Introduction

William H. Doelle, Ph.D.,
Executive Director,
Center for Desert Archaeology

Over the past 12 years, employees or members of the Center for Desert Archaeology have logged thousands of hours on field studies, artifact and library research, or hiking recreationally in and around Catalina State Park. As a result, most of the archaeological sites in the park are now part of a district that is listed in the National Register of Historic Places. In addition, cooperative efforts between the Center, Catalina State Park, and the U.S. Forest Service have created an interpretive trail through the Romero Ruin.

Archaeology in the Mountain Shadows: Exploring the Romero Ruin, a booklet written by Deborah L. Swartz and me, provides a broader context to what can be seen along the Romero Ruin trail.

When we did the archaeological survey in 1986, we saw a number of historic ruins and artifact scatters. The surface clues of rusty cans, broken glass, and crumbled walls were interesting, but the didn’t reveal very much about what had gone on there. Connie Allen-Bacon’s work has tapped the rich resources of family memories and photo albums along with the materials available in historic archives. Her work expands our perspective on the human history of what is now Catalina State Park and helps document what archaeology alone could never reveal. Johnathan Mabry’s brief history of cattle ranching provides additional time depth to the story.

Ranches, Mines, Tracks, and Trails: Pioneers of the Santa Catalina Mountains

Connie Allen-Bacon,
Center for Desert Archaeology

In 1996, the Center for Desert Archaeology received a grant from the Arizona Humanities Council to research the lives of the pioneers who had lived in what is now Catalina State Park. Over the next few months historic documents were studied, maps and photographs were examined, and visits were made to old homesteads. Memories of the period researched, beginning in the early nineteenth century and ending in the twentieth century, are still fresh in the minds of the children and grandchildren of eight pioneer families. Their names are associated with local landmarks, such as Pusch Ridge, Sutherland Wash, Romero Ruin, and Buster Springs.

Inspiration for the research came in 1993 when the Center began archaeology tours at Romero Ruin in Catalina State Park. An article in the Tucson Citizen announcing the new tours led Betty Chester Dreyfuss to call the Center to tell us that we had the story all wrong about the oblong depressions in the ground we called Hohokam ballcourts. Betty had lived in the present park area as a child with her parents and sister, and her father had told the family that the depressions were Spanish parade grounds. He had lived in Mexico for 20 years as a young man, Betty told me, where he saw old parade ground depressions identical to the ones at Romero Ruin.

Betty and I still don't agree on that point, but I was delighted to talk to someone about the Romero Ruin as it was in the 1930s, and I invited Betty and her husband, Tommy Dreyfuss, to tour the Catalina State Park area with me one day in 1993. Betty's family had lived in an old adobe house with rifle slits for windows, owned by Fabian Romero Jr., Francisco Romero's grandson. This house is shown on the map of Pima County surveyed by George J. Roskruge in 1893.

CATTLE RANCHING ON THE NORTHWESTERN SLOPES OF THE CATALINAS

Francisco Romero was born in 1822 at the Tucson Presidio shortly after Mexico became independent from Spain. Tucson was a small fortress, surrounded by an adobe brick wall (see AIT July 1993). Historical records indicate Romero helped survey the border between Mexico and the United States in 1853, the year before the Gadsden Purchase.

Shortly after the Civil War ended in 1865, Romero established a ranch with 60 head of cattle in what is now Catalina State Park, building over prehistoric Hohokam Indian structures. In 1870 the Tucson Weekly Citizen reported that Romero and his wife Victoria had
Catalina State Park…

...lies at the foot of the northwestern slopes of the Santa Catalina Mountains within the rugged foothills and lower bajadas of this northwest by southeast trending range. These are block-faulted linear mountains in the Basin and Range province of southern Arizona. Quartzite, granite, and gneiss material predominate, with limited amounts of intrusive igneous rock.

Elevations range from 2,500 feet at the base to 9,500 feet atop Mount Lemmon, although the park only goes to 4,000 feet. Ponderosa pine and Douglas fir forests lay at the highest elevations, while juniper, pinyon pine, oak, manzanita, and agave range as low as 4,00 feet. There are several springs along the base of the mountains, and two major washes in the park, fed by a number of smaller tributaries originating in the higher elevations where precipitation is about 30 inches annually. Mesquite, Arizona ash, cottonwood, sycamore, walnut, desert willow, and paloverde trees, various cactus including the saguaro, and several grasses grow at lower elevations. Annual precipitation in the park is about 11 inches a year; low winter temperature is 20 degrees F, and the summer high is 115 degrees F.

Mountain lion, bobcat, raccoon, coyote, bighorn sheep, javelina, mule deer, skunk, cottontail, jackrabbit, and ground squirrel, plus a wide variety of snakes, lizards, and birds, are seen in Catalina State Park. Antelope were probably present until the early 1900’s, and grizzly bears and jaguars were also inhabitants according to pioneers’ stories, although historical sources suggest they were very rare.

Archaic period hunters arrived sometime after 5000 B.C. They and many other later cultures left evidence of their use of this varied and abundant habitat. Visitors to the Romero Ruin can view a Hohokam settlement, one later used by the Romero family.

left for Sonora. This departure was caused by constant Apache raids on their ranch which made the "Catarinas unsafe for man or beast." Romero died in 1905 when he was 84 years old, and his grandson Fabian said that at his death his grandfather's body was riddled with scars from lance and arrow wounds inflicted by the Apache.

FROM STAGECOACH TO CATTLE RANCH

In 1892, William Henry Sutherland sold his interest in the Arizona Stage Company, which ran from Casa Grande to Tucson. He felt cattle ranching would be more lucrative and, with his sons, built a ranch house and well at the mouth of Cargodera Canyon; one can still see the ruins today. Cattle usually range within one and one-half miles of a water source, and the Sutherland ranch stood on the banks of a wide wash, now named after him, to insure his cattle had water. Like many ranching families, Sutherland owned a home in Tucson and the family spent only part of the year on the ranch.

Today Sutherland's ranch can be identified by two-foot high adobe walls, slowly melting into the desert. The ranch house is 28 feet long and 18 feet wide. An old road is still visible, running out of Sutherland Wash and heading northeast toward the mountains.

THE FIRST STEAM PUMPS
IN ARIZONA TERRITORY

A German emigrant, filled with dreams of becoming a big cattleman, helped solve the problem of a lack of water supply for herds near Tucson. George Pusch was born in Frankfurt in 1847. After a short stay in New York, where he worked as an apprentice butcher for $7.50 per month, he headed west, settling first in California. From there he drove a 14-mule team to Tucson, Arizona. He soon persuaded a young friend from Switzerland, John Zellweger, to join him here. They pooled their resources and in 1874 bought the Steam Pump Ranch on Oracle Road just south of the Canada del Oro crossing. The partners installed the first steam pumps in the territory, pumping water into holding tanks. Ranchers from all over the Arizona Territory brought their cattle herds either to Tucson or Red Rock for shipment back east, and the Steam Pump Ranch was the spot where cattle were watered down the day before they were loaded onto stock cars. Pusch charged 15 cents a head for watering cattle. Ranchers were paid by the pound as the cattle entered the stock cars for their long journey to distant cities, and were more than willing to pay. Pusch and Zellweger also had 15,000 head of cattle branded "PZ." Attorney Henry Zipf, George Pusch's grandson, tells that mounted Apaches circled his grandfather's wagon at the Antelope Plains, northwest of Oracle Junction, as the family traveled from the Steam Pump to their ranch on the San Pedro. Occasionally the children would travel with their parents on this trip. Two of the youngest girls had long blonde hair and the Apaches found great pleasure in running their fingers through it. The Pusches would tell the girls, "Don't get upset. Don't let it bother you." Pusch never carried a gun. George Pusch was also a member of the Constitutional Convention which met in Phoenix in 1910, helping prepare Arizona for statehood.

THE OLD HAT MINING DISTRICT

In 1887, William Neal, another local entrepreneur, established a stage line to carry mail north from Tucson with stops at the Steam Pump Ranch, the American Flag Ranch outside Oracle, the Southern Belle Mines, and the Mammoth Mines. In 1895 Neal and his wife, Anna Box, opened the Mountain View Hotel and Resort in the town of Oracle, 35 miles north of Tucson. Neal charged $10 to $12.50 per week, with an additional 50 cents for the stage ride from Tucson to Oracle, including grub and cigars. The guest list of the Mountain View between 1902 and 1916 included old friends of William Neal's, Buffalo Bill Cody and his wife, Lulu.

Buffalo Bill had become rich through his traveling show "The Wild West and Congress of Rough Riders of the World." But by 1902 the popularity of the Wild West show had begun to wane and Cody invested in mines near Oracle;
Above: Pusch and Zellweger stationery (Courtesy of Arizona Historical Society, Pima County butcher records, MS-103, Folder 11-2). Left: The original ranch house at the Steam Pump Ranch in 1900. The people are unidentified (Courtesy of Henry Zipf).

his principal mines were Campo Bonito and the High Jinks. He mined gold, silver, and other materials from his claims, but never struck it rich. Cody was a generous man known for handing out silver dollars to acquaintances and for playing Santa Claus on Christmas Day in 1911, giving presents to over 200 people at Campo Bonito Mine.

SABINO CANYON IS FIRST PACK TRAIN ROUTE TO MOUNT LEMMON

The stories of gold and silver caught the attention of another pioneer, John William Knagge, who came to Tucson in 1908 to install the heating and ventilation system of the new Tucson High School. He was taken with Tucson and brought his young wife and four little children to a homestead that stretched from the Pima, Wilmot, and Tanque Verde Road intersection north and east of Grant Road, encompassing the present day Trail Dust Town. Mary died after the birth of their sixth child in 1911, and John went to California with his employer, the Southern Pacific Railroad. There he married Tessie Wilson and brought her and her young son, Billy, back to Tucson.

The Plate Rail Trail, perched high above the canyon floor (like the rail used to display plates in a kitchen), was built for a telephone line from the Lowell Ranger Station in Sabino Canyon up to Mount Lemmon in 1911. A couple of years later, John Knagge and son Ed began a
Mines on burros during the 1940s. Pete showed me a large diamond-shaped rock in Finger Rock Canyon and swears that his brother Sonny watched as three men dug up a metal box containing treasure, reported to be buried by Father Escalante when the Jesuits were expelled from the desert, from under that rock. That "treasure" and other fabled caches of gold—such as the fabled lost Mission of Cirú (where Jesuits are reported to have buried vast amounts of gold under the floors for safekeeping) and the Iron Door Mine (where miners supposedly found, near Canada del Oro, ruins and gold)—have enticed men for many years to seek gold in the Santa Catalina Mountains.

LION HUNTERS AND CHICAGO GANGSTERS

"Buffalo Bill" Cody plays Santa Claus to mine workers' children on Christmas Day in 1911 at his Campo Bonito Mine, Oracle, Arizona (Courtesy of Buffalo Bill Historical Center, Cody, Wyoming, photo P.69.1857).

In 1893 the Arizona-New Mexico Territorial Legislature passed the first Territorial Bounty Act, which allowed counties to appropriate money for bounties on "predatory wolves, big bears (grizzlies), mountain lions, bobcats, and coyotes." Bounties paid by the state ran as high as $75 for mountain lions, and up to $500 from private sources.

When Billy Chester lived in Mexico as a young man, he had fought for Obregón against Francisco "Pancho" Villa in...
Billy and Fay had an extremely efficient babysitter for the girls when they were both away from the little ranch. Her name was "Cheppa," and she was a cow. Cheppa had long horns, and Betty remembers she was meaner than sin. Cheppa kept the girls inside of the house by patrolling the front door, and whenever one of the girls ventured outside, Cheppa enthusiastically chased her back in the front door.

**THE IRON DOOR MINE LEGEND GROWS**

One of Betty Chester’s recollections is of an enterprising Chinese man from Tucson who, about twice a year, would sell beautiful, aged, 

the Mexican Revolution. He returned to Arizona as custom agent at the border town of Lochiel where he began a long career working with hound dogs. After working as dog trainer at the Florence prison, he moved his wife, Fay, and two young daughters to the Kelly Guest Ranch near present-day Romero and Sutherland trail heads in the Catalina State Park. Billy quickly became a sought-after guide for lion hunting expeditions into southern Arizona and Mexico.

Soon after the Chesters moved to the Kelly ranch in the 1930s, owner Charlie Kelly got sick and died. Afterwards his son John, a gangster from Chicago, came to the ranch to hide out. John brought his hoodlum friends into the canyon in a chauffeur-driven limousine, literally dressed "fit to kill" in city suits, shirts, ties, hats, and machine guns.

Billy and Fay decided this was not a good atmosphere for the young girls, so they arranged to rent Fabian Romero's old adobe house, which was about a quarter of a mile west of the Kelly ranch. But the move was not enough to bring the Chesters the peaceful home they desired. One day when Fay, Billyann, and Betty were watering tomatoes in their new garden, the long Phaeton drove by and machine guns sprayed the garden area. Billy made a quick trip to visit John Kelly, and it never happened again.

*The Chester family poses in front of the Romero House. Left to right: Fay Chester, Billyann Chester, Betty Chester, unknown, Stanley Graham, ca. 1930 (Courtesy of Betty Chester Dreyfuss).*
Artist Robert Ciaccio's map of the Santa Catalina Mountains locates many of the places described in this newsletter. Vignettes illustrated some of the scenes that took place there over the years: Ranchers stop at the Steam Pump Ranch, 12 miles north of Tucson, watering their cattle (far left) before sending them off to market. During the Great Depression, people developed innovative ways to make a living. Stills hidden in the Santa Catalina Mountains (top right) provided Tucson residents with inexpensive bootleg liquor. John Knagge and his family led pack trains (bottom right) up to Summerhaven, taking supplies to Tucson residents escaping the summer heat.
occasionally worked for Billy for room and board. Buster's family bought land on each side of Oracle Road, just north of the Canada del Oro crossing. In 1927 Buster's dad built a poured adobe ranch house (which is still standing) with the help of his boys. The Bailey family tried operating a service station on the west side of Oracle Road, but were unable to make a living from it. After moving his family back to Texas, Buster returned to the love of his life, the Santa Catalina Mountains. He went to work at the Willow Springs Ranch, near Oracle Junction. His jobs were hand-digging wells, maintaining the windmills, keeping a dozen or so pump engines running, and building miles and miles of fence.

WHISKEY STILLS IN THE SANTA CATALINA CANYONS

More than once, Bailey's work at the bottom of hand-dug wells nearly cost him his life. So he and a friend, Rex, turned to making whiskey when, in his own words, "it became harder and harder to make an honest living. So we saved up our cash and laid in a supply of sugar and cracked corn, called chops, and by rummaging through old still sites in the mountains, we finally had enough barrels, kegs, jugs and jars to go into business.

"Every game has to have a blind, so we took to breaking horses so people knowing us could assume we were breaking horses for a living. Packing kegs of whiskey out of the mountains on a gentle horse on a bright, clear day is not really funny. But try it on a dark night in rattlesnake-infested country and on a bronco horse. Now that's something else. We would set a keg of whiskey on a large rock, mount our horse, ride by and pick up the keg and head down the trail."

Buster knew of other stills; one was in the chicken house behind the Steam Pump Ranch, and the old ranch now called Vistoso had several. Romero and Montrose canyons both had about three stills each. And there were two at old Verdugo place, the last ranch up Romero.

After the war Buster worked for Tony Zimmerman on top of Mount Lemmon. Buster had a habit of taking his horse into the bar at Zimmerman's Mount Lemmon Inn and ordering a 7Up for the horse. People loved to watch Buster put the bottle back inside the horse's teeth and dump it down his throat. Alas, when the horse did what

Betty remembers well another pioneer, Buster Bailey. His family moved next to the Chesters in 1927, and Buster goatskin maps of a route to the buried treasure at Romero Ruin. His 1930s maps showed no less than seven different routes to the treasure and sold for about $10 apiece. People would bring their digging tools on the weekend and dig deep holes in the ground looking for the gold. Billy and Fay Chester's cattle fell into the holes, which were sometimes 10 to 15 feet deep. There was no way to get the cattle out. "Forget that Iron Door Mine, just give me a bunch of those old maps to sell," Billy Chester would say.

Left: An unidentified young man admires Billy Chester's lion taken in Catalina State Park in 1930. Right: Billy Chester feeds his hunting hounds in 1931 (Courtesy of Betty Chester Dreyfuss)
came naturally in the middle of the barroom floor one afternoon, Mrs. Zimmerman threw Buster and his horse out. They were never allowed back in.

In later years, Buster's friends could count on him for beautiful harmonica music, exciting stories of bygone days and old timers in the Catalinas, and cowboy poetry. One of his favorite poems, "The Cowboy's Last Words to a Coyote," was written by J. R. Williams and goes like this:

You're born to be a thief and a killer
And a general all round pest.
But I hate to do this pardner
For you are part of our Old West.
You and me are just like brothers
With our backs against the wall,
In an act that's nearly over
And the curtain is about to fall.

ACKNOWLEDGEMENTS

Many people provided help preparing the talk presented during Archaeology Awareness Month. Relatives and friends of the families graciously spent time recalling stories and sharing photographs. Interviews were conducted with Henry Zipf, John Leiber, Betty Chester Dreyfuss, Tommy Dreyfuss, Jean Knagge Jacobs, Nancy Knagge Gunter, Jean Knagge Paul, Mary Knagge Clement, Pete Knagge, Carol Knagge, Nova Knagge Darnell, Janice Knagge Snow, Lucille Knagge Irskens, Chip Wilson, Thomas W. Knagge, Robert Walcott, Bob Zimmerman, and Mary Lou Bailey.

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This article is a condensed version of a presentation by Connie Allen-Bacon in celebration of Arizona Archaeology Awareness Month. The presentation, first given at Tucson's Nanini Library in March 1997, was constructed around oral histories of the pioneers' lives, taken from their descendants. Family traditions and documentary sources supplemented these oral histories and included modern and historical photos, maps, and family trees. Tapes of oral histories are available through the Arizona Historical Society in Tucson.

This presentation, funded by the Arizona Humanities Council and the Center for Desert Archaeology, is available by arrangement with the Center. This presentation does not necessarily represent the views of the Arizona Humanities Council or the National Endowment for the Humanities.

Catalina State Park…

…was dedicated and opened for visitors in May of 1983. Seven years later, the park property became part of the Coronado National Forest. Within the 5,500 acres that are managed by Arizona State Parks are over 10 miles of trails designated for hiking, birding, nature walks, and equestrian use. An interpretive trail winds through Romero Ruin. Two major park trails connect to Forest Service trails to the top of Mount Lemmon.

There are 48 paved camping slips in Catalina State Park, including 23 which provide electricity for RV and trailer camping, and 25 for tent camping. The 130 day-use parking units give visitors easy access to family picnic areas and larger group use areas. The park is accessible to wheelchairs, and individuals with disabilities may request special accommodations and assistance.

The park is open 365 days of the year and charges a nominal fee for entrance and camping. Its address is 11570 N. Oracle Road, P.O. Box 36986, Tucson, Arizona 85740, and the telephone is 520-628-5798.
Cattle Ranching in Southern Arizona Before the Twentieth Century

Jonathan B. Mabry, Center for Desert Archaeology

The Arrival of Cattle

In 1521, Gregorio de Villalobos brought the first cattle to Mexico. Soon, the conquistadors and their Old World livestock invaded the unknown interior to the north. In 1540, Francisco Vasquez de Coronado led an expedition for the "Seven Cities of Cibola" with 150 cattle, 5,000 sheep, and over 800 horses. Over the next two years, they passed through the San Pedro Valley and the mountains of eastern Arizona a number of times, losing a large number livestock along the route. Decades later, thousands of feral offspring of Coronado's cattle ran wild in Sinaloa and Sonora.

A few ranches were established on the Sonoran coast south of the Yaqui River by 1600. By 1687, the Piman Indians at Remedios were complaining that the Spaniards were grazing so many cattle that water sources were drying out. Father Eusebio Francisco Kino gave more than 100 cattle and a number of horses to the 500 Sobaipuri Indians at the village of Quiburi on the San Pedro River. From his base ranch in Dolores, Father Kino was able to supply livestock to a network of new missions he had started in the Santa Cruz, San Pedro, and Sonoita valleys of the Pimería Alta in the 1690s and early 1700s.

A Hardy New Breed and La Gente de Razon

Apache raids between 1684 and 1786 scattered livestock from Spanish missions and ranches. During the same period, the missionaries gave cattle freely to the peaceful Papago and Sobaipuri. By the late eighteenth century, after a hundred years of breeding on ranches, in Indian villages, and in the wild, the hardy, native Sonoran "criollos" dominated this remote frontier. These descendants of Andalusian cattle were well known for their stamina and adaptability. But the "criollos" were not famous for their good looks or tender flesh; they seemed all "cuernos, cuero, y cojones!"

A new Spanish policy of appeasement, including bribes of liquor, cattle, and inferior guns, resulted in a dramatic decrease in the number of Apache raids after the 1790s. Ranching and mining flourished on the northern frontier. After Mexico gained independence from Spain in 1821, the formerly peaceful Opata and Yaqui Indians revolted in Sonora, pushing the cattle industry north. Wealthy ranchers claiming to be of noble Spanish descent, "La Gente de Razon," established large haciendas along the river's of southeastern Arizona. These haciendas were self-contained, fortified strongholds containing all of the amenities that isolated communities required.

Large cattle ranches in southern Arizona, 1854-1900.

Mexican Rancheros and Anglo Immigrants

The new Mexican government did not continue the payments to the Apache, or maintain garrisons on the frontier. Apache raiding began anew in 1831, and unprotected Sonoran rancheros and their families fled to the walled presidios at Tucson and Tubac. By 1835, cattle ranching on the northern frontier was almost completely disrupted. Livestock not taken by the Apaches was left to fend for itself. During the Mexican-American War of 1846-48, soldiers and travelers reported that upwards of 100,000 wild cattle ran free in the vicinities of the abandoned haciendas. Mexicans hunted the cattle for their meat, tallow, and hides, while Anglo soldiers and Forty-Niners finished off the fierce, almost "bulletproof" bulls.

Anglo-American immigrants arrived and established ranches after the Gadsden Purchase of 1854, which included southern Arizona. But ranchers suffered from renewed Apache attacks after U.S. troops left the area during the Civil War. Pete Kitchen, a rancher who brought in 700 cattle from Mexico, described the major stations along the road to Sonora past his ranch on Potrero Creek as "Tucson, Tubac, Tumacacori, and to Hell." Aside from a few herds kept by the Pima and Papago, few cattle were left in the whole region by the mid-1860s.

The Last Indian Wars And New Ranching Traditions

After the Civil War the U.S. Army turned from war to Indian fighting. General Crook settled some Apache groups on reservations in the 1870s, and drove the others to Mexico. Once again, cattle were brought into southern Arizona from Sonora, New Mexico, and Texas. Large ranches were established by Anglo-Americans. The majority of new ranches,
however, were established by native families of northern Sonora.

By 1870, there were 250,000 cattle in the Arizona Territory. Most of these were between Tucson and Sahuarita in the Santa Cruz Valley, where closely spaced ranchers could join together with the Papagos to defend themselves from the Apaches. The herds were marked with brands first used in Sonora, generations before. Gradually, though, the old Mexican land grants and small ranchos were bought up by wealthy Anglo investors. The age of the cattle barons had begun.

### Boom and Bust in the Late Nineteenth Century Cattle Industry

To maximize profits over the short term, late nineteenth century ranchers increased their herds until the range carrying capacity was exceeded and became degraded. The rapid expansion of the cattle industry was made possible by the completion of railroads across southern Arizona in 1881. The railroad companies, cattle rancher associations, and Territorial legislatures advertised lush ranges and easy riches. Eastern American and British capitalists invested heavily in Western ranching. Every running stream and permanent spring was staked by ranchers by the mid-1880s, and the national market for beef became glutted. To weather the low prices for beef, many Arizona ranchers formed large corporations. More cattle were driven into the Territory after blizzards on the Great Plains hit in 1886-1887. A bloody range war erupted between cattlemen and sheep herders competing for pasture and water in the Tonto Basin.

There were probably a million and a half cattle in Arizona by 1891, when a three-year drought began. Most ranchers lost between 50 and 75 percent of their herds by 1893. Their woes were compounded by increasing railroad shipping rates, and the widespread failure of eastern banks in the same year. During the ensuing financial panic, many loans were foreclosed and immediate repayment of debts was demanded, forcing many ranchers under.

The combination of drought, overgrazing, and changes in fire ecology led to drastic changes in the landscape during the late-nineteenth-century cattle boom. Overgrazing and harvesting of hay for the Army depleted the ground cover and led to increased runoff and erosion. A further sign of range deterioration was the rapid spread of mesquite trees. Cattle trampled cienegas into quagmires that were then incised by arroyos. In overgrazed valleys, rivers stopped flowing as water tables dropped. The frequency of natural brush fires also decreased. The native perennial grasses were rapidly replaced by native and exotic annual grasses.

### The Beginning of Modern Stock Breeding and Range Management

Anglo ranchers began introducing new breeds of cattle and foreign fodder varieties to “improve” herds and ranges. Henry Hooker imported purebred Shorthorn and Durham stock to upgrade his herds in the Sulphur Spring Valley, and purged his livestock of native longhorns by 1879. Colin Cameron brought the first purebred "whiteface" Herefords to his ranch near Nogales in the early 1880s. On most other Anglo ranches, the native Sonoran and Texas longhorns were also replaced.

After the 1891-1893 drought, ranchers started over. This time they were concerned with long-term production rather than short-term profit. They concentrated on improving their ranges by installing fences, windmills, and water tanks. The innovation of stock tanks greatly reduced the impacts on perennial riparian areas and grasslands by dispersing the previous concentrations of cattle. Herd management and marketing changed as well. Until the 1890s, ranchers generally retained all female stock and sold range-grown two- and three-year-old steers. But they learned the hard way that this practice led to overstocking. By 1900, ranchers marketed calves or yearlings almost exclusively, a trend which continues today.

**NOTE:** Thank to Jami Macarty who helped edit this article.

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Number of cattle in southern Arizona, 1700-1990.
Center for Desert Archaeology
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Buster Bailey and his beloved Santa Catalina Mountains, photo taken in the 1980s (Courtesy of Pete Cowgill).

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If your address label indicates that your Archaeology in Tucson membership has expired, please renew promptly to remain eligible for all activities, newsletters, and discounts on T-shirts and Center for Desert Archaeology publications.

Cienega Valley Survey

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For further information about the Center for Desert Archaeology or the Archaeology in Tucson program, call Lisa Armstrong at 520-881-2244. For information about the Archaeology in Tucson newsletter specifically, please contact the editor, Homer Thiel.

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1st Saturday 3rd Sunday
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November 1 16
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