

Hondo Valley Snapshots

Prehistory

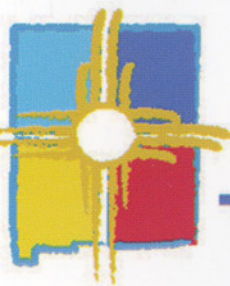


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The US 70 Project and Hondo Valley Archaeology

Flowing eastward down from the Sacramento Mountains to the Pecos River Valley are the Rio Ruidoso and the Rio Hondo. The valley carved by these streams, called the Hondo Valley, has long been a thoroughfare for humans living in and traveling through the area. Native Americans traveled up and down the valley, hunting and gathering, fishing, and trading and warring with their neighbors. Americans of European descent – referred to here as *Euroamericans* – have moved through and settled in the valley for more than a century. The wagon road that eventually became US 70 has been the lifeline for travel across the Sacramentos and for communication and interaction among the valley's inhabitants.

Over the past several decades, the population of the Hondo Valley has grown, and the valley's picturesque terrain has attracted more and more visitors over the years. The resulting increase in traffic along US 70 prompted the New Mexico Department of Transportation to implement plans for a widening of US 70 between Ruidoso Downs and Riverside. Because the highway widening would destroy all or portions of many archaeological sites, part of this project involved archaeological investigations, including surveys to identify new sites and record the current conditions of sites that were already known, and excavations to collect information from these sites before they were impacted by construction.

Background

People have lived in the Hondo Valley for at least 12,000 years. For the vast majority of that time, the inhabitants were Native Americans, whose ancestors came from Asia. Because most of the area's Native American inhabitants lived at a time before there were any written accounts of the area, we refer to them as *prehistoric* peoples. Their traces are scattered up and down the valley – stone tools and pottery fragments lying on and under the ground surface; remains of storage pits, hearths, and houses; and accumulations of ash and debris in caves and on dry ground surfaces beneath cliff overhangs (called *rock shelters* by archaeologists). This is the timeworn record of an unwritten past, the silent testimony to a muted history.

Who were the people who left these traces behind? Were they the ancestors of one or more Native American groups still living today? Do any of their languages survive among any of the present-day pueblo peoples? Or did they simply disappear as recognizable ethnic groups, whether because their numbers dwindled or as the victims of some great human tragedy, with the scattered survivors absorbed into other Native American communities?

We will probably never know the answers to these questions. Yet we do know that, at any given point in time, prehistoric peoples of the Hondo Valley shared many beliefs, customs, and other aspects of culture, and that their lifeways changed considerably over time. They were hunters, foragers, and farmers – peoples whose lives were interwoven with the natural environment. Technologically self-sufficient, they were capable of producing for themselves all the tools and materials required for their existence. They carried out their lives within organized societies guided by tradition-bound rules of behavior and etiquette.

While the prehistoric inhabitants of the Hondo Valley shared many cultural ideas and customs, they were not a single people.

Different groups came and went over the immense span of prehistory. At certain times in the prehistoric past, the Hondo Valley was probably home to a patchwork of ethnic groups. Some of these groups probably viewed their own home villages as the center of the universe, and saw others – perhaps even those living only a few miles away – as foreigners or even enemies. Like a microcosm of modern nations, these local groups constantly juggled the balance of power among themselves. Over time, there was increasing competition over the best locations for settlements and access to local resources. Alliances were formed and broken, and local peoples engaged in both peaceful exchange and bloody skirmishes. Annual and periodic ceremonies were held to mark the change of seasons, commemorate ancestors, appease spirits, perform marriages and other life-cycle events, and celebrate the harvest. No doubt many tales and legends were told of brave warriors, epic battles, tragic romances, and influential leaders who affected the course of local history. Religious beliefs explained natural phenomena and gave meaning to the cosmos and perhaps hope for an afterlife.



Archaeologists excavating site LA 5377

We will never hear their stories, learn the names of famous individuals, read of bloody battles, or understand the details of their religions. But we can gain a sense of their collective history. It is the archaeologist – through painstaking excavation, recording, and analysis of fragmentary remains – who tells their story. Because of archaeological excavations and research – especially the recent work carried out as part of the US 70 highway widening project – we now have a fairly detailed picture of lifeways that have long since vanished, and for which no photographs or written records exist. Thanks to the hard work of archaeologists (and to anthropologists who have studied living people with similar cultures), we can visualize the stone-tool maker, the prehistoric hunter, the monotonous tasks of daily life, and the grand ceremonies that punctuated the annual cycle. Although it is a history without names, it is one worth telling nonetheless.



An archaeological feature from LA 139420. Distinct layers of soil are known as strata.

Archaeologists find evidence of past lifeways in *archaeological sites*, which may be anything from a few flint chips in a plowed field to the rubble remains of pueblos that once housed hundreds of people. Lying on and below the surface of many sites are *features* – discrete traces of fire hearths, storage or roasting pits, burials, or even houses and pueblo rooms. These are fragmentary remnants of the Hondo Valley's long and rich prehistory, pieces of an incomplete puzzle that can be refitted only through careful observation, excavation, and recording by archaeologists.

As one might guess, population levels, technologies, local economies, and social organization changed considerably over the 12,000 or more years during which native people lived in the Hondo Valley. By piecing together many fragmentary bits of evidence, we can envision the gradual transformation of the Hondo Valley's prehistoric peoples from nomadic hunters to settled, village-dwelling farmers. Through informed analysis of the archaeological evidence, we can see how prehistoric societies here evolved from loosely knit bands of hunter-gatherers led by family heads to larger, more complex farming societies with hierarchical leadership.

This story is divided into three main chapters, or *traditions*, referred to as Paleoindian, Archaic, and Formative. Archaeologists created these terms to segment the immense span of time during which native peoples inhabited southeastern New Mexico. They recognize these periods by distinctive types of *artifacts*, which are the material remains of past cultures. Stone projectile points (often called arrowheads) and fragments of pottery vessels are the two kinds of artifacts most commonly used to identify the relative age of archaeological remains. There are many other kinds of artifacts made from stone, ceramic, and bone. Archaeologists even find the charred remains of plant foods from ancient campfires and storage pits and, under very special conditions (such as in dry caves or under cliff overhangs), artifacts of plant fibers, unburned wood, or leather.

Paleoindian Tradition (11,000 - 6000 BC)



Archaic Tradition (6000 BC - AD 600)



Formative Tradition (AD 600 - 1400)



Post-Formative (after AD 1400)



Prehistory Chronology Chart

Since the 1950s, *chronometric* dating methods have enabled archaeologists to determine the ages of the traditions and periods, which are now known to cover a time span of at least 12,000 years. Radiocarbon dating, which measures the amount of different carbon isotopes in organic artifacts (such as charred plant remains), is the most commonly used chronometric method.

Archaeomagnetism is another useful means of chronometric dating. This method measures the orientation of iron particles that lined up to magnetic north when the clay in which they reside was fired. Because the location of magnetic north has drifted considerably over time, the orientation of the measured particles can be matched to an established “curve” and thus dated. Dendrochronology--which involves matching year-to-year, tree-ring sequences with known dates to wood samples from archaeological sites--is the most precise dating method.

Through many advances in archaeological research, each archaeological tradition can now be characterized by the ways in which peoples of the time carried out their lives – their technologies, dietary habits (including the ways in which they obtained or produced their food), settlement patterns, social organization, burial customs, artistic expression, patterns of trade, and belief systems. Obviously, some aspects of prehistoric lifeways are easier to recognize than others. For example, archaeologists can speak much more confidently about past technologies than they can about prehistoric religion and ideology.

Archaeological sites in New Mexico are numbered sequentially, with the numbers given out in sequence, and the list maintained, the by the Laboratory of Anthropology in Santa Fe. Hence, every archaeological site number in New Mexico begins with the prefix “LA”. For example, LA 139420 is one of the sites excavated during the US 70 project.

Paleoindian Tradition (11,000–6000 B.C.)

Native Americans are the descendants of ancestors who came from northeast Asia during the last ice age (called the *Pleistocene* epoch by geologists). They crossed a wide “land bridge” that existed at that time between Siberia and Alaska. The land bridge emerged as large amounts of water became locked up in the vast ice caps and mountain glaciers, lowering sea levels by as much as 300 feet. The great northern ice caps never covered the Hondo Valley or any of New Mexico, but the cooler ice-age climate did have profound effects on the state’s environment. For example, cold-adapted spruce-fir forests that now cover only the upper parts of the Sacramento Mountains extended to much lower elevations during that time, and there was much more tree or grass cover in areas that are now deserts.

Like many parts of East Africa today, the plains of eastern New Mexico teemed with large herds of game animals and hungry predators. Woolly mammoths, oversized bison, and horses and camels grazed the abundant grasses of eastern New Mexico’s Pleistocene plains. These great beasts were the prey of voracious predators such as lions and saber-tooth cats. Meanwhile, river valleys such as those of the Pecos and Rio Grande were lined with dense forests, where species such as mastodons and giant ground sloths browsed. Despite the cooler temperatures of that time, the natural bounty of the land – including immense herds of big game that were not conditioned to fear humans – presented a veritable windfall of resources for New Mexico’s first peoples.

The earliest record we have of people living in New Mexico dates from the end of the last ice age, about 11,000 B.C.



This was the beginning of the Paleoindian tradition, which lasted until about 6000 B.C. in the American Southwest. Population levels were very low at this time, with probably fewer than 5,000 people inhabiting the area of present-day New Mexico. Paleoindians were hunter-gatherers, meaning they did not farm at all and relied completely upon wild animals and plants for their food. They lived in small groups that moved frequently within large territories, hunting, foraging, and living off the land with a very simple technology.

Paleoindians never settled for very long in any one place. Their habitations consisted of small camps that were frequently moved from one location to another. Lacking any beasts of burden, Paleoindians had to carry all their belongings on their own backs, and so their possessions were few and their range of supplies and tool kits limited. Because of the low population density and nomadic lifeway of these earliest New Mexicans, their sites are often difficult to find or identify.

There have been little or no finds of Paleoindian projectile points in the Hondo Valley and Sacramento Mountains. The most famous Paleoindian site in the state – and one of the best-known in North America – is Blackwater Draw near Clovis.

Here, archaeologists discovered the bones of woolly mammoths that were killed by Paleoindians, whose projectile points and other tools were found in and among the mammoth bones.

The distinctive fluted points discovered at this site, called “Clovis” points, have been found throughout North America. Despite being the earliest known projectile point type in the New World, Clovis points are among the most impressive in terms of workmanship, and making these points was no easy matter. Clovis points were subsequently replaced by the even more impressive Folsom points (named for another big-game kill site in northeastern New Mexico). Folsom points are common in New Mexico, and were used after mammoths had died out but while now-extinct species of bison (much larger than today’s) still roamed the plains in great numbers.

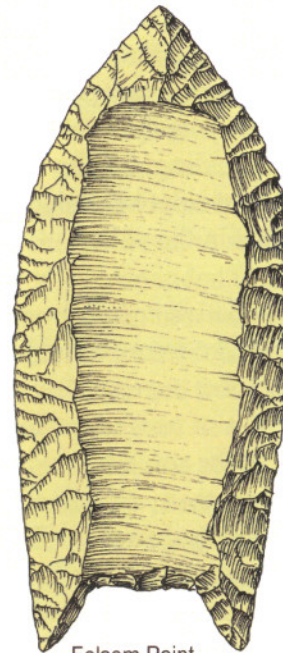


Clovis Point

Folsom points, in turn, were replaced by a series of points of the Plano series.

Stone scrapers are also found in Paleoindian sites. These tools were used mainly for working hides, an essential skill during a time of especially cold winters when heavy clothing and other forms of protection were a necessity. Stone tools such as projectile points and scrapers were manufactured through a process known as flintknapping. Flintknapping involved the controlled chipping and shaping of tools out of rocks that have a fine texture (such as chert, obsidian, and some grades of quartzite, rhyolite, petrified wood, and other types of stone). Stone hammers were used for the heavy, initial chipping. The general shape of the stone tool was then fine-tuned using flaking tools of deer antler, ivory (during the times when mammoth tusks could be obtained), hardwood, or other dense material.

The final, more delicate shaping involved pressing off flakes with an antler tip. Through this process, a surprising variety of stone tools can be shaped and suited to a wide range of tasks.

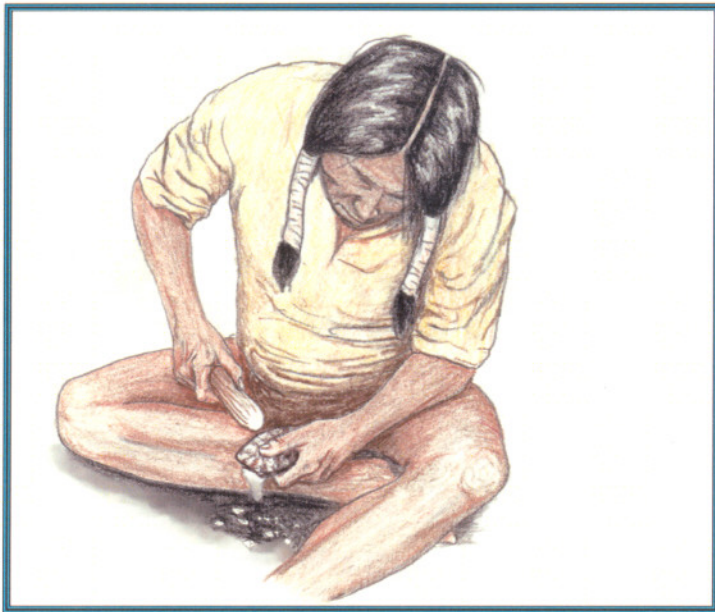


Folsom Point



Plano point

Bronze and iron working never developed in the New World, and flintknapping continued to be the mainstay of tool manufacture until the arrival of Europeans.



A flintknapper using direct percussion

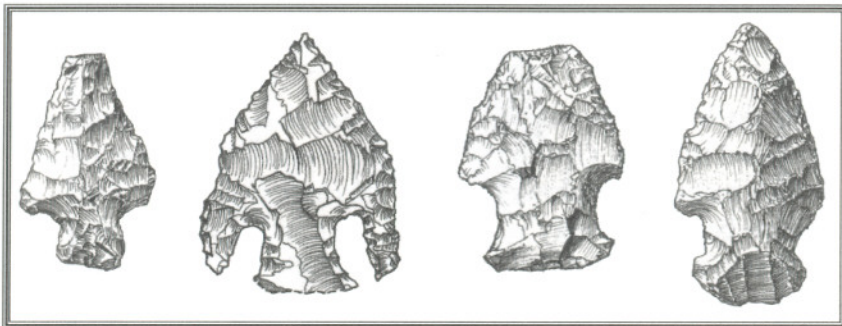
The discoveries at the Blackwater Draw and Folsom sites helped shape an image of Paleoindians as specialized, big-game hunters. But Paleoindians in the Hondo Valley – where there were probably fewer big-game animals than out on the plains – may have hunted and gathered a more diverse array of foods, including smaller animals and plants. This idea remains largely speculative, though, since no Paleoindian sites have been excavated in the valley.

Life within Paleoindian societies was one of relative equality among its members. Individual status and prestige were probably linked to qualities such as hunting skills, and were exercised only in appropriate situations. Based on observations of hunter-gatherers who have survived into modern times (such as the so-called “Bushmen,” or more properly !Kung San, of southern Africa), there probably was a division of labor in which men engaged in the hunt, while women were responsible for obtaining plant foods. Spiritual leaders, or shamans, mediated between people and the multitude of spirits that controlled the natural world and directed one’s destiny.

Archaic Tradition (6000 B.C.–A.D. 600)

After the ice age, North America’s natural environment underwent profound changes. Geologists refer to the post-Pleistocene period (which includes the present day) as the *Holocene* epoch. The climate became steadily warmer and drier, as the ice caps and mountain glaciers retreated. Forest belts followed the northward glacial retreat, and biotic zones moved upslope in New Mexico’s mountains. Desertification in many areas ensued, and much of southeastern New Mexico became a vast, dry, and largely barren landscape. The time span from about 5500 B.C. to 3000 B.C. was a period of global warming that was not only hot but also extremely dry. During this period, humans may have abandoned many parts of New Mexico to live along the still-flowing rivers. Very rapidly (in geologic terms at least) New Mexico’s vegetation zones approached their present-day configuration. The oversized ice age mammals had gone extinct, leaving deer, elk, pronghorn, and modern bison as the only surviving big game.

These were the environmental conditions faced by peoples of the time that archaeologists refer to as the Archaic tradition. This 7,000-year span of time witnessed many changes and new adaptations among the Hondo Valley’s native peoples. As population levels increased, local groups grew in size and their territories became smaller and more strictly defined. Archaic peoples responded to these conditions with new technological innovations, more organized economic strategies, and more complex social structures. Over time, as Archaic people became less mobile and lived within a more defined patchwork of group territories, they developed more regional differences in projectile point styles and other material items than is apparent among their Paleoindian predecessors. Languages and dialects also diversified under these conditions, creating more and more ethnic enclaves, which would have reinforced and promoted further cultural differences.



Archaic projectile points

During Paleoindian times, one could travel hundreds or even thousands of miles and not notice many significant differences in the habits or cultural patterns of human groups. By the time the first Europeans arrived in North America, tremendous differences in language, economic systems, social organization, and art forms marked the great diversity of Native Americans. It was during Archaic times that this diversity took root. More and more, people began “acting locally,” and cultures came to include a wider range and variety of “marker traits” – things such as language, projectile point styles, food habits, technology, clothing and personal adornment, ceremonial life, and belief systems. Not all of these marker traits are directly visible in the archaeological record, but they can be inferred from analysis of artifacts and excavation findings, and from accounts by anthropologists of traditional peoples whose lifeways may have resembled those of prehistoric peoples in the Hondo Valley.

Overview of the Hondo Valley



Much of the diversity that began to emerge among Archaic groups was conditioned very much by local environmental factors. Although environmental conditions during Archaic times were similar to those of the present day, there were some differences. Even slightly over 100 years ago, there was much more surface water in New Mexico than there is today, and the entire Rio Hondo flowed year-round and supported an abundance of catfish and many other aquatic species. Beyond the immediate vicinity of the Rio Hondo and other flowing rivers in the area, numerous springs bubbled out of hillsides and the heads of drainages that today are bone-dry.

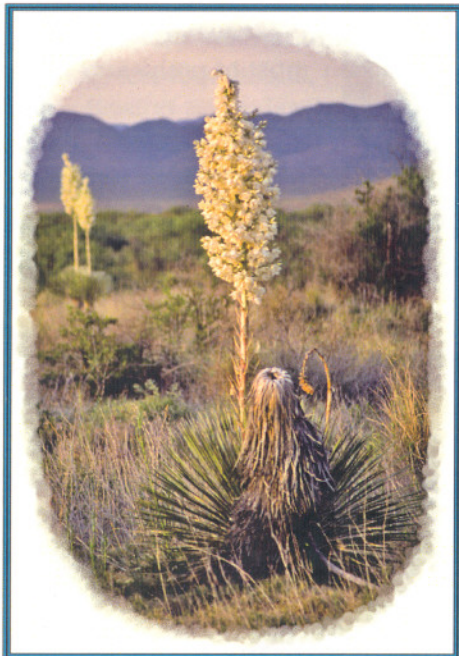


Thus, even though the land dried out considerably after the Pleistocene, throughout most of prehistory more water was present – and hence more natural food resources were available – than is the case today. Still, New Mexico had become a desert, and fluctuations in precipitation patterns both seasonally and over longer periods of time meant that Archaic peoples had to adapt to uncertain environmental conditions.

Archaic peoples relied on numerous food sources, including fish

Archaic peoples were still largely hunter-gatherers. But the oversized ice-age mammals – essentially big, woolly, walking buffets – that had provided people with windfalls of food in single hunting episodes, were now extinct. Thus, people had to shift their focus to new sources of food, some not quite as palatable or enticing as mammoth or bison steaks, but more reliable in the new environment. Local groups thus became more intimately familiar with the plants and animals within their territories, including their ranges and behaviors, and the seasonal and periodic abundance and shortages of critical food resources.

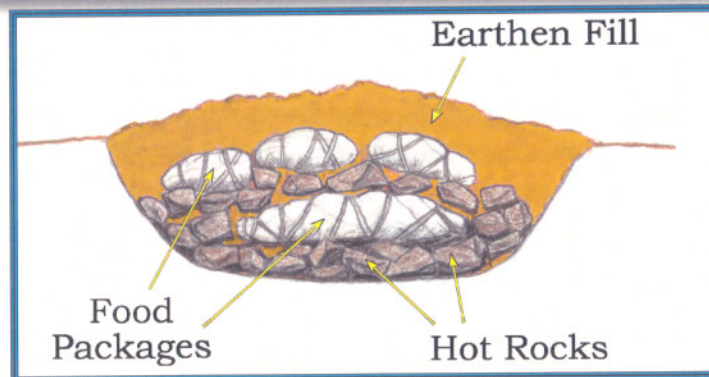
Many of these species are familiar members of the landscape today. Plants such as yucca and agave have portions that are edible--and some parts potentially edible but require complex processing and cooking before they can be eaten.



Yucca plant

During Paleoindian times, people may have shunned many such plants except perhaps to stave off hunger in times of shortages of meat and other more attractive foods. But with herd animals in much shorter supply in Archaic times – plus the larger numbers of mouths to feed among groups living in smaller territories – once-marginal foods consumed only in times of potential starvation now became regular components of the diet.

Whereas mammoth and bison meat could be roasted directly on a bed of hot coals on a flat ground surface, many plant foods required more cumbersome cooking methods before they were rendered edible. Among other things, this involved digging pits and heating up lots of rocks. Some pits were lined with clay or skins, and filled with water, into which hot rocks were placed until the water was brought to a boil, and yucca root and other foods could be cooked in this way. Other pits worked like Dutch ovens: hot rocks and/or hot coals were placed in them, along with plant foods and meat wrapped in protective coverings of clay or tough leaves, then the pit contents were covered with earth and the foods inside allowed to bake slowly over several hours. Surface hearths, which Paleoindians apparently used to roast meat, stood little chance of surviving even a few seasons before being completely erased by the winds and rain. Cooking pits, on the other hand, created a more protected microenvironment, and thousands of these features have survived for archaeologists to discover and investigate. Many are filled with the fire-cracked rock or charred fuel wood used to cook the food placed within them. Some simply became sinks filled with just the ashy by-products of the cooking, or even trash from other campsite activities that may or may not have been related to the pit cooking. In any event, cooking pits provide archaeologists with valuable time capsules that often contain charred bits of food remains, and these are vital clues to the details of prehistoric life.



A roasting pit at LA 139420

Boiling and simmering foods may have also involved watertight baskets, which do not survive the ravages of time, except under special circumstances such as in dry caves or rock shelters. Still, the method would have been similar to boiling in pits: the baskets were filled with water, and then hot rocks were continuously dropped in and stirred around until the water or broth was brought to a boil. Such methods were still in use among California's Native Americans when Europeans and Euroamericans began arriving there, and the method was even captured on film by anthropologists. As one might imagine, fire-cracked rocks used in boiling and pit-oven baking are common on Archaic sites, and on some sites these cooking stones could fill several pickup-truck loads.



Hot rock method of boiling in baskets

Other new ways of processing and storing food were developed, including the first use of *ground stone* – manos and metates made from coarse stone for grinding food materials – and by later Archaic times, underground storage. Like their Paleoindian predecessors, Archaic peoples had no pottery, but we have already seen that they came up with ingenious (if cumbersome) methods for boiling foods and other tasks that would later involve ceramic vessels.



One-handed manos

Archaic peoples in New Mexico had no domesticated animals, so people still relied on hunting for their meat. However, the extinction of the oversized Pleistocene animals left much smaller game to hunt. Over the course of the Archaic tradition, hunting shifted away even from deer and whatever other “large” game remained, and focused more and more on rabbits and hares. Animal bones from numerous archaeological sites clearly show this change in hunting patterns, with jackrabbits and cottontails becoming the main meat source for Archaic peoples, a trend that continued throughout the rest of prehistory. Historic accounts tell us that some native peoples in the Great Basin of what is now the northwestern United States engaged in drives that took large numbers of rabbits, and Archaic folks in New Mexico probably did the same.



Rabbit hunting

Like their Paleoindian predecessors, Archaic peoples used spear-throwers, also known as *atlatls* (the Aztec term for this weapon) for hunting. Compared to throwing a spear directly by hand, using an atlatl vastly increased the force, speed, and distance with which a spear or dart could be hurled. Some atlatls were fitted with stone weights to help counterbalance the long, stone-tipped spears, which Archaic hunters often had to hold at the ready for hours while waiting for their quarry to appear. Archaic projectile points were usually either notched or stemmed at the base, and the level of skill and workmanship that went into these points is not as impressive as that which turned out the beautiful Paleoindian points. But then again, Archaic peoples did not depend as much on hunting as Paleoindians did, and the game they hunted was smaller and much less threatening.

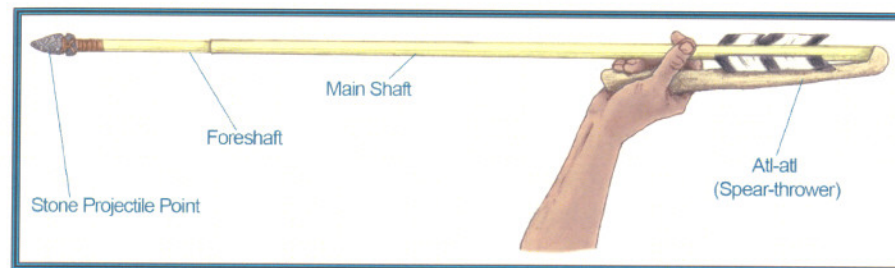


Diagram of an atlatl in use

The uphill retreat of forest belts and the changing composition of arid woodlands presented both challenges and new opportunities for New Mexico's Archaic peoples. Juniper, piñon, and ponderosa pine trees offered timbers for building structures and fuel for hearths and ovens. Piñon nuts also were gathered seasonally and provided an important, storable food. Many other plants offered a tremendous diversity of foods and materials for various supplies and implements. What strikes many people today as an impoverished desert was to Archaic and other native peoples something like a well-stocked store providing a diversity of food, hardware, and raw materials.

Archaic peoples maintained a certain level of mobility so that they could move around, either to make the best use of seasonal resources or to seek out regions of more abundance if resources in a particular area were depleted or became less productive. By maintaining social contacts and exchange relationships with other groups, they managed to even out temporary or seasonal shortages and times of abundance in local areas. Under more extreme conditions, groups resorted to warfare to plunder their enemies' resources and try to seize new territories. Toward the end of the Archaic time span, some peoples in the Southwest – including the inhabitants of the Hondo Valley – adopted corn-based agriculture and began living as at least part-time farmers.

The beginnings of farming had a tremendous impact on life in present-day New Mexico and in the Hondo Valley. Corn, or maize, appears in the archaeological record of the Southwest by as early as 2000 B.C. Unlike the forests of eastern North America, where Archaic peoples began domesticating plants native to that region, farming in the Southwest was completely dependent on the introduction of maize, squash, and (eventually) beans from hundreds of miles to the south, deep in Mexico where these crops were first domesticated. Farming appears to have taken root in prehistoric New Mexico during a period of overall higher precipitation than we enjoy today, and so farming could be carried out in a variety of locations, including both the river valleys and the piñon-juniper uplands. By spreading out their farming plots, Archaic (and later) peoples could hedge their bets against the hit-or-miss pattern typical of summer monsoon showers.



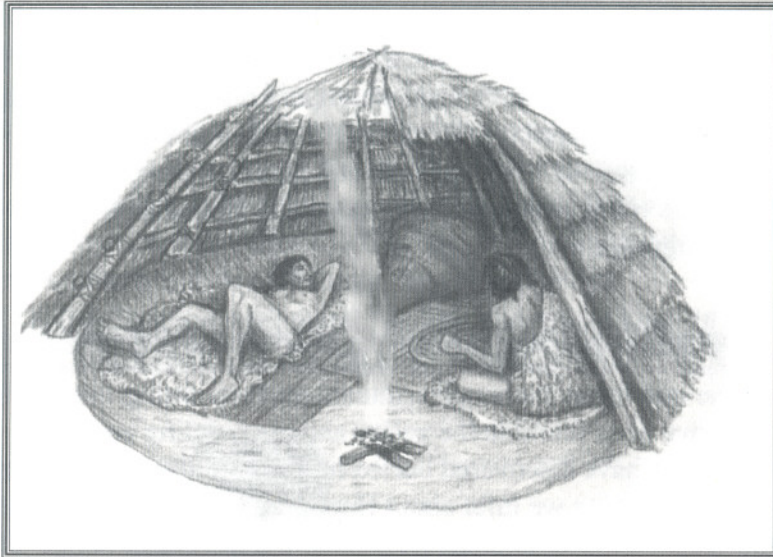
Farming provided many more calories of food per acre than hunting and gathering

Farming actually proved to be harder work than hunting and gathering, and was especially risky in New Mexico's dry, marginal environment. But even primitive farming offered one key advantage to those willing (or forced) to expend the effort: it provided many more calories of food per acre than did any of the wild foods hunted and gathered by Archaic peoples. As a result, farmers grew more rapidly in population than did their hunting and gathering contemporaries, and farmers were thus able to quickly displace any hunter-gatherers occupying areas suitable for farming, through extermination, eviction, or absorption (as a result of intermarriage, adoption, or subjugation). Those hunter-gatherers that did not adopt farming themselves, or did not adopt it quickly enough, found themselves either exterminated or relegated to a nomadic life in more marginal environments.

It is with the Late Archaic period (dating from around 2000 B.C. to A.D. 600) that the prehistory of the Hondo Valley really starts to come into focus. Although scattered artifacts dating from earlier times have been found in the valley and surrounding areas, no excavations have discovered buried remains from these times, and almost everything we infer about Hondo Valley prehistory comes from archaeological findings from elsewhere in New Mexico and the Southwest. The US 70 excavations in particular made many new and very interesting discoveries about the Late Archaic period. Late Archaic sites in the Hondo Valley include habitations both in the narrow river valleys and on the adjacent terraces and ridges, as well as in rock shelters, where they left artifact-rich deposits of ash and other remains.

Among the more exciting discoveries of the US 70 project are the abundant remains of corn and large, bell-shaped storage pits, some dating as early as A.D. 200. The corn remains reveal that at least some Late Archaic groups in the Hondo Valley were more than just casual farmers, and that corn had become an important part of the diet and economy.

Although plant remains from Archaic sites in the Hondo Valley indicate native peoples were still collecting a wide variety of foods, engaging in farming meant that they would have had a more vested interest in their territories and in controlling access to the best farming soils in the valley. And then as now, the best farmlands lay along the narrow valley floor.



Late Archaic pithouse

With this need to stay put for longer periods during the year, Late Archaic peoples in the Hondo Valley began constructing houses that were more substantial than the shelters that were built in earlier times and that have left obvious traces in the ground. These early “pit houses” involved digging an extra-large pit over which a dwelling superstructure was erected. Superstructures may have involved any combination of posts, wicker-like frames of branches, textile mats, and adobe-like coverings of mud (or daub). These homes sunk into pits, with fires in interior hearths, could be heated more efficiently than dwellings of otherwise similar construction that were built entirely aboveground.

Bell-shaped storage pits are another prominent development evident in Late Archaic sites. Storage pits of this shape are found in archaeological sites of early farming societies in many parts of the world (including other parts of North America), wherever there was a need for storage and the local soils were sufficiently well drained. The Mandan Indians, who were village farmers living along the upper Missouri River in the northern Great Plains, were still using bell-shaped storage pits in the 19th century. Euroamerican explorers among the Mandan left us with detailed accounts of how their storage pits were constructed and used. By keeping corn and other foods in bell-shaped pits, Archaic peoples could better plan for the near future and have a ready cache of food provisions to see them through tough winters and into the early spring. In good times – when rains were more plentiful and more corn could be grown – stored food may have also provided surpluses that could be used to sponsor feasts (and thereby gain recognition within one’s community), or support larger families and thus contribute to population growth. These developments laid the groundwork for further changes among the Hondo Valley’s native peoples, which become evident during the subsequent Formative tradition.

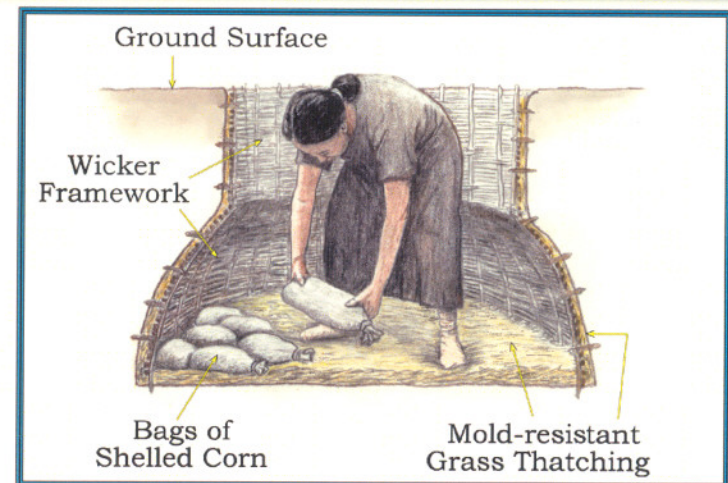
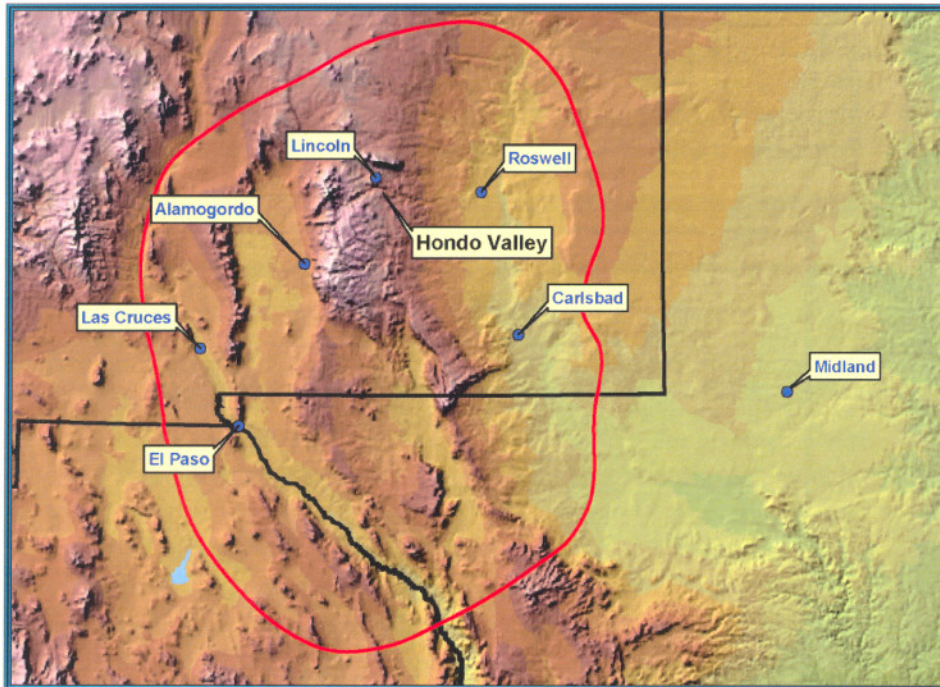


Diagram of a bell-shaped pit in use

Formative Tradition (A.D. 600–1400)

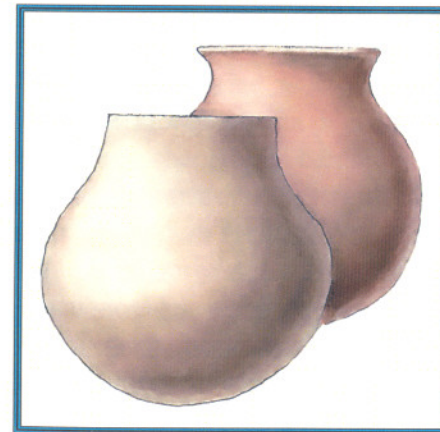
Pottery making was introduced into the American Southwest around A.D. 200. The appearance of ceramics – usually found as small, broken sherds on archaeological sites – separates the beginning of the Formative tradition from the end of the Archaic. Archaeologists often use several levels of classification in sorting out archaeological remains, and the Hondo Valley is included within the Jornada Mogollon culture of the Formative tradition, to denote a distinctive way of life and ceramic types. The Jornada Mogollon culture area extends from around Las Cruces on the west into the north Texas panhandle on the east, and from the north end of the Tularosa Valley on the north to well into Chihuahua, Mexico, on the south.



Jornada Mogollon culture area

A large number of radiocarbon dates – most from the recent US 70 project – indicates that the earliest pottery in the Hondo Valley dates from around A.D. 600. This is later than the earliest pottery in the Tularosa Valley to the west, but about the same time as in the Pecos River Valley to the east. Regardless of when ceramic technology was first introduced in a particular area, it improved the lives of native Southwestern peoples. Pottery vessels made excellent cooking pots, and boiling no longer had to be accomplished through the laborious hot rock method. Ceramics could also be used as efficient storage vessels, and they provided an important new medium for artistic expression as well.

Another new technology that was introduced around the beginning of the Formative tradition was the bow and arrow. This weapon system was a big improvement over the dart and atlatl combination that had been used by Paleoindian and Archaic peoples, as it was potentially more precise. Archaeological traces marking the introduction of the bow and arrow include some discoveries in dry caves and rock shelters, but the biggest indicator is the sudden reduction in the size of projectile points as new, smaller, thinner point styles appeared.



The earliest pottery in the Hondo Valley consisted of plain brownwares



The bow and arrow was a new technology in the Formative tradition

The use of atlatls had required larger, thicker points to help guide the spear and deliver it with sufficient force. The bow and arrow did away with the necessity for large points, and so Formative flintknappers could use less stone – and smaller cobbles and other pieces – to make their projectile points.



Four projectile points from LA 139419

Though the addition of pottery and the bow and arrow marked significant technological advances, people still lived in pit structures, grew corn, dug bell-shaped storage pits, and hunted and gathered other foods and resources. Over time, larger and more substantial pit houses were constructed, including several excavated as part of the US 70 project.



Diagram of a pithouse excavated at LA 116531

Beginning after A.D. 800, it appears that people in the Hondo Valley began building some structures not in pits, but on the ground surface. A good example is the remains of a structure excavated at Site LA 116531. The floor of this house was the natural earth surface, but sunk into it were two adobe-lined hearths and several post holes, and large ceramic sherds and ground stone tools were scattered across the house floor.



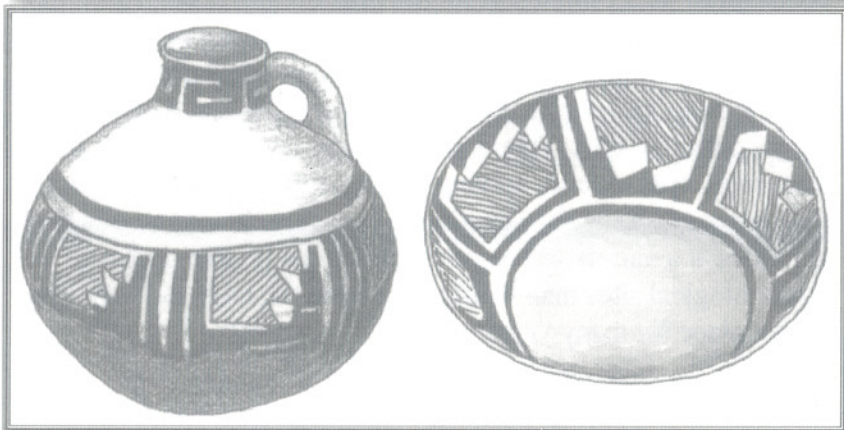
Two-handed mano and metate

Charred corn cobs

The US 70 project uncovered more evidence from the early centuries of the Formative tradition than for any other period of prehistoric time represented in the valley's archaeological sites. This pattern suggests that prehistoric human population levels in the Hondo Valley continued to increase from late Archaic to early Formative times. Moreover, because people were still at least somewhat mobile, moving among different locations over the course of a year, they continued to scatter the remains of their activities at a variety of locations, creating a larger number of archaeological sites than would have been the case had they lived in one place for many years.

Farming intensified during Formative times. Evidence for this includes more remains of corn and other domesticated plants, and some bell-shaped pits contained charred masses of corn cobs. There are more sites with bell-shaped storage pits from this period than are known for Late Archaic times, and some of these pits may have been converted to snug habitation shelters, judging from the occasional hearths found on pit floors, ramps that extended off to the side, and burned structural timbers found in the pit fill. Larger, two-handed manos appeared during Formative times that were more efficient at grinding corn than were the one-handed forms used during the Archaic tradition.

Beginning around A.D. 900–1000, the winds of change again began to stir for people in the Hondo Valley. One of the changes is evident in pottery. Early Formative ceramics consisted almost exclusively of simple, undecorated, brown-colored wares, and these run-of-the-mill pots continued to be made throughout Formative times. Around A.D. 900, an increasing variety of decorated wares began to appear, and the characteristics of the *paste* (the fired clay) in many of these pots reflect more sophisticated manufacturing and firing techniques (including firing at higher temperatures) that made pots harder and more durable. Some of these new decorated pots came from other parts of New Mexico and the Southwest, and after some time local people in the Jornada Mogollon region began copying them.



Chupadero Black-on-white pottery

One of the earlier types of painted pottery in the Hondo Valley came from the Mimbres area, west of Las Cruces. Mimbres pottery is world famous for its painted motifs, and its white paste and black-on-white designs are distinctive. Evidence suggests that Jornada Mogollon peoples began making their own, local imitations of Mimbres Black-on-white pottery, and continued to do so even after people in the Mimbres region ceased to make it.

Chupadero Black-on-white, which comes from just north of the Jornada Mogollon region, is another common import that occurs throughout late Formative times in the Hondo Valley. Other examples of non-local pottery types found in the Hondo Valley come from as far away as northern Mexico and the northern Rio Grande, including several types of a glazed pottery that was manufactured in northern New Mexico beginning around A.D. 1300.

In addition to copying some of these “foreign” ceramics, Jornada Mogollon peoples also created their own “home-grown” types of painted pottery. In paste and temper these pots were similar to undecorated brownwares, differing only in their prepared and painted surfaces. These ceramics, known as El Paso Bichrome and El Paso Polychrome, are common in later Formative tradition sites in the Hondo Valley.



El Paso Polychrome pottery

Along with new kinds of pottery, other big changes were afoot in the Hondo Valley during late Formative times. The US 70 project found fewer sites from this period. At first glance, one might conclude that human population in the valley declined at this time, but this was not necessarily the case. Rather, people appear to have become less mobile, settling down in village sites where they lived for most or all of the entire year. When people stayed in one location, they left fewer traces of their activities on the landscape. In addition, more people tended to concentrate in the villages, so there were fewer villages. Why this happened probably relates to the increased dependence on agriculture; as people relied more on farming, they probably competed more intensively for occupation of areas best suited to growing crops. Perhaps the best way to deal with this situation was for people to come together and form larger villages that could be more easily defended against their enemies.

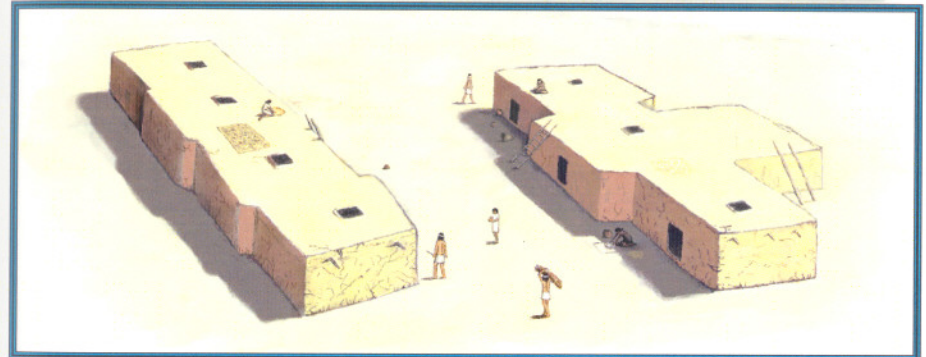
One of the largest and best-known late Formative sites in the Hondo Valley is the Bonnell site, along the Rio Ruidoso near Glencoe. Excavations that were carried out in a portion of the site in the 1950s revealed the remains of a village site that was intensively occupied. Although no radiocarbon dates were ever obtained from these excavations, the ceramics uncovered from Bonnell show that the site was occupied between A.D. 1200 and 1400. A primitive form of glazed ceramics, probably imported from the northern Rio Grande area and dating after A.D. 1300, was recovered at the site.

The remains of houses unearthed at Bonnell show something of a transition between pit houses and pueblo construction. Most of the houses at Bonnell were square or rectangular pit houses. Some stood alone, while some others were joined together to form linear room blocks. The houses at Bonnell involved a much greater investment in planning, design, and construction than was the case at any earlier settlements known in the Hondo Valley. Adobe walls, substantial support posts (some set on foundation stones), carefully plastered floors, and evidence of multiple rebuilding of most of the houses indicate that the site's residents were committed to settling into – and defending – their villages and nearby corn fields. Although the houses at Bonnell were not arranged in any obvious defensive pattern, the site is on a narrow ridge above the edge of the Rio Ruidoso floodplain, surrounded by steep slopes on three sides, and thus could be easily defended.



Plan of the Bonnell site excavation, showing house structures and other features

During the later decades of occupation at the Bonnell site, at least two exceptionally large structures were built. What these oversized buildings signify is difficult to know for certain. If they were homes of prominent leaders, then they provide evidence that late Formative societies in the Hondo Valley were developing into hierarchical organizations to a degree not previously seen. On the other hand, these large structures may have been communal or ceremonial facilities, similar to the kivas found in many pueblos. In either case, the buildings seem to indicate important social changes that involved more formal and complex group organization, made necessary by the larger numbers of people now living together in villages such as the Bonnell site.



Speculative reconstruction of Period 2 at the Bonnell site



General view of the Bonnell site area. The Period 2 structures illustrated in the previous figure were located toward the far right of the picture.

One way in which Southwestern peoples helped maintain their village societies was through formal ceremonies, involving communal dances and other carefully staged rituals. These rituals often involved the display of fancy costumes, ornaments, and other *prestige goods*. Such items were often made from exotic materials that do not occur naturally in the Hondo Valley, such as marine shell and turquoise, which have survived in the archaeological record. Obtaining these items required exchange networks that necessitated careful diplomacy and maintenance of relations with trading partners in areas outside the valley.



Pueblo peoples on the march

After Prehistory

Sometime between A.D. 1350 and 1400, Formative peoples abandoned the Hondo Valley. Similar episodes of abandonment occurred in many parts of the Southwest between A.D. 1300 and 1400, after which agricultural pueblo peoples were concentrated mainly within the Rio Grande valley, along with a few scattered enclaves elsewhere (such as the areas occupied by the Hopi, Zuni, Acoma, and Salinas Pueblos). Why farming peoples abandoned the Hondo Valley and so many other areas remains a topic of lively discussion among archaeologists. Many point to one or more periods of severe drought (evident in tree-ring records) that may have devastated farming economies across many areas. Others argue that it was not so much drought, but rather a change in the seasonality of rainfall, such that more precipitation fell in the winter rather than the summer, which would have been bad for farmers who depended on the summer rains to grow their crops. Other archaeologists point to pressure from nomadic hunter-gatherers, who may have begun moving into the Southwest at this time.

Yet native peoples in the Southwest had survived many droughts and conflicts in the past without abandoning their homelands on such a massive scale. What was different this time is that human societies in the region had invested more heavily in agriculture, and in the complex social and political organization – and all its associated material trappings – needed to live in larger groups and villages. Other problems stemmed from degradation of the local environment, as more people crowded into larger villages. Serious shortages of wood for construction timbers and fuel ensued, as more and more trees were cut down in areas surrounding village sites. Once-fertile soils became exhausted as increasing numbers of farmers had to reuse more fields year after year. Exotic trade items, used in the elaborate ceremonies that had become a critically important element of maintaining large-group organizations, may have become increasingly harder to obtain as groups in other areas grappled with their own local problems.

All of these conditions probably increased tensions and conflicts within large, densely packed communities. A period of drought (or simply a climate change to a pattern of more winter precipitation) may have been the straw that broke the backs of farming village societies across much of the Southwest – including in the Hondo Valley.

What happened to the people who abandoned these villages remains a mystery. It is likely that many died of starvation or were killed in warfare and other conflicts, the intensity of which must have flared during these trying times.



The Mescalero Apache arrived as nomadic hunters and gatherers in the Hondo Valley sometime between 1400 and 1500.

Among those that survived, many probably emigrated to join pueblos along the Rio Grande and elsewhere that made it through this time of widespread catastrophe. Still others may have reverted to a nomadic, hunting-gathering way of life, although this must have been a tough option for people raised from childhood to be farmers and used to living in villages with substantial houses.

By the time the first Spaniards entered New Mexico, the Sacramento Mountains were inhabited by scattered bands of Mescalero Apache, who ranged over much of southeastern New Mexico. The Apaches and Navajos speak Athapaskan languages that originated in northern Canada, and these groups did not arrive in New Mexico until sometime between 1400 and 1500. They arrived as nomadic hunters and gatherers, and although they remained highly mobile raiders until they were forcibly pacified in the 1880s, both Navajos and Apaches began growing some maize and other crops after settling in the Southwest.

Most of the early Spanish explorers and settlers moved along the Rio Grande to the west of the Hondo Valley or the Pecos River to the east, and so there are no accounts of Indian groups in the valley or the Sacramento Mountains from this earliest period of New Mexico history. The westward movement of Comanches into eastern New Mexico during the early 1700s pushed the Mescalero Apache into the Sacramento Mountains. Following the Mexican-American war and the ceding of New Mexico to the United States, conflicts between Euroamericans and Apaches continued. In 1855, the establishment of Fort Stanton on the Rio Bonito, just north of the Hondo Valley, provided some measure of protection for descendants of the early Spanish arrivals and newcomers from the United States to the east, who began settling in the Hondo Valley at this time. Still, tensions and conflicts continued to flare until the early 1880s, when the Mescalero Apache were forcibly confined to their current reservation boundaries.

From the earliest arrivals who prowled the area hunting mammoth, to more recent farmers who peacefully tended their crops along the river valleys, the inhabitants of the Hondo Valley have gratefully received the bounty of land and survived its harshest challenges. Today the place is a melting pot of cultures – Apache, Hispanic, and Anglo-American – each with a unique history and experience that has been tempered by the years. In the Hondo Valley we find not only their story, told by the artifacts that they left behind, but our own as well, since their past mirrors our own. It is perhaps the greatest gift they can give, to allow us a view into what it was to live, without modern conveniences, on and with the land.