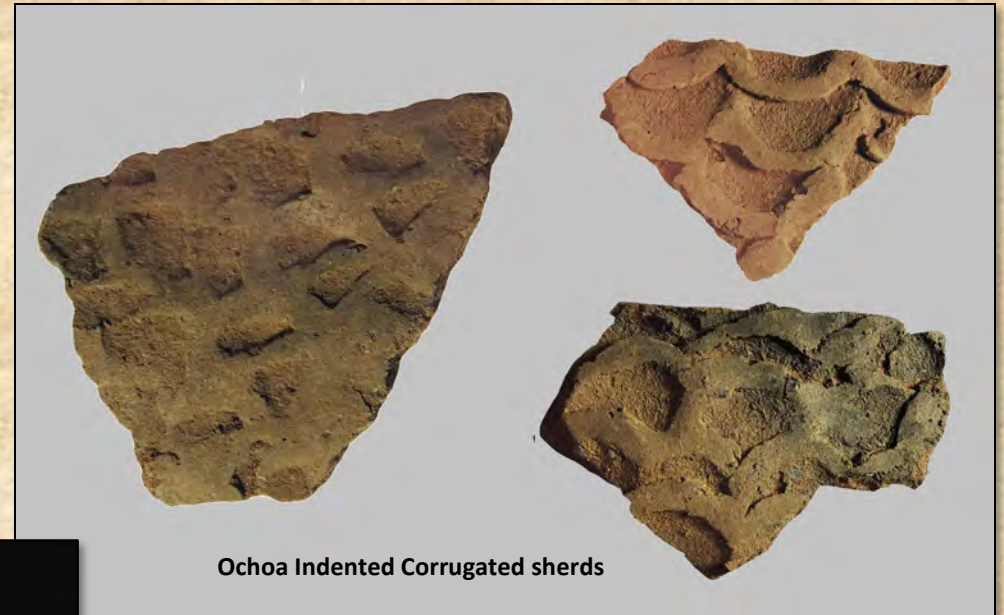


# Ochoa Pottery

The people living at the Merchant Site produced a unique type of pottery called Ochoa Indented Corrugated. It was made by adding coils one on top of the other to build a bowl or jar container. Then, while the clay was still moist, the tip of the finger was used to make scallop-like indentations down the surface of the pot from the rim to the lower parts.

A fingerprint impression left by a potter while making such indentations over 600 years ago was found on a sherd of Ochoa pottery.

Ochoa pottery is one of the primary artifacts of the Ochoa Phase of southeastern New Mexico and far west-central Texas. But very little was known about the pottery—how and where it was made, what it was used for, and how far and wide it was traded with other Ochoa villages or other people.



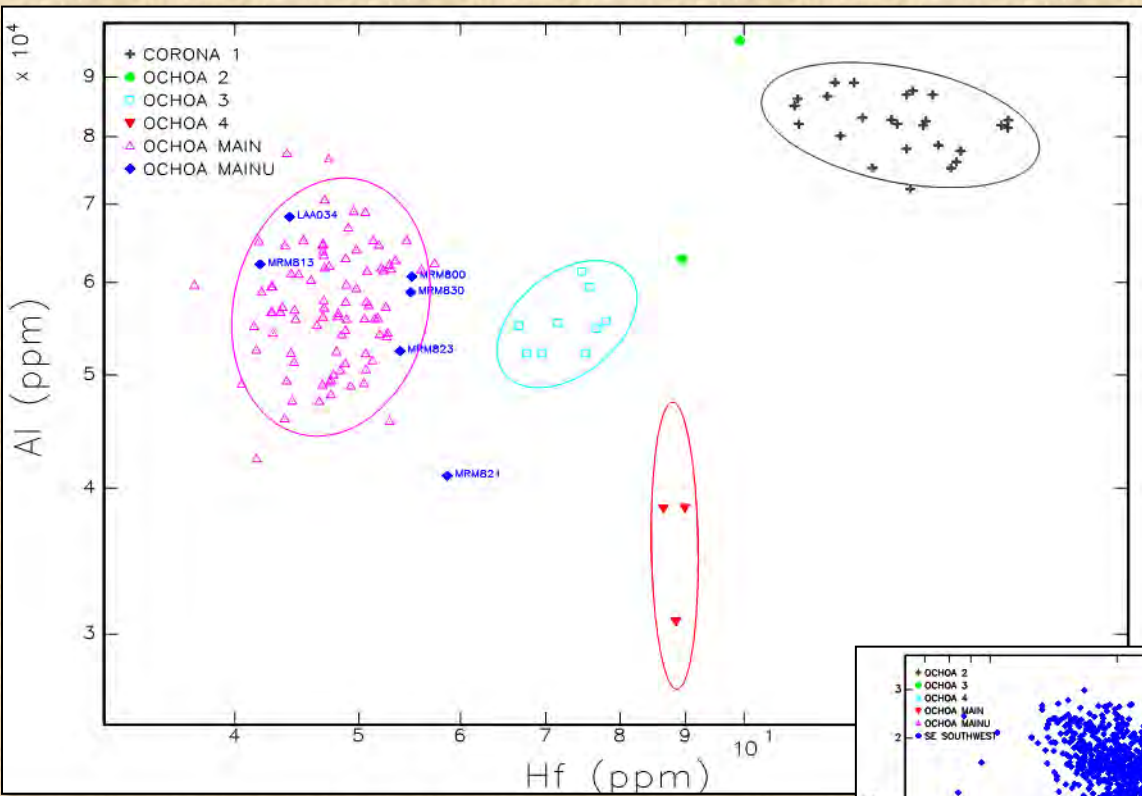
Ochoa Indented Corrugated sherds

Several studies were completed to better understand this pottery and the people who made it. The ways that the coils and indentations were made was compared to other types of corrugated pottery made across the Southwest. The surfaces of sherds were examined for evidence of burning and sooting that would show that the vessels were used as cooking pots. Samples of residues from the insides of sherds were examined for evidence of the foods that were cooked inside. Special studies of the elements in the clay and the rock used as temper in the clay were also completed.

A group of sherds were subjected to neutron activation analysis (NAA) which determines the amount of various elements in the clay and temper. The analysis found that Ochoa pottery is very distinct from any other pottery made in southern New Mexico and west Texas. Three chemical groups were defined. One group identified pottery made by the Merchant

villagers. The two other groups may be from Ochoa Phase villages in far west-central Texas, like the Salt Cedar Site in Andrews County. A surprising finding is that very little pottery was traded among Ochoa villages. This is a very rare occurrence in the prehistoric Southwest.

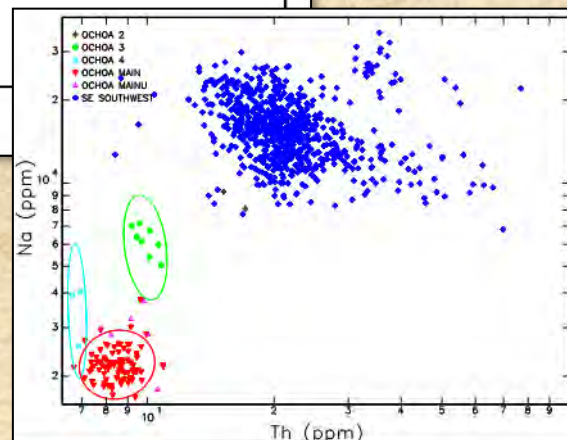
Ochoa sherds were coated in soot, showing they came from vessels that had been used as cooking pots, while other sherds had no soot or evidence of burning and were probably used to store food and transport water.



A plot showing the amounts of the elements Aluminum (Al) and Hafnium (Hf) in Ochoa pottery sherds from the Merchant Site and other sites. Another corrugated type from New Mexico, Corona Corrugated, is shown for comparison. Three chemical groups of Ochoa pottery were identified. The Ochoa Main group was made at the Merchant pueblo site. Ochoa 3 and 4 were probably made in far west-central Texas. Ochoa 2 is not yet a full group.

Soot, soil, and residues sticking to the surfaces of the Ochoa sherds were collected and examined by specialists. Corn pollen was found on several sherds as well as remnants of mesquite and hackberry. These plant remains were found on one out of every three sherds examined, showing that Ochoa pottery was

used to cook and store several types of food.



A plot showing the amounts of the elements Sodium (Na) and Thorium (Th) in Ochoa pottery sherds from the Merchant Site compared to 2,151 sherds of pottery from southern New Mexico and Trans-Pecos Texas. Ochoa pottery has the most distinctive chemistry of all pottery types that have been analyzed using NAA over the past 25 years.

# Stone Tools

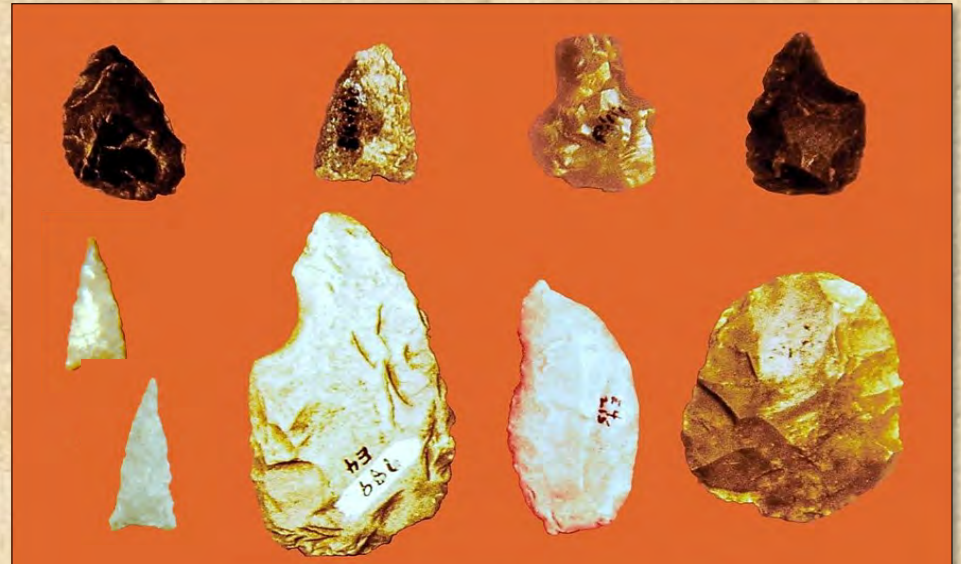
The other major type of artifact at the Merchant Site were the wide variety of flake and ground stone tools. Projectile points (arrowheads) were found by the hundreds along with thousands of buffalo (bison), deer, and antelope bones.

Tools to process the large game were common. They included sharp knives flaked on both sides for cutting sinew, meat, and hides and scrapers with snub edges and steep sides for scraping hides.

Other tool types included small sharp flakes, graters, and other tools with small projections, all used for household tasks.

Grinding tools included metates (grinding slabs) and manos (the tool held while grinding on a metate). These were used to grind corn grown in the agricultural fields, mesquite beans gathered around the site, seeds, and other plant foods.

Some of the materials used to make the flaked stone projectile points and tools were obtained near the site, while other materials were collected from distant locations in central Texas and the Texas Panhandle while hunting bison and antelope on the Plains.



Bison hunting and hide processing tools collected during the LCAS excavations



Bison hunting and hide processing tools collected during the 2019 excavations

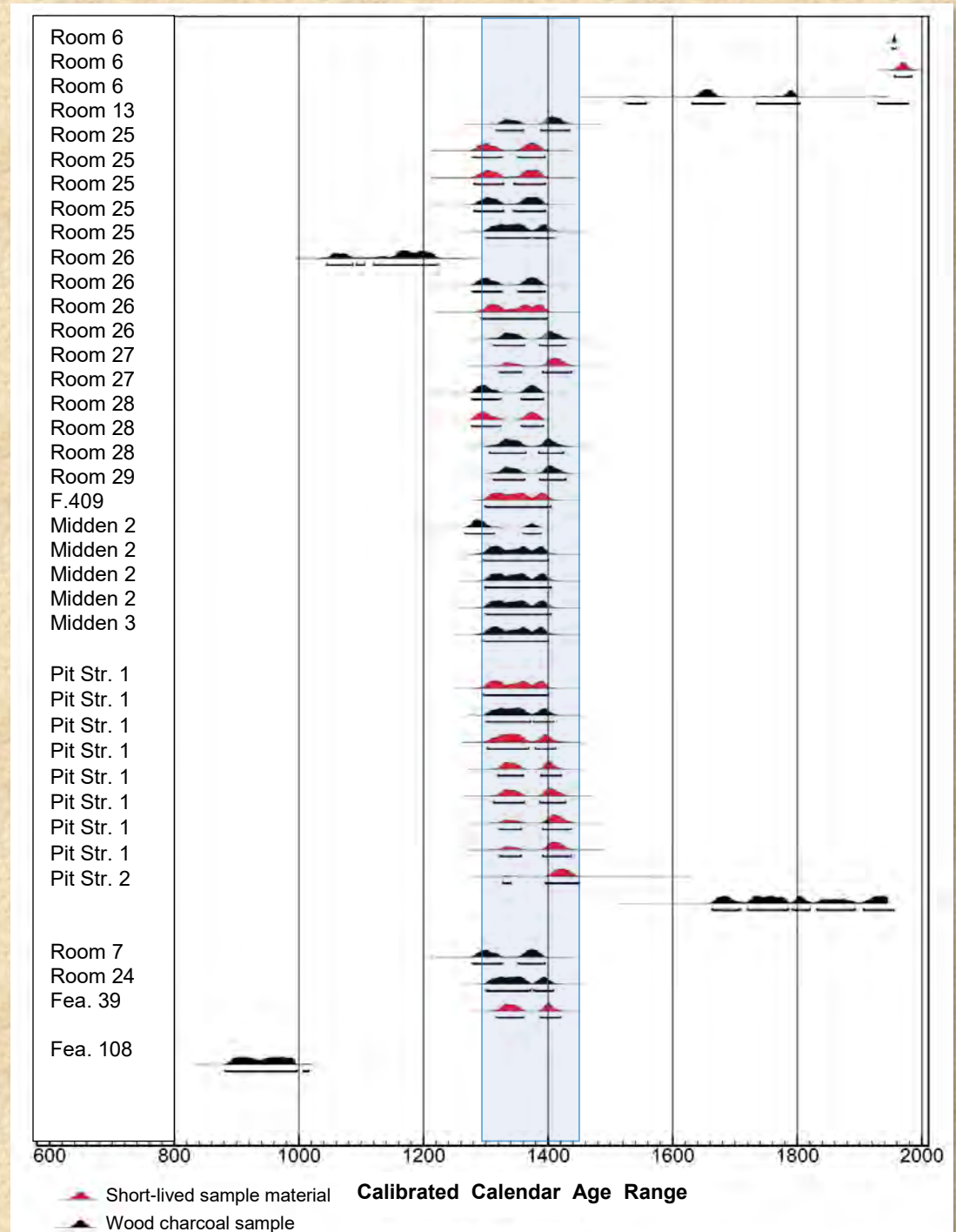
# Dating the Village

One of the most important issues that archaeologists deal with is how to date a site. Some sites can be dated by the types of painted pottery or the shapes of arrowheads found, but these methods often do not have the accuracy needed to truly study a site within the time sequence of a region.

At the Merchant Site, radiocarbon (or  $^{14}\text{C}$ ) dating was used. Thirty-seven dates were obtained from hearths in room floors and trash deposits. Dates were also obtained from “short-lived” plants like corn and mesquite seeds. These materials have  $^{14}\text{C}$  from a single year of growth. They are often more accurate than dates on wood charcoal from large trees growing for many years.

Both series of the dates were very consistent. There were a couple of recent dates that are probably charcoal from fires left by looters camping at the site, or perhaps by an Apache or Comanche who camped at the site centuries later. There is one older date that is probably from earlier use of the area by hunters. The other early date is probably an old wood date where someone burned an ancient mesquite tree in their hearth.

Overall, the dates are one of the most uniform and consistent series obtained from a village in southern New Mexico. The occupation of the Merchant Site can be confidently dated to A.D. 1300 to 1450.



Graphs of radiocarbon ( $^{14}\text{C}$ ) date spans from the Merchant Site. The blue-shaded area marks the period of A.D. 1300 to 1450 which was the primary time the site was inhabited.

# What the Merchant Site Tells Us

Archaeological work is a form of detective work. We work with what Lewis Binford, an influential archaeologist, once called “fragmentary oddments” - pieces and fragments of things left by past societies.

But there is much to learn from such things—and from thousands of such things in village sites such as the Merchant pueblo.

The site is located where the basin-and-range region merges with the Southern Plains. Merchant and other Ochoa phase settlements were part of the widespread patterns of people and goods moving across the southern US during the 14<sup>th</sup> and 15<sup>th</sup> centuries. New ways of living in difficult environments and navigating new social situations with other communities had to be devised.

The past inhabitants of the Merchant Site devised many new ways of living and adapting. Many families settled together and built houses and ceremonial rooms.



They hunted bison and antelope across the Plains, and found new ways to farm in the harsh landscape of southeastern New Mexico. They also used traditional plants such as mesquite and acorns.

They created new technologies to adapt to these new ways of living, including a unique ceramic type, special stone tools, and room construction methods that conserved wood.

The Ochoa phase villages like Merchant and Salt Cedar were few in number and were limited to a small region of southeastern New Mexico and the southernmost counties of the Texas Panhandle. The study of these villages can perhaps reveal lessons for modern societies in how to face difficult living situations with innovation and creativity.

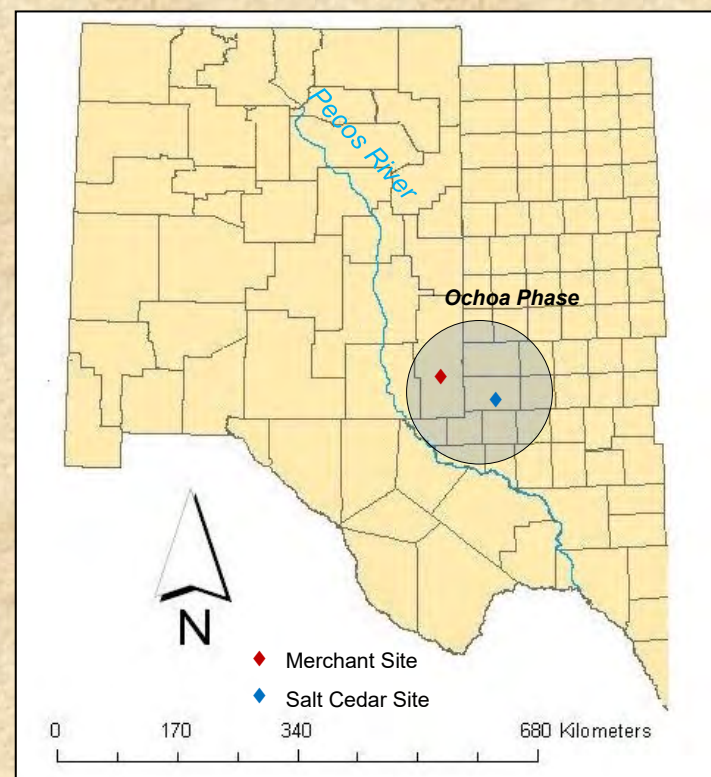
Reconstruction of the *jacal*-constructed rooms of the eastern room block



Image created by Mark Willis



Reconstruction of how the Merchant pueblo may have appeared at the edge of the Grama Ridge escarpment sometime around A.D. 1350. Image created by Mark Willis





# Preserve the Past

The people of southeastern New Mexico may have abandoned their villages and ceased production of pottery in the mid-15<sup>th</sup> century, but they continued, as they had for nearly 12,000 years to live full, productive lives in the region. They knew this land and had raised families here for those many millennia, in turn teaching their children how to lead successful lives.

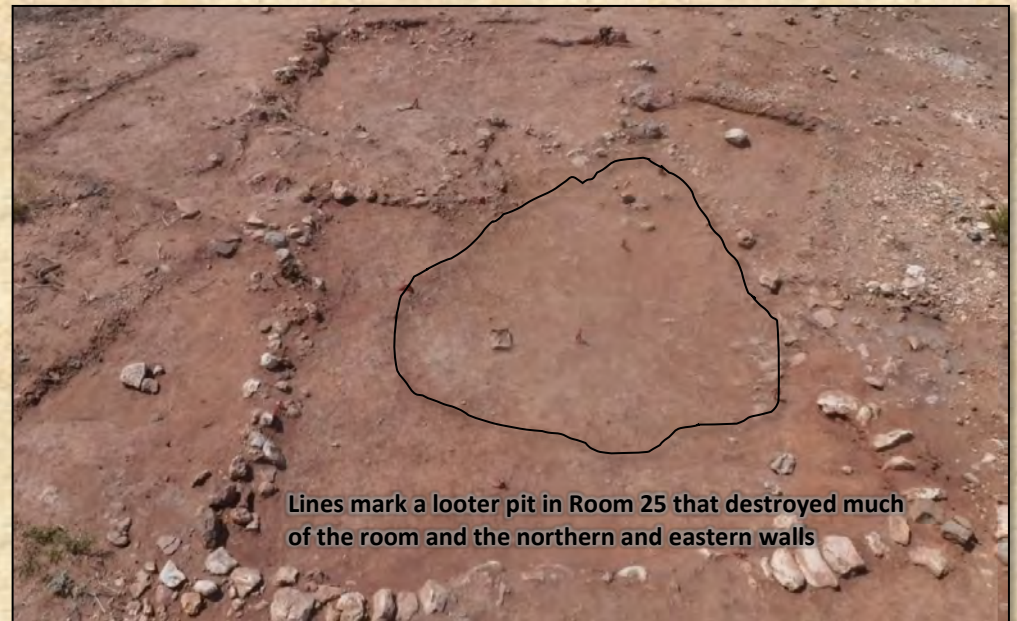
Unfortunately, the only evidence of the Native Americans who lived in the Permian Basin prior to the arrival of the Spanish in the 17<sup>th</sup> century are the archaeological sites. These sites, then, represent a precious legacy to teach us about the past. For many Native Americans, the sites represent spiritual and precious places.

***Please help preserve the past for future generations!***

Unfortunately, that legacy is threatened. As shown below, looting at the Merchant Site is a significant threat. While the LCAS did a commendable job of excavating the site in the 1960s, it was also being destroyed by looters searching for artifacts and “goodies.” The photograph at right shows Room 25 after being carefully excavated by archaeologists in 2019. It was discovered that much of the center of the room had been dug out by looters. All the artifacts—pottery, stone tools, and plant remains—that were present in the room were either stolen or destroyed. Sections of the wall foundations were also destroyed.

People want to pillage sites to take artifacts home with them. Each site so affected loses its ability to tell us its story, its history. The 2015 and 2019 excavations of the Merchant Site provided wonderful new information, but there are many questions we will never be able to answer. If the site had not been disturbed it could have shed much greater understanding of the types of activities carried out at the site and the kinds of decisions people had to make on a daily basis.

The loss of sites to looting diminishes us all. The history of southeast New Mexico at the Merchant Site has been deeply damaged by this activity. We owe it to ourselves and our children to understand how that looting harms us all. Once a site is gone, it is lost forever. We need to preserve the past for future generations.



Lines mark a looter pit in Room 25 that destroyed much of the room and the northern and eastern walls

# Further Reading

COLLINS, M.B.

1971 A Review of Llano Estacado Archaeology and Ethnohistory. *Plains Anthropologist* 16:85-104.

MILLER, M.R. and N.A. KENMOTSU

2004 Prehistory of the Eastern Trans-Pecos and Jornada Mogollon Regions of West Texas and Southern New Mexico. *The Prehistory of Texas*, edited by T.K. Perttula, pp. 205-265. Texas A&M University Press, College Station, Texas.

MILLER, M.R., L.L. LOENDORF, T.B. GRAVES, and M. WILLIS

2019 *Landscapes of Stone and Paint: Documentation and Analysis of 21 Rock Art Sites in Southeastern New Mexico*. Bureau of Land Management, Carlsbad Field Office, Carlsbad, New Mexico.

MILLER, M.R., T. GRAVES, and R.H. LESLIE

2016 *The Merchant Site: A Late Prehistoric Ochoa Phase Settlement in Southeastern New Mexico*. Bureau of Land Management, Carlsbad Field Office, Carlsbad, New Mexico.

RAILEY, J., J. RISSETTO, and M. BANDY

2009 *Synthesis of Excavation Data for the Permian Basin Mitigation Program*. SWCA, Inc. Albuquerque, New Mexico.

RAILEY, J.A. (editor)

2016 *Permian Basin Research Design 2016-2026, Volume I: Native American Archaeology and Cultural Resources*. Bureau of Land Management, Carlsbad Field Office, Carlsbad, New Mexico.

ROCEK, T.R. and N.A. KENMOTSU, editors

2018 *Late Prehistoric Hunter-Gatherers and Farmers of the Jornada Mogollon*. University Press of Colorado, Louisville, Colorado.

SCHLANGER, S., G. MACDONELL, S. LARRALDE, and M. STEIN

2013 Going Big: The Permian Basin Memorandum of Agreement as a Fundamental Shift in Section 106 Compliance. *Advances in Archaeological Practice* 2:13-24.

SPETH, J.D.

2004 *Life On The Periphery Economic Change in Late Prehistoric Southeastern New Mexico*. Museum of Anthropology, University of Michigan Memoirs, Number 37, Ann Arbor, Michigan.

# Acknowledgments

The Carlsbad Field Office (CFO) of the Bureau of Land Management (BLM) contracted with Versar, Inc. to conduct the excavations at the Merchant Site and to survey other possible village sites across the Mescalero Plain. This public brochure draws from the technical reports of those studies. The surveys and excavations have revealed a whole new dimension of insights into the rich lives of Native American communities in this region of New Mexico and far west-central Texas.

The documentation and study of past village life reported in this public booklet is the product of a cooperative and dedicated effort among many archaeologists, archaeological rock art researchers, and artists. First and foremost, the research would not have been possible without the existence of the Permian Basin Programmatic Agreement (PBPA). We are grateful to all who worked to see that visionary agreement come to fruition. The CFO deserves credit for developing the project under the PBPA. Martin Stein and Elia Perez, PBPA Program Managers, deserve credit for their support and encouragement.

Myles R. Miller and Michelle Wurtz of Versar prepared this brochure. Tim Graves supervised the excavations and surveys. Myles R. Miller served as the Principal Investigator for the studies.

The ultimate results of the project are only as good as the quality of the information recorded in the field. The superlative excavations were conducted by Tim Graves, Juan Arias, Trevor Lea, Scott Kachelries, and Tabor Vess.

The exceptional archive of site photography and Unmanned Aerial Vehicle (drone) aerial photography was compiled by Mark Willis.

Several specialists contributed to the study. Jeffrey Ferguson, Genevieve Woodhead, and Mary Ownby (ceramics), Charles Frederick (Geomorphology), Chet Walker (GPR), Phil Dering, Susan Smith, Jeremy Loven, Crystal Dozier, and John Jones (food remains), Mark Bateman, James Feathers, Beta Analytic, Inc. (dating studies), and Amanda Castaneda (bedrock grinding features).

The project could not have been successfully completed without the support and assistance of numerous supervisory and support staff of Versar: Katherine Jones, Lillian Ponce, Amanda Maldonado, Michelle Wurtz, Peter Condon, and Butch Fries.

As with the first season of investigations, John Speth's counsel and contributions are much appreciated, as was his visit to the site during the span of 100+ degree temperatures in July of 2019. Darrell Creel provided data and insights into the nature of Ochoa phase settlement in west-central Texas.

Finally, Robert Leslie and the members of the Lea County Archaeological Society deserve mention and commendation. Robert "Bus" Leslie, John Corley, John Runyan, Calvin Smith, and several members of the society spent five years excavating the site during their weekends and other free time. They did so while the site was being pillaged and looted and still managed to document critical architectural and stratigraphic features and the material culture of the site. Their work was equal to much of the professional and academic work conducted during the late 1950s and early 1960s, and without their dedicated and remarkable efforts to document the archaeology of southeastern New Mexico, the Merchant Site would have been lost to looting.



Composite photograph of aerial images taken in 2015 and 2019 showing the kiva excavated in 2015 (BPA 4) next to the rooms at the eastern side of the village that were excavated in 2019 (BPA 10). Image created by Mark Willis.



Advisory Council on  
Historic Preservation



Bureau of Land Management  
Carlsbad Field Office



New Mexico State Historic  
Preservation Office

*Signatory Parties*

# Permian Basin Programmatic Agreement

*Consulting Parties*



Mescalero Apache Tribe



New Mexico Oil and Gas  
Association



Independent Petroleum  
Association of New Mexico



New Mexico  
Archaeological Council