The Prehistory of the Pecos Indians

by Larry Nordby

The ability to adapt to environmental conditions is one of the most critical challenges facing human populations. This was particularly true of the prehistoric Indians of the upper Pecos River Valley, whose cultural remains are the main feature at Pecos National Monument.

It is through the science of archaeology that an understanding of the evolution of a settlement like Pecos can be developed. The Pecos Indians left behind countless tools, weapons, and other artifacts, as well as the remains of homes. From all this excavated material, archaeologists have been able to create a scenario of how these ancient people solved their problems of subsistence and survival. This understanding of the long distant past has been an essential element in comprehending more recent events at the site.

The chronology of the upper Pecos Valley that I present in the following pages may serve as a useful framework for understanding the prehistory of Pecos ruins. As I describe each successive time period, however, readers should keep in mind that all eras, from twelve thousand years ago through the historic period, are united by a common theme-adaptation to environmental change.

The Pecos area sits astride a gateway joining several geographical regions. This passage, a long valley culminating in Glorieta Pass, was a channel for periodic population waves extending back many centuries. Although the precise identity of these immigrant groups is not yet well known, some certainly originated on the high plains of eastern New Mexico, others in the Rio Grande Valley to the west, and still others in the Galisteo Basin to the south. The confluence of these people created a cultural mix that reached a peak with the arrival of the Spanish in A.D. 1541.

But what preceded that momentous event of contact with European civilization? How did a once uninhabited valley develop into an Indian stronghold? As we shall see, some answers to these questions can be extracted from bits of centuries-old broken pottery, fragments of stone implements, and buried foundations of abandoned villages.

Paleoindian or Early Hunters Period (10,000 - 5500 B.C.)

The most common Paleoindian culture represented from the Chama highlands in northern New Mexico down to Santa Fe and Pecos is Clovis. The Clovis people specialized in the hunting of mammoths and left in their wake specially styled spearpoints. Since only one of these points has been found in the upper Pecos Valley, our knowledge of this period of human activity at Pecos is poor. We assume, however, that the area was used for sporadic hunting forays.

(Above) Clovis Projectile Point
Later Paleoindian peoples such as Folsom man were hunters of the now-extinct species of camel and bison that lived on the plains grasslands. This environment was punctuated by brackish lakes called playas. Hunting bands collected near the playas, atop adjacent ridges that provided an excellent view over the hunting basin. When these animals came to the playas to drink, they were killed. Since geographical features of this kind are absent from the upper Pecos River area, it is not surprising that a population so closely tied to that primary food source would also be absent. In addition, at the higher elevations near Pecos National Monument (7,000 feet), travel into the area may have been accompanied by chilly discomfort during a period somewhat cooler than today.

(Right) Reconstruction and floor plan of excavated Pecos pithouse.

**Archaic Period (5500 B.C. - A.D. 700/800)**

The warmer and drier climate that followed the late Pleistocene contributed to the gradual extinction of large animals used by Paleoindians. In order to eke out an existence, succeeding human groups were forced to exploit a broader range of environmental zones. They became foragers, both hunting various kinds of available game and gathering wild plants.

Population density, especially in the upper Pecos, remained low during this period and since diagnostic projectile points are usually absent from Archaic sites, the sites themselves are difficult to identify. A few points, however, have been recovered from the headwaters of the Pecos River in the Sangre de Cristo Mountains and others have been collected by private landowners in the valley. These finds suggest that the valley may have warmed sufficiently to encourage these transitory people at least to hunt the local mule deer population on a seasonal basis.

Many Archaic sites were used by small bands as hunting camps or locales for procuring and processing wild plants. Archaeologists often find these camps near a larger site—possibly a base of operations—containing the remnants of hearths, heat-fractured stones, and stone tools.

Very little is known about the trend toward exploiting wild food plants in this period, but increasing numbers of grinding implements indicate that plant resources, a significant factor in the evolution of later societies, were playing a growing role in subsistence.

Despite a relatively low population throughout the Archaic Period, a well-established community, evidenced by two pithouses recently found and excavated in the monument, appeared locally around A.D. 800. These pithouses were occupied by farming people who had apparently developed plant cultivation sufficiently to invest some time in building permanent structures, a new form of adaptation. Growing corn requires at least enough commitment to a particular location to plant, tend, and harvest the crop. Fields were situated on the lower terraces above Glorieta Creek, about 100 meters from the pithouses. Edible weedy plants, many seeds
of which were found in the excavated pithouses, also were important for food. Rabbits and other small animals were hunted as well as mule deer and antelope. Pecos hunters, however, had to travel at least ten miles to reach the latter's habitat.

Both pithouses consisted of a single large room partially dug into the ground, with a pole and mud superstructure forming the upper wall and roof. Interior walls were low and did not divide the structure into rooms. In spite of this "open concept," particular work activities were performed at consistent locations inside the house. For example, the presence of large grinding tools (manos and metates) near the hearth indicates a "kitchen" area and flakes of chipped stone and finely flaked obsidian arrow points along the wall suggest a tool manufacturing spot. Shards from crude vessels of various sizes have been reconstructed to provide a first glimpse of the oldest pottery in the upper Pecos. These undecorated containers were made inside baskets that provided initial support during their manufacture and left their imprints on the clay. Most pots were variably sized jars and water canteens.

Who were these first permanent residents of the upper Pecos? A clue may be found in the area's situation as a corridor joining diverse geographical zones. Obsidian from which arrowheads were made came from the Jemez caldera to the west; pottery design bears a strong similarity to that of northeastern New Mexico; and architectural style suggests the influence of people from southern New Mexico who migrated up the Pecos River as far as the Fort Sumner area as well as up the Rio Grande. The question of population origins, consequently, is complex and continues to be a subject of research.

Following the initial pithouse occupancy between A.D. 800 and 900, there is virtually no evidence for people in the upper reaches of the valley for two hundred to four hundred years. As is the case for the Archaic Period, this absence at least partly indicates our failure to identify sites that fit patterns derived from other areas. Sites located during archaeological surveys are now undergoing analysis, and some may eventually fall into this time range.

In terms of village pattern, sites elsewhere were characterized by pithouses, generally of smaller size than the Pecos examples. As time passed, rectangular surface rooms constructed of stone and adobe or of mud and vertically set poles (jacal construction) appeared. Several rooms were contiguous, often being arranged in double rows. This period saw a great deal of architectural variety, suggesting a certain degree of experimentation with respect to house shape and function. It should be noted that specialized storage rooms for crop yields indicate that at least short-term surpluses were being produced.

A gradual shift from living in pithouses to living in surface rooms occurred during the Developmental period. However, structures dug into the ground assumed ceremonial importance, becoming the kivas that abound during later periods. These kivas were sometimes incorporated into the blocks of surrounding rooms, and sometimes remained isolated. Some were circular, others square; some were subterranean, others above ground. This variety underscores an architectural complexity that may reflect the interchange of ideas or population.

In some areas, such as near Santa Fe, a number of these small jacal pueblos with pithouses or kivas were accompanied by a much larger kiva. The presence of these large kivas points to a need to structure the interrelationships between human groups. This social concern contrasted somewhat with behavior designed to cope only with the natural environment and was at least in part a means of dealing with increasing populations in the Rio Grande area as a whole.

With respect to environmental adaptation, tools and other archaeological remains indicate that sedentary farming continued to predominate, still supplemented by hunting game and collecting wild plants. Some changes in artifact shapes occurred throughout the period. Also, decoration was added to pottery vessels in the form of slips and designs painted in black mineral paint. These innovations evidently entered the Rio Grande drainage from the west, eventually arriving in the upper Pecos by A.D. 1100 at the latest.
The Coalition Period (A.D. 1200 - 1300/1325)

The remains of two relatively large sites that were probably constructed near the beginning of the Coalition Period indicate that people remained in the upper Pecos between the earlier pit-house phase and A.D. 1200. Although the population remained small prior to A.D. 1200, it suddenly increased, resulting in the large sites of Forked Lightning Ruin and Dick's ruin. Forked Lightning Ruin was excavated in part by A. V. Kidder during his classic investigations of the Pecos area. Dick's Ruin was subjected only to limited testing in 1926 with no resulting professional monograph. (Above Right) Plan of Forked Lightning Ranch

Both sites share construction techniques that originated in the preceding period, but new techniques were also used. Room walls were usually built of successive courses of puddled mud poured into a movable wicker frame. After a course had set, another was placed on top. A few walls were also built of stone blocks laid in mud mortar.

(Below) Pecos from north: North Pueblo, South Pueblo, Mission and Convent beyond. Restoration by S.P. Moorehead as of about 1700.
Using these methods, Pecos Indians built pueblos of over a hundred rooms, a radical departure from smaller villages or hamlets of earlier times. The smaller sites, however, continued to be used in the Pecos area, although in other regions many were abandoned as populations began to consolidate at particular locations. These differing practices led to sites of variable sizes. Such large pueblos were composed of straggling agglomerations of rooms joined with little apparent pattern. At Forked Lightning, new rooms were added as old ones burned or fell into disuse. A mishmash of kiva shapes at different depths was produced.

People continued to place their goods in vessels decorated with black paint on a white-slipped background. This paint, however, was made from processed vegetal materials rather than mineral pigments.

By about A.D. 1300, the aboriginal builders of Pecos had largely stopped using coursed adobe and were building almost entirely of stone. There were several large pueblos in the valley at this time including Black-on-White House (underlying Pecos Pueblo), the Hobson-Dressler Ruin, and another unnamed site at Pecos National Monument. In my view, portions of Forked Lightning Ruin may also have continued in use past A.D. 1300, and construction at Rowe Pueblo probably began. Several of these sites are planned communities, and function as harbingers of the next period's building episodes.

Farming, hunting, and gathering continued to be the economic base of the Pecos Indians of the thirteenth century but a few breezes of change were felt at the large sites. Near Forked Lightning, for example, small one to three room structures were used as field houses, temporary domiciles while fields were being tended. More agricultural lands were needed to feed a growing population, perhaps requiring farmers to travel some distance to tend their crops. An additional effect of increases in agricultural lands would have been the reduction or elimination of hunting near the pueblo, necessitating extensive hunting forays for large game. Vestiges of small hunting camps on the terraces above the Pecos River have been located in archaeological surveys.

**The Rio Grande Classic Period (A.D. 1325 - 1540/1600)**

The Classic period is in many ways the culmination of our journey into Pecos prehistory. In a broad sense, the period is "classic" in many respects. Pueblos were enormous compared to preceding sites, and a sophisticated network of ceramic exchanges began.

Early Classic sites include Pecos Pueblo (or Cicuye), Arrowhead R in, Loma Lothrop, and Rowe Ruin. By investigating pottery types and tree-ring dates present at each of these sites, it is apparent that all except Cicuye were abandoned by A.D. 1450. We will return to the possible reasons why such was the case in a moment.

*Unexcavated ruins at Pecos*

The homes of these people were built of stone set in mortar. Multiple rooms were stacked in four to five story buildings, aided by the incorporation of vertical logs into the wall masonry to provide support. Pueblos were built around plazas or central courtyards, with access to the courtyard controlled by restricted entrances. Doorways from the lower-story rooms opened only onto the courtyard, again reducing access from outside the pueblo. Examination of doorway locations at Pecos Pueblo indicates that families lived in suites of rooms radiating outward from the plaza, with ground floor rooms often functioning as refuse receptacles.
Artifacts used in the upper Pecos included many distinctive items: carved pipes, clay and stone figurines, polished stone axes, arrow shaft straighteners, and eagle bone flageolets or whistles. In his Pecos research, A. V. Kidder’s focus was on the pottery, a new and vibrant kind. A shiny glaze paint was developed during the Classic, and it was applied to vessels slipped red, white, cream-colored, orange, and beige, or a variety of combinations. The result was an abundance of colors. Many vessel types were made at restricted locations and traded to other pueblos. At Cicuye, few vessels were made until about A.D. 1500, when Pecos potters developed a runny black glaze that became their hallmark. (Above) Agua Fria Blaze-on-red from Pecos Pueblo.

What about adaptive mechanisms in an increasingly complex prehistoric world? Farming continued, with increasing use of the field house strategy developed during the earlier period. Irrigation was practiced in order to elevate crop yields for the population of 1,500 to 2,000. This would have required some form of social control in order to ensure that people did their share of field labor. The location of Pecos gave it a hunting and trading advantage. Situated on a natural corridor in a world where trade had become commonplace, Pecosarios were able to acquire buffalo hides, meat, and bone from Plains traders such as the Apaches, or hunt buffalo for themselves. In any event, these products were in as high demand in the Rio Grande Valley and points west as cotton products and domesticated foodstuffs were to the Plains traders. This situation allowed Cicuye a middleman’s profit, which it had parlayed into a position of wealth and strength by the time the Spaniards arrived.

However, in spite of this optimistic outlook for the Pecos area, all pueblos except one were abandoned by A.D. 1450. Why did one site flourish and the others collapse? Why did the surviving village maintain a defensive architectural form and location? Kidder believed that the answer lay in the arrival of predatory nomads such as Apaches, but as far as is now known, they did not arrive until A.D. 1500-1525 and probably not in sufficient numbers to affect entire regions of large pueblos. Perhaps the need to consolidate grew from manpower required for irrigation. Possibly it stemmed from population pressures on the available agricultural land that fostered competition and war between pueblos. Archaeologists are still unsure, but when the Spanish conquistadores first encountered the people of Cicuye, they found the stronghold of a successful warrior people who had subjugated several of the Galisteo Basin pueblos.

With the arrival of the Spaniards, the prehistoric chronicle of the upper Pecos ends. Although archaeology still offers some insights into human behavior following this time, it is perhaps in the historical record that one sees best the decline of a great people under the aegis of European polity. Nevertheless, it is important to realize that we in the Southwest represent the result of centuries of cultural evolution and successful: adaptation, both to our natural environment and to one another.

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Source: Pecos Ruins, Geology, Archaeology, History, and Prehistory, David Grant Noble, Ancient City Press, Santa Fe, New Mexico