

Trails, Rails, and Roadways in Pima County

Sonoran Desert Conservation Plan

2001

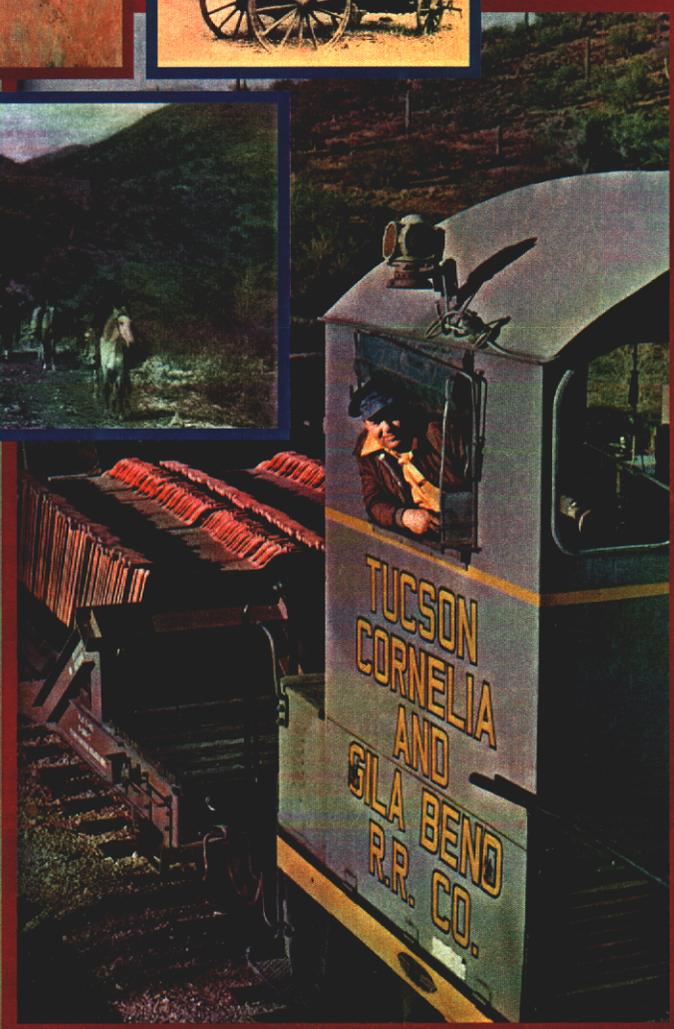


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DESIGN BY PETER CORRAO
PIMA COUNTY GRAPHIC SERVICES





MEMORANDUM

Date: January 7, 2002

To: The Honorable Chair and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator *CH*

Re: **Trails, Rails and Roadways in Pima County**

The attached study by Dr. Suzanne Bott of the Pima County Cultural Resource Office describes the evolution of transportation routes and transportation methods in Pima County throughout time, and the effect that modes of transportation have had on the size and form of the community. New technologies and new cultures have had profound impacts on the community, but they have arrived on the routes established by others. Oracle Road of today was once the passage way of Apache raiders. The I-19 and I-10 corridors were major trails for Native American and Spanish occupants and explorers. Stage, freight, and railroad transportation followed the main historic corridors established by previous cultures and technologies.

The *Trails, Rails and Roadways* study is divided into seven major sections:

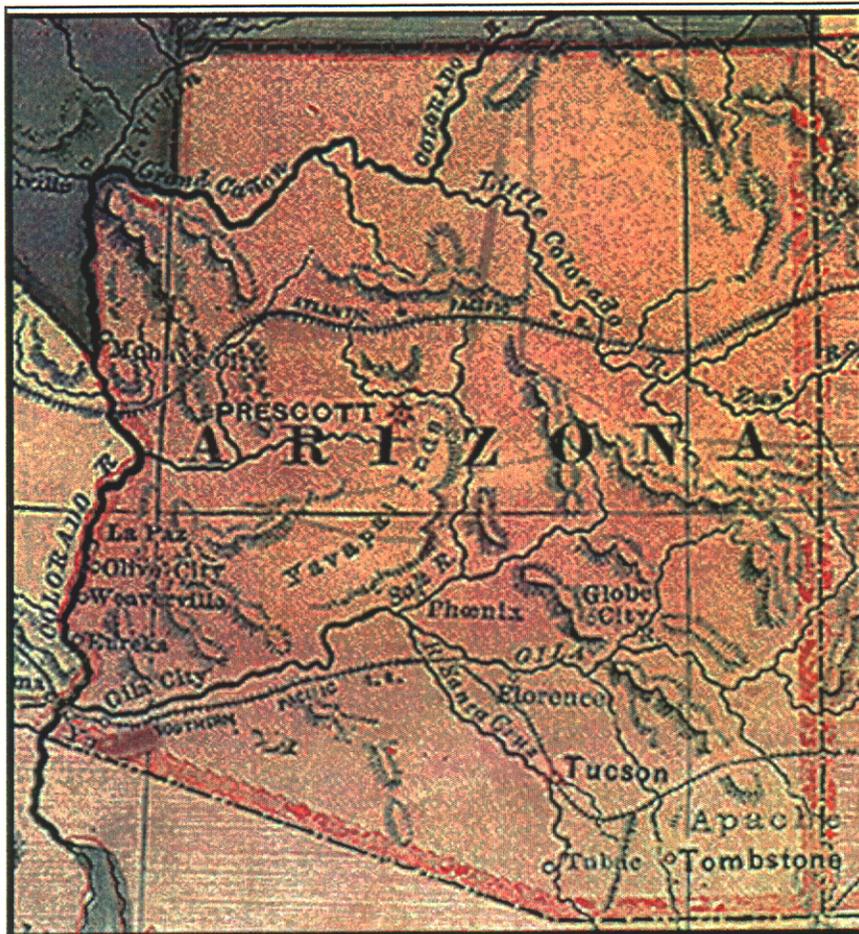
- First Trails and Native American Trails Before 1535
- Spanish Arrival and Colonial Period Transportation, 1535 to 1840
- Transportation During the Mexican Period, 1821 to 1854
- Transportation During the United States Expansion and Territorial Period, 1854 to 1912
- Stagecoach and Freight Roads, 1850s to the 1920s
- Railroads, 1880 to the Present
- Early Automotive Routes, 1899 to the Present

As we enter the fourth year of the study series for the Sonoran Desert Conservation Plan we are fortunate to have staff who can translate the maps and data of the technical process into a narrative that leaves us with a better understanding of our unique community character and our fantastic history. Dr. Suzanne Bott has achieved just this with her well researched and well told history of Pima County's trails, rails and roadways.

Attachment

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Introduction

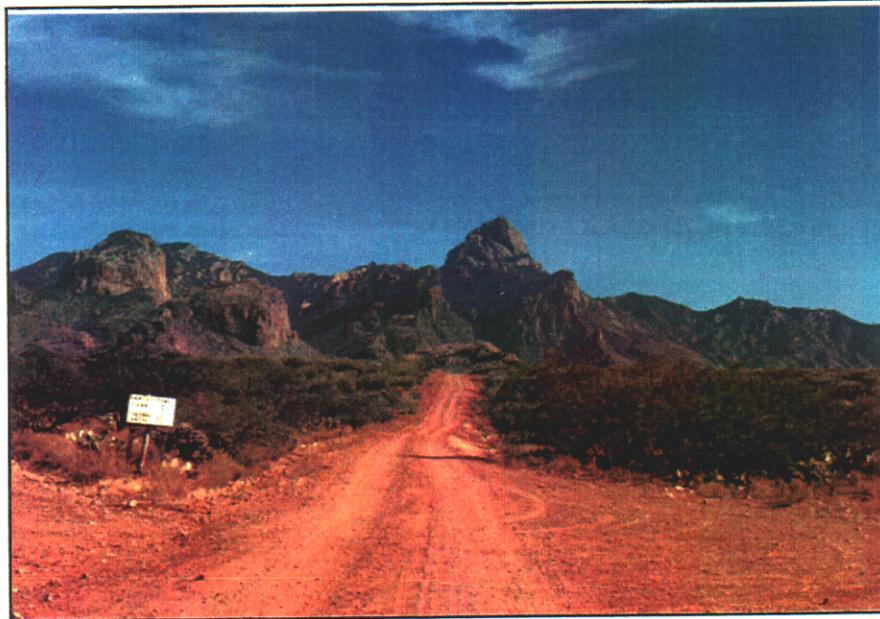
The landscape of Pima County is laced with an intricate network of roads, many of which date back to the earliest human existence in the region. Intermingled among today's modern routes are the ancient paths once used by animals and humans in search of food and water. In some cases, those same trails have been used over hundreds of years by explorers, immigrants, and settlers of the new frontier. Their footsteps wore paths in the earth that were to be used for years to come, and eventually led to the towns, ghost towns, pre-contact native sites and abandoned mines we recognize today. While the early hunter-gatherers usually developed trails that followed a path of least resistance, they were not always a straight line; many of today's roads reflect those circuitous roots.

Pima County's historical routes are important to us today for two main reasons. First, many are still in use today and are part of our daily lives. Understanding the evolution of transportation networks in this unique and sensitive landscape is important in seeing how those routes can accommodate our future transportation needs. If the shortest distance between two points is a straight line, how can we most efficiently plan our routes while keeping within the topographical, biological, cultural, and geographical constraints of the sensitive Sonoran Desert? Careful consideration must be given to fragile ecosystems, hazardous flood plains, unstable mountainsides, and irreplaceable vistas.

Second, they tell us a great deal about Pima County history. This historical perspective is important in helping us understand the lives of the earliest native people, explorers and conquistadors, and the settlers of the County. Their immigration and travel routes shed light on what was important then, and give us many clues into what civilization was like during those times. That tells us about the cultural heritage unique to this area and why Pima County has evolved into the unique blend of cultures it is today.



The Arizona Southern Railroad Locomotive No. 11



Waw Giwulk, Baboquivari Peak

Goals of Report

The primary goal of this report is to inform residents and visitors about early travel in Pima County. Once people understand this part of the County's cultural heritage, it is hoped that they will have a greater level of caring and concern for what happens to the region in the future. Studies in heritage preservation have shown that the long-term protection of historical resources is accomplished by informing the public about the past and giving it meaning or salience in their lives. Then they become eager to preserve their heritage for future generations.

We also hope that this study will provide a basic understanding of the early travel, exploration, and settlement that will spark readers' curiosity and interest in finding out more about one aspect of Pima County's history. We hope it will be informative, interesting, and fun.

This report is based largely on a study prepared by Pat H. Stein in 1994 for the State Historic Preservation Office as a component of the Arizona Historic Preservation Plan. Other sources of information are listed in the back of this document under "Selected Sources and Additional Reading." Any of these resources can be consulted by readers interested in learning more about early travel and transportation in Pima County. This study is not intended to be definitive or all-encompassing, but provide a general understanding of the early roots of transportation. Other reports prepared as part of the Sonoran Desert Conservation Plan provide more in-depth coverage of various cultural resources subjects.

2. First Trails/Native American Trails: Pre-1535

“In Arizona, historic routes almost always have prehistoric roots.”
(Stein 1994:3)

The earliest residents of Pima County were not sedentary people but had to constantly be on the move for their basic survival. The early Paleoindians and Archaic people were hunter-gathers, hunting not only for food, but for water and shelter from the elements (and each other). Dependent upon the seasons and a changing climate, archaeological evidence suggests they lived and traveled in small mobile bands of family groups. It is thought that they resided in an area for a season and traveled hundreds of miles for food collection, leaving as the seasons changed to follow migrating animals or changing water and food supplies.

As the climate gradually changed and the environment along with it, some people settled in villages and began early agricultural enterprises. The Late Archaic and Early Agricultural period, which lasted from approximately 4000 B.C. to A.D. 200, was a time during which some members of the population migrated out of the region following the game species they hunted, while others stayed and adapted their food gathering to the new environment.

During the latter part of this period, small villages were established, early attempts at agriculture were made, and more regular patterns of travel began. The purposes of early travel included hunting and gathering, battles and raids, religious rites and pilgrimages, and trade between villages. Travel routes followed the major river drainages - primarily the Santa Cruz and San Pedro Rivers in Pima County. Over time, trade and commerce with people in areas outside the region developed.



Sketch of Akimel O'odham Village along the Gila River

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Worked shell and stones not found in this area, such as turquoise and obsidian, are tangible evidence of this early trade. Perishable goods such as food and live creatures would likely have been traded as well, particularly from areas of abundance like the Gulf of California. The routes the early traders followed became established over generations and became shared avenues for exchange in ever-expanding circles of contact.

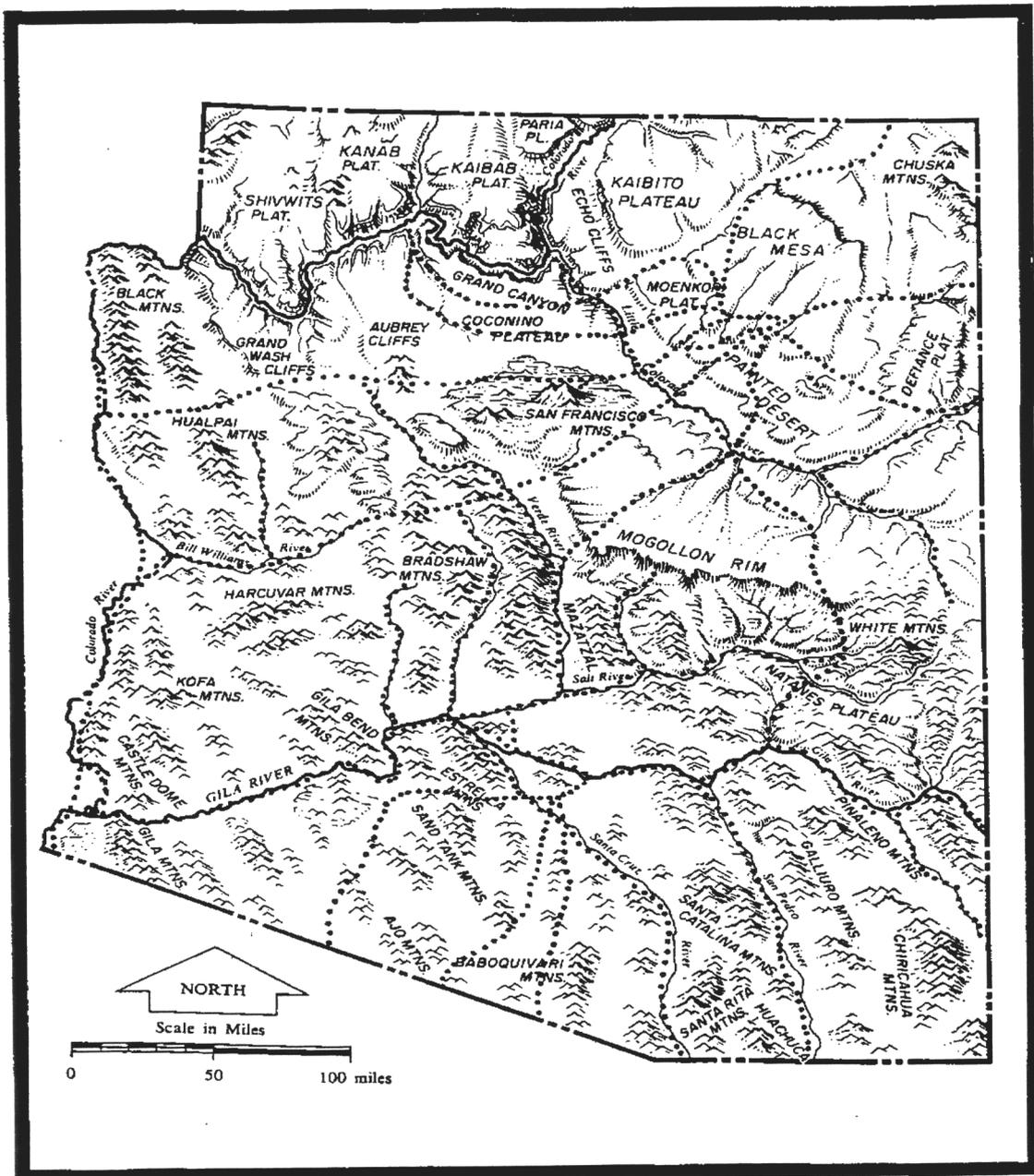


Figure 1. Some of the major Native American trails used in Prehistoric and Historic times (Base map: Walker and Bufkin 1986).

Some of the major Native American trails in Prehistoric and Historic Times

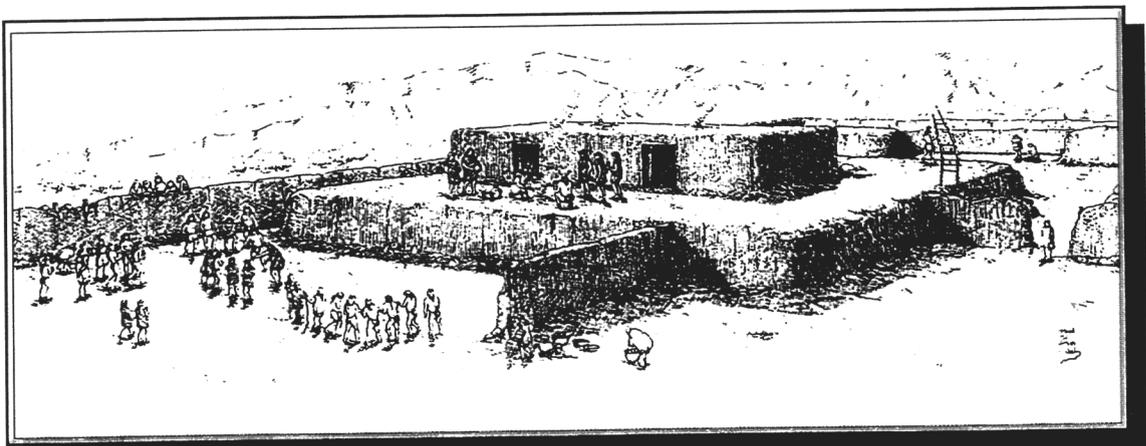
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Between roughly A.D. 200 -1150, known as the Pre-Classic period, the inhabitants of the region farmed and lived in multi seasonal villages using extensive irrigation canals to farm the river valleys, and flood or dry farming techniques in other areas. The term "Hohokam" is used to describe the people inhabiting the region between A.D. 650 and 1450. Archaeological evidence of the Hohokam points to trade with an ever-widening area into present-day Mexico, Colorado, Utah, New Mexico and Texas.

The Hohokam developed a unique type of public architectural feature that defined settlement patterns - human built structures known as "ballcourts" that provided a purpose for travel and exchange between groups within the Hohokam system and those beyond: the Anasazi and Mogollon (Stein 1994). The ballcourts were first built around A.D. 775 and some experts believe they were used to play a form of Mesoamerican ball game, while others suggest they were used for different ceremonial purposes. Whatever their function, the ballcourts served as a reason to bring distant people together.

During the Classic Period, approximately A.D. 1150-1450, the villages became more concentrated and settlement patterns in the region varied considerably between long-term farm settlements along the region's major rivers, and temporary encampments by highly mobile people in the western deserts. The construction of ballcourts ceased and in their place, large rectangular earthen mounds were built, the purpose of which is also unclear. These "platform mounds" were constructed throughout the region and it is likely they had ceremonial or other civic purposes. Artifacts from this era such as worked shell and pottery fragments point to continuing trade outside the region. Sometime around A.D. 1450, the Hohokam lifestyle changed substantially and reasons for this may have been drought, environmental deterioration, warfare, disintegration of social and economic networks, or disease. The development of platform mounds ceased and settlement patterns evolved into dispersed networks.

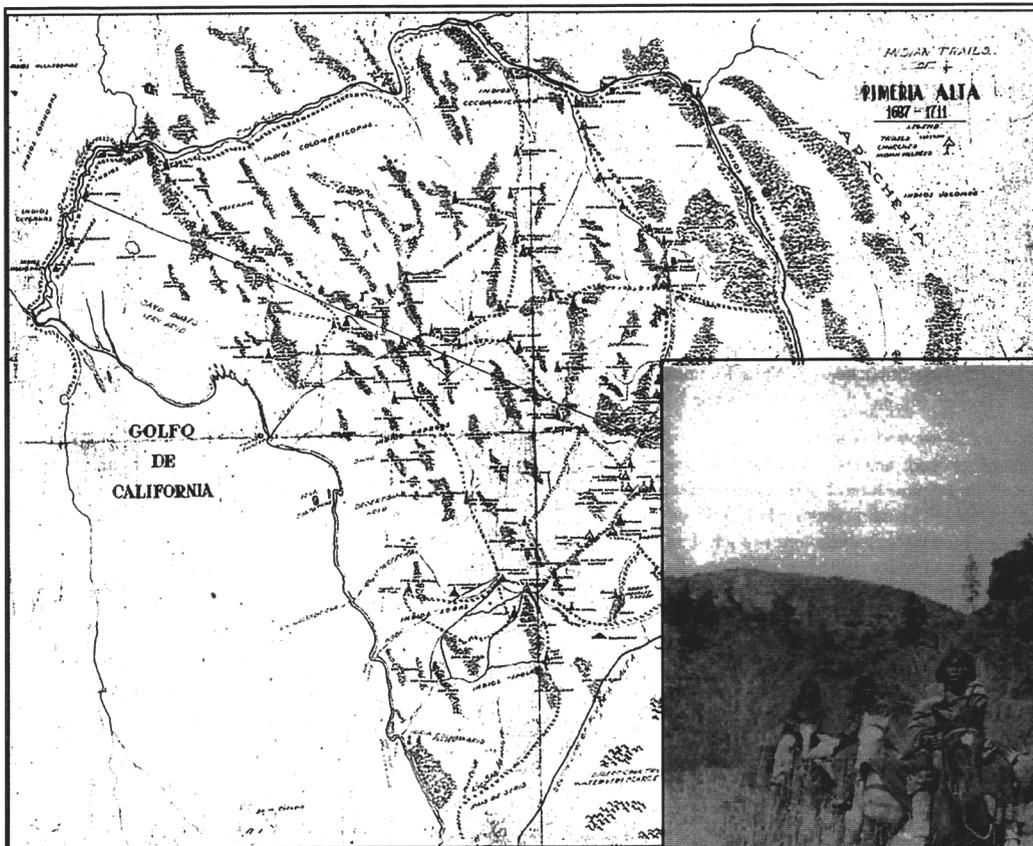


Artist's Reconstruction of a Classic Hohokam Platform Mound

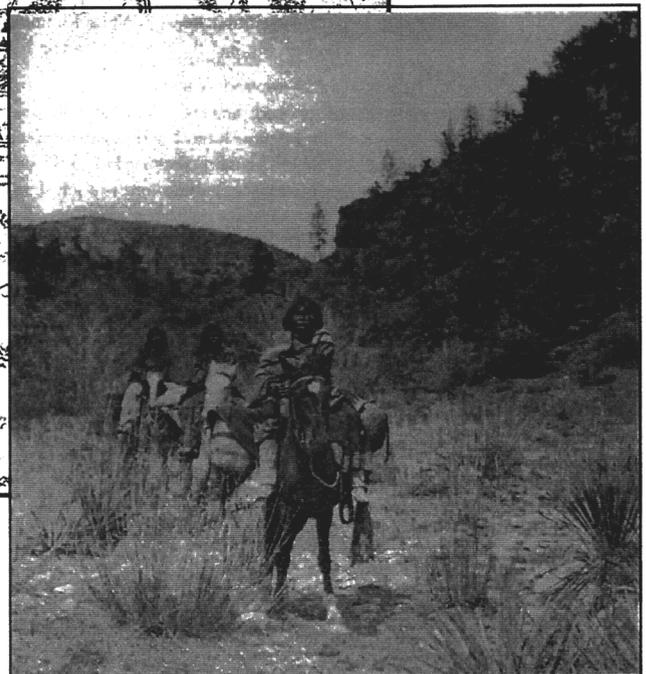
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In some cases, evidence of the prehistoric trails used for hunting, trading, and migration still remains in the far-western reaches of Pima County. A geologic process of soil deflation and compaction took place in areas where soil and climatic conditions were suited to this process causing development of "desert pavement." Topsoil deflated from the weight and movement of travelers and the underlying rock was exposed. Then as animals and humans continued to walk across the dark rock, their paths exposed the underlying lighter soil, leaving visible trails in their wake (McGuire and Schiffer 1982).

The importance of the early trails increased with the arrival of newcomers to the region. The trails became tangible keys to unlocking the secrets of the Terra Incognita for the explorers. The Native Americans would prove to be invaluable guides, and their ancient routes laid the way for entry and navigation of Europeans into this vast landscape.



Spanish Map of Pimeria Alta Indian Trails



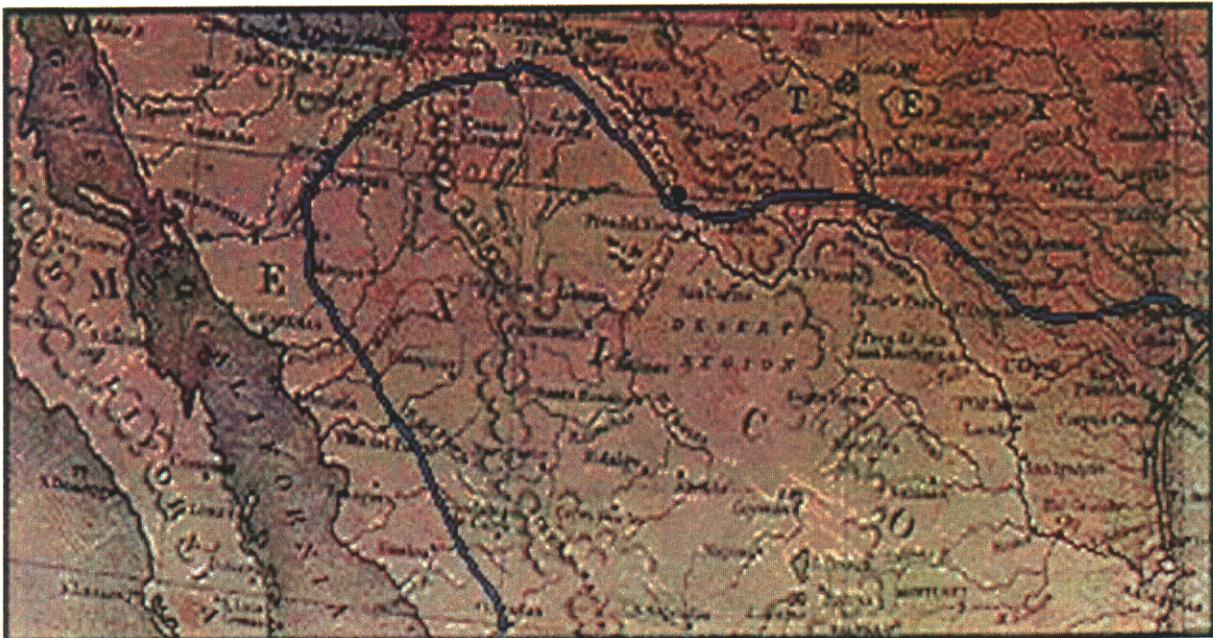
3. Spanish Arrival and Colonial Period: 1535-~1840

The Spanish-led expeditions into the region, the “entradas,” marked the beginning of a new era. Initially, change was slow in coming, but as more and more Europeans arrived with the intent of expanding the Spanish realm and securing new wealth, the pace quickened. The routes to the location of various established Spanish interests in the region, such as missions, mines, and water sources, became known as the “Camino Real” or Royal Road (Polzer and Sheridan 1997 as cited in Pima County 2000).



Estevanico (Esteban)

In the early 1500s, Spanish explorers passed through the region but it was most-likely the result of chance rather than choice. The earliest recorded reports of the newly discovered area were delivered to the Spanish Colonials in Mexico City in 1536 by four Spanish explorers: Álvar Núñez Cabeza de Vaca, Alonso Castillo, Andrés Dorantes, and a bold and charismatic Moor slave known as Estevanico (Esteban). The men had been part of an ill-fated Spanish expedition that had set out to conquer the unexplored land of present-day Florida. They had been shipwrecked and enslaved but had ultimately escaped and made their way overland to Mexico City with the help of Indian tribes along the way. In struggling to Mexico City they quite possibly passed through southern Arizona.



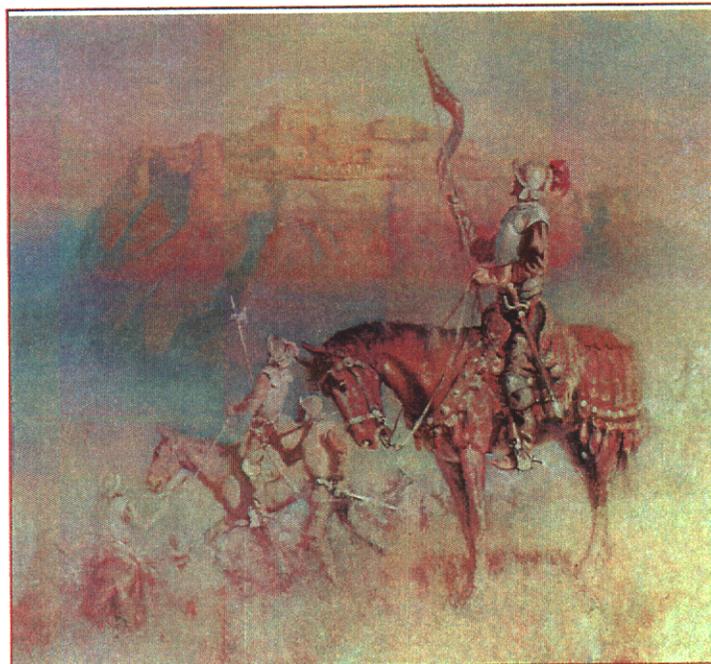
The route of Cabeza de Vaca, Castillo, Dorantes, and Estevanico

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The four unlikely explorers reported stories of a rich and populous land to the north, which inspired the Viceroy of Mexico, Antonio de Mendoza, to send an exploratory party to the region in 1539. It consisted of Fray (Friar) Marcos de Niza, a second priest named Honorato, and the slave, Estevanico. Their mission was to find the reportedly-rich cities of a land the Indians called, "Cíbola." The name "Cíbola" comes from a Native American term for buffalo, and refers to the trading of buffalo hides that occurred in the area of the Seven Cities that de Niza was seeking (Barnes 1988).

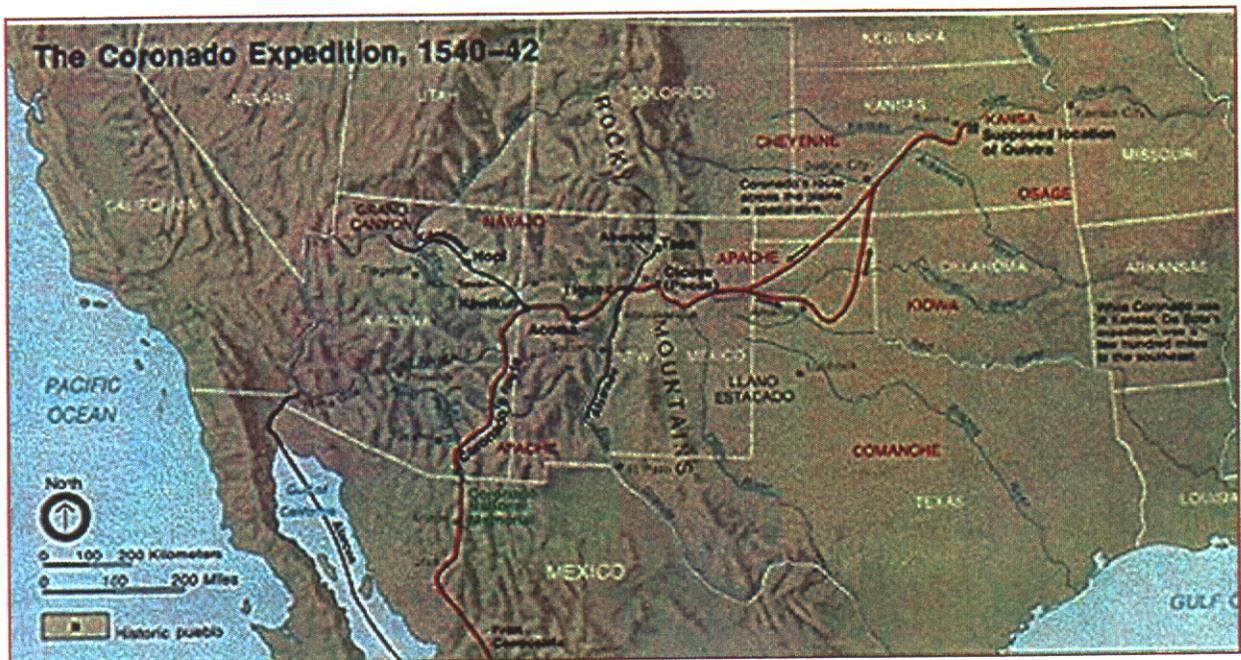
After traveling north along the west coast of Mexico for several weeks, the explorers turned inland. Fray Marcos sent Estevanico off in the lead with the help of Native guides, and Estevanico sent back increasingly glowing reports of the land through which they passed. Estevanico reached the village of Hawikku, the largest of six Zuni villages, near what is now Gallup, New Mexico, ahead of the others. He was subsequently killed by the Zunis for approaching the village after having been warned to stay back. The hapless band of explorers turned back upon hearing of Estevanico's death, but took with them basic reports of the region that were later woven into exaggerated tales of riches, much to the detriment of explorers who followed.

Controversy exists today over de Niza's claim to have seen the village of Hawikku and his notes that the village appeared large and wealthy. His written report of the exploration, the *Relación*, is still in print and has received intense scrutiny (Hartmann and Goldman 2001). It appears to some that de Niza did in fact reach Hawikku but that his reports of riches were exaggerated by those with "gold fever." Those rumors consequently led to an expedition headed by Francisco Vázquez de Coronado in 1540 to conquer the fabled Seven Cities of Cíbola and claim their wealth for Spain.



The Coronado Expedition (1540-1542)

Viceroy Mendoza sent another exploratory party to investigate the reports of de Niza, and in the meantime prepared a large expedition under the direction of Francisco Vásquez de Coronado. Coronado's mission was to find the Seven Cities of Cibola using de Niza as guide. The expedition set off from Compostela, west of Mexico City, in February of 1540 with an army of more than one thousand soldiers and servants, a number of soldiers' wives, fifteen hundred horses and mules, and cattle and sheep for the commissary (Donoghue, 2001). The precise route has been difficult to reconstruct but it is likely they passed through Pima County in the vicinity of the San Pedro River (Hartmann and Goldman 2001). Coronado reached the village of Hawikku in July 1540 and dispatched exploration parties throughout the region.



The route of Francisco Vásquez de Coronado to find the Seven Cities of Cibola

After two years of extensive exploration reaching as far as the central plains, without discovery of either riches or gold, and after experiencing numerous terrible battles with the Native people and suffering a head injury after falling from a horse, Coronado returned in failure to New Spain. Shortly thereafter he was formally charged with misconduct, mistreatment of the Indians, and failure to colonize the lands he had explored. He was later cleared of all charges, but his exploits remained controversial and Coronado died in 1554 (Gosner 2001). De Niza also lived in disgrace and poor health near Mexico City until his death in 1558.

El Camino del Diablo

The infamous route known as El Camino del Diablo was first used by Native Americans for trade and supply trips for salt to what is now known as the Gulf of California. It was chosen by Melchior Diaz, a captain in Coronado's army in 1540, as a route to find the supply ships in the Gulf for Coronado's expedition. The route roughly follows the present U. S. - Mexican border and crosses numerous mountain chains and wide expanses of desert.

Later, El Camino del Diablo was used by immigrants from Mexico into Arizona and California, and beginning in 1849, as a route west to the California gold fields. Estimates suggest that between 400 and 2,000 people died along the treacherous trail during that time, making El Camino del Diablo the deadliest immigrant trail in North America (Arizona Bureau of Land Management 2001). Travelers ventured through natural landscapes with topography ranging from the desert mountain ranges of the Gila and Tinajas Altas Mountains to the low desert and sand dunes of the Yuma and Lechuguilla Deserts. Heat, lack of water, and perilous stretches of hostile terrain claimed the lives of many inexperienced travelers.

El Camino del Diablo is significant because it is an important historic route that was first used by the indigenous population and later used by thousands of immigrants and travelers. It is included in the State Historic Preservation Office's Inventory of Trails and is on record at the Arizona State Museum. It is still traveled by intrepid explorers, but usually in four-wheel drive vehicles stocked with the full complement of food, water, and shelter.

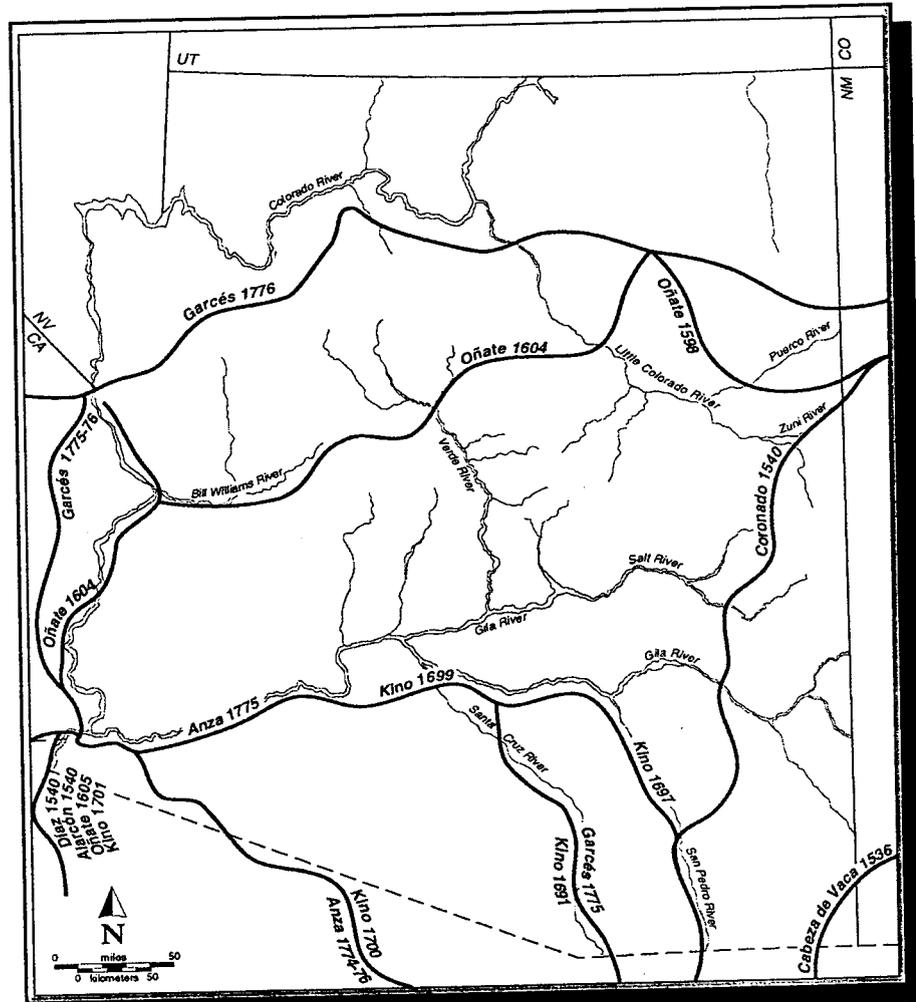
Espejo and Oñate Expedition (1582-83)

The early Spanish expeditions in the New World ground to a halt after Coronado's failed attempts to find the Seven Cities of Cíbola until Don Antonio de Espejo financed and led an expedition west from the area that is now New Mexico. His goal was to locate several missing Franciscan friars (and to scout for mineral deposits, if the opportunity presented itself). The Espejo expedition reached the Hopi Mesas in northeastern Arizona and was led southward to the Verde Valley along the Palatkwapi Trail by Hopi guides (Stein, 1994). Other expeditions followed, and surveyed the area of the Verde Valley and lands farther to the west in search of minerals, oceans, and lands to govern.

One additional expedition between 1598-1604 was led by Don Juan de Oñate who was in search of the South Seas and treasures of pearls that would open the possibility of trade between New Spain and the rest of the world. While Oñate only

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found the present-day Gulf of California and not the South Seas, his efforts improved the geographical knowledge of the area (Hammond and Rey 1950 as cited in Stein 1994). After Oñate's expedition the main route of entry into the region shifted from the east to the south from Sonora.



Routes of the Spanish Explorers

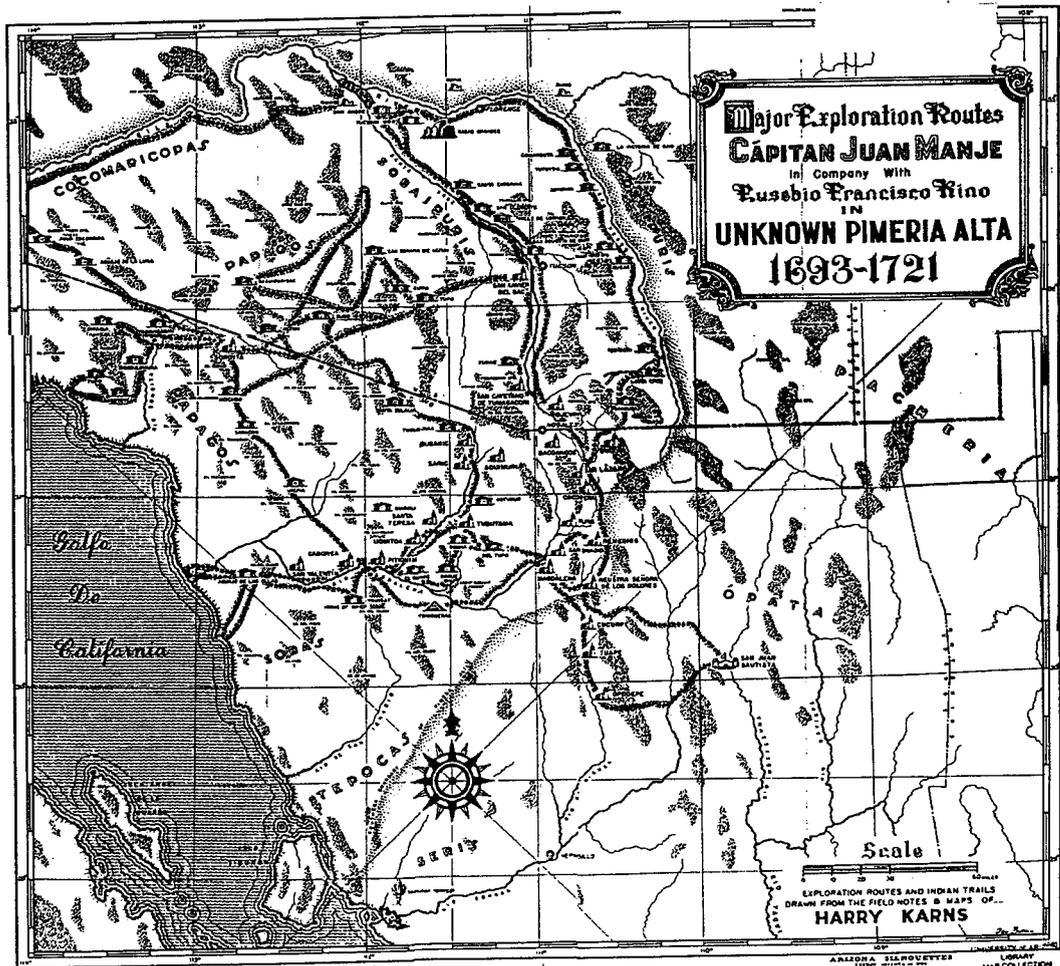
The Historic Corridor of the Santa Cruz Valley and The Missionary Era (1687-1800s)

Toward the end of the Spanish-era expeditions came the arrival of the Missionary explorations into the Pima County region. The arrival of Jesuits missionaries in 1687 marked the beginning of western European influence on both the religion and common rituals of everyday life. In 1691 Father Eusebio Francisco Kino and his military escort, Captain Juan Mateo Manje, traveled into the region from Sonora following the Santa

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Cruz River. Father Kino was born in Italy and educated in Europe and put his skills in cartography to use in mapping the region.

Father Kino encountered the Sobaipuri and other Piman-speaking Indians along the Santa Cruz and San Pedro Rivers. Their culture revolved around farming and the river, and they supplemented their diet with hunting and gathering. Over time, disease, intermarriage, and deaths from Apache attacks caused the decline of the Sobaipuri. Their descendants, however, are among today's O'Odham people, the Tohono O'Odham and Hia Ced O'Odham (desert people), and the Akimel O'Odham (river people). While Spanish trails along the Santa Cruz, San Pedro, and Gila Rivers were established, the Camino Real in the Santa Cruz Valley became more heavily used as the missions in the Santa Cruz River Valley extended their reach to Tucson. In 1751 the Pima Indians revolted and plundered the mission at San Xavier, and as a result, a military fort was established at Tubac. The garrison was moved to the presidio at Tucson in 1776 to protect the mission communities at San Xavier and San Agustín del Tucson.

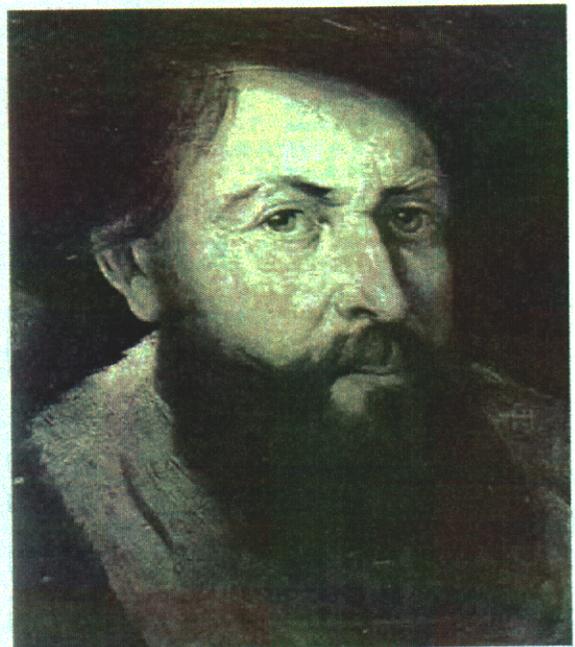
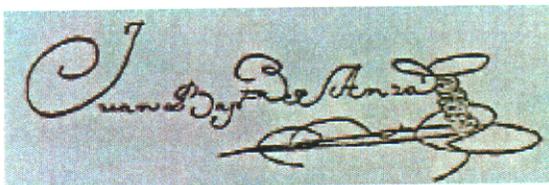


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In 1767 the Jesuit missionaries were expelled from the New World because of philosophical differences with the Spanish Crown and the Franciscan Order took over the missions, rebuilding a number of them, and continued exploring the region. Travel to religious sites and pilgrimages created new trail networks that continue to be used today. For example, every year there is a pilgrimage and fiesta October 4 to the mission at Magdalena de Kino in northern Sonora. It attracts thousands of people from the region who come to worship Saint Francis. Over time, the stories and worship of San Francisco and San Xavier have merged and it is unclear which Saint Francis (Xavier or Assisi) is being honored, but that detail is inconsequential to the throngs of worshipers and celebrants (University of Arizona Library 2001). The passage of religious travelers along the Santa Cruz River between the missions of Sonora and the Santa Cruz Valley and the presidios of Tubac and Tucson reinforced the importance of the Camino Real along the west bank of the Santa Cruz as the main north-south travel axis and established its permanence in the development of the region.

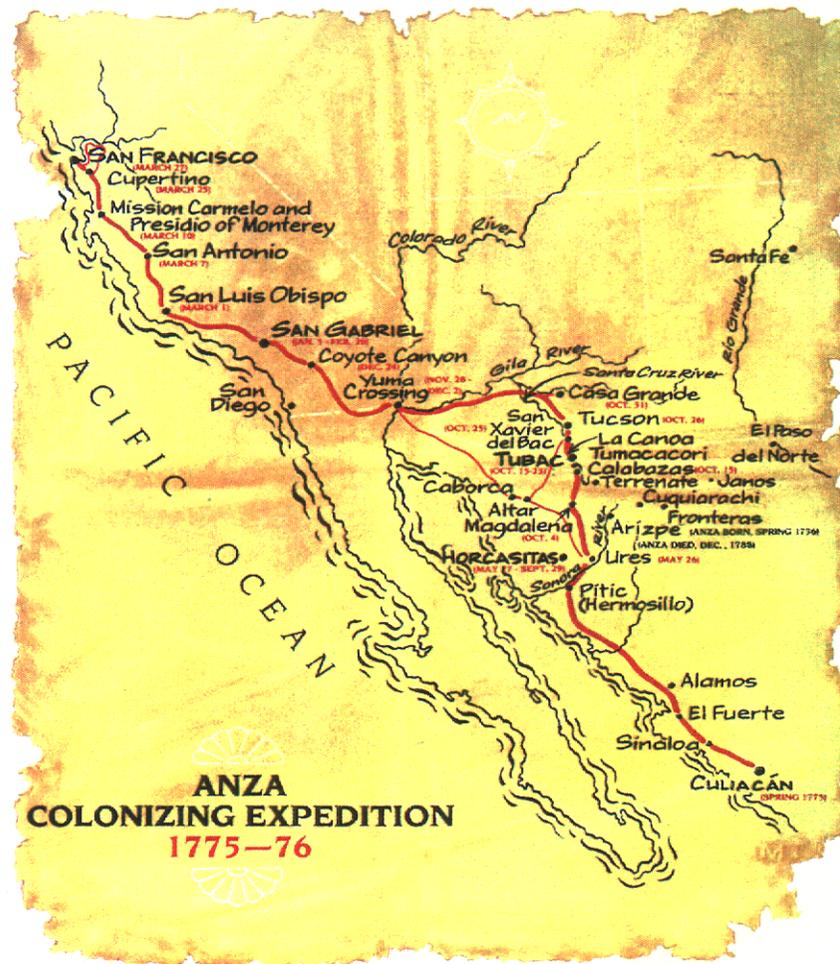
Juan Bautista de Anza (1775-1776)

As rumblings of the American Revolution were beginning in the American Colonies to the east, the Spaniards sought to control the western coast of North America over the interests of the British and Russians. To secure those interests, Lieutenant Colonel Juan Bautista de Anza, a third-generation resident of New Spain, was appointed by the Viceroy to lead more than 240 soldiers and settlers on the first overland colonizing expedition from Sonora into Alta (Upper) California.



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Several Franciscan brothers, Francisco Garcés, Silvestre Vélez de Escalante, and Francisco Domínguez accompanied Anza on an exploratory expedition in 1774, and on the historic settlement trek during 1775 and 1776 to what is now the San Francisco Bay area. Native guides utilized a long-used route of travel to guide Anza to the California districts and ultimately San Francisco Bay.



The Anza expedition set off from its staging point at the Tubac Presidio on October 23, 1775 and spent its first six nights within what is now Pima County. They spent the first night approximately ten miles north of Tubac at a spring where a cottonwood log had been made into a watering trough shaped like a canoe: today's Canoa Ranch in southern Pima County. This stop was the site of the first birth and only death on the expedition when María Ignacia Manuela Piñuelas gave birth to her seventh child, a son, José Antonio Capistrano Félix. She died during the night from complications. Two other babies were born during the trip, and of the total group of 198 settlers, over half were children under the age of twelve.

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The expedition spent the following night at a campsite called *Llano Grande* near Sahuarita and the next night of October 25 at the mission at San Xavier del Bac. They traveled the next day past the "visita," or chapel, of San Agustín del Tucson, to a point north of Tucson along the Sant Cruz River, *Tuquison*. On October 27, they traveled to a camping spot at the archaeological site known today as Los Morteros near present-day Marana, and they spent their last night within current Pima County at a location named *Oit Par*, or "Old Town" in the Piman language, near the Pinal County line.



The expedition arrived in Alta California at the site of present-day Monterey on March 10, 1776, after spending an arduous winter along the trail. From Monterey, Anza took a scouting party to explore the San Francisco Bay area where he chose sites for the new presidio and mission. In June the settlers moved from Monterey to San Francisco to begin building the new settlement.

The Anza Trail is significant as it established an overland migration and supply route to Upper California and founded the first western settlements in the San Francisco area. The soldiers and their families brought with them diverse cultures and traditions that shaped the development of Arizona and California. Although there were some conflicts with Native Americans, the trail served the military, other settlers, cattlemen, Forty-Niners and many other desert travelers over the years that followed. Today's interstate highways, I-19, I-10, and I-8, follow closely the route of the Anza expedition.

Anza's expedition and the 1200-mile route are commemorated as the Juan Bautista de Anza National Historic Trail, administered by the National Park Service. Sixty miles pass through Pima County and the 5-mile segment that passes through the Canoa Ranch will be improved in the future with grading, landscaping, shelters, and interpretive signage. Pima County is in the process of reestablishing the 60-mile trail through the County with special signage and interpretation denoting the encampments as part of an effort to expand heritage and recreation resource opportunities for residents and visitors. The reestablishment and commemoration are being partially funded by the citizens of Pima County through bonds approved in 1997.



4. The Mexican Period: 1821-1854

Mexico won its independence from Spain in 1821 and present-day Arizona and New Mexico collectively became part of Sonora, Mexico. The Santa Fe Trail brought numerous Americans into the region, including hunters and trappers who came in search of the game supported by the then-plentiful rivers and streams.

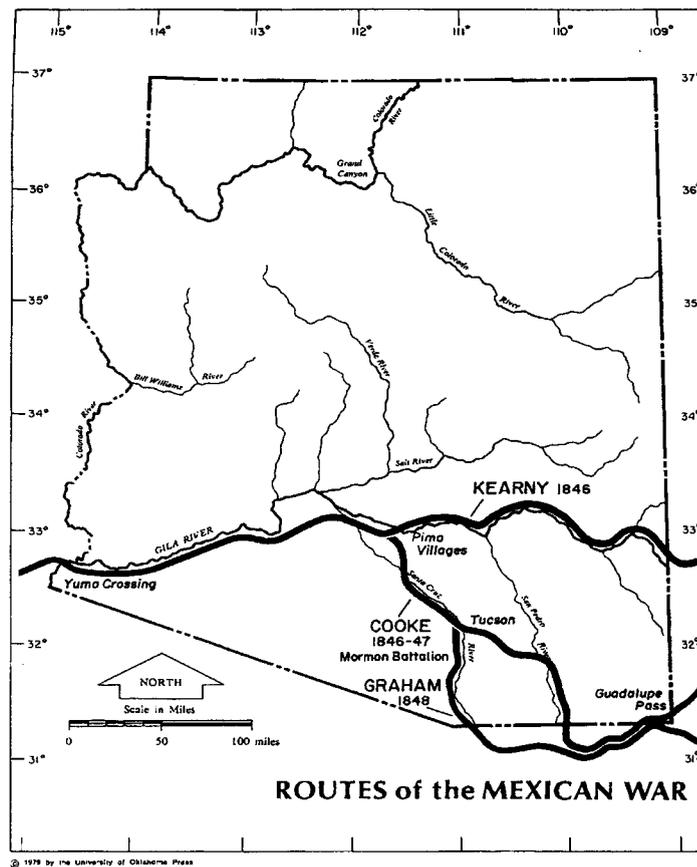
The Mexican towns of Santa Fe and Tucson became important as the northernmost towns of the Spanish Colonial empire and key trading points between New Spain and the United States. Traders, trappers, and travelers created an informal network of trails throughout the region that followed the landscape. The travel routes between Tucson and Santa Fe followed the Santa Cruz, San Pedro, and Rio Grande rivers north and south, and along an east-west route that soon would become formalized with the onset of the Mexican - American war.



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The war between the United States and Mexico in 1846, in which the United States sought ownership of California and the New Mexico Territory, created a formalized network of roads in the region. The southwestern campaign was led by Colonel Stephen Watts Kearney, whose troops ran the full gamut of soldiers, adventurers, Indian scouts, and frontiersmen. Among the nearly 2,000 men under his command were approximately 500 Mormons dispatched by Brigham Young to protect the interests of Mormon settlers in the region. (To support his westward expansion, Young arranged to have the troops' wages deposited directly into church accounts) (Tyler 1881, and Faulk 1973 as cited in Stein 1994). Kearney's charge was to establish United States control over the entire Southwest, including establishing control over California.

In 1846-47 the Mormon Battalion, under the command of Lieutenant Colonel Philip St. George Cooke, began improving the route from Santa Fe into a suitable wagon road. The Mormon Battalion Road entered present-day Arizona through Guadalupe Pass in the southeast corner of the state and headed west. At the San Pedro River they turned north, then headed west at the location of present-day Benson. They turned north again at the Santa Cruz River toward Tucson, and beyond Tucson, joined the route that Colonel Kearney's troops had established into California.

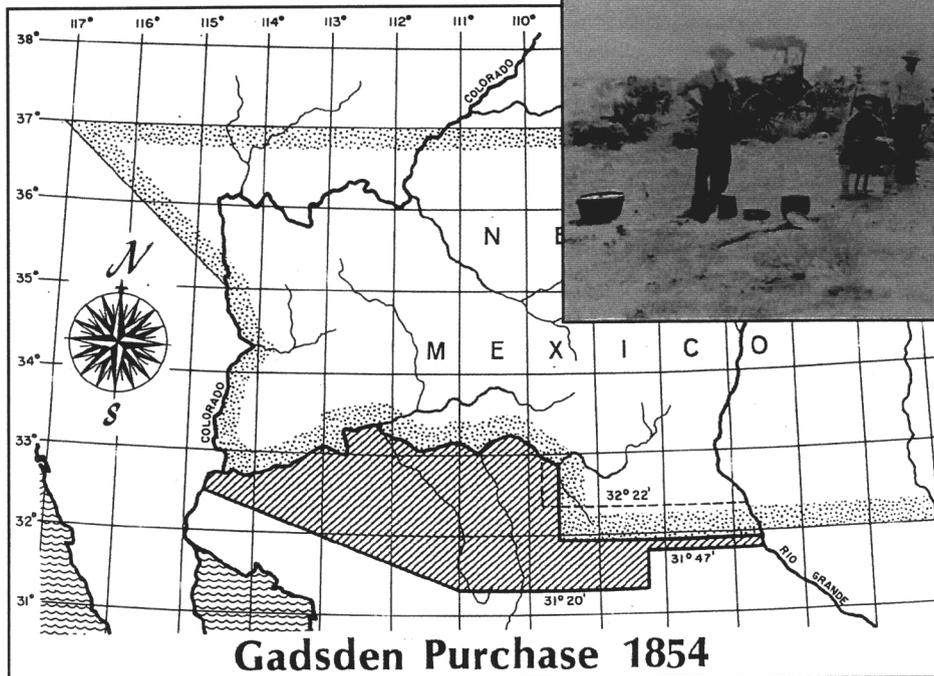


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The significance of the Mormon Battalion's road building is that it established a route suitable for wagons that would later become the Southern Emigrant Route, also called the Gila Trail. It also became a major trail for the Forty-Niners during the Gold Rush and established the route that would later become the Southern Pacific Railroad and the Interstate-10 corridor (Stein 1994). The Mormon Battalion Trail is recorded in the State Historic Preservation Office Inventory.

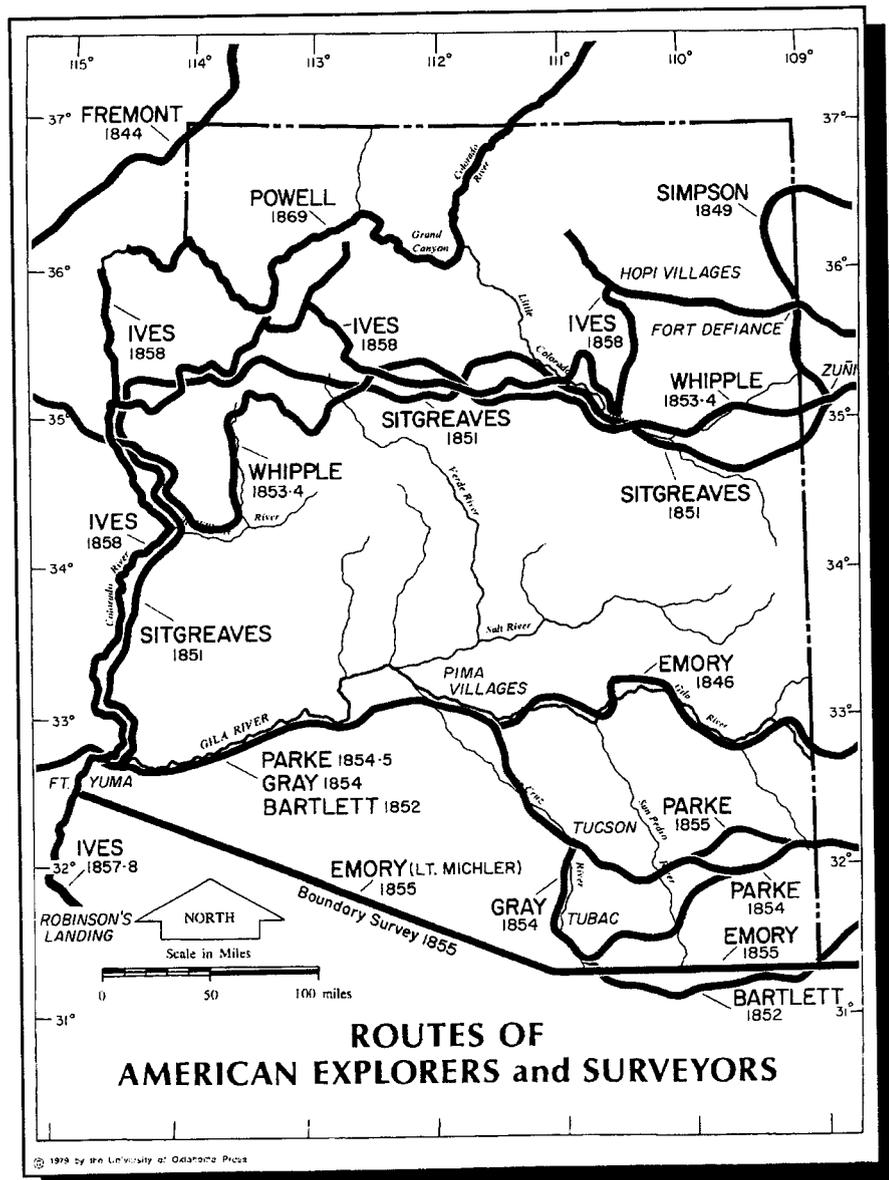
5. The U. S. Expansion and Territorial Period: 1854 - 1912

The signing of the Treaty of Guadalupe Hidalgo formalized the end of the U.S. - Mexican War in 1848. It marked the entry of northern Arizona into the United States, but left southern Arizona and present-day Pima County in Sonora. In 1854 the Americans bought the remaining 29,640 square miles with the Gadsden Purchase, bringing Tucson and the remainder of southern Arizona into the U.S. territories. Between the signing of the Treaty of Guadalupe Hidalgo in 1848 and the Gadsden Purchase in 1854, a great deal of U.S. Government energy went into exploring and surveying the region. The government was determined to identify the agreed-upon boundary between Mexico and the United States and set routes for a transcontinental railroad.



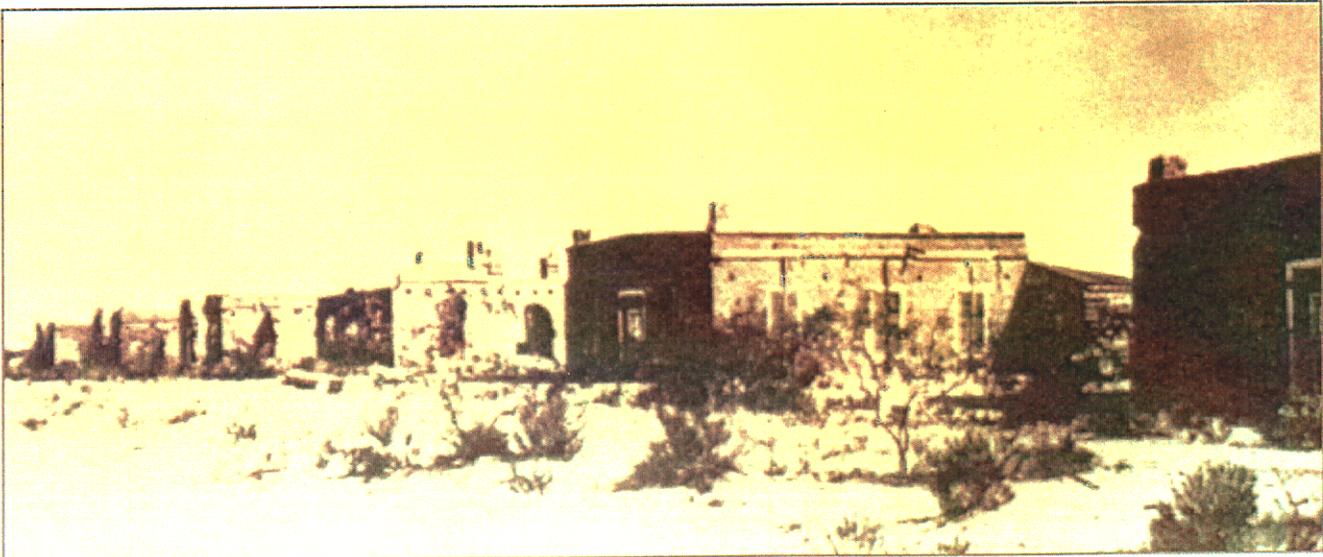
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During the mid-1850s, Lieutenant John Parke surveyed the Sonoran Desert for a suitable railroad route between the Pima Villages on the Gila River near Maricopa and the Rio Grande. That early route through Tucson and Apache Pass was used by the miners who flocked to the region and by intrepid settlers who heard the call of "Manifest Destiny." Military camps and forts were established to provide safety for the nervous population as Apache raiders held the region in a reign of terror, and as immigration into the area dropped. Apache raids on Tucson were made from high ground to the north and east where raiders had a clear vantage point of the valley. Present-day Oracle Road was one of the routes of travel into the valley from the north used by Apaches who had settlements in the San Pedro River Valley.





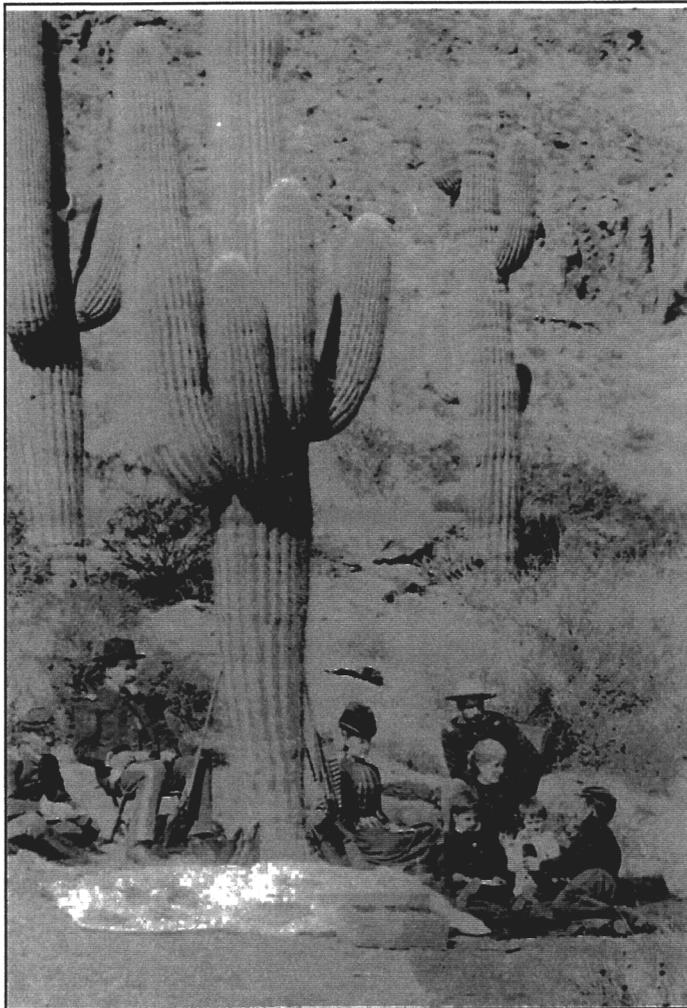
“The Lost Trail” by E.S. Curtis



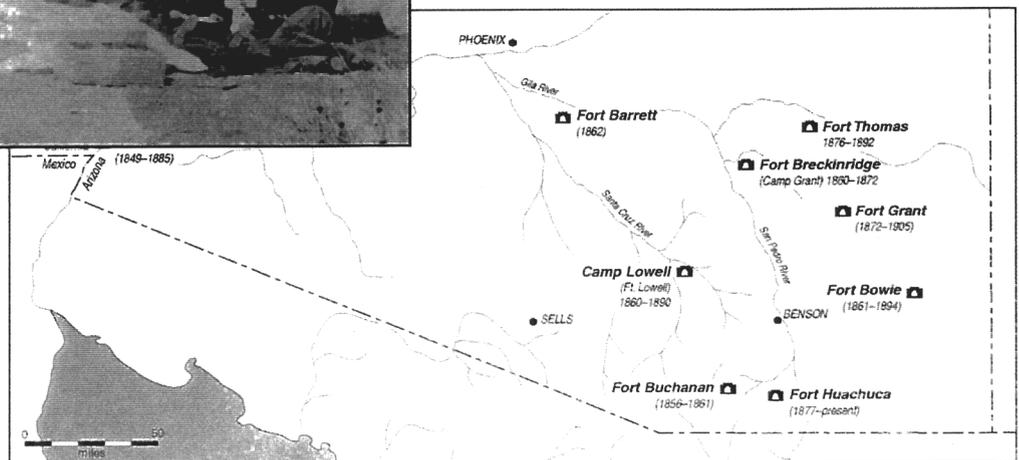
Officers Row at Fort Lowell ca. 1890s

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To support settlers, the presidio at Tucson was occupied by U.S. troops for the first time in 1856, Fort Buchanan was established south of the Santa Ritas in 1856, Camp Grant was established northeast of the Santa Catalinas along Arivaipa Creek in 1860. Camp Bowie was set up to guard the spring and wagon trains in Apache Pass in 1862. Camp Lowell was established northeast of Tucson in 1860 and became Fort Lowell in 1872. The forts were important in the years until Geronimo and his Apache warriors surrendered to the U.S. government in 1886.

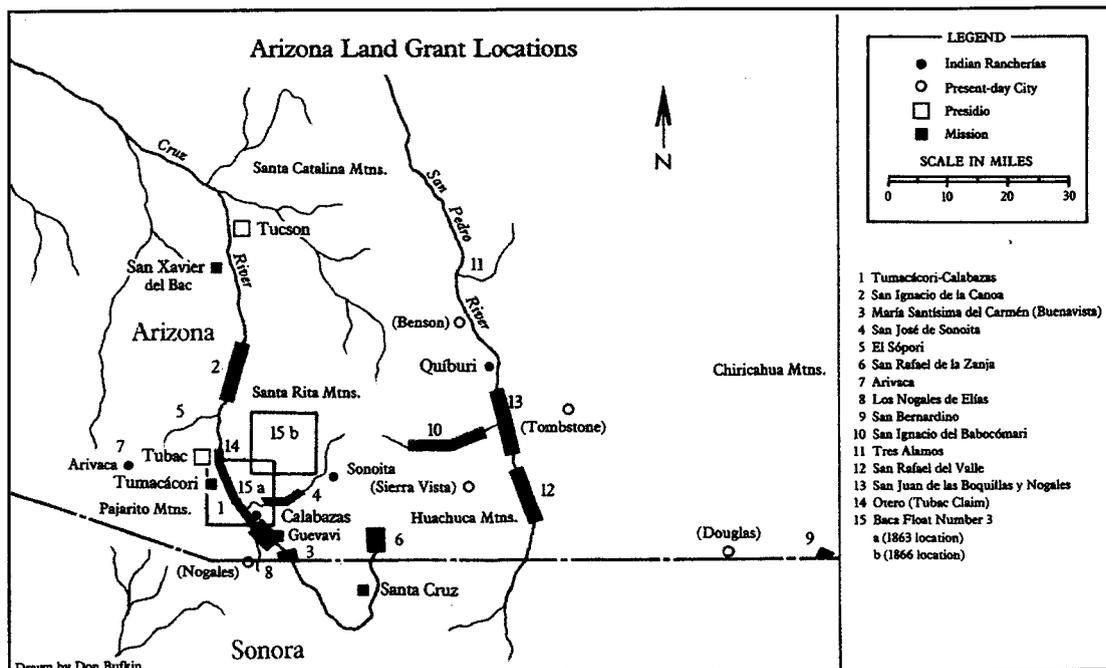


In the 1880s with the suppression of Apache raiding and warfare, mining and ranching became prominent industries. Cerro Colorado was the first mining district established in Pima County and others soon followed. Small communities of tents, adobe, or clapboard rose and fell along with the mines. Rustic trails and roads developed between the camps and villages. Some structures remain today as ghost towns and some are listed on the National Register of Historic Places (see Sonoran Desert Conservation Plan Report "A Link to the Past...Ghost towns and mining towns of Pima County" 2001). The rutted roads of supply wagons can still be seen around these areas and some have been developed into highly used roads.



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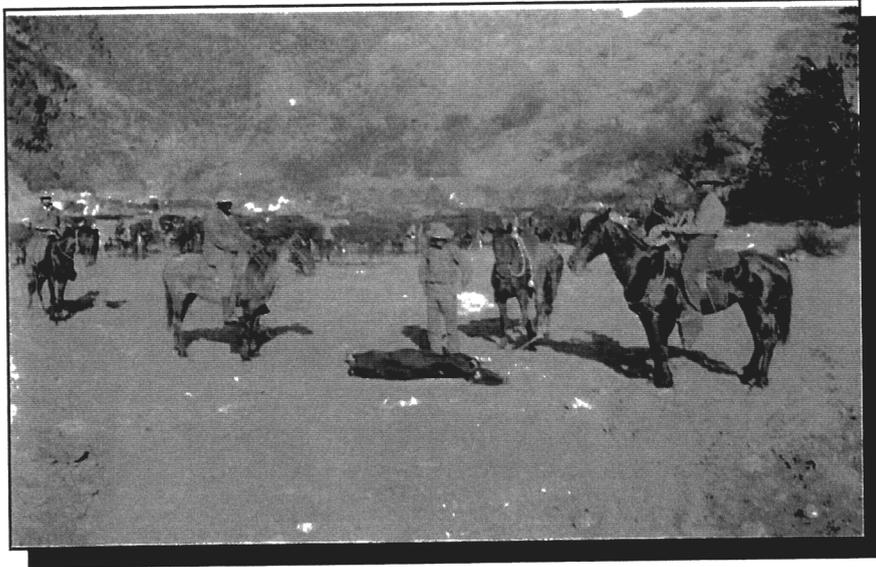
Trails also developed as part of the ranching industry for driving stock to and from seasonal ranges and longer distances to market. Livestock were introduced to the region by the early missionaries, including Father Kino, who distributed small herds of cattle to the Pima villages in the 1690s. By the 1750s Spanish Colonialists were grazing cattle along the Santa Cruz and west toward present-day Arivaca, and along the San Pedro. Spain encouraged settlement by the hacendados (farmers) and rancheros (ranchers) by providing large land grants that made ranching feasible, and again, solidified the river corridors as principal routes of travel. As ruling governments changed, the land grants were challenged, revised, upheld, and sometimes, rejected. The landscape today still holds traces of the Spanish and Mexican land grants.



Stock trails developed over the vast rangelands for large operations such as the Empire Ranch along Cienega Creek south of Interstate-10; the Maish and Driscoll Company Ranch, now called Marsh, and the Marsh Station Road in the same vicinity of Cienega Creek north of Interstate-10; and the Buenos Aires Ranch in the Altar Valley west of Interstate -19. Short drive trails were used to transfer cattle from seasonal pasturage, and long drive trails were used to take livestock from Texas, New Mexico and Arizona to market in California. The long drives were possible only because of the supply wagons and chuck wagons that supported them, leaving rutted trails in their wake. As overstocking and severe drought in the 1890s changed the landscape, it caused a reduction in rangeland capacity. Cattle ranching continued on a reduced scale with range management taking on heightened importance.

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Francisco Romero established the Romero Ranch in Cañada del Oro (Oro Valley) in what is now Catalina State Park. His family ranching operation began in 1844 and lasted until 1870; the ruins of his homestead are still evident within the park. Oracle Road passes near the remains of the Romero Ranch on the east side of the road, and the site of the Steam Pump Ranch on the west side, near Pusch Peak.



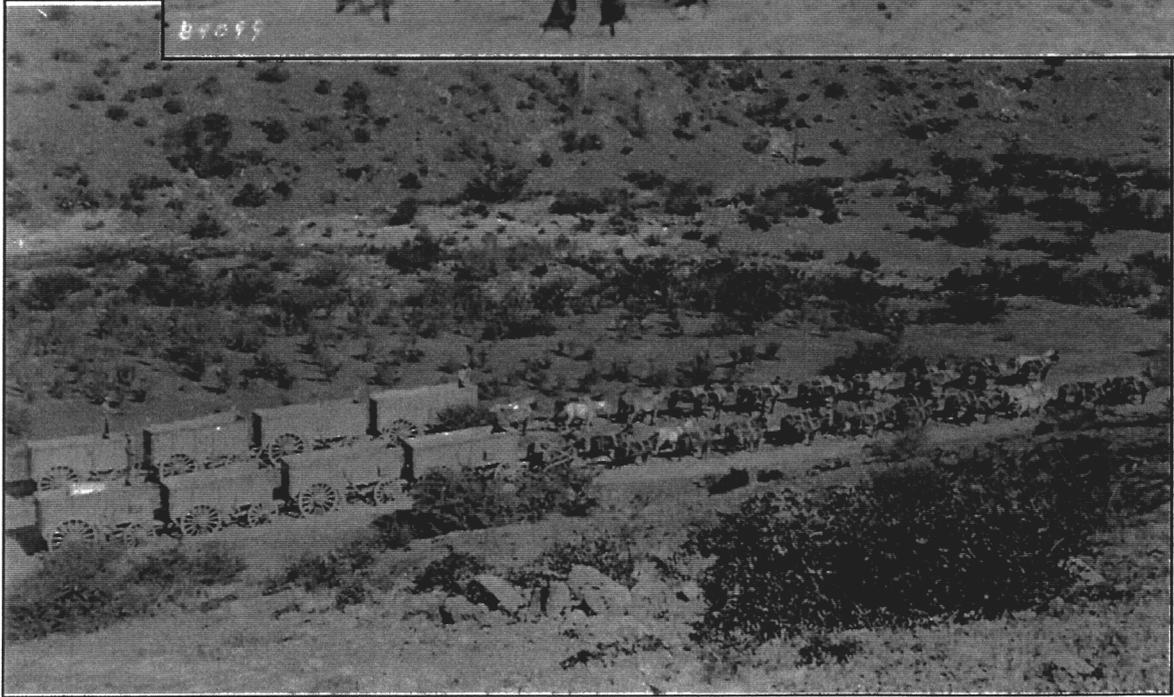
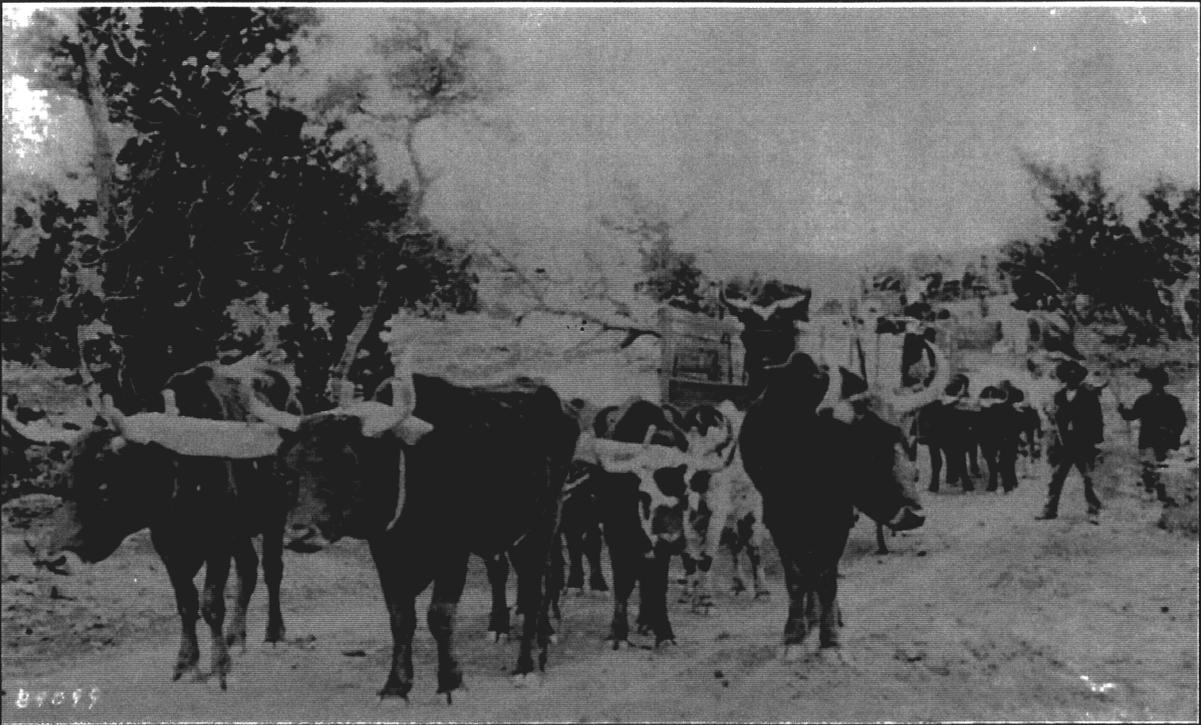
In the San Pedro River Valley, Redington stands as a testament to the ranching operations in the valley and a post office, general store, school and residences are still standing. Redington was named after two brothers, Lem and Harry Redfield, who settled the area in 1875. They wanted to name the area "Redfield," but were denied by the post office, so coined the name Redington. Redington Pass links the San Pedro River Valley to Tucson through the Santa Catalina and Rincon Mountains along Tanque Verde Creek and at the east end of Tanque Verde Road.

6. Stagecoach and Freight Roads: 1850s - 1920s

As the region's economy diversified and developed, so too, did the transportation systems. The need to move people and goods in and around the area brought the development of commercial passenger and freight companies that included stage and wagon roads, as well as private commercial roads and toll roads for tourism. Wagons, used primarily by Anglo-Americans, were the major means of transporting goods, resulting in a number of local "farm to market" roads. For long distance hauling, freight wagons were often hitched two or three together and pulled by 8 to 20 mule or ox teams. Oxen were favored as they were less excitable, ate most types of prairie

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grasses, had tough hides, and were not as desirable as horses or mules to the Indians. The "bull-whackers" carried 15- to 18-foot whips and often drove their teams 10 to 15 miles a day. Their wagons could carry loads of 6,500 pounds or more. Freighters were some of the most successful early entrepreneurs. The successful commercial roads were those that were well-engineered and maintained, and they eventually became the hard-surfaced roads of the automobile age.



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During the 1850s the government responded to increasing requests for mail service to the west, and contracted in 1857 with James E. Birch to provide mail and limited passenger service between San Diego and San Antonio (Stein 1994). The Mormon Battalion Route (Southern Emigrant Route) was the chosen route, but was an unpopular choice among northerners. Complaints were raised about its routing through southern slave-holding states and territories at a time when the reliability and security of mail were of critical importance to the rest of the Union, but the postmaster general was a Southerner, and his choice of routing won out.

The Birch service was adequate, but the provisions and support facilities left much to be desired. The only stops of any size with beds and buildings were San Antonio, El Paso, and San Diego. John Birch died shortly after starting the service and the contract was canceled in 1858. A new contract was awarded to John Butterfield and the Butterfield Overland Mail Company in 1858. This enterprise was the forerunner of the American Express Company, which began when Butterfield joined forces with Henry Wells and William Fargo of Wells, Fargo and Co., Omaha and Salt Lake City (Serven 1976).



Butterfield Overland Mail Company Stage Line Trail (1858-1861)

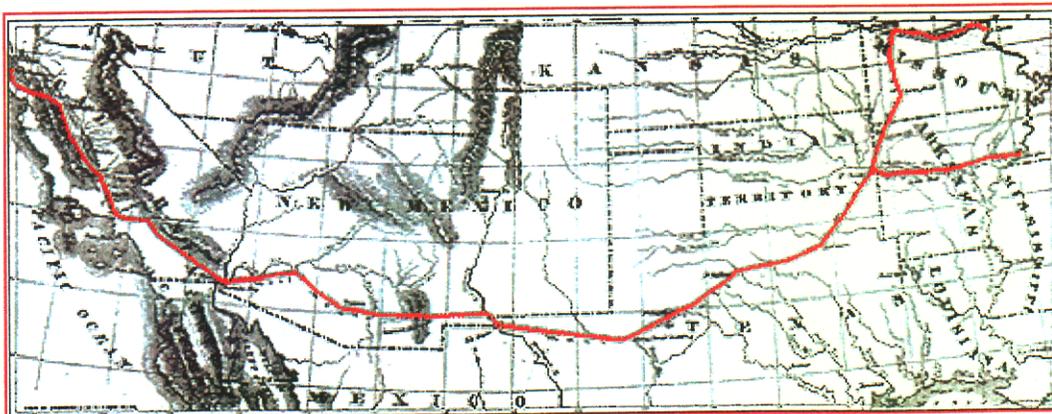
The Butterfield Overland Mail Company offered mail delivery and passenger transportation from Saint Louis to San Francisco in 26 days, and followed the same route that the Birch mail had used along the Mormon Battalion Route. The route through Pima County included stops at the San Pedro River, Cienega Creek, Tucson, and Point of the Mountain. The stop in Tucson was located at the intersection of Alameda and Main.

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The Butterfield Company built numerous stations along the 2,700-mile route and it is reported that it took John Butterfield more than a million dollars to prepare the service to begin operations. It had 250 stagecoaches, 500 other vehicles, 800 sets of harnesses, 1800 horses and mules, 3000 tons of hay and grain, a well or stored water at all relay posts in arid regions, and a crew of 1200 superintendents, road bosses, drivers, guards, conductors, blacksmiths, harness makers and clerks (Gibson and Potts 2001, Larson 2001). Its history is recounted with tales of the trials and tribulations of the passengers, jammed into wagons already full of mail and supplies, holding mail and their baggage on their laps, with only ten minute stops at the sparsely supplied stations. It was not an easy journey.

The Butterfield crews were among the toughest frontiersmen in the land. Butterfield recruited from other companies and sought out guides and scouts who were familiar with both the Indian tribes and the vagaries of the land, from watering holes to mountain passes. His instructions to his drivers were, "Remember boys, nothing on God's earth must stop the mail!" (Larson 2001), and "Above all else, passengers and mail must be protected and schedules maintained but this can only be done by keeping on friendly terms with the Indians" (Gibson and Potts 2001).

Butterfield Stage stations in Arizona (heading west from New Mexico) included Fort Bowie, Apache Pass, Willcox, Dragoon Spring, Cienega, Tucson, Point of the Mountain, Picacho Pass, Pima Villages, Maricopa Wells, Gila Ranch, Murderer's Grave, Oatman Flat, Flapjack Ranch, Griswell's, Peterman's, Filibuster Camp, Swiveller's Ranch, Arizona City, and Texas Hill, and Fort Yuma. In the Pima County area, they included Cienega Creek station about 15 miles east of Tucson just north of Interstate-10, Tucson, and Point of the Mountain (near Silverbell and Avra Valley Roads). The Cienega Creek station was known as "Shot Gun Smith's " station after it was attacked by Apaches and Smith killed a number of them. The station was relocated once due to flooding, and later relocated and renamed the Pantano station when the railroads replaced the stages.



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When tensions between the North and South became even more strained and the South seceded from the Union, the government canceled the Butterfield contract. The difficulty with the route was not topography, but geography: right through the southern states. The government in the North did not care to rely on a route through the South for transport of mail and a new route was set up through Salt Lake City. Once the contract was canceled in 1861, the abandoned stations were raided by Confederate troops for supplies and most fell into ruin. Little remains of them today.

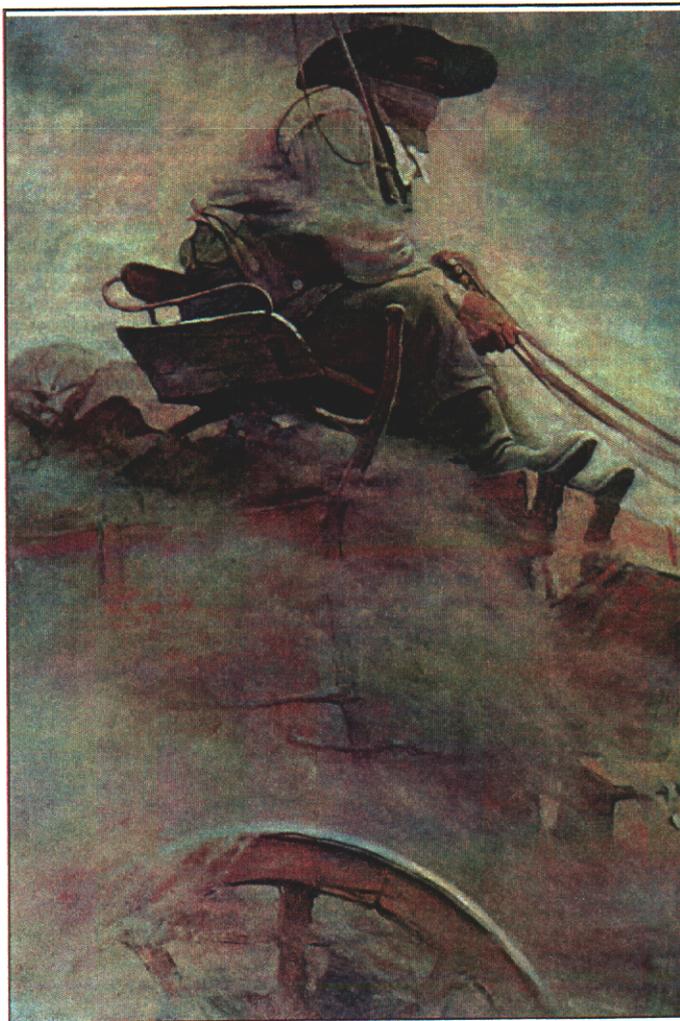
Another major company, Tully and Ochoa, ran the largest regular freight line between Tucson and Santa Fe and employed hundreds of men. They were the victims of a vicious attack on May 10, 1869 when their wagon train of nine wagons and 80 mules was attacked by 200 Apache near the Santa Catalina Mountains. The wagon master, Santa Cruz Casteneda, and 13 other drivers circled the wagons and engaged in a daylong battle, receiving help from a small band of cavalymen who happened upon the scene on their way from Fort Grant to Tucson. The freighters lost three men, had two wounded, and were nearly out of ammunition when they decided to abandon the wagons, mules, and supplies to the tireless Apache.



Attack on the Tully and Ochoa wagon train in the Cañada del Oro in May 1869

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Another import freight route was between Tucson and Mesilla, New Mexico, near Las Cruces on the Rio Grande. Initially, Coronado passed through the area of Mesilla on his search for the riches of the north, and Oñate later stopped in the vicinity in his explorations of the region. Oñate's route between El Paso, Mesilla, and Santa Fe became known as another Camino Real, or King's Road, and trading along the Rio Grande Valley flourished. With the settlement of the Mexican - American War in 1848 and the Gadsden Purchase in 1853, trade along the north-south and east-west trails increased and Mesilla became an important economic center. It was an important link for Tucson as part of the Butterfield Stage route and for freight moving between Saint Louis, Santa Fe, El Paso, and San Diego.



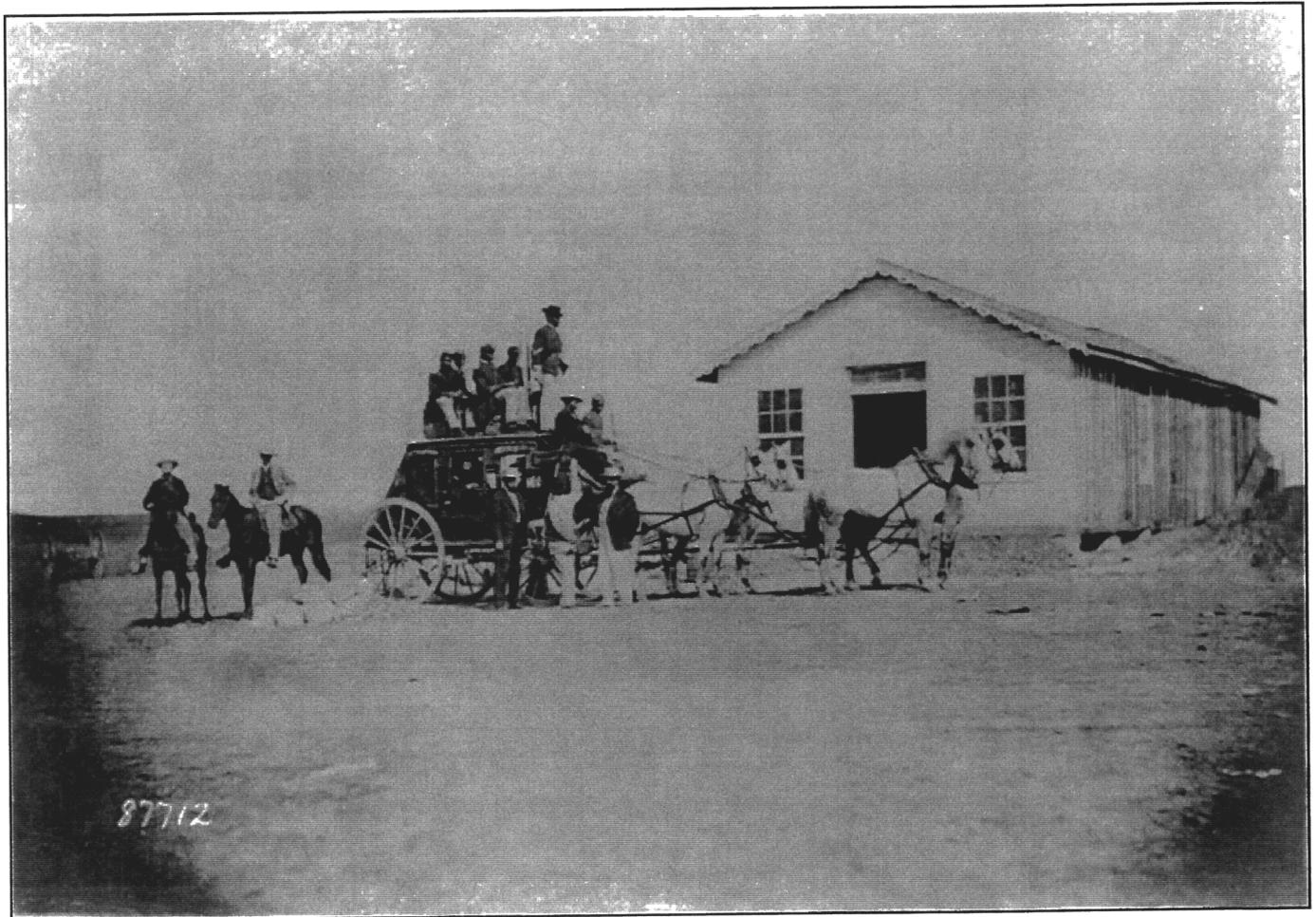
Mesilla was a lively social crossroads center and people came from as far away as Tucson and the City of Chihuahua for bailes (dances), bullfights and the theater. In Tucson, the present location of the Tucson Convention Center and La Placita courtyard offices and cafés, was the location of the terminus of the Mesilla supply route to Tucson. The wagons pulled into the plaza with enough room to unload, reload, and turn around. In 1874 the Southern Pacific Mail Stage Lines offered tri-weekly service from San Diego and Mesilla, and claimed to have the longest stage line the country (Walker and Bufkin 1979).

One of the Southern Pacific Mail stage stops was located near Colossal Cave and earned the name *La Posta Quemada*, or "burnt station," after a tragic fire in the mid-1870s. In 1878 the Mountain Springs Hotel and Stage Station were built a mile west of the burned station by Solomon Lick, but tragedy struck again in 1879 when his baby daughter overturned a

lamp at the Mountain Springs Hotel and died of her burns. The area is still known as La Posta Quemada Ranch and the old site of the hotel and stage station are now part of the Mountain Springs Grove.

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With the end of the Civil War and diminishing conflicts with the Native Americans, settlers began to spread out beyond the confines of Tucson and the walled presidio. Many of the new communities centered around the mining camps such as Ajo, Greaterville, and Cerro Colorado. Roads and supply links developed between the larger stage stops and the outlying camps and ranches, and were known as short-line routes.



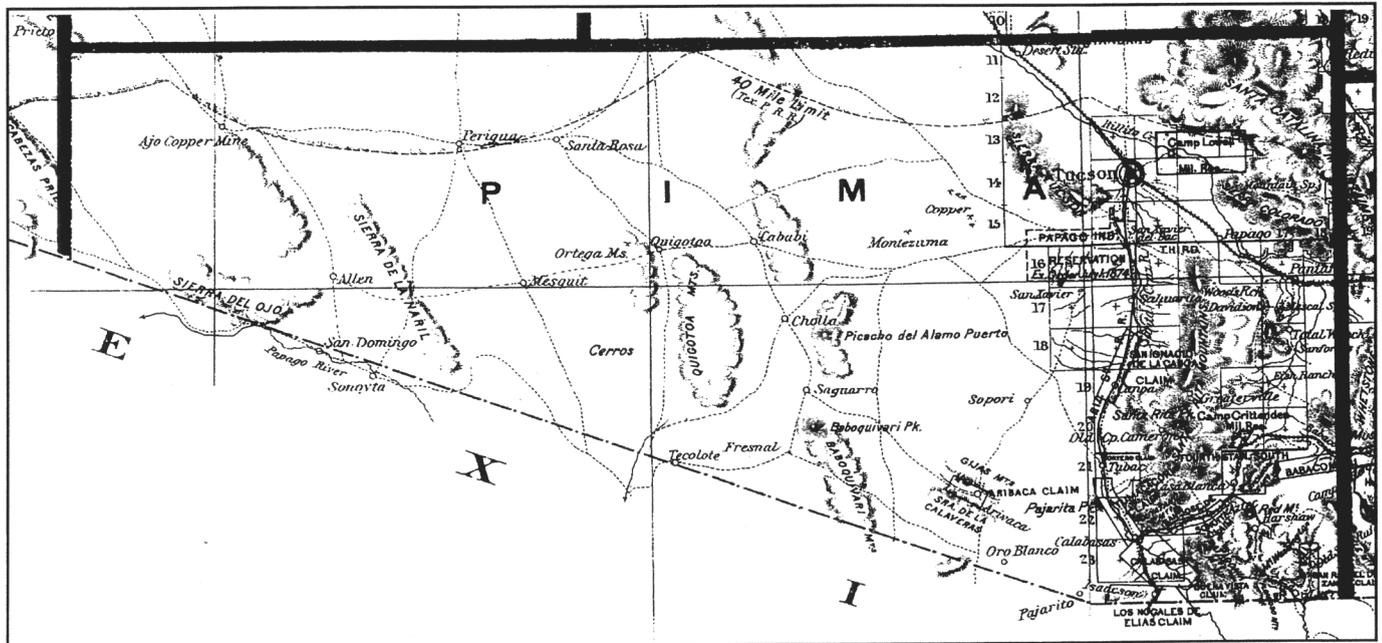
Roads established to support the development of mining within the region included the Tucson to Camp Grant (1860-1872) and Fort Grant (1872-1905) Wagon Road (today's Oracle Road); the main road from Tucson south into Empire Valley (presently Highway 83, paralleling the Old Sonoita Highway and a portion of Charolais Road); the Ajo - Sonoyta (Mexico) Road (Highway 85) which continues past Why and Sonoyta to Puerto Peñasco; and the Ajo - Yuma Road (southwest from Ajo along the present border, turning northwest along the Tinajas Altas Mountains, also known as El Camino del Diablo).

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Other roads were developed in the region by locals in search of short cuts, or purely by chance. Gates Pass Road in the Tucson Mountains was established by Thomas Gates in 1883. Gates was looking for a short cut to his carbonate mine in the Avra Valley west of Tucson when he stumbled upon the canyon with its natural route cutting through the mountains. He built the winding road for \$1000, and it has become favorite scenic drive to Saguaro National Park and the sunset overlook.

Robles Pass, established by Bernabe Robles as a stage route from the Quijotoa Mines to Tucson in 1883, is today's Ajo Road (Highway 86), crossing the Tucson Mountains through a low mountain pass just west of South Tucson. It crosses the Tohono O'Odham Reservation, passing through Robles Junction (Three Points), Sells, Quijotoa, and Why before reaching Ajo.

The Starr Pass Road west of Mission Road was established in the late 1800s by Richard Starr, who ran scenic stagecoach tours through the area. In the early 1900s Frederick V. Coville, chief botanist of the U.S. Department of Agriculture, convinced the Carnegie Institution of Washington to establish a laboratory to study ecophysiological adaptations of plants to aridity. They established the Desert Laboratory on Tumamoc Hill adjacent to Starr Pass Road, and research into the ecology and natural systems of the Sonoran Desert continues today led by the University of Arizona.



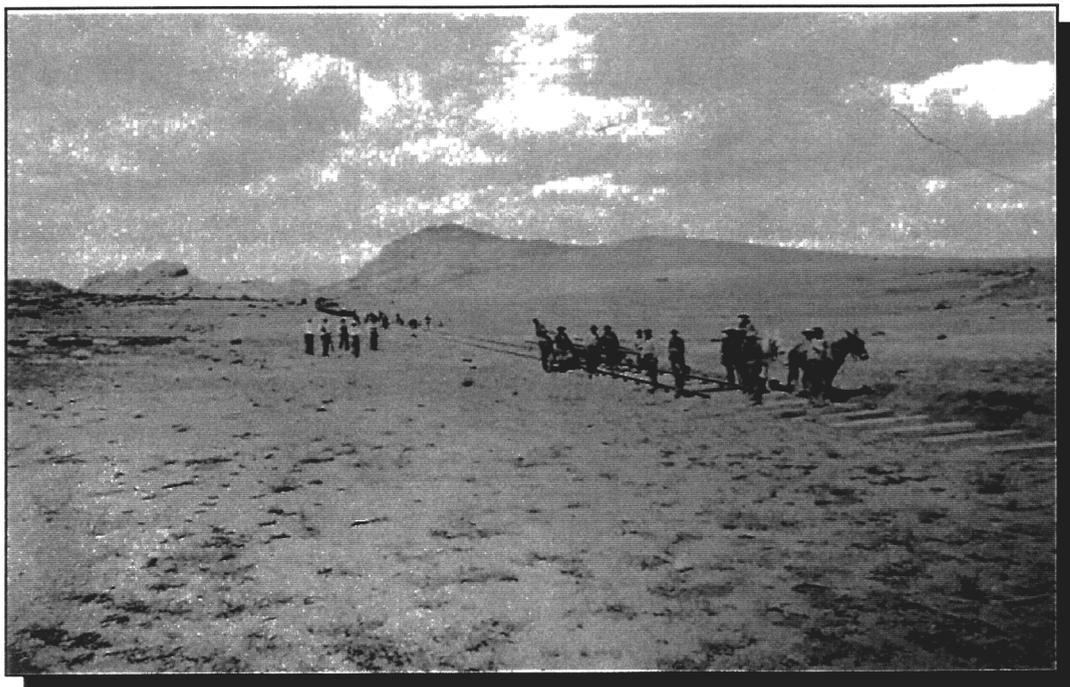
1883 Map of Pima County Region

7. Railroads: 1880 - Present

A transcontinental railroad was being considered for many years before one was actually completed north of Arizona Territory in 1869. Surveys were conducted through Arizona but the first lines came from the east and west and met just north of Salt Lake City at Promontory Point. Arizona Territory would have to wait.

The railroads finally came to Tucson in 1880, making transportation of goods and people relatively easy for the first time, and making Pima County a viable part of the industrial economy of the United States. They also effectively put the long-distance freight lines out of business because of their less-expensive hauling rates and greater speed.

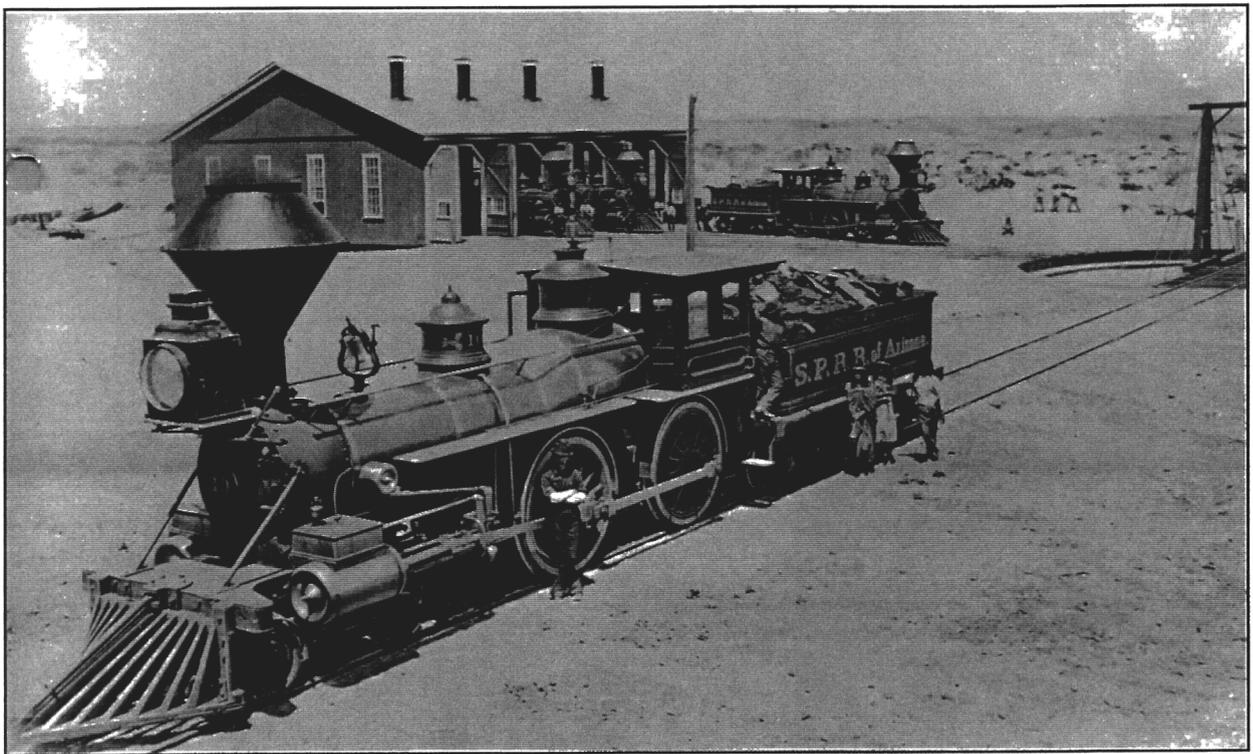
The first line, the Southern Pacific Railroad, came into Arizona from the west, just as the Central Pacific had gone into Utah for the first transcontinental railroad. The Southern Pacific, owned by the same owners of the Central Pacific, started in San Diego and headed east toward the Colorado River and Yuma Crossing in 1877. With the labor of hundreds of Chinese workers brought to the United States for the express purpose of building the railroads, the track-laying from Yuma began in November 1878 and reached Casa Grande in May 1879. The work halted during the summer and resumed in January 1880. The railroad into Tucson was completed in 1880 and a number of Chinese workers stayed in the region to work as farmers, shopkeepers, and laborers in the mines. Racism against the Chinese was prevalent, but some Chinese remained in the area to become part of the County's diverse cultural heritage.



Laying Track in Arizona Territory in the 1880s

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The Southern Pacific line continued east into New Mexico and Texas, and a new transcontinental line was completed in 1881. It provided a great service to the region by bringing supplies and passengers from both east and west, and by tying into a series of regional lines throughout southern Arizona and to the Mexican border. Additionally, the Santa Fe Railroad constructed a line south from Albuquerque to Deming, adding an additional north-south link (O'Mack and Klucas 2001). Tucson became the largest hub in Arizona and the railroad changed both the nature of the economy and the shape of the landscape once again.

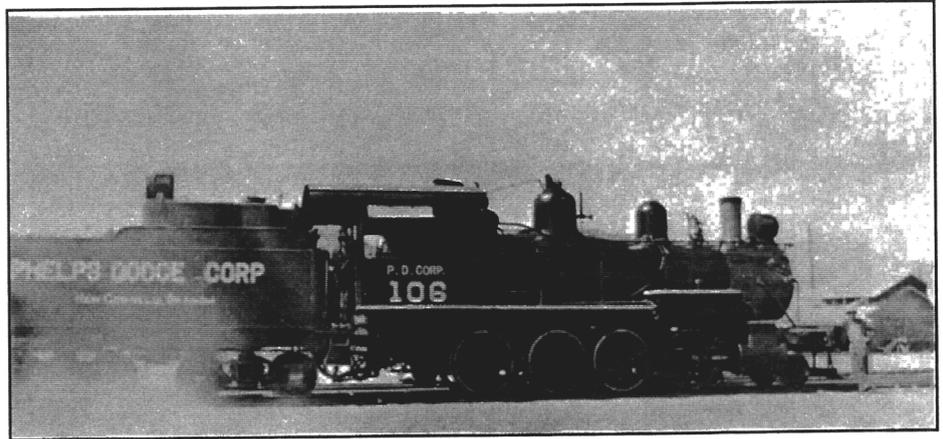


The Southern Pacific Railroad

Due to their importance in carrying significant payloads through the region, the railroads were natural targets for outlaws, and their stories have added to the lore of the Wild West. The Colossal Cave Timeline (Maierhauser and Cockrum 2001) describes the interwoven history of the railroads and the famous caves southeast of Tucson in the late 1880s. Between April and August of 1887, the Southern Pacific Express Train Number 20 was robbed twice near Vail and the robbers made off with significant hauls of currency and gold. The outlaws used the caves in the hills for shelter and hideouts, and the tracking parties used the Mountain Springs Ranch as their headquarters in the area.

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One of the most important roles of the regional railroad was to bring supplies and equipment to the mines and transport out the minerals. In the competitive spirit of the day some companies preferred to maintain control over transport of their own minerals and supplies and reduce their

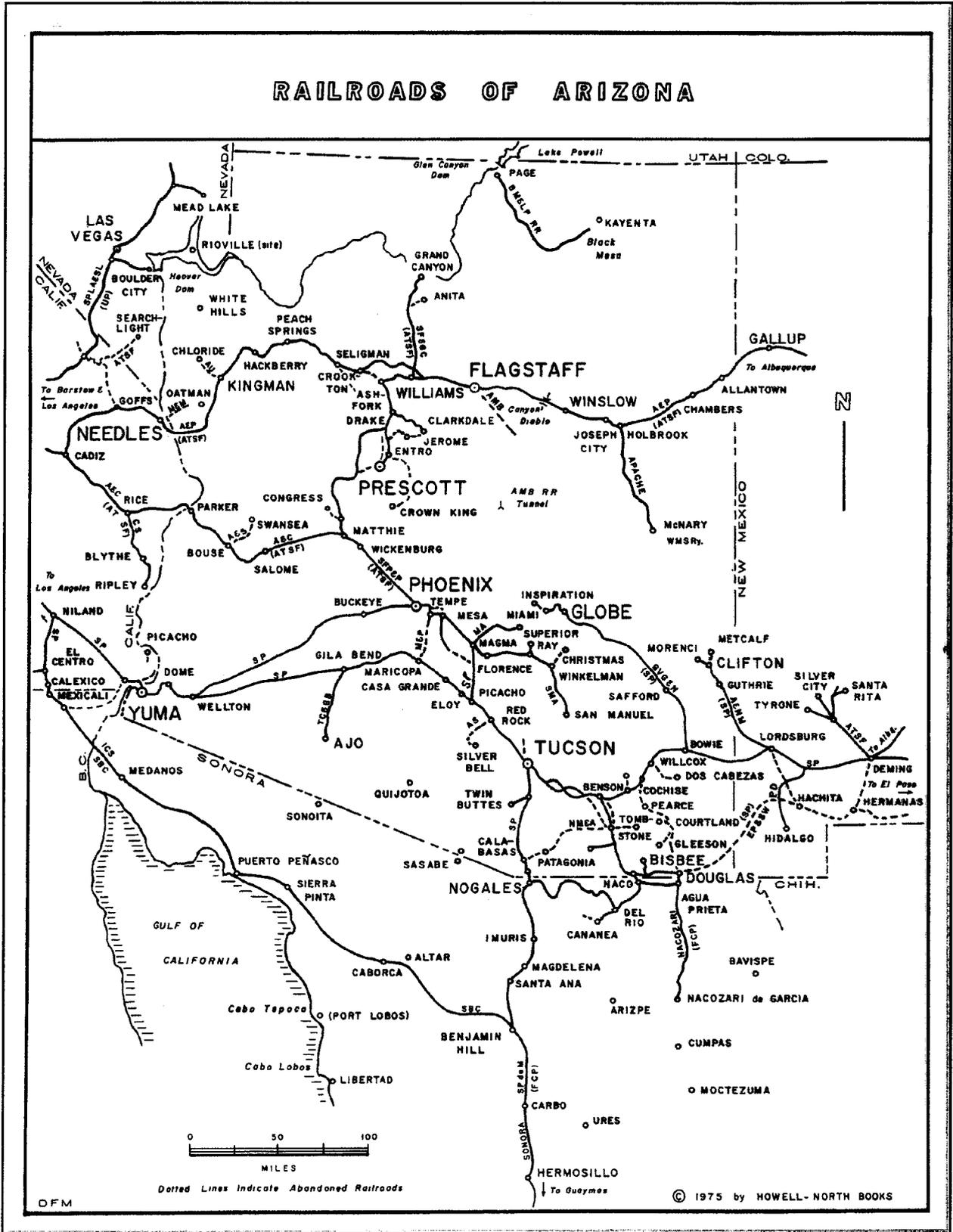


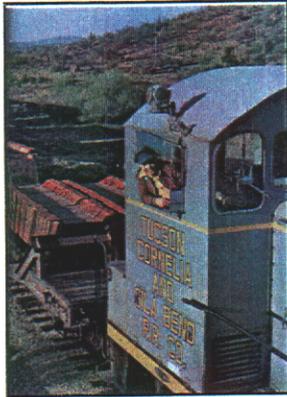
dependence on the railroad companies. The Phelps Dodge Corporation owned a line, the El Paso and Southwestern Railroad, which connected their mines at Bisbee and smelter at Douglas with northern New Mexico. They later extended to Tucson, thereby connecting Tucson with El Paso, and entered downtown Tucson from the south. They built the station on Congress Street in 1913, which was later bought out by the Southern Pacific in 1924.

The Arizona Southern Railroad Company, owned by the Imperial Copper Company, began operating in 1904 in support of the mining operations in the Silver Bell Mining District 35 miles northwest of Tucson. It was developed to transport ore to Douglas for smelting, and later to a smelter built 15 miles away in the company town of "Sasco" (Southern Arizona Smelting Company). The railroad provided mail and passenger service between Silverbell and Tucson, and what is more important, brought potable water to Silverbell. The mineral content of the local water made it impossible to drink, and it was initially



brought in by wagon; the railroad was able to bring in quantities large enough to stock the camp's water tank and be sold to residents.





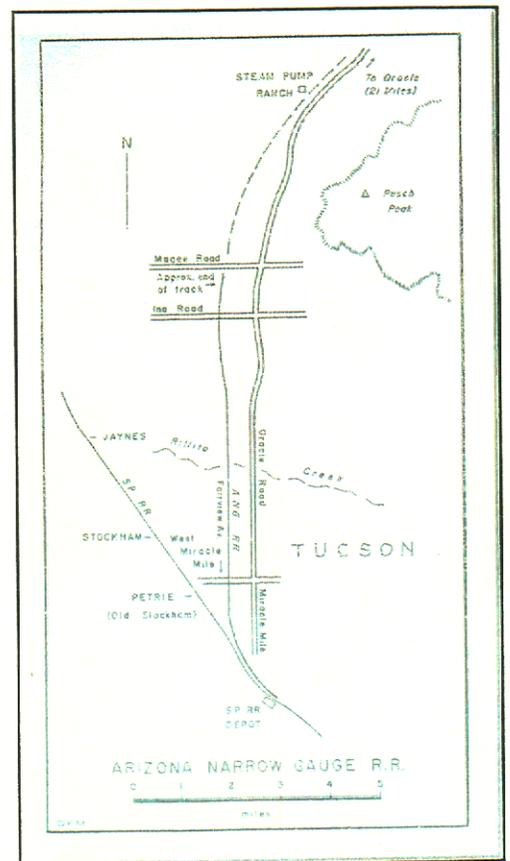
Another private line, the Tucson, Cornelia, and Gila Bend Railroad Company, was started in 1916 as a shortline to transport copper from Ajo to the Southern Pacific mainline in Gila Bend. It was still running in 1977 when it was chronicled by Arizona Highways in an article on freight train nostalgia (Ridge 1977). Ajo is the largest city in Pima County west of Tucson and owes its history to the rich copper lodes that were mined back to the times of the Spanish. Improbable as it seems, at one point in its history the rich copper ore was taken by mule from Ajo to the west coast of Sonora, and from there, around Cape Horn to Wales for smelting.

Another private line that was developed was the Twin Buttes Railroad Company that went from Tucson into the Sierrita Mountains. It was built by David S. Rose between 1904 and 1906. Its fortunes rose and fell with the copper prices, and in 1910, the portion of the line between Tucson and Sahuarita was purchased by the Southern Pacific in order to provide a linkage for a line to Nogales. The Twin Buttes Railroad continued to run, albeit infrequently, until 1934. The Tucson to Nogales rail line continued until 1951 at which time the trucking industry and automobile took over and, once again, transformed the landscape in Pima County.

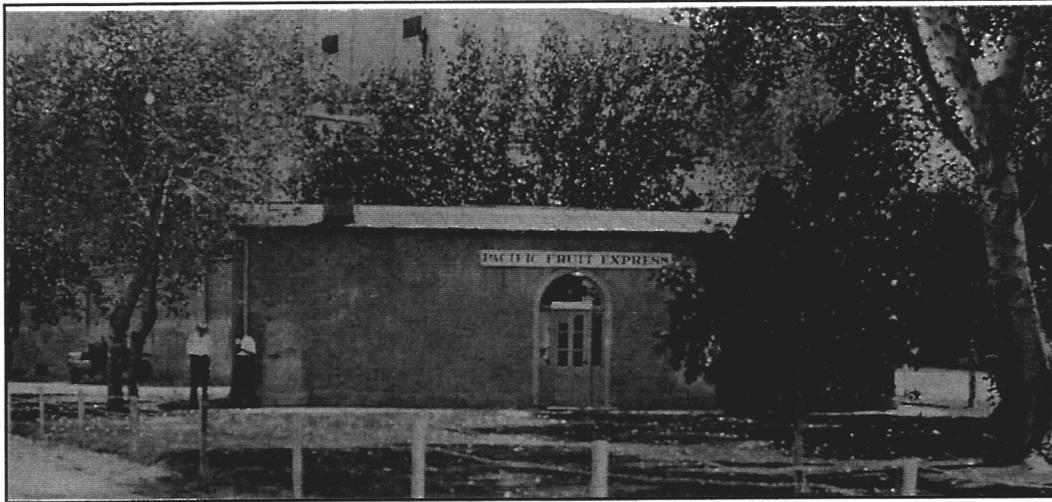
One additional line that bears mention was the Arizona Narrow Gauge Railroad Company that was intended to run from Tucson through Oracle and Globe to northern New Mexico where it would meet the Denver and Rio Grande. The first destination was to have been Steam Pump Ranch owned by cattleman George Pusch, and a grading camp was established there. Political and financial problems plagued the railroad and it only reached as far as present-day Magee Road.



Steam Pump Ranch with Pusch Ridge in the background



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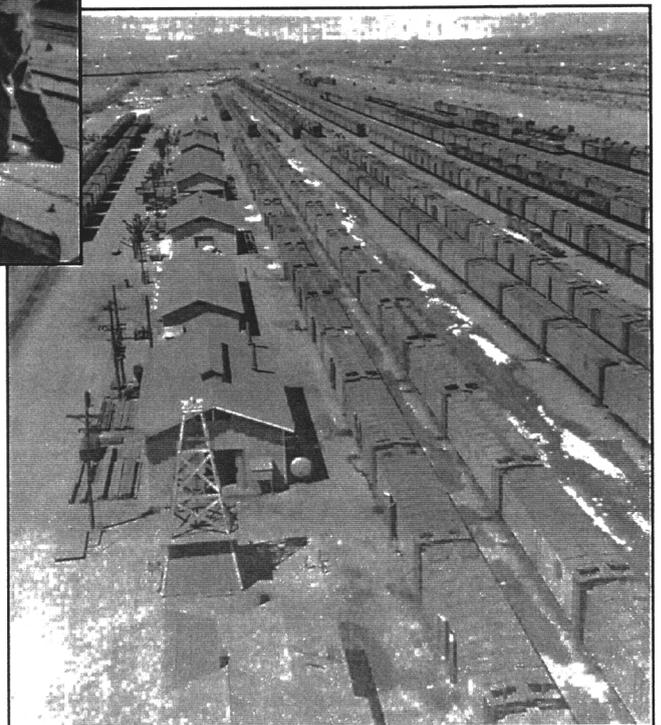
Before moving on to the automobile age, it is important to note that in addition to mining, ranching and agriculture benefitted from the railroads' entry into the region. Farmers were able to

irrigate on a massive scale as pipes, drilling, and pumping equipment became available. Ranchers no longer had to make the long overland cattle drives to market, and growers took advantage of the climate and transportation to produce citrus and other perishable

crops. Ice was manufactured in warehouses adjacent to the Tucson rail yards and fruit and vegetables were shipped to new markets around the country.



Loading ice into the rail cars in Tucson



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Lastly, the beginning of a new business, tourism, benefitted greatly from the railroads' modern convenience, access, glamour, and speed to launch a new era of travel to the Southwest. Tourism was a catalyst for road building and transportation expansion into regions of Arizona that had previously been off limits to all but the hardiest travelers.



Miss America,
(Jacque Mercer of
Phoenix), christens the
Sunset in Tucson, 1950



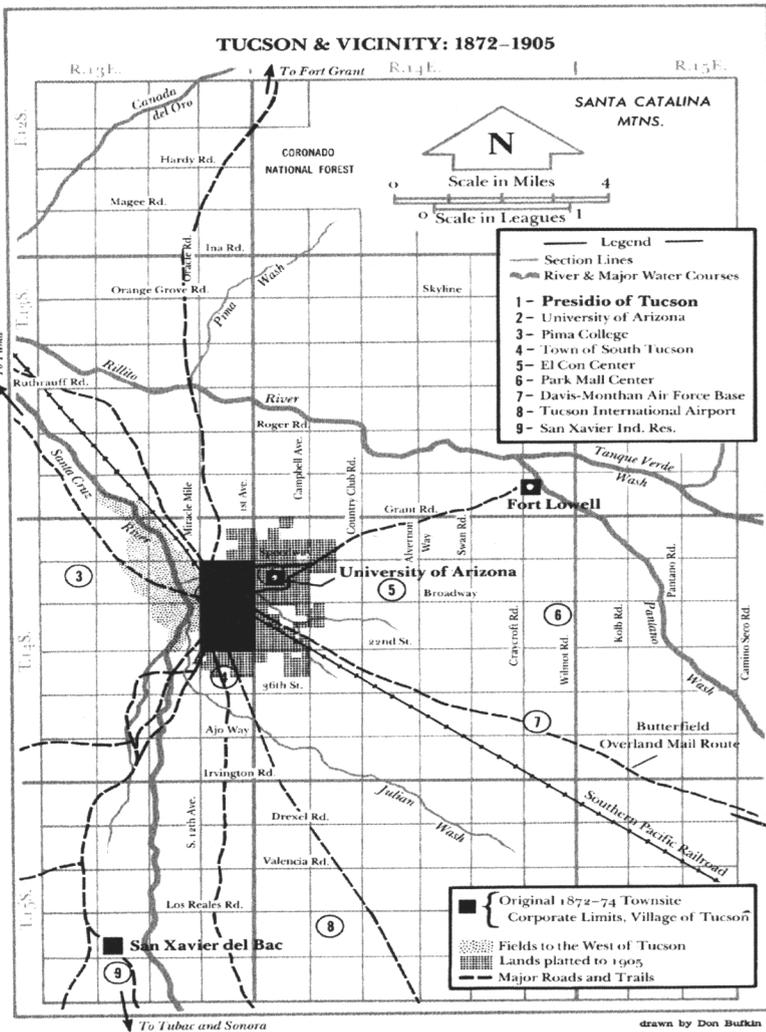
20th-century Tucson: new territory



Photo courtesy of Arizona Historical Society/Tucson, WA
Roy Drachman and a model promote tourism circa 1940



8. Early Automotive
Routes: 1899 - Present



At the beginning of the 20th Century the discovery and production of oil in Texas ended the era of the Iron Horse and paved the way for America's romance with the automobile. Like their predecessors, automobile routes in Pima County were often built on the trails and wagon roads of earlier inhabitants. The automobile, like the railroad and wagons, had an enormous impact on the development of the sprawling Tucson metropolitan area and Pima County.

The first automobile in Pima County was purchased by Doctor Hiram Fenner: a 1900 Locomobile steamer. It was used to make house calls and emergency trips (Rodda 1993 as cited in Stein 1996).

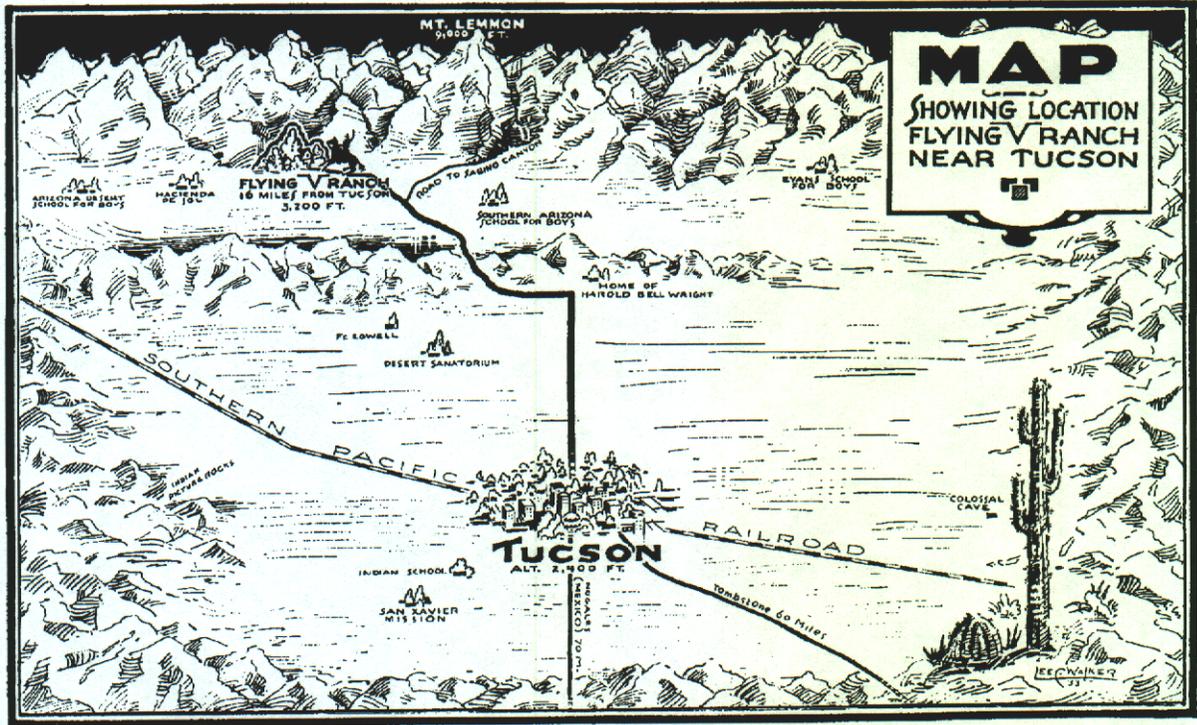
When the first licences were issued in 1905, Dr. Fenner was issued Licence Number 1, and by 1918 there were more than 1,800 automobiles in Arizona.



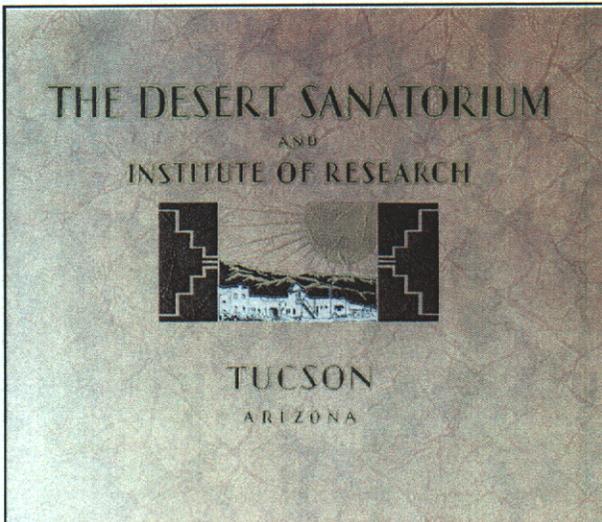


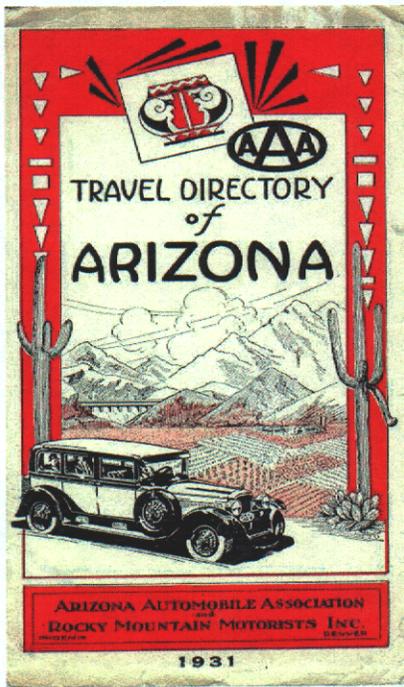
As automobiles increased in number in Tucson, the speed limit was set at seven miles per hour (1903) and the faster drivers headed to the dirt roads outside the center of town to run their vehicles. One such road frequented by these “scorchers” became known appropriately as Speedway Boulevard (Sonnichsen 1984). The first traffic signal was installed in the early 1920s at the intersection of Stone and Congress, and by the 1930s, paved roads had made cross-country travel possible.





Starting in the late 19th century, Tucson began promoting the benefits of the region’s warm and arid climate. In 1896 a group of Tucson businesses formed the Tucson Grocers’ Association, which subsequently became the Tucson Chamber of Commerce. Its primary purpose was to foster business development by marketing Tucson as “a place to visit, prospect, ranch, or invest in” (Prytherch 1999). The health benefits of the mild, arid climate were promoted, and by the 1930s, thousands of people with tuberculosis had settled in the County.

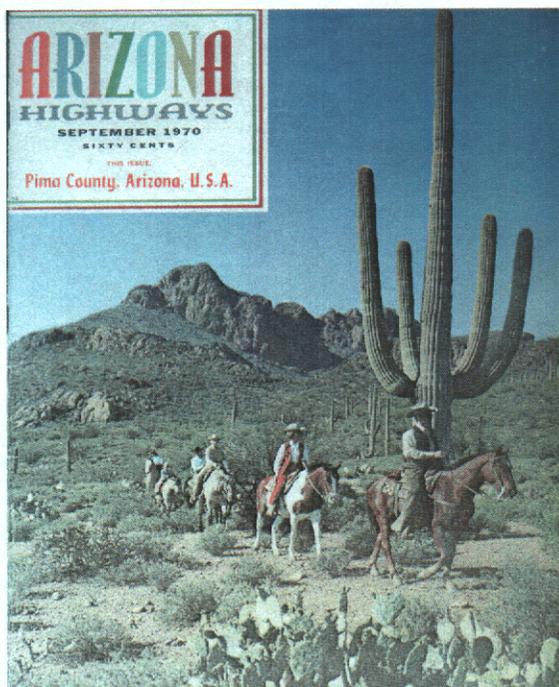
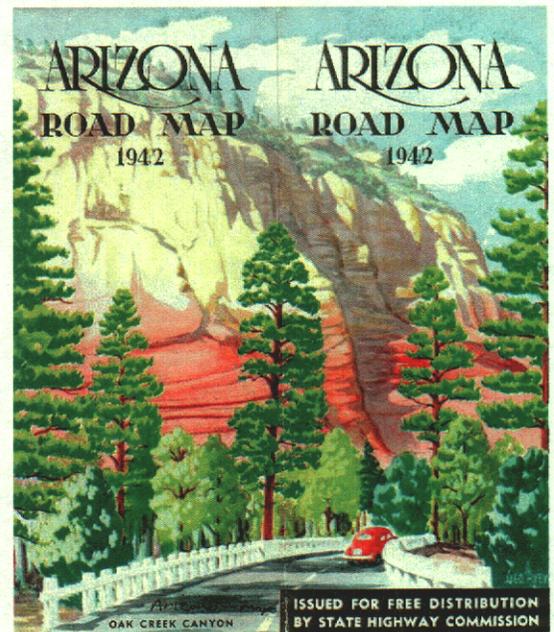




Publication of tourism brochures touting the lore of the Old West and the region's natural wonders sparked development of new transportation routes throughout Pima County. Dude ranching became a popular excursion for people from all over the country who wanted to experience the Wild West. Later, movies and television would continue to sell the drama and glory of the region's historical and natural wonders.

Early roads were largely unimproved and most would wash out during the rainy season in winter and the monsoons of summer. As a result, two important pieces of roadway development legislation were passed: the State

Road Law in 1912 and the Federal Aid Road Act in 1916. The State Road Law formalized a plan for a network of roads to connect all County seats and the major cities of Tucson and Phoenix; the Federal Aid Road Act authorized funding for developing roads that would eventually connect into a larger network of national highways.



The road between Tucson and Nogales received a portion of those funds and became part of the state highway system in 1917. The Arizona Highway Department and State Highway Commission were formed in 1927, and their efforts reflected the state's commitment to the modernization of transportation in Arizona (O'Mack and Klucas 2001).

The monthly publication of the magazine *Arizona Highways*, by the Arizona Department of Transportation, became an important tool in promoting travel and tourism to visitors and citizens of Arizona.

Mission Road

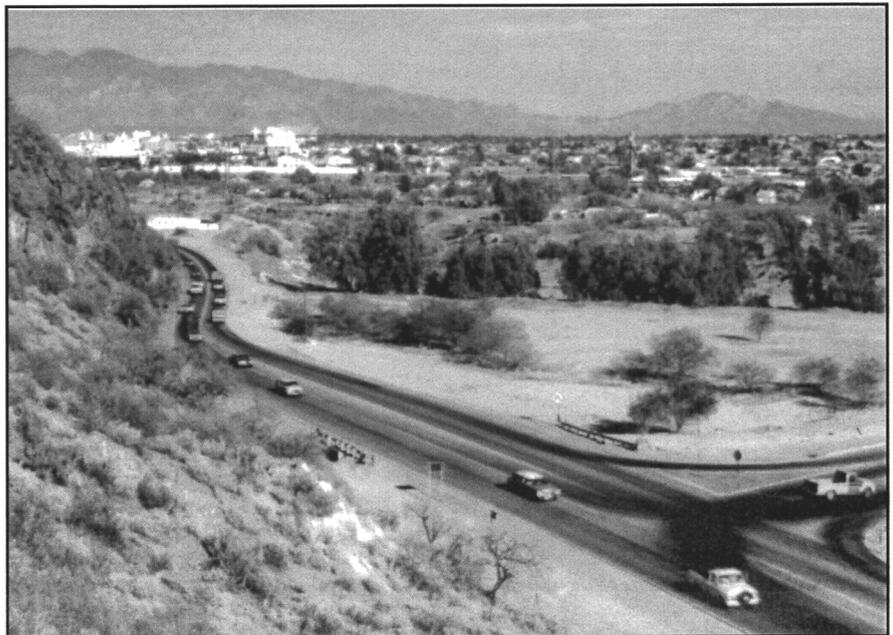
Mission Road, the early Camino Real west of the Santa Cruz river, had been the primary route between Tucson and points south, including Mission San Xavier del Bac and the mines in the Sierritas. As the population expanded, a debate developed over the merits of improving Mission Road along the west branch of the Santa Cruz versus developing another road from Tucson to Nogales along the eastern channel.



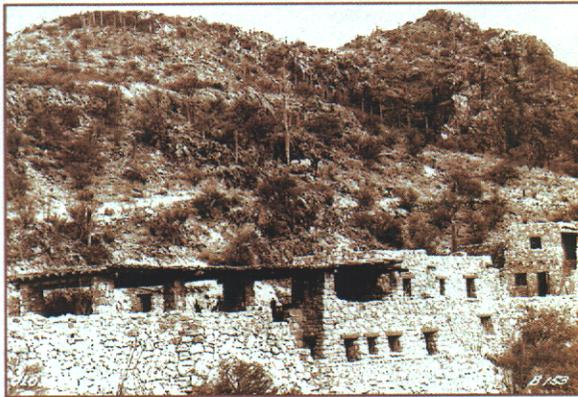
The west branch of the Santa Cruz ca. 1903

Eventually, a road on the east side of the Santa Cruz was selected where agricultural production was expanding, and as mining declined to the west, the use of Mission Road as the primary route south also declined. In the 1930s, Mission Road was improved south as far as the mission but not any farther. The eastside road was designated the Tucson-Nogales Highway (U. S. 89) and improvements were completed in 1922.

In the 1970s, Interstate Highway I-19 was built west of the Tucson-Nogales Highway to relieve the increasing traffic congestion, and the former route became known as the Old Nogales Highway (O'Mack and Klucas 2001).



Mission Road ca. early 1980s from same vantage point



The Depression Years saw Pima County struggle from the national economic collapse, and federally funded public works projects helped to sustain many unemployed workers. The Civilian Conservation Corps hired local men and taught them the skills to build roads, bridges, parks and trails. Many CCC-built structures are still in use today in locations such as Gates Pass, Sabino Canyon, and Colossal Cave Mountain Park.

When the U. S. entered World War II in 1941, the economy shifted to wartime production and its various supporting activities. One such activity was the completion of construction of the Mt. Lemmon road (Catalina Highway). The project had been started in 1931 through the combined efforts of the Forest Service, State Highway Commission, and the U. S. Bureau of Roads. Federal funds were used for the project and federal prisoners did the work. Later, the Civilian Conservation Corps took on the project, and during World War II the work was completed by internment laborers housed in honor camps at Mt. Lemmon. They included Japanese-Americans who were part of the government's forced internment, and Native American conscientious objectors. Mt. Lemmon became enormously popular with Tucsonans able to escape the city and beat the summer heat.

As part of the war effort, the early airstrip facilities at Davis-Monthan Field were expanded to become a major military air base. The airstrip had been named for two Tucson men who had lost their lives flying for the Army Air Corps and was dedicated in 1927 by Charles Lindbergh. It started receiving scheduled flights in 1928, and by 1947 had become so busy that a new municipal airport was built, opening in 1948.

The military brought in thousands of service men and women who settled in Tucson to raise families after the war. In 1940 Pima County's population was about 73,000; by 1950 it had doubled to 141,000, and by 1960, had grown to 265,000 people, 212,000 of whom lived in Tucson.

With post-World War II growth came expansion as more and more people moved into Tucson's





suburbs and into the small communities that sprang up outside the city limits. The quality of life for Tucson's suburban residents was complete, with endless miles of scenic roads for Sunday drives or trail rides, and expansive sunset views.

Downtown was the commercial and business center of the County, but gave way in the 1960s to the booming suburban lifestyle. Shopping centers and plazas relieved drivers of

the trek into town and enhanced the allure of the suburbs. Tucson meant snow-capped peaks and December golf in shirtsleeves. The combination of "a low-slung house, casual dress, and a natural setting against which to define oneself" exemplified the Tucson lifestyle (Prytherch 1999).

Many of the older transportation routes have been upgraded to keep pace with the population, and their historical character is no longer evident. There are, however, some roads in Pima County which have not yet been completely modernized and which retain some level of historical interest for the observant motorist. Many of the region's roads have names that are representative of the County's unique cultural heritage, both old and new, or the region's dramatic landforms: Fort Lowell Road, Mission Road, Gates Pass Road, Silverbell Road, University Boulevard, Aviation Highway, Kino Parkway, Speedway Boulevard, River Road, Tanque Verde Road, Elephant Head Road, Picture Rocks Road, Ruby Road, Arivaca Road, Sasabe Road, Redington Road, Oracle Road, Catalina Highway, and others.

New construction and road upgrade projects have become a constant part of the landscape in Pima County and a reminder that the population of the region continues to grow. The Arizona Department of Transportation, Pima County, and the cities in the region all share the challenges of accommodating the growth and development within the current infrastructure. Debates over new transportation strategies such as light-rail and subsidies for public transportation have become standard political fare.

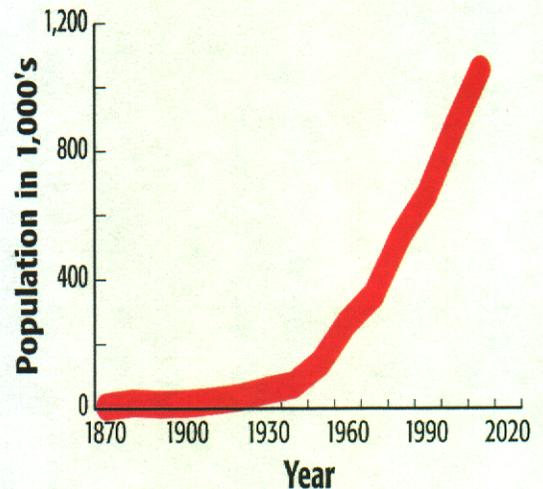
Along with improvements to roadway transportation caused by the transformation of Tucson to an urbanized, southwestern city, the local, regional, and state governments are providing funding for associated "quality of life" improvements: trails, bikeways, equestrian paths, scenic corridor improvements, habitat restoration and parks. Some of these improvements include interpretive information about the Sonoran Desert's

cultural and natural resources, including some of the historical highlights of the region’s transportation development. They include the following roadways:

Historic Routes of Pima County	
Current Roadway	Historic Route
I-19 and I-10 Corridors	Main historic corridors of the Santa Cruz Valley: Native American, Spanish Camino Real, Stage and Freight, Railroad, and Automobiles
Benson Highway/I-10	Early Native American route to southeast; freight & stage route; RR link with New Mexico and the East
Casa Grande Highway/I-10	Historic corridor north and west from Tucson used by explorers, stage & freight, RR and interstate highway
Mission Road	Portion of El Camino Real from Sonora to Tucson
Ajo Highway	Native American route; freight & stage route to mines at Quijotoa and Ajo thru O’Odham Reservation
Oracle Road	Apache route, later road to ranches, Camp Grant, and San Pedro River Valley, and narrow gauge RR
Silverbell Road	Route northwest from Tucson to Silverbell Mine
Redington Road	Rincon mountain pass to San Pedro River Valley

9. CONCLUSION

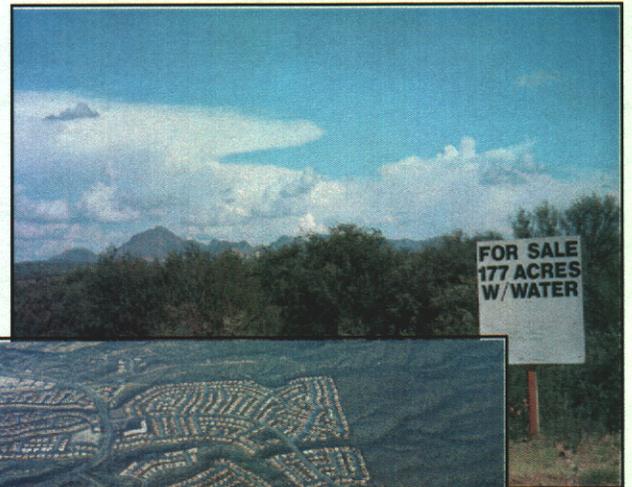
Today Pima County is at a crossroads, literally and figuratively. As in the past, the people living in this arid landscape have been confronted by conditions that require making choices about the future. At the beginning of the 21st century Pima County citizens face the problems that have come with rapid population growth. The census figures for the year 2000 put the County population at 866,000. The demands of a growing population require even larger quantities of land, water and transportation, to sustain current lifestyles. The City of Tucson estimates



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that by July 2008, the County's total population will exceed one million, and will expand to 1,700,000 in fifty years. How will the basic necessities of life be provided under these conditions? To answer this question, difficult choices are being made.

The Sonoran Desert Conservation Plan is an attempt to choose a future that balances the needs of the growing population while preserving the resources that are critical to the healthy functioning of the human and natural systems within the larger ecosystem. Considerations are being made for conserving open space, ranch lands, cultural and historical resources, riparian areas, and the habitats of the flora and fauna that live in this fragile desert environment.



Rancho Vistoso - ©Adriel Heisey

An article in the March 1965 issue of Arizona Highways summarized the challenges residents faced with the changing environment:

"Tucson's birth and reason for being was because of a strategic location at the crossroads of major routes of travel. From Indian trails to jet planes is a big jump in two centuries, but the city still maintains its importance as a transportation center. Transcontinental and north-south U. S. highways meet, and the new Interstate 10 passes through.

"The new airport building, completed last year at a cost of \$3,500,000, is one of the most efficient, modern and attractive in the United States. It has added another touch of cosmopolitanism to the Old Pueblo.

"So, all in all, Tucson is a vital and progressive city, with a quickened pulse beat the year round. No longer do Tucsonians lead a seasonable double life – energetic in the winter and easygoing in the summer...the peaceful and quiet summer siesta is a thing of the past. But the feel and the tempo of the enduring desert still dominates and the city spreads across the floor of the basin and into

the mountain foothills with an open-air spaciousness that hasn't yet crowded nature out. With room to spare Tucson is a horizontal one- and two-story community which has been immune to the high-rise epidemic now sweeping through the world's cities. But, with the rapid increase in population, perhaps Tucson's personality will eventually be lost in the standardized mold of modern urbanization. During the past year a seventeen-story luxury apartment house was added to the city's skyline and a twenty-story bank and office building is now rising in the downtown area. Zoning for high-rise construction has also been approved for outlying business centers.

"But no matter what the future brings, people will always be drawn to this city to play, work, and live in the desert sunshine. For, after all, there is only one Tucson." (Heald 1965: 34)

The author of that passage written thirty-seven years ago, had a foreshadowing of things to come when he wrote, "perhaps Tucson's personality will eventually be lost in the standardized mold of modern urbanization." His words have come true in the sprawling suburban development that threatens the "open-air spaciousness" with traffic, asphalt, and pollution.

It is up to the citizens of Pima County to look ahead another 37 years and beyond, and plan the future of the land that provides today's exceptional quality of life. It is time for citizens to determine the role of the factors that will make life here special for their children and the generations of children that follow.

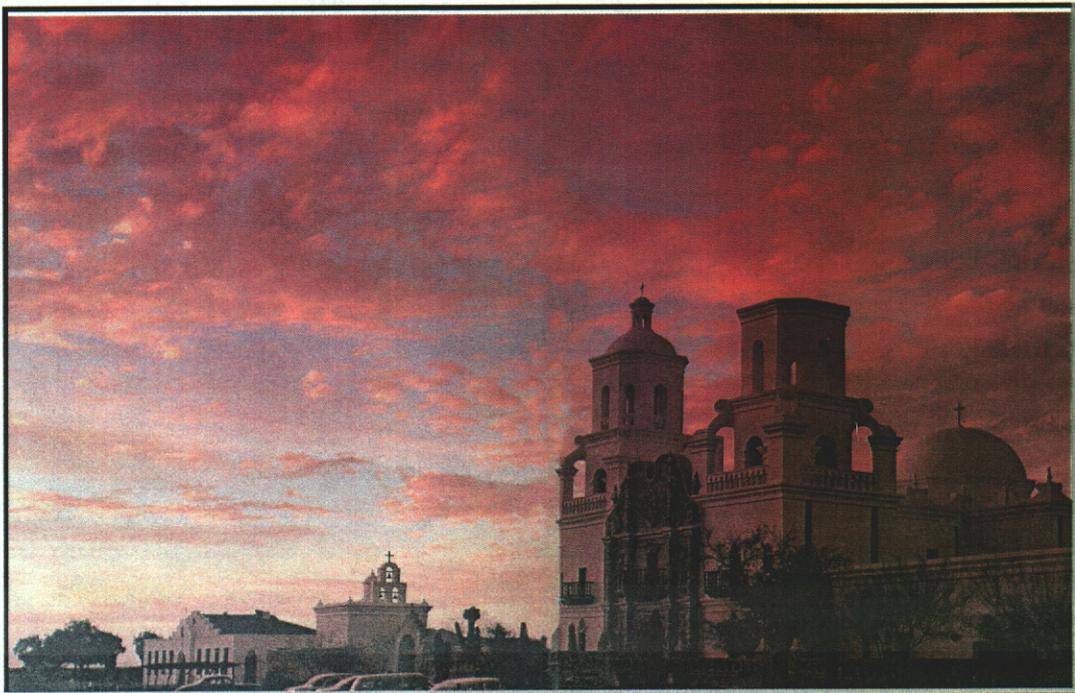


ILLUSTRATION SOURCES

Cover: (clockwise from upper right)

Dr. Fenner in 1900 Locomobile, courtesy of the Arizona Historical Society/Tucson AHS# B91782

Butterfield Stage Coach with extra back seat, courtesy Bill Kelly in Mazzio, Joann.

Tucson, Cornelia, and Gila Bend Railroad photo courtesy of P. K. Weis in Arizona Highways, Aug. 1977.

Special Collections University of Arizona Library: Southwestern Wonderland, "Arizona Welcomes You" Circa 1940s, 8 pages C9791 Pam. 155

White River Valley Apache, in Curtis, 1907.

"Illusive Cibola" by Buck McCain, courtesy of Buck McCain.

- Page 1. Arizona Southern Railroad in Myrick, 1975.
- Page 2. Photograph by Jessica Levy, Pima County Cultural Resources Program.
- Page 3. Akimel Village in Bartlett, 1854.
- Page 4. Native American Trails in "Historic Trails in Arizona" by Stein, 1994.
- Page 5. Drawing of Platform Mound by Ziba Ghassemi, Courtesy Center for Desert Archaeology, Tucson, AZ.
- Page 6. (top) Indian Trails of Pimeria Alta Map 1687-1711, University of Arizona Library.
(bottom) White River Valley Apache, in Curtis, 1907.
- Page 7. (top) Estevanico image from "History of Estevanico" website, 2001.
(bottom) Route of Cabeza de Vaca from Public Broadcasting Service (PBS) website, 2001.
- Page 8. "Illusive Cibola" by Buck McCain, Courtesy of Buck McCain.
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- Page 11. Routes of the Spanish Explorers in Walker and Bufkin, 1979.
- Page 12. Major Exploration Routes of Cápitan Juan Manje 1693-1721, University of Arizona Library. Bufkin, Don, from the field notes and maps of Harry Karns.
- Page 13. Signature and Anza representation, National Park Service.
Spanish Soldier image in Garate, 1994.
- Page 14. Anza Expedition Map by M. Taylor in Garate, 1994.
- Page 15. Anza Expedition Party by C. Peters, National Park Service.
- Page 16. (Top) National Historic Trail image, National Park Service.
(Bottom) Co. B, 10th Infantry crossing Gila River ca. 1885 (west026.jpg). National Archives and Records Administration, Washington D.C.
- Page 17. Routes of the Mexican War in Walker and Bufkin, 1979.
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- Page 19. Routes of American Explorers and Surveyors in Walker and Bufkin, 1979.
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(Bottom) Fort Lowell, Courtesy of the Arizona Historical Society/Tucson AHS# 61561.
- Page 21. (Top) Saguaro Picnic, February 18, 1886 (west169.jpg) National Archives and Records Administration, Washington D.C.
(Bottom) Military Forts Map - File Image, Pima County Graphic Services.
- Page 22. Historic Land Grants in Officer, 1987.
- Page 23. Cattle Round Up, Arizona Territory, 1896-99 (west099.jpg) National Archives and Records Administration, Washington D.C.
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(Bottom) Ore Teams ca.1897 (west130.jpg) National Archives and Records Administration, Washington D.C.
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- Page 27. (Top) Butterfield Stage Coach with extra back seat, Photo Courtesy Bill Kelly, In Mazzio, Joann, 2001.
(Bottom) Artist unknown, in Walker, 1973.
- Page 28. Ore Wagon, in Serven, AZ Highways, April, 1976.
- Page 29. Typical stage with soldiers guard ca.1869 (west027.jpg) National Archives and Records Administration, Washington D.C.
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- Page 33. (Both) Phelps Dodge and ASRR in Myrick, 1975.
- Page 34. Map of Railroads of Arizona, in Myrick, 1975.
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- Page 37. (All) The Sunset and Golden State in Myrick, 1975.
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- Page 39. (Top) Tucson and Vicinity Map in Sonnichsen, 1982.
- Page 39. (Bottom) Dr. Fenner in 1900 Locomobile Courtesy of the Arizona Historical Society/Tucson AHS# B91782.

- Page 40. (Top) Harold Steinfeld at the wheel of his Buick in Sonnichsen, 1982.
Page 40. (Bottom) Photo of Auto Route Driver (west190.jpg) National Archives and Records Administration, Washington D.C.
- Page 41. (All Except Bottom Left) Special Collections University of Arizona Library: Southwestern Wonderland, "Howdy Stranger! Welcome to the Flying V Ranch" [Tucson, Arizona] Circa 1930s, 22 pages, C9791.R185 Pam. 20;
(Bottom Left) Special Collections University of Arizona Library: Southwestern Wonderland, The Desert Sanatorium and Institute of Research [Tucson, Arizona], 1929, 32 pages, V9791 Pam. 42 Part 1
- Page 42. (Top) Special Collections University of Arizona Library: Southwestern Wonderland, Arizona Automobile Association and Rocky Mountain Motorist Inc. Travel Directory of Arizona, Phoenix and Denver, 1931, 32 pp. WT9791 Pam 69.
(Middle) Special Collections University of Arizona Library: Southwestern Wonderland, Arizona State Highway Department Arizona Road Map Phoenix, Arizona: Eng. & Litho. Co. 1942, C9791
(Bottom) photo by Nourice Koonce in Arizona Highways, Sept., 1970, used with kind permission of Manley Prim Photography, Tucson, AZ.
- Page 43. (Top) Santa Cruz River, Courtesy of the Arizona Historical Society/Tucson AHS# 24868.
- Page 44. (Top) Colossal Cave Mountain Park, Courtesy Colossal Cave Mountain Park Archives.
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- Page 45. photo by Ray Manley in Arizona Highways, Sept. 1970, used with kind permission of Manley Prim Photography, Tucson, AZ.
- Page 46. Population Graph, File Image, Pima County Graphic Services.
- Page 47. (Top) Ranch land for Sale - File Image, Pima County Graphic Services.
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- End piece Special Collections University of Arizona Library: Southwestern Wonderland, Southern Pacific Company, "Guest Ranches of Southern Arizona Southern Pacific Lines" 1928, 15 pages, C9791 Pam. 240 [3.7 MB]

SELECTED SOURCES AND ADDITIONAL READINGS

Arizona Department of Transportation, *Arizona Highways*, Phoenix. Issues: March, 1965; September, 1970; April, 1976; August, 1977.

Barnes, Will C., *"Arizona Place Names."* University of Arizona Press, Tucson, 1988.

Bartlett, John Russell, *"Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, Chihuahua Connected with the United States and Mexican Boundary Commission During the Years 1850, '51, '52, and '53."* D. Appleton and Company: New York, 1854.

Curtis, Edward S., *"The North American Indian, Volume 1."* The Plimpton Press, Norwood, MA., 1907.

Donoghue, David, "Coronado Expedition." *The Handbook of Texas Online*, original content provided by <<http://www.tsha.utexas.edu/handbook/online/articles/view/CC/upcpt.html>> [Accessed August 31, 2001].

Garate, Don, *"Juan Bautista de Anza National Historic Trail,"* Southwest Parks and Monuments Association, Tucson, AZ., 1994.

Gibson, Charles, *"Seven Cities of Cibola,"* Discovery Channel School, original content provided by World Books Online, <<http://www.discoveryschool.com/homeworkhelp/worldbook/atozhistory/c/115020.html>> [Accessed August 29, 2001].

Gibson, Mary Emma and Lola Potts, *"Butterfield Overland Mail."* original content provided by <<http://www.tiptonmo.com/history/butterfield.htm>> [Accessed August 27, 2001].

Gosner, Kevin, *"Francisco Vasquez de Coronado,"* Discovery Channel School, original content provided by World Books Online, <http://www.discoveryschool.com/homeworkhelp/worldbook/atozhistory/c/135040.html> > [Accessed August 31, 2001].

Hartmann, William and Ethan Goldman, *"Coronado's Expedition into the American Southwest,"* original content provided by website <<http://www.psi.edu/coronado/coronado.html/>> [Accessed August 29, 2001].

Hartmann, William and Ethan Goldman, *"The Mysterious Journey of Friar Marcos de Niza,"* original content provided by website <<http://www.psi.edu/coronado/journeyofmarcosdeniza.html>> [Accessed August 29, 2001].

Heald, Weldon F., "Tucson, Arizona, Profile of a Desert City." Arizona Highways, Vol. XLI No. 3, March, 1965, p. 34.

"History of Estevanico." The Estevanico Society website, original content provided by <<http://www.Estevanico.org/history.html>> [Accessed Aug. 31,2001].

Larson, Elizabeth, "Nothing Must Stop the Mail! The Butterfield Overland Express." original content provided by <<http://www.over-land.com/mail.html>> [Accessed August 27, 2001].

Maierhauser, M. K. and E. Lendell Cockrum, "Timeline: The Intertwined Histories of Colossal Cave and La Posta Quemada Ranch." original content provided by <<http://www.colossalcave.com/timeline.html>> [Accessed May 14, 2001].

Mazzio, Joann, "The Butterfield Overland Mail - Stitching the Country Together." original content provided by <<http://www.zianet.com/snm/butter.htm>> [Accessed August 27, 2001.]

McGuire, Randall H. and Michael B. Schiffer, ed. "Hohokam and Patayan: Prehistory of Southwestern Arizona." Academic Press, Inc. New York, 1982.

Myrick, David F., "Railroads of Arizona, Vol.1." Berkeley: Howell-North Books, 1975.

National Archives and Records Administration, Washington D.C. 20408. original content provided by <<http://www.nara.gov/nara/nn/nns/amwest.html>> [Accessed November 16, 2001.]

Officer, James, "Hispanic Arizona, 1536-1856." Tucson: University of Arizona Press, 1987.

O'Mack, Scott and Eric Eugene Klucas, "San Xavier to San Agustín - An Overview of Cultural Resources for Paseo de las Iglesias Feasibility Study, Pima County, Arizona." Prepared for the County Administrator's Office, Archaeology and Historic Preservation Program by Statistical Research, Inc., Tucson, Arizona, Technical Report 01-72, November 2001.

Pima County, "Cultural Landscapes of History in Southern Arizona," Sonoran Desert Conservation Plan, May 2000.

Pima County, "A Link to the Past...Ghost Towns and Mining Towns of Pima County," Sonoran Desert Conservation Plan, 2001.

- Polzer and Sheridan, "The Presidio and Militia on the Northern Frontier of New Spain, Vol. II, part I: The Californias and Sinaloa-Sonora, 1700-1765." Tucson: University of Arizona Press.
- Prytherch, David L., "Making the Un-City." *You Are Here: The Journal of Creative Geography*, Spring 1999.
- Public Broadcasting Service (PBS), "New Perspectives on the West: Events in the West." original content provided by <<http://www.pbs.org/weta/thewest/events/1500-1650.htm>> [Accessed August 31, 2001].
- Ridge Jr., George W., "Hear the Rattle and the Clatter: Freight Train Nostalgia," *Arizona Highways*, Vol. 53 No. 8, August, 1977.
- Rodda, Jeanette, "Chug Wagons and Benzine Buggies: Arizona's Automotive Pioneers," *Journal of Arizona History*, Vol. 34 No. 4.
- Serven, James E., "Wagons of the West," *Arizona Highways*, Vol. 52 No. 4, April, 1976.
- Sheridan, Thomas E. and Nancy J. Parezo, "Paths of Life. American Indians of the Southwest and Northern Mexico," Tucson: The University of Arizona Press, 1996.
- Slawson, Laurie V., "Copper Mining, Railroads, and the "Hellhole of Arizona," *CRM* No. 10, 1999.
- Sonnichsen, C.L., "Tucson, The Life and Times of an American City." Norman, OK: University of Oklahoma Press, 1982.
- Stein, Pat H., "Historic Trails in Arizona from Coronado to 1940: A Component of the Arizona Historic Preservation Plan," Prepared for the State Historic Preservation Office, Arizona State Parks, by SWCA Environmental Consultants, Inc., Flagstaff, AZ. SWCA Report No. 94-72, 1994.
- United States Department of the Interior, Bureau of Land Management, Arizona Yuma Field Office, "El Camino del Diablo National Backcountry Byway," original content provided by <<http://azwww.blm.gov/yfo/backcountry.html>> [Accessed August 27, 2001].
- United States Department of the Interior, National Park Service, "Juan Bautista de Anza Official Map and Guide," Juan Bautista de Anza National Historic Trail. U. S. Government Printing Office: 1996-686-379.

University of Arizona Library Special Collections - Southwestern Wonderland website, <<http://www.library.arizona.edu/branches/spc/pams/>> [Accessed August 27, 2001].

University of Oregon Anza Collection website <<http://anza.uoregon.edu/>> [Accessed August 27, 2001].

University of Texas Library – Maps website, "The Coronado Expedition, 1540-41" original content provided by <http://www.lib.utexas.edu/maps/national_parks/coronado_expedition.jpg> [Accessed August 27, 2001].

Walker, Henry P., "Wagon Freighting in Arizona," in *The Smoke Signal*, Fall 1973, No. 28.

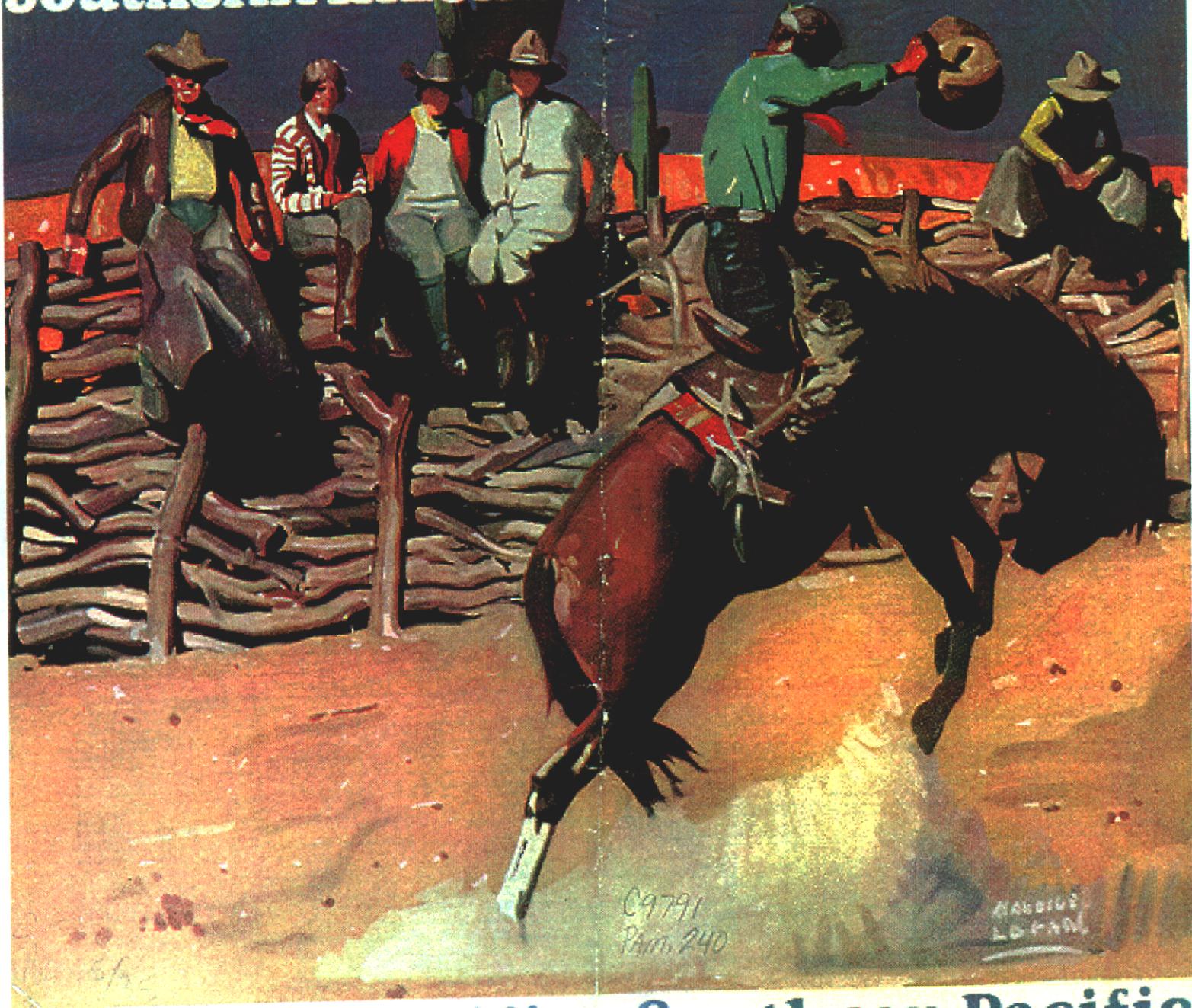
Walker, Henry P. and Don Bufkin, "Historical Atlas of Arizona." Norman, OK: University of Oklahoma Press, 1979.

Guest Ranches

Southern Arizona

Guest Ranches

Southern Arizona



Southern Pacific **Southern Pacific**