Arizona

(Historical Essay on Agriculture and Rural Life)

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ARIZONA

"Oh yes, said Senator Wade of Ohio. I have heard of that country (Arizona)—it is just like hell."

This quote from Lawrence Clark Powell's *Arizona: a History* (1990) describes the typical attitude of 19th century politicians. It was an attitude formed, in part, by the agricultural troubles of many of Arizona's early settlers—from the Spaniards to the Mormons. And even though Spanish explorers crossed Arizona almost 70 years before the English landed in Jamestown, the region was so remote and inhospitable, that it remained a virtual frontier until it attained statehood in 1912.

For 3,000 years before Mormons came to Arizona, Native Americans successfully planted and harvested crops. In the 1200's, the Hohokam developed sophisticated irrigation systems, allowing them to harvest what was native to the desert: mesquite pods, agave, saguaro fruit, cholla buds and the greens of wild plants as described in *Arizona: A History* (1995) by Thomas E. Sheridan. The Upper Piman Indians who called themselves "Oodham" or "the people," were another agricultural success story. They strategically planted along the mudflats of the Gila and Lower Colorado Rivers. Perhaps the area's most ingenious farmers were the Hopi Indians, situated in northern Arizona, who successfully grew crops in the mantle of sand along their mesas. The sand trapped rainfall and snowmelt, allowing the Hopis to thrive in a land that averaged a mere ten to thirteen inches of rain per year.

The flavor and texture of Arizona agriculture and society changed with the arrival of Spanish explorers and missionaries who traveled north from Mexico in the early 1500's. Settlements created by the Spanish missionaries in the Pimeria Alta (encompassing what is now southern Arizona and northern Sonora) in the late 1600s were the most lasting to date. The Jesuits wanted to settle Native Americans in villages, where conversion could take place more easily. Padre Eusebio Francisco Kino and his fellow missionaries knew that in order to convert the Indians, they had to change the way they lived. Thomas E. Sheridan explains that the Pimas appreciated the material gifts that Kino gave them: grain seeds, vegetables, fruit trees and small herds of livestock. These small, yet non-native gifts would play a significant role in Arizona's agricultural and socio-economic history. Many of Arizona's agricultural struggles center around the introduction of European plants and the quantity of water needed to sustain them.

The discovery of silver by a Yaqui Indian in 1736 initiated a long struggle between European entrepreneurs and Jesuit missionaries. The miners and ranchers, interested in using Native American labor and resources, argued for removal of Native peoples from villages. The miners and ranchers persevered. Franciscan missionaries replaced the Jesuits after their expulsion from the area in 1767. The University of Arizona Library holds two outstanding 20th century archives of these Franciscan missionaries, which provide insight into Native American culture and society. Berard Haile (*Papers, 1893-1961*) worked extensively with the Navajos and his papers deal with their religion and mythology. Francis J. Upleggar (*Papers, 1867-1964*) describes the Catholic missions and the lifestyles of Arizona's Apache Indians.

Many miners led a nomadic life, and most pioneers who came to Arizona to get rich in the mines actually had to eke out a living by farming and ranching. Native Americans had to fight to preserve their agricultural lifestyle. Land became the symbol and the battleground between the budding capitalists from the eastern states, immigrants from Europe, and aboriginal Americans. The literature of the day reveals that the end of the 18th century in Arizona was a time of struggles between Spanish and other European settlers, Mexicans, and Native Americans. Variations and manifestations of this struggle continue today.

Mormons arrived in Arizona in 1877 and, like the Native Americans before them, saw their relationship with the land and agriculture as a spiritual quest. Agriculture represented the Mormon values of hard work, order, cooperation and companionship. The first Mormon missions were located around the Colorado Plateau. In order to survive in a harsh desert environment, characterized by isolation and drudgery, settlers adopted a cooperative lifestyle. Labor, food, and property were shared. Isolation was difficult because the communities consisted mostly of the young and the poor. Though cooperation was reflected in the literature of the community, the community was not without hierarchy. A board of directors distributed work tasks, albeit often unevenly. Mormon settlements saw both rebellion and desertion, and successful farming was often just a vision.

Away from the Colorado Plateau, Mormon settlements were more successful. In northeastern Arizona, Mormon farming and society thrived. Families like the Udalls and the Flakes prospered, but many other Mormon pioneers wandered without ever finding their oasis on the desert. Mormon farming successes also brought problems, especially as Mormons bought and successfully farmed land around Mesa, Arizona. They became social and political targets in a landscape radically changing because of railroads, immigration, and the Mexican wars. An effort to legally disempower the Mormons began in 1885 with the passing of a state law forcing Mormons to take a loyalty oath against polygamy. For many years, Mormons would remain targets of politicians and newspaper editors.

The University of Arizona Library has vast documentation of Mormon settlements in Arizona. In addition to published resources such as *Mormon Settlement in Arizona* (1921) by James H. McClintock, Arizona's official historian from 1919-1928, the collections include the primary research resources such as the papers of David King Udall and Eliza Luella Steward (grandparents of Congressman Morris K. Udall) and the autobiography and diary of James Pace (a Mormon frontier settler). The papers of Congressman Morris K. Udall also provide insight into Mormon settlements in the state.

In the late 19th century the railroads inextricably changed Arizona landscape and society. The railroads blurred the lines between the frontier west and urban east. Prior to the railroads, cattle played a small part in Arizona's agricultural life. In the late 1860's, however, ranchers and the railroading entrepreneurs became one. This was the result of a Congressional act that gave the Atlantic and Pacific Railway the land for the track they laid. This meant that influential interests could purchase large tracts of land in the

railroad corridors. As this squeezed the Anglo and Mexican farmers and ranchers, it made room for cattle conglomerates in Arizona. The literature of the day reflects the conflicts that arose and festered between independent farmers and ranchers who were forced out by the conglomerates. The boom in cattle did not last long. Drought and over-stocking brought disease and death to thousands of cattle, and the destruction of rangeland. New products had to supplement cattle for the business interests, now fully entrenched in the Arizona landscape.

Copper and cotton took the place of cattle. The expansion of copper mining occurred in the 1870's. Powerful corporations and ambitious tycoons bustled in the expansion of mining. Between 1872 and 1921, 870 million pounds of copper was mined in Clifton, the oldest copper town in Arizona. The railroads had a profound effect on the production of copper. With the excavation of more and more copper veins, copper companies realized that they needed to get into the railway business in order to deliver copper to market. Rail companies and copper mines struggled over who owned and laid tracks, while agricultural land diminished even more.

The railroads brought new immigrants into Arizona, among them the Chinese, beginning in 1878. The harshness of the sun-scorched desert was the reason given for using Chinese to lay railroad tracks. Chinese workers, hired for a dollar a day, laid a mile of track per day. When the railroads moved on, the Chinese stayed and built small but successful farming communities along the river beds of southern and eastern Arizona. They also worked in Arizona's new boom business: mining. In the first half of the 20th century, drought, racism and the changing ownership of real estate forced them to leave Arizona or to change to a more independent livelihood such as truck farming, grocery or restaurants.

In 1885 the territorial legislature established the University of Arizona in Tucson as the state's land-grant college. The 1887 Hatch Act provided for the establishment of agricultural experimental stations, and subsequent federal direction established the Cooperative Extension Service. The publications of these agencies reveal an active role in helping Arizona families in the areas of agricultural and natural resources, home economics, community development and youth development—especially through the 4H program.

The climate of southern Arizona became a drawing point in the early 1900's for people suffering from lung ailments such as asthma and tuberculosis. The hot, dry climate of the Sonoran Desert was just what the doctor ordered for respiratory ailments due to the lack of any other effective treatments at the time. The railroads helped spur the appearance of resorts and entire communities to cater to wealthy invalids; the poor settled for suffering in tent cities.

The railroads also made it possible for readers inspired by works such as John Wesley Powell's diary and writings of his explorations of the Grand Canyon, and Clarence Dutton's geologic history of the region, to experience and view one of the natural wonders of the world. The Santa Fe Railroad reduced the cost and time to travel to the

Grand Canyon and triggered a tourist influx that made Arizona the Grand Canyon State. Tourism in the 1920's became an industry, and the family-owned car in turn led to an even greater proliferation of all that goes along with it: gas stations, restaurants, curio shops, campgrounds, highways, etc. A mobile population was targeted by Arizona's largest cities, Phoenix and Tucson, as resorts for wealthy visitors, and havens for retirees wanting to escape the northern winters. With extreme ranges in elevation and temperature, the varied landscape of Arizona also proved to be a magnet for the scientific community, attracting anthropologists, botanists, archaeologists, and climatologists to study its natural and human history.

The University of Arizona Library's holdings of published materials and primary resources provide both historical and intimate views of the effect of the railways on agricultural and rural life in Arizona. For example, the Library holds the letters and legal papers of Semmes Ives, a lawyer who represented many of the railroad businesses. The Library also owns a colorful history of the railways, entitled *The Planning of a Transcontinental Railroad through Southern Arizona 1832-1870*, a thesis written in 1948.

The exploitation of Arizona's natural resources met with resistance from individuals of varied backgrounds, notably art critic John C. Van Dyke, entrepreneur and miner Ralph Cameron, botanist Forrest Shreve, and agronomist Robert Forbes—all of whom published their views. With an increasing number of people moving to Arizona, there was an increasing awareness of a need to protect and preserve the natural beauty and cultural heritage of the state. At the turn of the century, Theodore Roosevelt was instrumental in establishing national forests, monuments, parks, and land management areas. Today, almost 44% of Arizona's land is under federal ownership.

An abundance of water brought on by the completion of Roosevelt Dam in 1911, and the demand for cotton for the war effort, ushered in the Arizona cotton explosion. In 1916 less than 7,500 acres of cotton were cultivated in the state; by 1919 this had grown to 82,000 acres. As with railroads, mining, and cattle, large businesses held most of the cotton land. Tire companies, in particular, who needed the fiber for their products settled in the state. Mexican laborers, who had been called on for mining and railroad work, provided the large number of workers needed in the cotton fields.

With the end of World War I, the cotton market fell and the cotton explosion turned into bankruptcy. Farmers and business alike were affected, and Arizona's farm population declined by 20 percent between 1920 and 1925. Labor strikes and the environmental degradation which had turned the Southern Plains into the "Dust Bowl," diminished the American cotton industry in the 1920's though cotton remained an important crop in Arizona. Migrant laborers who worked the fields became the targets of Federal quota acts and the newly formed Border Patrol. Overworked and destitute farm workers from Texas, Oklahoma and Arkansas passed through Arizona on their way to California, many staying a season or two to work in the fields. The literature of the day reveals that dust, drought, and their effects left an indelible mark on Arizona's agricultural, rural, ecological, social, and political landscape.

Arizona's economy was severely affected during the Depression. But with the advent of World War II it experienced a revival that lasted for decades. Copper was needed for munitions and machinery, and there was a demand for beef, hides, and cotton. Air bases were built to train pilots year round in the clean desert air. After the end of the War, the state saw a phenomenal amount of growth in population and new industry. With the advent of refrigerated railway cars, much of the acreage that had once been planted in cotton was converted to crops, such as lettuce, alfalfa, vegetables, and citrus. This in turn increased the demand for water—the wild card in Arizona's landscape.

The history of Arizona and its agriculture revolve around water control. The Hohokam tried to control water with their sophisticated canals and so did the Mormons. However, it was not until the 1900's that Arizonans adopted a philosophy of domesticating water. This philosophy ushered in a profound new relationship between Arizonans and the federal government. The literature surrounding the construction of the Salt River Project, Roosevelt Dam, and the Central Arizona Project—all huge waterworks programs—document the solidification of an uneasy relationship between the federal government, Arizona agriculture businesses, and the ever-growing multi-national corporations. The history of these projects is key to understanding Arizona agricultural and rural history.

Real estate replaced cattle and cotton as the new speculative project in the last part of the 20th century. Subdivisions displaced ranches, orchards, and fields. Undaunted by desert temperatures and shaky foundations, developers have moved into rural areas to plant golf courses and build air conditioned homes Land fraud, always a problem in Arizona, became epidemic in the 1970's and 1980's.

The expansion of urban centers into rural land has been accompanied by air pollution, traffic congestion, and competing water demands to meet residential, industrial and agricultural needs. Arizona's economic base changed from the Four C's (cattle, cotton, citrus, copper) to service industries and high tech manufacturing in the electronics and aerospace fields. Farmers continue to fight to protect their land and water rights as Arizona becomes more and more urban. Agriculture, however, continues to play a key role in the state's economy and even as Arizona once again transforms itself.

The history of cattle and cotton in Arizona is well represented in the collections of University of Arizona Library. Candidates for preservation include state and federal documents concerning Arizona water and agriculture issues. Descriptions of Arizona found in publications such as the Journal of Arizona History (1960--) include overviews of Arizona's agricultural and rural history. The literature that makes up the history of Arizona's agricultural and rural life reflects the forces and activities that helped to forge Arizona's path to its present status. Since printing did not begin in Arizona until 1860, written accounts by explorers, missionaries, settlers, entrepreneurs, and businesses were sent out of the territory to be printed. Many accounts by ranchers and merchants are still

in their original handwriting. Publications of the Santa Fe and Southern Pacific Railroads make up part of the literature, as do agencies such as the Commission of Agriculture and Horticulture, the Colorado River Commission, the Crop Improvement Association, the Farm Bureau Federation, and the Pima Cotton Growers Association. The University of Arizona and the Agricultural Extension Commission produced, and still produce, a vast number of publications.