

Arizona Reflections

**Living History from
the Grand Canyon State**

Bob Ring

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Book design: Bob Ring

Cover design: Bob Ring

Printed by: Three Knolls Publishing & Printing

International Standard Book Number: 978-1-941138-74-8

Dedication

This book is dedicated to the continuing fight against cancer, a disease that has affected me since 1985.

Cancer has touched my Life

Ann Ring, my beloved wife, and mother of my three incredible sons, was diagnosed with breast cancer in 1985 and after a brave struggle, finally succumbed to the disease in 1990.

Eleven years later in 2001, I met my wonderful second life partner, Pat Wood, who has twice survived breast cancer - experiencing surgery, radiation, and chemotherapy - and has been cancer-free since 2004.

Finally, in 2013/2014 I had three early skin cancers surgically removed from my head - a squamous cell, early melanoma, and basil cell - an experience that my dermatologist referred to as a rare "trifecta."

My objectives with this book

As my small part in battling cancer, I am self-publishing this book and then giving the books away while copies last.

I strongly encourage readers to make a generous donation to an appropriate cancer treatment or support organization so that we can permanently eradicate this disease and/or ease the burden of those afflicted.

Help Support the Fight Against Cancer

American Cancer Society – Tucson District

1636 N. Swan Ave, Suite 151

Tucson, AZ 85712

(520) 870-4200

Arizona Oncology Foundation

2625 N. Craycroft Rd, Suite 101

Tucson, AZ 85712

(520) 870-6070

The Susan G. Komen Breast Cancer Foundation – Southern Arizona

4574 E. Broadway Blvd

Tucson, AZ 85711

(520) 319-0155

University of Arizona Cancer Center

1515 N. Campbell Ave

Tucson, AZ 85724

(520) 694-2873

Arizona History Timeline.

9500 BC	Paleo Indian hunter-gatherers reach Arizona from north.
6000 BC - AD 200	Archaic Cochise and Basket Maker cultures.
AD 200 - AD 1450	Prehistoric Ancestral Pueblo, Hohokam, Mogollon civilizations.
AD 1450 - AD 1600	Native American tribes proliferate largely unopposed.
1540-1542	Spanish conquistador Francisco Vasquez de Coronado explores Arizona.
1629-1680	Unsuccessful Spanish mission building in northern Arizona.
1691	Father Eusebio Kino begins Spanish mission building in southern Arizona.
1752	First European settlement (Spanish presidio) at Tubac.
1775	Hugo O'Conor establishes Spanish presidio at Tucson.
1821	Mexico achieves independence from Spain.
1848	Mexican-American War ends; Mexico cedes northern Arizona to U.S.
1854	Gadsden Purchase - U.S. buys southern Arizona from Mexico.
1863	Abraham Lincoln separates Arizona Territory from New Mexico.
1881	Phoenix incorporated.
1881, 1883	Transcontinental railroads completed across Arizona.
1886	Arizona's Indian Wars end after 35 years with surrender of Apache leader Geronimo.
1911	Roosevelt Dam on Salt River dedicated.
1912	President William Howard Taft makes Arizona 48 th state of U.S.
1919	Grand Canyon National Park established.
1936	Hoover Dam on Colorado River completed.
1985	Central Arizona Project begins delivering water from the Colorado River to Phoenix.
2010	Arizona's population exceeds 6.4 million people.

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Introduction

Earlier in 2015 I published *Tucson Reflections - Living History from the Old Pueblo*, a compilation of my Tucson-history-related newspaper columns published in Tucson's *Arizona Daily Star* between April 2009 and February 2014.

This book, *Arizona Reflections - Living History from the Grand Canyon State*, collects, integrates, and updates 16 of my Arizona-history-related newspaper columns (Ring's Reflections) published during that same period. Columns that ran originally as a multi-part series have been combined. Corrections have been made where warranted and selected columns updated with additional information.

This book also includes four original unpublished papers and a reprise of a joint paper (with my brother Al as co-author) presented at the 2001 Arizona History Convention.

The book begins with a brief introduction to Arizona history and the key events that led up to Arizona becoming a state. Next is a discussion of how Arizona got its odd shape, including a whimsical look at an alternative shape (that could have happened). Then comes the history of Arizona's traditional five C's of copper, cattle, cotton, citrus, and climate that were so critical to Arizona's growth. Next is a new article covering the construction of Arizona's two transcontinental railroads - told in a comparative timeline style. Then comes the amazing story of entrepreneur Fred Harvey, who provided food services and built hotels along the entire railroad route from Chicago to Los Angeles, while greatly impacting Arizona. Next is a new sobering history of Native Americans in Arizona - a survey of important events from prehistoric times to today. This is followed by another new story about one the largest Navajo weavings ever made, the so-called Staples Rug - where new data is

presented to establish the origin of the weaving. Then it's the history of postcards in Arizona - how postcards evolved with Arizona history and advancing technology. Next is an adaptation of the 2001 paper about Bisbee suburb, Warren, Arizona, and its development as a "City Beautiful." Then comes the colorful history of automobile license plates in Arizona. Next is the history of Arizona's family-owned Bashas' grocery chain - a testament to hard work and perseverance. Finally, the book closes with a new, personal look at the history my family (the Rings) in Arizona.

Arizona Reflections is directed at both Arizona residents and visitors, who hopefully will find "a fresh and vivid look at the history of the area."

Chapter 1

Key Events to Arizona Statehood

As a brief introduction to Arizona history, here are what I think are the most important events leading up to Arizona statehood.

Explorers/Missionaries/Pathfinders

Spanish explorers and missionaries first alerted the world to Arizona. From 1540 to 1542 Francisco Vasquez de Coronado made the first systematic exploration of the Southwest, including Arizona. The first non-natives to live in Arizona were Franciscan missionaries from Santa Fe New Mexico who tried to establish missions in northeastern Arizona near the Hopi mesas in 1629, but were driven out by the Hopi 50 years later. In the 1690s Father Eusebio Francisco Kino established successful missions along southern Arizona's Santa Cruz River.

Fur traders were the first Americans in Arizona beginning in the 1820s. These mountain men became guides for the U.S. Army, crossing Arizona on the way to California during the War with Mexico that began in 1846.

Immediately after the Treaty of Guadalupe Hidalgo ended the War in 1848, with the U.S gaining the part of Arizona north of the Gila River, Army engineers began surveys in Arizona for a possible transcontinental railroad. They were also trying to define the southern boundary for the Gadsden Purchase, ratified in 1854, in which the U.S. bought from Mexico the part of Arizona south of the Gila River.

Key Events to Arizona Statehood

After the start of the California Gold Rush in 1848, Arizona's Gila Trail became one of the main routes to the California gold fields. Thousands of 49ers also used southern trails along the Santa Cruz and San Pedro Rivers.

In 1869 Major John Wesley Powell led the first Colorado River expedition through the Grand Canyon. After a second expedition in 1873, Powell published his notes illustrated with Thomas Moran engravings that excited the American public about Arizona's natural beauty.

Ranching

Cattle ranching started early in Arizona and became our longest lived industry. Stock raising began in the 1690s when Father Kino brought cattle with him from Mexico to found his missions. Spanish cattle ranching began in earnest in the 1730s in the Santa Cruz Valley as demand for beef grew along with the population. Following the end of the American Civil War in 1865, large-scale ranches developed with an influx of cattle from overgrazed pastures in Texas.

Mining

Mining got off to a slow start in Arizona, but steadily grew to become the dominant Arizona business. In 1736 the discovery of silver just below the current border with Mexico drew prospective miners northward into southern Arizona. Copper was first discovered at Ajo in 1854. Gold was first found near Yuma in 1858 and in the Bradshaw Mountains and around Wickenburg in 1863.

The legendary town of Tombstone was founded in 1879 around a huge silver strike in 1877. Bisbee started on a path to become the queen of the copper camps in 1880, after the discovery of copper there in 1877.

Copper emerged as the most important mineral to the economy of Arizona in places like Bisbee, Jerome, Clifton, Globe, and Miami.

Key Events to Arizona Statehood

Indian Wars

Arizona's Native Americans fought long and hard to preserve their way of life. In 1751 Pima Indians revolted in south-central Arizona against repeated harsh treatment by Jesuit missionaries. In 1781 Yuma tribes rose up against Spanish soldiers for damaging their farmlands and severe disciplinary treatment.

The Apache vigorously fought Spanish, Mexican, and American encroachment into their homeland for over 300 years, until 1886 when Geronimo finally surrendered.

The greatest single tragedy occurred in 1864 when 8,000 Navajos, who because of unsatisfactory treaty negotiations, were rounded up by the U.S. Army and marched 300 miles in the dead of winter to a reservation in eastern New Mexico for a four-year confinement, with as many as 2,000 dying of cold, disease and starvation.

Transportation

Regular cross-Arizona stagecoach service for mail and passengers since 1857 and the completion of the transcontinental Southern Pacific Railroad across southern Arizona in 1881, and then the Atlanta & Pacific Railroad across northern Arizona in 1883, dramatically increased the number of people and amount of freight that could be carried in Arizona. For the first time, heavy mining equipment could be brought in, ranching expanded rapidly along the rail routes, and suddenly settlers were able to reach Arizona in large numbers.

The joining of the Arizona and New Mexico Railroad with the Sonora Railway in Nogales in 1882 opened Arizona's borderland to expanded ranching, mining, and business development, plus set the stage for increased interaction between Arizona and Mexico.

In the early 1900s, people also began coming to Arizona for vacations and to enjoy the fabulous climate.

Key Events to Arizona Statehood

Agriculture

Easier access to land and the ability to furnish plentiful water transformed the Arizona desert and created new agricultural industries. The Desert Land Act of 1877 provided 640 acres to settlers who irrigated the land, stirring great interest in improving irrigation methods. The Salt River Project began in 1903 - to handle water-management of dams and canals. The completion of Roosevelt Dam in 1911 harnessed Salt River water, rapidly expanding citrus and cotton industries in central Arizona.

Geopolitical

The evolution of Arizona towns from small fortresses, mining camps, and farming communities to significant cities helped prepare Arizona to join the U.S. Tubac was the first Spanish presidio (fortress) in Arizona, founded in 1752 in reaction to the Pima revolt. That presidio was relocated to Tucson in 1775 in proximity to the flourishing San Xavier del Bac mission. Almost a century later in 1868, Phoenix began as a farming community, looking for a manageable source of water.

The path to Arizona statehood was long and filled with challenges. Following the Mexican-American War, in 1850 the New Mexico Territory,



President William Howard Taft signs the bill that made Arizona the 48th state in 1912. (Courtesy of Library of Congress)

which at the time included northern Arizona, was added to the U.S. Then in 1863, Arizona, including the portion added by the Gadsden Purchase, became a separate U.S. territory. In 1906 Arizona rejected a proposal for joint (combined) statehood with New Mexico. Finally, on Valentine's Day, February 14, 1912, President Taft signed the documents admitting Arizona as the 48th state.

Chapter 2

How Arizona got its Shape

On February 24, 1863 Abraham Lincoln signed legislation dividing the New Mexico Territory into two approximately equal pieces, creating the Arizona Territory out of the western half. But for years leading up to Lincoln's action, most proposals to create a separate Arizona Territory wanted to do it out of New Mexico Territory's southern half.

The Shape We Know Today

The story begins in 1845 when the United States annexed the Republic of Texas as a state. At the time, Texas claimed lands to the west that included much of present day New Mexico.

At the end of the Mexican-American War in 1848, Mexico ceded vast southwestern lands to the United States. In 1850 The U.S. Congress established the New Mexico Territory - including parts of present-day Arizona, Nevada, and Colorado - and settled the eastern boundary of New Mexico at 103 degrees west longitude. Congress also admitted California as a state, with its eastern boundary along the Colorado River, and created a new Utah Territory.

To secure land for a southern transcontinental railroad, the U.S. negotiated with Mexico for the Gadsden Purchase of 1853, adding the southern part of present-day Arizona and the southwestern part of present-day New Mexico (Mesilla Valley) to the New Mexico Territory.

How Arizona got its Shape

The lower part of the New Mexico Territory was largely dominated by Anglos from Texas, with the upper portion largely under the control of a large Mexican population. (Arizona was very sparsely populated compared to New Mexico.) Settlers in the southern New Mexico Territory felt that they were discriminated against by the northern portion, and complained of a lack of representation in the territorial legislature and no protection from Indian raids.

This situation led to meetings in 1856 in Mesilla and Tucson that produced a petition that the New Mexico Territory be divided into two territories by a boundary running east-west along the 34th parallel. By 1860 ten bills had been introduced into the U.S. Congress proposing a division of New Mexico Territory along an east-west line. None of these bills succeeded because Congress was deeply involved in the North-South sectional controversy that led to the Civil War.

Just before the Civil War started, on February 28, 1861, Congress established a new Colorado Territory, removing the Colorado lands from northeast New Mexico Territory.

During the Civil War, on August 1, 1861, Lieutenant Colonel John R. Baylor of Texas took possession for the Confederacy of the “Territory of Arizona,” comprising all of New Mexico and Arizona south of the 34th parallel. President Jefferson Davis formally accepted Arizona into the Confederacy on January 14, 1862. However, by July that year, Union troops had “retaken” the southern part of the New Mexico Territory.

The Confederate actions finally spurred the U.S. to act on a separate Arizona Territory. But, the bill that passed Congress and that Abraham Lincoln signed on February 24, 1863, was for an Arizona Territory that was separated from New Mexico along a north-south line approximately at the 109th meridian. It was generally thought that southern Arizona and New Mexico favored the Confederacy, so a north-south line would break up this potentially hostile bloc.

In 1866 the U.S. Congress passed a bill allowing Nevada, two years after it became a state, to absorb the northwestern part of Arizona Territory,

How Arizona got its Shape



*You can follow the steps that were taken to establish Arizona and New Mexico and the border between them in this three-part map.
(Courtesy of Joan Pennington)*

How Arizona got its Shape

west of the Colorado River, because of perceptions that Nevada would be better able to oversee an anticipated population boom there due to discovery of gold.

The next almost half century was a nightmare for New Mexico and Arizona statehood aspirations. Members of the U.S. Congress considered that there were too few people in the Southwestern desert, that the people were uneducated and poor, and were further bothered by the proportionally large numbers of Mexicans and Native Americans.

Finally things began to move in the early 1900s. After considerable discussion of “jointure,” the idea of admitting New Mexico and Arizona to the Union as a single state, Congress finally passed legislation to admit the territories as separate states - with the now familiar boundaries. President William Howard Taft signed New Mexico into statehood on January 6, 1912, and signed for Arizona on February 14, 1912, exactly 50 years after Arizona was admitted to the Confederacy.

An Alternative Arizona

How would things be different today if Arizona had been fashioned out the southern half of the New Mexico Territory, as proposed many times in the 1850s and early 1860s?

First, let's look at the map. We'll assume that the New Mexico Territory was split on an east-west line at the 34th parallel, as outlined in ten (unsuccessful) bills to the U.S. Congress. Everything above 34N latitude belongs to *New Mexico* and everything south of 34N latitude belongs to *Arizona*. (Note: *italics* font designates the “fantasy” states.)

Arizona loses about 60% of its land area, mostly mountainous high country, including the Grand Canyon, Prescott, Flagstaff, the Four Corners region, and the Mogollon Rim country. But, *Arizona* picks up about 40% of New Mexico's land area, additional rugged southwestern desert, along with Silver City and the Gila Cliff Dwellings, Las Cruces, Alamogordo, White Sands National Monument, Roswell, and Carlsbad Caverns.

How Arizona got its Shape

Familiar summer-escape towns to Tucsonans - like Payson and Pinetop - are now in *New Mexico*.



If some legislators had had their way, Arizona would have been formed from the southern half of the New Mexico Territory, as shown in this map. (Map courtesy of Tom Bergin)

Arizona must revise its Spanish-conquest historical records to account for Spanish expeditions through southern New Mexico to establish mines around Socorro and the first Spanish settlements around Santa Fe in the late 1590s and early 1600s, decades prior to Father Kino making his first mission-building excursions northward into Arizona in the 1690s. However, Tubac (1752) and Tucson (1775) retain “old(est) pueblo” honors in *Arizona*, because the earlier Spanish pueblos were established in *New Mexico*.

Economically, *Arizona* keeps its traditional strengths, the five “C’s,” cattle, copper, citrus, cotton, and climate, plus most of its cropland, while losing considerable lumber business and tourism from northern Arizona’s wonderlands. *Arizona* gains southwestern New Mexico’s copper mining business (Chino open pit); considerable military business associated with Holloman AFB at Alamogordo and White Sands Missile (Test) Range,

How Arizona got its Shape

between Las Cruces and Alamogordo; and vast crude oil and natural gas production from the Permian Basin in southeastern New Mexico. *Arizona* also picks up Roswell, a center for irrigation farming, dairying, ranching, manufacturing, distribution, and petroleum production; and tourism from southern New Mexico.

A sobering thought in today's turbulent times is that *Arizona's* border with Mexico increases about 50% in length, all the way to El Paso, Texas. That's a 50% increase in thorny border issues such as drug running and illegal immigration.

There's good news and bad news for *Arizona* with respect to water. The good news is that *Arizona* gains two mighty rivers that flow out of the mountains of Colorado (Rio Grande) and northern New Mexico (Pecos), eventually merging and continuing south to the Gulf of Mexico while irrigating an enormous watershed in south-central and eastern New Mexico. Restricted by potential water rights issues with *New Mexico* and Texas (and notwithstanding severe droughts in recent years), these two rivers are a fantastic resource for *Arizona*.

The bad news is that Parker Dam built in the 1930s along the Colorado River to form a gigantic reservoir (Lake Havasu) to supply water to Mexico and seven western states, including Arizona via the Central Arizona Project, now borders *New Mexico*, not *Arizona*. We might ask ourselves if the years of political struggles and planning that finally resulted in CAP canal delivery of water to southern Arizona by the 1990s, would have succeeded - or would the city of Tucson, by then completely dependent on rapidly depleting ground water, be but a shrinking desert oasis today.

The final result for *Arizona* in this fantasy recreation of states is the acquisition of New Mexico's commercial production of chili peppers along the so-called "Chili Trail," extending across southern New Mexico and including Hatch, the "Chili Capital of the World." *Arizonans* may have to usurp New Mexico's official eatery question, "Red or Green," referring to the choice of red or green chilies that one gets with many local meals.

Chapter 3

Arizona's Traditional Five C's

Do you know Arizona's traditional five C's? I'm talking about the most important elements of Arizona's economy during the state's development from a U.S. territory, through statehood, and well into the 20th century. According to a Northern Arizona University telephone poll a few years ago, only three percent of survey respondents could identify all five C's: **copper**, **cattle**, **cotton**, **citrus**, and **climate**.

The five C's were so important to the heritage of Arizona that, as Arizona prepared for statehood in 1912, our new constitution adopted a Great Seal of the State of Arizona, incorporating the five C's to feature industries of the state. Today that same seal adorns official state documents, stationery, and statute books.



*Arizona's state seal celebrates the traditional five C's. **Copper** is represented by the miner, **cattle** by the cow, **cotton** and **citrus** by the irrigated fields and orchards, and **climate** by the sun and rainclouds. The Latin motto is "God enriches."*

(Courtesy of Wikimedia Commons)

Copper

It seems like mining has always been big in Arizona. In 1736 the discovery of silver just below the current border with Mexico drew prospective Spanish miners northward into southern Arizona. After Arizona became a U.S. Territory, gold was found near Yuma in 1858 and in 1863 in the Bradshaw Mountains near Prescott and around Wickenburg. By that time about one of every four people in the Territory was a miner.

Tombstone's boom in the 1880s was based on silver, but Arizona's precious metals were soon exhausted and it became evident that Arizona's long-term mining prosperity depended on copper.

Copper History

Copper is easily stretched, molded, and shaped, is resistant to corrosion, and conducts heat and electricity efficiently. The discovery, that copper combines with tin to produce bronze, marked the beginning of the Bronze Age about 3,000 BC.

Native Americans used copper in Arizona a thousand years ago for pigments, ornaments, and tools. The first Spanish explorers here in the 1500s found working copper mines.

Spaniards mined copper on a small scale at Ajo as early as 1750. After the Gadsden Purchase in 1854, the mine was reopened by Anglos.

In the 1870s and 1880s, huge copper deposits were found in Bisbee, Clifton-Morenci, Globe-Miami, and Jerome. "Big-time towns" sprung up to support serious mining operations. Copper emerged as the most important mineral to the economy of Arizona.

Other early successful copper operations included the Ray Mine (Pinal County), the Bagdad Mine (Yavapai County) and mines near Tucson at Silver Bell (23 miles northwest) and Sierrita (20 miles southwest), and forerunners of the Mission Mine (18 miles south).

Arizona's Traditional Five C's

By 1910 Arizona was the leading producer of copper in the U.S. and remains so today.

Copper Mining

Copper mining started out as an underground operation, with access to the copper ore via vertical shafts and tunnels. Over the years, the decline of the richness of the ore (.4 to 1.0% copper today) forced miners into open-pit mining, where vastly larger bodies of ore had to be dug out and processed to achieve significant amounts of copper.

The first open-pit copper mine in Arizona was in Ajo in 1917. By the 1950s, most Arizona copper mines were open-pit operations.

Miners continued to find additional sources of copper. Since the mid-1950s, new sites included San Manuel (25 miles northeast of Tucson), Mineral Park (Mohave County), Pinto Valley (Gila County), Carlotta (Globe-Miami), and most recently at Safford (Graham County).

Some early mines closed, due to running out of profitable ore, with their supporting towns, such as Bisbee and Jerome, “rapidly shrinking to the brink of nonexistence,” but finding new life as popular artist colonies and tourist attractions.

Copper mining operations also eventually closed at Ajo and San Manuel - resulting in less successful “second lives.” Other former copper towns, in central Arizona (east of Phoenix), have formed the Copper Corridor, a movement to attract tourism to their mining history.

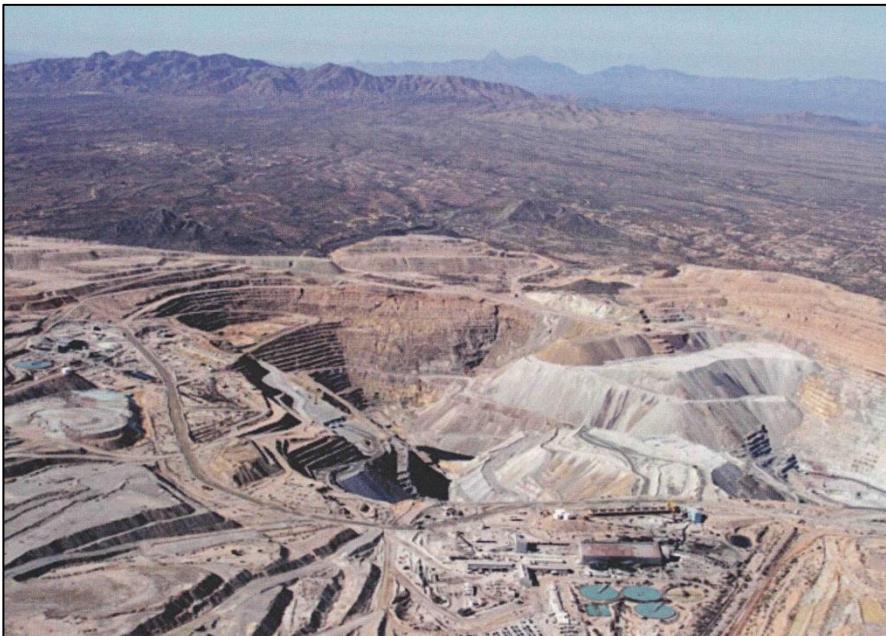
The other copper mining operations previously identified are still open and producing today! The top 10 largest producers (in rank order of output) in 2012 were: Morenci, Ray, Bagdad, Safford, Sierrita, Mission, Miami, Silver Bell, Mineral Park, and Carlota.

Copper Today

Today, copper is used in a variety of domestic, industrial, and high-technology applications - in building construction, power generation and

Arizona's Traditional Five C's

transmission, electronics manufacturing, and the production of industrial machinery and transportation vehicles. Familiar products include semiconductors, cell phones, computer chips, and automobiles.



The open pit of the Mission Mine south of Tucson is currently 2 ½ miles long by 2 miles wide and is 1500 feet deep. The copper mine operates 24/7, 365 days a year. (Courtesy of ASARCO)

Despite some mine closings, declining yields at some sites, and fluctuating copper prices, Arizona remains a major producer of copper, the largest in the U.S. According to the Arizona Mining Association, in 2012 Arizona mines produced 1.63 billion pounds of copper valued at \$6.02 billion. That was 65% of all the copper produced in the U.S. There were over 10,500 people employed in mining and refining copper!

Arizona is also the second-largest U.S. producer of molybdenum, which is extracted as a byproduct of copper, and is fifth in the nation for producing silver, mined mostly as a product of copper processing.

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Plans for new mining to satisfy future copper requirements are actively underway. These include Rosemont Copper, 30 miles southeast of Tucson, now in the permitting process under the direction of the United States Forest Service, and Resolution Copper, near Superior, currently stalled pending a proposed land swap with the federal government.

Copper certainly remains a core industry of the Arizona economy today.

Copper Facts ...

Copper wiring made widespread use of electricity possible in the early 1900s.

Copper transformed and modernized households in the 1920s and 1930s with piping and wiring.

Copper was used to make Arizona automobile license plates in 1932-1934.

The average car today contains 0.9-mile of copper wire.

Since mid-1982 copper pennies contain (only) 2.5 % copper and 97.5 % zinc.

If you go ...

What: ASARCO Mineral Discovery Center - Mission Mine Tour

Where: 1421 W. Pima Mine Road, Sahuarita AZ

Info: info@asarco.com or 520-625-8233

Cattle

According to a recent genetic study, cattle were domesticated from wild ox in the Near East about 10,500 years ago. Christopher Columbus brought the first cattle to the New World in 1493 and other Spanish explorers brought cattle to Mexico about the time Cortez captured Mexico City in 1521. Over the years, Mexican cattle spread northward with the Spanish missions; the missionaries encouraged the indigenous people to raise domestic animals.

Hispanic Beginnings

The first cattle in Arizona were driven in from Sonora by Jesuit missionary Father Eusebio Kino in 1691, starting 20 years of mission development in the Santa Cruz Valley. Cattle became “the mainstays of the mission economies and a major attraction for Native American converts.”

At about the same time, Spanish ranchers started small cattle ranches in the San Rafael Valley, at the headwaters of the Santa Cruz River.

In 1736 a nearby silver discovery triggered a temporary mining boom in southern Arizona, creating an expanded market for beef. Because of its consistently mild climate and rolling grasslands, the Santa Cruz Valley attracted many ranchers, establishing Hispanic families permanently in southern Arizona.

To further encourage settlement, the Spanish offered land grants. The Canoa Ranch, south of Tucson, and the Arivaca Ranch, southwest of Tucson, had their starts from these grants.

After Mexican Independence in 1821, to attract additional settlers, the Mexican government continued the Spanish practice and awarded ten private land grants in southern Arizona - five along the Santa Cruz River or its tributaries, four in the San Pedro River watershed, and one, whose northern tip only jutted into Arizona, east of Douglas. It was from these

Arizona's Traditional Five C's

land grants that southern Arizona's most important cattle ranches would later emerge.

According to Thomas Sheridan in his Arizona history, Mexican period mixed-breed long horn cattle numbers probably never exceeded thirty thousand animals. Droughts and Apache raids took a heavy toll and by the 1840s most of the Mexican ranches were abandoned and cattle herds ran wild. Thereafter, the continuous slaughter of wild cattle by Apaches, American soldiers, civilians, and gold seekers crossing Arizona in the late 1840s and early 1850s, exterminated wild cattle from southern Arizona.

Southern Arizona

Following the Gadsden Purchase in 1854, American cattlemen tried "to make a go of it" in Arizona. But continued Apache depredations and the outbreak of the Civil War severely limited these efforts.

The cattle boom in southern Arizona started after the Civil War ended, when large numbers of Texas longhorns, from overgrazed pastures, were driven to the attractive empty grasslands of southern Arizona. The federal government was the stimulus for a growing cattle industry, buying large amounts of beef for U.S. Army posts and Native American reservations.

A few large ranches and numerous small ranches were founded in this period. New England native Colonel Henry Hooker established the Sierra Bonita Ranch (north of Wilcox), Englishman Walter Vail bought and expanded the Empire Ranch (south of Vail), and the Cienega Ranch developed along Cienega Creek, southeast of Tucson. The Sierra Bonita ranch was the first permanent American cattle ranch in Arizona, continues as a working cattle ranch today, and in 1964 was declared a National Historic Landmark.

The completion of the Southern Pacific transcontinental railroad in 1881 enabled the southern Arizona cattle industry to expand rapidly. Big money investors shipped cattle into Arizona from various locations around the country, particularly from Texas, where cattlemen were

Arizona's Traditional Five C's

looking to escape mandatory grazing fees on state lands. Also, windmill technology improved to allow pumping of ground water into ponds, freeing cattle to graze over extended distances from natural sources of water. And Hereford cattle were introduced into Arizona to improve the herd.

In this period, Pennsylvania-bred Colin Cameron purchased the San Rafael Ranch, and Texas native and Cochise County sheriff John Slaughter purchased the San Bernardino Ranch east of Douglas, both of which grew into major Arizona cattle operations. The San Rafael survives today as the San Rafael State Natural Area (not currently open to the public). The San Bernardino Ranch became a National Historic Landmark in 1964.



*This “real photo” postcard shows a typical cattle roundup in southern Arizona.
(Postcard courtesy of Al Ring)*

With the decline of warfare against the Apache, previously established Hispanic families returned to ranching in southern Arizona. Also, newcomers from Mexico arrived.

The number of cattle in Arizona “grew exponentially.” By the 1890s there were about 1.5 million cattle in Arizona.

Northern Arizona

Meanwhile, another transcontinental railroad, this one across northern Arizona, was completed in 1883. The Atlantic and Pacific Railroad - linking Holbrook, Flagstaff, and Kingman - provided access to the unexploited lush grasslands of the Little Colorado River Basin in east central Arizona.

The Aztec Land and Cattle Company, a consortium of eastern businessmen and Texas ranching interests, purchased over one million acres along the railroad route and from 1884 to 1887, shipped tens of thousands of cattle from overgrazed Texas ranges to Arizona, and quickly built a herd of 60,000 animals. For a while, the Aztec Ranch was the third largest cattle ranch in North America.

But throughout the 1890s, successive draughts and range deterioration from overgrazing by too many animals caused heavy losses of cattle from starvation. In 1900, after only 16 years of operation, the Aztec Land and Cattle Company declared bankruptcy, ending the speculative cattle ranching era in the region, having a decidedly negative effect on the peoples and communities that depended on these ranges for their survival, and reducing future range productivity drastically.

A more successful cattle operation in northern Arizona was started in 1886 by Cincinnati-businessmen brothers David and William Babbitt in mountainous pastures around Flagstaff. Their CO Bar Ranch grew steadily through acquisition of other ranches and became one of the Southwest's most successful cattle ranches, still operating today.

Modern Cattle Industry

The severe draughts in the 1890s and overgrazing affected all Arizona cattle operations. To survive, cattlemen had to adopt a different approach - the open range gave way to stock raising as a modern business enterprise. From growing the largest herds possible, Arizona ranchers increasingly specialized in breeding superior beef animals and then shipping them to other states for fattening. They limited the number of

Arizona's Traditional Five C's

cattle, invested in the land, and practiced good management. Small ranches proliferated - to all 15 Arizona counties.

Herds peaked at 1.75 million head in 1918, fell to 750,000 by 1930, increased to 1.4 million in 1974, and gradually decreased to about 900,000 at the beginning of 2013. Surprisingly perhaps, Arizona ranks only 32nd in the U.S. for number of cattle.

Cattle ranching in Arizona today is about half what it was during its peak, but remains a large source of revenue. According to the U.S. Department of Agriculture, cattle ranching's total value to the Arizona economy in 2012 was \$1.02 billion.

Some of the ranches found in Arizona today are guest ranches where cattle are grazed and where modern cowboys demonstrate cow herding skills. Rodeos, county fairs, and the National Livestock Show, the largest livestock show in the southwest, held annually in Phoenix, are other ways for us to remember our cattle ranching roots.

Cattle Facts ...

The Arizona Rangers were formed in 1901 specifically to stop cattle thieves.

Arizona had more cattle than people until about 1950.

Arizona produced 413.7 million pounds of beef in 2010, enough to feed 6 million people.

There were 3,800 cattle ranches in Arizona in 2010.

There were 11,566 cattle brands recorded in 1908 and about 12,200 in 2011.

Cotton

According to cotton historian, Stephen Yafa, “cotton was domesticated simultaneously in India and Peru some 5,500 years ago.” Cotton, and cloth made from it, gradually moved west to Europe and north to Mexico and beyond, so that when Christopher Columbus arrived in the Bahama Islands in 1492, he found cotton growing there.

Cotton was a “prime motive for the colonization of the New World,” provided “economic muscle” to the textile industry in newly independent America, and remains one of the most important crops in the country. Ninety-five percent of all the cotton grown around the world today is the short-fiber upland variety.

Cotton in Early Arizona

Cotton moved north into Arizona from Mexico more than 2,000 years ago. There is archeological evidence of cotton growing, cloth making, and cottonseed cuisine in southern Arizona as early as 400 BC with the Desert Culture, and continuing with the Hohokam and Native Americans that followed. When Father Kino first explored the Santa Cruz Valley in the 1690s, he found Native Americans growing, wearing, and eating cotton.

Cotton growing continued in Arizona throughout the Spanish Colonial, Mexican, Arizona Territorial, and early Arizona Statehood periods. This was upland cotton - sometimes called Mexican cotton - produced mostly for local consumption - not as a cash crop for a large market.

Then, in the last decades of the 1800s, long-fiber cotton was developed in the hot, dry climate of Egypt. Egyptian cotton added a soft, silky feel, important to high-end cloth manufacturers in America, and also added durability, making it attractive as an industrial fabric. But long-fiber cotton required a longer growing season than the humid Cotton Belt of the southern United States could provide.

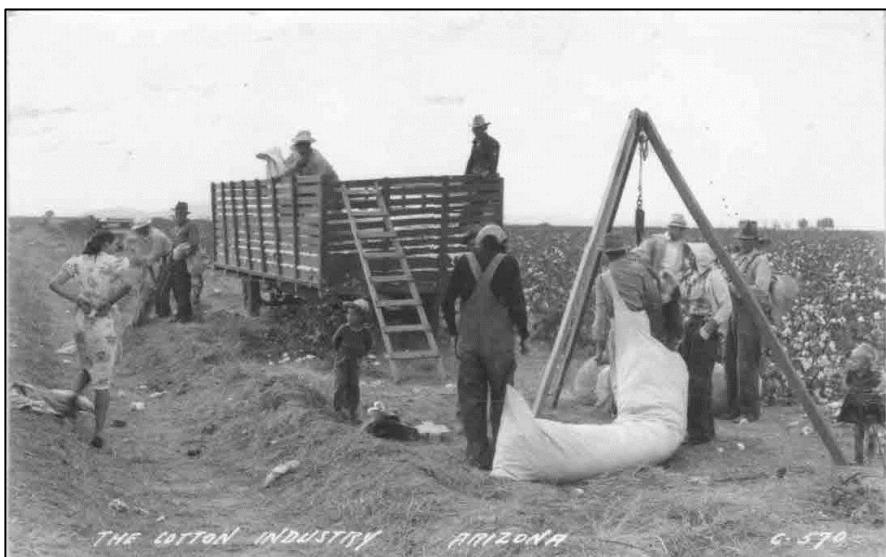
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So in 1900 Egyptian cotton was introduced into the Egypt-like environment of Arizona's Salt River Valley. Federal engineers began tinkering at an experimental farm in Sacaton, cultivating cotton hybrids until achieving a new cotton variety, with extra-long fibers and super durability, named Pima after the Pima Indians who grew it.

Pima cotton was released into the market in 1910 and reached 7,300 acres of production by 1916.

Cotton Boom and Bust

During World War I, "an embargo was placed on Egypt, the main supplier of industrial strength cotton, which was needed for airplane wings, tires, and dirigibles." Pima cotton was the answer and a cotton boom started in Arizona.



This "real photo" postcard shows cotton picking in southern Arizona, circa 1930s. (Postcard courtesy of Al Ring)

Goodyear Tire and Rubber Company bought thousands of acres southwest of Phoenix and brought them hurriedly into production, pioneering the conversion of desert to irrigated farmland. The company

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opened a factory next to the cotton fields and soon the town of Goodyear developed. Firestone and Dunlop soon joined Goodyear in the Valley. Farmers in Yuma and the Santa Cruz Valley joined the boom.

By 1920 there were almost 230,000 acres of cotton in the state. Arizona cotton was so valuable and so profitable that farmers stopped producing almost all other crops to concentrate on cotton.

But the boom didn't last. With the end of World War I, the military canceled many of its contracts, and Egyptian cotton flooded the U.S. market and drove the price of Arizona's Pima cotton down to below the cost to grow it - creating financial havoc. Between 1920 and 1925 the farm population of Arizona dropped 20 per cent. Some farmers returned to wheat, barley, and alfalfa or planted citrus groves.

Cotton Recovery

But as historian Thomas Sheridan says, "Nevertheless, cotton remained Arizona's most important crop." Many farmers renounced Pima long-fiber cotton and planted short-fiber upland cotton. Cotton acreage gradually increased, there was a resurgence during and after World War II, and cotton planting peaked in 1953 at 690,000 acres.

Since the peak, cotton acreage in Arizona has had its ups and downs, but in recent years has declined to about 200,000 acres in 2012, not even in the "top 10" of other U.S. state cotton producers. Much of the previous prime acreage was taken over by the "urban sprawl" of Phoenix suburbs to the east and west, beginning in the 1970s and 1980s.

Today cotton is grown in nine of our fifteen Arizona counties, but mostly in Maricopa and Pinal Counties south of Phoenix to Eloy - and even at reduced acreage, remains an important Arizona crop. According to the U.S. Department of Agriculture, cotton production, mostly upland cotton, supplied about \$300 million in cash to the state economy in 2012. Cotton Marketing Services estimates that cotton provides 11,000 jobs in Arizona.

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Future requirements assure that cotton will continue to be a significant cash crop for Arizona. The world today uses more cotton than any other fiber - in an almost unbelievable number of ways. Besides clothes and household fabrics, cotton is used in industrial products like plastics, high quality paper, mattress padding, furniture, and automobile cushions. Cottonseed, when crushed, produces oil for shortening, cooking oil, and salad dressing; and meal and hulls for livestock, poultry and fish feed, and also as fertilizer. Cottonseed is also used as high-protein concentrate in baked goods and other food products.

Cotton Facts ...

Cotton is considered a fruit because it contains seeds.

Cotton was once commonly grown in colors, including brown, rust, and light purple.

U.S. paper money is a blend of 75% cotton and 25% linen.

A mature cotton boll (seed pod) is about the size of a golf ball.

An average cotton boll contains 500,000 fibers of cotton and each plant may bear up to 100 bolls.

A 500-lb cotton bale can make 215 pairs of jeans.

Citrus

Those oranges, lemons, or grapefruits that you buy at the grocery store, or grow in your back yard, have their origin thousands of years ago in Asia, in an area bordered by India, Myanmar (Burma), and China.

Gradually spreading west to Europe, citrus was brought to America by Spanish and Portuguese explorers in the early 1500s, first to the West Indies, then Mexico, Brazil, and Florida. Catholic missionaries brought citrus plants to Arizona with them from Mexico, beginning in the early

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1700s. Father Eusebio Kino reportedly introduced oranges to Arizona in 1707.

Arizona's climate, "with low frost, minimal high winds, and endless sunshine," was to lead Arizona to eventually become one of only four citrus-producing states in the U.S. But for many years, citrus never expanded beyond limited mission and settlement plantings and home gardens.

Citrus as a Cash Crop

The story of citrus in Arizona really begins in the 1870s in Phoenix's Salt River Valley when Jack Swilling (known as the founder of Phoenix) began to dig out the old Hohokam canals to provide irrigation for crops to feed miners and cavalrymen. Farmers and speculators poured into the valley. By 1872, farmers were growing barley, wheat, corn, beans, and sweet potatoes on eight thousand irrigated acres.

Between 1883 and 1885, a new canal, the American Canal, was built by William J. Murphy to redirect water from the Salt River.

In 1889 Murphy planted an experimental citrus grove in Ingleside, near Phoenix. By 1895 150,000 citrus trees, mostly oranges, had been planted in the Salt River Valley. Citrus groves in Yuma and Mesa quickly followed, with over 1,500 acres planted by the mid-1890s. Citrus was well on the way to becoming an important cash crop for Arizona.

Citrus, cotton, and other crops helped Phoenix grow rapidly and the Salt River Valley emerged as one of the most important agricultural regions in Arizona. By 1889 Phoenix became the capital of the Arizona Territory.

But after an impressive beginning, Arizona's citrus industry grew slowly. Distribution problems plagued operations until 1928, when producers formed the Arizona Citrus Growers Association that helped lower the high costs of transportation. Citrus acreage increased to 21,000 acres in 1935, and peaked around 1970 with 80,000 acres.

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Significant lemon production in Arizona started in the late 1950s. This is a lemon-picking scene in southern Arizona. (Postcard courtesy of Al Ring)

Arizona's citrus crop has changed over the years too. By the 1930s, grapefruit was king and production peaked in the 1940s. Oranges regained the lead, with production peaking around 1970. Significant lemon production started in the late 1950s, was strong throughout the 1970s and 1980s, and then gradually declined. Tangerine production started in 1965, peaked in the mid-1980s, and then gradually declined with lemons.

Declining Production

Heavy urban development from the 1970s on has slashed citrus farming in Arizona. In 2011-2012 citrus was grown on only 13,000 acres, continuing a steady decline.

Lemons are now by far the leading citrus fruit, but production today is only a third of peak values. Yuma County has become the largest citrus growing region in the state.

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The last fruit packing plant in Mesa closed in 2010 because there wasn't enough local fruit being produced to support it. The production of grapefruit and oranges has dropped so low that the U.S. Department of Agriculture no longer counts them in Arizona totals. Tangerines are still produced, but in small quantities, at about a fifth of peak numbers.

Arizona has also been losing ground in competition with the other three citrus-producing U.S. states, Florida, California, and Texas. As recently as 2007, Arizona ranked second for production of lemons and third for tangerines. But, agricultural statistics from late 2013 show that Florida produced 63% of the U.S. citrus crop, followed by California with 34%. Texas and Arizona combined to produce only 3%.

According to the U.S. Department of Agriculture, Arizona produced 112 tons of citrus in 2010-2011, with a value of \$38.4 million. While much less than in the past, citrus remains an important Arizona product.

Arizona citrus faces an uncertain future. The citrus industry in Yuma is declining also, although at a slower rate than the Salt River Valley. Continued urban development and farmers moving to other crops like dates and olives are problems for citrus. Arizona citrus farmers are also facing growing competition from other countries such as Brazil and Australia.

Citrus Facts ...

Citrus trees are evergreens. They stay green all year.

After chocolate and vanilla, orange is the world's favorite flavor.

Grapefruit grows in clusters on the vine, like grapes. Hence, the name, grapefruit.

A single lemon tree can produce between 500 and 600 pounds of fruit in a year.

The tangerine is a variety of mandarin orange.

Climate

Climate has been a critical resource since Arizona's beginning. Our sunny, warm, dry weather provided the foundation for successful cattle ranching, and the cotton and citrus industries. Scientists came to Arizona to uncover our well-preserved ancient history, and to study the heavens through clear skies. Early on, Arizona's fantastic climate drew health seekers, explorers of the state's natural beauty, guest ranchers, and finally tourists by the millions.

Initial Climate Attractions

Beginning with the completion of the two transcontinental railroads through Arizona in the early 1880s, "out-of-staters" had access to Arizona for the first time. Tubercular patients were attracted to the dry air of Phoenix and Tucson, and began their "cures" living in tents and open huts.

Historian Thomas Sheridan talks about the impact of improved accommodations for patients: "Long after [tent towns] disappeared, hospitals and sanitariums erected to care for people with lung problems became the foundation of institutionalized health care in Arizona." Surviving patients remained in Arizona "to found businesses and raise families ... There was health - and money - in sunshine."

Another aspect of Arizona's climate - the state's natural beauty - first came to the world's attention in 1873 when Major John Wesley Powell fired the imagination of the public in the report of his 1869 adventure boating through the Grand Canyon. It wasn't until 1901 however, that railroad access to the South Rim of the Canyon was completed, "triggering a tourist boom that eventually made Arizona the Grand Canyon State."

Tourism began to flourish in Arizona in the 1920s. Natural attractions like spectacular canyons, red rock buttes, saguaro forests, petrified forests,

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desert gardens, and ancient ruins, plus elegant resorts and dude ranches attracted visitors.

Cities began promoting tourism. The Tucson Sunshine Club extolled Tucson's spectacular climate and Old West attributes. In doing so, the club coined the "Old Pueblo" moniker for Tucson and repeated it so often in advertising that the name "stuck."



The proliferation of colorful postcards, highlighting Arizona's wonderful climate, helped spur tourism. (Postcard courtesy of Al Ring)

The development and wide use of the automobile, the proliferation of picture postcards, the establishment of national and state parks, and the invention of air conditioning - all helped spur Arizona tourism.

Impact on Economy

So how does climate affect Arizona financially? Tourism brings in large amounts of money for goods and services associated with traveling in Arizona. It creates opportunities for employment in the tourism-associated service sector of our economy. These services include

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transportation, such as airlines, trains, automobiles, and taxicabs; hospitality, such as conventions, accommodations - including hotels and resorts, and restaurants; entertainment venues, such as parks, casinos, shopping malls, music venues, theaters, sporting events - like baseball, football, basketball, and golf, and special events like football's Super Bowl and baseball's All-Star Game; and educational venues such as museums.

According to the Director of the Arizona Office of Tourism, "Travel and tourism-related earnings are spread throughout the entire state and have shown a relatively consistent growth, exerting a stabilizing effect on the Arizona economy."

Tourism is a major contributor to Arizona's economy today. According to Dean Runyan Associates, in a report of Arizona travel, in 2012 visitors spent \$19.3 billion, generating 161,300 direct jobs and \$5.4 billion in direct earnings.

Even with tourism as one of Arizona's top industries, the state ranks only 16th among the states in how much money it makes from visitors, according to the U.S. Travel Association. Reasons for Arizona's relatively low ranking are a lack of man-made attractions, like amusement parks; a lack of major airports to funnel visitors into the state; and a lack of advertising money. California and Florida are the leading tourism states.

Arizona's climate-related tourism industry should continue to be an economic driver for Arizona's future economy. And our superb climate should keep drawing additional new industry and people looking for a great place to live.

2012 Arizona Travel facts ...

38.1 million overnight visitors

4.1 days average stay

86.9% domestic, 13.1% international

Domestic visitors: leisure 85.8%, business 14.2%

The Five C's Today

In a 1984 report to constituents, Congressman Morris Udall recognized the historic value of the five C's, but also economic changes that were occurring:

"The five C's have been the driving force behind Arizona's economy. They have traditionally been what made our towns and communities grow. They provided jobs and opportunities. The five C's gave economic security to past generations and real hope to future generations. All that, however, is changing. ... Arizona is moving from a mining and agriculturally oriented economy, to a high-technology and service based economy."

So how much do the historic bedrocks of our economy, Arizona's traditional five C's, affect the current state economy?

The Size of our Economy

First let's look at the significant contributors to Arizona's economy today. A useful measure to compare industry groups is Arizona's Gross Domestic Product (GDP). Think of GDP as the state's adjusted gross income. Using the latest data available, the U.S. Bureau of Economic Analysis assesses Arizona's GDP for 2012 at \$267 billion, and breaks this number down into the contributions of each economic sector. The accompanying pie chart displays the results. Arizona's total employment in December 2012 was 2.78 million people.

Five C's Today

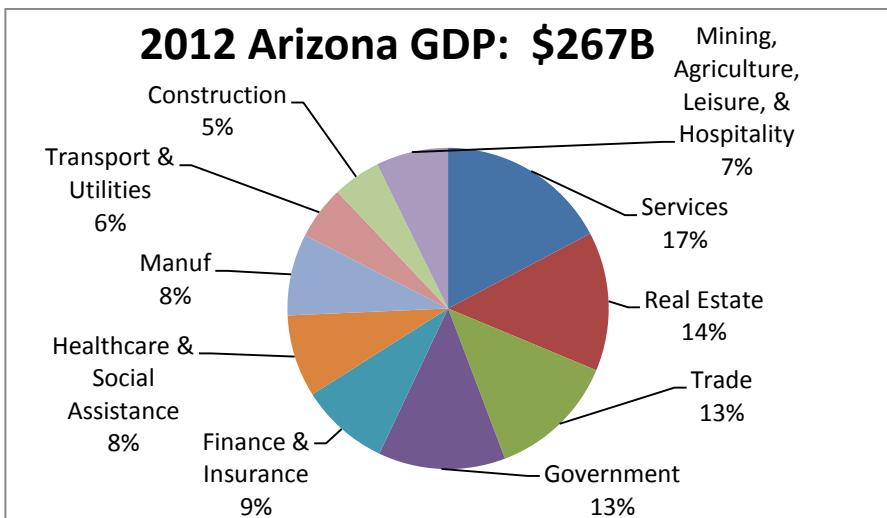
The contributions of the five C's to Arizona's economy are largely contained in the seven percent piece of the GDP pie chart that is labelled "Mining, Agriculture, Leisure & Hospitality."

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Mining includes copper, molybdenum, coal, gold, silver, and uranium for a GDP total of \$5.085 billion, of which \$4.37 billion was from copper mining. Copper's work force was approximately 10,500 people.

The agriculture category includes livestock and crop production for a GDP contribution of \$2.115 billion.

Livestock covers cattle, including beef and a sizeable dairy industry, hogs and pigs, sheep and lambs, and goats. Cattle ranching accounted for revenues of \$1.021 billion.



This breakdown of Arizona's Gross Domestic Product (GDP) for 2012 shows how our state economy has transitioned from a mining and agriculturally oriented economy to a high-technology and service based economy. (Data from U.S Bureau of Economic Analysis)

Production value for cotton was \$300 million and for citrus, approximately \$38 million. Total farm labor was estimated at around 20,000 people.

There is no GDP element to measure the dollar value of climate. I mentioned previously that the importance of Arizona's fabulous climate

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was most directly reflected in tourism and travel to our state. So to get some kind of handle on the economic value of climate today, let's continue to look at the value of travel.

The Leisure and Hospitality GDP piece in the pie chart includes arts, entertainment, recreation, accommodation, and food services. Much of that is related to travel. There are also travel-related revenues associated with all the other economic sectors.

According to Dean Runyon Associates, in a report of Arizona travel, the GDP contribution of the travel industry was \$7.6 billion in 2012, with employment of 161, 300 people.

So the contribution of the five C's to Arizona's 2012 GDP was approximately \$13.3 billion of the total of \$267 billion.

The five C's make up roughly 5% of Arizona's current economy.

Future of Five C's

That relatively low portion of the Arizona economy is not likely to grow much in the future. Copper and cattle production, and climate-related travel should sustain or even show modest growth. The smaller contributions of cotton and citrus are expected to continue their recent decline.

Comparing the five C's employment to total state numbers confirms the modest impact of the five C's on the overall Arizona economy.

According to Linda Obele, writing in the Phoenix Business Journal in 2010, the bigger growth opportunities for Arizona's future economy are aerospace/defense, technology, renewable energy, health care, and small businesses. Obele quotes Barry Broom, then president and CEO of the Greater Phoenix Economic Council, "The idea that these industries [five C's] are not economically important is a mistake. But you can't change the economy unless you're in growth markets."

Arizona's Traditional Five C's

Let me conclude by repeating a comment by Bruce Dinges, publications division director for the Arizona Historical Society, in the *Arizona Capitol Times* in 2012:

"The cowboy, the miner, the farmer, the fruit grower, and the health-seeker are inextricable parts of our history - and our mythology. They personify who we are and what we strive to be. But, most of all, they are reminders of the optimistic outlook and pioneering spirit that continues to motivate Arizona and Arizonans. From this perspective, they are as relevant as ever."

Chapter 4

Development of Arizona's Two Transcontinental Railroads

America's dream of transcontinental railroads dates from the 1840s, when the territories of the continental U.S. grew quickly, stretching from the Atlantic to the Pacific Oceans. In 1846 the U.S. obtained by treaty from Britain the Oregon Territory, including the future states of Oregon and Washington. At the end of the Mexican-American War in 1848, Mexico ceded land to the United States that included Texas and the future states of California, Utah, Colorado, Wyoming, New Mexico and the part of Arizona north of the Gila River.

Rapidly increasing population and a dramatic birth of new businesses on the "West Coast" argued strongly for a transcontinental railroad. The discovery of gold in California in 1848 started a gold rush that over a few years attracted 300,000 immigrants to the new territory. Half of these people traveled overland (typically many weeks by wagon train) from the eastern U.S. Growth in California was so explosive that San Francisco expanded from a population of 200 residents in 1846 to a boomtown of about 36,000 by 1852. California became a state in 1850.

Attracted by fertile new lands, thousands of settlers, ranchers, farmers, miners, and businessmen and their families also traveled overland to settle in the Oregon Territory.

Development of Arizona's Two Transcontinental Railroads

Businessmen in California and Oregon, and the states east of the Mississippi River, demanded a railroad link to move materials and supplies, products, and people between these widely separated regions.

The U.S. began to get serious about a transcontinental railroad in 1853. In March the U.S. Congress appropriated funds and authorized the (then responsible) War Department to “ascertain the most practical and economic route for a railroad from the Mississippi River to the Pacific Ocean.” Later that year in December - to ensure a southern route option - the U.S. signed the Gadsden Purchase treaty with Mexico to buy lands in Arizona south of the Gila River and in New Mexico west of the Rio Grande River - thereby completing the contiguous continental U.S. that we know today.

Army engineers and civilian scientists surveyed four potential routes crossing the virtually unpopulated western U.S. along varying lines of latitude:

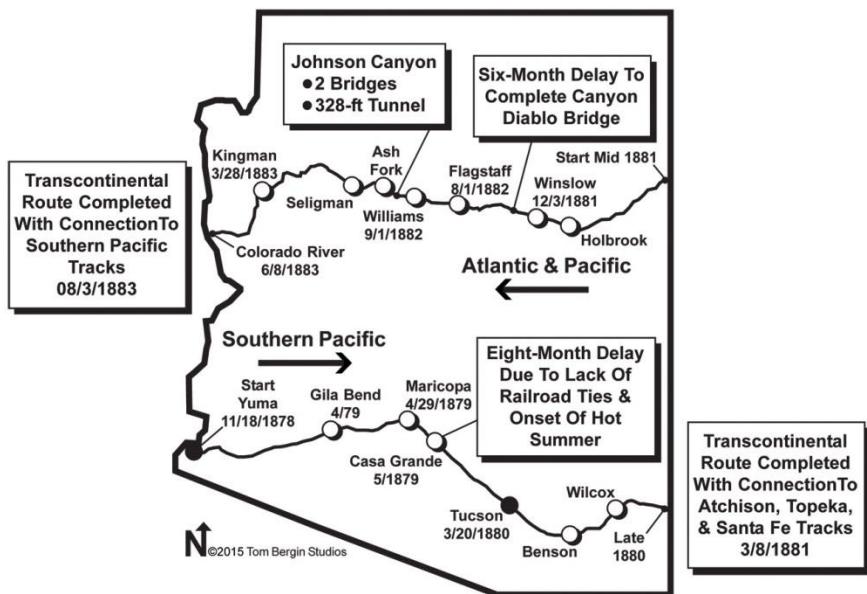
47 th parallel	Saint Paul, Minnesota to Puget Sound, Washington
38 th parallel	St. Louis, Missouri to San Francisco, California
35 th parallel	Oklahoma to Los Angeles, California - across northern Arizona
32 nd parallel	Texas to San Diego, California - across southern Arizona

Several factors drove the U.S. Congress in 1862 to select the 38th parallel route for the first transcontinental railroad. Fabulous silver strikes in the Comstock Lode in west-central Nevada in 1859, combined with continuing gold mining in California’s Sierra Nevada Mountains, “lined up” with the central route. A burgeoning San Francisco had become the business gateway to the Orient. And since the decision was made during the U.S. Civil War, all consideration of southern routes was put aside.

Development of Arizona's Two Transcontinental Railroads

The federal government offered inducements to companies willing to build transcontinental railroads, e.g., twenty free sections of land for each mile of track laid and substantial loans that increased with difficulty of the terrain traversed. After six years of work, the first transcontinental rail line (known originally as the Pacific Route and later as the Overland Route) was completed in 1869 at Promontory Point, Utah, connecting San Francisco Bay with the existing rail network at Council Bluffs, Iowa.

The Central Pacific Company of California, one of three private companies that did part of the construction (from Sacramento to Promontory Point, Utah), was headed by four Sacramento shopkeepers, who quickly became railroad barons, known as the Big Four, and who would soon revitalize dreams of a southern transcontinental railroad.



This development timeline shows the incremental progress of Arizona's two transcontinental railroads. (Map courtesy of Tom Bergin)

Southern Arizona Transcontinental Route - Completed by Southern Pacific in 1881

Unable to fully control the first transcontinental railroad to San Francisco, the Big Four, with Collis Huntington in the forefront, started preparing to build their own transcontinental railroad along one of the southern routes by monopolizing all railroad traffic in California. First they bought up existing lines in central California. Then they acquired the Southern Pacific Railroad Company and started building track into southern

California through Los Angles, with spur lines eastward, first to Yuma (1877) and later to Mohave and Needles (early 1883). Thus the Big Four "protected" their interests on both the 32nd and 35th parallel transcontinental routes.



Collis P. Huntington, a partner in a Sacramento hardware store, became a transcontinental railroad baron. (Courtesy of Wikimedia)

Next, Huntington politically outmaneuvered the Texas and Pacific Railroad Company to obtain the charter from the Arizona Territorial Legislature to build a line eastward from Yuma across southern Arizona (then on to Texas) along the 32nd parallel route already surveyed by the Texas and Pacific Railroad Company. Track-laying began on November 18, 1878.

In 1878 southern Arizona (U.S. territory until 1912) was very sparsely settled, even after almost 200 years of Spanish, Mexican, and American colonization. The only established town of any size on the southern transcontinental route between Yuma and New Mexico was Tucson with a population at the 1870 Census of about 3,200 people, mostly Mexicans.

Development of Arizona's Two Transcontinental Railroads

Tucson's major businesses included agriculture, long-distance wagon freighting, and merchandising. Silver and gold mining had been slowly developing along the border with Mexico, near Yuma, and around Wickenburg. The fabulous strikes of silver at Tombstone and copper in Bisbee were just occurring. Large-scale cattle ranching was just beginning in the Santa Cruz Valley and southeastern Arizona. Hostile Apaches were still raiding in southeastern Arizona.

The Southern Pacific proceeded to cross the southern Arizona desert along the general route used previously by early explorers, Spanish missionaries, military expeditions, California gold rushers, freight wagons, and overland stagecoaches.

As Thomas Sheridan writes in his *Arizona - A History*, Chinese laborers dominated the work force. They worked for a dollar a day, "fifty cents less than Anglo workers demanded," and "they also had to provide their own board." By the end of the first month "more than 1,100 Chinese graders [along with 200 Anglos] were building trackbed across the desert."

Derek Hayes in his *Historical Atlas of the North American Railroad* describes the complex construction process:

"Following the surveyed and marked line, construction would begin. First the rail bed had to be created and ballast stone laid. Excavations would be about 16 feet wide for a single line in rock, 20 feet wide in earth. Embankments had to be filled with rock either from the cuts or from any convenient adjacent source; the farther away the source, the higher the cost and the longer it took to build. Ties had to be sourced, cut, and transported to the railroad line, where they were unloaded and placed uniformly along the prepared rail bed. Then from a train at rail end, rails and tie plates and bolts and spikes were unloaded. ... It was a complex

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operation requiring hundreds of men and much, almost military organization"

Availability of materials soon proved to be a problem. Steel rails and wooden ties were often in short supply. Men had to drive wagons from California, Nevada, and Utah to supply the labor camps, which constantly moved eastward, increasing the resupply distance. Water was a concern for both steam locomotives and the workforce, and sometimes had to be brought in from miles away.

Nevertheless, the Chinese and Anglo laborers were able to lay down tracks steadily at the rate of more than a mile a day. The railroad reached the gold placers of Gila City by Christmas 1878, Mohawk Summit by February 1879, a former overland stagecoach stop at Gila Bend by early April, and another former stagecoach stop at Maricopa by late April. In mid-May 1879, 26 miles beyond Maricopa, construction came to a halt, after laying 182 miles of track in 139 working days.

The supply of railroad ties had dried up and the devastatingly high temperatures of the low desert summer were on the horizon. The Southern Pacific shipped most of the Chinese back to California; some Chinese workers moved to Tucson to open restaurants or work farms along the Santa Cruz River. Freighters and merchants waited for work to resume in a tent city that became the town of Casa Grande. Meanwhile, railroad ties were stockpiled.

Finally, on January 24, 1880, after an eight-month delay, and after 300 Chinese had returned to Casa Grande, construction resumed, with Tucson only 65 miles away. Only slowed by a chronic shortage of rails (due to the U.S.-wide explosion of railroads), the Southern Pacific reached Tucson on March 20, 1880.

Tucsonans received the railroad with glee and a bombastic celebration, with a reported 1,200 people listening to speeches, toasting the arrival of the railroad, and dancing until midnight.

Development of Arizona's Two Transcontinental Railroads

The Southern Pacific continued eastward, founding the towns of Benson and Wilcox, reaching Deming, New Mexico (85 miles across the Arizona-New Mexico border) in February 1881. On March 8, 1881 the Southern Pacific connected at Deming with an Atchison, Topeka & Santa Fe line coming down from the Arkansas Valley, completing the first transcontinental railroad to cross Arizona. On March 17th the first train along this route left Kansas City for the Pacific Coast.

The Southern Pacific continued building eastward, arriving in El Paso, Texas in May 1881 and arranged connections with other railroads to New Orleans by January 1883. The first through passenger trains left San Francisco and New Orleans on February 5, 1883 on what would become the route of the *Sunset Limited*.

The completion of the transcontinental railroad through southern Arizona brought many changes - not all immediately positive. Tucson wagon freight businesses, such as the long established enterprise of Estévan Ochoa and Pinkney Randolph Tully, soon failed, due to competition from the railroad. The large number of Anglo settlers now reaching Tucson slowly helped change Tucson from a Mexican agricultural economy to an Anglo urban center - effectively ending the southern Arizona frontier. Tucson's "adjustment" from looking south to Mexico for much of its business and many of its goods, now having to reorient to an east-west relationship, was difficult. (Even exchange rates were a problem. After the railroad arrived, the value of the peso plummeted; people saw their purchasing power decline by as much as 25 per cent.) Moreover, in the face of an overall economic depression in Arizona in the 1880s, Tucson, in the words of William D. Kalt III and David Devine, writing in the *Arizona Daily Star*, "would see two decades pass before its 1880 population of 7,000 grew and greater prosperity ensued."

Several benefits of Arizona's first transcontinental railroad took longer to develop. The railroad brought heavy equipment that enabled efficient mining development in places like Tombstone and Bisbee. Cattle ranching in southeastern Arizona began to expand. And the seeds of newly established "railroad towns" - at Gila Bend, Maricopa, Casa Grande,

Development of Arizona's Two Transcontinental Railroads

Benson, and Wilcox - had been planted to ensure future growth and development across southern Arizona. By the 1900s southern Arizona's wonderful climate was attracting thousands of health seekers and the area's desert attractions and good weather began attracting tourists.

In 1880 the Southern Pacific Company built in Tucson a wooden railroad depot with deep eaves and windows, featuring colorful awnings. This building was replaced in 1907 with a brick structure in the Spanish Revival Style because passenger and freight traffic outgrew the original depot space. That depot was renovated, enlarged, and enhanced in 1942; a second restoration was completed in 2004. Today the historic depot houses the Southern Arizona Transportation Museum, preserving our rich railroad history.



In 1880 Southern Pacific built Tucson's first railroad depot, shown here in the 1890s. (Courtesy of UA Special Collections, N11,058)

Development of Arizona's Two Transcontinental Railroads

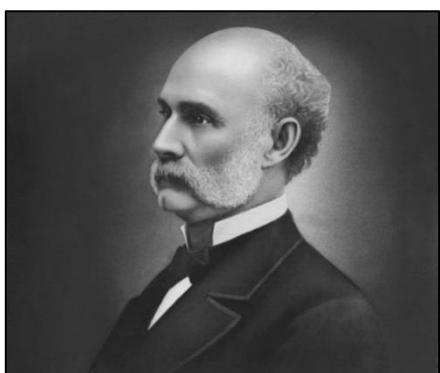


In 1907 this brick Spanish Revival Style railroad depot was built in Tucson to replace the undersized original depot. (Postcard courtesy of Al Ring)

Northern Arizona Transcontinental Route - Completed by Atlantic & Pacific in 1883

At just about the same time that tracks were being laid eastward across southeastern Arizona to complete Arizona's first transcontinental railroad, track laying was starting in northeastern Arizona, heading westward, on Arizona's second transcontinental railroad along the 35th parallel route.

The Atchison, Topeka, and Santa Fe Railroad Company (called the Santa Fe for marketing purposes) - founded by railroad pioneer Cyrus



Cyrus K. Holliday was the first president of the Atchison, Topeka, and Santa Fe Railroad and then one of the company's directors for 40 years. (Courtesy of Wikimedia)

Development of Arizona's Two Transcontinental Railroads

Holliday in 1859 - had built from Kansas into Colorado and New Mexico by early 1880. Then the Santa Fe acquired the financially struggling Atlantic & Pacific Railroad Company and most importantly its previously granted charter and land grant for the 35th parallel transcontinental route across northern New Mexico and Arizona. In May, 1880 the Atlantic & Pacific, operating as a subsidiary of the Santa Fe, began laying track westward from Isleta, New Mexico, just south of Albuquerque. By mid-1881 the tracks had reached the eastern Arizona border.

In 1881 the lands around the northern Arizona route were practically void of people, except for Native Americans, most of whom by this time resided on reservations (See Chapter 6). Unlike southern Arizona, northern Arizona had never been colonized by Spaniards or Mexicans. The only Anglo settlements on the route were a few struggling Mormon communities along the Little Colorado River and a small number of scattered mining camps near the Colorado River in western Arizona. The nearest significant town was Prescott, 50 miles south of the transcontinental route's closest approach.

Construction on the northern Arizona transcontinental route was considerably more difficult than on the southern route. Torrential rains during the summer of 1881 periodically washed out stretches of the roadbed, causing delays. But the track gradually stretched through the grasslands of the Little Colorado Valley and finally reached the Mormon community of Brigham City (later renamed Winslow) on December 3, 1881. Thirty five miles back up track to the east, one of the previous railroad camps took root as the town of Holbrook. (Both Winslow and Holbrook were named for railroad company officials, as were virtually all of the towns that would be "seeded" along the northern Arizona route.)

Later in December, just west of Winslow the track layers reached Canyon Diablo, which required building a bridge to span the 225-foot deep, 550-foot wide gorge. In anticipation of the building challenge, construction on the bridge had been started nine months earlier. As Thomas Sheridan writes, "The [iron] bridge required eleven [preassembled] spans and 1,489 cubic yards of cut-stone masonry carved from Kaibab limestone ...

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When crews finished it on July 1, 1882, the railroad fraternity considered it one of the greatest feats of engineering in the West.” Even so, the track-laying operation was delayed six months while the bridge was being completed.



The railroad bridge over Canyon Diablo was 550 feet long, spanning the 225-foot deep canyon. (Courtesy of Wikimedia)

Track laying continued westward across the mesas of the Colorado Plateau, reaching the future towns of Flagstaff on August 1st, and Williams on September 1st.

About 10 miles west of Williams, the tracks reached another severe construction challenge, Johnson Canyon, a region of “switchback” gorges that required two bridges in less than a mile. Workers also had to bore a 328-foot tunnel through a hard rock promontory that blocked the route.

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Relentlessly moving westward, the track workers finally reached the Colorado River, across from Needles, California, on June 8, 1893, having seeded the railroad towns of Ash Fork, Seligman, and Kingman along the way.

The final construction challenge on the northern Arizona route was the bridge across the Colorado River. The biggest problem was driving bridge piles - into the Colorado's shifting bottom through variable, sometimes rain swollen currents - to support the bridge. After two months of efforts, with several partial wash-outs, the bridge was finished.

So on August 3, 1883, the Atlantic & Pacific tracks connected with the Southern Pacific tracks (laid down earlier that year from Mohave and the Pacific Coast) to complete the second transcontinental railroad across Arizona.

By 1888 the Santa Fe parent company owned its own tracks for the entire route (with a combination of leasing to own, buy-outs, and building some of their own track) to the Pacific Coast - including San Diego, Los Angeles, and San Francisco - and had finally broken the Southern Pacific's grip on California.

The initial value of this new transcontinental railroad to northern Arizona was minimal. Passenger and freight trains passed through a virtually unpopulated Arizona to and from California with only quick stops in Arizona for fuel and water. It would take years for the railroad towns of Holbrook, Winslow, Flagstaff, Williams, Ash Fork, Seligman, and Kingman to develop economies and attract outsiders.

Cattle ranching was one of the first industries to explore opportunities in northern Arizona, exploiting the lush grasslands of the Little Colorado River Basin. A consortium of eastern businessmen and Texas ranching interests, the Aztec Land and Cattle Company, shipped tens of thousands of cattle to Arizona from Texas, to quickly build a herd of 60,000 animals. But the 1890s saw successive draughts and range deterioration from overgrazing by too many animals, causing heavy losses of cattle from

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starvation. A more successful cattle operation in northern Arizona was started in 1886 in mountainous pastures around Flagstaff.

Another industry that the transcontinental railroad enabled was tourism. The Santa Fe Railroad promoted tourism and one of its chief agents was entrepreneur Fred Harvey (See Chapter 5) who provided food service and built hotels along the route from Chicago to Los Angeles, and published picture postcards, colorfully depicting the wonderfully scenic and historic sites of the American southwest, particularly Arizona.

By 1901 Fred Harvey provided “hospitality” services at stops in Williams (1887), Winslow (1887), Ash Fork (1895), Seligman (1895), and Kingman (1901). Ash Fork, Seligman, and Williams had Fred Harvey hotels.

After a spur line had been completed to the south rim of the Grand Canyon, in 1905 Fred Harvey opened the El Tovar Hotel, which with further hospitality additions is probably Harvey’s most important lasting contribution to Arizona. In Winslow, the famous La Posada hotel was built in 1930 - remaining today as one of finest hotels and restaurants in Arizona.

Conclusions

The fourth and last transcontinental railroad in the U.S., the Northern Pacific Railway along the 47th parallel, was completed in Montana (one month after the northern Arizona route) on September 8, 1883. Now there were four “bridges” to the Pacific Coast from the eastern U.S. These “bridges” passed over largely undeveloped and unappreciated lands. It was always about links to California and Oregon.

Over the following decades in Arizona, connection railroads were built between the transcontinental railways and short lines to outlying towns and mines. By 1900 you could take a train to Prescott, Phoenix, Nogales, Globe, Tombstone, and Bisbee. This slowly expanding rail network (much like critical blood vessels in a maturing human organism) helped enable the Arizona Territory to develop along with the railroad.

Development of Arizona's Two Transcontinental Railroads

By the time Arizona became a state in 1912, the transcontinental railroads had enabled Arizona's early critical economic drivers - the "five C's" of copper, cattle, cotton, citrus, and climate - to firmly take hold (See Chapter 3). Arizona was now exporting copper, cattle, cotton, and citrus, and importing people attracted by the state's fabulous climate.

Chapter 5

Who Was Fred Harvey?

Who the hell was Fred Harvey? So asks author Stephen Fried in the prologue of his wonderful book, *Appetite for America: How Visionary Businessman Fred Harvey Built a Railroad Hospitality Empire That Civilized the Wild West.*

Fred Harvey, an Englishman who came to the United States as a youngster in the 1850s, started a revolutionary business in the 1870s feeding train passengers along the nation's largest railroad, the Santa Fe (formerly the Atlantic & Pacific), between Chicago and Los Angeles. Harvey created the first restaurant chain in the U.S. His family-owned business (named simply Fred Harvey) was amazingly successful due to the entrepreneur's innovations and marketing skills. The business survived his death in 1901, extending through three generations of Harveys, until well into the 1960s, when railroad passenger business dropped off sharply.

As Mr. Fried notes in his book, "At its peak [in the late 1920s], Fred Harvey had over sixty-five restaurants and lunch counters, sixty dining cars, a dozen large hotels, all the restaurants and retail shops in five of the nation's largest railroad stations, and so many newsstands and bookshops that its publication orders regularly affected national best-seller lists."

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The eating establishments and hotels became known as Harvey Houses and operated in dozens of towns, averaging one every 100 miles of railroad track.

Fred Harvey set incredibly high standards for food services in the early days of the “wild west.” He offered an elaborate and fancy menu, a variety of fresh food items that (if required) were transported down the line in ice-box train cars. He provided sumptuous meals of high quality, hired the best chefs, and served meals on fine china with Irish linens and first class silverware with “Fred Harvey” imprinted on each piece.

Harvey was a fastidious innkeeper, a stickler for cleanliness, and personally inspected his establishments as often as possible. His services were efficient also; he had to feed a whole trainload of passengers in just thirty minutes!

Influence in Arizona

Fred Harvey and its Santa Fe Railroad partner promoted tourism. The railroad track ran across northern Arizona and New Mexico. (Today you can follow the still active track along I-40 and remnants of the famous Route 66 automobile highway.) They encouraged travelers to visit national parks and scenic byways close to the main railroad line by offering special side-trip “detours,” for example to Arizona’s spectacular Meteor Crater, from the Winslow station.

Starting in 1904 Fred Harvey partnered with the Detroit Publishing Company to publish and distribute color picture postcards, “advertising” the wonderfully scenic and historic sites of the American southwest, especially Arizona.

Fred Harvey was also “the most important driving force in the early appreciation, and preservation of” Native American arts and culture. The Company hired Indians to demonstrate their crafts at New Mexico and Arizona railroad stops and hotels, and provided “Indian Detours” by auto to Santa Fe and Indian villages. Fred Harvey obsessively collected the

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best Indian art; “most of the Indian art and crafts now on display in the world’s major museums were originally owned by Fred Harvey.”

By 1901 Fred Harvey provided “hospitality” services at five railroad stops along the main railroad line in Arizona: Williams (1887), Winslow (1887), Ash Fork (1895), Seligman (1895), and Kingman (1901). Establishments at all five stops served lunch and dinner, and had newsstands. Several locations had hotels: the Escalante in Ash Fork, the Havasu in Seligman, and the Fray Marcos in Williams (which is still there).

In Winslow, the famous La Posada hotel was built in 1930, closed in 1957, and restored and reopened in 1997 - remaining today as one of finest hotels and restaurants in Arizona.

For a brief period (1947 to 1949), a sixth Fred Harvey eating establishment along the Arizona main line operated at the Painted Desert Inn, which reopened in 1963 as Painted Desert Oasis, restored in 2000, adding a museum.

Fred Harvey also operated two dairy farms in Arizona - Peach Springs (1884) and Del Rio (1898) - to provide fresh milk for railroad passengers.

Towards the end of the 19th century, increasing passenger demand caused the Santa Fe Railroad to build two spur lines off the main transcontinental track in Arizona, one to Phoenix and the other to the Grand Canyon. Fred Harvey only provided a newsstand at the Phoenix terminal (1896), but the company had bigger plans for the Grand Canyon.

In 1905 Fred Harvey opened the El Tovar Hotel at the south rim of the Grand Canyon. The company followed up with Phantom Ranch at the bottom of the Canyon (1925) and Bright Angel Lodge, also on the south rim (1935). By 1936 this hospitality complex would become Fred Harvey’s biggest moneymaker, out-earning everything else in the Fred Harvey empire put together. These facilities remain open today, with El Tovar continuing to be a world-class hotel and restaurant.

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Fred Harvey was heavily into the design and decoration of its many hotels. Starting in 1902, the (now-well-known and appreciated) architect Mary Colter worked for Fred Harvey for more than 40 years. Colter “incorporated local materials and Indian motifs” into her buildings. She was responsible for the design and decorating of such famous Arizona icons as the Grand Canyon’s El Tovar Hotel (decorating only), Hopi House, Hermit’s Rest, Observatory Lookout Studio, Phantom Ranch, Desert View Watchtower, and Bright Angel Lodge; and Winslow’s La Posada Hotel.



The El Tovar Hotel is situated just 20 feet from the south rim of the Grand Canyon. The hotel opened in 1905 as one of a chain of hotels and restaurants owned and operated by Fred Harvey. (Courtesy of Bob Ring)

Besides the fabulous hotels at Grand Canyon and Winslow, Fred Harvey left Arizona a fantastic legacy of art works. When the company dissolved in the late 1960s, over four thousand pieces of Native American art - “the very best of textiles, pottery, and silver” - were donated by the Harvey family trust to the Heard Museum in Phoenix. Fred Harvey’s granddaughter, Kitty, donated most of her incredible personal western art collection, along with some personal photos, to the Museum of Northern Arizona.

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The La Posada Hotel in Winslow Arizona was the last of the great Fred Harvey/Santa Fe Railroad hotels. The hotel was designed by famed southwestern architect, Mary Colter, and opened for the first time in 1930. (Courtesy of Bob Ring)

Photographs, correspondence, and miscellaneous records - including dining car menus - are preserved at the University of Arizona, Special Collections. The Arizona Railway Museum in Chandler includes in its displays, a Harvey Girl uniform. The Arizona State Railroad Museum - a \$25 Million, 106,500 square-foot facility, planned for Williams - will display all sorts of Arizona railroad history, including Fred Harvey.

Harvey Girls

In the early 1880s, when Fred Harvey began to feed railroad passengers at regular stops along the Santa Fe Railroad in the “wild west” of Arizona and New Mexico, his eating places experienced unruly behavior from local customers, clamoring to get a sumptuous Fred Harvey meal. “Rough

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and ready” cowboys, miners, gamblers, and confidence men continually caused trouble.

What particularly irked Harvey were racial problems between his all-male, black staff and the cowboys, many of whom were former Confederate soldiers. The situation got so bad that the black waiters lived in fear, believing that they might need to defend themselves.

In 1883, at the suggestion of one his company managers, Harvey decided to try replacing the waiters with young white women, hoping to improve civility in his eating places. He sought out single, well-mannered, and educated ladies and placed ads in newspapers along the East Coast and throughout the Midwest for “Young women, 18 to 30 years of age, of good character, attractive, and intelligent.”

Harvey signed-up the women to six-month, renewable contracts. New hires agreed not to marry during the contract period; they were given a rail pass to get to their place of employment.

Harvey Girls underwent extensive training in serving food and the rules of etiquette. Efficient service was required to feed railroad passengers because the trains stopped for only a short amount of time. As an example of a speedy service technique, as a Harvey Girl moved to serve each customer, she let the beverage filler following her know what each diner’s drink preference was by the way she placed the coffee cup in front of him.

Originally, the girls were paid \$17.50 a month plus room, board, and tips. They worked 12-hour shifts, at least six days a week, and whenever an off-schedule train arrived in the middle of the night.

The young women had to live in a dormitory, administered by a live-in older female chaperone, and were subject to a strict 11:00 pm curfew, except for Friday nights, when they could attend an eating-house-sponsored town social.

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Stephen Fried describes the uniform the girls were required to wear and personal appearance rules: “a plain black long-sleeved, floor-length woolen dress with a just-short-of-clerical ‘Elsie’ collar, along with black shoes and stockings; a starched white apron from neck to ankle, which had to be changed immediately whenever the slightest spot showed. Her hair was to be kept plain and simple, preferably tied back with a single white ribbon. Makeup was forbidden.”

Those early Harvey Girls were welcome additions to the communities they served; the west was desperate for women. The men working and living in western towns were overjoyed at the “steady supply of single, personable, often comely young ladies being brought in by rail.”

The roughnecks learned manners quickly! It has often been said that the Harvey Girls “helped to civilize the American southwest.”

The southwestern female staffing experiment was a huge success! Harvey soon employed Harvey Girls at every food service location along the railroad line between Chicago and Los Angeles. The Harvey Girls became one of the first significant female workforces in the country. Interestingly, “there were no Harvey Girls on wheels,” food services on railroad dining cars were provided by an all-black staff.



*This Harvey Girl uniform is on display at the Arizona Railway Museum in Chandler, Arizona.
(Courtesy of Jot Powers)*

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Harvey Girl service survived Fred Harvey's death in 1901 and continued through three generations of the family-owned business. Training manuals and several-week courses were designed and updated regularly. Harvey Girl uniforms changed a little bit over the years, but maintained their very conservative, familiar look. Harvey Girls often wore silver brooches with numbers in the center, identifying the number of years of their service. Later Harvey Girls wore name tags on their uniform.

During World War II, railroad transportation of huge numbers of soldiers strained the personnel resources of Fred Harvey; additional Harvey Girls were needed quickly! Hiring was expanded to include, for the first time, blacks, Hispanics, and Native Americans.

Following World War II, the ranks of the Harvey Girls were depleted by marriage to returning soldiers, but the all-female waitress tradition continued until Fred Harvey dissolved in the 1960s, when railroad passenger traffic reduced drastically.

Over eight "plus" decades of company operation, it is estimated that more than 100,000 girls worked in Fred Harvey restaurants and hotels, and that of those, perhaps 20,000 wound up marrying one of their customers.

In 1946 MGM made a musical film (based on a 1942 novel by Samuel Hopkins Adams) called *The Harvey Girls*, starring Judy Garland. The film won an Academy Award for Best Song for "On the Atchison, Topeka and the Santa Fe."



Following her freshman year of college, Tucson resident Rebecca Fabos worked as a Harvey Girl during the summer of 1965 at Bright Angel Lodge at the south rim of the Grand Canyon. (Courtesy of Rebecca Fabos)

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Today, you can view an exhibit at the Arizona Capitol Museum in Phoenix titled, “Civilizing the West: Fred Harvey and his Harvey Girls.” In addition to Fred Harvey artifacts from the Grand Canyon, the Museum displays numerous photographs and quotes from former Harvey Girls.

A little anecdote to close this article: A friend, Rebecca Fabos, while sharing “one thing that nobody knows about me” at a recent meeting, divulged that she was a former Harvey Girl. During the summer of 1965, after her freshman year in college, Rebecca worked at Bright Angel Lodge on the south rim of the Grand Canyon:

“My first week or two were spent learning how to be a waitress. I was placed under the wing of a very experienced waitress who worked the night shift. During this stint, I was taught to memorize the day’s menu, how to take orders, when to serve, proper plate placement and removal and to be pleasant and charming no matter what the circumstance. It was intense and orderly and I loved the pride exhibited by the staff.

“One incident I remember happened midway through the summer. It was the lunch-time rush and a group came in, sat at my station and one of the gentlemen requested Oyster Stew. The Bright Angel had a wonderful menu and the selections changed daily but there was never a mention of Oyster Stew. I had to tell this man that Oyster Stew was unavailable. He looked at me and said, ‘Just go ask the chef if you might have Oyster Stew.’ So, I did just that, and imagine my surprise when the chef looked at me and said, ‘Of course. Tell him it will be ready shortly.’ To me, that emphasizes the quality of the Bright Angel and its service to customers.

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“Fred Harvey treated its employees well and they loved working for the company. For me, it was a wonderful summer experience.”

Chapter 6

The History of Native Americans in Arizona

In this overview article, I write about the history of Indians in Arizona. I use the terms “Native American” and “Indian” interchangeably, refusing to be bound by false “political correctness.” As we shall discover, there is very little “correctness” in this history.

Here are the major elements of the article:

Prehistoric Cultures: Paleo Indians, Archaic Indians, the prehistoric cultures of the Ancestral Pueblo, Hohokam, Mogollon, and Patayan.

Spanish and Mexican Periods: Pre European contact Indian Tribes and relation to prehistoric cultures, the negative effects on Indians of Spanish exploration, Spanish missionization, Spanish settlement, and the Mexican period.

American Indian Wars: U.S. Policy for the “Indian problem,” American wars of attrition against Indians, horrible conditions of early Indian reservations.

Indians Struggle under Changing U.S. Policy: Evolution to today’s reservation system, how Arizona’s Indian

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tribes have been whipsawed by changing and failure-ridden U.S. Indian policies.

Indians in 2014: Reservations, tribal government, economic situation, health, and education.

I've tried to tell this story in the context of U.S. Indian policy and also present the overall perspective of what was happening to Indians across America.

Prehistoric Cultures

Paleo Indians

Arizona's first Native Americans were probably descendants of people who followed herds of large game animals from Siberia across a land bridge in the Bering Strait into Alaska between about 45,000 BC and 12,000 BC. Subsequent generations of these Paleo-Indians (ancient ones) gradually spread southward to populate North America, reaching Arizona by about 9,500 BC. (Note: There are alternative migration starting points, routes, and dates currently under intense study.)

Paleo Indians hunted large animals like mammoths, bison, and sloths and lived near rivers, swamps, and marshes that had good fishing, and attracted birds and game animals. Their small, extended family groups moved from place to place as resources were depleted.

The dominant Paleo Indian culture in Arizona was the Clovis culture, known for large, razor sharp, distinctively grooved spear points. (Clovis points have been unearthed in ancient "mammoth kill" sites at several locations in southern Arizona.)

Archaic Indians

The Paleo Indian tradition was followed by the Archaic Period which lasted from about 6,000 BC to AD 200.

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When the climate warmed at the end of the last Ice Age, most large game animals died off, and Arizona's native peoples adapted by supplementing their diet with smaller game and a variety of edible wild plants. Late in the Archaic Period, people started growing their own crops, including corn, beans, squash, and cotton. This transition from a hunter-gatherer way of life to one centered on farming, led to permanent, if only seasonally occupied, small settlements.

Arizona's predominant archaic culture was called the Cochise Culture, after Lake Cochise, an ancient lake near Wilcox. Cochise peoples ranged from mesa top to the desert floor. They made millstones to grind seeds, grains, and nuts. They eventually learned to make pithouses - brush structures over shallow holes in the ground. They also made crude pottery and figurines.

A second archaic culture in Arizona, the Basket Maker culture, occupied the Colorado Plateau in the Four Corners area (1500 BC to AD 500) and was known for masterful baskets and sandals.

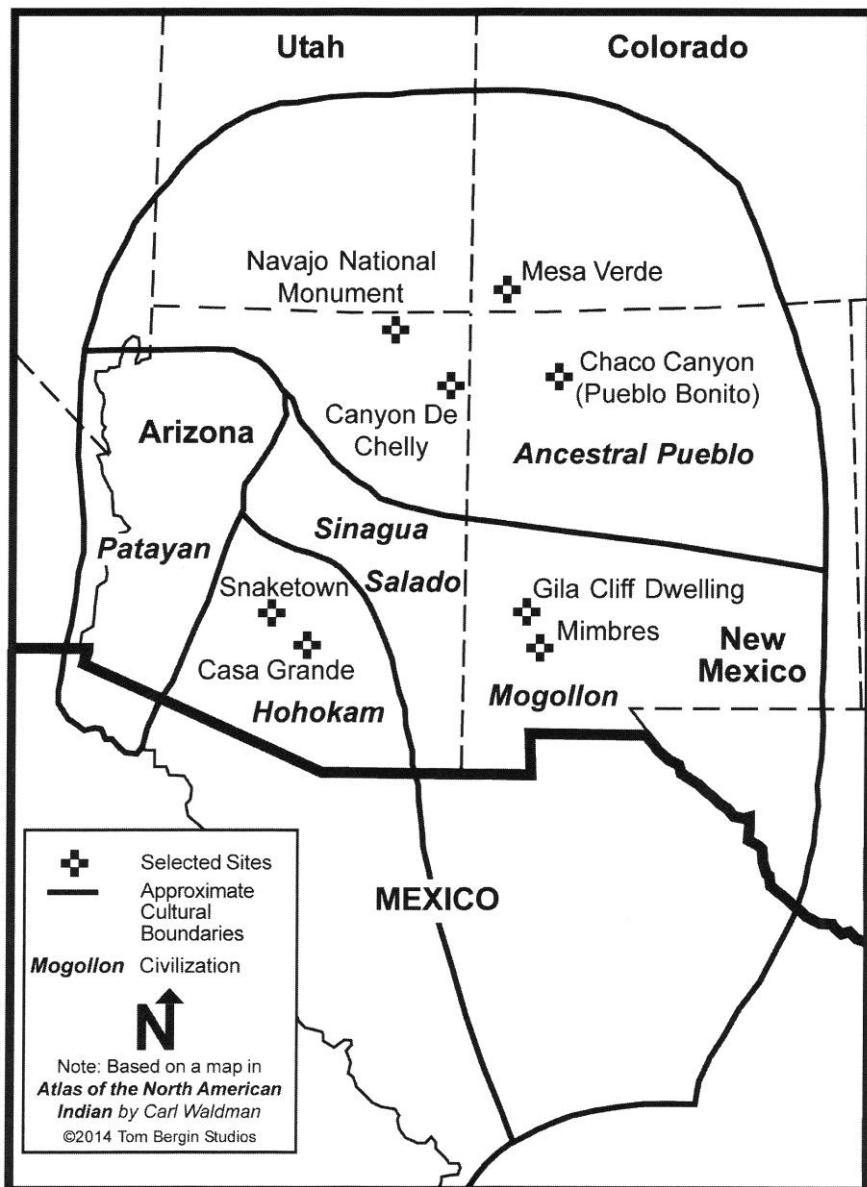
Artifacts from archaic Indians have been found all over Arizona, including evidence of short irrigation canals along the Santa Cruz River.

Prehistoric Civilizations

With influence from advanced agrarian civilizations in Mexico, three prehistoric civilizations arose out of the earlier Cochise and Basket Maker Cultures to dominate in Arizona between about AD 200 and AD 1450. The Ancestral Pueblo people occupied the high mesas and deep canyons of the Four Corners area. The Hohokam lived in the deserts and river valleys of southern Arizona, including the Tucson Valley. The Mogollon lived in the rugged central mountains of eastern Arizona. A fourth, peripheral civilization, the Patayan, was centered along the Colorado River, south of the Grand Canyon, in western Arizona.

Each civilization mastered its environment. Farming and a more sedentary village life made possible the further development of tools, arts, and crafts, especially pottery. Each culture was influenced by the

Prehistoric Civilizations of the Southwest, about 300 B.C.–A.D. 1300



*These prehistoric civilizations dominated in Arizona for over 1000 years.
(Map courtesy of Tom Bergin)*

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others through extensive intermingling, sharing, and trading, but each also had distinctive characteristics.

Ancestral Pueblo

The Ancestral Pueblo civilization, sometimes referred to as Anasazi, may have been the most extensive and influential prehistoric civilization of the southwest. They evolved out of the Archaic - Basket Maker culture and over a millennium went through an amazing transition from hunters and foragers, living in pithouses, then adopting agriculture and starting to build pueblos (communal adobe dwellings) on high mesas about AD 750, before apparently seeking protection from invaders by moving to multi-room adobe dwellings in cliff ledges about AD 1150.



These Betatakin Cliff Dwellings at Navajo National Monument were built by Ancestral Pueblo people with 120 rooms and a ceremonial kiva. (Courtesy of Wikimedia)

Well preserved ruins of Ancestral Pueblo structures remain today and have become symbols of prehistoric civilization in the southwest and Arizona. The largest and most famous of the pueblos is Pueblo Bonito in New Mexico's Chaco Canyon. This pueblo had five stories and 800 rooms, 37 kivas (underground ceremonial chambers) and housed perhaps a thousand people. Examples of spectacular cliff dwellings can be found at Mesa Verde in Colorado, and Canyon de Chelly and Navajo National Monument in northeastern Arizona.

The Ancestral Pueblo used irrigation to increase their farm yields. They were master craftspeople, designing elaborate pottery (white or red with black designs), brightly colored cotton and feather clothing, and exquisite turquoise jewelry with intricate mosaic designs.

The Pueblo Indians revered the fertility of the earth and worshiped gods called kachinas (Hopi spelling katsina) who came to the surface of the earth from the earth's center at the moment of creation of the human race.

Hohokam

According to Henry D. Wallace of Desert Archaeology, Inc. in *The Hohokam Millennium*, scientists now believe that the Hohokam culture "developed in place" from small farming villages of desert people along the Santa Cruz River in the Tucson Valley and then expanded northward into settled communities at the junction of the Salt and Gila Rivers in the Phoenix area in about AD 450.

The Hohokam used extensive irrigation systems to become the master farmers of the prehistoric southwest. They dug hundreds of miles of irrigation canals with elaborate webs of reservoirs, and exploited floodwaters to produce as many as two crops annually.

At first the Hohokam lived in small groups of pithouses, then larger groups surrounding a central plaza. Later, settlements aggregated into

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large communities of perhaps a few thousand people with above ground adobe buildings, platform mounds for both living and ceremonial purposes, and large basin-shaped ball courts for sports.



In 1694 Father Eusebio Kino named this Hohokam building the “Great House,” shown here among ruins of a Hohokam village probably built in the 1300s in Casa Grande, Arizona. (Courtesy of Wikimedia)

Important settlements included Snaketown in the Phoenix area, and Casa Grande in the middle Gila River Valley. Unlike some well-preserved Ancestral Pueblo ruins, except for the Great House in Casa Grande, Hohokam ruins today consist mostly of traces of the old canal systems and excavated building foundations, including recent excavations in the Tucson Valley.

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The Hohokam produced red on brown pottery, made plaited baskets from plant fibers, and were possibly the first people in the world to master an etching process - in this case decoration of shells obtained from Mexico by etching designs with acidic fermented saguaro cactus fruit.

Besides extensive trade, influence from Mexico can be seen in Hohokam truncated earthen pyramids, large ball courts, human figurines of clay, and elaborate textiles.

Mogollon

The Mogollon culture was identified by Tucson's Emil Haury in the 1930s based on differences between architecture and artifacts from the Ancestral Pueblo and Hohokam cultures. Key differences included deeply excavated pithouses with log frames and roofs of saplings, reeds, bark and mud; underground social and ceremonial structures; and distinctive coiled pottery.

The Mogollon are thought to be descendants from the archaic Cochise culture. Their farming methods were primitive, but did include mountainside contour terrace gardening. Mogollon Indians continued to depend on small-game hunting and wild food gathering.

Late in the prehistoric period, under influence from the Ancestral Pueblo people to the north, the Mogollon built above ground pueblos and cliff dwellings. Villages grew to as many as 30 structures. There are very few architectural remains of the Mogollon culture today, the most significant perhaps being the Gila Cliff dwelling in southwestern New Mexico.

Because the Mogollon civilization extended far into northern Mexico, there was considerable trade with other prehistoric peoples of central Mexico and the coasts of the Gulf of California.

Mogollon Indians are also known for weaving clothing and blankets, made from cotton, feathers, and animal fur yarn; and for feather-decorated baskets. Of particular note is the fabulous pottery from the

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Mimbres region in southwestern New Mexico - white pieces decorated with stylized representations of daily life.

Patayan

The origin of the prehistoric Patayan civilization is somewhat unclear - but probably from the Archaic Cochise culture and/or the Archaic San Dieguito culture, next door to the southwest.

By about AD 500, Patayan peoples hunted and gathered to supplement recently adopted farming. They dug no canals and only planted crops in river floodwaters. They lived in aboveground brush huts rather than pithouses.

The Patayan made brown pottery, sometime painted in red, as well as baskets. They also crafted decorations out of seashells from the Gulf of California that they used for trading.

The Patayan people are probably best known for the immense geometric shapes, animal, and human figures etched into the desert pavement or formed of arranged stones on the surface.

Other Prehistoric Civilizations

Starting around AD 500, the Sinagua culture, related to the Ancestral Pueblo and Hohokam cultures, occupied a large area in central Arizona between the Little Colorado River and the Salt River, extending into portions of the Mogollon Rim country. Housing evolved from pithouses to pueblo structures and the Sinagua economy was based on hunter-gathering and subsistence agriculture. Significant Sinagua pueblo and cliff dwelling ruins can be found today at Walnut Canyon and Wupatki, near Flagstaff, and Tuzigoot and Montezuma Castle, in the Verde Valley.

Beginning in about AD 1150, the Salado culture (thought to have formed from a mixture of surrounding cultures), developed in the Tonto Basin, east of Phoenix. These hunter-gathers and farmers were distinguished by walled adobe compounds and polychrome pottery. Cliff dwelling ruins can be found today at Tonto National Monument.

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Disappearance of Prehistoric Civilizations

By about AD 1300 Arizona's prehistoric Native American civilizations began to decline.

The Ancestral Pueblo people began abandoning their villages with most of them migrating towards the south.

The Hohokam people also began abandoning their settlements, scattering in small groups. By AD 1450 the Hohokam culture had largely disappeared.

The Mogollon culture lost its distinct identity. Some were absorbed by the then well-advanced Ancestral Pueblo; others abandoned the region and emigrated south to Sonora.

The Patayan, Sinagua, and Salado cultures also disappeared at the same time.

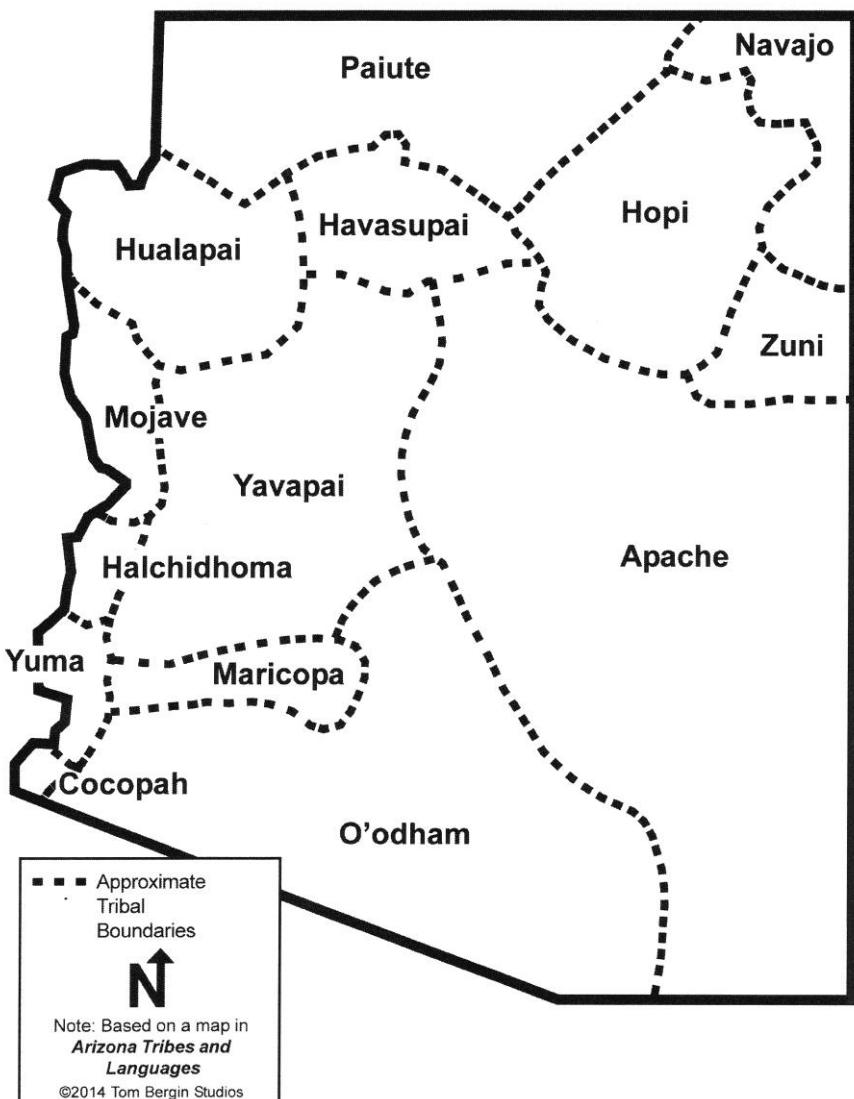
Potential reasons for the decline include drought, pestilence, famine, plague, nomadic invaders, and internal political issues. As of today, nobody really knows! What little we do know about these civilizations has been learned from excavating buried settlements and examining artifacts found there. (Amazingly, across the rest of America, concurrent prehistoric societies disappeared at roughly the same time for similarly unknown reasons.)

Spanish and Mexican Periods

When the first Spanish explorers entered Arizona in the 1540s, Arizona's Indian tribes included both descendants of Arizona's prehistoric civilizations and new immigrants to the region.

The agrarian pueblo-building Hopi and Zuni were acknowledged descendants of the Ancestral Pueblo culture.

Arizona Indians around 1600



These Indian tribes were prominent in Arizona when Spanish explorers arrived in the 1500s. (Map courtesy of Tom Bergin)

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The river-valley farmer Tohono O'odham - including the Akimel O'odham (Pima) and the Tohono O'odham (Papago) Indians - were probably descendants of the Hohokam.

The peoples in western Arizona, also farmers - including the Cocopah, Yuma, Halchidhoma, Mohave, Hualapai, Havasupai, Maricopa, and Yavapai - were thought to be descendants of the Papayan culture.

The farming and hunter southern Paiutes began moving into northwestern Arizona from central Oregon and Nevada about 1000.

The Apache and Navajo were also late arrivals to the southwest, completing a long immigration journey from Alaska and western Canada sometime between 1200 and 1500. The Apache were nomadic raiders. The Navajo were originally raiders too, but eventually adopted a pastoral life style.

Before the Spanish arrived, Arizona Indians lived in harmony with their environment and the impact on the land was small. Sometimes Indian tribes fought with each other and sometimes they traded goods. Their religion was based upon nature and the environment.

Spanish Exploration

Even before the first Spaniard saw Arizona, the Indians in Arizona were probably infected with European diseases (e.g., smallpox, influenza, and measles) for which they had no immunity. That's because the first Spanish ship-landing in Mexico occurred in 1517 and in the years before the Spanish got to Arizona, severe disease could have been transmitted along Indian trade routes from central Mexico to Arizona. After the Spanish came, things undoubtedly got worse.

Note: While there is no accurate data on deaths caused by European diseases in Arizona, it has been estimated that the average loss of life from infectious diseases America-wide was a horrifying 25-50 percent of the Indian population.

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Inspired by the conquests of Hernando Cortes in Mexico and Francisco Pizarro in Peru, Spanish Conquistadors first came to Arizona looking for gold.

In 1540 Francisco Vazquez de Coronado, with an army of 300 horsemen and foot soldiers, entered Arizona from Mexico City, searching for the rumored "seven cities of gold."



In this oil painting by Frederick Remington, Spanish Conquistador Francisco Coronado begins his expedition north from Mexico City in 1540. (Courtesy of Wikimedia)

It was standard practice to read a Spanish royal decree to any Indian tribes encountered, informing them of their duty to the Pope and the Crown, and their right to freedom if they submitted, along with the threat of war and enslavement if they did not. Indians were considered pagan savages.

When Coronado reached a large Zuni pueblo on the Arizona - New Mexico border and a Hopi village to the northwest, he stormed the

The History of Native Americans in Arizona

villages and confiscated the natives' food supplies, fighting the first battles between Indians and whites in what is now the United States.

Over the next 90 years or so, in a handful of expeditions, other Spanish explorers visited Arizona's pueblo country, the Grand Canyon area, the Verde Valley, the Prescott area, and the Colorado River along the western edge of the future state, making unnoteworthy contacts with various Indian tribes, but finding no gold.

Meanwhile the legacy to Arizona Indians of the Spanish explorations was probably limited to a few stray horses and livestock animals and widespread disease.

Disappointed at finding no riches, but desiring to control Arizona as a barrier against Russian, French, and English efforts to penetrate their empire's northern colonial frontier, in the 1600s Spain decided to make Spanish-speaking Catholics out of as many natives as possible.

Spanish Missionization

Spanish Colonial officials relied heavily on missionaries to concentrate scattered native populations at a relatively few mission sites to foster farming and stock-raising, while preparing natives to become tribute-paying subjects of the Crown.

In 1629-1633 missionaries from the Spanish settlement in Santa Fe, New Mexico founded three missions among the Hopi pueblos in northeastern Arizona. But the Hopi resisted heavy-handed Spanish efforts to totally eliminate their religious practices - efforts that included imprisonment, execution, and destroying religious articles. A successful "Pueblo Revolt" in 1680 ended the Spanish missionary and settlement efforts in northeastern Arizona.

To the south, from 1687-1704, Father Eusebio Kino established more than 20 missions in Mexican Sonora and south-central Arizona. Along the Santa Cruz River in Arizona, he founded missions at three O'odham

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villages: Guevavi and Tumacácori in 1691, and Mission San Xavier in 1692 at Bac.

Father Kino introduced wheat, cattle, horses and mules to the natives. Other missionaries introduced barley, peaches and sheep to complement the native summer crops and wild food resources.

Kino frequently traveled north to the Gila River and twice made trips to the west to the Colorado River, exploring, mapping, preaching, and giving agriculture instruction to the Indians he encountered.

Note: One of Kino's close associates, Jesuit missionary Luis Velarde, wrote (see "What Were Nixoras?") of slavery practices between the Spanish and Indians, where Yumans and Pimans sold Indian captives to the Spanish for labor, particularly household servants, often in return for horses.

Another influential missionary was Father Francisco Tomás Garcés who arrived at San Xavier del Bac in 1768 and quickly established good relations with the Akimel O'odham.

On roughly the same trail as Kino before him, Garcés accompanied Spanish soldier-explorer Juan Bautista de Anza on two trips (1774-1776) to the Colorado River, helping to establish overland routes to California. On the second trip, he traveled north along the Colorado River to the Grand Canyon and east to the pueblo country in northeastern Arizona. He established peaceful relations for Spain with Indians along the way, including the Quechan, Mojave, Havasupai, and Hopi.

In 1780 Father Garcés extended Spanish missionization to the Yuma area, helping found two missions on the California side of the Colorado River. Only a year later, Spanish settlers and soldiers appropriated Quechan farmlands and crops, leading to the "Yuma Uprising," resulting in the death of 100 Spanish settlers and four priests, including Father Garcés. The missions were destroyed; the Spanish mounted several unsuccessful expeditions against the Indians, who retained control over their homelands.

Spanish Settlement

Significant Spanish settlement in Arizona began in the south in the 1750s, following a huge silver strike in 1736 along the future border with Mexico. A mining boom drew prospectors, and the lush grasslands of the Santa Cruz and San Pedro River Valleys attracted ranchers.

Fearful of the increasing numbers of Spanish colonists and tired of Spanish forced labor practices and administrative interference in their affairs, in 1751 the Akimel O'odham in southern Arizona rebelled by attacking a number of ranches, mines, and missions in the so called “Pima Uprising.” It took a Spanish army several months to defeat the rebels and restore Spanish control.

In 1752 the Spanish built a presidio (fort) at Tubac to protect Spanish interests in the Santa Cruz Valley. This was the first permanent Spanish settlement in Arizona.

Meanwhile, since the late 1600s, Apache raiders had begun preying on O'odham communities of southern Arizona. Periodically the O'odham retaliated. A brutal guerrilla war continued through the Spanish and Mexican periods, and as the number of Spanish settlers slowly increased in southern Arizona, the Apaches began attacking Spanish missions, mines, ranches, and eventually their presidios directly. The use of horses by Indians was now common.

Spanish officials decided to move the presidio at Tubac to Tucson in 1775, as part of Spain's strategy to expand its defenses on their northern frontier. Through 1784, the Tucson presidio suffered four direct Apache attacks and conducted relentless campaigns against the Apache, often with O'odham allies.

In the mid-1780s, Spain adopted a new Apache policy by encouraging the natives to settle near presidios and trading posts, where they would be “rewarded” with food rations, spirits, and (inferior) weapons. The plan worked - there was peace on the frontier for the rest of the Spanish period.

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Tucson acquired its first Apache residents in 1787, when about 100 men, women, and children built their wickiups beside the Santa Cruz River at the northern end of the presidio.

Mexican Period

In 1821 Mexico won an 11-year war to secure its independence after 300 years of Spanish colonialism.

At first, Mexico suffered a financial depression. Frontier colonization efforts suffered greatly, including those in the Santa Cruz Valley and the Tucson presidio. There was a shortage of men and resources.

Old alliances between Spain and the natives ended. There were no rations for the peaceable Apaches, so they left the proximity of the Tucson presidio and resumed raiding.

Historian Thomas E. Sheridan emphasizes the importance of the O'odham to the continuing struggle against the Apache: "Without O'odham allies, Hispanic Arizona would not have survived."

But Mexico did not treat its O'odham allies kindly. Mexico had expanded the Spanish practice of awarding land grants to settlers in southern Arizona, greatly reducing traditional O'odham lands. By the late 1840s, much of O'odham land along the Santa Cruz River had been declared "abandoned" by the Mexican government and auctioned off to Mexican settlers.

Moreover, there was competition for water from the Santa Cruz River. Mexican and Native American farmers grew corn, wheat, vegetables, and cultivated fruit orchards in irrigated fields. Water agreements increasingly favored the Tucson presidio over the Native Americans.

Meanwhile the population of the peaceful O'odham natives in the Santa Cruz Valley was declining drastically due to diseases brought by the Europeans and attrition from Apache raids.

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Then, with “manifest destiny” aggressiveness, the United States went to war with Mexico in 1846 and in 1848 forced Mexico to cede its vast northern territory, including the portion of Arizona north of the Gila River. In 1854, with the Gadsden Purchase, the U.S. secured the rest of present day Arizona (south of the Gila River). Arizona now belonged to the United States.

Over the previous decade, Arizona had been “discovered” by America: trappers, wagon road surveyors, military suppliers, gold seekers on the way to the California Gold Rush, and prospectors.

Arizona was now on the American map and was about to be “invaded” by Anglos. The fate of Arizona’s Indians was, for all practical purposes, sealed.

American Indian Wars

Early American Settlement

Following the Gadsden Purchase in 1854, through the 1850s, most of Arizona remained in Indian hands. The only American settlements were a few mining camps in southern Arizona, the Tucson presidio, and a string of ports along the Colorado River. The first Arizona census in 1860 counted about 6,500 people, including an estimated 4,000 Indians.

Arizona’s mining population expanded rapidly with gold strikes near Yuma in 1858 and in 1863 near Prescott and around Wickenburg. Tombstone’s silver boom occurred in the 1880s. In the 1870s and 1880s, huge copper deposits were found in Bisbee, Clifton-Morenci, Globe-Miami, and Jerome.

A cattle-ranching boom in southern Arizona started after the Civil War ended in 1865 when large numbers of Texas longhorns, from overgrazed pastures, were driven to the empty grasslands of southern Arizona. The completion of two transcontinental railroads across Arizona in 1881 and

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1883 enabled cattle ranching in southern Arizona to expand rapidly and provided ready access to northern Arizona for cattle ranchers.

The early influx of Anglo-American immigrants to Arizona also included traders, homesteaders, and businessmen.

Many of the new settlers were seeking wealth and/or land and were openly hostile to Arizona's Indians, having little respect for people who had lived in balance with the land for hundreds of years.

U.S. Indian Policy

When Arizona became part of the United States, national Indian Policy was already firmly established. (See "Overview of Federal Indian Policy" by Karen Jarratt-Snider.) In 1830 the U.S. Congress created a policy of Removal that "relocated" Native Americans to "reserved" lands west of the Mississippi River. By 1838, 80,000 Native Americans, particularly from the Southeast and the old Northwest, were forcibly relocated.

In 1849 the Congress created the Bureau of Indian Affairs (BIA) that moved quickly to address the continuing "Indian problem." Under pressure from an expanding American population and industry's demand for natural resources, the BIA set out on a policy for the Indians' "concentration, their domestication, and their incorporation" on Reservations. Using treaties, coercion, and military force, the government actively consolidated Native American societies.

Arizona's Indian Wars

Arizona's American Indian Wars lasted 35 years, from 1851 to 1886. Indians fought hard to resist encroachment on their tribal lands and practices. Americans fought hard to secure new lands and resources. Each side initiated brutal attacks and counterattacks. Each side committed depredations.

Between 1849 and 1864 Americans built nine forts in Arizona, spread across the future state, to protect settlers and to act as a base of operations for military campaigns against Indians.

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In the end, superior military resources won the war of attrition. By 1890, 95% of surviving Indians lived on reservations.

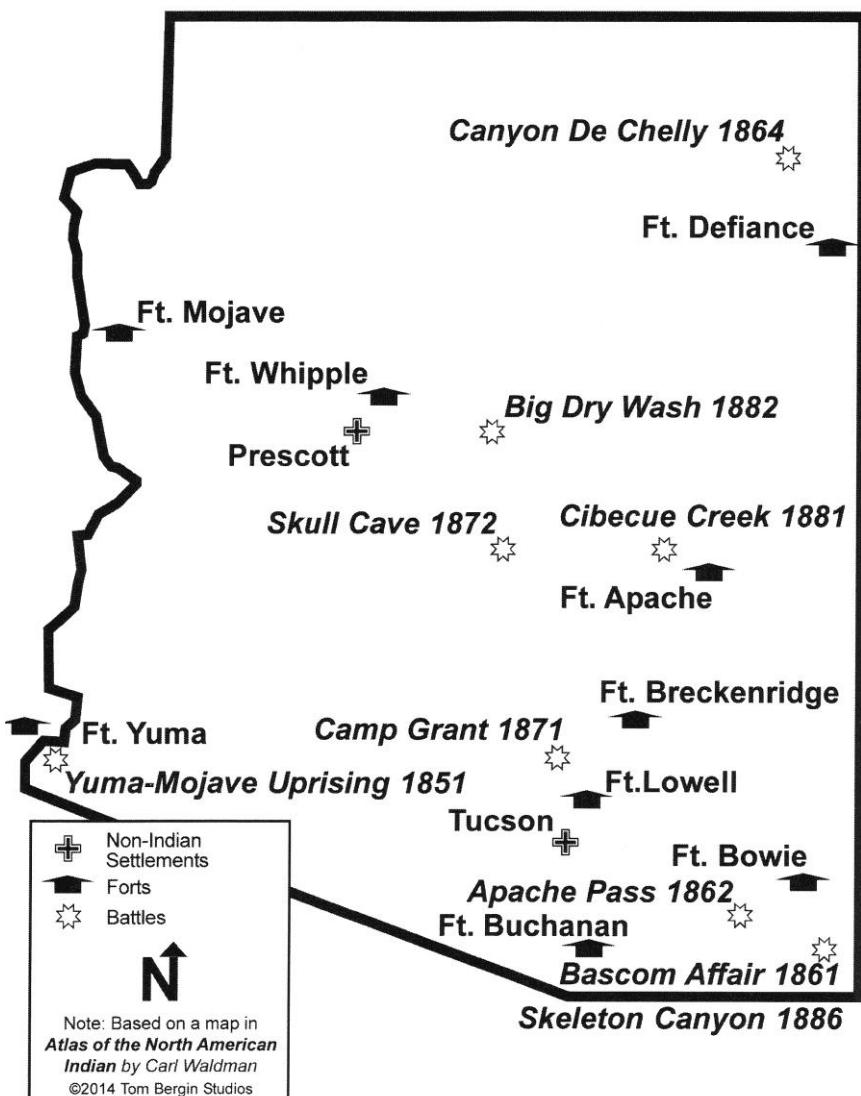
Major conflicts of Arizona's American Indian wars included (summarized from Carl Walden's *Atlas of the North American Indian*):

Yuma and Mojave Uprising (1851-52): Along the lower Colorado River, the Yuma (Quechan) and Mohave resisted Anglo-American settlement that had greatly increased with the California Gold Rush in 1849. Operating out of Fort Yuma, U.S. troops quelled the rebellion and negotiated peace.

Bascom Affair - Apache Uprising (1861-63): Lieutenant George Bascom from Fort Buchanan took it upon himself to start a conflict at Apache Pass with a group of Apaches led by Cochise, wrongfully accused of kidnapping a rancher's children and cattle rustling. This set off a series of brutal attacks and counterattacks from both sides that extended across southeastern Arizona into New Mexico, involving numerous Apache bands, and a major battle at Apache Pass. An important Apache leader, Mangas Coloradas, was killed while in captivity. Cochise managed to evade capture and continued his raids against white settlements and travelers until 1872, when a treaty was signed and Cochise retired to the Apache reservation, where he died of natural causes in 1874. The Bascom Affair started a period of 25 years of intermittent Apache unrest.

Navajo War (1863-68): Following 15 years of repeated Navajo conflicts, treaties, and truces with the U.S. Army, in 1863 Union troops under former trader, scout, and Indian agent Colonel Christopher (Kit) Carson conducted a scorched earth campaign against the Navajo - destroying fields, orchards, and hogans, and confiscating livestock - and then in 1864 defeated the Navajo at Canyon de Chelly and captured their sacred stronghold. Eight thousand Navajos were rounded up and marched 300 miles on the "Long Walk" in the dead of winter to the Bosque Redondo reservation in eastern New Mexico for a four-year confinement, with as many as 2,000 dying of cold, disease and starvation.

American Indian Wars in Arizona 1851–1886



American Indian wars in Arizona lasted 35 years. (Map courtesy of Tom Bergin)

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Hualapai War (1865-70): The Hualapai, aided by the Yavapai and Havasupai, rebelled against gold prospectors and settlers in the Prescott Valley, following the killing of a prominent Yavapai leader by drunken settlers. The Indians raided American settlements while U.S. soldiers, using Mohave scouts, engaged in guerilla warfare, fighting several small battles and burning many native villages. Most of the Hualapai surrendered by 1869 due to dysentery and whooping cough, losing an estimated one-third of their population.

Apache Camp Grant Massacre (1871): A vigilante group of Tucson citizens became so upset with the deaths from Apache raids, that they (with Tohono O'odham allies) took matters into their own hands in what became known as the Camp Grant Massacre to attack a peaceful group of Apaches about 50 miles northeast of Tucson, killing 130 people, mostly women and children.

Apache and Yavapai War (1872-73): In the early 1870s, the Apache and Yavapai plundered the Tonto Basin. In response to public outcry, the military organized a campaign of small mobile detachments (aided by Apache scouts recruited from the newly formed Apache reservation) that forced as many as 20 clashes, with a decisive battle at Skull Cave.

Apache Victorio's Resistance (1877-80): After more than a decade of raiding in Arizona, in 1870 the U.S. Army convinced Apache leader Victorio to resettle his people in peace. Victorio slipped away from the San Carlos Apache reservation in 1877 and led a force of 80 warriors into Mexico, then Texas, then back into New Mexico and into Arizona, carrying out a number of attacks. He eluded mobilized American and Mexican forces, surviving a number of skirmishes, until he and more than half his group were killed by Mexican troops in a two-day battle in Mexico.

Apache Geronimo's Resistance (1881-86): Starting in late 1850s, Apache leader Geronimo fought against both Mexican and United States troops and became famous for his daring exploits and numerous escapes. He was captured in 1877 and sent to the San Carlos Reservation. After an Apache mystic was killed in a battle at Cibecue Creek in 1881, Geronimo

left the reservation to join other bands to fight the growing number of U.S. troops, beginning the most tenacious resistance to American settlement in Arizona. The battle of Big Dry Wash in 1882 ended militancy among most of the bands, but Geronimo fought on. He was pursued into Mexico, talked into returning to the reservation in 1884, escaped again in 1885, agreed in a parley to surrender, but broke free once again. On September 4, 1886, at Skeleton Canyon, Geronimo surrendered for the final time.

Soon afterward, Geronimo and 500 other Apache were sent by railroad to a reservation in Florida, and a year later to Alabama, and finally in 1894 to Oklahoma. Geronimo was never granted permission to return to his homeland, dying a prisoner of war in 1909.

Early Reservations

Beginning in 1859 most Indians in Arizona were placed on reservations, usually on a tiny fraction of their traditional lands, and were sometimes forced to share the space with other tribes. The accompanying table - summarized from Arizona Geographic Alliance's, "Arizona's Indian Reservations" - lists the early reservations.



*Apache leader Geronimo, shown before his final surrender in 1886, fought American settlement efforts in Arizona for almost three decades.
(Courtesy of Wikimedia)*

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Early Indian Reservations in Arizona.

Year	Indian Reservation	Comments
1859	Gila River Pima (Akimel O'odham) - Maricopa	Formed to preserve agriculture production for Anglo-Americans. In 1870s/80s Gila River water cut off by settlers - catastrophic for Indians. Some Halchidhoma merged with Maricopa.
1879	Salt River Pima - Maricopa	Formed under pressure from Americans desiring farm land. Some Halchidhoma included with Maricopa.
1865	Colorado River Mojave	Formed after Mojave accepted peace-or-extermination ultimatum. Shared with Chemehuevi, southernmost branch of Paiute tribe. Some Navajo and Hopi resettled on reservation in late 1940s.
1868	Navajo	Followed Navajo return from exile in Basque Redondo, NM. Largest U.S. Indian reservation (27,000 sq mi), larger than the state of West Virginia. Extends into Colorado and New Mexico.
1871	Fort Apache	Included White Mountain (Western) Apache tribes.
1872	San Carlos Apache	Included Aravaipa, Chiricahua, Coyotero, Mimbreno, Mogollon, Pinaleño, and Tsiltaden Apache tribes. Included Yavapai at first.
1874	San Xavier Tohono O'odham	The first Tohono O'odham reservation. Included San Xavier del Bac Mission.
1882	San Lucy Tohono O'odham	Reserved for tribal purposes - near Gila Bend.
1880	Havasupai	Forced to abandon most of their traditional land because of mining and the incursion of the Santa Fe Railroad.
1882	Hualapai	Followed Hualapai War (1865-1870).
1882	Hopi	Established by President Chester A. Arthur in response to growing Navajo encroachment on traditional Hopi land.
1884	Fort Yuma Quechan	Followed Yuma (Quechan) - Mojave Uprising (1851-52).

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Life in captivity was not pleasant, as Thomas E. Sheridan describes in his book, *Arizona – A History*:

“Early reservations in Arizona were sullen, miserable places. Soldiers herded Indians from many different bands and tribes together like cattle. Corrupt Indian agents cheated them out of their rations. Honest, but overzealous ones tried to turn hunters, gatherers, and raiders into yeoman farmers. Worst of all, people who had never lived sedentary lives before suddenly found themselves forced to occupy one place year-round. Disease thrived in the cramped dirty quarters, and epidemics swept across the reservations, killing hundreds.”

Indians Struggle under Changing U.S. Policy

The Indians survived our open intention of wiping them out, and since the tide turned they have even weathered our good intention towards them, which can be much more deadly - John Steinbeck, America and Americas.

According to the U.S. Census, the population of Arizona in 1890 was about 88,000, including about 29,000 Indians, roughly a third of the territory's total population. After 35 years of American Indian Wars in Arizona, 95% of surviving Indians lived on reservations in terrible conditions.

However, U.S. Indian Policy was about to change from its emphasis on forcibly placing all Indians on reservations.

Let's follow this changing policy (from Karen Jarratt-Snider's overview), from Geronimo's final surrender in 1886 to the present - an almost

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unbelievable series of failures, with whipsaw effects on Arizona Indians, already in dire straits.

Assimilation and Allotment (1887-1933)

The objective of the new policy was to assimilate Indians into the dominant American culture by breaking up reservations into allotments for individual Indians - to develop values of individual property ownership and economically motivated farmers. Simply, the government wanted to end tribal sovereignty and "civilize" the Indians.

As a result, Indians across the country were dispossessed of 60% of their land (from 138 million acres to 48 million acres), either selling parcels at low prices to speculators, or by the government selling surplus lands at auction to non-Indian outsiders.

The effect of this land grab in Arizona however, was relatively minor, with Indians losing only about three percent of their land. This was because for the first half of this period, Arizona was a territory, not a state, with less organized badgering to open Indian land for non-Indian settlement.

Tribal governments were replaced by a paternalistic and unresponsive Bureau of Indian Affairs (BIA), which contributed to further unraveling of tribes' traditional ways of life, exacerbating extreme poverty and poor health.

A series of government-run Indian schools were instituted in the 1890s and early 20th century to help assimilate natives. The schools included reservation and non-reservation boarding schools, and day schools (10/2/34 respectively, in Arizona). Unfortunately, these forced-attendance schools emphasized the loss of tribal identity and rigid military discipline.

American Indians in Arizona during World War I were exempt from the military draft because they were not considered American citizens. Nevertheless many Arizona Indians (8,000 nationwide) voluntarily served.

INDIAN LAND FOR SALE

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POSSESSION
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IN 1910 THE DEPARTMENT OF THE INTERIOR SOLD UNDER SEALED BIDS ALLOCATED INDIAN LAND AS FOLLOWS:

Location.	Acres.	Average Price per Acre.	Location.	Acres.	Average Price per Acre.
Colorado	5,211.21	\$7.27	Oklahoma	34,664.00	\$19.14
Idaho	17,013.00	24.85	Oregon	1,020.00	15.43
Kansas	1,684.50	33.45	South Dakota	120,445.00	16.53
Montana	11,034.00	9.86	Washington	4,879.00	41.37
Nebraska	5,641.00	36.65	Wisconsin	1,069.00	17.00
North Dakota	22,610.70	9.93	Wyoming	865.00	20.64

FOR THE YEAR 1911 IT IS ESTIMATED THAT 350,000 ACRES WILL BE OFFERED FOR SALE

For information as to the character of the land write for booklet, "INDIAN LANDS FOR SALE," to the Superintendent U. S. Indian School at any one of the following places:

CALIFORNIA: **MINNESOTA:** **NORTH DAKOTA:** **OKLAHOMA**—Con. **SOUTH DAKOTA:** **WASHINGTON:**

Hoopo. Omigum. Fort Totten. Sac and Fox Agency. Cheyenne Agency. Fort Simcoe.
Coyote. Fort Yates. Shawnee. Fort Sisseton.

COLORADO: Ignacio. **MONTANA:** Crow Agency. **OKLAHOMA:** Wyandotte. **WYOMING:** Crow Creek. **NEBRASKA:** Greenwood. **IDAHO:** Fort Spokane. **WASHINGTON:** Tekoa.

IDeAHO: Crow Agency. **NEBRASKA:** Anadarko. **OREGON:** Elwha River Agency. **GREENWOOD:** Lower Brule. **Tulalip.**

KANSAS: Macy. NEBRASKA: Colony. Klamath Agency. Pendleton. Pine Ridge. WISCONSIN:

Horton, Santee. Dargton, Roseburg, Rosebud, Oneida.
Madison, Winnebago. Muskogee, Siletz, Siletz, Siletz.

Winnipeg. Pawnee. **Shetl.** **Sisseton.**

WALTER L. FISHER BOBEBT G. VALENTINE

SECRETARY OF THE INTERIOR, **ROBERT G. WILSON**,
Secretary of the Interior, Commissioner of Indian Affairs

Secretary of the Interior. Commissioner of Indian Affairs.

WALTER L. FISHER,

Secretary of the Interior.

ROBERT G. VALENTINE,

Commissioner of Indian Affairs.

This advertisement from the Department of the Interior, circa 1911, offers for sale Indian land obtained from the U.S. government breaking up Indian reservations. U.S. Indians were dispossessed of 60% of their land to speculators and non-Indian outsiders. (Courtesy of Wikimedia)



Some Arizona Indian children were sent to boarding schools in other states. These Chiricahua Apache children are shown four months after arrival at Carlisle Indian School in Pennsylvania. (Courtesy of Wikimedia)

Indians were given U.S. citizenship and the right to vote in 1924, but Arizona, New Mexico, and Maine withheld voting rights until after World War II.

From 1890-1917 nine additional Indian reservations were established in Arizona. See accompanying table.

Other Happenings in this Period

With the return of the Navajo from their exile in Basque Redondo and the formation of their reservation in 1868 in northeastern Arizona, Anglo trading posts began to populate the Four Corners area. One of the first was Hubbell's trading post in Ganado that provided everyday sustaining goods to Indians and encouraged their arts and crafts, such as Navajo

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rugs. Traders were very influential in the growth of a Southwestern arts and crafts market.

In the early 1900s, Fred Harvey, of railroad hospitality fame, became “the most important driving force in the early appreciation, and preservation of” Native American arts and culture. He hired Indians to demonstrate their crafts at New Mexico and Arizona railroad stops and hotels, and provided “Indian Detours” by auto to Santa Fe and Indian villages.

Tribal Restoration and Reorganization (1934-1945)

The Assimilation and Allotment policy was an abysmal failure. In a complete about face, the objective of the Tribal Restoration and Reorganization policy was to reconsolidate allotted lands into reservations, restore tribal sovereignty and self-government, and authorize creation of new reservations.

According to Arizona historian Thomas E. Sheridan, the results were mixed: “Arizona Indians eventually approved constitutionally based tribal councils that took more active roles in reservation affairs, but the constitutions were written by non-Indians and were based on the U.S. Constitution rather than Native American legal and political traditions.”

Some tribes sharing reservations in Arizona became one nation, e.g. the Gila River Indian Community where Pima (Akimel O’odham) and Maricopa Indians living together became one nation.

In this period, one additional Indian reservation (Yavapai Prescott) was established in Arizona in 1935.

Other Happenings in this Period

The first two of ten World War II Relocation Centers to inter Japanese-Americans were built within Arizona’s Colorado River and Gila River Indian reservations.

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Indian reservations assigned in Arizona since 1890.

Year	Indian Reservation	Comments
1890	Fort Mojave - Mojave	Transferred to Bureau of Indian Affairs when troops left the fort.
1898	Hualapai - Valentine	Formerly known as Hualapai Indian School Reserve.
1912	Hualapai - Big Sandy	Traditional land along Big Sandy River.
1903	Fort McDowell Yavapai	Yavapai won Congressional approval in 1910 to retain site versus relocation efforts by water-seeking interests.
1914	Camp Verde Yavapai	Reservation of five non-contiguous parcels of land in Verde Valley. Main sites are Camp Verde, Clarksdale, Middle Verde. Shared with Western Apache.
1935	Yavapai Prescott	On land formerly occupied by the Fort Whipple Military Reserve.
1912	AK-Chin Tohono O'odham	Community of Tohono O'odham and Akimel O'odham.
1916	Tohono O'odham	Bordering on Mexico for 74 miles, third largest U.S. reservation - 4,450 sq. mi.
1913	Kaibab Paiute	Reservation assigned after years of struggles with Mormon settlers, who commandeered land for farming along Kanab Creek in northern Arizona.
1917	Cocopah	Effectively resisted assimilation to an established reservation for many years.
1972	Tonto Apache Payson	Western Apache. Smallest land base of any reservation in Arizona.
1978	Pasqua Yaqui	Yaqui not native Arizona tribe; ancestors from N. Sonora. After 400 years of warfare against Spanish and Mexicans, Yaqui refugees fled north to S. Arizona, eventually earning recognition as a U.S. tribe. Government gave Yaqui land southwest of Tucson for reservation.
1984	Pueblo of Zuni	Main reservation established in 1877 in northwestern New Mexico. Pueblo of Zuni Art and Crafts was founded in 1984 as a tribal business.

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About 540 Navajo served in World War II, some 400 trained as code talkers. They saved countless lives with their Navajo-language transmissions and also hastened the war's end.

Termination and Urbanization (1945-1961)

Reversing direction once again, the Termination and Urbanization policy urged wholesale breakup of Indian communities and emphasized assimilating Indians into "mainstream" society. Federal officials withdrew from management of Indian affairs, including such aspects of reservation life as law and criminal justice and health services. Congress acted to abolish (terminate) selected Indian reservations and the BIA launched a relocation program to move Indians from reservations to urban centers.

The U.S. government terminated recognition of sovereignty of tribes. Natives were now subject to state laws and federal taxes, to which they had previously been exempt. Indian reservations in Oregon, California, New York, Florida, and Texas were terminated, immediately stopping all federal aid, services, and protection.

No Arizona Indian reservations were terminated, but a relocation program to Phoenix was instituted.

Other Happenings in this Period

In 1948 the Arizona Supreme Court unanimously overruled previous court opinions to permit Indians to vote. Trying to mitigate a voting requirement to read and write English (which many Indians could not), the Arizona Legislature passed a law that allowed a voter to bring someone of his or her own choosing to help in voting.

In 1952 the elected leaders of nine Indian tribes in Arizona formed the Inter Tribal Council of Arizona (ITCA) to provide members with a united voice for tribal governments.

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Self Determination (1961 – present)

Official U.S. sentiment towards Indians started changing during the Civil Rights era. The government now desired to improve Indian conditions through the general principle of self-determination on Indian reservations. Several previously terminated tribes were returned to tribal status. Reservation governments could administer their own education and social service programs.

The new policy emphasized tribal nation sovereignty, reaffirmed treaties and the U.S. Constitution as the supreme law of the land, and authorized the BIA to contract directly with tribal nations to run their own programs and services.

A series of reform laws by the U.S. Congress were issued to improve conditions for Indians, including federal assistance for public housing, economic development, education and training, and business financing. Other Congressional actions were issued to protect Indians' religious freedom and child welfare rights. More recently, Presidential Executive Orders have been issued to protect Indian sacred sites and religious practices, and reaffirm tribal sovereignty and the government-to-government relationship.

Arizona's Indian tribes have actively participated in self-determination efforts through economic development and cultural renewal, and through political and legal actions. Moreover, Indians have been reasserting their rights to land, water, and natural resources.

In the 1970s a huge coal-fired power plant was built on the Navajo reservation near Page to provide electrical power to customers in Arizona, Nevada, and Colorado. Income from the power plant and the supporting coal mine in Kayenta accounts for a significant portion of Navajo and Hopi revenues today.

Of particular importance to the economic future of Indians, the 1988 Indian Gaming Act set up the framework for gaming for profit on Indian reservations. Since 1988, over 20 casinos have opened on Indian

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reservations across Arizona. Many have accompanying hotels and resorts, like the Sheraton Wild Horse Pass Resort & Spa on the Gila River Indian Community, and the Radisson Fort McDowell Resort on lands of the Yavapai Nation.

In the last ten years, other major hotels have opened on Indian land, including The View Hotel at Monument Valley on the Navajo reservation and the Moenkopi Legacy Inn on Hopi tribal land.

The U.S. Congress in 2004 completed the Gila River Indian Community Water Rights Settlement, milestone legislation that provides the Tohono O'odham Nation access to assured water locations and the financial resources necessary to develop their land and water resources.

In 2007 the Hualapai opened their Grand Canyon Skywalk that provides tourists with an exciting experience on a horse-shoe-shaped cantilever bridge overlook of the western Grand Canyon.

Other Happenings in this Period

From 1972-1984 three additional Indian reservations were established in Arizona: Tonto Apache Payson, Pasqua Yaqui, and Pueblo of Zuni.

In 1975 the ITCA established a private, non-profit corporation, made up of federally recognized tribes (except for the independent Navajo Nation established in 1923), to promote Indian self-reliance through public policy. The highest elected officials of each tribe - the chairpersons, presidents or governors, are members of the ITCA.

On May 14, 2014, the U.S. Senate unanimously confirmed Hopi Diane Humetewa as the first Native American federal judge in U.S. history.

The federal government continues today to back the principle of Indian Self Determination, although federal programs for Native American self-betterment and tribal development have declined due to budget cutbacks.

Indians in 2014

Indian Reservations

According to the 2010 U.S. Census, the population of Arizona was 6.4 million people, including about 300,000 Indians, 4.8% of the state total population. Almost 90% of Arizona's Indians live on 22 federally established reservations that cover almost 30% of the state land area. The accompanying map shows where these reservations are located and outlines the larger ones. (Note: The balance of Arizona's Indians are so-called "urban" Indians who live mostly in Phoenix and Tucson, and a few "nonreservation rural" Indians.)

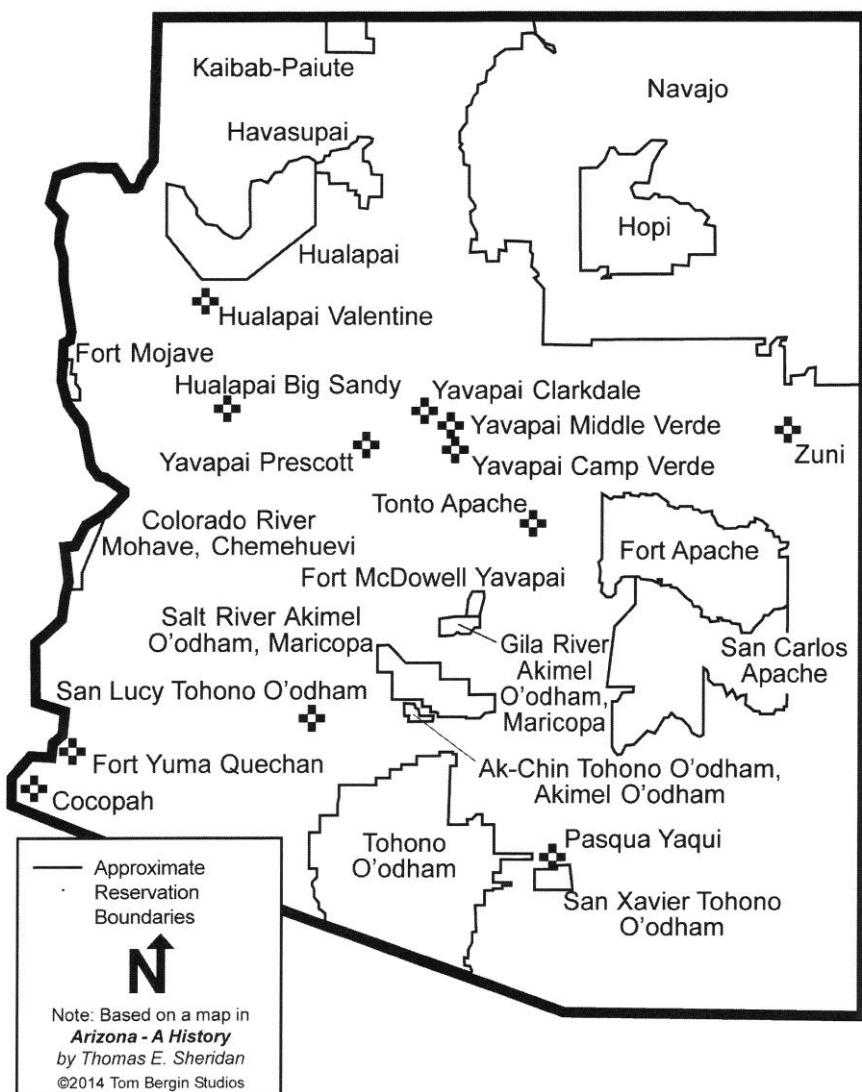
Tribal Government

Today, there is a unique "trustee" relationship between the U.S. government and federally chartered Indian tribes. The federal government holds legal title to most Indian land held in trust, but the "beneficial" interest remains with the tribes. The Congress protects Native property, the Native right to self-government, and provides services necessary for survival and advancement. Indian tribes have a limited sovereignty, comparable to that held by the 50 states.

Tribes have the power to govern themselves, but only under federally imposed regulations. In general tribes are not subject to state laws. As summarized in Carl Waldman's, *Atlas of the North American Indian*:

"As governments, tribes have the right to regulate tribal membership; make laws; establish courts and tribal police; enforce laws and administer justice (except for major crimes, which are under the jurisdiction of federal courts) ... ; remove non-members from tribal property; levy taxes on tribal members; and regulate land use, including resource development, environmental protection, and hunting and fishing."

Arizona Indian Reservations 2014



Today, almost 90% of Arizona's Indians live on 22 federally established reservations that cover almost 30% of the state land area. (Map courtesy of Tom Bergin)

The History of Native Americans in Arizona

Arizona tribal governments consist of executive, legislative, and judicial branches. The office of the tribal chairman and the tribal council operate the tribe under a tribal constitution and code of laws.

Economy

Tribal reservation economies are growing at a substantial pace, but are coming from so low a point that it will take years to match the levels enjoyed by non-Indian residents of Arizona.

On the positive side, traditional sources of income - such as farming, stock-breeding for meat, hides, or wool, and the sale of arts and crafts, persist or are growing. Indians can now sell their textiles, baskets, pottery, jewelry and a myriad other crafts to major museums, Native American art dealers, and trading posts across the state, or directly to customers on their reservations.

Newer mainstays of income include mining, electrical power generation, timber harvesting, and burgeoning tourism and resort operations, among other Indian-owned businesses.

Of course the best known aspect of Arizona's Indian economy today is the gaming industry where at present, 15 of Arizona's 22 tribes operate 22 Indian-owned casinos and bingo halls on Indian reservations. Gaming generated \$1.8B in gross revenues in 2012 and employed over 15,000 Indian and non-Indian people.

Despite this solid economic progress, many Arizona Indians continue to experience poor living standards. Unemployment rates are high on reservations and per capita income is low. Much of reservation housing is inadequate with central heating, piped water, and indoor toilets not available. According to the 2000 Census, Indians represented 13% of the state's population in poverty, although they represented only 5% of Arizona's total population.

The History of Native Americans in Arizona



Casino Del Sol Resort, at 5655 W. Valencia Road in Tucson, an enterprise of the Pascua Yaqui tribe, is one of 22 Indian-owned casinos in Arizona. (Courtesy of Casino Del Sol)

Health

Like Indians across the U.S., Arizona Indians have significantly higher death rates than the non-Indian population from diabetes, alcoholism, accidents, and suicide. Arizona Indians are particularly affected by diabetes and alcoholism, compared to Indians in other states. In Arizona the average age at death is 72.2 years for the general population, and is only 54.7 years for Indians.

The Indian Health Service (IHS), an agency within the U.S. Department of Health and Human Services, is the principal federal health care provider and health advocate for American Indians. Comprehensive (free, but budget-limited) services include primary care and specialty services, dental services, behavior health, public health nursing, health education, and environmental health services. In Arizona IHS maintains offices in Tucson, Phoenix, and Window Rock on the Navajo Reservation.

The History of Native Americans in Arizona



San Xavier Health Center, south of Tucson off Interstate 19 at exit 19, provides outpatient primary care to Tohono O'odham members. (Courtesy of San Xavier Health Center)

The Affordable Care Act is supposed to provide Indians with more healthcare choices and access to affordable health coverage not supplied by IHS.

Education

Arizona's Indian student dropout rates from elementary and secondary schools are high compared to the general population, contributing to an ongoing cycle of poverty. One factor in dropout rates is the wide dispersal of secondary schools (especially on large reservations like the Navajo) and the difficulty of travel and/or lodging. Participation and graduation rates in higher education remain low for Native Americans as well.

The History of Native Americans in Arizona

Positively, the Navajo founded the Rough Rock Demonstration School, a reservation elementary school in 1966 that served as a model for other tribes. Two Indian-operated colleges now offer classes in Arizona: Diné College by the Navajo in Tsile, Arizona and Tohono O'odham Community College in Sells, Arizona.

An important advocacy group for Native American education is the National Indian Education Association, comprised of educators, students, tribal leaders, corporations, and legislators who work towards a higher quality of education for Indians. Key issues today include the inadequacy of federal education funding, the need for increased availability of native language and culture-based education, the need for more tribal control of education systems, and the need for increased recruitment and retention of native teachers.

Conclusion

Arizona's Indians (as other Indians across the country) have survived many years of schizophrenic U.S. Indian policy that first tried to annihilate them, then forced them onto reservations, then tried to assimilate them into the general society, then restored tribal sovereignty, then terminated their tribes, and finally tried to improve the Indians' condition through self-determination. Somewhere in that inglorious history is the origin the old TV line spoken by an angry Indian, "White man speak with forked tongue."

U.S. Indian policy seems to have finally stabilized around the principal of Indian self-determination. As Indian archivist Carl Waldman puts it,

"The tribes themselves, through economic development and cultural renewal, and through political and legal action have given shape to the concept of self-determination. When encountering new issues, as has been the case in matters of regulation and taxing of gaming, new laws and programs will be developed, but it would seem that another dramatic shift to an entirely new federal policy - some new version of forced

The History of Native Americans in Arizona

assimilation, for example - seems unlikely. U.S. Native policy seems finally to have found itself."

Let us sincerely hope so!

Chapter 7

The Remarkable Staples Rug

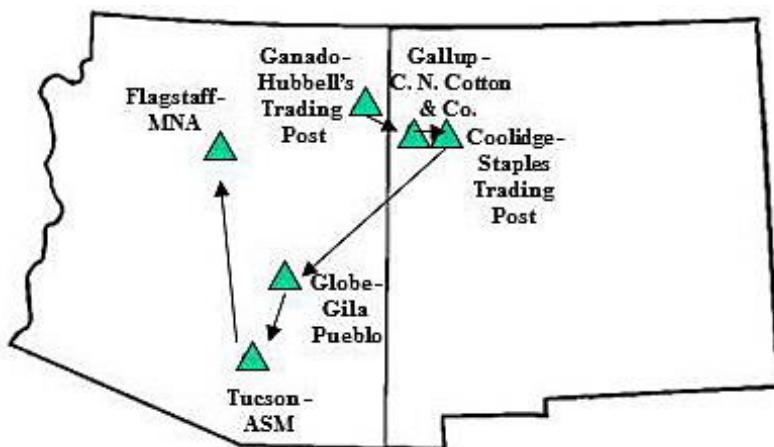
The Staples rug is the earliest known and certainly the oldest surviving two-faced (different pattern on each side) Navajo weaving in existence. Given that it is also one of the largest rugs ever woven, the Staples rug is truly a Southwestern textile treasure. Produced between 1885-1890, the Staples rug is today part of the Navajo textile collection at the Museum of Northern Arizona in Flagstaff, Arizona.

This article first provides a short history of Navajo weaving and then introduces the Staples rug and how it might have been produced. The article then traces the century-plus history of the Staples rug, from its probable origin at Hubbell's Trading Post in Ganado, Arizona, through its subsequent ownership by trader and wholesaler C. N. Cotton in Gallup, New Mexico, to trader Berton Staples in Coolidge, New Mexico, to archaeologist/collector Winifred Gladwin in Globe, Arizona, to the Arizona State Museum in Tucson, Arizona, and finally to the Museum of Northern Arizona in Flagstaff, Arizona.

Snapshot of Navajo Weaving History

According to Dr. Joe Ben Wheat, noted anthropologist and Navajo weaving expert, in a 1992 article "Early Navajo Weaving," "It is probable that the Navajo learned to weave sometime around 1650." By 1706, "They were weaving enough cloth for their own needs and to provide a surplus for trade." The Navajo learned to weave on upright looms from

The Remarkable Staples Rug



In its century-plus history, the huge Staples rug has traveled almost 700 miles around the states of Arizona and New Mexico. (Map by Bob Ring)

Pueblo Indians, who fled into Navajo sanctuaries following their revolt against the Spanish in New Mexico in 1680. During the Classic Period (1700-1850), crude clothing (for personal use) was the main weaving product - dresses, shirts and breechcloths, shoulder blankets, leggings, belts, hair cords, and ponchos. There was some trade in wearing blankets with the Spanish in the 1700s. Later in the period, Spanish enslavement of some Navajos produced "slave blankets," wearing blankets with a strong Mexican influence. In the Late Classic Period (1850-1863), a popular shoulder wrap for men, called the Chief Blanket, the serape, and the poncho serape were the major products. This period was characterized by experimentation in design and pattern, greater technical excellence in spinning and weaving, and import of European cloths and yarns to obtain certain bright colors, e.g., bright red from bayeta cloth.

This golden age of Navajo weaving, was interrupted in 1863, when, after many years of skirmishes with the U.S. Army, the Navajo were defeated, and the Navajo people were imprisoned, 300 miles from their homeland in northeastern Arizona, at Bosque Redondo, near Fort Sumner, on the

The Remarkable Staples Rug

Pecos River, in New Mexico. Deprived of natural wool, Navajo weavers were given man-made yarn to make blankets for sale. After a treaty with the U.S. in 1868, the Navajo were released from captivity, returned to their homeland - now the Navajo Reservation - and started rebuilding their sheep flocks and wool supply.

At the beginning of the Transition Period (1868-1890), Navajo weavers were introduced to commercial yarn, which produced an explosion of color in their weavings. European cloth imports were replaced by Germantown yarn, a coarse three or four-ply aniline-dyed yarn, manufactured in western Pennsylvania.

A second major influence on Navajo weaving during the Transition Period was the Indian trader. By the late 1870s, government licensed traders were setting up shop all across the reservation and promoting regional styles of weaving and new designs that would appeal to a broader market. In 1882 the Atlantic and Pacific transcontinental railroad reached across the southern edge of the reservation from the East, increasing the supply of commercial yarns and chemical dyes to the Indian traders who supplied these items to the Navajo. A new market for Navajo weaving was created by the traders who constantly coached the weavers on Anglo preferences in pattern, color, size, and quality of textiles. The main weaving product during this period “transitioned” from blankets for personal use to rugs - heavier and larger weavings. Germantown yarns weren’t pushed as hard by the traders, and the weavers turned back to handspun wool.

Two-faced weaving is regarded as a technical innovation of the Transition Period. Kate Peck Kent, in her book *Navajo Weaving: Three Centuries of Change*, offers the following description: “The weave produces a blanket or rug with entirely different patterns on its two surfaces. The work surface usually exhibits a complex tapestry design, and the underside a pattern of simple stripes.”

The two-faced weave was first reported (and named) by anthropologist Washington Mathews in 1900. Based on several trips to the Navajo

The Remarkable Staples Rug

country and careful questioning of Thomas W. Keam, well known trader from Keam's Cañon, Mathews concluded that the first two-faced weaving was accomplished in about 1893. Other expert opinions on the year of the first two-faced weave, listed in chronological order of publishing their opinions, include Charles Amsden, 1885 and Kate Peck Kent, 1875.

The origin of the two-faced weave among the Navajo is not clear. According to Kate Peck Kent, "It is not a process known to the Pueblo people, either prehistorically or historically. It is familiar, however, to Anglo-American handloom weavers and may have been taught to Navajo women by one of them." Other possibilities include teachings by Spanish Colonial weavers, who practiced a form of double weave, or independent invention by Navajo weavers themselves.

Introduction to the Staples Rug

The Staples rug measures 18 feet, 4 inches long by 12 feet, 2 ½ inches wide. Side A is patterned with two red, orange, green, black, and white concentric crosses on a rectangular gray ground. A solid red cross appears between the crosses and at the center of each cross. Orange and green zigzags radiate from the crosses. The design is framed by a solid red border. Side B is patterned with groups of orange, red, and black stripes on a white background.

Trader Juan Lorenzo Hubbell

Juan Lorenzo Hubbell was born in 1853 in Pajarito, New Mexico. He was the son of James Lawrence Hubbell, a native of Vermont, whose parents were English, and Juliana Gutierrez, the daughter of a proud old Spanish pioneer family.

According to Frank McNitt, author of the well-known and respected *The Indian Traders*, Hubbell bought what was to become the Hubbell Trading Post in 1878. The post was located along the Pueblo Colorado (Spanish for "Red Town") River, near the town of Ganado. In the early years, the post was known as the Pueblo Colorado Trading Post.

The Remarkable Staples Rug



The two-sided Staples rug, woven between 1885 and 1890, measures 18 feet, 4 inches long by 12 feet, 2 ½ inches wide. (Courtesy of Museum of Northern Arizona, Photo No's. 33966 and 33967)

The Remarkable Staples Rug

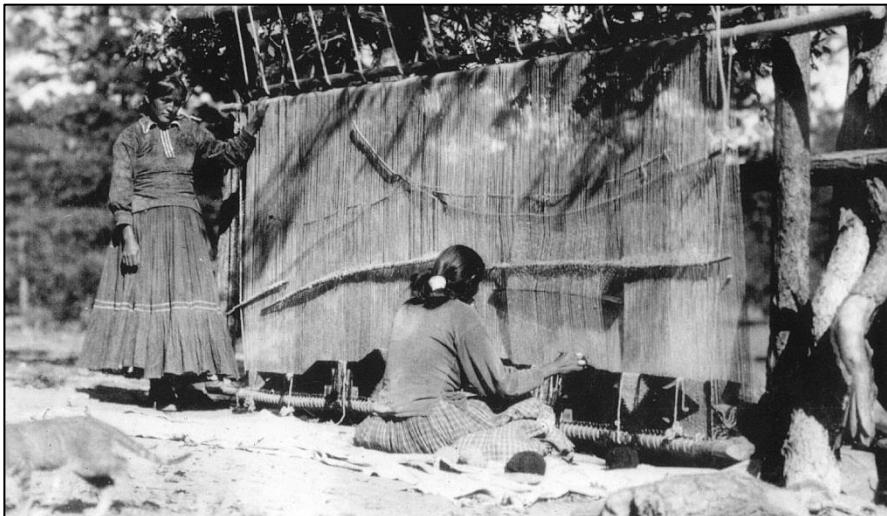
In order to understand the environment in which the Staples rug was sponsored and produced, let's look at the relationship of Juan Lorenzo Hubbell and C. N. Cotton. On September 23, 1884, needing help to run his trading post, while he fulfilled a second job as Sheriff of Apache County, Hubbell sold a half interest in the post to Cotton. Apparently wanting to devote more time to politics, Hubbell sold Cotton his remaining half interest in the trading post on June 22, 1885. A number of letters written by Hubbell or Cotton, dated June and July, 1885, informed customers, suppliers, and government offices that Cotton had purchased Hubbell's interest in the trading post. (Hubbell Papers) While Cotton concentrated on trying to expand the market for Navajo textiles, Hubbell continued to work at the trading post, energetically trying to improve the design, colors, and quality of the Navajo weavings. In a letter to the Oregon City Manufacturing Company on May 28, 1889, Cotton announced his intention of opening a warehouse in Gallup, New Mexico, almost 50 miles east of the trading post, for the purpose of wholesaling Navajo textiles. By the early 1890s, Cotton had moved to Gallup permanently to develop his wholesale business. And in the words of David M. Bruge, former curator of the Hubbell Trading Post National Historic Site, "In 1895 Cotton sold the Ganado post back to Don Lorenzo, who had probably managed the store since Cotton's move to Gallup."

In their book on Navajo weaving traditions, authors Alice Kaufman and Christopher Selser express the opinion that, "Juan Lorenzo Hubbell became the best-known trader in the Southwest as well as the one who had the greatest early influence on the development of the twentieth-century regional style." Kate Peck Kent gets a little more specific: "He insisted on excellence in weaving, and also sponsored the production of exceptionally large rugs and of special order rugs in odd sizes." Though he offered native wool blankets by the pound, from \$0.75 to \$2.50, in a 1902 catalog, Hubbell also advertised individual rugs from 2 $\frac{3}{4}$ feet by 3 $\frac{3}{4}$ feet for \$9, up to 12 feet by 12 feet square for \$150.

So where and when did the idea to use blankets as rugs originate? One data point is a letter from C. N. Cotton, dated November 2, 1887, in which

The Remarkable Staples Rug

Cotton is talking about “Navajo Indian blankets which can be used as rugs.”



The Staples rug, like the huge rug in this photo, was undoubtedly woven outdoors on an oversized loom, probably strung between trees. (Courtesy of Museum of Northern Arizona, Staples Family Album, Photo No. MS 22-14-43)

As reported in Kaufman and Selser’s book, “In fact, oversize rugs, rugs made to order in sizes larger than five by seven feet (too large and heavy to use anywhere but on the floor) were a specialty of Hubbell’s. The designs of these rugs were not revivals of Classic Period designs but rather the incorporation of Classic Period design elements (crosses, terraced diamonds, and stripes) into a bordered rug pattern that was somewhat Oriental in appearance and complexity.” These rugs were typically red, black, gray, brown, and white and very popular with the Anglo buying public.

Writing in *Navajo Rugs: Evolution of the Ganado Style 1890-1920*, authors Joann Boles and Lois E. Dickey summarize Hubbell’s business approach: “Hubbell maintained the rug business, his best business, by paying weavers for high standards, patronizing good customers, advertising extensively, and establishing a network of influential and helpful business acquaintances.”

The Remarkable Staples Rug

The weaver (or weavers) who produced the Staples rug is unknown. Moreover the exact year the rug was completed (it may have taken more than one year to weave) is also not known with certainty. Referring to the origin of the Staples rug, Gladys Reichard, writing in *Navajo Shepard and Weaver*, says it "may have been made as early as 1886." Also referring to the Staples rug, Kate Peck Kent wrote in *The Navajo Weaving Tradition - 1650 to the Present*: "One outsized rug, woven at Ganado, probably in 1895 and now in the collection of the Museum of Northern Arizona, is a two-faced weave measuring twelve by eighteen feet."

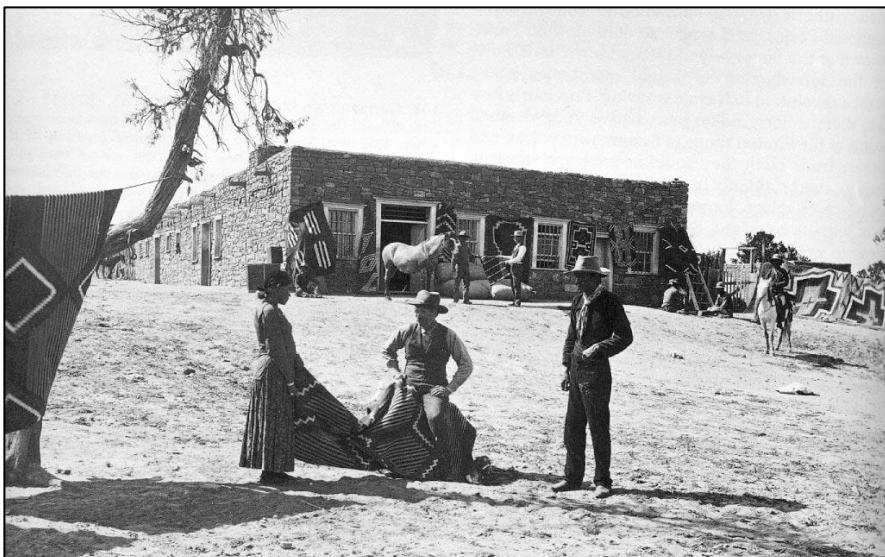
But, according to Navajo weaving expert, Charles Avery Amsden, writing in his milestone book *Navajo Weaving - Its Technic and History*: "My own investigations carry this weave back to about the year 1885." Amsden's sources for this date were none other than Berton Staples, who when interviewed by Amsden in the early 1930s, was then the owner of the two-faced Staples rug, and C. N. Cotton, the previous owner of the rug. Cotton was sure of the approximate date of 1885, "because it was made about the time the Atlantic and Pacific Railroad (now the Atchison, Topeka and Santa Fe) reached Gallup. That was in 1882." Later in his book Amsden says: "The largest piece of Navajo weaving known to me is the two-faced rug owned by Mr. B. I. Staples."

Charles Amsden, in 1934, was the first person to report on the existence of the amazing two-faced rug. Since B. I. Staples was the owner of the rug at the time, the name "Staples rug" has been used subsequently to identify the weaving.

We can further narrow the window for the origin of the Staples rug. Famed western and Native American photographer, Ben Wittick, took a well-known photo of Hubbell's Trading Post, where the Staples rug can be seen in the upper right background of the photo, hanging on a very tall fence or propped up on a huge frame. In a careful review of the Hubbell Papers at the University of Arizona, I noticed that Hubbell's stationary letterhead, starting on a certain date, and for many years thereafter, included this Ben Wittick image of Hubbell's Trading Post, including the Staples rug in the background. The first Hubbell letter to carry this

The Remarkable Staples Rug

unique letterhead was dated May 14, 1890 and addressed to C. N. Cotton & Company in Gallup, New Mexico for the purpose of ordering goods. So we can be confident that the Staples rug existed at Hubbell's Trading Post in 1890. And that this is about the time that C. N. Cotton was shifting his operations to Gallup, leaving the Staples rug "hanging on the fence" so to speak.



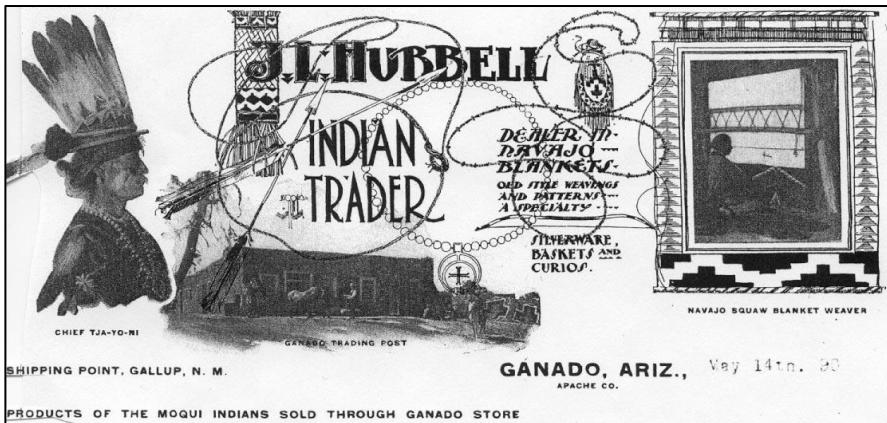
The Staples rug is seen hanging on a fence in the background to the right of Hubbell's Trading Post in this photo by famed photographer Ben Wittick. Juan Lorenzo Hubbell is seated in the foreground examining a rug held by a Navajo woman. (Courtesy of Museum of New Mexico)

Trader/Wholesaler C. N. Cotton

Clinton Neal Cotton was born on April 12, 1859 on a farm in central Ohio. As told by Cotton's grandnephew and biographer, Lester L. Williams, M.D., in 1881, at the age of 22, Cotton headed west and became a telegraph operator for the Atlantic and Pacific Railroad. Cotton first worked at Guam, then the end of the westward building track, 138.8 miles west from Albuquerque, New Mexico. A short time later, the track was ten miles further west at Wingate, only about 10 miles east of Gallup,

The Remarkable Staples Rug

and Cotton was moved there to operate the railroad's telegraph. At some time during this period, Cotton met and befriended Juan Lorenzo Hubbell, already established at his Pueblo Colorado Trading Post, about 55 miles west in Arizona Territory.



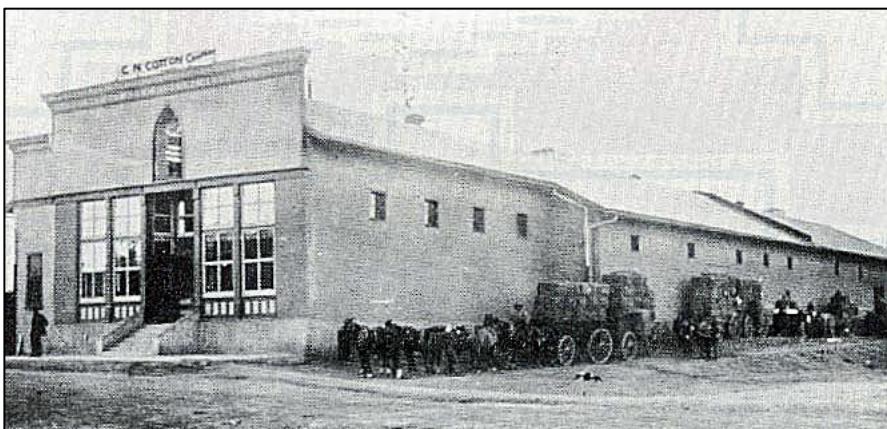
A Ben Wittick image of the Staples rug first appeared on J. L. Hubbell's stationary letterhead on May 14, 1890. (Source: ASM Special Collections, Hubbell Papers, Box 95, Hubbell Correspondence 1878-1909)

Less than three years later in 1884, C. N. Cotton was Hubbell's partner and owned half of the Pueblo Colorado Trading Post. According to Frank McNitt, "Although he had no previous experience as a trader, he had an unusual aptitude that was soon widely felt." Cotton influenced the trading post business in two key areas. First he became a disciplined businessman and over the years (mostly unsuccessfully), according to David Bruge, "would admonish Hubbell to pay less attention to politics and more to accounting, to be less generous when buying rugs, to supervise his workers more strictly, or to be more prompt in filling orders." Second, as McNitt relates, "C. N. Cotton was one of the first to realize the potentials of a large eastern market for Navajo rugs, and his efforts in this direction, starting about 1890 ... probably were the greatest influence."

So as established earlier, by the early 1890s, Cotton was in Gallup permanently and by 1895, had sold the trading post back to Hubbell.

The Remarkable Staples Rug

Juan Lorenzo Hubbell continued to own and operate the trading post until his death in 1930.



The C. N. Cotton Company was incorporated in Gallup, New Mexico in January 1903. (Courtesy of Aranyu Publishing, Inc., C. N. Cotton and His Navajo Blankets)

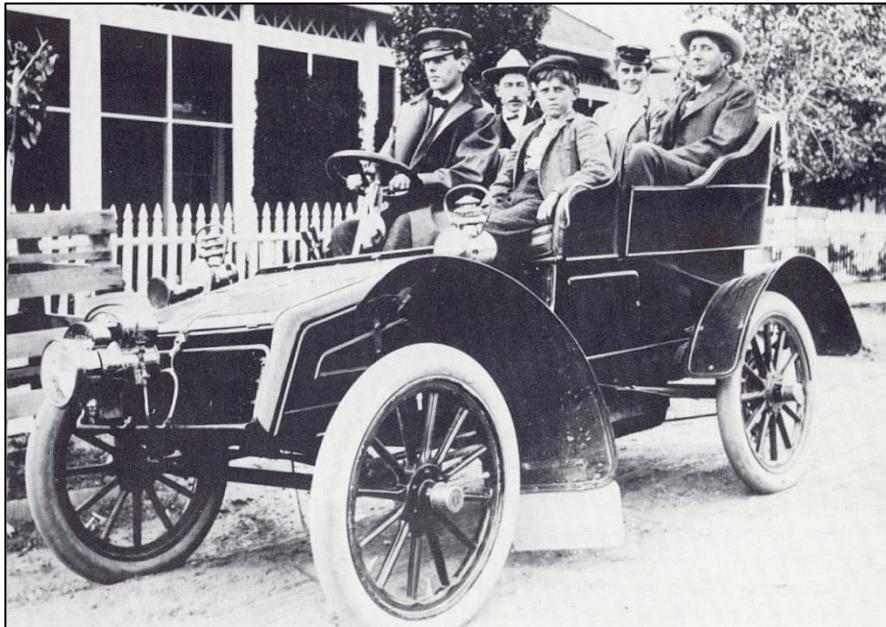
By 1901 Cotton had his own Gallup store stationary with the letterhead announcing: "C. N. Cotton - Indian Trader and Wholesale Dealer in Indian Traders' Supplies and Navajo Blankets." The earliest such letter found in the Hubbell Papers was dated March 24, 1901, and addressed to "Friend Lorenzo."

Hubbell and Cotton remained close friends and business associates for many years. The C. N. Cotton Company was incorporated in Gallup in January 1903. Cotton's business grew steadily and Cotton himself became a prominent Gallup businessman. In effect, Cotton acted as Hubbell's agent for Navajo rugs.

There is no specific record of how or when the Staples rug became the property of C. N. Cotton and was moved from Hubbell's Trading Post to Gallup. However, according to Lester Williams, "While C. N. Cotton and J. L. Hubbell were always close friends and associated in enterprises, Hubbell ran up a considerable debt to the C. N. Cotton Company and on February 6, 1918 turned over to the C. N. Cotton Company a stock of

The Remarkable Staples Rug

merchandise ... to satisfy a debt." This could have been the action that transferred the Staples rug to C. N. Cotton.



C. N. Cotton's and Gallup's first automobile. C. N. Cotton and his wife Mary Alice are seated in the rear seat - 1904. (Courtesy of Aranyu Publishing, Inc., C. N. Cotton and His Navajo Blankets)

According to McNitt, speaking of the Staples rug, "it was eventually acquired by Cotton. For years the rug remained on the floor of Cotton's home in Gallup, but a table leg finally frayed a hole in it. Cotton sent the rug off to Coolidge, where his trader friend Berton I. Staples offered to have it repaired. Staples for some reason retained possession of the rug." Williams adds the tidbit that the rug was used "on the floor of the dining room in the Cotton home."

In April 1934, C. N. Cotton became ill and he ceased all trading. Cotton died on September 20, 1936.

Trader Berton I. Staples

Berton I. Staples came west from Vermont in 1926 and settled in the Wingate Valley, a mile west of old Guam, where C. N. Cotton had worked as a telegraph operator more than 35 years previously. According to McNitt, Staples built "a trading post - a sort of pueblo style palace - using for the foundations the same stones" that others, including the prehistoric *Anasazi* had used there before, many years ago. "With no thought at all to the locality's past names, but with a Vermonter's admiring nod to the man then in the White House, Staples named the place Coolidge. ... Staples' building had a long running porch of upright posts and horizontal vigas separating two adobe rooms each measuring 25 by 50 feet. An extension of the open porch and a third room of some grand dimensions were added, to the east, with funds and encouragement provided by the well-known archaeologists Harold and Winifred Gladwin. From their Gila Pueblo headquarters at Globe Arizona, the Gladwins came to Wingate Valley for archaeological research, based their operations at Staples post."

Another view of Staples' background and establishment in Coolidge, is provided by the son of avid southwest art collectors, Mr. and Mrs. Charles de Young Elkus, who visited Staples' Trading Post annually, from the east, for many years: "There was a wonderful man named Berton I. Staples who had come west for his health. He had been a dress designer in New York. When he came I do not know, but in 1926, he was well established. He established a trading post on Highway 66 at Coolidge, New Mexico, which he called Crafts del Navajo."

According to McNitt, Staples and his fabulous trading post drew "interesting personalities - artists, writers, and Hollywood actors - who for one reason or another stayed with him summer after summer as paying guests. Among these visitors were Alma Wilmarth Ickes, wife of Secretary of the Interior, who wrote *Mesa Land* at Coolidge; Malvina Hoffman, the sculptor and writer of *Heads and Tails*; Gladys Reichard, who wrote *Spider Woman* there; and the novelist and short story writer, Gouverneur Morris."

The Remarkable Staples Rug



Berton Staples poses with three Navajos in front of Staples' Crafts Del Navajo trading post. (Courtesy Museum of Northern Arizona, Staples Family Album, Photo No. MS 22-14 -33c)

One of the examples of Navajo art that Staples must have loved to show his guests was the Staples rug. The rug was used for many years on the floor of Staples' living room.

Staples retained possession of the rug until his death in an automobile accident in the fall of 1938. When Staples died, he was in debt to the Gladwins for "a large sum." So the Gladwins took his "large collection of magnificent historical blankets" to the Gladwin's Gila Pueblo headquarters in Globe, Arizona.

After Staples' death in 1938, his trading post was bought and operated by others for many years. Finally, in 1955, a fire destroyed the old building. Today, Coolidge Exit 44 on Interstate 40, east of Gallup, New Mexico is still there, but virtually nothing remains of the old town.

The Remarkable Staples Rug



Mrs. Berton Staples pulls back a corner of the Staples rug, hung on a huge frame at Staples Trading Post. (Courtesy of Gladys Reichard, Navajo Shepherd and Weaver, Plate XIIb)

Archaeologist/Collector Winifred Gladwin

Gila Pueblo was a private institution devoted to archaeological research. Construction had started in 1928, but it wasn't until 1936 that the nonprofit organization was incorporated. The organization's primary objective, as stated in its Articles of Incorporation, was: "To promote means for study of archaeology and anthropology and research concerning these subjects and to publish the results of such study and research."

Harold S. Gladwin was the co-founder of Gila Pueblo and Director of the institution throughout its existence, until it closed in 1950. Gladwin was born in 1883 in New York City. After a short experience in cattle ranching, and a 20-year career as a stockbroker, Gladwin moved west to Santa Barbara, California in 1922. Here began his keen interest and

The Remarkable Staples Rug

involvement in the natural sciences. Soon Gladwin was helping to excavate archaeological sites in Texas and New Mexico, and by the late 1920s was busy with Gila Pueblo in Globe, Arizona. Gladwin was the driving force behind the Gila Pueblo. According to former ASM Director Emil Haury, who worked for Gladwin at Gila Pueblo from 1930 to 1937, “His mental energy and breadth of outlook ... were mind boggling.” For over 20 years Gladwin and Gila Pueblo attracted important scholars and researchers.

Winifred Jones MacCurdy became Winifred Jones Gladwin by marrying Harold Gladwin in 1933. Prior to that, she had participated in the early development of Gila Pueblo. According to Haury, “When the early construction of the modern Gila Pueblo ran into trouble, it was she who took over and directed the work to be done. Although not an architect or an engineer, she could and did bring to the operation the touches that spelled the difference between austerity and clumsiness of space and the ideas that made for a cozy and functional working environment. Furthermore, it was her resources that made the accomplishment possible.” She was Harold Gladwin’s behind the scenes inspiration and stabilizing force.

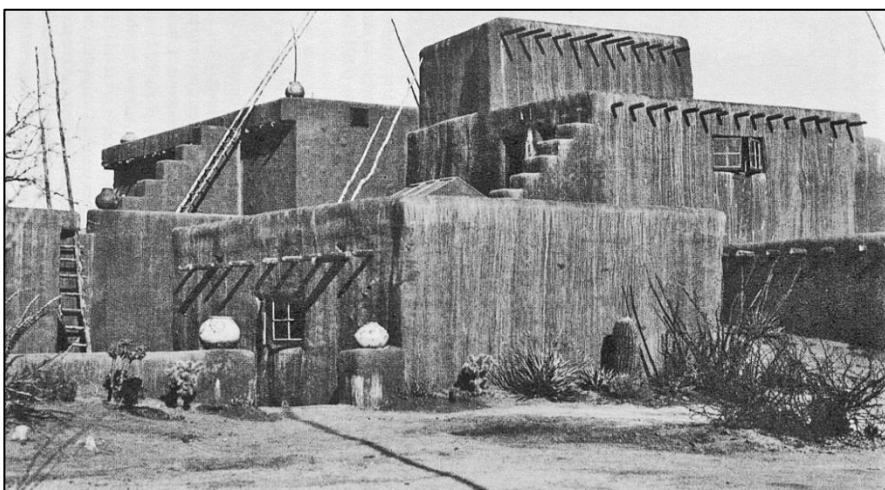
By the mid-1930s Gila Pueblo had grown to a three-story sprawling structure, with 40 rooms on the ground floor, mostly offices and laboratories, and apartments for the researchers on the upper floors. According to Haury, “By all odds, the most splendid and largest room of all was the council hall. It measured some 30 feet by 45 feet and had a high ceiling.”

After Berton Staples death in 1938, his magnificent oversized, two-faced rug was taken to Gila Pueblo, where it was used at the center of the floor of the huge council hall. The Staples rug and other fine pieces from Staples’ Crafts del Navajo became the core of Winifred Gladwin’s remarkable Navajo textile collection.

By 1950, according to Haury, “the loss of professional staff and the erosion of Gladwin’s own excitement about supporting and managing an

The Remarkable Staples Rug

institution" led to the closing of Gila Pueblo Archaeological Foundation. The collections and furnishings of the institution were transferred to the Arizona State Museum at the University of Arizona in Tucson, where Emil Haury, the Gladwins' former colleague and friend was Director. Although Mrs. Gladwin's personal collection of fine Navajo textiles was taken to the Gladwin home in Santa Barbara, California, the Staples rug was included in the gift to the University of Arizona with the rest of the Gila Pueblo collections.



East Entrance of Gila Pueblo - about 1935. (Courtesy of Arizona State Museum, ASM Negative No. 73207)

After the closing of Gila Pueblo, the Gladwins went back to Santa Barbara, where they stayed active with local museums and the Santa Barbara Botanic Garden. After many years of ill health, Winifred Gladwin died in 1965. Harold Gladwin died at age 99 in 1983.

The Gila Pueblo facility has had several owners since the Gladwins' departure. In 1952, the National Park Service took the facility over and used it as the headquarters of Southwestern National Monuments. Later the facility became the National Park Service's Western Archeological Center. In 1972, Eastern Arizona College acquired the property and

The Remarkable Staples Rug

established a Gila Pueblo campus. Today, Gila Pueblo Campus survives as a public, two-year undergraduate school.

Arizona State Museum

In 1958, following the donation of her valuable textile collection to the Museum of Northern Arizona, Mrs. Gladwin requested that the Staples rug be transferred to Flagstaff to join the rest of her collection. Because of a State of Arizona regulation that state property cannot be given away, the Staples rug was loaned to the Museum of Northern Arizona on a permanent basis.

Museum of Northern Arizona

The Staples rug was transported to Flagstaff on February 17, 1959. It now forms an important part of the Gladwin collection at the Museum of Northern Arizona. The most recent display of the Staples rug by the Museum was in 2004.



The Staples Rug was last displayed at the Museum of Northern Arizona in 2004. (Courtesy of Bob Ring)

Chapter 8

A Century of Arizona Postcards

Postcards have been around in America since the mid-1800s, starting out mostly as advertising or souvenir cards. The U.S. issued its first official postal card in 1873. One side was reserved exclusively for the address, the other for a message, and it cost a penny to mail regardless of distance. The first divided back postcard was issued in 1907, allowing for the address and message on one side, leaving the other side available for a picture. Over the years, advancements in photography and printing permitted better and better images through today's brilliantly-colored picture postcards. Postage rates gradually increased from one cent to today's 35 cents.

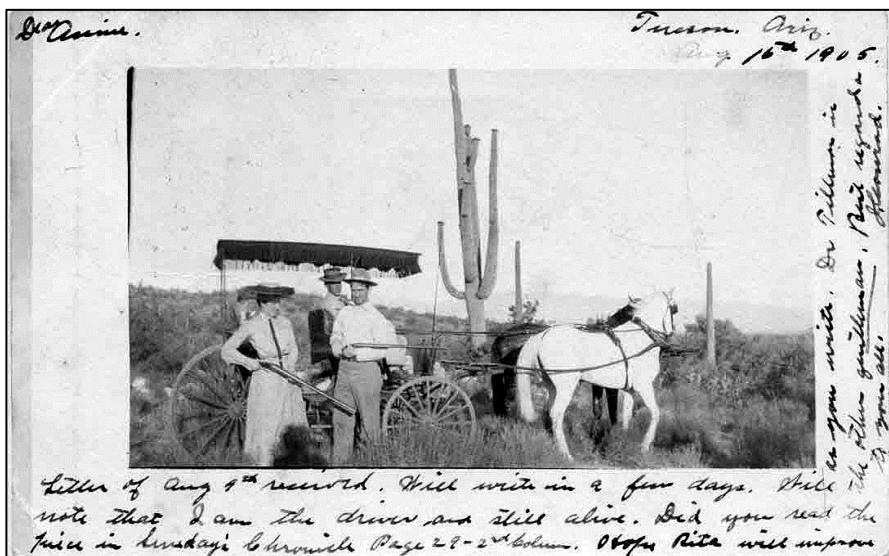
Postcard Types

Real Photo Postcards (1899-1930s) were made possible on a large scale by George Eastman, of Eastman Kodak Company fame, who developed the simple, easy to use Kodak camera that produced black and white images to fit postcards, plus a photo developing process that enabled many people to make their own postcards.

White Border Postcards (1913-1930s) are somewhat of a misnomer. Some of them indeed have white borders, due to production printing on large sheets, cut down to sizes afterwards, where white borders were forgiving to small miscuts. Some companies, with more skilled workers,

A Century of Arizona Postcards

did not use borders. Postcards from this period were often printed in tinted halftones (color), after transferring a photograph to a printing plate.

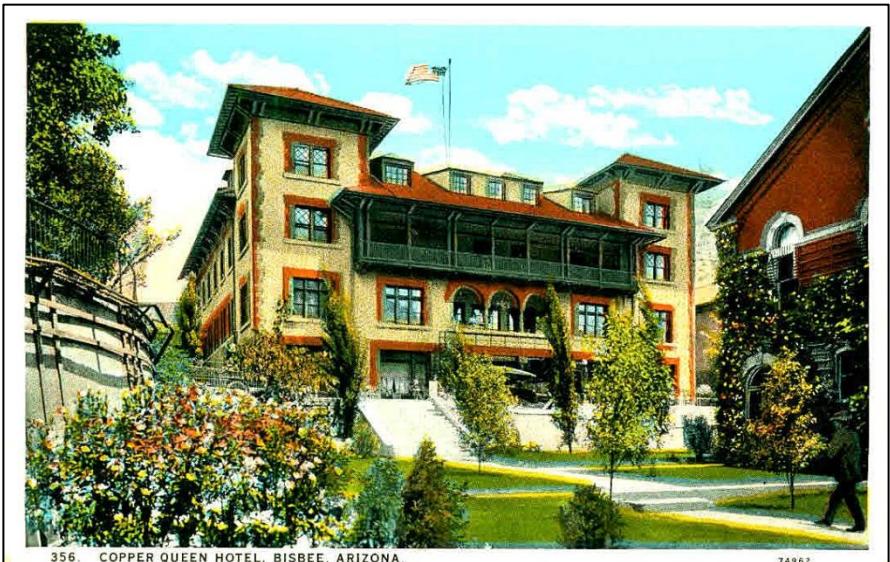


This real photo homemade postcard is postmarked August 16, 1905 - sent from Tucson to San Francisco with one cent postage. Front of card is reserved for address only. Writing at bottom of photo includes phrase, "Note that I am the driver and still alive." Picture shows two people holding large guns. (Postcard courtesy of Al Ring)

Linen Postcards (1931-1959) used new color dyes for image coloring on postcards with a linen texture to speed drying time. The images were based on photographs but sometimes contained handiwork of the production artists.

Photochrome Postcards (1939-present), sometimes called chromes, were made possible with the development in the 1930s of Kodachrome, the first high quality, multilayered, color slide film, and the parallel development of halftone offset lithography. Chrome postcards approach the clarity of color photographs, with color quality improving continuously since the 1930s.

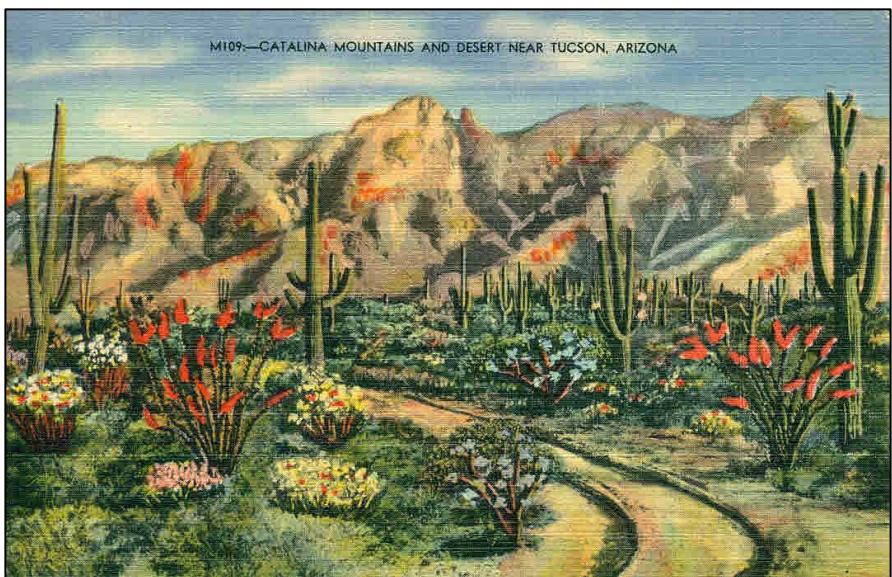
A Century of Arizona Postcards



356. COPPER QUEEN HOTEL, BISBEE, ARIZONA.

74962

*This white border postcard shows Bisbee's famous Copper Queen Hotel.
(Postcard courtesy of Al Ring)*



M109—CATALINA MOUNTAINS AND DESERT NEAR TUCSON, ARIZONA

*The Catalina Mountains and desert near Tucson are highlighted in this linen postcard.
(Postcard courtesy of Al Ring)*

Collecting Postcards

My brother Al Ring began collecting Arizona postcards in the early 1990s while living in Louisville, Kentucky and dreaming of retiring to Arizona. He frequented postcard conventions and dealers in places like Louisville and Evansville, Kentucky; Indianapolis, Indiana; and Cincinnati, Ohio. Slowly, he built up one of the largest private collections of Arizona postcards around.

Al moved to Arizona in 1998 and just kept on collecting, noting that prices in Arizona were higher than in the Midwest. Al's latest count is 19,322 Arizona postcards, on every conceivable subject relating to Arizona, including cards from the early 1900s through today. Early on he emphasized collecting cards on Bisbee and its suburbs Lowell and Warren.

Al stores his postcards in 15 large cardboard boxes, each box over two feet long and six inches wide, and each card encased in a plastic sleeve. He built a humongous Excel spread sheet to keep track of them.

In 2005 Al and I decided to share our research and writings about Arizona history on a website. That's where you can find half of Al's postcards: about 2,550 real photo cards; 4,460 white border cards; and 1,715 linen cards - along with a detailed list of subject contents. The cards are carefully organized by category, several to a page. The direct link is: <http://www.ringbrothershistory.com/alsprojects/alscollection.htm>.

Al's collection also includes about 7,450 photochrome cards and 3,110 modern postcards, but these are not currently on our website.

In order to get a postcard image to our website, Al has to scan each card individually - something he has done now almost 9,000 times.

Happy viewing!

Chapter 9

Warren Arizona - The City Beautiful

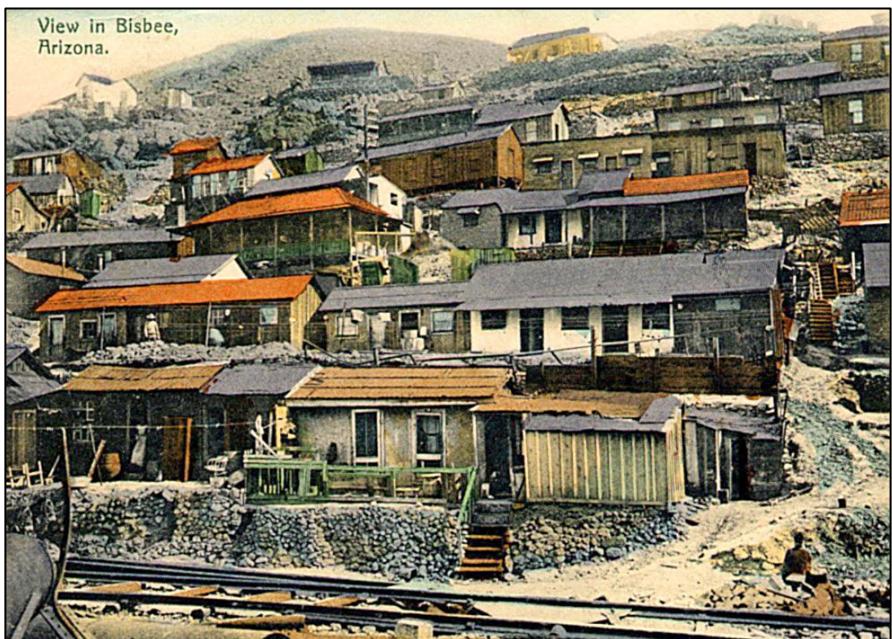
Why Warren?

Something had to be done!

By 1905, Bisbee, Arizona, the “Queen of the Copper Camps,” was grossly overcrowded with a population of over 10,000 persons. The hillsides above Brewery Gulch and Tombstone Canyon were crowded with ramshackle wooden shacks, lined up one above the other. As Carlos Schwantes reports, in *Bisbee, Urban Outpost on the Frontier*, “Long flights of almost vertical wooden stairs, winding dirt paths, twisting trails, and tortuous streets connected the mines, homes, and business sections.”

Bisbee suffered from repeated calamities of floods, fires, and epidemics. Sewage ran freely everywhere. Garbage and animal carcasses littered the streets. Burned black powder, sulfurous smelter fumes, and wood smoke added to the pervasive, pungent odors. There was constant noise from round-the-clock mining operations, including rock crushers, explosions of dynamite, steam hoists, and railway locomotives. The upper end of Brewery Gulch housed Bisbee’s red-light district, an area of whorehouses, dance halls, gaming parlors, and saloons. This area was notorious for robbery, assault, and drug use. Overcrowded schools and inadequate parks contributed to poor living conditions for miners and their families.

Warren Arizona - The City Beautiful



Bisbee in the early 1900s offered poor living conditions for copper miners and their families. (Postcard courtesy of Al Ring)

To make things worse, Bisbee desperately needed to grow because copper mining operations were expanding and the mining population was increasing rapidly. The copper ore body was trending to the south, so mining needed to expand to the south. Because of the natural lay of the Mule Mountains, the only opportunity for residential growth was also to the south, but it didn't make sense to build over the ore body. So it looked like the best choice was to "leap frog" the ore body and expand the town at a remote site further to the south.

Another determining factor was the intense competition for employees among Bisbee's mining companies. One of those employers, the Calumet and Arizona (C&A) Mining Company, wrote in their 1906 Annual Report: "It has been found imperative in order to retain the best class of employees that a desirable place be provided where they can build and own homes."

The “City Beautiful” Movement Provides a Vision for Warren

So the C&A Mining Company set out to develop an entirely new town! And while they were at it, they wanted to provide improved living conditions by incorporating the latest city planning principles, technology, and development approaches. C&A management thought that the national “City Beautiful” movement might provide an appropriate model for their new town.

Across America in the early 1900s, there was rampant industrial growth with accompanying urbanization, as in Bisbee. America’s cities were suffering from overcrowding, deterioration and unsanitary conditions. An urban reform movement sought to improve moral and civic virtue by beautifying cities. This City Beautiful movement was the beginning of comprehensive city planning in the United States. The City Beautiful became the common ideal that combined a range of goals and aesthetics into the single concept that cities were more than merely commercial necessities, but that they could be an effective social control device and that they could be *beautiful*.

The first practical City Beautiful models were the *Plan for Washington D.C.* and the comprehensive *Parks and Boulevards Plan for Harrisburg, Pennsylvania*. These plans, created by Warren Henry Manning, came to public attention in 1902 and inspired the development of a City Beautiful plan to relieve living conditions in Bisbee.

The Warren Townsite Plan and Development

In May 1905 the C&A Mining Company started planning for the new town, to be called Warren, after George Warren (not Warren Henry Manning). George Warren was one of the original discoverers of the fabulous Bisbee copper mines in 1877, namesake of the Warren Mining District, and a most colorful, legendary character of the period.

George Warren was a wanderer, scout, packer, prospector, and owner of mines. In addition, he was undependable in business matters and a notorious drunkard and gambler. Apparently the good outweighed the

Warren Arizona - The City Beautiful

bad, as he was honored with his name attached to both the Warren Mining District and the new town of Warren. George Warren is also the only person whose likeness appears on the great seal of Arizona. For additional information on George Warren, see *Tales from Bisbee's Past*, by Gary Dillard.



The new town of Warren was to be named after the legendary Bisbee miner George Warren. (Postcard courtesy of Al Ring)

Arizona). The idea was to combine comprehensive functional and aesthetic qualities from the City Beautiful concept with the critical characteristics of a mining company town: affordable housing, sanitary conditions, a good water supply, and recreational and educational opportunities.

C&A organized the Warren Realty and Development Company (known as the Warren Company), raised \$900,000 through issuance of stock, and started planning for a townsite. Warren was to be located three miles southeast of Bisbee, well beyond the anticipated expanding mining area. The site was at the head of a valley that broadened out to the south, on a plain of rolling land and hills. The Company secured 1,000 acres of land for a planned community of 200 homes. This was raw, barren land, on which only a few scrubby bushes grew.

In January 1906 the Warren Company hired Warren Henry Manning to prepare a plan for the Warren townsite. From the beginning, Warren was to be a City Beautiful (the only such town in

Warren Arizona - The City Beautiful

The townsite was laid out in a wedge or fan shape to take advantage of natural drainage. From the center of the fan, wide boulevards reached out symmetrically. To the northeast, steep hillsides required curving, concentric roads, following the topography. This provided access to residential lots commanding a view of the townsite and surrounding countryside. The townsite plan was dominated on the western edge by Vista Park - 2,500 feet long and 160 feet wide, flanked on either side by 60-foot wide boulevards. The park's southern end was to terminate in a broad open "Plaza."

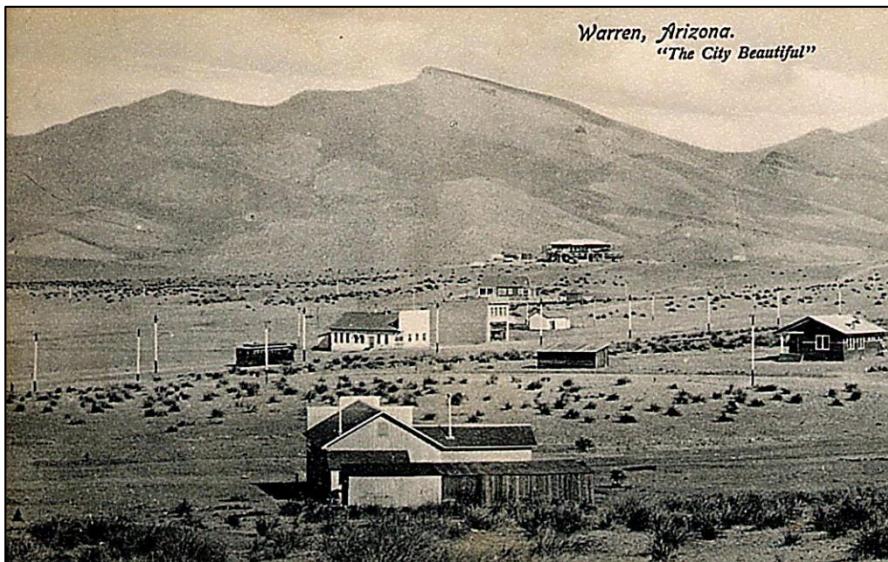


Warren's "City Beautiful" plan featured half-mile long Vista Park and wide boulevards. (Courtesy of Bisbee Mining & Historical Museum)

Warren Arizona - The City Beautiful

Warren's development started officially on October 6, 1906, with a groundbreaking ceremony. On January 7, 1907, after completion of street grading and installation of electrical service, the Warren townsite was officially opened to the public. Marketing of the townsite and the sale of lots were handled by the Warren Company.

The first building constructed in Warren in 1907 was the two-story office building of the Warren Company. Other early important non-residential buildings included the Warren-Bisbee Railway Car Barn (1907) and the C&A Mining Company Office Building (1909). The Warren Baseball Park was also constructed during this early period.



1908 - The newly completed Douglas Mansion is in the right-center background. Below and left of the Douglas Mansion is the two-story Warren Company Building. A trolley can be seen at center left. The white poles strung electric lines to supply power for the streetcars and nearby buildings. View looking northwest. (Postcard courtesy of Al Ring)

A modern sewage and water system were completed in 1907. Water pumped from the Bisbee mines ("copper water") flowed by gravity through a series of pipes, both underground and supported by wooden flumes, to Warren. This provided free irrigation for lawns, gardens, and

Warren Arizona - The City Beautiful

thousands of trees planted throughout the community. To protect against infrequent, but torrential rains, flood channels were dug right down the middle of several wide boulevards, in the direction of the natural drainage.

Miners and their families quickly began populating Warren. Typically their homes were single-family bungalows, costing less than \$1000 to build. A hand-penned deed for a small house built in 1909 sets out the particulars of the sale and Warren's residential building code, as published in the *Bisbee Observer* newspaper:

"Witnesseth: This indenture made the fifteenth day of July in the year of our Lord, one thousand, nine hundred and nine, in the townsite of Warren, County of Cochise, Territory of Arizona, in consideration of the sum of seven-hundred and thirty five dollars does hereby grant, sell and convey this property. Furthermore, neither the said premises nor any part thereof shall be used for a resort of gambling nor for the sale of intoxicating liquors, nor for use as a hog pen, slaughter house or the tanning of hides nor for lewd or illicit activities between men and women.
Signed Jesse Yoakim, Notary Public."

There were 650 residents in Warren at the end of 1910. Vista Park was completed in 1911. A dance pavilion and a community swimming pool were soon built in the park. By 1913 Warren had a population of nearly a thousand people. In 1917 more than 90 percent of the residents of Warren owned their own homes, most paid for through payroll deduction. (C&A mineworkers made \$5-6 per hour between 1915-1920.)

Warren also attracted the managers of the mines. Walter Douglas, general manager of Bisbee's largest copper mining operation, the Copper Queen Consolidated Mining Company (a subsidiary of Phelps Dodge), built a mansion in Warren at the north end of the Vista, atop Black Knob Hill, overlooking the park. The 41-room imposing structure, in a subdued Spanish style, was begun in 1907 and completed in the summer of 1908.

Warren Arizona - The City Beautiful

The red tile roofed mansion was built with small balconies, arches, and relieving holes under the eaves.

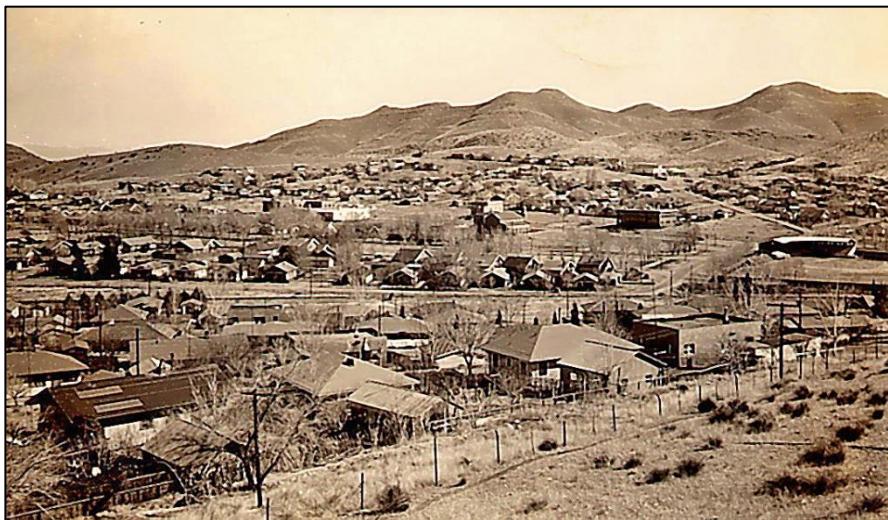
Another mansion of note was completed in the spring of 1909 for Louis W. Powell, then the Vice President and General Manager of the C&A Mining Company. The next occupant of the house, with whom it is associated, was John Campbell Greenway, who became General Manager of C&A in 1910.

In September 1908, the prestigious publication, *The Architectural Review*, featured Warren as “An Ideal City in the West.” The article extolled the original vision for Warren and highlighted drawings of the planned plaza and city buildings, drawing favorable comparisons to examples of European and big-city USA architecture. However, the article also, somewhat pompously, lamented that the “best laid plans” were not being followed and that architectural uniformity and symmetry were lacking. Sounding like a petulant building code czar, the author Huger Elliot decried individuality of architectural expression and asked, “How long are we to allow certain of our citizens to violate the rights of others?”

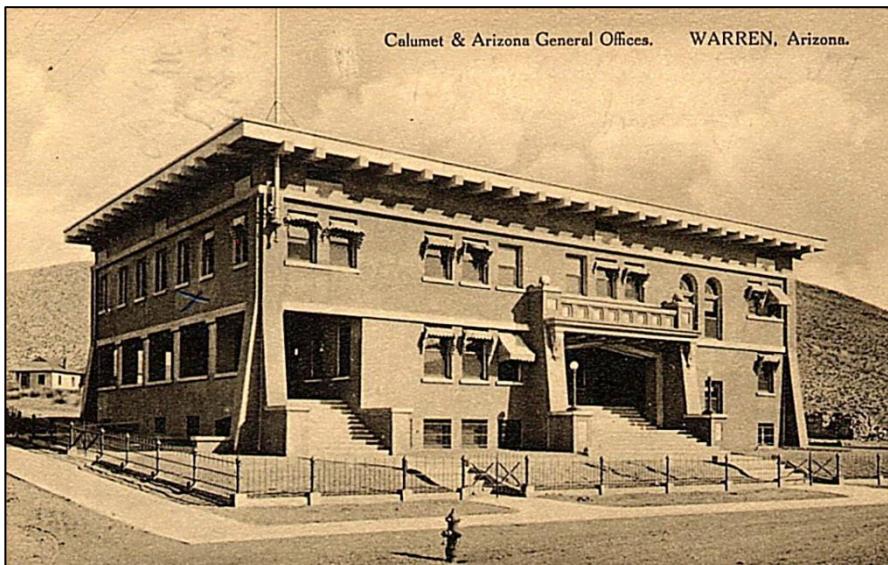
So without strict architectural control, but in true entrepreneurial spirit, Warren’s development continued. It was to be a self-contained community, not dependent on Bisbee. Warren began developing its own commercial district, including a post office, hotel, barbershop, drug store, grocery store, restaurant, bakery, and churches. As the years went by, variety stores, cafés, a movie theater, a car dealer, a gas station with garage, a dry cleaner, an appliance repair store, a beauty shop, a bowling alley, realtors, insurance agents, a doctor’s office, hardware store, and a liquor store were added. There were no bars in Warren.

In 1908 the Warren Country Club was built about three-quarters of a mile south of Warren. The Club offered golf, tennis, rifle shooting, and social activities. Water was not pumped to the Club, so instead of grass greens on the golf course, oil was mixed with sand to provide a smooth putting surface.

Warren Arizona - The City Beautiful



Early 1920s - The Warren Ball Park is seen at center right. The two-story C&A Mining Company Office Building is just left and up from the Ball Park. By this time Warren had about 500 homes. View looking east. (Postcard courtesy of Al Ring)

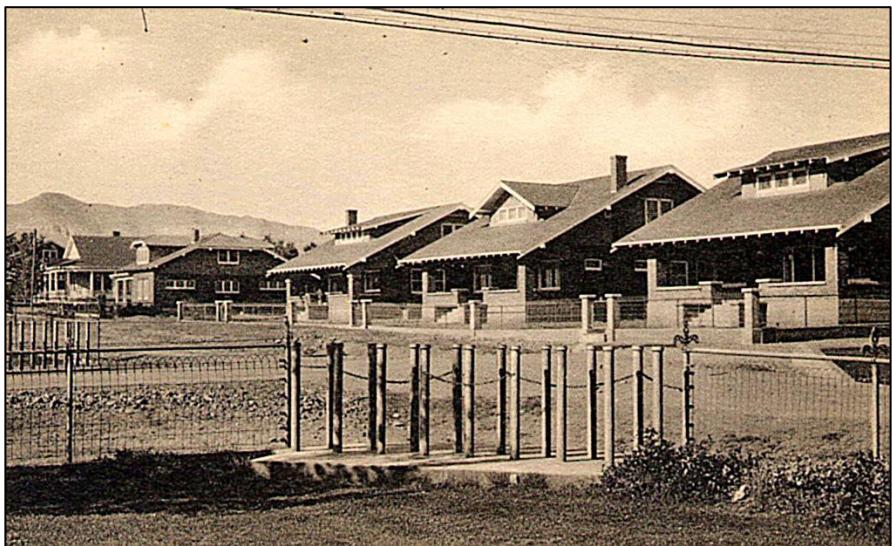


The C&A Mining Company Office Building was one of the first buildings constructed in the new town of Warren. The building was located at the south end of Arizona Street, near the ball park. (Postcard courtesy of Al Ring)

Warren Arizona - The City Beautiful



The C&A Mining Company provided this hospital for the area's mining employees. The hospital was built on a hill at the end of Hillcrest Street in 1918. The hospital closed in 1930 after C&A merged with Phelps Dodge. (Postcard courtesy of Al Ring)



Craftsman bungalow style residential cottages were chosen as the unifying architectural theme to line both boulevards of Vista Park. (Postcard courtesy of Al Ring)

Warren Arizona - The City Beautiful

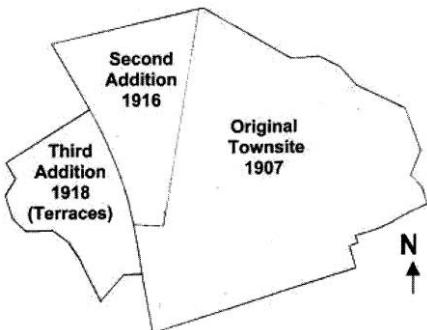


The Greenway mansion fore-shadowed today's rambling ranch houses. There was decorative scrollwork in the fascia board. The masonry work in the structure was highly regarded. (Postcard courtesy of Al Ring)



The Dance Pavilion in Vista Park was a center of Warren social activity. (Postcard courtesy of Al Ring)

Warren Arizona - The City Beautiful



In 1916 Warren's Second Addition (west of Vista Park) was opened. In August 1918 Warren's Third Addition (the Terraces) was opened on the hillsides northwest of the baseball park. (Map by Bob Ring)

By mid-1918, the population of Warren had reached about 2,000 persons. Warren grew quickly with expanding mining operations and by 1922 had about 500 residences. However, depressed copper prices in the 1930s resulted in minimal business activity and slowed Warren's growth dramatically. Warren had reached its development maturity.

Warren's Interurban Trolley System

Automobiles were rare in the early 1900s and Bisbee had no public transportation. Most people had to live within walking distance of the copper mines and Bisbee businesses. Thus, interurban transportation was required to make the remote residential town of Warren practical.

Design and survey for an electric railway to link Warren with Bisbee was completed in January, 1907 by the Warren Company. Grading of the roadbed and laying of steel rails proceeded steadily; the inaugural run of the Warren-Bisbee Railway took place on March 12, 1908. The arrival in Bisbee of the first railway car from Warren was attended by 3,000 people. Nine months later, the line carried its 1,000,000th passenger. With the streetcar line a reality, the growth of Warren was assured.

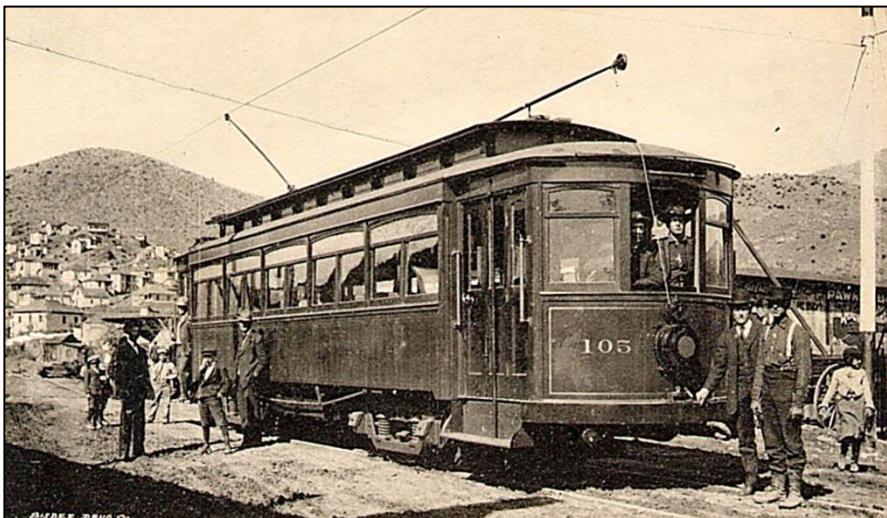
Due to rugged topography between Warren and Bisbee, the electric railway was one of the steepest in the United States. The grades reached seven percent, with an elevation increase of 377 feet between Warren and Bisbee. Only ten percent of the line was on level ground.

Each of the 42-foot long trolley cars (called streetcars by the local population) had four 40-horsepower motors that provided enough power to accommodate the seven-percent grades. The cars were equipped with airbrakes to hold them on the steep grades. Electric power was supplied

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by a 500-KW Westinghouse-Parsons Turbo Generator, positioned near the center of the line. Each trolley sat 40 people, with standing room for 75, plus a motorman. The all-steel car barn, where the trolleys were stored and maintained, was located in south Warren.

There were seven closed passenger cars, numbered sequentially from 101 to 107. The cars could be operated independently or coupled together in trains. The one-way fare from Warren to Bisbee was a reasonable 10 cents. The scheduled travel time from Warren to Bisbee was 25 minutes, including intermediate stops along the way.



The Warren-Bisbee electric railway was the most modern streetcar system in the world at the time of its inauguration in 1908. (Postcard courtesy of Al Ring)

By 1912 the Warren-Bisbee Railway had reached its ultimate length - 12 miles. This included extensions up Tombstone Canyon in Bisbee and to the Warren Country Club south of Warren.

Annual ridership on the line increased to a maximum of 2,500,000 persons in 1917. However, by 1920, automobile ownership and the impending depression in copper prices began to affect railway operations. Ridership began to decline. The final run of the Warren-

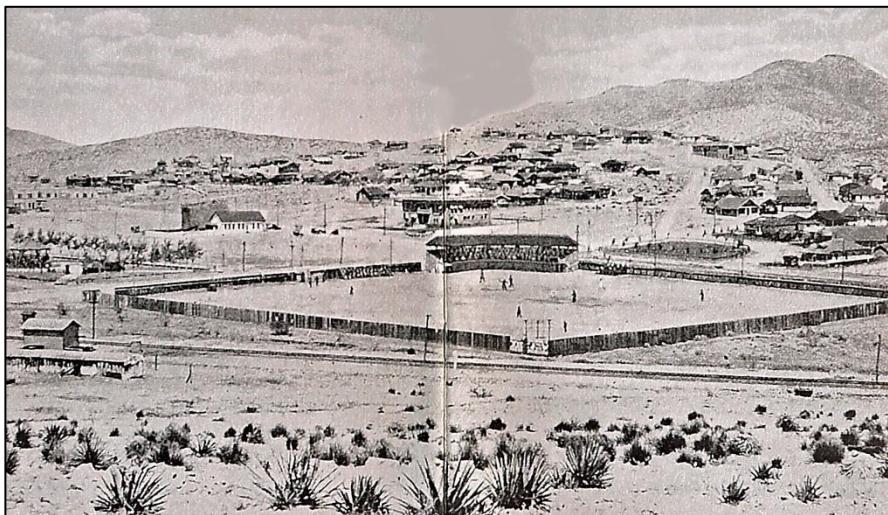
Warren Arizona - The City Beautiful

Bisbee Railway was June 1, 1927. The electric streetcars were superseded by a bus line that ran until 1971.

Baseball Spurs Warren Development

Baseball was a popular sport in the early 1900s. In 1909, the Warren Company decided to capitalize on baseball's popularity and invested \$3,600 to build the Warren Baseball Park. Besides providing amusement for Warren residents, a primary objective was to increase ridership on the Warren-Bisbee Railway by drawing fans from Bisbee.

The ball park was built in the "Plaza" of the original townsite plan, just northwest of the streetcar barn. The fences and a small roofed grandstand were constructed of wood by a local crew in a little over a month. The original grandstand could seat 1,500 people, with additional space in bleachers. A material upgrade by the WPA in the 1930s added a substantial cast-in-place concrete grandstand. Lights were added in 1939.



The first baseball game in the new Warren Ball Park was played on June 27, 1909. (Courtesy of Bisbee Mining & Historical Museum)

The first ballgame in Warren Park drew 500 spectators. The new Bisbee team won that first game, defeating the El Paso Browns 8 to 3. The ball park was an immediate success!

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In the early years the Bisbee team competed with other semi-professional teams from Douglas and Benson, and other regional teams from the southwest.

A long association with organized baseball began in 1928 with creation of the Arizona State League. From 1928 until 1955, the Warren Ball Park hosted teams from the Arizona-Texas League, the Southwest International League, and the Arizona-Mexico League. From 1946 to 1955, the franchise was shared with Douglas. The teams were variously known as the Bees, Cherubs, Javalinas, Yanks, and Copper Kings.

Deportation of Striking Mine Workers

The Warren Ball Park was the scene of one of the most significant and controversial labor disputes in American history.

The labor environment in the Bisbee copper mines in the summer of 1917 was explosive. Mining technology had reduced the need for traditional mining skills. Safety, working conditions, and wage scales were issues. Ethnic tensions existed between American, European, and Mexican miners. The U.S. had entered World War I only a few months earlier, raising feelings of nationalism and fear of sabotage. There was also concern about Mexican revolutionaries.

The Industrial Workers of the World (IWW), one of the more radical labor unions of the day, was very active in Bisbee in organizing the camp's mining population. The IWW frightened employers with its demands and its reputation for violent confrontation.

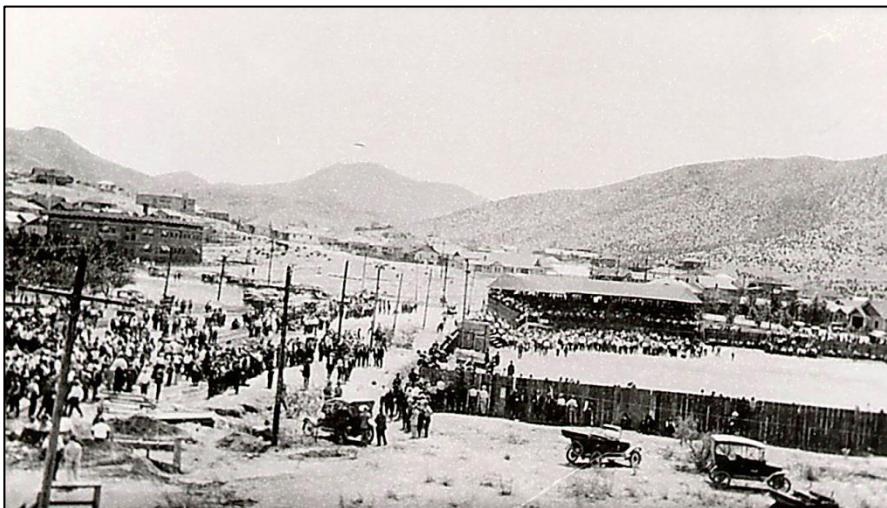
The managers of Bisbee's copper mines refused to recognize the union's demands and were emphatic that there would be no compromise.

On June 27, 1917 nearly half of Bisbee's 4,700 miners went out on strike. With copper a critical war resource, strikers and their supporters were regarded as "people of treasonable inclinations." In response, the mine managers prepared a plan for possible deportation of the striking miners. Such deportations were not unusual in late 19th and early 20th Century

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western mining towns, although nothing of this scale had ever been accomplished.

With the encouragement of the mine managers, vigilante groups, under the leadership of the Sheriff of Cochise County, were formed. Early on the morning of July 12, 1917, the striking miners were rounded up, starting in Bisbee's downtown plaza. Those strikers who refused an offer to return to work were marched four miles under armed guard to the Warren Ball Park. Along the march, additional strikers were added at other collection points.



The Warren Ball Park was used as a collection and staging area for the deportation of miners. Strikers entered the northwest gate of the ball park, where they spread out into the grandstand and onto the baseball diamond. (Postcard courtesy of Al Ring)

At the ball park, the striking miners were again requested to return to the mines. The 1,186 strikers who still refused to go back to work were loaded into a special freight train of 23 cattle and box cars, provided by the Phelps-Dodge-controlled railroad, the El Paso & Southwestern. The train left Warren about noon, headed for Columbus, New Mexico, 174 miles away. Officials in Columbus would not accept the deportees, so the train backtracked to Hermanas, near an Army camp, where the deportees were abandoned.

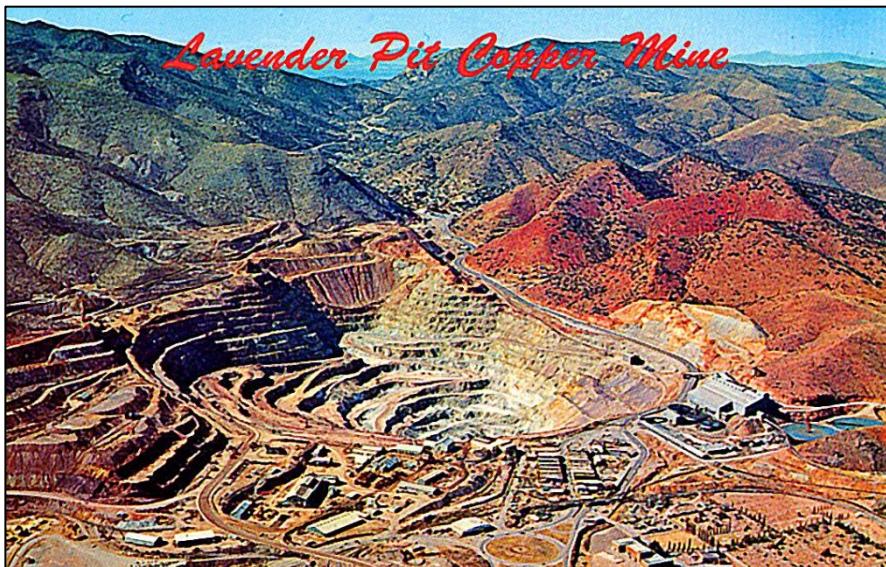
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The question of whether the deportation was an act of patriotism designed to ensure continued copper production for the war or a violation of human rights was argued in the press and the courts for years. Although a few deportees received small financial settlements, most of the court cases were ultimately dismissed. In some people's minds, the image of Bisbee's copper companies was badly tarnished. Even the development of Warren was second-guessed, as described by Lynn Bailey in his *Bisbee, Queen of the Copper Camps* as "part of a sinister plot to render the common hardrock miner subservient to corporate interest."

Open-Pit Mining and Mine Dumps

Within days of the deportation of the striking miners, a new era of open-pit mining began in Bisbee. Open-pit mining allowed recovery of lower-grade ore than had previously been obtained from the vertical mine shafts and tunnels. First, one of Bisbee's well known landmarks, Sacramento Hill, was literally obliterated. Production of copper ore from the Sacramento Pit began in 1921 by Phelps Dodge. Within 12 years, over 32,000,000 tons of material, two thirds of it waste, was removed with giant steam shovels, leaving a large crater.

1931 Phelps Dodge acquired the failing C&A Company and then in 1951 started work on probably the last major copper mining operation in Bisbee, the Lavender Pit, just south of Sacramento Pit. The concentric contours of the Lavender Pit gradually spiraled outward to devour most of Bisbee suburb, Lowell, as well as the Sacramento Pit. The huge pit grew to a depth of 900 feet, a mile long, and a half-mile wide, covering about 300 acres! Huge electric-powered shovels, four times bigger than the shovels that excavated the Sacramento Pit, removed 400,000,000 tons of earth, including 93,500,000 tons of ore to be processed for copper. Two hundred and fifty houses were relocated, U.S. 80 was shifted to the north, and the railroad line into Bisbee was entirely removed.



The Lavender Pit grew to a depth of 900 feet, one mile long, and a half-mile wide. (Postcard courtesy of Al Ring)

The excavated material that was not processed for copper was transported southeast of Bisbee to the northern edge of Warren. Massive artificial mountains of waste material began to build. When the Lavender Pit closed in 1974, this huge Number 7 Mine Dump matched the dimensions of the Lavender pit itself, measuring about a mile in length, a half-mile in width, and several hundred feet high. (Mine Dumps 1-6 had ringed the edge of the Sacramento Pit and had either been obliterated by the Lavender pit or had been cleaned up by this time.) This mountain of waste encroached right up to the backyards of homes in northern Warren, including the Douglas and Greenway mansions.

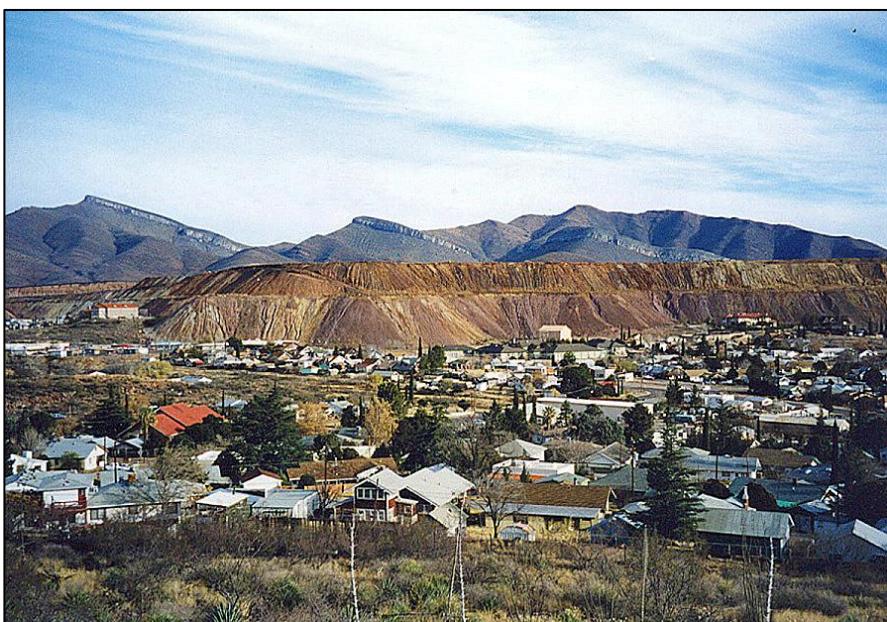
Large mine dumps are not unusual in Arizona. Open pit copper mining in places such as Ajo, Jerome, Miami, Morenci, and the Winkleman area has also left huge dumps of mining waste. What makes Bisbee's Mine Dump No. 7 unique, is its proximity to a large residential population.

In the years since the mining in the Lavender Pit ceased, copper recovery technology has advanced and the mountain of waste has become a "low-

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grade ore stockpile." About one million pounds of copper per year have been recovered from Mine Dump No. 7 through a "chemical heap leaching" process. Ferric sulfate/sulfuric acid solutions are drained through the material, causing a chemical reaction that dissolves low-grade copper. The resulting copper-containing solution is collected in large "ponds" at the eastern edge of the dump and then piped about two miles west to a precipitation plant for extraction of the copper.

There has been considerable controversy about this leaching operation because of the dangerous chemicals used and concerns about potential environmental impacts on ground and surface water, vegetation, and wildlife.



A huge artificial mountain of multi-colored mining waste from the Lavender Pit mars the view from the Warren terraces. (Courtesy of Bob Ring, 2001)

So Warren is now bordered on the north by a pile of mining waste and large collection ponds for leaching. Views from Warren to the north are dominated by a huge mass of ugly multicolored (various shades of

Warren Arizona - The City Beautiful

reddish browns, purple and yellows) mining waste. Truly, Warren the City Beautiful, Bisbee's choice picturesque residential area, has been grievously affected.

Is There Life After the Mines Close?

The closing of the Lavender Pit mining operation in December 1974 and halting of underground mining in June 1975 signaled the end of mining in Bisbee. According to Lynn Bailey, "Cessation of mining brought a political and economic vacuum, filled for a while by petty bickering and recriminations. Overnight the area's real estate market collapsed." In 1980, Bisbee narrowly averted bankruptcy. As Carlos Schwantes summarized the situation, "By 1981, retirees constituted 41 percent of Bisbee's 8,000 residents, with a small but visible counterculture - called 'hippies' by some - accounting for the rest. More and more Bisbee's economy came to depend on the arts and the small but growing business of selling history by which the town sought to attract tourists to see its colorful and still very visible past."

Warren had been annexed into Bisbee in 1959. In 1985, the *Tucson Citizen* reported that,

"For those who live there, Bisbee is a coalition of communities, each with different goals. ... Warren is content to remain quietly residential. Its slower pace away from the hurly burly of the tourist sections allows people the time to relax. Many work on their 60-year old homes - getting them into shape after years of neglect. Warren, besides attracting those people who work in Old Bisbee and love old homes or have families, also is making a name for itself among retirees. It has a small-town feel with climate many consider near-perfect."

As a booming mining camp, Bisbee reached a maximum population of about 20,000 people in the early 1900s. Today the old mining settlement has evolved into an artist and retirement community with a steadily

Warren Arizona - The City Beautiful

declining population of about 5,575 people (2010 Census), with perhaps 850 people living in Warren.

In 2007 Freeport-McMoRan Copper & Gold bought Phelps Dodge Mining. The Company continues to explore future mining prospects in the area. Someday, advances in copper reclamation technology may revive the copper mining industry in Bisbee.

Warren's commercial district is relatively quiet. The post office, barbershop, and a few other businesses remain active.

Warren's sewer system, built in 1907, has never been updated or replaced.

The "copper water" that the mines provided free for Warren public facilities irrigation continued until the late 1980s. Opposition from the Arizona Water Company ended this no-charge service.

But most of Warren appears essentially as it did in the early 1940s. A survey of Warren's historic buildings in 1993 listed 614 buildings constructed prior to 1942 and then still in use.

So what happened to the old Warren landmarks?

Warren Company Office Building: The building is now privately owned and available to rent.

C&A Mining Company Office Building: The building is still in place, now serving as Bisbee's City Hall.

C&A Hospital: The old hospital is now the Hillcrest Apartments.

Warren Country Club: The original country club (never having been supplied with piped-in water) was torn down in the 1930s and the clubhouse moved to Naco, Arizona, about five miles to the southwest. The current clubhouse was built in 1936 as a WPA project and now operates as the Turquoise Valley Golf Course and R.V. Park.

Warren Arizona - The City Beautiful

Douglas Mansion: Over the years, the 12,000 square foot home has operated as the Loma Linda Lodge, a health clinic retreat, an apartment complex, and now once again, a private family home.

Greenway Mansion: The 10,872 square foot, 10-bedroom mansion is still in use as a private residence.

Vista Park: The huge park is still the centerpiece of Warren. The Dance Pavilion is no longer there, but the original bungalows still line the wide Vista boulevards. Bisbee's Farmers Market is held every Saturday morning at the south end of the Park.

Greenway School: The school is still in use, accommodating kindergarten through third grade. Two wings of classrooms, a multipurpose building, an auditorium, a cafeteria, and a library have been added.

Warren-Bisbee Railway: Vestiges of the railway can still be seen in several places. Streetcar tracks can be seen embedded in the pavement in front of the old Lyric Theater in the Bisbee Plaza. Along Arizona Highway 92, you can see traces of the line in the form of cuts and fills. A trestle-approach embankment is still visible. In Warren, the Trolley Car Barn, substantially altered, has been privately owned since 2003.

Warren Ball Park: The baseball park is now under ownership and care of the Bisbee Unified School District and is home field for the local high and middle school baseball and football teams. Bisbee-based baseball historian David Skinner contends that the Warren Ball Park is the oldest surviving baseball park in the nation.

Meanwhile, the 1993 *Warren Historic Building Survey* recommended that, like old Bisbee, "the original Warren Townsite be considered a historic district, eligible for local designation as well as listing on the National Register of Historic Places." Efforts to accomplish this have been in the works for years; not yet successful as of May, 2015.

Chapter 10

Arizona Automobile License Plates

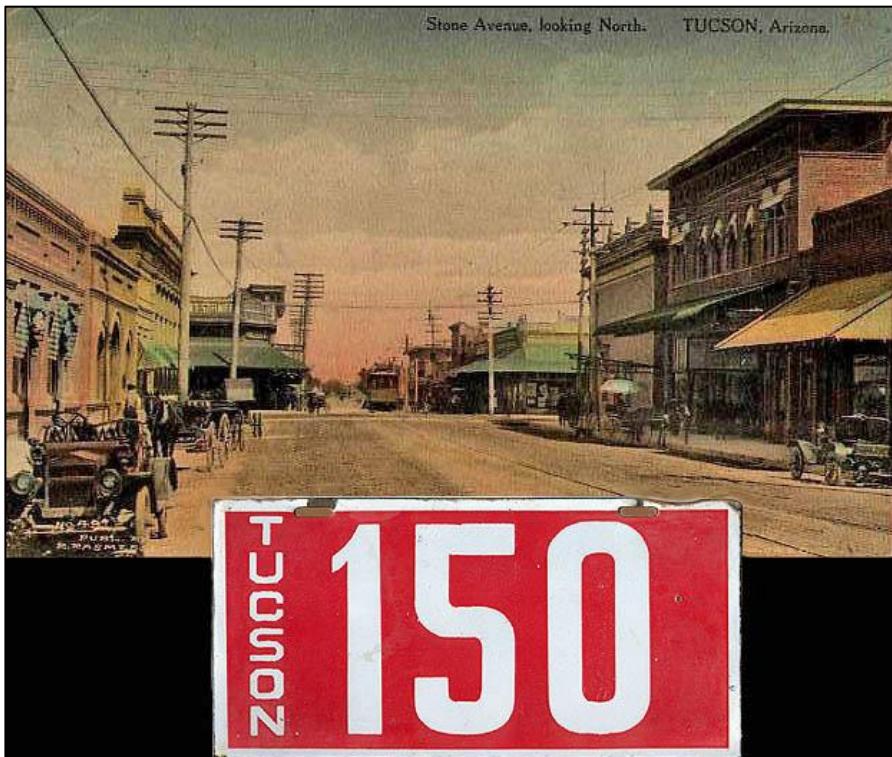
Have you ever played the automobile license plate game? You know, where you see how many of the 50 different U.S. state license plates you can spot. Here's a new game, even more challenging: spotting different **Arizona** license plates.

Development

But first, let's talk about how Arizona license plates developed. Summarizing from collector Gary Fox's web site, azplates.com,

"Prior to Arizona statehood in 1912, some cities, including Tucson, Phoenix, and Prescott, issued their own plates. ... Shortly after Arizona became a state, motorists were required to register their vehicles with the Secretary of State and were issued a two-inch diameter aluminum disk stamped with a registration number. The disk was required to be mounted somewhere on the vehicle usually on the dashboard. ... it was the responsibility of the motorist to come up with a license plate with a number matching the number on the disk. He could either purchase one from various private businesses, or even make it himself - from a variety of materials including wood, leather, and metal. The numerals were to be at least three inches high and one-half inch wide along with the state initials ARZ."

Arizona Automobile License Plates



This five-inch x ten-inch Tucson City plate is made of porcelain. Both the plate and postcard behind are circa 1910. (Courtesy of Gary Fox of azplates.com)

The State of Arizona first issued automobile license plates in 1914; Tucson auto enthusiast Dr. Hiram W. Fenner got the first plate with number "1" on it. Arizona has continued to issue plates (or renewal stickers) annually.

In the early years, Arizona plates were embossed (stamped) on steel of various rectangular sizes, with numerous different background colors, and with numerous different arrangements of letters and numbers in many different colors.

Arizona plates were made of copper in 1932, '33, and '34. In 1947 Arizona made plates out of aluminum for the first time. Since then, plates have been made of aluminum or steel.

Arizona Automobile License Plates



This four-and-a half-inch x twelve-inch plate is one of the first issued by the state of Arizona. (Courtesy of Gary Fox of azplates.com)



Arizona is the only state to have used copper in license plates. This one is five-inches x ten-inches (Courtesy of Gary Fox of azplates.com)

Arizona Automobile License Plates

In 1956, all U.S. plates were standardized at today's six-inch x twelve-inch size.

Here's a description of the last three designs of standard Arizona passenger plates:

1980-1997	White embossed letters, numbers, and border on maroon background. Undated plates with renewal stickers. Format ABC123.
1997-2008	Dark green embossed numbers and letters on screened desert background of setting sun. Renewal stickers. Format 123ABC.
2008-	Dark green screened letters and numbers on screened desert background of setting sun, with security stripe. Flat plates with renewal stickers. Format ABC1234.

Manufacturing

Until the late 1990s, Arizona license plates had their numbers, letters, and simple designs embossed on pre-painted aluminum. The "raised" portions of the plates were then painted.

Beginning in 1997, the more complicated desert sunset background design was thermally printed (or screened), under computer control, onto white reflective vinyl film that was then adhesively attached to the aluminum plate. Then the license plate "number" was embossed into the aluminum and painted.

Arizona Automobile License Plates

According to the Arizona Department of Transportation (ADOT), in the early years of this process, the embossing action stretched the vinyl film coating, weakening it, and causing the background to peel if further damaged by impacts or tearing. That's why you see plates on the road with dull gray center areas, the color of the original aluminum. The manufacturer changed to a more durable vinyl film.

By 2008 both the desert sunset background and the license plate "number" were being thermally printed onto the vinyl film. This new technology allows for a lot of creativity in license plate design.



This is how license plates are made today. This blanking line joins the aluminum with the printed vinyl film. At the end of the line is the press that cuts the license plates into their rectangular shape. (Courtesy of ADOT)

Arizona Automobile License Plates

Nowadays a visible (barely), three-dimensional security stripe, an anti-plate-counterfeiting measure, is embedded in the plate's reflective surface, running up and down at the center of the plate. The wavy, intertwined pattern "appears to float" within the material and has been described as looking like smoke.

A few additional facts about Arizona license plates:

1. The first time the slogan "Grand Canyon State" appeared was 1940.
2. All of the plates are made by inmates at the Arizona State Prison Complex in Florence.
3. The letters I, O, Q or U are never used on passenger plates because they could too easily be misread.
4. Since 1980, passenger license plate sequences for each of the three plate designs have started with the letters AAA, and then incremented the numbers, before coming back to AAB and so on.

Specialty Plates

Beginning in the 1960s, Arizona began to offer "specialty" plates in addition to standard automobile license plates. Early specialty plates included *Classic Car* (1965), *Historic Vehicle* (1977), *University of Arizona* (1989), and *Environmental* (1992). With the new screening technology, the 2000s saw a tremendous increase in the number of specialty plates offered.

Today, the ADOT web site offers over 50 different Arizona-legislature-authorized automobile specialty plates - representing diverse groups espousing conservation, social awareness, the military, schools, sports teams, and a variety of other organizations. Disability and Hearing Impaired plates are also offered. Some of the longer term specialty plates (e.g., UA) have evolved through three design changes!

According to Arizona Daily Star archives, with few exceptions, specialty plates cost an additional \$25 a year. And \$17 of that goes to the

Arizona Automobile License Plates

sponsoring organization, with the rest going to the Motor Vehicle Division.

Many of these plates can be ordered online, the others by mail. Some are offered to everyone and others only to people who qualify (e.g., *Veteran*).

Over half of the plate offerings can be ordered in “personalized” versions, where you specify the letters and/or numbers on the plate. All plates are reviewed for acceptable content.



This standard size six-inch x twelve-inch specialty plate won the award for best new plate of 2011 from the national Automobile License Plate Collectors Association (ALPCA). (Courtesy of ALPCA)

Arizona issued two (front and back) standard passenger plates per vehicle until the mid-1990s, when it began issuing rear plates only to save production costs. Today, two plates are issued for personalized plates and some specialty plates, but you’re not required to display a front plate.

Since Arizona law changed in 2002, the license plate belongs to the vehicle owner. This allows for the transfer of a license plate from one vehicle to another, so when you’re happy with your plate ...

There are millions of Arizona standard passenger license plates and hundreds of thousands of specialty plates on the road today. Good luck

Arizona Automobile License Plates

as you play the Arizona license plate game. Experts can add dealer, commercial, government, and foreign consular plates to the game.

Chapter 11

Bashas' Family-Owned Arizona Grocery Chain

Through three generations, Bashas' family-owned Arizona grocery chain grew financially and steadily expanded. But in July 2009 Bashas' was forced to declare bankruptcy due to mounting debts in a deep recession. Emerging from bankruptcy in August 2010, after streamlining its operation considerably, the company now fights for its economic life in today's very difficult business environment.

Founding

The Basha family spent 48 years in business in the United States before the name Basha appeared on a building. In 1884 Tanuis Basha left the Middle Eastern country of Lebanon to come to New York City to set up an import and export wholesale store. Tanuis' oldest son Najeeb Basha joined him in 1886 and in 1901 Najeeb married Najeeby Srour, the daughter of another Lebanese immigrant. Najeeb and Najeeby began raising a family of seven girls and two boys. The boys, Ike and Eddie, would later found Bashas' Inc.

In 1910, after their business burned down in New York City, the growing Najeeb Basha family moved to Arizona to try to make a living at the mercantile business. Over the next ten years, the family survived

Bashas' Family-Owned Arizona Grocery Chain

incredibly difficult economic struggles and two more disastrous fires, living in Congress Junction (north of Wickenburg), then the mining towns of Ray and Sonora (south of Superior), until finally ending up in Chandler in 1920.

Najeeb established a store in Chandler that according to Bashas' Company Profile, "catered to the rural needs of its community, selling groceries, dry goods, and household goods such as furniture. Ike and Eddie Basha learned the retail trade from their parents at the Chandler store."



This store on Boston Street in Chandler opened in 1920 and was renamed Bashas' after the Basha brothers opened their first store in 1932. (Courtesy of Bashas', circa late 1920s)

In 1932, after Najeeb died from diabetes and with the family heavily in debt from his long illness, Ike and Eddie Basha looked for an opportunity to restore the family's finances. They took over a general merchandise store in a small community on the cotton-growing Goodyear Ranch, five

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miles south of Chandler. (Note: The area is called Ocotillo today.) The brothers began to concentrate on groceries and put the Basha name over the front door for the first time. This was the start of the Bashas' family of grocery stores.



The first Bashas' market in Mesa, Arizona opened on Main Street in 1936. The man in front is store manager Don Cooper who later became Bashas' president. (Courtesy of Bashas', circa late 1930s)

Growth

For 20 years the Bashas' chain of grocery stores grew steadily, transitioning from country stores to supermarkets, larger and stocked with a more diverse range of merchandise. Ike Basha's death from cancer in 1958 left Eddie Basha as the head of the enterprise. Basha's son Eddie Basha, Jr. soon joined the business and helped his father expand the business further. When Eddie Basha died in 1968, Eddie Basha, Jr., then

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in his early 30s, assumed full control over the company. The Bashas' chain then consisted of 17 retail outlets.



This old pickup truck is parked in front of the first Bashas' store. (Courtesy of Bashas', circa 1932-1940)

Bashas' expansion continued under the aggressive leadership of Eddie Basha, Jr. According to Bashas' Company Profile, "Like his father and uncle before him, Basha endeavored to create supermarkets that catered to the needs of individual communities."

The most striking example of this occurred in 1981 when Eddie Basha, Jr. was asked by the Navajo Nation to open a grocery store in Chinle, Arizona. Since opening that store, Bashas' has continued to serve Native Americans, now operating several Bashas' Diné (of the people) markets across the Navajo Reservation, providing Navajo-specific food and merchandise with 95 per cent of Bashas' employees speaking the Navajo language.

Bashas' also has two stores on two different Apache reservations - in San Carlos on the San Carlos Apache Reservation, and in Whiteriver, on the White Mountain Apache Reservation. Finally, Bashas' services the Tohono O'odham reservation with a market in Sells.

Bashas' Family-Owned Arizona Grocery Chain

By the end of the 1980s, Bashas' had grown to approximately 45 outlets. Eddie Basha, Jr. wanted to have at least one Bashas' store in each of the 15 counties in Arizona.

In the 1990s Bashas' embarked on an acquisition campaign. The first acquisition in 1992 was AJ's Fine Foods, described in Bashas' Company Profile as "an upscale, specialty chain offering prepared gourmet meals, a large wine collection, and specialty baked goods." By late 2010 there were 13 operating AJ's Fine Food Stores, 12 of them in the Phoenix area, with one in Tucson.

Bashas' also wanted to service the Hispanic community. In 1993, in Phoenix, Bashas' acquired a single Food City Store that for 50 years had catered to the particular needs of Hispanics. Then in 1996 Bashas' acquired the MegaFoods discount stores and by 1999 had completed the conversion of these stores and a few other specialty stores to the Food City format. In 2001 Bashas' bought 22 Southwest Supermarkets for conversion to the Food City format. By late 2010 Bashas' had 48 operating Food City stores, mostly in the Phoenix area, nine in Tucson, and a few spread throughout the rest of the state.

To directly service its Arizona family of stores, Bashas' has a state-of-the-art groceries Distribution Center in Chandler. The Center includes over 16 acres of under-roof space, as well as a full mechanic shop. The perishables area of the Center is temperature and climate-controlled.

By 2004, as reported in Bashas' Company Profile, the company's "\$2 billion in sales (nearly half from Food City) ranked it third in Arizona's increasingly competitive grocery market, behind Safeway and Fry's (a unit of the Kroger Co.)." Bashas' was the only locally-owned supermarket chain in the state.

Progressive Grocer pronounced Bashas' its national "Retailer of the Year" in 2005. The trade publication praised the company's investment in its employees; community involvement, and Hispanic-oriented merchandising. Over the years Bashas' has been particularly noted for

Bashas' Family-Owned Arizona Grocery Chain

championing education and has donated more than \$100 million to Arizona charities.

In 2007 in a DVD celebrating their 75th anniversary, Bashas' stated that the company had surpassed 160 outlets with over 14,000 members. Bashas' calls its employees, members, in keeping with its "family" business orientation. And it certainly has been a family enterprise; starting with Najeeb and Najeeby Basha, generations of Bashas and their relations (including the women) have helped operate the company.

That first Bashas' grocery store (along with some associated original buildings and a few additions) became the company's headquarters. The location is south of Chandler, just west of Arizona Avenue, at 22402 S. Basha Road.

In 1992 the Zelma Basha Salmeri Gallery of Western American and Native American Art (named for Eddie Basha, Jr.'s Aunt Zelma). opened on the headquarters site, displaying over 3,000 pieces of art that Eddie Basha, Jr. has collected since 1971. The gallery is open to the public and is well worth a visit.

Bankruptcy

Things looked good for Bashas' in 2007. The company continued to plan future expansion of its primary formats (Bashas' groceries and Food City).

But Bashas' bubble was about to burst. The new-housing boom bust in Phoenix pulled the expansion "rug" out from under the company. Intense competition among Arizona grocers reduced Bashas' sales. Rising supplier costs for food staples and the costs to lease and cool thousands of square feet of storage, distribution, and retail facilities became prohibitive. The global credit crisis made securing low-rate loans much more difficult.

In July 2009 Bashas' filed for Chapter 11 bankruptcy protection with about \$300 million in debts.

Bashas' Family-Owned Arizona Grocery Chain

Already started on tightening its corporate “belt,” after filing for bankruptcy, Bashas’ closed 30 underperforming stores, laid off more than 2,000 employees, slashed benefits, cut salaries, sold expensive assets such as airplanes, cut out a broad layer of middle management, renegotiated leases, and restructured its prices to make the chain more competitive.

Other actions also eased Bashas’ passage through bankruptcy. In December 2009 Bashas’ settled its four-year dispute with the United Food and Commercial Workers Union, halting Union efforts (at least temporarily) to unionize the chain of Basha outlets. Most importantly, over the year following the bankruptcy filing, Bashas’ came up with a plan to repay the company’s \$300 million in debts in installments over three years.

Bashas’ rejected a takeover bid in February 2010 by smaller grocer Albertsons in favor of proceeding with their own recovery plan.

Surviving Bankruptcy

In August 2010 a federal bankruptcy judge approved Bashas’ plan to emerge from bankruptcy protection. The judge recognized that Bashas’ actions to streamline operations and reduce costs had led the company to become profitable again.

Bashas’ exit from bankruptcy was unusual in two respects. First, it was achieved in only 13 months, a very short time for a transaction of this financial size and complexity. Secondly, it is very rare for the party emerging from bankruptcy to plan to pay off 100% of its debts - with interest.

Part of Bashas’ successful turnaround can be attributed to loyal customers who went out of their way to shop at Bashas’ to show their support during the bankruptcy period. These regular shoppers praised Bashas’ home-grown family business, support to non-profits, and community efforts. There were even “I support Bashas” campaigns in Phoenix, complete with fliers, billboard ads, and rallies.

Bashas' Family-Owned Arizona Grocery Chain

The New Bashas'

Family patriarch Eddie Basha, Jr. died in 2013 and was succeeded as Chairman by Edward "Trey" Basha III. The "new" Bashas' now has more than 130 stores and about 8,500 employees, serving all 15 Arizona counties. The Bashas' family of stores includes four formats: Bashas', Bashas' Diné, AJ's Fine Foods, and Food City.

Bashas' is operating in America's most competitive grocery market, under the lingering effects of the worst recession in decades. Giant merchandisers like Walmart and Target are now selling groceries. Other large grocery chains like Safeway/Albertsons plus smaller grocers like Sprouts, Trader Joe's, and Whole Foods add to the competition.

Besides doing better financially, Bashas' is going to have to work its way back to the congenial family atmosphere and dedicated community service that differentiates the company from its more impersonal competition. The company must also find a way to solve the unionization problem that will surely confront them again in the future.

Chapter 12

Ring-Family Arizona Reflections

In the final chapter of this book, I take the liberty of reflecting on my own family's Arizona history - not because it's full of important historical events (it isn't), but simply to recognize and share our experiences.

Thankfully, generations of the Ring family have appreciated our history, and have documented it in the form of letters, diaries, and photographs. My son Steven Ring compiled a comprehensive Ring-family history that traces our ancestor's immigration from Germany in the early 1700s - to the Hudson River Valley in New York - through an expanding family tree to the present time.

Arizona Footprint

Our Ring-family "footprint" in Arizona spans more than a century. In 1905 Ambrose E. Ring became the first "Ring" in our family tree to come to Arizona. He remained less than six months that first time, but returned to stay in 1933. Ambrose's youngest of three children was my father Clinton E. Ring. Clinton attended the University of Arizona (UA) from 1933-1935, after graduation moved back east for his working years, and returned to Arizona to retire in 1976. I was born back east, worked in San Diego, California for 28 years, moved to Tucson in 1993 to work another seven years, and retired here in 2000. My younger brother Al Ring was also born in the eastern U.S., worked 36 years in Louisville, Kentucky and retired to Tucson in 1998.

Ring-Family Arizona Reflections

It was Ambrose Ring's short residence time in Arizona in 1905/06 that eventually sparked serious family interest in our history in Arizona. Ambrose was starting his first mining engineering job. Newly married, Ambrose and my grandmother Grace moved from the country's biggest metropolis, New York City, to the Arizona desert to live in an isolated, barren, dirty mining region - south of Arivaca, near the small mining camp of Ruby, four miles north of the Mexican border. To record this grand adventure, Ambrose took 33 photographs of the mines, stores, and shacks around Ruby.



*My grandfather Ambrose Ring and grandmother Grace Ring are seated in the rear seat of this stagecoach in front of the way station in Arivaca in 1905.
(Courtesy of the Ring family)*

My grandparents suddenly left southern Arizona in early 1906, not to return for 27 years, spending all that time on other mining jobs around the West. The only clue to why they left Arizona was Ambrose's cryptic diary note, "We stayed until conditions became intolerable (personally)."

Research and Writing

This family mystery prompted my brother Al and me to try to uncover the story behind Ambrose's photos. Starting in the late 1990s, we made many 4-wheel-drive jeep trips from Tucson over crumbling, rocky, dirt roads to the old mining territory. Of course by that time, all the buildings that appeared in the photos were long gone. But, wonderfully, we were able to figure out precisely where all the pictures were taken by comparing the profile of hills and landscape in the background of the photos to what we were seeing while tramping around the borderland.



Ambrose Ring poses with his "rusty" rifle in Arizona's borderland mining country. (Courtesy of the Ring family, 1905)



In this favorite Ring-family photo, Grace Ring is "Looking into Mexico." (Courtesy of the Ring family, 1905)

but we never figured out why our grandparents left southern Arizona so abruptly.

Ring-Family Arizona Reflections

However, the “bug had bitten us.” Al and I have continued our Arizona history research, writing, and collecting - sometimes together, sometimes independently. We wrote a second book together, *Frontier Lady of Letters - The Heroic Love Story of Ines Fraser* - based on letters between Ines Fraser and her beloved husband who was killed in an infamous Ruby store robbery. Together, we fully documented the history of mining in Arizona’s borderland Oro Blanco Mining District.

A special joint project (along with my son Steven) was publishing the fascinating memoir of Ambrose Ring’s father Eugene Ring: *Detour to the California Gold Rush - Eugene Ring’s Travels in South America, California, and Mexico 1848-1850.*



Bob and Al Ring are shown here at a book signing event. (Courtesy of the Ring family)

Al’s independent projects include fantastically detailed (Arizona) Ring-family personal histories (with photographs and supporting articles); extensive collections of Arizona postcards, postage stamps, postmarks, and issues of Arizona history magazines; and lately, as historian/archivist for the Greater Tucson Fire Foundation, a rapidly expanding history of the Tucson Fire Department. My independent

projects include six years of newspaper columns (“Ring’s Reflections”) for the *Arizona Daily Star*; a 2015 book collecting my Tucson-history-related columns, *Tucson Reflections - Living History from the Old Pueblo*; and this book, *Arizona Reflections - Living History from the Grand Canyon State*.

All of these projects are shared on our web site, ringbrothershistory.com.

Ring-Family Histories

To complete this chapter (and the book), I’d like to share snapshot histories of Ring-family Arizonans.

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Ambrose Ely Ring (b. August 5, 1983 d. February 29, 1952): Ambrose was born in the Bronx, New York; graduated as a mining engineer from Columbia University in 1905; later that same year married Grace Harned from Long Island; and immediately relocated to southern Arizona to start his mining career. In April 1906, when he and Grace left Arizona for Butte, Montana, they traveled through San Francisco, California, leaving the city by train on the day before the devastating earthquake on April 18, 1906.

Ambrose quickly moved into mining management and worked all over the western U.S., including Butte, Montana; Farmington and Fredericktown, Missouri; Crede, Leadville, Rico, and Bonanza, Colorado; Hailey, Idaho; and Salt Lake City, Utah. One of Ambrose's principal jobs was to assess the productivity of ASARCO mines. Over his career, which spanned some very difficult economic times, he closed down four major mines.

While stationed in Salt Lake City, Ambrose made mining feasibility assessment trips for ASARCO to Australia and British Guiana. Ambrose convinced ASARCO to buy and develop the Mount Isa mine in north Queensland, Australia, which became one of the world's largest producers of silver, lead, copper, and zinc.

Ambrose came to Tucson, Arizona in 1933 to help develop the Silver Bell copper mine. (He and Grace, and sometimes son Clinton, lived in a house on north 6th Avenue, then a house on east Speedway, then in 1942 built a house on east Elm Street, across the street and a little west of the Arizona Inn. All three houses remain today.) While working in Tucson, Ambrose became Manager of the Southwestern Division of Mining for ASARCO.

Ambrose retired from ASARCO in 1949, but kept on as a consultant until his death in 1952.

Throughout his life, Ambrose was an avid photographer and kept a detailed diary, leaving the Ring family a wealth of wonderful family history records.

Ring-Family Arizona Reflections

After Ambrose's death, Grace Ring continued to live quietly in the house on Elm Street until her death in 1967.

Clinton Eugene Ring (b. October 1, 1915 d. September 12, 2005):

Clinton (regularly called Clint) was born in Flat River, Missouri; moved around the West with his parents; and attended the University of Utah in Salt Lake City for two years before finishing his Mechanical Engineering degree in 1935 at UA, graduating at the young age of 19. In 1938 he married his college sweetheart (my mother) Charlotte Brehm.

After graduation in 1935, Clinton began a 40-year career with the General Electric Company, mostly in the refrigeration and newly developing air conditioning business areas. Over the years, he worked in engineering, appliance service, quality control, sales, and marketing. He worked for short periods in Schenectady, New York; Fort Wayne, Indiana; and Cleveland, Ohio; before spending 12 years in Bridgeport, Connecticut; and then 25 years in Louisville, Kentucky at GE's Appliance Park.

In 1964 Clinton traveled to Japan to assess possibilities for a joint venture to manufacture room air conditioners. The resulting business arrangement was both successful and profitable for GE.

Clinton held several management positions, including heading up GE's National Service Operations, Manager of Quality Control for all GE Appliances, and Manager of Product Planning for Room Air Conditioners.

After retirement in 1976, Clinton and Charlotte returned to Arizona, built a new house in Tucson's Catalina Foothills, and enjoyed a wonderful southwestern retirement. After Charlotte's death in 1997, Clinton moved one mile north to Santa Catalina Villas Retirement Community where he spent eight years of high quality life among new friends, until his death in 2005.

My father was a steady contributor to Ring-family history. He kept a detailed diary and organized much of his father Ambrose's family notes and photographs, including the 33 photos from his Arizona mining in

Ring-Family Arizona Reflections

1905. Moreover, he enthusiastically encouraged me, my brother Al, and my son Steven in our Arizona and family history research and writing.

My mother Charlotte (Brehm) brought her own considerable chunk of Arizona history to the Ring-family tree. Her parents LeRay and Minnie Brehm came to Bisbee, Arizona from Sharron, Kansas in 1921. For the next 65 years, LeRay and Minnie owned and operated Brehm's Jewelry Store on Main Street in Bisbee. LeRay and Minnie lived in Warren, first at 300 Hovland Avenue, and from 1927, at 309 16th Terrace. They had two daughters, Eunice and Charlotte, who grew up in Warren.

Charlotte Brehm attended UA, was a member of Gamma Phi Beta Sorority, and graduated in 1937 with an English degree. She taught third grade in Warren for a year before marrying Clinton in 1938 at the Warren Community Church (with the reception at the Warren Country Club). My mother did extensive research on her Brehm family tree, especially in Arizona, and helped my son Steven with his family history work.



The wedding party at my parents' reception at the Warren Country Club. Right to left: Ambrose Ring, LeRay Brehm, Clinton Ring, Charlotte Ring, Minnie Brehm, Grace Ring, Eunice Brehm. (Courtesy of the Ring family, 1938)

Robert (Bob) Clinton Ring (b. March 29, 1940): I was born in Bridgeport, Connecticut; grew up in Connecticut and Louisville, Kentucky; graduated from Purdue University and the University of Michigan with degrees in Engineering Sciences and Aerospace Engineering before moving to San Diego in 1965 to work for General Dynamics Convair. That same year, I married Ann Benedict from Bradford, New York and we had three wonderful sons together: John, David, and Steven. Sadly, Ann contracted breast cancer in 1985 and died five years later in 1990.

I spent 27 years at Convair before the company was bought by Hughes Aircraft in 1992, and another five years until Hughes was bought by Raytheon in 1997. Hughes had moved me to Tucson, Arizona in 1993. So in a manner of speaking, I worked at the same desk for 35 years, but for three different companies.

I worked on innumerable large and small technical projects - largely systems engineering and operation research applications to both manned space and military missile projects. Almost all my work was new business development, on the exciting front edge of advanced technology and new programs. I got to manage small and large programs and groups of people - spent a lot of time in functional management. At other times, I was on staff to key people in engineering top management and did a lot of strategic, technology, and new business planning. The highlight of my aerospace career was leading two special projects - multi-company-division efforts - reporting to the Vice Chairman of General Dynamics Corporation.

In addition to the “retirement” projects described earlier, for five years I wrote articles for my gym’s monthly newsletter, wrote a paper on the History of Man, and documented recent family efforts to retrace my great grandfather Eugene Ring’s gold rush adventures.

A few months after retirement, in 2001, I met and began a relationship with the second love of my life, recent widow Pat Wood, who grew up in an itinerant military family. Pat and I are currently enjoying a wonderful retirement together.

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Pat Wood came to Phoenix, Arizona with her husband Steve in 1979, was a law librarian there for 20 years, and for eight years was the owner/operator of the Fiber Factory, a large knitting shop in Mesa, Arizona, before selling the business in 2006. Pat's research and editing skills have been invaluable to our Arizona history efforts.

Alan (Al) Douglas Ring (b. July 17, 1943): My brother Al was also born in Bridgeport, Connecticut; as a youngster in Louisville worked some short-term odd jobs; and tried Eastern Kentucky University for a semester before deciding that college was not for him - he wanted to go into business for himself. Al was self-employed in Louisville, Kentucky for over 36 years - in three principal areas: automobile service stations, real estate sales, and home building.

Starting to work for others in 1962, at age 22 in 1965, Al secured his first service station. Over the next 15 years he acquired and managed three additional service stations. He was the youngest American Oil dealer in Kentucky and managed the second largest station in the state.

Al won awards for the beautification of commercial properties, Community Service, and Business Man of the Year. In 1974 he was commissioned as a "Kentucky Colonel" by Kentucky's Governor and Secretary of State in recognition of noteworthy accomplishments and outstanding service to his community.

Also during this period, from 1964-1970, Al was a member of the Army Reserve.

In 1977 Al transitioned to real estate sales. Over 21 years he worked as a broker for Century 21 and then RE/MAX, earning many awards for sales volume. He progressed through sales, responsibility for training, and branch management.

In 1978 Al formed Al Ring Builders, Inc. and started building spec houses in Louisville. In 1984 he married Karen McCord from Louisville, Kentucky and in 1989 he and Karen set up A & K Builders. With a partner, the

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company built 80 homes in eight years, many in the finest residential areas around Louisville.

Al stopped building homes in 1996, set up a Real Estate Services business to coordinate selected sales and consult, and retired in 1998 to come to Arizona.

For 26 years, from 1964-1990, Al was a member of the Saint Matthews (Louisville suburb) Volunteer Fire Department, working his way up to the “rank” of Major, the Board of Directors, and finally Chairman of the Board. In 2004 Al published *St. Matthews Firefighters, 84 Years of Firefighting in St. Matthews, Kentucky*.

In Arizona Karen Ring continues her work in the field of health services. For three years she was Southern Arizona Regional Director of the Alzheimer’s Association, then managed a 40-bed memory care community, and has spent the last few years supporting family caregiver efforts and coordinating health promotion programs for older adults.

Final Reflections

So for over 110 years and counting, the Ring family has been part of the Arizona “scene.”

Will this continue through a fourth generation and more? My son John, while currently living and working outside Arizona, graduated from UA and owns some land near Pinetop, Arizona. Pat’s son David is currently an attorney in Phoenix. Al and Karen’s son Evan, although he too currently lives outside Arizona, graduated from UA and worked in Tucson for six years, before being transferred outside the state.

I’m betting Arizona will continue to draw Ring-family members to work or retire.

One thing for sure, Al and I will continue to build a foundation of Arizona history projects to support them.

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Acknowledgements

I appreciate that the *Arizona Daily Star* provided me a forum for six years to write about the history of Arizona. And a hearty thank you to my editor, Tiffany Kjos, who constantly encouraged me and applied her considerable editing talents to my work.

Several additional individuals deserve special mention here. They include:

Tom Bergin, of Tom Bergin studios here in Tucson, made six maps for this book.

Gary Dillard, southwest borderlands historian and author, helped research the original Warren story.

David Devine, Tucson historian and author, reviewed my draft article on Native American history.

Gary Fox helped me put the Arizona automobile license plate story together and supplied several images of historic plates. See azplates.com.

Steven Fried, author of *Appetite for America - How Visionary Businessman Fred Harvey Built a Railroad Hospitality Empire That Civilized the Wild West*, helped improve my column on Fred Harvey.

Rob Johnson, historian of Bashas' Grocery, helped me put the Bashas' story together and provided several historic images.

Boyd Nichol, working at the time as Photo Curator for the Bisbee Mining Museum, provided several historic images of Warren.

Al Ring, my brother and historian/archivist for the Greater Tucson Fire Foundation, is my go-to person for Arizona historical research. He is also an avid collector of historic Arizona postcards, many of which are included in this book.

Timothy Tait (and Harold A. Sanders), from the Arizona Department of Transportation answered my questions on automobile license plates and gave me permission to use an ADOT image.

Susanne Tate suggested that I write about Arizona's Five C's.

Laurie Webster wrote the initial paper on the history of the Staples Rug and consulted with me on Navajo weaving and traders.

Pat Wood, my better half and former librarian, is my ultimate resource for library research. Moreover, she is the first and most important reviewer for all my writing.

plus ... thanks to the numerous respondents to my newspaper columns
for their kind words, corrections, and suggested additions.

