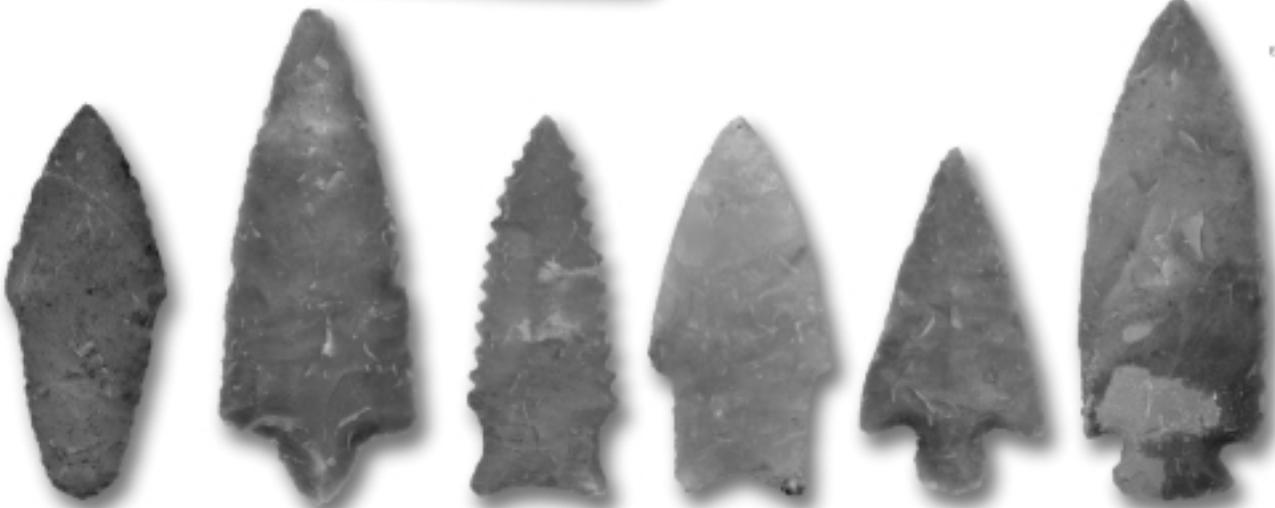


Stories of Land-use & Lifeways

Compare and Contrast
Traditional and
Scientific Perspectives
on the Past

SRI
Foundation

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EVENTS, TERMS, AND VOCABULARY

abandoned—deserted or left; withdrew or moved away from; ceased to use

acorns—nut of the oak tree

acquire—come to possess

American Civil War—began in 1861 when Abraham Lincoln was elected president of the United States. South Carolina seceded from the Union because of Lincoln's stand against slavery. Eleven states eventually formed the Confederate States of America. The war ended in 1865.

archaeologists—scientists who study past peoples and cultures by examining the materials they left behind

archaic—very old

Athabaskan—a Native American language group spoken in the American Southwest and in Canada

chronicle—record of events

coexisting—existing at the same time and in the same place

colonists—people who establish a colony [place, village, or town]

Comanche—a group of Native American people of the Southern Plains region of the western U.S. whose current home is in Oklahoma.

cultivated—grown by people

cultivation—the act of growing plants as crops

datil—also called banana yucca or Spanish dagger. It has long, pointy leaves; white, bell-shaped flowers; and large fruit. The fruit can be eaten fresh, dried, or cooked. People also used the leaves as paintbrushes and to make cordage.

Desert Land Act of 1877—This law encouraged settlement of arid and semi-arid areas, which people could buy in 640-acre sections at a cost of only \$1.25 per acre.

distinctive—having traits that are easily distinguished and are characteristic or typical of a certain type

domesticated—plants or animals trained or adapted to live in a human environment and be of use to humans

drainages—area where water flows, although in the arid Southwest often only during the rainy season

drought—lack of rain over a long period of time

Eastern Jornada Mogollon—pre-contact farmers who lived in southeastern New Mexico after A.D. 900 until the early 1400s

endeavor—attempt

escarpment—steep clifflike side of a hill or mesa

extinct—died out, no longer existing

Euroamerican—people whose family or ancestors came to America from Europe

generalists—people who eat many different kinds of plants and animals

geological—having to do with the study of the origin, history, and structure of the earth's crust

geographic—of or relating to the study of the interactions of humans and environment

Homestead Act of 1862—Under this law for the price of \$18 people could own a 160-acre section of land after living on and farming it for five years.

imperishable—not easily destroyed, decayed, or spoiled

irrigation agriculture—growing crops by moving water in from somewhere else

Kiowa—a group of Native American people of the Southern Plains region of the western U.S. whose current home is in Oklahoma

Late Pleistocene Epoch—a geological time period lasting from approximately 100,000 years ago until about 10,000 years ago. Overall the Pleistocene epoch lasted about two million years.

lifeways—ways of living that are typical to a culture

mammoths—gigantic, hairy, elephant-like animals that lived during the Pleistocene Epoch and are now extinct

mescal—an agave (century plant) with a long stalk growing out of a cluster of spiky leaves. People use different parts of the plant for soap, food, cordage, alcohol, and medicine.

Mescalero Apache—a group of Native American people of the south-central plains and Southwestern U.S. whose current home is in New Mexico

moniker—nickname

nomadic—people who move with the seasons in search of food and resources, often with wild or domesticated animal herds

Numic or Shoshonean—a Native American language group spoken throughout the Great Basin, California, and into New Mexico and Mexico

occupation—a place people lived

palatable—good tasting

Paleoindians—the first people who lived in the Americas

perishable—easily decayed or destroyed

pinyon nuts—high-energy nut of the pinyon (pine) tree

protohistoric—a period prior to the beginning of written records in an area, but after that area has been mentioned in reports written elsewhere

pueblo—Native American apartment-style villages made of adobe and or stone

pursuit—act of trying to catch or find something

resistance—opposition or fighting back

scavenged—something collected after it is dead or has already been killed

sedentary—remaining in one place

sotol—This plant is also called the desert spoon. It has a large stalk with greenish white flowers coming out of the middle of a cluster of long, dagger-shaped leaves. The bulb at the junction of the leaves is cooked and then can be eaten like a potato or ground into flour.

subsistence—way of life based on how people get food, water, and shelter

techniques—methods

territory—area of land under the control of, or traditionally used by, a people or person

textiles—woven material of (usually) plant fibers but also feathers and hides

virtually—almost but not quite; nearly

wended—continued on, proceeded along

STORIES OF LAND-USE AND LIFEWAYS

Compare and Contrast Traditional and Scientific Perspectives on the Past

by Carol J. Ellick

SRI Foundation, 2004 • Albuquerque, NM

Produced under a contract with Statistical Research, Inc. and the Bureau of Reclamation, Upper Colorado Region, Albuquerque, New Mexico. Base Map ©1992 Raven Maps and Images, www.ravenmaps.com; historical period photos and photos of the pots, atlatl, and dart, courtesy of the Maxwell Museum of Anthropology, University of New Mexico; territory ranges of the Kiowa and Apache from *Native American Territorial Ranges in the Central Region of Texas*, courtesy of the Fort Worth District of the U.S. Army Corps of Engineers; stone projectile points produced by Bruce Huckell; metal point by Ian Thompson. Thanks to all who assisted with this project.

Subjects: Social studies, science, language arts

New Mexico Standards and Benchmarks (Grades 5–8):

Social Studies: I-A, I-D, II-A, II-B, II-C, II-D, II-E, II-F, III-B, IV-C

Science: II-I (A) **Language Arts:** I-A, I-B, I-C, I-D, II-A, II-B, II-C, III-A;

Skills: Knowledge, comprehension, application, analysis, synthesis, and evaluation

Duration: 1–2 class periods. This lesson may be extended with additional research

Instructional Groupings: individual, small group, and whole class activities

OBJECTIVES

Students will read information about the archaeological and traditional interpretation of land-use and lifeways of the people who have inhabited the area now known as southeastern New Mexico. They will analyze images and text, list the important data from each essay, and compare and contrast the perspectives given in each story. They will interpret the data and develop a personal perspective on the land-use and lifeways of past peoples.

The educational standards and benchmarks listed at the end of this lesson provide an instructional framework for the concepts to be learned in this lesson.

MATERIALS

From Lesson: Copies of stories and poster.

Outside Resources: Paper, poster paper, pens, pencils, and colored markers or pencils; state and regional maps illustrating southeast New Mexico, western Texas, and Oklahoma; computers, books, and reference materials relating to the geography and environment of southeastern New Mexico.

BACKGROUND

Archaeologists can document people living in and using the territory now known as southeastern New Mexico for 12,000 years. What we know about the people who first came to this continent, and those who subsequently lived in and made use of southeastern New Mexico, is based on archaeological remains. Early sites occupied by people referred to by archaeologists as Paleoindians are distinguishable by artifacts such as Clovis and Folsom points. These spear points, fashioned of stone and attached to wooden shafts, were used for hunting large animals such as mammoths and an ancient ancestor of modern-day bison. The scientific process of inquiry continues to be the most informative way to learn about people and their lifeways up to the time of European contact. The archaeological process relies on the analysis of material culture as data. Since much of what makes us human and differentiates one group of people from the next goes beyond the preserved, tangible record of their existence, how do we gain an understanding of the intangible?

Many groups of people have lived in southeastern New Mexico over the millennia. Most were hunters and gatherers, but the Eastern Jornada Mogollon built large villages that were occupied year-round. Even they, however, supplemented their agricultural subsistence through hunting and gathering.

Several modern-day American Indian groups have a traditional relationship to this area, including the Comanche Tribe, Fort Sill Apache and Mescalero Apache Tribes, and the Kiowa Tribe. None of these groups actually occupy this area today, but some people still make trips to the area in order to gather the resources it has to offer and consider it part of their traditional territory.

In recent years, archaeologists have attempted to learn about people of the past not only from the artifacts, but from the people whose ancestors occupied the area. The coupling of data and stories adds a human dimension to the story of the past that has been written with the archaeological remains.

SETTING THE STAGE

Begin by providing students time to explore state and regional maps. They should locate the town that they live in and, if not in the same community, the town in which the school is located. The students should identify the geographic features, such as the closest rivers, valleys, and mountains. If environmental zones are indicated, students should identify the zone for their community. Once they have located their community on the map, they should look for Mescalero, New Mexico; Apache, Oklahoma; Carnegie, Oklahoma; and Lawton, Oklahoma—the current homes of the Mescalero Apache, Ft. Sill Apache, Kiowa, and Comanche peoples, respectively.

PROCEDURE

The initial research and activities may be conducted by individual students, student teams, or small groups. Begin by having all students read the essay, “What Archaeologists Say about Southeastern New Mexico.” Students should use the essay and the graphic information portrayed on the poster to identify and describe the region and its inhabitants. They should list and define new vocabulary; identify the environmental zone including geographic and environmental information; and describe how people used the area, from an archaeological perspective. To extend this activity beyond the information presented in the essay and on the poster, students may consult state and regional maps, use the Internet, or conduct library research. Categories of information should include names of the different groups of people, where they lived, their relationship to southeastern New Mexico, their use of the environment, and information on their lifeways.

After students have had a chance to explore the archaeological past, divide students into two groups. One group reads “The Comanche,” by Ava Doty, and the second group reads, “What the Mescalero Apache Say about the Carlsbad Area,” by Donna McFadden and Naida Natchez. From the data provided in the essays, supplemented by the information provided on the poster, students should list as much information as possible about the people, the environment, how they used the environment, and their lifeways.

Students should prepare illustrated posters or detailed outlines. One section will detail the archaeological interpretation, one the Comanche, and one the Mescalero Apache. On a second poster or outline, students should draw conclusions based on their information on the similarities and differences between the stories. Which provides the most detail? Which is the “most human”? What doesn’t fit? What blends?

CLOSURE

Just as some archaeologists see the benefit of including the indigenous voice in the interpretation of the past, so have many American Indian groups learned the benefit of “using” archaeology. Many groups are using the stories that archaeology can tell to help them reconnect to the past and to regain pieces of their history. Discuss the benefits that each group might gain by listening to the other. How does this process or other information learned from this activity impact your life?

EVALUATION

A rubric may be developed that evaluates research, level of detail, ability to relate stories, as well as the ability to work independently and in a group.

WHAT ARCHAEOLOGISTS SAY ABOUT SOUTHEASTERN NEW MEXICO

by *Carla R. VanWest, Ph.D.*
Statistical Research, Inc.

When humans arrived in what is now southeastern New Mexico some 12,000 years ago, the earth had taken on its present form. The Guadalupe and Sacramento Mountains extended northward far to the west. The western edge and **escarpment** of the Southern Plains—the *Llano Estacado*—stretched northward far to the east. Finally, the Pecos River, centered between these two **geological** features, captured the water of many east-flowing rivers and **wended** its way south to join the Rio Grande along the Coahuila and Texas borders. The cooler and wetter climate of 10,000 B.C. sustained a world covered in forested mountains; grassy plains with small stands of pine and spruce and many small, shallow lakes; and thickly vegetated river valleys.

The earliest people we know who lived in southeastern New Mexico were hunters of wild game and gatherers of native plants. We refer to them as **Paleoindians** because the word “paleo” means ancient. They enjoyed a very mobile lifestyle, one that was based on moving to many campsites over the course of the year to **acquire** different foods and other items that they needed to survive. The Paleoindians likely gathered many of the same kinds of seeds, nuts, roots, fruits, and greens, and trapped and speared many of the same species of mammals, birds, and fish that later people did. And although they probably owned dogs, they did not have horses to help them travel great distances and move quickly toward or away from their prey. However, the Paleoindians also hunted or **scavenged** very big game animals such as **mammoths** and giant bison that are extinct today. These large grazing animals depended on the rich grasses and more plentiful water sources of the **Pleistocene Epoch** (two million years ago to about 10,000 years ago). To kill and process these large mammals, Paleoindians skillfully isolated these huge and dangerous beasts and killed them with

stone-tipped spears, skinned and butchered them with large stone knives, and worked their hides with special stone scrapers. When we are lucky enough to find one of their ancient camps, it is usually the **distinctive** spear points and stone tools we recognize, sometimes together with the bones of ancient animals. Although Paleoindian families surely made temporary shelters; wove baskets and textiles; wore leather, fur, and plant fiber clothes; and fashioned tools from bone and wood as well as stone, we rarely find evidence of these ancient but **perishable** items. Almost always, only the **imperishable** stone tools remain.

Hunting and gathering peoples continued to use the mountains, river valleys, and plains of southeastern New Mexico for thousands of years. Although the big game animals went **extinct**, most of the smaller game animals and **virtually** all the plant species survived into recent times. So, from about 5500 B.C. until the A.D.

1870s, when the last hunting and gathering Indian populations were confined to reservations, hunter-gatherer peoples of southeastern New Mexico focused their attention on collecting plants and animals that are known to us today. For an archaeologist, what differentiates one group of hunter-gatherers from another is food preferences and the tools and **techniques** they use to make a living. Some groups chose to be **generalists**, pursuing a

Late Pleistocene Extinctions:

Archaeologists and biologists have concluded that many Late Pleistocene animals died out for one of two reasons, or a combination of both. First, global warming at the end of the Pleistocene caused the loss of food and habitat on which these large grazing animals depended. As a result, certain game species, like the mammoth, ancient bison (modern bison are a different species), and four-horned antelope, were not able to congregate as before, were restricted to only the most favorable grazing areas and water sources, and were fewer in overall number. Second, some scientists speculate that the Paleoindians were such effective hunters that the smaller, scattered herds were more vulnerable to hunting. Ultimately, the most vulnerable game could not reproduce fast enough to sustain their numbers and they died out as a species.

wide variety of plants and animals over a large region (the Archaic-period and Ceramic-period hunter-gatherers). Others narrowed their preferences to certain food resources located in a restricted **geographic range (Mescalero Apache)**. And yet others focused their efforts almost exclusively around the movements of the bison herds (**Comanche and Kiowa**).

Bow and Arrow: Sometime around A.D. 600, hunting and gathering groups in southeastern New Mexico adopted a new and more effective tool—the bow and arrow, which was being used in other places in the Southwest sometime between A.D. 300 and 500—and added it to their kits of hunting equipment. Unlike the larger points that were hafted onto thrusting or throwing spears or foreshafts of darts thrown on atlatls, arrows were tipped with smaller, triangular projectile points. With the bow and arrow, hunters had a tool that allowed them to propel their projectiles farther, faster, and more accurately than ever before, and allowed them to conceal themselves more effectively from their prey and enemies.

Over time, the introduction of new tools, materials, and resources had profound influences on hunter-gatherer **lifeways**. Among these important introductions were the bow-and-arrow, the availability of **cultivated plants and textiles** from **pueblo** neighbors, the horse, the gun, metal tools, and **domesticated** animals and food introduced by Spanish, Mexican, and **Euroamerican colonists**.

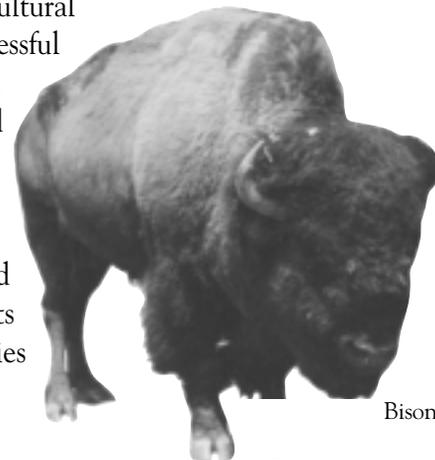
To one degree or another, all hunter-gatherer groups practiced a highly mobile way-of life. Over the course of one or two seasons, they moved to various camps within a large **territory** in **pursuit** of seasonally avail-

able food. The camps nearest the reliable rivers, lakes, and springs were the places where they stayed the longest. Along the Pecos River, they could find a dependable source of water, food, building material, and firewood. Cottonwood, willow, and mesquite lined the **drainages** and supported a wide variety of edible small mammals, waterfowl, fish, and shellfish. The mountains to the west were places where upland game animals such as deer, elk, and bighorn sheep were hunted and upland plant resources such as agave (mescal), pinyon nuts, and acorns could be collected. Bison and pronghorn antelope were hunted on the plains

west of the Pecos River valley. Certain species, such as cottontail and jackrabbit, lived in all three geographic zones and were trapped and hunted regularly by all the peoples who lived in southeastern New Mexico.

The first peoples in southeastern New Mexico who practiced a very different lifeway than that of the mobile hunter-gatherers were the **Eastern Jornada Mogollon**, who moved into the region sometime after A.D. 900. The Eastern Jornada Mogollon were farming peoples whose lifeway revolved around the **cultivation** of maize and other Southwestern crops. Although they, too, hunted and gathered wild foods, the emphasis on growing and storing food resulted in the creation of more permanent houses and villages near their fields; the production of pottery vessels for storing, cooking, and serving food; and a different sense of territory than that understood by hunter-gatherers. Eastern Jornada Mogollon sites are recognized by their particular pottery types, between A.D. 1100 and 1200 by their pit house residences, and between A.D. 1300 and 1450 by their adobe above-ground structures. Eastern Jornada Mogollon sites are found in all three geographic zones, but village sites tend to be found in the lowlands near farmable land where water was available during periods of time when summer precipitation was plentiful and dependable.

Archaeologists infer that in times with good weather—when wild foods were abundant and cultivated foods were plentiful—**nomadic** hunting and gathering peoples and **sedentary** agricultural peoples interacted often and relatively peacefully, trading products like buffalo hides and meat for corn and other agricultural products. In stressful times, however, when game and wild foods were scarce, sedentary farmers with stored food were easy targets for raiding parties



Bison

of nomadic hunters. Such was the dynamic relationship between nomads and villagers all over the West in the historic period, and it likely was similar in the prehistoric period as well.

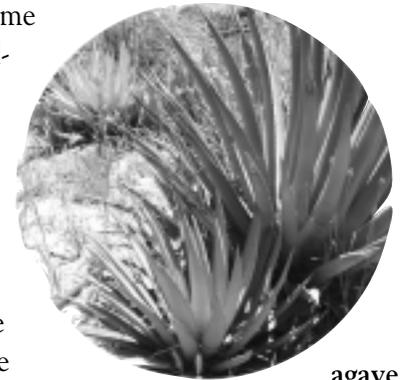
The Eastern Jornada Mogollon peoples appear to have abandoned their territory in southeastern New Mexico sometime in the early 1400s. A number of significant droughts in the early 1400s, in combination with heavy raiding by hunter-gatherers, likely played a role in their decision to leave the area. Thus for perhaps 500 years (ca. A.D. 950–1450) two **coexisting** and contrasting systems of living were present in southeastern New Mexico. One system was ancient, and it represented the lifeway of the nomadic hunters and gatherers who moved periodically to different geographic zones to collect food and supplies. The other system was newer, and it represented the lifeway of those who cultivated crops for part of the year. Not until the mid-1800s did full-time agriculture become a way of life for the few ranching families who settled near military forts, and even then it was a high-risk **endeavor** until Indian raiding was finally suppressed by the American military in the 1870s.

Just when the **Athabaskan**-speaking hunter-gatherers—the Apache—first entered southeastern New Mexico is uncertain, but material evidence suggests that they entered northern New Mexico from a northern homeland sometime after A.D. 1425. The presence of the Apache and other “dog nomads” (people who used dog-pulled travois to carry gear and supplies) who depended on bison hunting were recorded by Spanish **chroniclers** after the Spaniards’ arrival in the northern frontier of New Spain in 1541. Certainly by 1630, raids by groups presumed to be Apache were recorded in various places in southern New Mexico, and by then they had acquired metal tools, guns, and horses through trade with and raids on Spanish and Pueblo settlements. As the Apache acquired more horses in the 1600s, their mobility and their effectiveness as raiders increased. During periods of extreme **subsistence** stress, such as the severe **drought** of 1666–1674, Apache raiding on pueblo

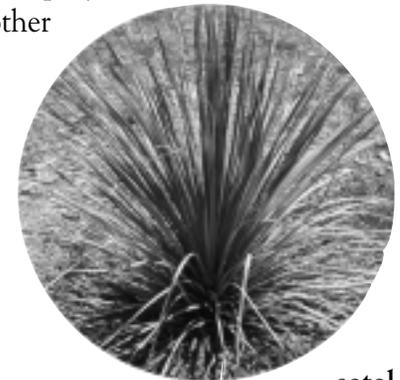
villages in southern and eastern New Mexico caused many to be permanently **abandoned**.

The various Apache bands who occupied southeastern New Mexico not only hunted bison and other game animals, they spent considerable time in the uplands gathering and processing **mescal**, **datil**, and **sotol**, which they cooked in rock-lined earth ovens. Such processing helped preserve these high-calorie foods and made them more **palatable**. They also gathered **pinon nuts** and **acorns**, and other upland plants. Because of this plant-processing focus, they became known as Mescalero Apaches (Apaches who depended on the mescal agave), the **moniker** by which they are known today.

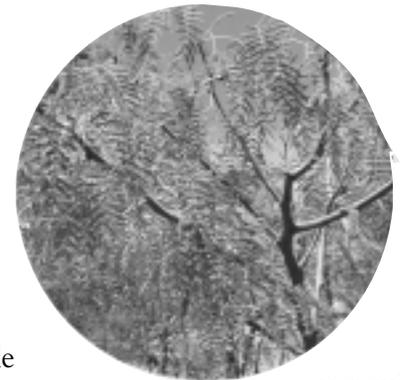
The **Numic** or **Shoshonean**-speaking Comanche arrived in southeastern New Mexico sometime in the 1700s, after the Apache had made their home in the region. As armed and mounted nomads, the Comanche were formidable hunters and raiders who competed with the Apache for territory and resources. Unlike the Mescalero Apache, they stayed primarily on the plains and emphasized the hunting aspect of their culture. In the 1800s, however, the dual presence of the Apache and Comanche kept permanent and enduring **occupation** by other potential settlers in southeastern New Mexico impractical.



agave



sotol



mesquite

Cattle Drives: The existence of mining camps and countless hungry miners in Colorado provided incentives for cattlemen to drive cattle up the Pecos River from southwest Texas and eastern New Mexico. In 1867, John Chisum began using the cattle trail forged by Texans Oliver Loving and Charles Goodnight the year before, firmly establishing the tradition of cattle drives along the western margins of the Llano Estacado.

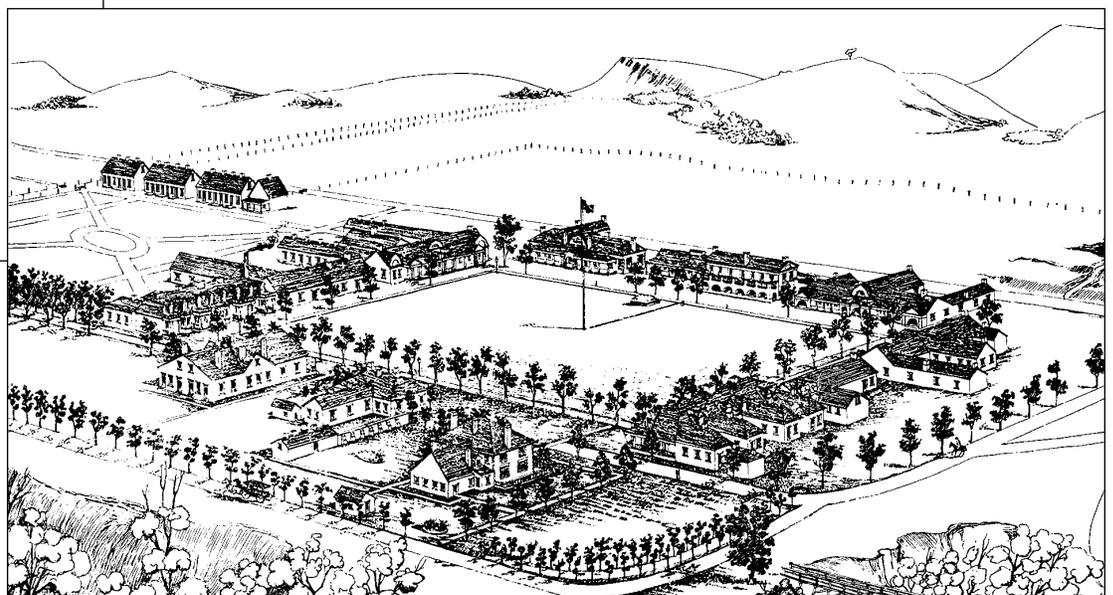
Early Homesteads: The Homestead Act of 1862 provided the initial incentive for Euroamerican settlers to move to the newly acquired Western territories, but the Desert Land Act of 1877, which increased the allotment size from 160 to 640 acres, made it possible to establish viable ranches on the open range and river valleys of southeastern New Mexico.

Railroads: The Texas and Pacific Railroad arrived in Carlsbad (Eddy) in 1890 and effectively linked that small town with the markets in Texas, the Midwest, and the eastern United States. The railroads reduced the cost to local buyers of food and goods, provided a cost-effective method of transporting agricultural and mining products to new markets, and encouraged settlement and tourism.

Only after the **American Civil War** (A.D. 1861–1865), when soldiers were assigned to Western military forts such as Fort Stanton on the Rio Hondo drainage, was it possible to overcome Indian **resistance** in southeastern New Mexico and open the way for different kinds of settlement and land use. Among these were cattle drives and cattle ranching; homesteading; **irrigation agriculture** and the construction of dams, reservoirs, and extensive canal systems; mining; establishment of towns and community services; the coming of the railroads; creation of national parks, forests, and public lands; oil and gas exploration; and more recently, tourism and recreation.

In short, the history of human land use in southeastern New Mexico is primarily a history of nomadic hunter-gatherers subsisting on and moving to take advantage of the seasonal availability of important plants and animals. For more than 10,000 years, local groups were hunters and gatherers living on wild foods available in the mountains, plains, and river valleys of the region. Agricultural groups, few in number, and positioned in only the most favorable places during the most favorable times, ventured into the region periodically during a 500-year interval late in prehistory. Intergroup cooperation or competition varied considerably among the various groups who coexisted at any one point in time. In times of resource abundance and free movement, intergroup relations were cordial and mutually beneficial. During times of climatic or economic stress, intergroup relations often soured and were hostile. The greatest changes to the region occurred after this portion of North America became part of the United States. Today, lands in southeastern New Mexico are used for a wide variety of personal, public, and commercial purposes, representing the interests of farmers, ranchers, merchants, developers, government workers, and managers of public lands. Although diverse in their goals and interests, all the peoples of southeastern New Mexico, past and present, are bound together through their common interest in extracting a living from the place they choose to call home.

Fort Stanton
in the late 1800s



THE COMANCHES

by Ava Doty
Comanche Tribe

The Comanches called themselves **Neum** or **Numanuu**, meaning “the people.” The origin of the name Comanche is not definitively known. Early records refer to all “bands” that make up the tribe as Comanches, thus the name remains.

The Comanche moved away from their parent tribe, the Shoshone, in the seventeenth century. The Shoshonean homeland is in the Rocky Mountain region. Their linguistic stock, **Numu taquoip**, is Uto-Aztecan.

Later when the Comanche established themselves on the plains, they divided themselves into seven major tribal bands. As the population grew, many new bands were formed from the major bands; hence the Comanche grew in strength, number, gallantry and valor. The Comancheria boundary lines were defined, unifying the several bands in one large tribal body.

The Comanches were nomadic and non-agricultural. They moved frequently from one place to another, sometimes because of a death in the camp, raids or warfare, or an outbreak of disease, and sometimes because the campsite was used or exhausted. Their existence depended on hunting, fishing, food gathering and food preservation, mainly **tao** (jerked meat).

They had two types of shelter, a tipi and a brush arbor. The tipi was made from about 10 to 12 buffalo hides sewn together in a half-circle, with two flaps at the top. The hide covering was wound around 20 to 24 tipi poles, pulled together tightly in front, and pinned with wooden pegs. A pole was placed in a pocket in each top flap to enable the occupants to open and close the smokehole and to draw in fresh air or keep out wind and rain or snow. All tipi openings faced the rising sun. The tipi was cool in summer and warm in winter. The summer

shelter was a brush arbor made of a framework of poles set in an oval and bent toward the middle where opposite poles were tied together to form a roof. A covering of willow limbs and brush called a “**hukeah**” was woven around the pole structure.

Comanche men wore hip-length leggings, soft-soled moccasins, a breechcloth, t-shaped shirts, buffalo and deer skin robes and fur caps, a head-dress, and on special occasions a warbonnet with streamers of 80 to 100 eagle tail feathers.

The women wore a t-shaped dress with a **peese quinah** (apron), knee-length fringed leggings, moccasins, a belt, and skin robes. Both men and women decorated their formal clothes with twisted fringe, silver ornaments, shells, feathers, porcupine quill embroidery, bone, elk teeth, etc.

The babies were carried in a cradle made from a stiff, tanned animal hide and shaped to hold an infant. The cradle was fastened to a cradleboard. The sides of the cradle were brought together in front and laced with a rawhide thong to hold the infant securely. The board allowed the cradle to be stood upright, out of the way of activity, in a secure place. In addition, the mother carried the cradled infant on her back when she worked, and on horseback when the tribe traveled. Children’s clothing was patterned after their parents’ clothing.

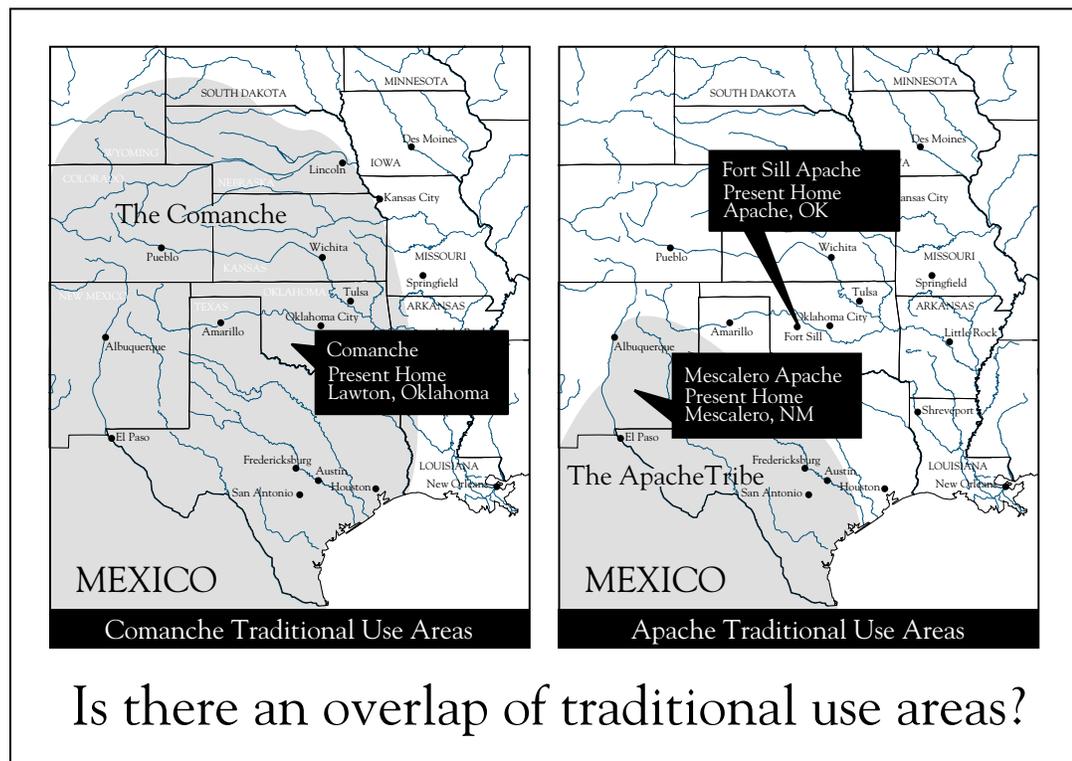
With the acquisition of the horse after 1540, the whole life and economy of the Comanches quickly changed. The Comanches could now travel a great distance at a good speed. The lush plains were the perfect setting for raising, breeding, and training horses. With the horse, the Comanches were better equipped to protect their homelands from enemies. Thus came a need to be prepared and always ready for war. Out of this need, the Comanches established military training camps throughout Comanche land. One military camp

was located on Lake Jao-yo, near Horsehead Crossing on the Pecos River. These camps trained all boys and young men who met warrior requirements. In the Pecos River area, pictographs tell the story of the death of one very important commander-in-chief. Thousands of Comanche rock-pictures are found throughout Comanche land, on cave walls, canyon bluffs, and in mountain areas. Some pictographs show triangular bodies as well as rectangular bodies. Early Comanche history is preserved in pictographs.

Scientific studies have shown that the Llano Estacado was once a region of lush grasses, diverse vegetation, rivers, lakes, streams, creeks, large herds of animals, and a wide variety of wildlife. Also found are Folsom artifacts and human bone fragments. All this prehistoric life existed many, many years ago. From in-depth studies of Comanche history, lore, legends, pictographs, and scientific findings, the Llano Estacado is known to be the ancestral land of the Comanches.

The Comanches respected, preserved, and conserved the natural resources. It is said, when the white man's government planned to change the Comanches lifestyle to a "civilized" one, the Comanches responded: **"The earth is our mother. Do you give us an iron plow to wound our mother's breast? Shall we take a scythe and cut our mother's hair?"** As time moved on, more and more people came looking for homes and changes in life-ways were made. The nomadic life of the horse-tipi-buffalo culture was ending. The Comanches fought a last battle and signed a treaty that gave away their land. The land was sold to white settlers, and each Comanche received 160 acres of land in what is now southwestern Oklahoma.

Today, the Comanches still preserve their culture in songs, history, legends, dance, language, and societies. The Comanches have endured conflicts with great numbers of hostile forces, diseases, poverty, loss in all areas of life, and deprivation. Yet, today the Numanuu remain strong, proud, and are a generous, caring people.



WHAT THE MESCALERO APACHE SAY ABOUT THE CARLSBAD AREA

by Donna McFadden and Naida Natchez
Mescalero Apache Tribe

As far back as ancient times the Mescalero Apache Tribe lived in a vast area that stretched from central Texas to Arizona and parts of Mexico. Divided into three sub-tribes, the Mescalero, Chiricahua, and Lipan, Apaches learned to live off the land as hunters of wild game and gatherers of wild plant foods. With their great knowledge of nature, the Apaches took advantage of whatever the land had to offer whether it be desert, plains, or mountains. Since they depended on natural foods, they had to move with the game, and with the seasons to assure themselves of an ample food supply. Because of this they did not believe that one could own the land. They were nomadic and moved to where game and other resources were available. In the Guadalupe and Sacramento Mountains the men hunted deer and elk, from which the women made clothing and moccasins. On the plains east of the Pecos River the men hunted buffalo, and the women used the hides of these animals to make tepees. Even in the harsh desert areas in and around the Guadalupe and Hueco Mountains, food was there if one knew where to look. Here, wild plant foods like yucca, sotol, prickly pear, and pinyon were gathered and prepared by the women. Most important of these plant foods was the agave, or century plant, from which mescal was made. It was gathered in desert country just west of Carlsbad. It is through this food that the Mescalero Apaches have come to be identified.

Mescalero Apache land use included more than just hunting and gathering. They camped near a source of fresh water, where firewood could be found for warmth and cooking. Hueco Tanks, for example, was an ideal camping spot. Surrounded by the desert, Hueco Tanks was an oasis for the people. It contained everything they needed to live. The small canyons contained pools of fresh water and offered shelter from the elements. The Sacramento Mountains offered cool

refuge during the hot summers, and the many canyons served as trails and sources of water. It was also in these mountains that the Mescalero Apaches acquired the timber for their tepee poles and arbors. In the nearby Guadalupe Mountains, certain plants were gathered and used as medicines for illness, injury, and ceremonies.

The Mescalero Apaches understood the value of their environment. They would not stay in these locations for too long. They knew that if they did they would use up their resources and there would be nothing left for the next time or for the next group. Because they relied so much on nature's offerings, they respected her gifts of food and bounty and did not abuse them. Since their use of the land was not based on ownership, their Chiricahua and Lipan relatives camped and moved freely in southern New Mexico and western Texas.

The traditional lifestyle of the Mescalero Apache began to change during the 1800s, as the result of frontier settlement and mining by Mexico and the United States. As more and more settlers moved into the area, traditional food getting patterns and seasonal rounds were disrupted. As resources became scarce, conflicts occurred between the Mescaleros and the settlers.

After the Civil War, the Mescalero Apaches lost most of their ancestral lands in Texas and New Mexico as they were forced onto a reservation in the Sacramento Mountains of New Mexico. This is where the Mescalero, Chiricahua, and Lipan still live. Even though their culture has experienced many changes they still maintain their traditions, including the use of tipis, traditional clothing, hunting, and plant gathering.

They also maintain their traditional ceremonies that teach their young people who they are and from whence they came.

NEW MEXICO SCIENCE CONTENT STANDARDS, BENCHMARKS, AND PERFORMANCE STANDARDS (GRADES 5–8)

SOCIAL STUDIES

Strand: History

Content Standard I: Students are able to identify important people and events in order to analyze significant patterns, relationships, themes, ideas, beliefs, and turning points in New Mexico, United States, and world history in order to understand the complexity of the human experience.

Benchmarks

- I-A New Mexico: Explore and explain how people and events have influenced the development of New Mexico up to the present day.
- I-D Skills: Research historical events and people from a variety of perspectives.

Strand: Geography

Content Standard II: Students understand how physical, natural, and cultural processes influence where people live, the ways in which people live, and how societies interact with one another and their environments.

Benchmark

- II-A Analyze and evaluate the characteristics and purposes of geographic tools, knowledge, skills and perspectives and apply them to explain the past, present, and future in terms of patterns, events, and issues.
- II-B Explain the physical and human characteristics of places and use this knowledge to define regions, their relationships with other regions, and their patterns of change.
- II-C Understand how human behavior impacts man-made and natural environments, recognizes past and present results, and predicts potential changes.
- II-D Explain how physical processes shape the Earth's surface patterns and biosystems.
- II-E Understand how economic, political, cultural, and social processes interact to shape patterns of human populations, and their interdependence, cooperation, and conflict.

- II-F Understand the effects of interactions between human and natural systems in terms of changes in meaning, use, distribution, and relative importance of resources.

Strand: Civics and Government

Content Standard III: Students understand the ideals, rights, and responsibilities of citizenship and understand the content and history of the founding documents of the United States with particular emphasis on the United States and New Mexico constitutions and how governments function at local, state, tribal, and national levels.

Benchmark

- III-B Explain the significance of symbols, icons, songs, traditions, and leaders of New Mexico and the United States that exemplify ideals and provide continuity and a sense of unity. (limited)

Strand: Economics

Content Standard IV: Students understand basic economic principles and use economic reasoning skills to analyze the impact of economic systems (including the market economy) on individuals, families, businesses, communities, and governments

Benchmark

- IV-C Describe the patterns of trade and exchange in early societies and civilizations and explore the extent of their continuation in today's world.

SCIENCE

Strand II: Content of Science

Content Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.

Benchmark

- I Explain the diverse structures and functions of living things and the complex relationships between living things and their environments.

LANGUAGE ARTS

Strand: Reading and Listening for Comprehension

Content Standard I: Students will apply strategies and skills to comprehend information that is read, heard, and viewed.

Benchmark

- I-A Listen to, read, react to, and interpret information
- I-B Gather and use information for research and other purposes
- I-C Apply critical thinking skills to analyze information
- I-D Demonstrate competence in the skills and strategies of the reading process

Strand: Writing and Speaking for Expression

Content Standard II: Students will communicate effectively through speaking and writing.

Benchmark

- II-A Use speaking as an interpersonal communication tool
- II-B Apply grammatical and language conventions to communicate
- II-C Demonstrate competence in the skills and strategies of the writing process

Strand: Literature and Media

Content Standard III: Students will use literature and media to develop an understanding of people, societies, and the self.

Benchmark

- III-A Use language, literature, and media to understand various social and cultural perspectives