

HISTORY OF NEW MEXICO AGRICULTURE

-Conquistador

-Vaquero

-Cowboy

-Plains Indians

THUNDERING HOOVES: Five Centuries of Horse Power in the American West

TEACHER PACKET

Produced by the Witte Museum, Department of Education; Edited by Luis Torres15

THE WITTE MUSEUM THUNDERING HOOVES

SAN ANTONIO

COMANCHES COWBOYS VAQUEROS CONQUISTADORES

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BACKGROUND INFORMATION

THE CONQUISTADORES:

Building a New Spain in the Americas

"Horses are the most necessary things in the new country because they frighten the enemy most, and, after God, to them belongs the victory."

Pedro de Castañeda de Nájera

Relacion du voyage de Cibola enterpris en 1540

The centuries-long war of liberation against the Moors had left Spain with a large surplus of out-of-work soldiers and a drained treasury. Many of these Spanish fighting men, led by cavalry officers, came to the Americas in the 1500s and 1600s to claim new lands for the Spanish monarchs, and to obtain wealth and personal glory in the process. With them, the Spanish Conquistadores brought the horse. The animal was instrumental in the conquest of Mexico and Peru.

The Return of the Horse

Horses had been extinct in the Americas for 10,000 years. In 1493, on his second voyage from Spain to the Americas, Christopher Columbus brought 35 horses to the Caribbean island of Hispaniola: 15 stallions and 20 mares. Along with horses came other Spanish livestock. By 1500, Spanish ranches on the island bred both cattle and horses. The early island ranches provided horses for expeditions of conquest that would forever change the New World.

Horses from Spain

In the 1400s and 1500s there were no horse breeds as they exist today. There were horse "types." The most common type of horse in Spain was known as the jennet. The Spanish jennet was a combination of bloodlines: the North African barb (i.e., from the Barbary Coast) brought in by the Moors, and local Spanish horses, which had a reputation as some of the finest in Europe and the Mediterranean region. The Spanish jennet was the type of horse brought to the Caribbean, and later to Mexico and New Spain, the region that is today the U.S. Southwest.

Transport from Spain

Spanish horses destined for the Americas were loaded onto ships and suspended from slings with their feet just touching the deck during transport. Hooves were wrapped with canvas or cloth to keep them in working condition and to prevent lameness. To survive the voyage, the horses had to be walked around the ship at least several times weekly. Many animals died during the two- to three-month sea journey, and many ships arrived with half as many horses as were loaded in Spain.

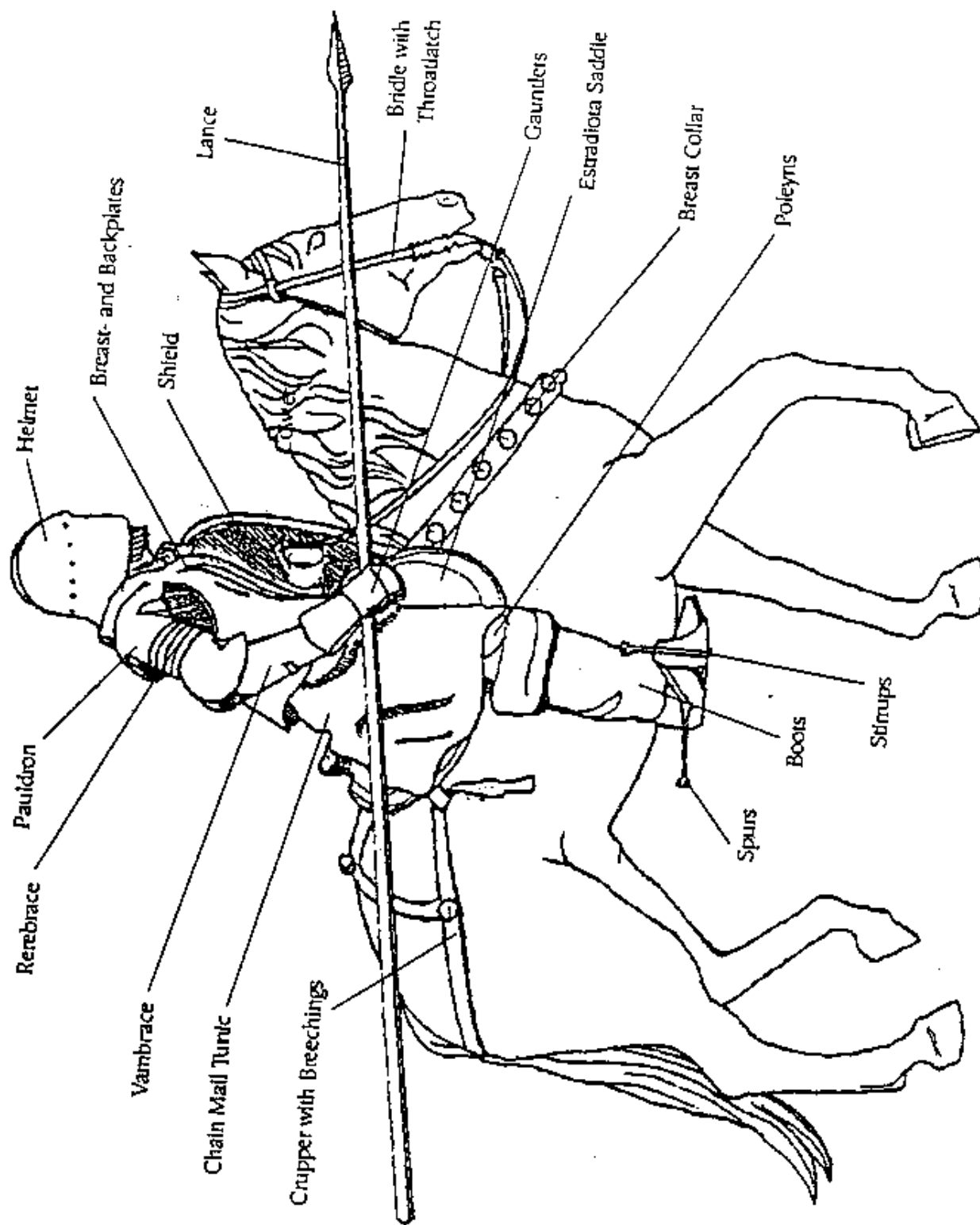
The Arrival

On arrival in the Caribbean, permanent loading docks did not always exist where the horses had to be brought ashore. The most effective method of unloading was to jump the animals over the side of the ship and swim them ashore. Cortés probably used a similar method to land the first horses on the Mexican mainland. Horses were also lowered into small boats and ferried to shore. Loading and



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CONQUISTADOR



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unloading from docks could be accomplished with slings and pulleys, or across a gangplank connecting the ship to the wharf.

Encounter on the Mainland: Cortés and the First Seventeen

Don Hernán Cortés, rancher, attorney, and mayor of the town of Santiago, Cuba, brought the first horses to Mexico. On Good Friday of 1519, the Cortés expedition landed on the shores of Mexico with 508 men-at-arms and 16 horses. A seventeenth horse, a foal, was born aboard ship.

Cortés marched inland to attack the Tlascaltecan Indians, whom he quickly subdued and then made his allies against the Aztecs. More than 20,000 Tlascaltecan joined Cortés and his troops in their march on Tenochtitlán, the Aztec capital. Cortés and his men were the first Europeans to see Tenochtitlán, one of the great cities of the world in the 1500s. The horses brought by the expedition were the first seen by the native peoples of Mexico.

War Against the Aztecs

Aztec armies traditionally fought battles in large open areas such as maize fields, with troops arranged so that individual warriors were spread apart from each other. The Spanish horsemen were especially effective against foot soldiers in such open formations. The initial result was a string of great successes in battle for the Spaniards.

As effective as horses and guns were initially against them, the Aztecs soon learned tactics to counter those of the Spanish. In the end, it was smallpox--and the huge numbers of casualties it caused--that crippled the Aztec empire and its armies. By August 13, 1521, the Aztecs had been conquered.

OUTFITTING HORSE AND RIDER: The Conquistador

European Horse Armor

To protect it from arrows and sword blows, a horse's head was covered by a steel faceplate called a *chanfron*, and its neck was protected by a *crinet*. Blacking made from pitch kept the steel from rusting in humid climates and protected it from the salty sweat of the horse. The chanfron and crinet were forged to resemble that mythical creature, the dragon.

Spurs: The Sign of the Horseman

Espuelas, or spurs were worn to extend the heel of the *caballero*, the Spanish horseman. The end of the spur was pushed against the horse's side to cue the animal to move its rear to the left or right, or to move backward. The large spurs may appear cruel, but highly-trained Spanish horses moved at the slightest touch of the spur. Horses were too valuable to be injured or caused pain. The size and ornate designs of the spurs indicated the high status of the horseman.

The Saddle: Seat of the Horseman

The saddle or *silla*, served as the workbench from which the Spanish horseman tended his cattle and the throne from which he surveyed his holdings. The saddle increased the rider's ability to balance himself on horseback at a full run or in mortal combat.

For the horse, the saddle lifted the weight of the rider from the animal's spine and the bundle of nerves it contains. The bars of the saddle tree spread the weight across the horse's back, making it easier for the animal to carry the rider.

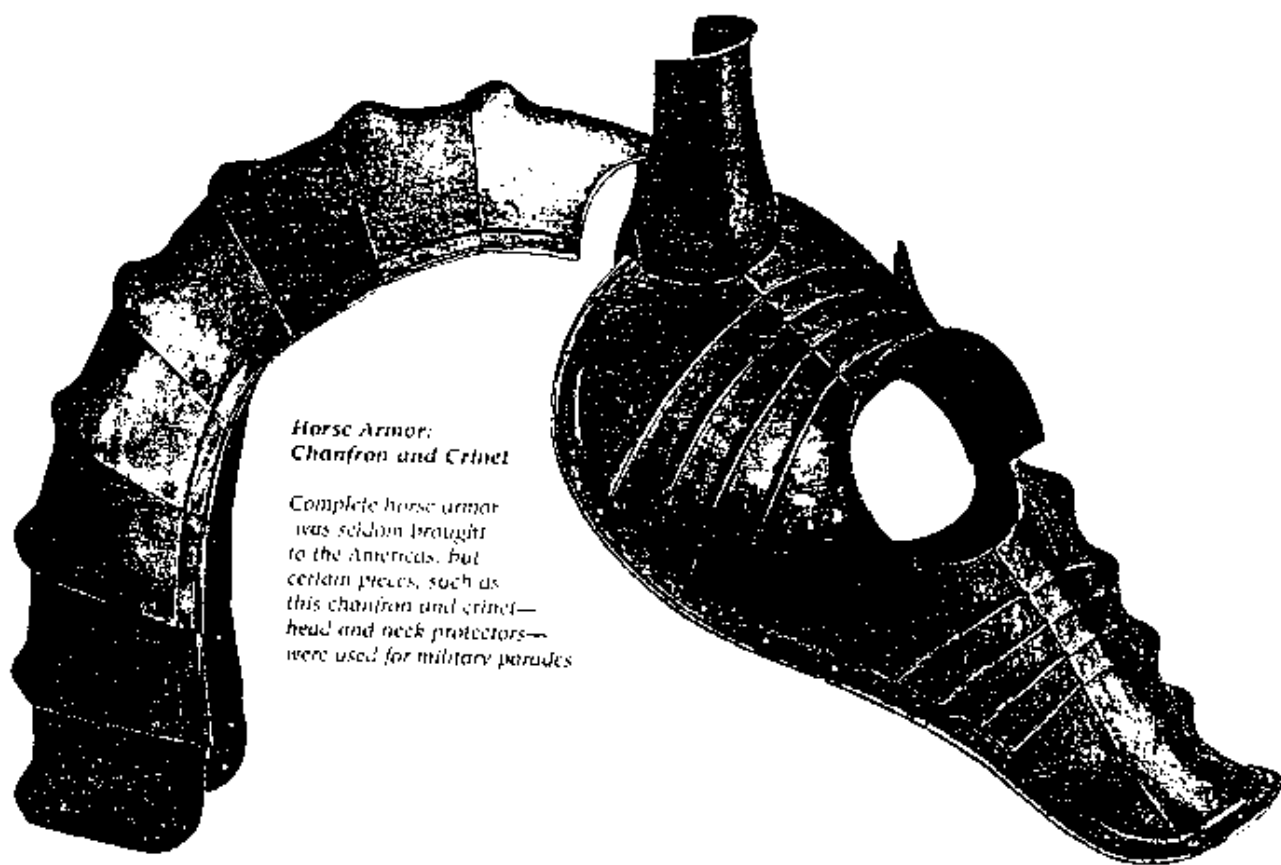
The Three Riding Styles of Spain

Three main styles of riding were practiced in Spain in the late 1400s and through the 1500s. All three styles, *a la brida*, *a la jineta*, and *a la estradiota*, were brought to the Americas by Conquistadores such as Cortés and others.

A la Brida: European knights of the Middle Ages, wearing full suits of armor, rode in the brida style with legs held stiff and extended forward. The brida saddle was heavy and armored with steel plates for protection in combat. The rider sat toward the back against the cantle, or rear arch, to help him absorb the impact of an enemy lance. The lance held under the arm was the brida horseman's primary weapon.

A la Jineta: Brought to Spain by North African Berbers in the mid-1300s, the jineta saddle was lighter than the armored brida saddle. The rider's legs were bent, which allowed him to stand in the stirrups in order to throw the javelin overhand, or to wield the scimitar, a Moorish curved sword. Jineta-style riding is still practiced in the Middle East.

A la Estradiota: The estradiota style, made popular in Naples in the late 1400s, was somewhat of a blend of the brida and jineta styles. The rider gripped the horse with the lower leg. Weapons of the estradiota horseman varied and included the sword, firearms such as matchlock guns, and crossbows, all used on horseback.



*Horse Armor:
Chanfron and Crinet*

*Complete horse armor
was seldom brought
to the Americas, but
certain pieces, such as
this chanfron and crinet—
head and neck protectors—
were used for military parades*

THE VAQUERO:

Following the Tradition

Bringing with them their families and the traditions of Spanish ranching, vaqueros began the work of herding livestock--the cattle, sheep, goats, pigs, and horses brought to the Americas by the Spaniards--on the grasslands of North America in the 1500s. On large ranches or *haciendas*, cattle raising became the center of the American ranching economy. By the mid-1600s, such ranches stretched from Mexico City to present-day New Mexico. Riding Spanish horses, the vaqueros preserved the riding traditions brought from Spain and North Africa. Able to traverse the great expanses of North America, the horse was the primary tool for managing the herds of longhorn cattle that soon roamed the plains.

Ranching Society

On the remote frontier areas, far from manufacturing centers and other sources of trade goods, the enormous ranches of the Spanish Colonial era were often self-sustaining enterprises. At the *hacienda*, leather was tanned, and saddles, bridles, and other leather goods were made. Artisans such as blacksmiths, furniture makers, weavers, and potters made many of the needed household items on the ranch outposts. Villages of families were established to house the personnel required to operate each *hacienda*.

Controlling Cattle from Horseback

Cattle had always been worked from horseback in Spain. A man on horseback was relatively safe, whereas a man on foot could be maimed or killed by an unruly bull or a protective mother cow. The basic tool brought from Spain to work cattle was the lance, or goad. When ropes were used they were hung from the end of poles.

Roping was invented on the ranches of New Spain. The rope was coiled and had a sliding loop at the end, which was tossed or thrown by the mounted rider to catch the head or feet of an animal. Not only cattle, but bears, wolves, turkeys, and other animals were roped by the sporting vaquero. Trick and fancy roping were eventually developed as a pastime designed to demonstrate the roper's skills. From sometime around 1700, when the method was invented, to the present, roping has been the primary method used to catch cattle throughout the United States and Mexico.

Branding: Marking the Stock

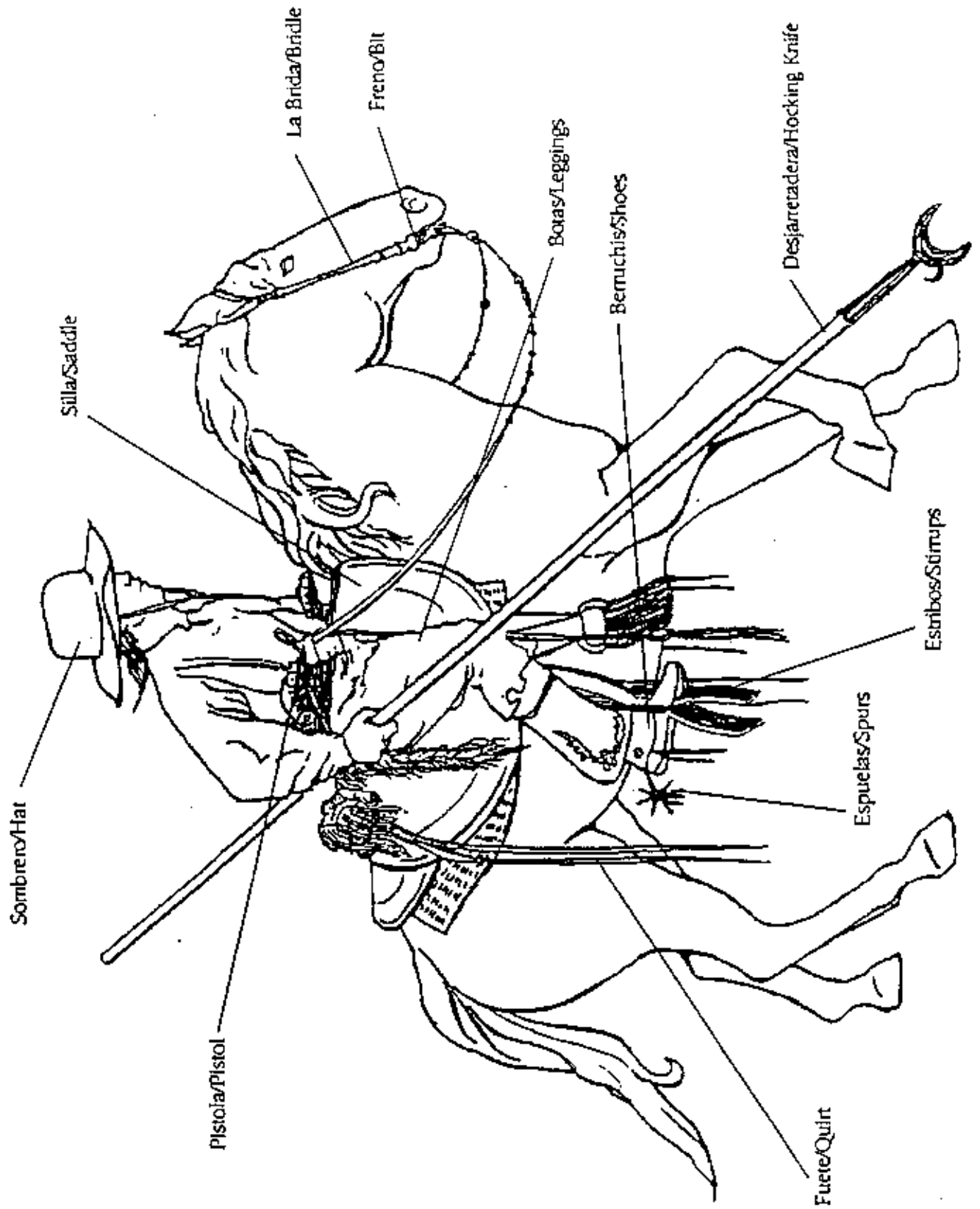
The practice of marking cattle, horses, and other livestock with a hot iron was a practice brought from Spain. Branding was used as an ownership mark in Mexico as early as 1528. Because of widespread cattle theft, the Spanish government passed ordinances in 1537 specifying not only who could own branding irons, but also regulating their manufacture and use.





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VAQUERO



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Charro y Charra

On the large haciendas men, women, and children participated in horseback activities during social gatherings and at the *charreada*, Mexico's prototype of the cowboy's rodeo. The male rider or *charro*, carried the skills and traditions of the *vaquero* into this formal *charreada* competition. On special occasions the *charro* wore his best riding clothes, and rode with the finest saddlery and tack.

The *charra* represented the female ranching elite, the counterpart of the *charro*. *Charras* usually rode sidesaddle, but most could also ride astride the horse. Many children, both boys and girls, participated in horsemanship activities from the earliest ages, equipped with child-sized clothing and riding gear.

OUTFITTING HORSE AND RIDER: The Vaquero

The Spanish Saddle in North America

Sometime between 1650 and 1750, the saddle types brought over from Spain underwent a transformation. The jineta-style saddle of the Moors was given added strength and weight. To the front pommel a ball-shaped horn was added. The tree, the wooden skeleton of any saddle, was strengthened, especially in the front end. These changes were designed to accommodate the new way to work cattle that evolved in the Spanish frontier areas, based on throwing the rope or lariat.

Training the Vaquero's Horse

El Freno/The Bit: The bit and the bridle that holds it are tools for communication between the *vaquero* and his mount. Combined with cues from the rider's feet and lower body, the bit is used to direct the movements of the well-trained horse. From the arrival of the Conquistadores with Cortés to the present, bits have changed little in design and use. Spanish-style bits were used by *vaqueros*, cowboys, and Comanche.

El Bozal/The Noseband: Hand-braided rawhide nosebands, called *bozales*, were the basic horse-training device brought from Spain. The braided horsehair rope used for reins on the bozal is called a *mecate*. The bozal is the first step in a seven-year-long training process still used in Mexico and on a few California horse ranches.

Ranching and Riding Gear, Vaquero Style

El Sombrero/The Hat: The climate in the American southwest is dominated by the sun. Called *sombreros* in Spanish, wide-brimmed hats were worn from as early as the 1600s to protect *vaqueros* from the sun's blistering effects.

Riding Coats: Coats were worn by riders throughout all the seasons. They protected the horseman from the thorns of brush, the spines of cactus, and the blowing dust. In the winter, the coat provided some comfort against the cold prairie winds. Smoked leather or waxed canvas provided a water-resistant material for rainy days and nights in the saddle tending livestock.

Shoes of the Horseman: Many horsemen during the period of the Conquest wore shoes instead of boots. By the 1800s, shoes were the preferred footwear of *vaqueros*. Moccasin-like shoes called *berruchis* were worn by *vaqueros* from the Rio Grande to California. Apache and Pueblo Indians wore similar shoes. From the late 1800s to the present the Mexican *charro* has worn low-topped shoes called *botinas*.

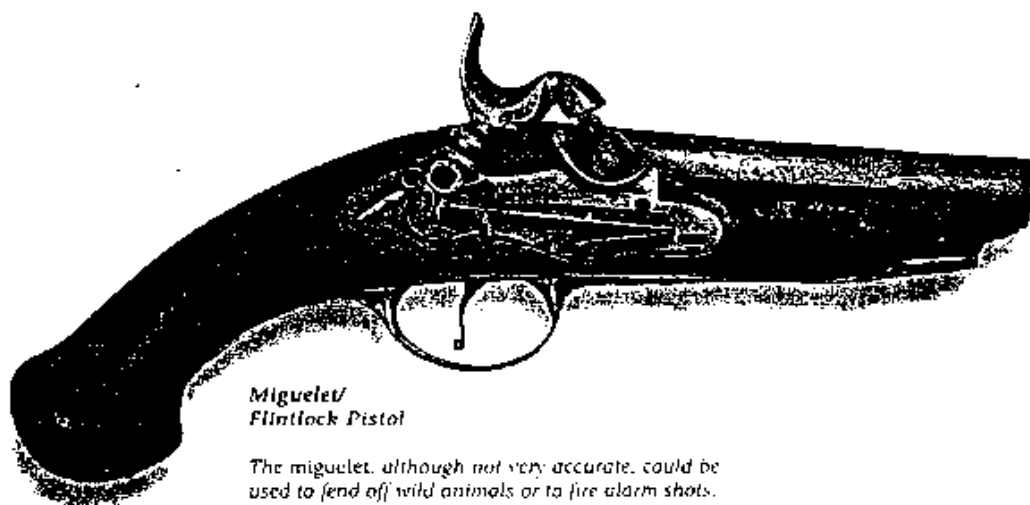
Las Espuelas/The Spurs: By the late 1600s the prick spur had gone out of use in New Spain, and the spur with the spinning rowel was used exclusively. Made in central Mexico, the finest spurs were covered with incised decoration and silverwork.

Tools of Work and Defense

A flintlock pistol or musket might be used to dispatch a suffering animal or to fight raiding Apache warriors. Knives and small swords were used for a number of purposes from cutting ropes to performing minor surgery. Weapons used on horseback were generally smaller than those used on foot in order to make them easier to carry.

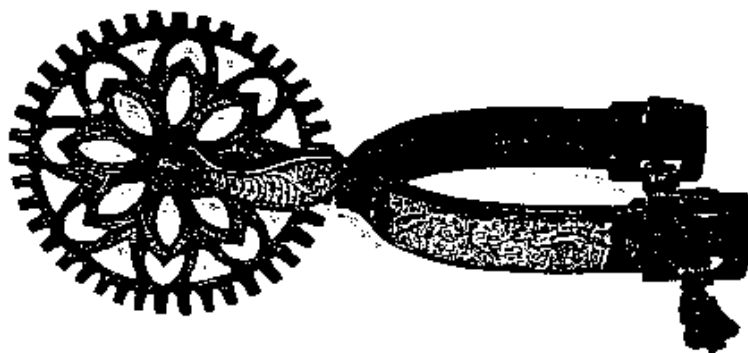
Espada Ancha/Short Sword

Short swords, part of the armament of soldiers who manned the Spanish frontier outposts or presidios, were later adapted for the vaquero's use.



**Miguelet/
Flintlock Pistol**

The miguelet, although not very accurate, could be used to fend off wild animals or to fire alarm shots.



Spur with Clock-gear Rowel

Spurs remained the hallmark of the horseman. This spur from central Mexico has a rowel that resembles a clock gear.



THE COWBOY:

From Vaquero to Cowboy

Before the fall of the Alamo in 1836 and up to the subsequent defeat of General Santa Anna and the establishment of the Republic in Texas, Texas and the frontier of northern Mexico were sparsely populated, and immigration into the region was strictly controlled by the Mexican government. The opening of Texas to settlement during the era of the Republic brought in thousands of immigrants from Europe and other places. The primary attraction was the free land handed out to settlers by the government of Texas. The main enterprise of the immigrants was ranching on the grasslands the Spanish had previously found so well-adapted to that endeavor.

The end of the Civil War marked the beginning of boom times for the American cowboy. The boom era of the cattle industry, however, lasted less than 20 years. The great years of the cowboy ended within a decade after the Comanche buffalo days ended.

The Company Operation

Before the Civil War, ranches in the Southwest operated the same way Spanish ranches had been run for centuries. Herdsmen, or cowboys, lived with their families on a spread owned and operated by one man or one family.

After the Civil War, and particularly in North Texas and New Mexico, company-style ranches went into operation. The ranches were enormous, often hundreds of thousands of acres in size. The owner or owners lived on the East coast, in England, or in Europe. These ranching businesses were operated by foremen who were sometimes partners familiar with ranching. Many of the largest and most famous ranches of Texas and the Southwest started out as foreign-owned enterprises.

Branding and Cutting

Continuing the Spanish ranching practices of the vaquero, the cowboy marked both cattle and horses with red-hot branding irons. The brands used the initials of the owner, a name, or a symbol connected with a particular ranch, and were registered so stray or stolen cattle could be identified.

Cattle were also marked using earmarks. Earmarks were made by cutting slits or triangle-shaped cuts on the front edge of the animal's ear. The order or type of cut combined with branding gave the cattle owner a method of not only identifying his cattle, but also of telling the age of a particular animal.

The Farrier: Keeping the Horse's Feet in Shape

The farrier was an important member of any Western community or ranch in an age when horses were the basic means of transportation. A cowboy on a ranch could usually shoe a horse with a hammer, some hoof nails, and a file or hoof rasp, and most blacksmiths knew basic horseshoeing. A farrier, however, knew how to repair damaged and split hooves, and could apply other corrective techniques to keep a horse useful on the range. Farriers also possessed the tools and the knowledge to perform detailed procedures such as adjusting the angle of the hoof, called leveling. Today farriers still work at ranch and racetrack to keep the most important part of a horse's body working: the feet.



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OUTFITTING HORSE AND RIDER: The Cowboy

Continuing the Tradition

Bits, Bridles and Reins: The cowboy continued the Spanish ways of the vaquero in the use of bits and bridles. In Texas, New Mexico, and especially California, the use of closed reins and spade bits was common. Closed reins could be dropped over the saddle horn to cue the horse to stand still when roping. Split reins were also in widespread use in Texas. Horses trained with split reins were taught to stand still when the rider dropped the reins.

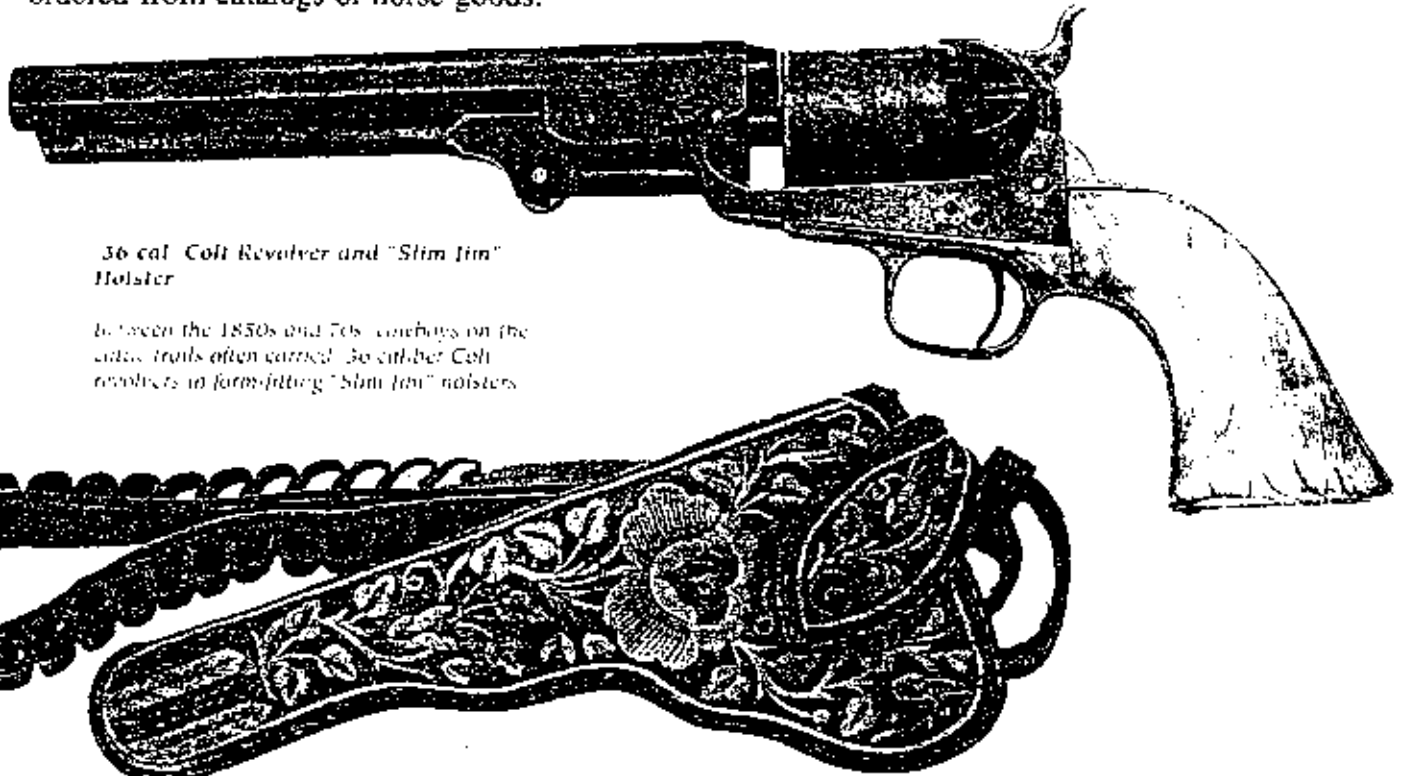
Saddles: Mexican saddles were the first used by cowboys. They were sturdy enough to rope with and easy to buy in Texas and the Southwest. The long trail drives produced trail-drive saddles, which had more leather over the seat and were more comfortable than other types.

Stirrups: Many types of stirrups were used in the American West. They ranged from wooden block stirrups, borrowed from Mexican vaqueros, to cast-iron military stirrups. To prevent injury if the rider was thrown and dragged, safety stirrups that fell open were designed. For the rider too impatient to buckle on spurs, some stirrups were made with built-on spurs. "Ox-bow" stirrups proved the most popular for Western stock saddles and are still used today.

Quirts: Cowboys and vaqueros alike, used quirts primarily with unruly horses. Braided rawhide, stitched leather, and braided horsehair were used separately and in combination to make these small whips.

Saddlebags: Used for storage while on horseback, saddlebags took many forms, but they could not obstruct the horse's movements. They had to be firmly attached to the saddle to prevent loss. Large saddlebags were usually tied or buckled to the rear of the saddle, while smaller bags, called pommel bags, slipped over the horn on the front of the saddle.

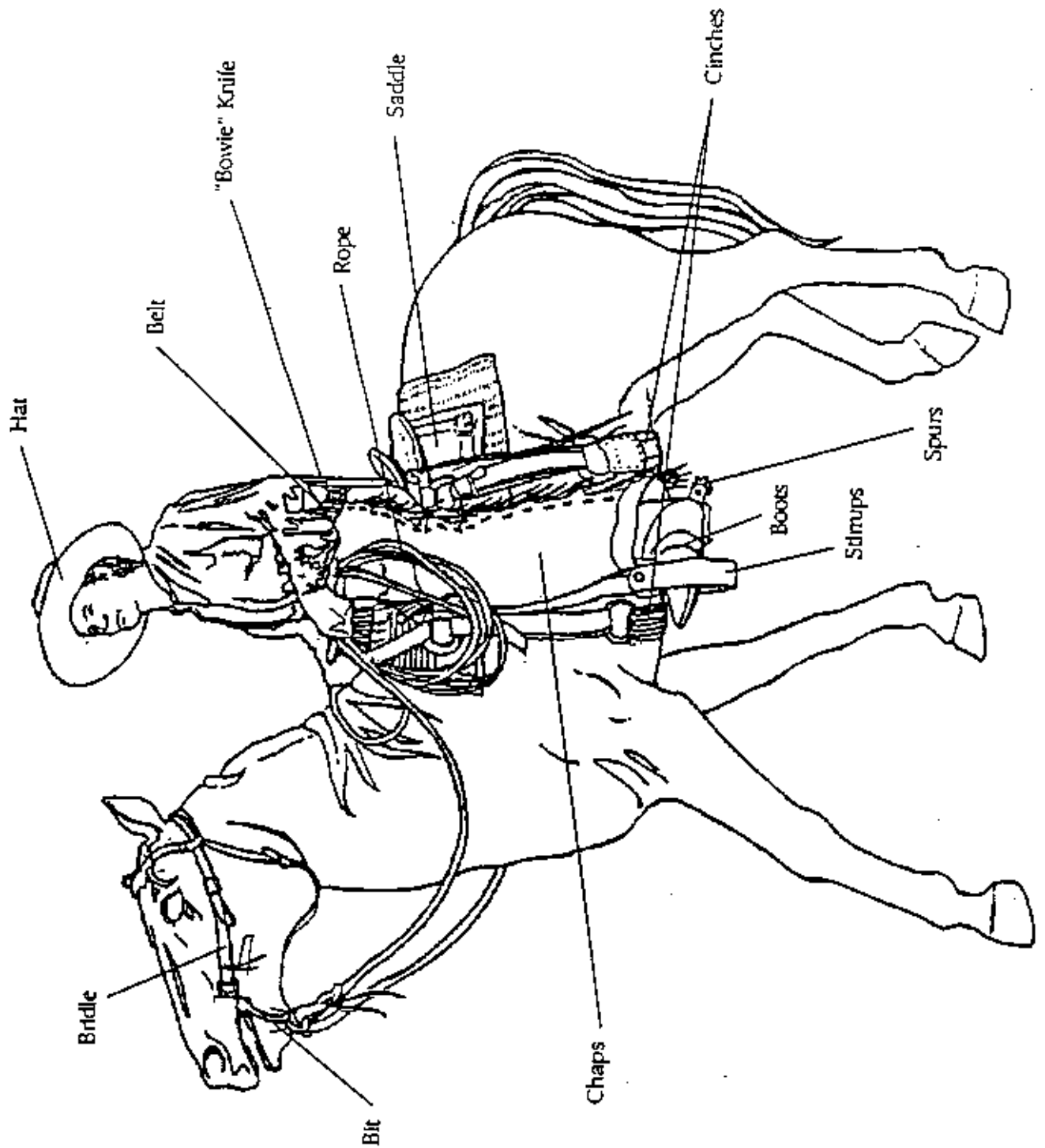
Hobbles: Placed on the front feet of horses, hobbles allowed the animals to graze while limiting their ability to run away. Saddlemakers supplied rawhide and leather hobbles, while more elaborate manufactured hobbles made from iron could be ordered from catalogs of horse goods.



*36 cal. Colt Revolver and "Slim Jim"
Holster*

*Between the 1850s and 70s, cowboys on the
long trails often carried 36-caliber Colt
revolvers in form-fitting "Slim Jim" holsters.*

COWBOY



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Clothes to Fit the Cowboy's Job

Hats for the Riders: The wide-brimmed hat made of felt has continued in use in the Southwest's cattle country until modern times. Heights of crowns and brim widths varied, with the average being a four-inch brim and a crown four or five inches high.

Rags or Scarves: Both the vaquero and the cowboy learned the advantage of a scarf or handkerchief. On hot, dry days at the back of the herd a scarf could be tied over the nose and mouth to keep out the dust. On a cold, windy, day the scarf could be wrapped around the ears for warmth. Scarves, sometimes called rags, were made from anything from silk to actual rags.

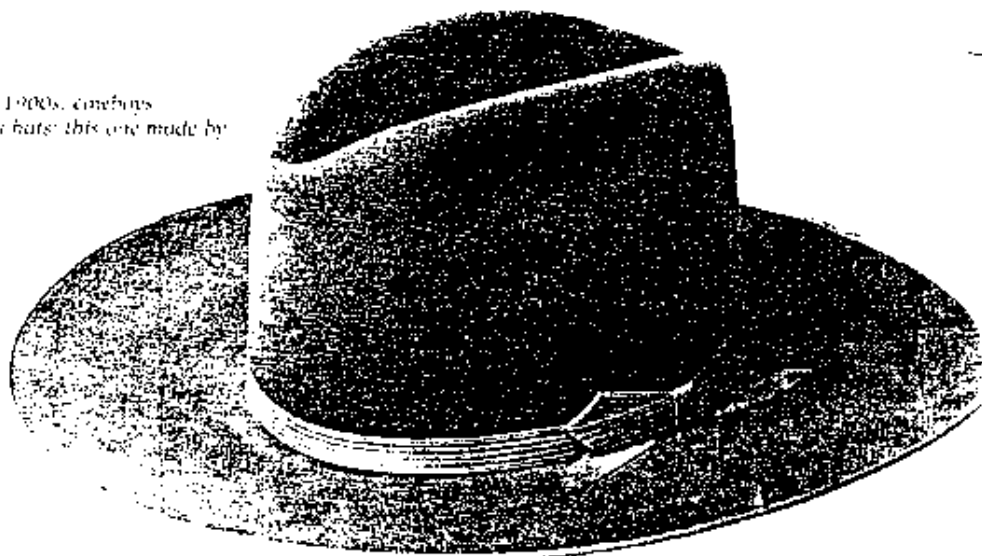
Chaps: Originating in Mexico in the late 1700s, chaps were called *chaparreras* in Spanish. Chaps were leather overpants worn to protect the legs of the rider from brush and thorns, and impact with longhorns or fences. In the United States three basic types of chaps developed, the shotgun or straight-leg chap, the batwing, and the woolly chaps. The basis of all three forms existed in Mexico prior to the 1850s.

Boots: In the American Southwest boots were the preferred footwear of the cowboy or the cowgirl. Cowboy boots of the late 1860s were plain and similar to U.S. Cavalry boots. Through the decades boots became a status symbol of the horseman and the rancher, and designs and styles became more elaborate than functional.

Spurs: Cowboy spurs had spinning rowels like those in the Spanish tradition. Before the 1860s, most spurs in the American Southwest were Mexican-made. After the American Civil war, spur makers and blacksmiths manufactured spurs for the booming cattle industry, and regional styles began to develop. Smaller spurs were made for women.

Cowboy Hat

From the 1880s through the early 1900s, cowboys wore wide-brimmed, high-crowned hats; this one made by Miller Brothers of Denver.



Cattle Bag

This leather and canvas cattle bag, strap at top, was carried by cowboys to carry personal items, including tools.

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Up the Trail

The first trail drive officially recognized by the Spanish government occurred in 1779, when more than 2,000 head of cattle were moved over the trail from what is now San Antonio, Texas, to New Orleans. Smaller drives, including herds of cattle, sheep, horses, and mules, were made between mission settlements and small towns or presidios.

Up until the U.S. Civil War small trail drives continued to relocate cattle to areas where they would bring a better price. A cow worth four dollars in Texas might bring ten times that amount at the end of the trail in Kansas. From the end of the Civil War to the mid-1880s the cattle market boomed, and over ten million heads of Texas cattle went "up the trail." In 1869, one of the largest herds to ever go "up the trail" from Texas numbered 15,000 longhorn cattle. Great fortunes were made and lost in this cattle trade.

Shortly after the Civil War, Jesse Chisholm, half Scottish and half Cherokee Indian, laid a trail from the Red River, bordering Texas and what was then called Indian Territory (now Oklahoma), to Kansas. The trail ended near present-day Wichita. By 1870, two years after Chisholm's death, the route was called the Chisholm Trail. Millions of cattle were moved up the Chisholm Trail from Texas to the stockyards of Abilene, Kansas.

Life on the Trail

Leaving from South Texas, a trail drive might take 50 days to reach the northern boundary of the state. Drives moved cattle north as far as Montana, and several months of life on the trail were common for the cowboy of the 1870s. Most days and many nights were spent on horseback tending to and moving cattle.

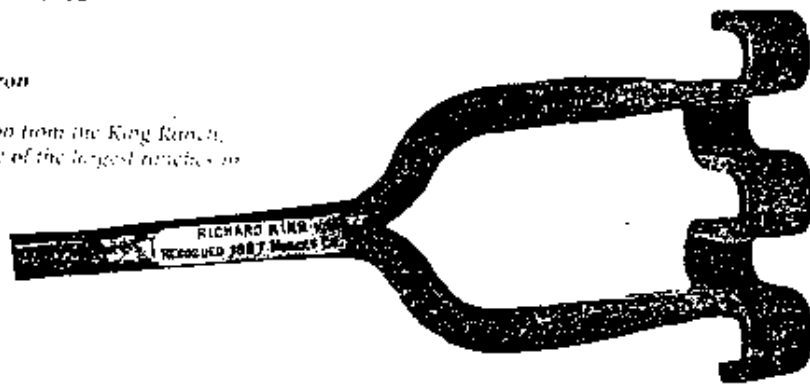
On trail drives and at cattle roundups, life aboard the saddle centered around the chuckwagon. Water, food, bedrolls, tents (if they were provided), weapons, and tools were all kept in the chuckwagon. Texas traildriver Charles Goodnight is given credit for making the first chuckwagon in 1866 from a surplus Army wagon. On the large ranches still operating in the western U.S., chuckwagons are still used for cattle roundups during the branding season.

The End of the Trail

The era of the trail drive, from 1865 to the early 1880s, was short-lived. In the 1880s, severe winters on the plains hastened the closing of the open range. To insure winter feed, pastures were fenced and crops were raised specifically as cattle feed for bad weather. Windmills were installed to water the cattle and irrigate the crops. In the 1880s and 1890s, railroad companies laid track closer to the ranches where the cattle were raised. On a fenced ranch, the only trail drives were to roundup cattle for branding, or to move animals to the railroad to be shipped by train to their final destination: urban dinner tables.

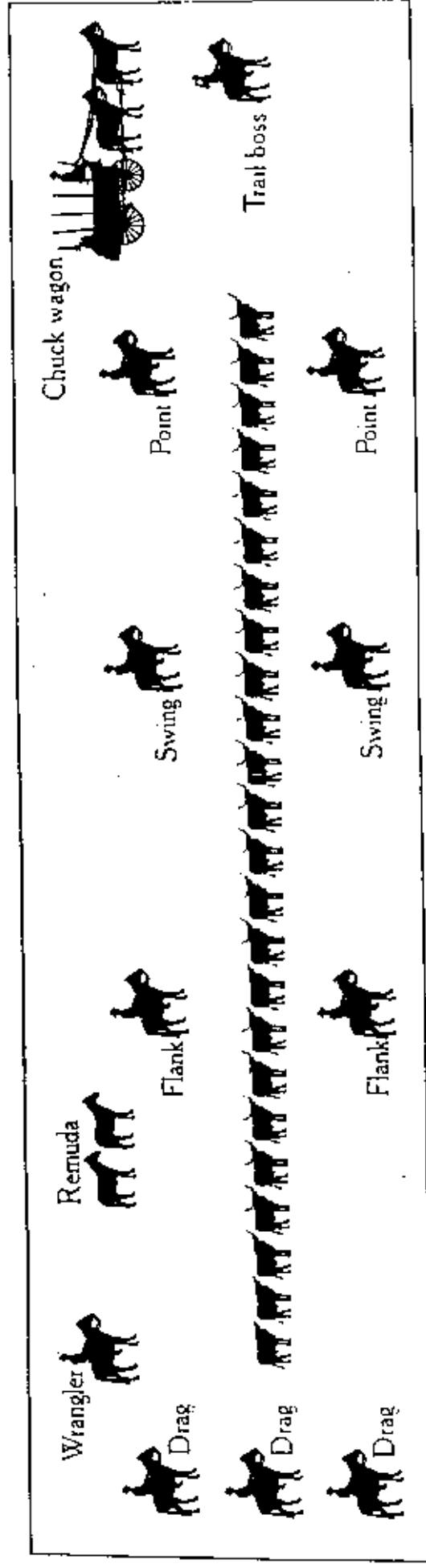
Running W Branding Iron

"Running W" branding iron from the King Ranch, Nueces County, Texas, one of the largest ranches in the American Southwest.

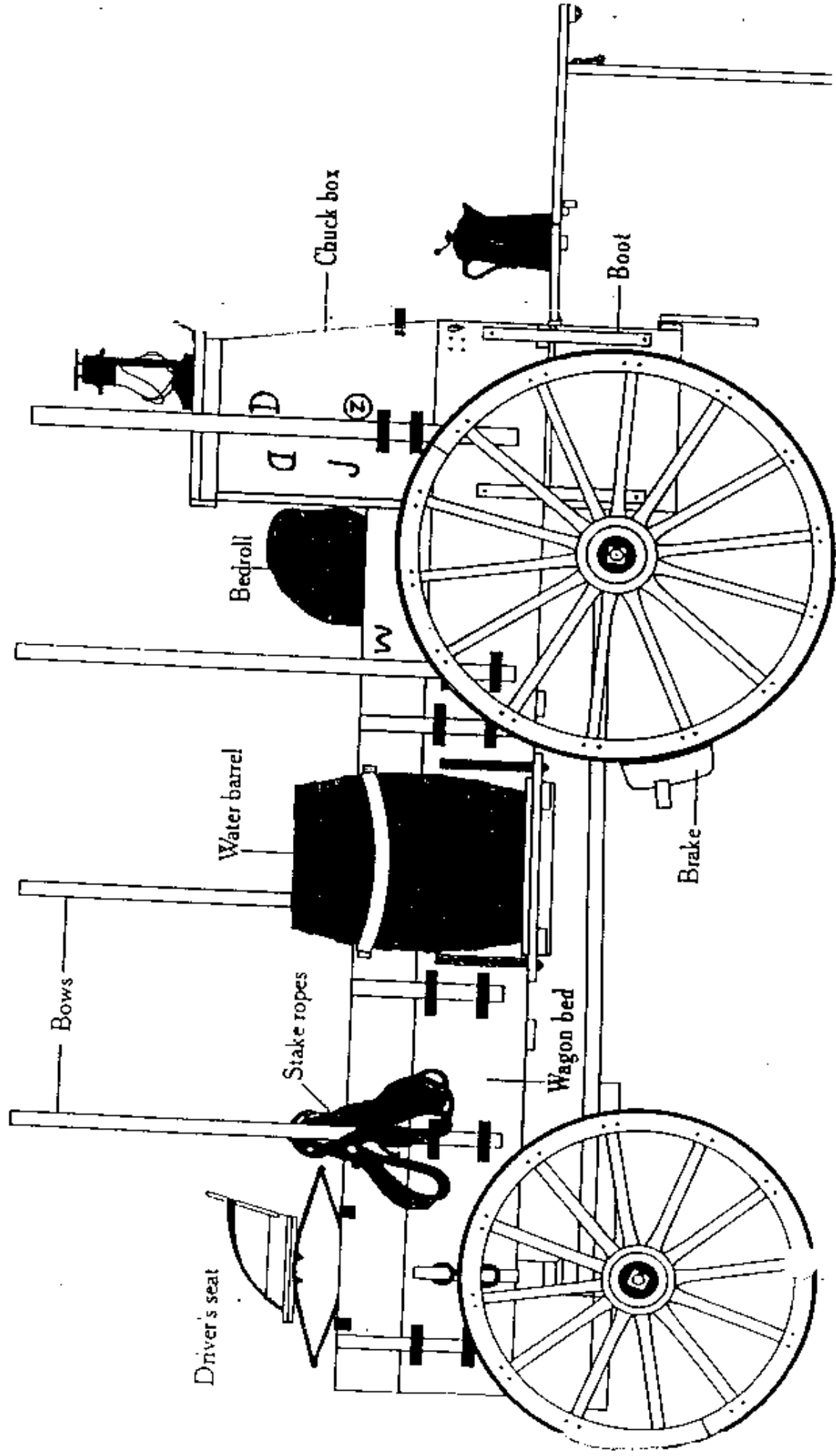


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The cattle drive: a hard way to earn a hundred dollars



The anatomy of the chuck wagon



bedrolls
slickers
wagon sheet
½-in. corral rope
guns, ammunition
lantern, kerosene
axle grease
extra wagon wheel
salt pork
raw beef

Bulk storage:

green coffee beans
flour, pinto beans
sugar, salt
dried apples
onions, potatoes
grain for work team

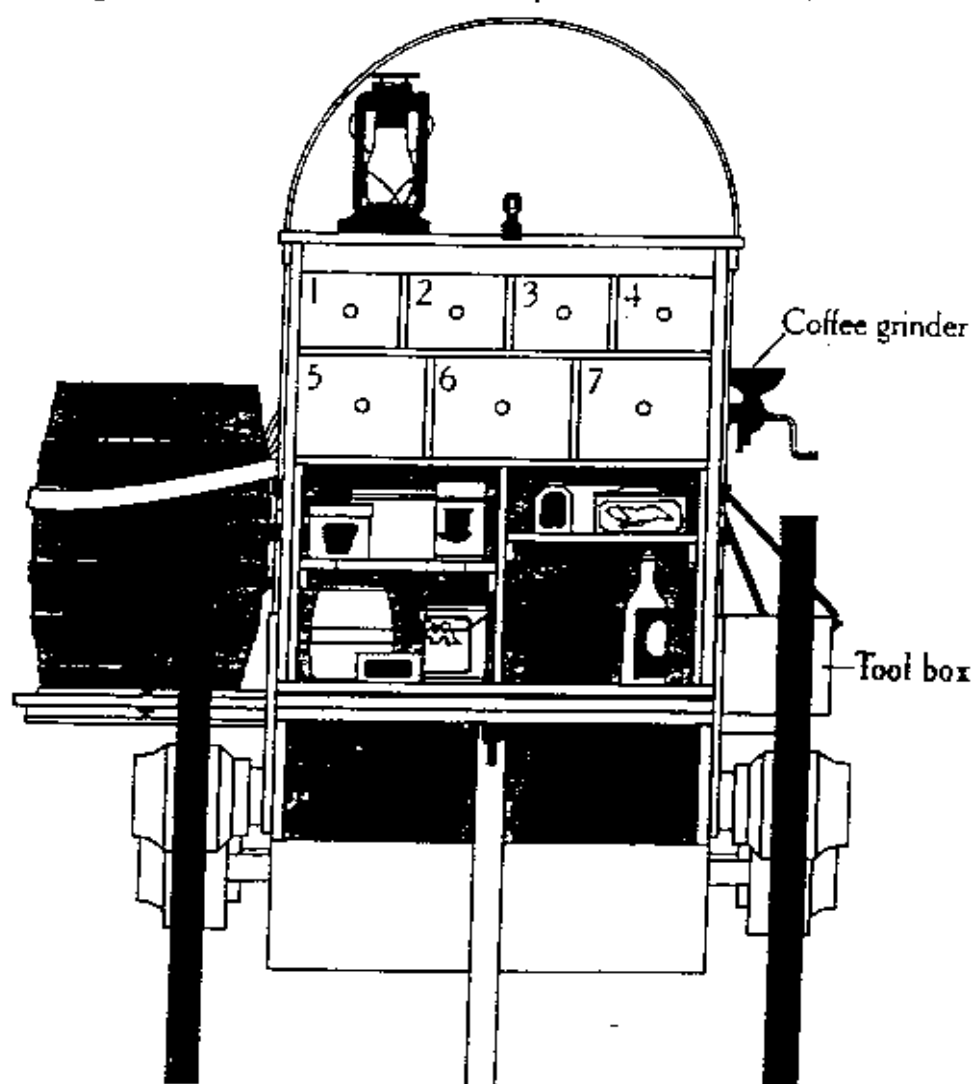
shovel
ax
branding irons
horseshoeing equipment
hobbles
rods for pot rack
extra skillets

**Chuck Box
and Boot**

1 flour
2 sugar
3 dried fruit
4 roasted coffee beans
5 pinto beans
6 plates, cups,
cutlery

castor oil
calomel
bandages
needle, thread
razor, strop

8 salt
lard
baking soda
9 vinegar
chewing tobacco
rolling tobacco
10 sourdough keg
matches
molasses
11 coffeepot
whiskey
12 skillets
dutch ovens
pot hooks



REAR VIEW

PLAINS INDIANS--THE APACHE AND THE COMANCHE:

The Apache: The First Plains Horsemen

The Apache people were the first North American Indians to adapt their way of life to the availability of the horse sometime in the mid-1600s. The greatly increased mobility the horse made possible, extended the Apache hunting and trading areas, called the *Apachería* by the Spanish. By the late 1600s, the Apache had stolen more than 100,000 Spanish horses in present-day Texas and New Mexico.

The Apache continued to be the most powerful tribe on the plains of North America until the early 1700s, when the Comanche pushed onto the plains from the northern Rocky Mountains. The powerful Comanche forced the Apache to seek protection from the Spanish, who were themselves regularly confined to village stockades by raiding Comanche warriors. By 1750, the Comanche were truly the Lords of the Plains.

The Comanche: Lords of the Plains

Sometime around the year 1680, a people composed of bands of wandering mountain hunters, acquired the horse from their southern neighbors, the Utes. Called Comanche by the Spanish, these distant relatives of the Aztecs became master horsemen in a relatively short time. After incorporating the horse into their way of life, the Comanche left their home in the northern Rocky Mountains and moved out onto the North American Plains. The purpose of that move was to follow the buffalo and to be closer to the source of their new power: Spanish horses.

Within 50 years the Comanche were the dominant power on the plains. No one could match them in battle--neither the Spanish, nor their Indian enemies, such as the Osage. But the era of Comanche rule on the plains lasted less than 200 years. In the mid-1800s, disputes with white settlers moving onto tribal hunting grounds led to Comanche raids against the immigrants. The end was a war with the U.S. Government and the near extinction of the buffalo, the primary food source of the Comanche.

Indian Vaqueros at the Spanish Missions and the Spread of the Horse

On the northern frontier of New Spain, Indian converts at the missions were taught horsemanship so they could work as vaqueros on mission ranches. These early Indian riders taught other members of their tribes to ride, and thus the knowledge of horsemanship began to spread among the native people of the Spanish frontier areas.

In 1680, the Pueblo Indians in present-day New Mexico revolted against Spanish occupation of their lands. All the Spanish in the region were killed or driven south to the first available refuge, the town of El Paso del Norte, in what is today Texas. The expulsion of the Spaniards meant that thousands of horses were free to be taken by the Indians, or to run loose on the plains of North America. The horse continued to spread through inter-tribal trade, and by 1750 horses were being ridden by Indians in what is now western Canada.



Arrows

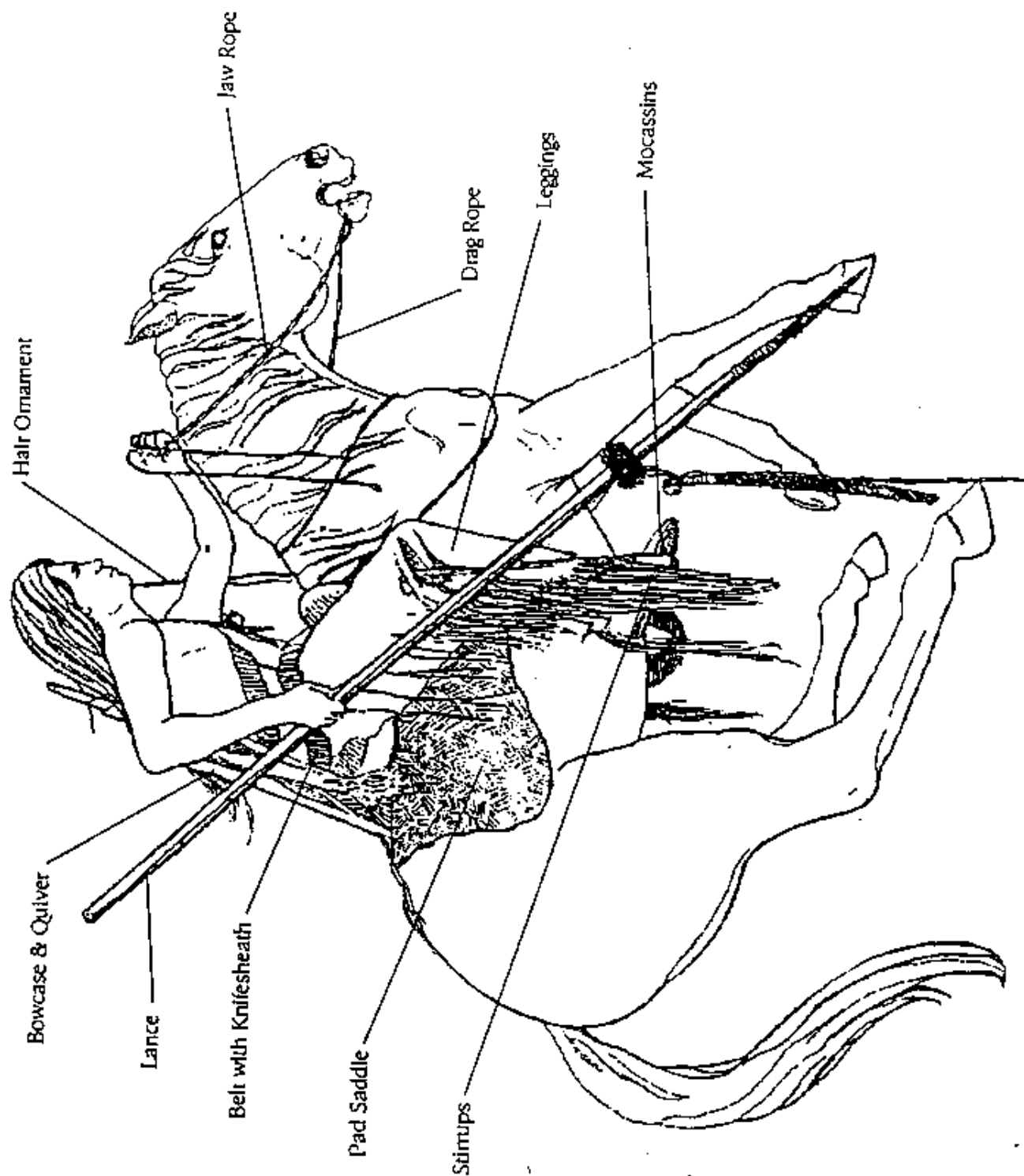


Flint and arrows were the primary means of hunting and defense. Arrow tips were usually made from metal.



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COMANCHE



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The Mustang - A Source of Wealth

Wild mustangs were the primary trade item for the Comanche, who bartered horses for all types of trade goods. Horses were also given by prospective husbands to future in-laws, in order to insure marriage to a chosen bride.

The Comanche horse trade began in the 1700s and continued until the 1870s. American horse traders were especially active in the early 1800s, when horse-trading expeditions regularly trekked into the Southern Plains. Horses acquired from the Comanche were transported to the Atlantic seaboard and possibly even to Western Europe.

Wandering with the Buffalo

Roaming from present-day Canada to Texas in herds numbering in the millions, the large, shaggy buffalo were basic to the wandering way of life of the Comanche. Buffalo provided not only food, but also the raw materials for clothing, utensils, tools, and shelter.

The horse gave the Comanche the mobility necessary to follow the herds as they moved, and to chase the buffalo in hunting, thus greatly increasing the number of animals that could be killed. The Comanche were so dependent on the buffalo, that, when the animals were driven to the brink of extinction, the Comanche way of life was permanently altered. The powerful buffalo, a true native of the American continent, was replaced in the Indians' way of life by the cow, handed out to the tribe by the U.S. Government's Indian Agent at Fort Sill in the Oklahoma Territory.

Killing the Giant

Hunting buffalo was a dangerous enterprise. The Comanche hunter ran his horse alongside a running buffalo, and thrust an arrow or lance into the vital organs of the animal for a kill. The buffalo was often only injured, turned on the horseman, and attacked. Both horse and rider could be killed by a wounded buffalo.

Horses with special qualities were used for running buffalo; such horses were highly prized by the Comanche. Buffalo-running horses were not frightened by the large horned animals, were fast runners, and were able to stop quickly to turn from a charging buffalo.

The Tipi: A Portable Home

Tipis were used as shelter by a number of Plains Indian tribes, including the Comanche. Members of the Coronado expedition of 1540 were the first Europeans to see the cone-shaped tents of the Plains Indians. The structures were made of from five to seven buffalo hides sewn together with dried animal sinew. The buffalo hide cover was then draped over a frame constructed of tapered poles tied together at the top.

Before the coming of the horse, tipis were small, with only enough space to sleep four persons. Such tipis were transported by dogs pulling a primitive dragging vehicle called a travois. The fact that the horse was able to pull heavier loads led to an increase in the size of tipis in the 1700s. As buffalo became scarce, tipi covers were made of canvas obtained from traders and from the U.S. Army. Canvas tipis have been used from the late 1860s until the present.

Moving Camp

Following the great plains buffalo herds kept Comanche villages on the move. Entire villages could be packed up, loaded on horseback, and moved in a matter of hours. The complex job of moving camp was carried out by the women of the tribe. Bundles were packed with clothing, cooking utensils, and extra food. Using two tipi poles lashed together, a travois could be constructed. Attached to the horse, the travois could be used to move heavy buffalo-hide tipi covers or elderly relatives unable to ride horseback.

The Indian Wars

When Texas became part of the United States in 1845, a flood of new immigrants headed for the state. In three years, from 1845 to 1848, over 70,000 people moved into the previously sparsely settled country taking advantage of the offer of free land. Many of the immigrants settled on the fringes of the Comanche lands, the *Comancheria*, bringing diseases that caused large numbers of deaths among the tribe.

Kidnappings, stealing, and murder, committed by both Texans and Comanche, led to decades of war in the American Southwest. In 1849, the U.S. Army built a string of forts across the southwestern frontier to protect white settlers. From those forts, the U.S. Army Cavalry fought the tribes of the Southern Plains until the 1870s. In 1875, the last band of Comanche, the Quahadi, led by Quanah Parker, surrendered to the U.S. Army.

OUTFITTING HORSE AND RIDER: The Plains Indians

Spanish-Style Equipment on Comanche Horses

When the American artist George Catlin met a Comanche war chief in 1834, the warrior was riding with a Mexican ring bit and was wearing elaborate Mexican spurs. Much of the riding equipment used by the Southern Plains tribes was Mexican or Spanish in origin. Spanish-style ring bits were in widespread use among the Comanche, as well as among the Utes and Navajo, both of whom lived to the west of Comanche country.

In the mid-1800s, Mexican saddlemakers were reported actually living with a Comanche band, making riding equipment for the Plains riders. By the 1880s, Comanche men and women rode their horses with U.S. Army bits and stock saddles like those used by cowboys.

Saddles and Stirrups: High-pommel saddles were ridden by both men and women when moving camp and traveling. For buffalo hunting and battle, Comanche men rode a pad saddle constructed from a buffalo hide pillow stuffed with animal hair. Pad saddles were easier to dismount in an emergency situation than saddles with wooden trees.

Comanche stirrups were copied from Spanish-style platform stirrups. The stirrups were carved or bent from wood and then covered with rawhide. Stirrups varied little among the Plains people.

Tools for the Hunt, Tools for the Fight

Bows, arrows, lances, knives, and clubs were all used by the Comanche people in battle and in daily life. The Plains archers were masters in using the bow and arrow from horseback for hunting buffalo or deer, or for fighting an enemy.

After the Comanche obtained the horse, bows got shorter and were backed with dried animal sinews for additional power. Lances were shortened for running buffalo. Stone-headed clubs were lengthened for use from horseback. As metals became available through trade, iron points replaced the old flint points on arrows and lances. In the 1700s, the horse trade that brought metal to the Comanche also brought guns, but the bow and the lance continued to be the primary weapons of the Comanche warriors.

Shields: Shields had been in use by many tribes west of the Mississippi River before the acquisition of the horse. After riding became widespread, shields became smaller and easier to use from a horse. Shields served two purposes: first, as protection from arrows and bullets, and second, as a badge of honor.

Fashion on the Plains

Comanches were known for their clothing style by all the tribes of the Southern Plains and prairies. Beautifully tanned deerskins and profuse fringing mark Comanche clothing. Beadwork was confined to narrow, delicate lines edging seams and flaps. Hides were often colored yellow, green, blue, or red with natural dyes and ground mineral colors.

Moccasins: The use of high-topped moccasins is probably traceable to a horseback lifestyle. The high tops of the boot-like moccasins protected the lower leg from chafing against the horse, as well as from cactus and brush. Comanche women and those of their allies, the Kiowa, both wore high-topped moccasins, of the same style.

Man's Moccasins

Many items of dress—moccasins, leggings, dresses, shirts—were made from soft, tanned deer and antelope hides and decorated with fringes.



The Domestication of the Horse

4000 B.C. 3000 B.C. 2000 B.C. 1500 B.C. 1000 B.C. 500 B.C. 0 500 A.D. 1000 A.D. 1500 A.D.

Domestication and Equipment

4000 B.C. The horse is first domesticated, in the Dnieper River basin, in present-day Ukraine.

3500-3000 B.C. The wheel is invented.

3500-3000 B.C. Use of the harness on horses begins.

4000 B.C. First use of a mouthpiece or bit.

2000 B.C. The horse is domesticated throughout Europe.

1400 B.C. First selective breeding of horses.

556 B.C. The first bitless bridle is developed.

400-300 B.C. First record of the game of polo being played.

200 B.C. The first named breed of horses, the "Heavenly Horses" of China.

500 A.D. Date of the oldest saddle artifact, although various forms of saddles had been used for many centuries.

732 A.D. Stirrups are introduced to Europeans by the invading Moors.

History of the Spanish jennet, the ancestor of the Western horse

1100 B.C. Horses first imported into Iberia, now Spain.

900 B.C. Interbreeding originates the ancestors of the Spanish jennet, the breed of horse that will be taken to the Americas centuries later.

400 A.D. Barbarians occupy Iberia; jennets taken to North Africa where by 650 A.D. they will have interbred with North African horses to form the barb breed.

711-1493 A.D. Moors in Iberia refine jennets and the accompanying *finca* style of riding.

1493 A.D. Christopher Columbus brings over 35 Spanish jennets on his second voyage.

Origins of the Spanish Heritage in the Southwest

	1500	1550	1600	1650	1700	1750	1800
Conquistadores and Spanish Settlements	Cortés brings horses to North American mainland (present-day Veracruz, Mexico.) Africans first brought to the Caribbean as slaves.	Coronado expedition into present-day southwestern U.S.	Olate settles present-day New Mexico, explores Pinala region, and introduces horses and cattle to these areas.	Pueblo Revolt of 1680: Spanish survivors seek refuge in El Paso, del Norte; Indians acquire horses. First mission in present-day Texas is established.	Pueblo Revolt of 1680: Spanish survivors seek refuge in El Paso, del Norte; Indians acquire horses. First mission in present-day Texas is established.	First mission in present-day California is established.	
The Emerging Vaquero Tradition	The first livestock regulation agency, or <i>Mejía</i> , is established.		Large ranches or <i>haciendas</i> become common from Mexico City to New Mexico.		Indians in present-day Arizona learn cattle raising from Spanish missionaries. Roping as we know it develops.	Spanish begin cattle drives from Texas to Louisiana.	
English and French Settlements in the East				First permanent English settlement in the Americas is founded at Jamestown, Virginia. Champlain explores the eastern part of present-day Canada.	LaSalle explores the Great Lakes, the Mississippi Valley, and into Texas. New Orleans is founded.	The French and Indian War in the Northeast! The American Revolution	

The Decline of the Free Plains Lifestyles

	1850	1860	1870	1880	1890	1900
The Comanche As this half century opened, conflicts on the Southern Plains were intensifying as settlers and Eastern Indians migrated west.	First Indian reservation in Texas; fewer than 500 Comanches move onto it.	Medicine Lodge Treaty assigns Comanches to larger reservation. Less than half settle there.	Fort Selden built in Texas as a trading post for the Comanche. Adios Wallis, they are unexpectedly defeated by 700 buffalo hunters.	Col. J.S. Mackenzie kills over 1000 of the Comanche horses. Comanche awarded as war trophies.		
The Cowboy The Mexican War and the Texas war for Independence lured to the West many of the men who would later become American cowboys.	Texas cattle contractor Oliver Loving drives a herd to Illinois.	Union Stockyards open in Chicago; providing a boost for stockraising industry.	Goodnight-Loving Trail, from Texas to Wyoming, is established.	Invention of barbed wire; fences begin to divide the once-open Plains.	Large numbers of cattle companies formed by combining smaller ranches.	Severe winters bring an end to open-range ranching. Winter feeding, building fences, and providing water become necessary.
The "Wild West" An ever-increasing population on the frontier sets the stage for a cast of buffalo hunters, sheriffs, and outlaws. Soon the line between myth and reality would forever blur.			"Buffalo Bill" Cody kills 4000 buffalo in 8 months for the Kansas Pacific Railroad.	Jesse James begins outlaw career.	Gunfight at the O.K. Corral.	Historian Frederick Jackson Turner theorizes that the frontier was over by 1890.
Technology As the 1850s began, railroads and the telegraph were changing transportation and communication in the West.	Transcontinental telegraph line is completed, making the Pony Express obsolete after less than two years in operation.	Transcontinental railroad connects both coasts.	Edison invents the light bulb and phonograph.	Railroad companies begin using four standard time zones across the continent.	Railroads extended into cattle range areas, eliminating the need for trail drives.	Henry Ford builds his first automobile.
			Edison invents the light bulb and phonograph.	Federal Post Office establishes Rural Free Delivery (R.F.D.).		

CHAUTAUQUA PERFORMANCES

The following are plot summaries of original historic dramas commissioned by the Witte Museum for the exhibit **Thundering Hooves: Five Centuries of Horse Power in the American West**.

1. Vaquero y Cowboy: A Campfire Conversation

Playwright: Bryce Milligan.

Setting: South Texas, near the town of San Antonio, in the mid-1880s.

Characters: José Encarnación Guerrero, a vaquero and Luke O'Reilly, a Texas-born cowboy.

The action begins as José is breaking camp to resume his journey to San Antonio. The purpose of his trip is to have his photograph taken. He is carrying his special charro outfit in a sack attached to his saddle. He plans to dress himself as a charro and sit astride his horse, *Relámpago* (Lightning), for the photo. He will send a copy of the photo to his wife and mother.

Luke arrives at the camp with intentions of joining José. Luke, too, plans to have a photograph made, but in "store bought" clothes, which he will purchase when he arrives in San Antonio.

Luke asks José what he will wear for his photograph? José proudly shows Luke his charro outfit: a *sombrero de charro* (hat), *calzones* (pants), *chaqueta* (jacket), and *espuelas* (spurs), and describes the importance of each piece. Luke asks why José doesn't have a fancy silver charro saddle. José recounts how his grandfather's saddle (which he would have inherited) was taken by the Texas Rangers and never returned. He tells Luke that although the Guerrero family once owned a large land grant in South Texas and had a relative who died at the Battle of the Alamo, that did not save them from having their lands seized and cattle stolen by the "gringo" Texans.

The play concludes as the two characters continue their journey together as friends who have gained more insight into one another's values, traditions, and culture.

2. Noble Lofton, Buffalo Soldier

Playwright: Celeste Bedford Walker

Setting: Fort Concho, Texas in 1877.

Character: Corporal Noble Lofton, a "colored" trooper in the 10th Cavalry Regiment, U.S. Army.

Marching on stage, Noble Lofton welcomes the audience to Fort Concho and proceeds to give them a briefing about the Tenth, a regiment of black soldiers stationed on the West Texas plains to make the area safe for settlers and to help keep law and order.

One of the main jobs of the soldiers at Fort Concho is fighting Indians. In fact, the Indians they fight are the ones who named the "colored" troopers "buffalo soldiers," because, as Noble says, "We put 'em in mind of a buffalo, 'cause of our hair and 'cause we tough like buffalo."

Noble reminisces about his family life under slavery, and about the period after the Civil War, when he gained his freedom and worked as a cowboy in East Texas.

Even though life at the Fort is not easy, because of the heat, poor rations, inadequate livestock, and discrimination suffered from the white troopers, Noble reckons the Army suits him fine as it provides him with, "three squares a day, fifteen dollars a month pay, and the womens loves the uniform."

Noble continues with his story of the 10th Regiment and the last couple of "hellacious" years. Problems culminate when an expedition lead by Captain Nolan comes close to death after being on the Staked Plains for 86 hours without water. After a month in the saddle, the troopers return to Fort Concho minus four men who have died of the heat and thirst, and four who deserted.

Some of the buffalo soldiers decide not to re-enlist, but Noble stays with the regiment because he believes, as does Colonel Grierson, his commanding officer, "that the regiment is doing a great service for this country, whether they get credit now or not. That one day people are going to come out West from all around the country, looking for a health cure, because of the blazing sun that almost killed the troops. That this is going to be a place of recreation and enjoyment. And it is going to be mainly because of the 10th Regiment of Cavalry, U.S. Army."

3. Mali and Maya

Playwright: Beverly Sánchez-Padilla

Setting: A bus station in Chihuahua, Mexico, in 1990.

Characters: Mali, a young Hispanic woman from Colorado who is traveling in Mexico, and Maya, an older Mexican woman.

A young woman runs on stage, intent on catching a bus to Mexico City, where she is going to visit her grandmother. Her name is Malintzin, Mali for short. Malintzin is the Aztec name for Malinche, the woman who served as interpreter, advisor, and lover of Hernán Cortés.

Having missed the bus, Mali angrily vents her frustration about the trip she is making, and about her name, which she hates. She wonders if her grandmother would let her change it. An older woman sitting in the station tells Mali never to change her name. The older woman introduces herself as Maya, a name that comes from the maguey plant, and proudly relates the long history and uses of this important plant throughout Mexican history.

To help Mali understand her namesake, Maya assumes the character of Malintzin, going back in time to the Mayan village where she was born. When her father, who is chief of the village, dies, Malintzin's mother sells her into slavery to the Aztecs. Gifted in languages, Malintzin is one of the first to greet Cortés and his men as they arrive on the mainland of Mexico. She becomes his translator, accompanies him to Tenochtitlán and tells of the meeting between Cortés and Moctezuma, foretelling the final destruction of the Aztecs.

With Maya's help, Mali sees Malintzin not as a traitor, but as a visionary and mother of the mestizo people of Mexico.



4. Tasura: A Comanche Remembers

Playwright: Richard Slocum

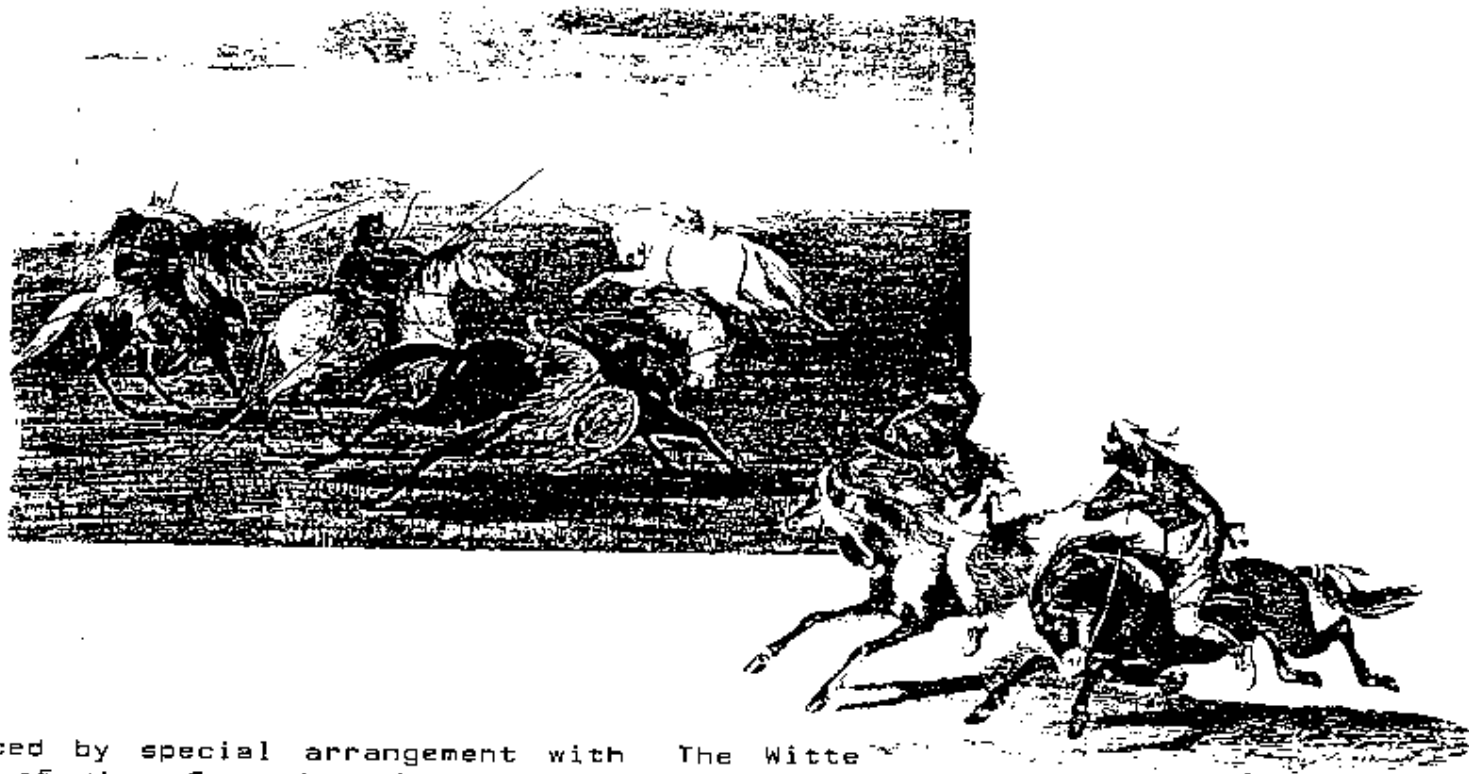
Setting: The Oklahoma Panhandle, Comanche Territory in the late-1800s

Character: Tasura, a Comanche who was killed in the late 1880s but comes back to life to recount his life.

The character of Tasura, a Comanche who died over 100 years ago, appears before the audience to retell the story of his life. It is a story which closely parallels the demise of the Comanche people, who were a dominant power in what is now the southwestern U.S. and northern Mexico, where they ruled as "Lords of the Plains." Dependent on their horses, which were prized above all things, and the buffalo, which provided food, clothing, shelter and raw materials, the Comanche's fate was sealed in the late-1800s as ranchers and settlers pushed into their territory, destroying their livelihood. The Comanche fought back, which led to retaliation and raids on Indian encampments by the U.S. Army. Tasura sadly recalls how he lost the three most valuable things in his life: his wife and son, his brother/friend, and his horses during a raid by Army soldiers.

Remembering happier days, Tasura tells the audience how his people, the Comanche, were born to ride, and what life was like for a Comanche man. This life centered around the horse, its capture and training.. Horses meant wealth and economic prosperity. They were the gift a man presented to parents of the woman he wished to marry. To become a man, a Comanche boy had to catch a horse and break him on his own.

Continuing with his story, Tasura recounts how, after the death of his family, he drifted around Texas and New Mexico with no real purpose. Finally, outside Kenton, Oklahoma, he lost a fight with five cowboys and was killed by a blow from a piece of fence post. According to the local preacher, Tasura looked too Indian for a cemetery burial, even though his grandfather was white. His body was put in an unmarked grave in "No Man's Land." Having told his tale, Tasura leaves to rejoin his wife. His life and death symbolize the dilemma of a culture group caught in the overwhelming forces of change.



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SUGGESTED PRE-VISIT ACTIVITIES:

Review the **Thundering Hooves: Five Centuries of Horse Power in the American West** teacher packet materials.

"DAWN HORSE"--IN THE BEGINNING:

Begin a class discussion by displaying the following statement on an overhead projector:

Scientists have found evidence that the family of animals of which horses are a part originated in North America about 55 million years ago, yet when Columbus and other Europeans arrived in the Caribbean and on the North American continent, they found no use of the horse by Native Americans.

Ask students to hypothesize about why the Indians were not using horses when the Europeans arrived in the late 1400s. Write their hypotheses on the chalkboard.

As a library assignment, have students research the history and development of the horse to prove or disprove the class' hypotheses. Find pictures of the earliest horse, called Eohippus, or "dawn horse," and compare it with horses brought over to the Americas by the Conquistadores. Make a class chart of "dawn horse" and "modern horse," comparing anatomy, diet, and habitat.

STAND UP TIMELINE:

Distribute copies of the Domestication of the Horse timeline from the **Thundering Hooves** teacher packet. Have each student select and copy a date and corresponding information on a 3 X 5 card. Research additional dates, if necessary, so that each student has a card. Ask students to highlight each date.

Have students arrange themselves in chronological order according to the dates on their cards. Make a line on the floor to indicate the division of time between B.C. and A.D. Discuss this difference in recording time and the meaning of the B.C. and A.D. notations. When the students feel they are in correct order, have them read their entries aloud.

Cards can then be displayed as a "History of the Horse" classroom timeline with cards added as new dates and information are found.

FAKE A FOSSIL:

Scientists use fossil evidence to gain knowledge about prehistoric plants and animals, such as the family of animals from which horses developed, which originated in North America about 55 million years ago. If possible, bring examples or pictures of fossils to show the class. Discuss what fossils are, how they are formed, and how they are used by scientists to gain information about the past. **FAKE A FOSSIL** is a hands-on activity similar to the process scientists use when they find fossils. It provides first-hand examples of cast and mold fossils.

Materials: modeling clay, petroleum jelly, bowl, flat rock or shell, water, plaster of Paris.

Directions for students:

1. Coat your object with petroleum jelly. Press the object into the clay. Gently remove the object.
2. Roll some clay to make it into a coil. Place the coil around the mold you made.
3. Coat the clay coil with petroleum jelly. Mix the plaster of Paris with water until it is thick and syrupy. Pour this mixture into your clay mold. Keep the mixture inside the clay ring. Let it harden overnight.
4. Remove the plaster cast from the mold.

QUESTION: Which is more like your original object, the mold or the cast?

"THE WAR GOD'S HORSE SONG:"

Ask students to bring pictures of horses to class for a display board. Discuss with students the ways in which the re-establishment of the horse changed the lives of the North American Indians. Explain that by the mid-1700s and 1800s horses had become prized possessions of the Plains Indians tribes, and as such were honored in Indian art and legends.

The following Navajo poem, "The War God's Horse Song," is an example of the Navajo oral tradition, in which stories or poetry are passed on by talking or singing. Read "The War God's Horse Song" to the class, asking them to listen carefully to how the narrator describes his horse.

I am the Turquoise Woman's son.
On top of Belted Mountain
Beautiful horses-slim like a weasel
My horse has a hoof like striped agate;
His fetlock is like a fine eagle plume;
His legs are like quick lightning.
My horse's body is like an eagle-plumed arrow;
My horse has a tail like a trailing black cloud.
I put flexible goods on my horse's back.
The little Holy Wind blows through his hair.

His mane is made of short rainbows.
My horse's ears are made of round corn.
My horse's eyes are made of big stars.
My horse's head is made of mixed waters
(from the holy waters--he never knows thirst).
My horse's teeth are made of white shell.
The long rainbow is in his mouth for a bridle,
and with it I guide him.
When my horse neighs, different-colored horses follow.
When my horse neighs, different-colored sheep follow.
I am wealthy, because of him.
Before me peaceful,
Behind me peaceful,
Under me peaceful,
Over me peaceful,
All around me peaceful--
Peaceful voice when he neighs.

(The Winged Serpent: An Anthology of American Prose and Poetry, edited by Margot Astrov. New York: John Day Co., 1946)

Using the picture display of horses, have students generate their own list of words and phrases to describe these animals. Write their responses on the chalkboard. Ask students to write a poem about the horse using the words and phrases generated by the class. Students can share their poems with the class by reading them aloud when completed, or they can post them around the display board.

SUGGESTED POST-VISIT ACTIVITIES

SOCIAL STUDIES:

BIOGRAPHICAL SKETCHING

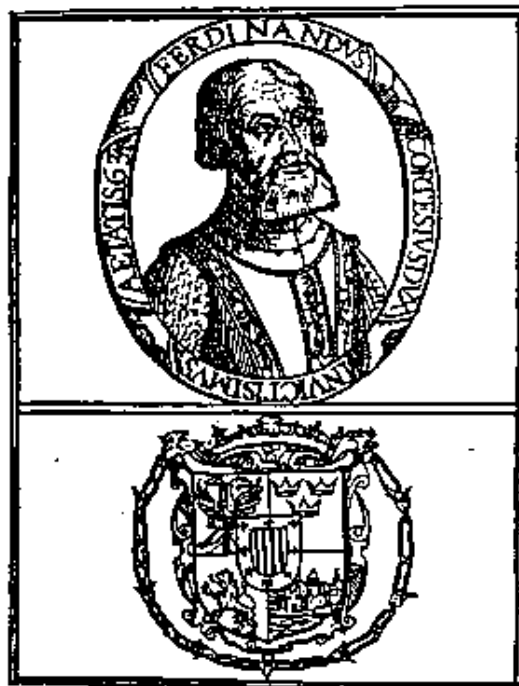
Objective: Students will research and write a biography and create a timeline of the era of the Conquistadores in North America

Subject Area: Social Studies, Language Arts, Art

Procedure: Ask the students to make a list of men and women who they think played a role in the era of the Spanish Conquistadores in North America from approximately 1490-1650. Each student will select a name from the list. Using library resources, students will research and write a biographical sketch, and draw a picture of the person they selected. Students will "introduce" their person to the class and explain why they selected this person. Sketches and biographies can be mounted on a time line to put each person in historical perspective, thereby creating a visual history of the Spanish conquest in North America.

Some suggested names which could be included are:

- King Ferdinand of Aragon
- Queen Isabella of Castile
- Christopher Columbus
- Charles V, Emperor of the Holy Roman Empire
- Bernal Díaz del Castillo
- Hernán Cortés
- Pedro de Alvarado
- Malinche
- Montezuma
- Chilahuac
- Cuauhtémoc
- Francisco Vázquez de Coronado
- Hernando de Soto
- Luis de Moscoso
- Bartolomé de Las Casas



Hernán Cortés and his coat of arms, wood engraving from Vega, *Cortés valeroso* (1588)

DEAR MOM...

Objective: Students will use historical information to write a letter describing their experiences.

Subject Area: Language Arts, Social Studies

Background: The Spanish Conquistador, Cortés, arrived on the coast of Mexico in 1519 with an army of 555 men and 16 horses. From there he marched with his troops to the imperial Aztec city of Tenochtitlán. Located in the highlands of central Mexico, it was a cosmopolitan city of enormous temple-pyramids, palaces, marketplaces, apartment compounds, and craft workshops.

Procedure: Divide students in two groups. Have one group research how the Aztecs lived in their capital city of Tenochtitlán before Columbus and Cortés came to the Americas. Have the other group research what life was like in Spain during the 1400s and early 1500s. Compare and contrast life in European Spain with life in the Mesoamerican Aztec empire using activities such as group reports, murals, posters, or class discussions.

Present the following writing assignments to the class:

You are a soldier in the army of Cortés. You have just arrived in Central America and have made your way to Tenochtitlán. Write a letter to a relative in Spain describing the journey and your arrival in the city. Be sure to include descriptions of how the city and the people look, the smells and tastes of the new foods, and the unfamiliar sights and sounds you have encountered.

or

As an Aztec soldier ready to defend your capital city, describe what Cortés and his men looked like as they prepared to attack. Include how you feel and what you think will happen. Remember you have never before seen white Europeans, horses, metal armor, or guns.

EXTENSION:

1. Have the class produce an Aztec newspaper. Discuss the components to be included, such as feature stories (news of the arrival of the army of Cortés), editorials, sports, advertisements, foods, leisure activities, etc. Choose an appropriate name for the paper and include illustrations.

Dramatize the battle for the Aztec capital of Tenochtitlán by presenting a "You are There..." newscast. Divide the class into groups and ask each group to develop a news show format which includes an anchor news person interviewing various witnesses at the battle site, as well as providing background information. Ask each group to present their "You are

There..." newscast for the whole class. Discuss which group's newscast was the most interesting, provided the most information, was the most exciting, was the least biased, etc.



LANGUAGE ARTS:

SHOE-BOX SCENES

Objective: Students will select and read a book, create a scene from the book using a shoe-box diorama format, and give an oral presentation to the class.

Subject Area: Social Studies, Language Arts, and Art

Materials: Shoe boxes, construction paper, markers and crayons, glue and scissors

Procedure: As part of a library visit, ask the school librarian to review books for the class which relate to the **Thundering Hooves: Five Centuries of Horse Power in the American West** exhibit. Have each student select a book on one of the related subjects. When students have finished reading their books, ask each to make a shoe-box diorama depicting a scene from the book. Students should also include the title and author of the book on each diorama.

Completed dioramas can displayed in the classroom or library. Invite other classes to view the shoe boxes as part of a sharing activity. Students act as interpreters and discuss why they chose to illustrate their particular scene. They can also share favorite parts of their books.

WRITING WITH PICTURES--CINQUAIN POETRY

Objective: Students will use pictures as visual stimulus to write original five-line cinquain poetry

Subject Area: Language Arts

Procedure: The cinquain, a five-line poem, is a fun and easy form of poetry for children. Anyone can write such a poem by following these rules:

Line one: one word title (noun)

Line two: two words describing the title (adjectives)

Line three: three action words (verbs)

Line four: four words expressing an idea or emotion about the title noun

Line five: one-word synonym for the title (noun)

Use the four color xerox pictures of the horses and riders from the **Thundering Hooves** teacher packet to generate ideas for writing cinquain poetry. Students can illustrate their poetry and display their poems on a **Thundering Hooves** bulletin board. The following is an example of a cinquain using the Comanche horseman picture:

**Comanche
Proud Strong
Riding Hunting Camping
Living with the Earth
Horseman**

MAKING YOUR MARK--BRANDING

Objective: Students will identify brands, create their own brand and collect name brands used by companies today.

Subject Area: Social Studies

Background: Branding can be traced back as far as Ancient Egypt, where tomb paintings show realistic scenes of animal brandings and roundups. Brands show ownership, and, because they are burned into the animal's hide, are difficult to change. Cattle are branded to keep them from being stolen and for easy identification, particularly when different herds graze in the same area.

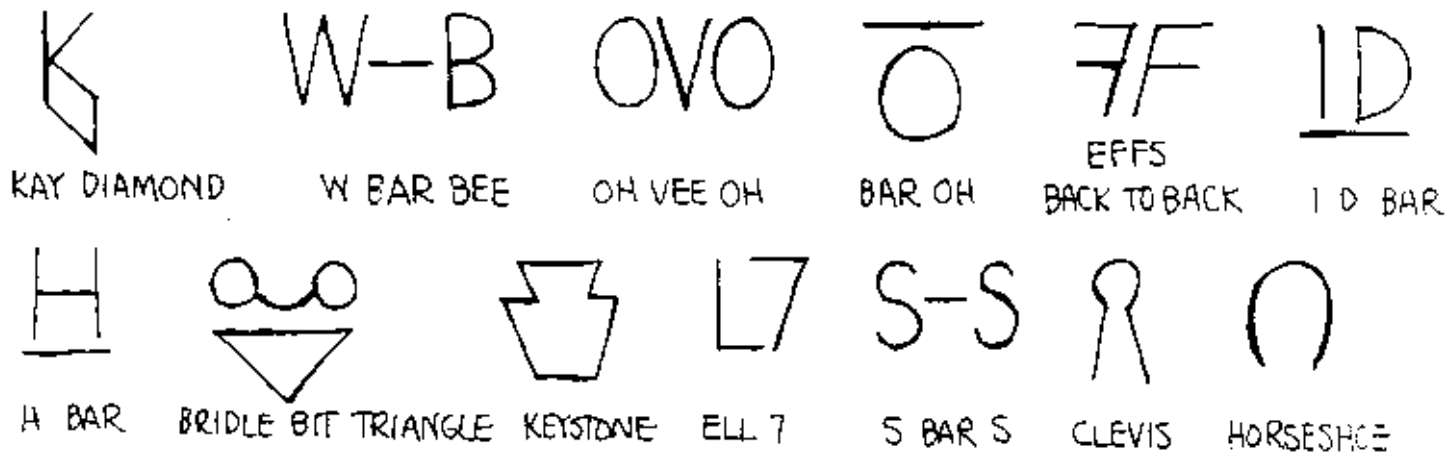
The Spanish Conquistador, Hernán Cortés, brought a small herd of cattle with him, which he branded with a mark of three Latin crosses. Don Francisco Vázquez de Coronado brought several hundred branded cows with him in 1514 when he explored the region that is now the southwestern U.S.

Procedure: Give each student a small (identical) picture of a cow. Collect the pictures from half of the class and put them together on a table or desk. Explain that all these cows are grazing together, but now one of the ranchers/owners wants to sell his cow. Ask a student to be the rancher and try to identify which cow is his or hers. Why is this difficult to do?

Tell the other half of the class that you will now collect their cows. Ask how they might mark their cows so that they can be easily identified? Have each student mark his or her cow and repeat the exercise.

Discuss the need for identifying personal possessions and showing ownership. Lead into a discussion of why branding is important to cattle ranchers. Draw some brands (from the examples below) on the chalkboard and let the students try to name each one. Identify the parts of a brand and explain that cowboys read the parts of a brand from left to right, from top to bottom, and from outside to inside.






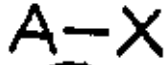






Question: Why might brands have several symbols or parts?



Ask students to complete the MAKE YOUR OWN BRAND worksheet.

MAKE YOUR OWN BRAND

As the number of cattle and ranches grew across the Southwest, it became more difficult to think of new brands. Cowboys or ranchers had to be inventive. Here are some ways they invented new brands:

Lazy - turn on side		Lazy R
Crazy - upside down		Crazy R
Walking - add feet		Walking H
Flying - add wings		Flying W
Running - as in handwriting		Running
Bar - short line		A bar X
Circle		Circle K
Half Circle		Swinging S
Swinging		
Rocking		Rocking N
Box		Box D
Connected letters		Connected J H D
		Y Four Connected

Draw a Brand For:

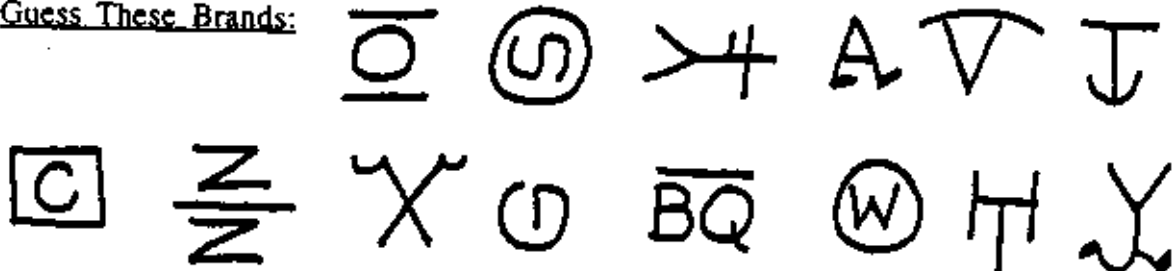
Walking Y

Running W

Flying U

Rocking L

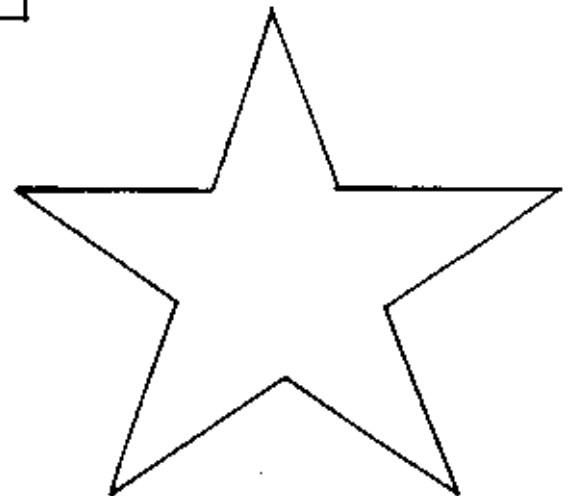
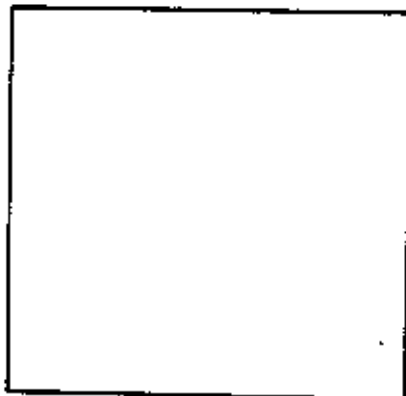
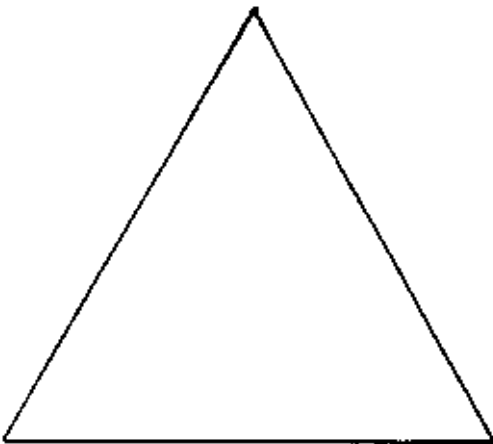
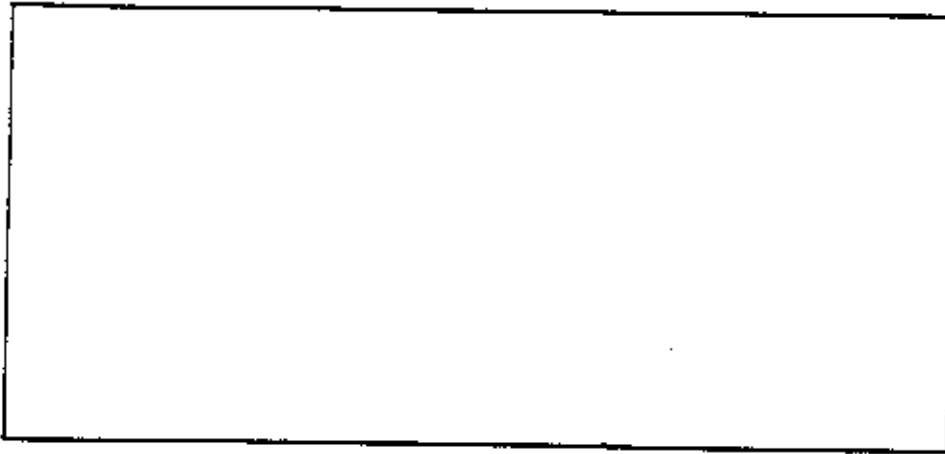
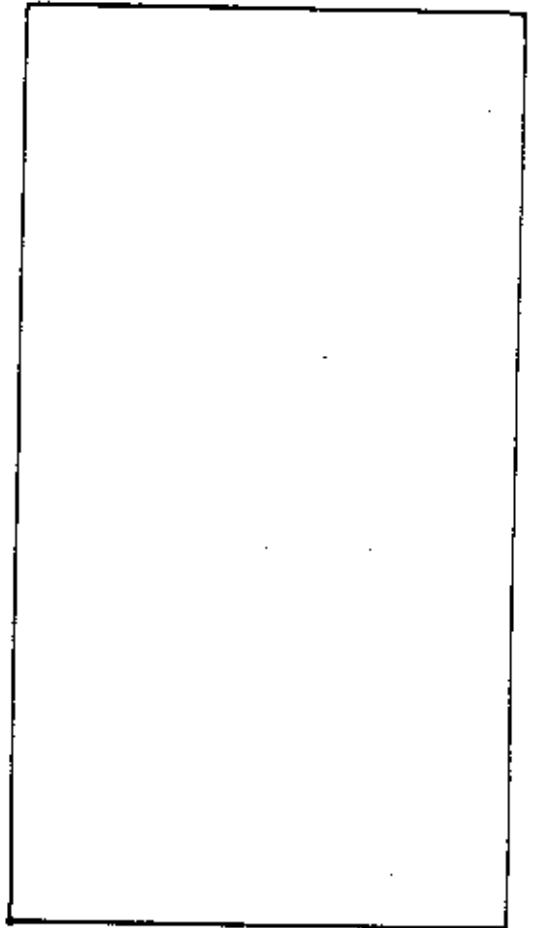
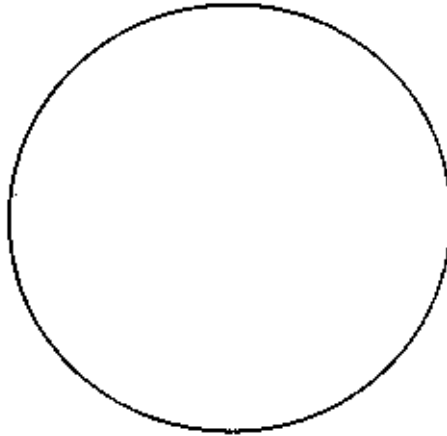
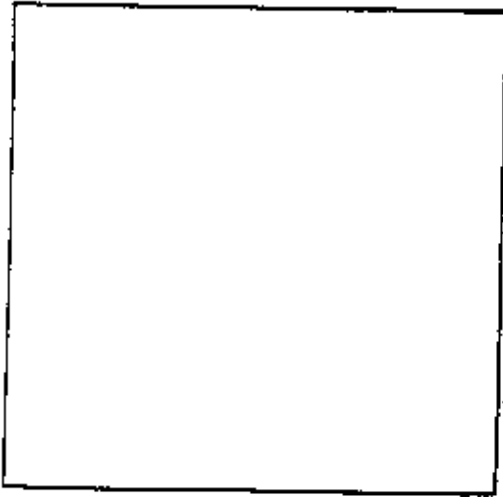
Guess These Brands:



Design Your Own Brand:

NAME BRANDS

Today, many companies use brand names to identify their products. There are brand names for sodas, clothes, shoes, automobiles, sporting goods, and food, to name a few. Thousands of name brands are used in advertising. In each of the spaces below glue examples of brand names which have become part of your life today.



LANGUAGE DETECTIVES

Objective: Students will identify words related to occupations and investigate how new words are added to our language.

Subject Area: Language Arts

Background: The meaning of the word "cowboy" is uncertain. Some linguists think the term came from Tory snipers, who hid in thickets and jingled cowbells to get patriots within range of their rifles. Others think the term came from Revolutionary War foragers, who went after fresh beef and were called "cow-boys." However, most believe the term originated in 1867, when a livestock trader named Joe McCoy advertised for "cowboys" to bring Texas longhorns up the Chisholm Trail to Abilene, Kansas.

Procedure: Write the following words (**bold type**) on the board:

Greasy Belly	(a cook)
Hayshaker	(a farmer)
Hot Rock	(biscuit)
Pack	(saddle)
Maverick	(unbranded animal)
Necktie Social	(a hanging)
Idaho Brain Storm	(a tornado)
Doghouse	(the bunkhouse)
Gut Hooks	(spurs)
Testing Gravel	(being thrown from a horse)
Flea Trap	(cowboy's bedroll)
Biscuit Shooter	(the cook)

Explain to the class that cowboys had their own particular vocabulary. Divide the class in half. Each group takes a turn trying to guess what each of the cowboy words mean (definition in parenthesis). Score one point for each correct guess. When the class has guessed all the above words ask them to make up several of their own. See if the opposing groups can guess the meaning of these new cowboy words.

EXTENSION: Make a class list on the board of all the words the class uses when they talk about cowboys. Ask the class to group these words---for example, which words describe clothing, equipment, tools, shelter, etc? Repeat this exercise with a modern occupation like "astronaut," to demonstrate how language is living and changing.

(Adapted from Cowboys, a Good Apple Learning Activities booklet)



TALK LIKE A VAQUERO

Objective: Students will identify and define Spanish words which have become part of the English language.

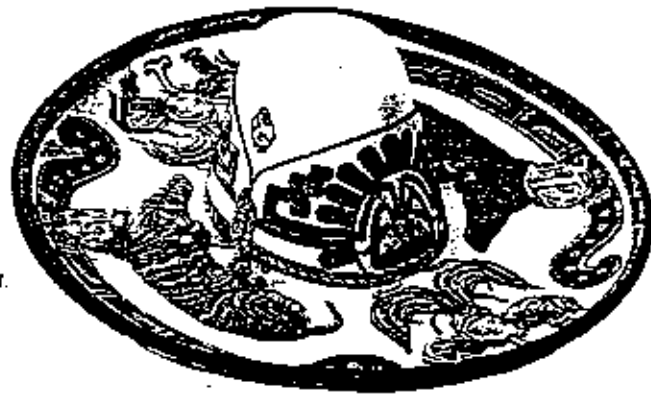
Subject Area: Language Arts

Background: The forerunner of the cowboy was the vaquero. Many words in our English vocabulary come from Spanish words that had to do with the vaquero, horses, and cattle.

Procedure: Write the following list of Spanish words (in italic-bold print) on the chalkboard. Have students write each word on a piece of paper and then try to guess each word's meaning and English equivalent. Ask for responses and fill in the correct answers beside each Spanish word.

<u>SPANISH WORD:</u>	<u>MEANING:</u>	<u>ENGLISH WORD:</u>
<i>Vaquero</i>	Cowboy	Buckaroo
<i>La Reata</i>	Rope	Lariat
<i>Chaparreras</i>	Leather leg covering for a vaquero	Chaps
<i>Mesteño</i>	Wild horse	Mustang
<i>Cincha</i>	Girdle/girth for pack or saddle	Cinch
<i>Estampida</i>	Headlong rush of startled animals	Stampede
<i>Rodear</i>	To surround something, a cattle roundup	Rodeo

Ask each student to make a list of other Spanish words we use today. Note that many of these words are from terms the vaquero used. Be sure to include **ranch, corral, lasso, poncho, sombrero, desperado, hombre, Pecos, Rio Grande, mesa, chaparral, and bonanza**. Compile a class dictionary by combining all the lists. Ask students to find the definition for each word and write it next to the word. Students might write a story using as many words from the lists as possible.



Charro Hat

A fine achievement of the Mexican hatter's art, this charro hat was custom-made for Mexican General Eulogio Ortiz in 1921.

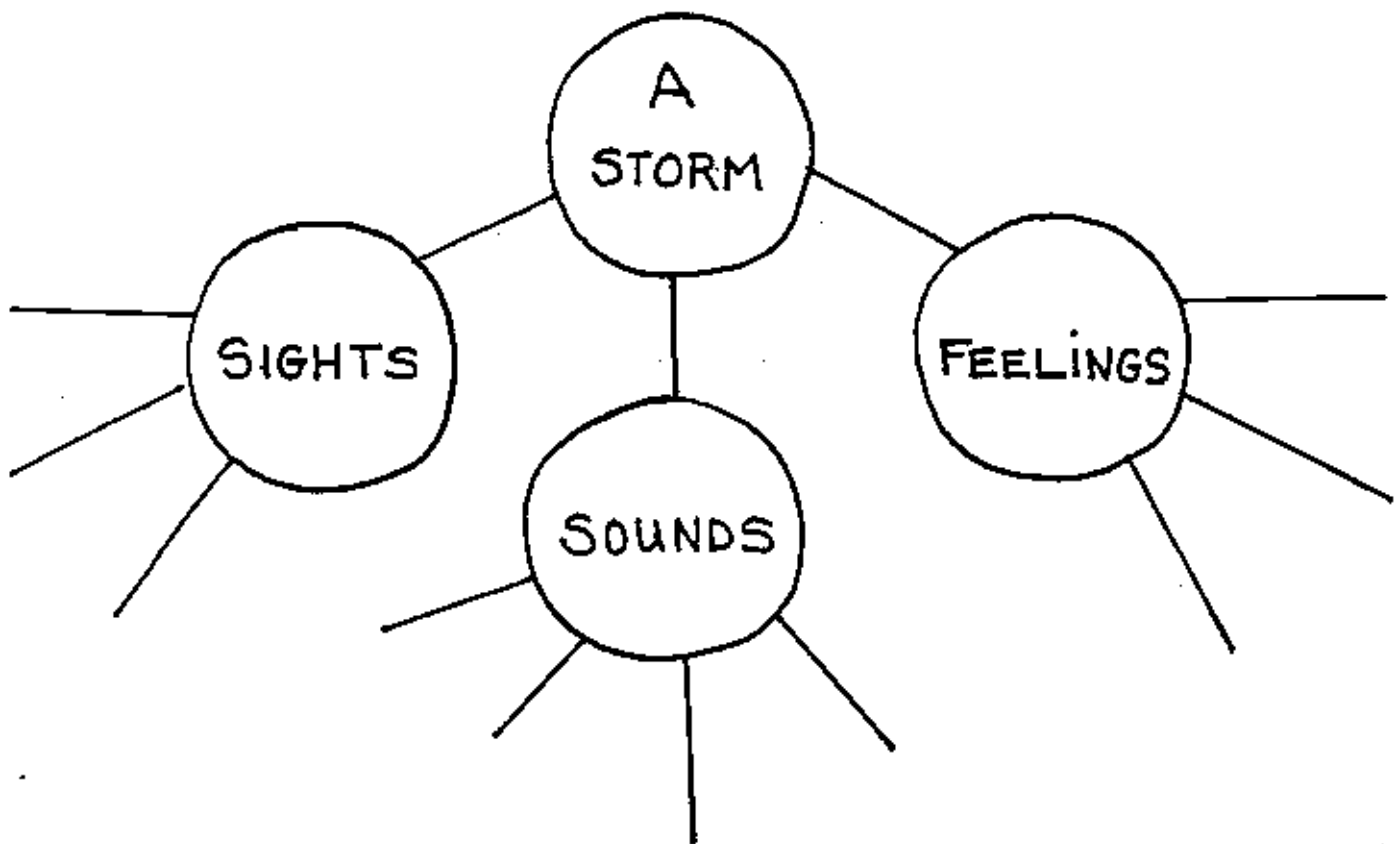
THE COMING STORM

Objective: Students will listen to a story, describe parts of the story, role-play the feelings of characters, and use story mapping as a guide for descriptive writing.

Subject Area: Language Arts and Art

Procedure: Read the story, The Girl Who Loved Wild Horses by Paul Goble, (Bradbury Press, 1980), to the class and show them the illustrations. Ask students to describe the storm and the horses' reaction to it. Allow students to role-play the characters' feelings during the story, as others provide sound effects.

As a class, map sights, sounds, smells, and feelings during a storm. Students use this mapping exercise as a guide for writing their descriptions of a storm.



EXTENSION: Have students illustrate their descriptive writing using the wax resistant technique. Students draw a scene illustrating their writing using wax crayons. Each student paints over the entire paper with watery grey-colored tempera for a storm/scene effect.

Brainstorm with the class words associated with a storm. Write these words on strips of paper. Students can then create a "Stormy Day" bulletin board using illustrations, writings, and words.

THE GIFT OF THE SACRED DOG

Objective: Students will read a Plains Indian legend and write an original myth or legend to explain how something happened.

Subject Area: Language Arts

Background: Bernal Díaz, a Spanish Conquistador and historian, reported that when some Aztecs first saw a mounted Spaniard, they thought the rider and horse were one beast. The Aztecs quickly learned that the horse and rider were separate. As the horse spread through the North American continent and was acquired by the Plains Indian tribes, it dramatically changed their lives. The name Indians gave to the horse varied with tribes. Some tribes told stories to explain the coming of this magnificent animal. These stories grew into legends such as "The Gift of the Sacred Dog."

Procedure: Discuss how cultures throughout history have created myths and legends to explain why things happened. Read the Reading Rainbow Book, The Gift of the Sacred Dog by Paul Goble, (Bradbury Press, 1980), to the class.

Discuss the following questions:

1. What was the problem the people were having?
2. How did the people try to solve their problem?
3. Why did the boy go to the top of the highest hill?
4. Where did the "beautiful animals" come from? What words were used to describe them?
5. With the coming of the "Sky Dogs," how were the people able to solve their problem?
6. What other names might the Great Spirit have given the horses? Why were they different colors?

Have students find "why?" or "how did something happen?" stories from other cultures. Read some of these to the class. Ask students to write their own explanation legends. Students can illustrate and publish these or share them with other classes during a storytelling time.



MATH:

STICK SLIDE GAME

Objective: Students will make a Native American counting game to practice adding and subtracting skills.

Subject Area: Math

Background: Native Americans played many games. Some were played to develop hand and eye coordination. Others, such as the Stick Slide game, involved counting skills and were often women's games. The Stick Slide game used four straight bones or sticks which were made from buffalo ribs, about 7 or 8 inches long, 1/4 inch thick, and about 3/4 of an inch wide, tapering to blunt points at both ends.

Today these can be made using tongue depressors and marked with magic markers. Toothpicks make suitable counting sticks.

Procedure: Give each student 4 tongue depressors to make a stick set using the following directions (see illustration):

Mark two sticks with zigzag lines to represent lightning; these sticks are named Lightning. One stick is called Four Directions, and is divided into four parts by lines drawn across the stick. Make a round dot in each of these four divisions. The fourth stick is marked with three lines across the middle of the stick, and three dots on each side of the center. This stick is called Rain.

Leave the Lightning and Four Directions sticks blank on the reverse side. Turn the Rain stick over and draw three lines across the middle of the stick. Usually these markings are painted in red, blue, or black.

The game can be played by two students or a group of students sitting across from each other. When two lines of students face each other playing the game, they play against the person sitting opposite them. Twelve counting sticks are used as counters and are placed on the ground between the players.

To play, the four sticks are grasped in the right or left hand, holding the sticks vertically with the ends resting on the ground. With a slight sliding motion the player scatters the sticks on the ground in front of him or her.

The player making a successful throw takes from the heap of counting sticks the number called for by the points of the throw, one counting stick for each point showing. As long as the throw counts, the player continues to throw, but if the throw has no count, then the play goes to the opposing player. When the counting sticks have all been taken from the pile on the ground between the players, the successful thrower begins to take from his or her opponent the number of sticks called for by his or her throw. Twelve points must be made before the 12 counters come into the possession of one player. The game can become drawn out. In fact, counters can be kept by the players, and the game discontinued and started up where everyone left off on the next day. Sticks and counters can be kept in zip-lock bags with students' names written on the bags.

Points are as follows: When a Lightning stick falls with the zigzag showing this counts 1. Either Lightning stick counts 1. The Four Directions stick counts 4. The Rain stick counts 3. The two Lightning sticks and the Four Directions stick when reversed to their blank side count as zero. The reverse side of the Rain stick, which shows the three marks across the center, cancels out any counts that might be made with the other sticks. When this happens the thrower loses his or her turn.

STICK SLIDE GAME

counts 1 counts 1 counts 4 counts 3



Lightning



Four
Directions



Rain

1.

counts 0



counts 0



counts 0



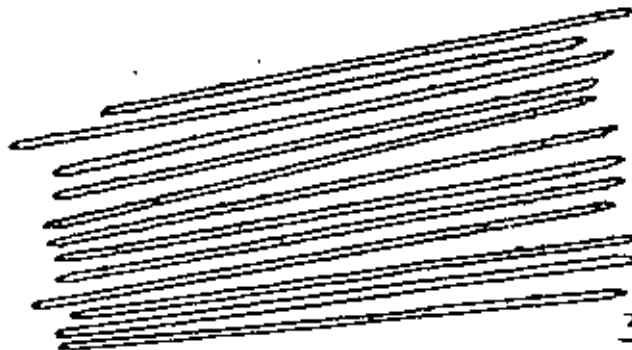
cancels out
all scores
made by
any of
other three
sticks



The reverse of
above sticks

2.

12 Counting sticks



3.

HOW FAST CAN YOU GO?

Objective: Students will compare the speed of the horse with other forms of transportation and complete a speed and distance chart.

Subject Area: Math

Procedure: Ask students how humans have transported themselves in history. Answers should include walking, the horse, train, bicycle, car, and airplane. Post the following average-speed data on the chalkboard:

<u>MEANS OF TRANSPORTATION:</u>	<u>AVERAGE MILES PER HOUR:</u>
Walking	3
Horse riding	10
Horse-drawn wagon	5
Early train	33
Bicycle	18
Automobile	55

Have students copy the chart onto their own paper. Direct them to add two additional headings: **HOURS TO GO 100 MILES** and **MILES TRAVELED IN 8 HOURS**, and calculate the answers for each means of transportation.

Review answers and ask students to name factors that could influence the speed and distance of each transportation mode.

EXTENSION: Horsepower is a term coined 200 years ago to compare the power of a steam engine to the power of work horses. A 1 hp engine is equal to 1.5 work horses. Compute the number of horses replaced by each engine:

4 hp = _____ Horses

7 hp = _____ Horses

10 hp = _____ Horses

30 hp = _____ Horses

Bonus: Find out the horsepower of your family car. How many horses would it need if the engine didn't work?



SCIENCE:

GETTING FROM HERE TO THERE

Objective: Students will predict, observe and draw conclusions by comparing the force needed to drag an object with the force needed to move an object with wheels.

Subject Area: Science

Background: The horse provided the primary means of early transportation for raw materials, products, and people. Wagons, stagecoaches, carriages, and streetcars were all wheeled vehicles pulled by horses. The first crude motors were often driven by horses turning a wheel. Some scientists believe that the wheel was not used in the pre-Columbian Americas because the people did not have a domesticated animal large enough to pull a wheeled vehicle.

Procedure: Set up one or more of the following experiments to be done in class by small groups of students. Have each group make a prediction, record its observations and form a conclusion:

EXPERIMENTS: (directions for student groups)

#1. Tie string around a book and drag the book across a table. Put rollers (cardboard paper-towel tubes) on the table. Drag the book across the rollers.

Question: Which is the best way to move things? Why?

#2. Tie string around two books and pull them across the table. Make a cart using a milk carton, four small wheels, two long nails, scissors, string, and tape. Put the books on the cart. Pull with a string attached to the cart.

Question: Which is easier to pull? Why?

#3. Tie string around a book and drag with a spring scale. How hard is it to pull? How much force did you use? Put the book on top of the milk-carton cart and pull with the spring scale. How hard is it to pull? How much force did you use? Add more books to your cart to see how much you can carry.

Question: Which way can you pull the most weight? Which way is easier? Why?

#4. Tie string around a book and drag it with two spring scales. How much force do you use with each scale? Put the book on top of the milk-carton cart and pull using two spring scales. How much force did you use? Add books and see how much you can carry using two scales to pull.

Question: Which way is easier? What happens when you pull with two spring scales? Why?

Ask each group to report its conclusions. Discuss the scientific principles involved. Use class-generated conclusions to re-emphasize the importance of the horse and of wheeled vehicles in the development of transportation.

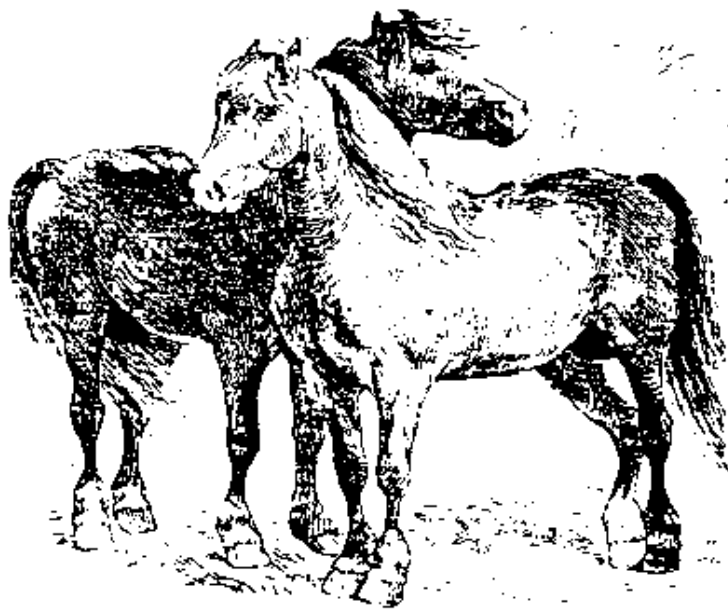
WRITING FOR SCIENCE

Use the following story-starters as science writing projects:

1. Pretend you are a Native American. Write a letter to a friend and tell him or her what you thought when you first saw a Spanish soldier riding a horse.
2. Pretend you are a Comanche. Write a conversation between you and a friend to describe how the horse has changed your life.
3. Your local newspaper wants you to write an article about the anatomy of the horse. Use the library to find interesting facts about the horse and include them in your article.



The Coming of the Spaniards



"Produced by special arrangement with The Witte
Museum of the San Antonio Museum Association."

ART:

PICTURES TELL A STORY

Objective: Students will record changes in the lives of Plains Indians after they acquired the horse by drawing a pictorial history on a make-believe buffalo hide.

Subject Area: Art

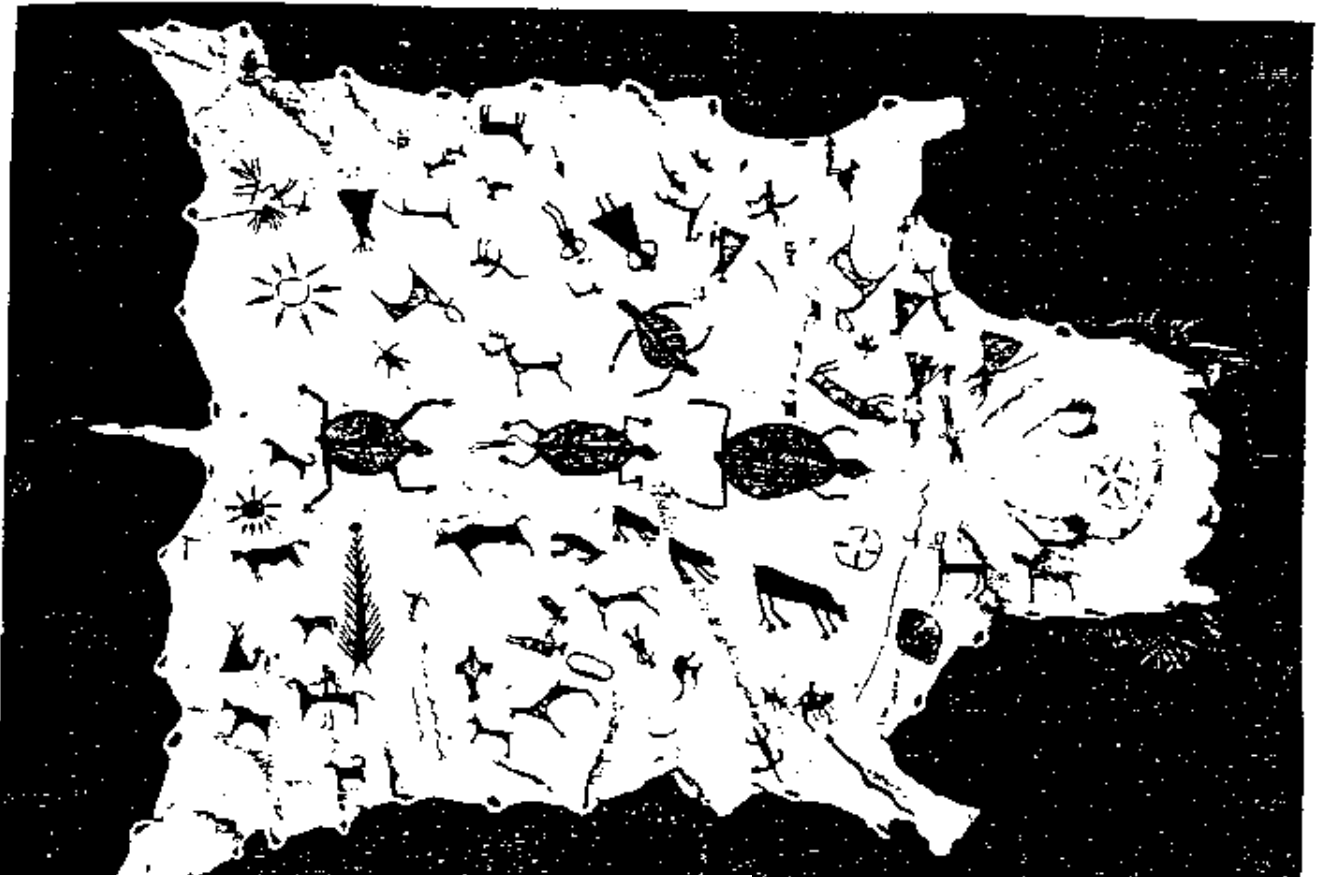
Materials: Large pieces of brown craft/wrapping paper cut in the shape of buffalo hides, color markers and/or crayons

Procedure: Review Plains Indian background information with students. Make a class list of how the Plains Indians lived before the horse and after they acquired the horse. Explain that Plains Indians often decorated the buffalo hides from which their tipis were made with picture histories of their life.

Divide the class in two groups. One group will make a tipi cover which records pre-horse Indian life, and the other will record post-horse history. Distribute several paper hides to each group. Remind students that large tipis were made of several buffalo hides. Working in smaller groups of 2 or 3, students draw a pictorial history on each paper hide.

NOTE: Brown grocery bags make good "hides." They can be "worked" or softened by crumpling and uncrumpling the paper until it is soft and pliable like the animal hides Indian women prepared. Some students may want to research and report on how hides were tanned and prepared by the women.

When the hides are completed, individual paper hides can be taped together and placed around poles to form a tipi, one for pre-horse history and one for post-horse history, or the hides can be displayed on the classroom wall. Allow time for the student artists to interpret their work for classmates after they have finished their drawings.



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