Ancient cultures of the southwest

Martin Link, 1973, pp. 177-180


This is one of many related papers that were included in the 1973 NMGS Fall Field Conference Guidebook.

Annual NMGS Fall Field Conference Guidebooks

Every fall since 1950, the New Mexico Geological Society (NMGS) has held an annual Fall Field Conference that explores some region of New Mexico (or surrounding states). Always well attended, these conferences provide a guidebook to participants. Besides detailed road logs, the guidebooks contain many well written, edited, and peer-reviewed geoscience papers. These books have set the national standard for geologic guidebooks and are an essential geologic reference for anyone working in or around New Mexico.

Free Downloads

NMGS has decided to make peer-reviewed papers from our Fall Field Conference guidebooks available for free download. Non-members will have access to guidebook papers two years after publication. Members have access to all papers. This is in keeping with our mission of promoting interest, research, and cooperation regarding geology in New Mexico. However, guidebook sales represent a significant proportion of our operating budget. Therefore, only research papers are available for download. Road logs, mini-papers, maps, stratigraphic charts, and other selected content are available only in the printed guidebooks.

Copyright Information

Publications of the New Mexico Geological Society, printed and electronic, are protected by the copyright laws of the United States. No material from the NMGS website, or printed and electronic publications, may be reprinted or redistributed without NMGS permission. Contact us for permission to reprint portions of any of our publications.

One printed copy of any materials from the NMGS website or our print and electronic publications may be made for individual use without our permission. Teachers and students may make unlimited copies for educational use. Any other use of these materials requires explicit permission.
This page is intentionally left blank to maintain order of facing pages.
Geologically speaking, 15,000 years is not an impressive time span, but to the anthropologist this represents the coming, and passing, of over 600 generations—600 life spans of people working, rearing children, praying, creating material goods and fighting for survival in a never-ending confrontation with the harsh elements of the American Southwest.

The first Americans, homeless nomad hunters, wandered out of the cold emptiness of Alaska and Canada during the last glacial period and gradually spread southeastward across the hemisphere.

Some 15,000 years ago these people subsisted off the mammoth and mastodon here in the Southwest. When preserved by cold weather, one carcass could feed a group for several months. By trapping one of these animals in a narrow gorge or swampy bog, several hunters could kill it using nothing more than spears and rocks.

Around 10,000 years ago the mammoths and mastodons were hunted to extinction and bison became the primary source of food and hides for the hunters who roamed the plains of New Mexico and Colorado. These early craftsmen flaked crude quartz into a razor sharp spear point which had a long central groove, allowing the point to slip snugly into the
notched end of a shaft. This characteristic point is called a Folsom point and is only one of several styles of projectile points developed during a span of some 4,000 years. The early cultures that evolved in this region are distinguishable only by these different styles of points, since no physical remains of these people have yet been found.

Much of this hunting activity took place during the Anathermal, or first of three broad climatic periods which followed the Wisconsin Glacial Age. This was a cool, moist period which gradually became warmer until the lakes, swamps and lagoons dried up, the grasslands became eroded and the hardwoods disappeared from the valley bottoms.

By 6,000 B.P., the Altithermal period had set in, an exceptionally dry period which saw the extinction of the large bison, ground sloth and other game animals. Evidence of the occupation of the Four Corners region by man during the Altithermal is almost entirely lacking.

It wasn't until the climate became wetter and cooler again (the Medithermal period, which is still in progress) that man once again inhabited the Four Corners region in any great numbers.

With the large game animals gone, these people had to depend on the smaller, swifter animals such as the present day bison, deer and antelope. To supplement a more meager meat supply, nomadic groups gathered seeds, nuts and berries. This development, to the south, about 4,000 B.P., of a hunting-gathering economy is termed the Cochise culture. In all probability, this culture gradually evolved into the agricultural societies of the Southwest—the Hohokam of the desert, the Mogollon of the mountains, and possibly even the Anasazi of the high plateau country of the Four Corners region.

Anasazi is a Navajo word denoting the "ancient enemies" and is applied to the prehistoric inhabitants of the Colorado Plateau. For the past two thousand years or so, this cultural sequence has been a continuous one, but has been divided into several successive horizons which reflect its gradual rise and eventual decline. The earlier horizons are called Basketmaker and the later ones Pueblo.

Some archaeologists tend to define this period of gradual growth as Pueblo I (700-900 A.D.) and Pueblo II (900-1050 A.D.). The changes were so imperceptible, however, that most scientists tend to identify this whole period of transition as Developmental Pueblo.

This extended period saw the evolution of small individual pit-houses into large single-storied villages composed of several family groups. The pit-house, however, was retained out of tradition and soon developed a certain religious significance as the kachina—oriented religion spread up from the Mogollon country and was assimilated into the Anasazi culture, probably around the eleventh century.

The physical features of the people also changed during this time as it became very popular to lace a baby very tightly to a hard cradle board during infancy. Whereas the people of the Basketmaker era were dolichocephalic, or long-headed, the Pueblo people became more broad-headed as a result of this permanent flattening, or deformation of the skull.

Cultural achievements made during this period included the domestication of the turkey, which made it possible to produce feather blankets in addition to rabbit fur blankets to ward off the winter chill; a wide variety of pottery vessels including corrugated wares for cooking; fine cotton textiles; shell and turquoise jewelry; and, as mentioned before, true

![Figure 2](image.png)

*Grain storage cists, or possibly even living quarters in Echo Cave in Monument Valley. These structures date back to Developmental Pueblo times.*

The early, formulative beginnings of the Basketmaker cul-


ture are shrouded in the blowing sands of the high plateau country, or have been forever lost to the harsh treatment of wind and erosion. However, around 2,000 years ago, the small groups of people who lived in this area, or migrated into it from the south, slowly settled down to become farmers. The idea of agriculture must have taken awhile to become accepted, for it forced a radical change in the living habits of those who practiced it, compared to the old subsistence pattern of gathering wild plants and hunting game.

These early farmers had no houses but relied on caves for shelter, protection, and the storage of their surplus crops of corn and squash. Since pottery was unknown, baskets had to serve as all-purpose containers for storing seeds, hauling farm produce and water, cooking and a multitude of household chores. Dogs were domesticated and their hair was sometimes used in weaving, although yucca fibre was a more common material.

During the Modified Basketmaker period (450-700 A.D.) several important traits were introduced, probably from the south again, namely: the bow and arrow, which was a great improvement over the atlatl (throwing stick) and spear; beans, which added protein to the diet; cotton, a better material for weaving; the idea of houses for more adequate protection from the elements; and the knowledge of pottery, which permitted much easier cooking, water hauling, and better storage of perishable foods.

The years slipped by, and generation followed generation through the endless cycle of spring planting, summer cultivating, autumn harvesting and then spending the cold dreary winters praying for spring to arrive again. While Europe was plunged into the Dark Ages, and Mohammed spread the faith of Islam across the face of Asia with a bloody sword, the Anasazi slowly moved out of their caves, built semi-subterranean houses in small village-like complexes, and extended their domain from the Colorado and San Juan rivers on the west and north to the Rio Grande and Mogollon Rim on the east and south.

Some archaeologists tend to define this period of gradual growth as Pueblo I (700-900 A.D.) and Pueblo II (900-1050 A.D.). The changes were so imperceptible, however, that most scientists tend to identify this whole period of transition as Developmental Pueblo.

This extended period saw the evolution of small individual pit-houses into large single-storied villages composed of several family groups. The pit-house, however, was retained out of tradition and soon developed a certain religious significance as the kachina—oriented religion spread up from the Mogollon country and was assimilated into the Anasazi culture, probably around the eleventh century.

The physical features of the people also changed during this time as it became very popular to lace a baby very tightly to a hard cradle board during infancy. Whereas the people of the Basketmaker era were dolichocephalic, or long-headed, the Pueblo people became more broad-headed as a result of this permanent flattening, or deformation of the skull.

Cultural achievements made during this period included the domestication of the turkey, which made it possible to produce feather blankets in addition to rabbit fur blankets to ward off the winter chill; a wide variety of pottery vessels including corrugated wares for cooking; fine cotton textiles; shell and turquoise jewelry; and, as mentioned before, true
masonry architecture. However, it should be noted that progress did not follow the same pattern in all places, nor did all similar changes occur at the same time.

This became apparent by the eleventh century, when three major, but different, divisions of the Anasazi culture blossomed forth into the pinnacle of their development with metropolitan centers located at Chaco Canyon, Mesa Verde and Kayenta. This great, or Classic Pueblo period (Pueblo III), was characterized by a tendency of the people to concentrate into large, multi-storied pueblos which sometimes contained over 500 rooms. The period seemed to have been initiated in the Chaco Canyon region around 1050 A.D. There came about a whole complex of cultural refinements: fine pottery with a wide range of designs and colors, exquisite textiles and baskets, tremendously large kivas in which were held elaborate and richly costumed ceremonies, new concepts in architecture and farming methods, beautiful jewelry and ornaments, highly polished stone tools, and superimposed over it all—a well developed, sophisticated and democratic form of community government. These cultural refinements soon spread north into the San Juan River—Mesa Verde region and eastward into the Rio Grande Valley. It wasn't until almost a century later that the Classic period became a way of life among the people of the Tsegi Canyon—Kayenta area, and by then the great village at Aztec, New Mexico, had already been abandoned.

Lying in the center of all this activity, and gradually becoming a composite of all three divisions, was the upper Chinele Valley and Canyon de Chelly.

But for all his accomplishments, the Anasazi man could not learn to live within his environmental limitations. He could not see, until it was too late, that the large metropolitan centers he had created despoiled the land, denuded the forests and consumed all the local wild plants and game animals beyond the point of restoration. He would not admit that his excessive cultivation of stream valleys set into motion a cycle of erosion that caused the water table to drop to dangerously low depths year after year.

And then the final blow—for some 23 years (1276-1299 A.D.) the Southwest suffered through the most severe drought in history. The gods had forsaken them—their fields lay parched, their children dying. Those that could, abandoned their homes and moved south to the Little Colorado River or east to the Rio Grande.

They had abused and misused the land and now were to pay the price in almost complete social and cultural disintegration. By 1300 A.D. the Classic Pueblo period was a thing of the past.

Somehow, the survivors picked up the pieces and began to put together some semblance of the old way of life. A Re-
gressive Pueblo period lasted from 1300 A.D. until the end of the 16th century. The settlements were generally quite large but poorly constructed. The fact that most of these Pueblo IV villages were built along defensive lines indicates contact with nomadic, warlike tribes. But in spite of cultural upheaval, environmental catastrophe and war-torn economy, these people managed to survive, and even increase their population. The new settlements extended all up and down the Rio Grande Valley and in a broad east-west band from Gran Quivira to the Hopi mesas.

But if the provinces of Cibola, Tusayan and Tiguex were to ever regain the former glories of the Classic era, it is now only a matter of academic conjecture. Their history was forever changed when, in the summer of 1540, Francisco Coronado and his small army of Conquistadores rode their horses into the streets of Hawikuh.

Figure 6.

Bone and stone were fashioned into useful tools, religious effigies, ornaments and weapons. Shown is a bone awl, bone hide scraper, projectile point, stone bead necklace, bear fetish and a polished stone ax.