

# chapter 3

## heritage themes and related resources

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### **DEVELOPMENT OF THE HERITAGE THEMES**

The seven heritage themes in this chapter emerged directly from public input. During Meeting Two of the series of four Working Group meetings described in Chapter 1, participants were divided into small groups and given large maps of the Little Colorado watershed. They were then asked a series of four questions designed to elicit responses that would describe the heritage of the region.

- ◆ If you had a two-week dream vacation in the Little Colorado River watershed, where would you go?
- ◆ If you had to describe this area to someone who had never been here, what would you say?
- ◆ When friends or family come to visit, where do you take them?
- ◆ If “something” were to leave this area forever, what would you miss most?

Participants drew or wrote their responses on the maps. In most cases, the maps were completely covered with sites, references to historical

events, notes about the current diversity of cultures found in the watershed, and lists of activities related to outdoor recreation or local festivals. Continuing in their small groups, participants reviewed all of the items placed on the maps and devised between four and six themes that would capture all of the items. Each small group then reported its themes to the whole group. The whole group then worked all of themes suggested by each smaller group into one set of between four and six themes. This process took place at five meetings in five different locations across the watershed and resulted in a total of 25 heritage themes being suggested. Many of the themes from a Working Group in one meeting location were virtually the same as themes suggested by one or more Working Groups in other meeting locations, thus giving evidence that particular themes indeed identified prevalent, consistent, and over-arching characteristics of the region. The Heritage Programs Coordinator reviewed all 25 suggestions and found seven common themes that united the most frequently suggested themes by the Working Groups. Those seven unifying themes became the seven

heritage themes described in this chapter:

- ◆ Sacred and Enchanted Landscapes
- ◆ Trails, Roads, and Rails of the West
- ◆ Native Nations
- ◆ Living from the Land
- ◆ Archaeology
- ◆ Expressions of Art and Life
- ◆ Outdoor Recreation

After establishing the seven heritage themes, the next round of Working Group meetings focused on identifying resources within the watershed that reflected, interpreted, or embodied one or more themes. The seven themes

were written on large pieces of paper and participants wrote down the name of the resource (a site, event, organization, business, etc.) and its general location on the paper of the particular theme the resource fit. Participants were asked to identify resources that related to tourism as well as those that served local communities, although often a single resource fulfilled both functions. Often, too, a single resource reflected more than one theme. The related resources sections that appear in each heritage theme chapter are a direct result of data generated during these Working Group meetings.

## Theme 3 Living from the Land

### SUMMARY OF THEME

Oral histories, historic accounts, and archaeobotanical evidence indicate that several cultures have farmed, practiced selective forestry, and mined in the Little Colorado River Valley continuously for at least 4,100 years. The food production begun four millennia ago with annual field crops and turkeys later diversified as perennial crops such as agaves and fruit trees were introduced, and livestock management was undertaken.

Within this watershed, it is still possible to see how Native American cultivators integrated seedstocks, tree plantings and water management practices from Mesoamerica, Spain, North Africa and the Middle East to successfully produce an abundance of foodstuffs on a limited water budget. These adapted seeds, trees and farming practices kept most Hopi, Tewa, Zuni



*A garden display at the Ramah Farmers' Market making use of products strongly associated with the region.*

and Navajo communities food self-sufficient even through the 1930s Dust Bowl, when other Western farmers and ranchers went belly-up with the drought. Since then, however, acreages planted to native crops have

continued to shrink with out-migration, springwater depletion, and economic change, and the number of native crop varieties still grown by contemporary farmers on reservations is less than half of what it was a century ago. Nevertheless, there are community-

based education projects on nearly all the reservations in the watershed that are working to pass traditional agricultural knowledge on to the next generation, as well as effort to restore irrigation systems, orchards, gardens, fields and native crops. Some of these have been paired with cultural and agricultural tourism to provide new income streams for local residents based on the production, marketing and interpretation of place-based heritage foods.

Both ranching and sheepherding are activities that cross-cut all the cultures of the Southwest. Begun with the introduction of criollo (corriente) cattle and churro sheep in the 1590s, these livestock traditions retain their Spanish, Basque, Moorish, and Arabian roots but have been shaped and transformed by Native Americans and later by Northern European- and Afro-American cowboys. Thus, stockmen traditions provide a basis for exploring both commonality and sharing of traditions but also the influence of differences of lifestyles and beliefs. The Little Colorado contains examples of many combinations of managing cattle, sheep, goats, (and more recently), llamas and alpacas: cultural variety, historical variety, breed variety, variety of size of operation, and variety in innovations of relevance for the future.

Logging and mining also played significant roles in the Little Colorado region. The economic and social impacts of the industries shaped the development of many local communities and were part of a larger era of expansion the nation as a whole experienced in the decades preceding

and succeeding the turn of the last century.

## DESCRIPTION OF THEME

### **Agricultural Antiquity, Continuity and Change**

Until the last quarter century, the oldest known agricultural remains in the co-terminous United States were said to be from Bat Cave, near Magdalena, New Mexico, not too far southeast of the proposed Little Colorado River National Heritage Area. However, recent archeobotanical analyses of crop remains found near Zuni, in Canyon de Chelly, and on Black Mesa near the Hopi pueblos now suggest that corn and squash were grown on the Colorado Plateau – and within the Little Colorado River watershed – for upwards of 4,100 years. These radiocarbon dates on crop remains rival those recently reported from the Santa Cruz River Valley in southern Arizona.

Impressively, the Little Colorado River Valley exhibits the continued use of some of the very same field complexes from which these crop remains were presumably derived. Some fields near Zuni, New Mexico and Second Mesa, Arizona are still being cultivated – without any evident depletion of soil fertility nor soil microbial diversity – at sites described by the very first European visitors to these areas. Whereas dry farming and floodwater farming have all but died in other parts of Arizona and the Southwest, they have persisted in the Little Colorado River Valley despite a recent decade of severe drought. This watershed is one of the few watersheds in the American West where farming traditions can be experienced that predate European settlement.

At the same time, Mexican and European crop introductions and diversified water management practices derived from Mesoamerica, Spain, North Africa, and the Middle East offer unprecedented opportunities to interpret both continuity and change in agrarian economies, rather than assuming that they have remained static or rigid. The contrast of fertile floodwater fields and spring-fed gardens or orchards with the surrounding sand plains, redrock canyon walls and barren slickrock have intrigued millions of tourists for well over a century, and now there is renewed capacity and interest among indigenous communities in interpreting as well as safeguarding these agrarian landscapes.

### **Food and Farming Diversity in Arid Landscapes**

Nowhere else in the United States can one see within a few hours drive an equivalent diversity of farming strategies still practiced by Native Americans, Hispanic Americans and Anglo (in particular, Mormon) Americans, nor sample in nearby festivals, farmers markets, and restaurants such a diversity of distinctive traditional foods. One can view sand dunes that have been dry-farmed for centuries along the roadsides leading to Hopi villages, or floodwater-supplemented orchards and cornfields along washes near Zuni and Navajo settlements. Spring-fed terrace gardens have been recently renovated at Bacavi and Wepo by Hopi and Tewa youth, while Navajo-Churro sheep butchering, shearing, wool spinning and weaving are being revived among Navajo and Hispanic settlements. From thin, delicate Hopi piki waferbreads to chunky, smoky Navajo kneal-down breads, a

distinctive set of native food products otherwise unfamiliar to outsiders can be purchased at roadside stands, flea markets, farmers markets and locally-owned restaurants. Many of these prepared foodstuffs are homemade from heirloom grains, vegetables and fruits, or heritage breeds of meats (like Navajo-Churro mutton) now collectively called *place-based heritage*

*foods*. Many of the indigenous and Hispanic communities of the region are now reviving such foods as part of their efforts towards seed sovereignty and food self-sufficiency.

In fact, the Little Colorado River Valley – as part of the Colorado Plateau as a whole – harbors a greater diversity of native and traditional crop varieties

**Table 3.1.** Folk varieties of Native American crops and livestock, Little Colorado. (The numbers in this table refer to varieties of each species that have been documented to date.)

Scientific Name	Common Name	At Hopi/Tewa	At Navajo-Apache	Zuni and Pueblos
<i>Amaranthus cruentus</i>	Red amaranth	1	-	-
<i>Amaranthus hypochondriacus</i>	Grain amaranth	-	-	1
<i>Capsicum annuum</i>	Chile pepper	2+	2+	2+
<i>Canavalia ensiformis</i>	Jackbean	1	-	-
<i>Cucurbita argyrosperma</i>	Cushaw Squash	1	1	3
<i>Cucurbita maxima</i>	Hubbard squash	2	2	1
<i>Cucurbita moschata</i>	Big cheese pumpkin	1?	-	-
<i>Cucurbita pepo</i>	Acorn squash, etc	5	3	5
<i>Gossypium hirsutum</i>	Cotton	1	-	1
<i>Helianthus annuus</i>	Sunflower	1	1	-
<i>Helianthus tuberosus</i>	Sunchoke	1	-	-
<i>Lagenaria siceraria</i>	Bottlegourd	4	1	2
<i>Monarda menthaefolia</i>	Nanakopsi bushmint	1	-	-
<i>Nicotiana attenuata</i>	Pueblo tobacco	1	1	1
<i>Nicotiana rustica</i>	Turkish Tobacco	1	-	-
<i>Nicotiana tabacum</i>	Common tobacco	1	1	1
<i>Opuntia viridiflora</i>	Cholla cactus	-	-	1
<i>Physalis philadelphica</i>	Husk tomato	-	-	1
<i>Proboscidea parviflora</i>	Devil's claw	2	-	1
<i>Phaseolus acutifolius</i>	Tepary bean	2	1	2
<i>Phaseolus coccineus</i>	Runner bean	2	-	-
<i>Phaseolus lunatus</i>	Lima bean	4	-	-
<i>Phaseolus vulgaris</i>	Common bean	10	6	4
<i>Zea mays</i>	Corn/maize	15	11	5
<i>Meleagris gallopavo</i>	Turkey	1	1	-
TOTAL	128	60	36	32

**Table 3.2.** Historically introduced seeds and breeds of the Colorado Plateau.

Scientific Name	Common Name	Hispanic/Basque	Anglo/Mormon	Native/ Indigenous
<i>Allium cepa</i>	Onion	X	X	X
<i>Allium sativum</i>	Garlic	X	X	X
<i>Citrullus lanatus</i>	Watermelon	X	X	X
<i>Cucumis melo</i>	Melon	X	X	X
<i>Cydonia oblonga</i>	Quince	X	X	-
<i>Lens culinaris</i>	Lentil	X	X	X
<i>Malus domestica</i>	Apple	X	X	X
<i>Pisum sativum</i>	Pea	X	X	-
<i>Prunus armenica</i>	Apricot	X	X	X
<i>Prunus domestica</i>	Plum	X	X	X
<i>Prunus persica</i>	Peach	X	X	X
<i>Pyrus communis</i>	Pear	X	X	X
<i>Sorghum bicolor</i>	Sorghum	X	X	X
<i>Triticum aestivum</i>	Wheat	X	X	-
<i>Vitis vinifera</i>	Grape	X	X	-
<i>Vicia faba</i>	Fava bean	X	X	-
<b>LIVESTOCK</b>				
<i>Bos bos</i>	Cattle	X	X	X
<i>Equus asinus</i>	Burro	X	X	X
<i>Equus caballus</i>	Horse	X	X	X
<i>Ovis aries</i>	Sheep	x	X	X
<i>Ovis cabra</i>	Goat	X	X	X
<i>Sus scrofa</i>	Pig	X	X	?
<b>POULTRY</b>				
<i>Anas domestica</i>	Duck	X	X	-
<i>Anser anser</i>	Goose	X	X	-
<i>Gallus domesticus</i>	Chicken	X	X	X

than any other equivalent area north of the Tropic of Cancer. It is not merely a region with deep agricultural traditions featuring corn, beans and squash; grain amaranths, sunflowers, tobaccos, gourds, greens, fruits (such as wolfberries) and fibers (such as cotton) have persisted since prehistoric times. In addition, historically introduced crops such as peaches, almonds, pears, plums, apples, apricots, Jerusalem artichokes, chiles, tomatoes, tomatillos, melons, and watermelons still proliferate. The number of distinctive

varieties of crops still grown in Native and Hispanic communities of this watershed centuries after their introduction is truly astounding. At the same time, perhaps as much as half of them have been lost since the 1930s, making current efforts for their conservation, interpretation, and revival by local communities critically important. The proposed designation of this heritage area—in a way that validates and supports these agrarian traditions—may help save this imperiled diversity.

**Cattle Ranching and Sheepherding**

Ranching, though practiced by people of virtually every ethnicity in the Southwest, has its roots with the Spanish and the Moors. Although turkeys were prehistorically herded and used to manage field weeds and pests, the 500 cattle and 5,000 sheep that walked behind Coronado and Esteban el Morro as they entered into the watershed in 1540 were the first domesticated livestock in the Little Colorado region. Coronado was not a rancher, however. He was an explorer and for him the animals were simply a food supply and not the base herd for a future hacienda. Don Juan de Onate, first governor of what is now New Mexico, is credited as the first to bring churro sheep and criollo cattle to the region to establish herds around 1598. The Spanish padres who established missions in indigenous communities all across northern New Spain used livestock raising both to sustain themselves and to establish a different dynamic within the community economy. Where cattle, sheep, or goats were set loose to graze, fields and orchards had to be fenced, and some

wild foods formerly harvested by hand were eaten out by livestock. Livestock raising, of course, is practiced by many cultures throughout the world and throughout time, but in the American Southwest it has had, and continues to have, a distinctly Spanish, Moorish and Arabic flavor, rather than a Northern European one. It appears that a disproportionate number of Andalusians—including crypto-Arabs, Moors and Jews—were among those who settled the northern frontier of New Spain in an attempt to escape the Spanish Inquisition, and they brought along Arab- and Moor-influenced terms in Spanish for managing horses, irrigation ditches, crops and livestock. The following list is a sampling of ranch terms that show these close connections (Table 3.3). Traditional cowboy clothing and the leatherwork and metalwork of saddles and tack are also strongly rooted in Spanish custom.

Nevertheless, persistent raids, especially by Apaches and Navajos, kept most non-Natives from establishing permanent settlements in the Little Colorado River Valley and kept what few ranching operations there were from developing on a major scale into the early 1870s. The exception to this situation is Don Manuel Antonio Candelaria who settled with bride and flock of sheep along a creek at a place that would come to be known as the town of Concho, Arizona sometime in the early 1860s (sources differ as to the exact year). As a small boy, Candelaria was taken captive by Apaches and raised by them until his early adulthood. When he returned to his family’s town in Cubero, New Mexico, about 60 miles east of the Continental Divide, locals there did not even recognize him. Candelaria, upon his return to the creek and grasslands he

**Table 3.3.** English ranching terms derived from Spanish (and ultimately Arabic or Moorish\*) words.

Spanish	English
Alazán*	Alice-Ann
Albarda*	Albardón
Chaparerras	Chaps
Cincha	Cinch
Corral	Corral
Jaquima*	Hackamore
Lazo	lasso
Mesteno	mustang
Rancho	ranch
Reata	lariat
Rodear	rodeo
Vaquero	buckaroo
Xinete*	jinete



*Cattle ranching has a long and multicultural history throughout the watershed.*

remembered in Arizona Territory, asked Apache leaders for their permission to let him settle there and it was granted. The raids that plagued other non-Native settlements reportedly never

happened in Concho. Later, Candelaria’s brothers followed him to Concho, as did other Hispanic individuals, families, and sheep from New Mexico. The descendents of the Candelaria brothers became the most prominent sheep-owning family in the region, at one time having 50,000 head or more.

The total number of sheep raised by the entire Concho community is estimated to have reached a height of 100,000 head in a range that extended north to the present-day Petrified Forest, south to the town of Vernon, Arizona on the edge of the White Mountains, and west to Snowflake. The



*Top: Sheepherding south to lower and warmer elevations for the winter cross State Route 77 just north of Snowflake, Arizona. (Photo by Galen Hicks.) Right: Sheepherders gather for an annual conference and sheep show dedicated to the Navajo-Churro breed.*



success of Concho sheepherders led to the town establishing the first bank in Apache County in 1902.

Following the close of the American Civil War in 1865, the U.S. military was

redirected to fighting Native Americans in the West. The military’s repeated campaigns against tribes did eventually result in the cessation of raids against homesteads and ranches and the subsequent settling of the region by non-Natives. One of the earliest known non-Native ranchers in the region, aside from the settlers at Concho, was James Stinson, who by 1873 had a respectable cattle ranch at present-day Snowflake. Thirsty sheep and their herders – John Clark, William Ashurst, Thomas McMillon, and the Daggs brothers – began arriving in the area of present-day Flagstaff in 1876 when severe drought hit California. John Wood was cattle ranching in the White Mountains by 1877.

John Young, son of Brigham Young, noticed the good grasslands around present-day Flagstaff while cutting ties for the advancing railroad. He established the Moroni Cattle Company nine miles north of Flagstaff on behalf of the Mormon Church in 1881. Two years later, with the partnership of eastern investors, he reorganized the business into the Arizona Cattle Company. Known as A-1 because of the shape of its brand, the company bought 132,000 acres from the land grant of the Atlantic & Pacific Railroad and filled it with between 14,000 to 16,000 head of cattle.

Two aspects of A-1’s development are significant because they reflect common occurrences for developing ranches all across the West. First of all, A&P’s holdings were checkerboarded, meaning that when the railroad was given the right to develop through the region, the government divided the land into one-mile by one-mile squares and awarded every other square, or “section,” to the railroad. Railroad companies were eager to sell their sections after their routes had been

determined because land sales were one of the ways they financed their typically cash-strapped operations. This is a phenomenon that occurred wherever railroads developed. The purchase of 132,000 acres (or approximately 206 sections) in effect gave A-1 twice that amount of grazing land because the sections were not fenced and, at that time, there was no oversight of the government-owned sections. The second significant detail of A-1's history is that the ranch developed with the help of eastern capital. Many industries and their related towns of the non-Native West—railroads, mining, logging, etc.—developed as a result of east coast financial investment. Wealthy entrepreneurs in cities such as Boston, Philadelphia, New York, and Chicago were willing to risk their money, if not their comfortable lifestyles, and invested in fledgling business start-ups in the West. The ranching industry was no different. With ample land and few other settlers to pose competition, ranching in the early 1880s could turn considerable profits.

The railroad, which was also largely funded by eastern interests, completely connected the Little Colorado region to the east and west coasts in 1883 and, like in every other Western town along any railroad route, changed the entire economy of the region profoundly. The histories of the railroad, mining, logging, and ranching cannot be separated. The coming railroad and the need for ties spurred the logging industry. Once the railroad was built, ties were still needed for the inevitable repairs and improvements, plus lumbermen could now use the railroad to send wood products to markets in far away places. The railroad had a similar effect on mining. Not only did trains consume enormous amounts of coal and require significant amounts of

metal for tracks, engines, and cars, but they could transport mining products to factories or population centers that were in need of the product but typically located far away from the mine.

Railroads did not build themselves. Great numbers of men were needed to plan and grade the route, build bridges, and lay track and all of these men needed to eat. Railroad crews consumed large amounts of Arizona and New Mexico beef while working in the area, and, just as with wood and mining products, once the railroad was complete, ranchers could use it to ship live animals or wool from coast to coast. Before the railroad came to the Little Colorado River Valley, wool either had to be sent by oxcart to the nearest railhead in Trinidad, Colorado (a trip of about 500 miles one way) or along the Beale Wagon Road to the Colorado River where it was loaded on boats that would eventually make their way around the tip of South America—the Panama Canal would not be built until 1914—and finally to Boston or other eastern markets.

The effect of more efficient railroad transport was immediate. In 1880, three years before the railroad, the number of sheep raised by non-Natives in northern Arizona was approximately 68,000 head. By 1890, that number increased more than nine-fold to approximately 620,000 head. The effect on cattle ranching was less dramatic, but followed a similar pattern. In 1880, cattle raised in northern Arizona by non-Natives equaled about 78,000 head, but by 1890, that number increased to 121,000 head. In all cases, the railroad facilitated access to markets and a rise in profits for rural industries and rural industries in turn patronized the railroad and added to its financial success as well.

The famous Hashknife ranch, at one time the third largest ranch in North America, followed a similar pattern of development as the A-1 with its use of eastern investors and purchase of railroad lands. Like the A-1, it was known by the shape of its brand, which was shaped like a kitchen tool chuckwagon cooks used to cut hash and vegetables. Unlike the A-1, it could actually make use of the railroad at the start of its operations.

In 1884, Edward Kinsley, a shareholder in the A&P Railroad, persuaded eastern investors to buy one million acres of checkerboarded land at \$.50/acre. Officially titled the Aztec Land and Cattle Company, the company then spent about another \$330,000 acquiring 22,000 head of cattle, and with them the rights to the distinctive brand, from the Continental Cattle Company in Texas. Suffering from two years of drought and resulting low prices for poor quality animals, Continental was more than happy to accept the price of \$15/head even if it was half of what they got just a few years before. Buying cattle is one thing, moving them to a new ranch is quite another. Ranches in Texas were losing half or more of their cattle to starvation at the time. Those that were not dead yet were severely weakened and well on their way. If the Hashknife tried to drive cattle in such condition on foot from west Texas, across all of New Mexico, to northeast Arizona, most would not survive the trip. Most would survive the trip, however, if they traveled on the new railroad.

In addition to the drought, the grasslands in Texas had been severely overgrazed, producing a dire situation for ranchers. The grasslands of the Hashknife, however, were vast and lush. The ranch was 72 miles east-west by 50 miles north-south. The eastern

boundary was about 12 miles east of Snowflake; the southern boundary crossed just north of Show Low. It extended west a few miles past Winslow, and the northern boundary was the railroad itself. The Hashknife bought 1,000,000 acres but effectively got the use of 2,000,000 because of the checkerboarding. The size of its herd, through additional imports and breeding, grew to 60,000 in just a few years and the Hashknife needed more than 2,500 horses and 100 cowboys to take care of it all. The headquarters of the Hashknife were located just south of Joseph City, and the growing railroad town of Holbrook quickly became a major livestock shipping and distribution center with extensive stockyards, scales, and loading chutes.

People, including other ranchers, were already living in Hashknife ranch territory by the mid-1880s. The Mormon settlements had much smaller numbers of livestock as compared to the Hashknife, but the livestock still needed to eat and drink. The shepherders of Concho and Flagstaff also made use of a wide territory to find suitable summer and winter ranges. Hashknife cattle added grazing pressure to the grassland resource itself and increased tensions between shepherders and cattlemen, even those not with the Hashknife outfit.

Periodic droughts in other places prompted additional moves of cattle (not just the Hashknife's) and sheep to the Little Colorado region and soon it was becoming as overstocked as the places from which the animals were coming. Devastation from drought and overgrazing was just a matter of time for the Little Colorado. For the most part, non-Natives were ranching with a market in mind and usually that was a market far removed from the ecological and climatic realities of the Southwest.

If east or west coast markets paid high prices for beef and wool, Little Colorado ranches, especially those backed by eastern investors like the Hashknife, tried to fill the demand.

The climate of the Southwest, the new settlers were learning, is highly unpredictable and irregular. To confront the uncertainty of rain and available grass, ranches tried to secure their livelihood in a variety of ways. The A-1 began developing dams, tanks, and pipelines to springs. The drought of 1892 prompted many cattle ranchers to begin planting alfalfa for a more steady supply of feed, to begin selling animals at one year of age when previously they had been kept for two years or more, and to improve their stock through breeding. It took virtually the same amount of feed and water to support an animal of inferior breeding as it did one of superior breeding, yet the animal of superior breeding would bring a higher price due to its higher quality. Grazing pressure and competition also started the practice in the 1880s for shepherders to take their flocks over the Mogollon Rim to winter along the Salt and Gila Rivers outside of Phoenix. The annual spring and fall movements of the sheep became hallmarks of the industry and communities along the route. As one historian wrote, “the harbinger of spring in Flagstaff was not a robin’s chirp, but the bleat of a Merino” (Mangum 2002b:68). The seasonal migration continues to this day, albeit on a much smaller scale. Still, twice each year, State Highway 77 just north of Snowflake is closed to traffic for a short time to allow the sheep to cross on their way south for the winter or north for the summer.

Improved irrigation, breeding, and alfalfa fields, however, proved no match for repeated drought,

overgrazed and overstocked ranges, and inconsistent beef markets. While smaller operations faced these same challenges, they had at least one advantage over the larger operations—smaller overhead costs. The A-1 Ranch folded in 1899. Much of its acreage was bought by the Babbitt brothers of Flagstaff who had begun their own ranch with a mere 160 acres just north of Flagstaff in 1886. The Hashknife Ranch went out of business two years later, and again, most of the land and the famous brand were bought by the Babbitts. Babbitt Ranches is still a fully operating cattle ranch today and the hashknife brand is currently used on their award-winning quarter horses which are offered for public sale every July. Babbitt Ranches’ enduring success was due to several reasons. First, although they grew quite large, they started small and built slowly over time. They also diversified their income by operating a mercantile, lumberyard, and slaughterhouse in town, and even by raising sheep. The Babbitts’ tactic of acquiring property slowly over time was not unique to their operation. It was a method many smaller homesteads throughout the watershed employed to build their ranches and income to a reliable level.

Cattle, and especially sheep, ranching were major industries throughout the watershed. Sheep ranching for many years was northern Arizona’s largest industry, involving hundreds of families, and it also played a larger role in northwest New Mexico than did cattle. The creation of the Forest Reserves in the late 1890s, which became known as National Forests with the creation of the Forest Service in 1905, struck considerable fear and outright anger into the hearts of ranchers. For a time, a ban of all grazing on public land was considered. Then the ban was considered only for

sheep. Sheep had long been looked upon as more damaging to vegetation and land than cattle, although in actuality they can be managed to avoid harmful effects and can even produce beneficial effects such as embedding seeds into the ground that would otherwise be blown away by the wind. Some ranchers, such as the Babbitts, saw the new management rules as an opportunity to further develop the quality and integrity of the ranching industry and a safeguard against overgrazing. Grazing on public lands—and virtually all grazing in the West is done in part on public lands—has come with a set of regulations ever since.

Periodic market rises and declines affected both the cattle and sheep industries, but both remained basically strong into the first half of the 20<sup>th</sup> century. The development of synthetic fabrics after WWII, however, took a huge toll on the sheep industry over the succeeding decades. A disappearing market, coupled with the Southwest's rapid urban growth and corresponding decrease in grazing land, forced most sheepherders out of business or into retirement by the 1970s. The cattle industry fared slightly better, although any rancher today will speak of the great effort involved in just breaking even. A common joke about cattle ranching states that the key to a successful ranch is a wife who works in town.

Modern-day agriculture in the Little Colorado has taken an interesting new turn in recent years. In addition to the historic industries of cattle and sheep ranching and Native crops and gardens, a number of people have started new farms with an innovative focus. Organic, local, and naturally-produced foods and plants are gaining popularity with farmers and consumers alike. From goat cheese to lavender to

beef, the Little Colorado's agricultural offerings are many and varied. A few traditional cattle operations are now looking to wind power and other business enterprises compatible with ranching in order to diversify their source of income while enabling them to continue the ranching lifestyle they enjoy.

## Lumber

Although not as widespread across the watershed as ranching, lumber did play a major role in the economies and lifestyle of communities in forested places. The western and southern border of the watershed is home to part of the largest continuous Ponderosa Pine forest on the continent. This forest literally built other major industries: it provided ties for the railroad, fruit and vegetable crates for agriculture, and shafts for mining. It employed up to 1,000 people during the early 1900s, placing it as the 3<sup>rd</sup> largest industry in the state of Arizona, and more than 90% of the industry was concentrated in the northern part of the state. In specific communities, lumber was the number one industry.

The first major call for lumber came with the advancing railroads. Lumber from the Zuni Mountains built the track as it passed through Gallup. Railroad orders were responsible for the development of lumber companies in the White Mountains and around Flagstaff as well. One of Flagstaff's most influential early families was the Riordans. They made their living with timber, surviving the intense boom and bust cycle of the industry, and made many lasting contributions to the developing town.

Denis Matthew Riordan came to Flagstaff as a general manager of the

Ayer Lumber Company, a Chicago-backed firm, in 1884 and his brothers Timothy Allen and Michael James joined him within two years. In 1887, Denis Matthew bought Ayer and renamed it the Arizona Lumber Company. In 1893, his brothers purchased his interests and changed the name a final time to the Arizona Lumber and Timber Company. Denis Matthew eventually moved from Arizona, but not before he succeeded in separating Coconino County from Yavapai County in 1891 and establishing Flagstaff as the county seat. Timothy and Michael stayed for the remainder of their lives and married sisters, who happened to be first cousins to the Babbitt brothers. The Riordan brothers built a distinctive double mansion—one wing for each brother adjoined in the center by a billiard room—with architect Charles Whittlesey who, one year later, would build El Tovar lodge in Grand Canyon for the ATSF railroad. The mansion is now a State Park. The Riordans engaged in many projects outside the immediate purview of the lumber industry that shaped the town considerably during its early years. Together with the Babbitts and another businessman, they established the first electric company in Flagstaff. Partnering with ATSF, the Riordans developed a pipeline for water from the inner basin of the San Francisco Peaks. This is still a source of water for Flagstaff to this day. Another water project, the damming of Clark Valley, resulted in Lake Mary, the reservoir named for Timothy's eldest daughter that is a popular fishing and boating lake today and still used as a reservoir for the city.

Aside from these development projects, the lumber industry itself shaped the forested communities of the Little Colorado. The logging industry

attracted men from all ethnic backgrounds, although the most numerous were Mexicans or those of Spanish or Mexican descent. With the United States' entry into WWI, many American men went to fight and their places in the forest were filled largely with new Mexican migrants. Department of Labor statistics show that more than 1,100 workers from Mexico came to northern Arizona between June of 1917 and January 1919. In 1924, the Cady Lumber Company of Louisiana, quickly running out of timber in its home state, bought the Apache Lumber Company in the White Mountains and the Flagstaff Lumber Company in Flagstaff and moved a total of 800 people—mostly black workers and their families—to Flagstaff and to McNary, Arizona, located just south of the watershed on the White Mountain Apache Reservation. Within six years, most of the McNary workers, unhappy with the isolation of the community or the drastic climatic change from southern Louisiana, moved. Some returned to the South, others went to nearby communities in the White Mountains, but many went to Flagstaff to work in the lumber mills there. The lumber industry did not bring Hispanics or blacks to the Little Colorado region for the first time, but it did significantly increase their numbers. The South Beaver School in Flagstaff, a National Register property that still serves as an elementary school, was built by Works Project Administration (WPA) employees to serve students of Spanish-speaking parents.

The Great Depression hit all industries more or less equally hard, but lumber had already suffered a decade of changing markets and prices during the 1920s. 1931 production levels were half of what they were in 1920 and many lumber companies simply closed. Some

went through several cycles of closing and reopening, some were bought by other companies and changed names. Preparations for WWII, such as the construction of army barracks and depots and crates for shipping supplies, once again increased demand and the post-war housing boom set a new record for pine products in 1947. By this time, though, the days of the family owned, local lumber mill were gone. The industry had consolidated during the 1930s and early 1940s and individual mills were run by large companies with operations all across the West.

### **Mining**

Although mining for turquoise, hematite, obsidian and precious minerals has occurred in the region since prehistoric eras, both Hispanic and Anglo settlers increased the intensity and range of mining activities in the Little Colorado River watershed. Gallup is a city made as much by mining as by the railroad. Officially named for a railroad paymaster and auditor David L. Gallup, the city was also known for as time as “Carbon City” due to the numerous coal mines that surrounded it. No less than six towns, all within a few miles’ radius of Gallup, were active mining communities in the early 1900s. The towns – Heaton, Mentmore, Navajo, Gamerco, Allison, and Clarkville – all share the same basic history and sequence of events, only the specific years and names of the players differ. All of the towns were company towns. The mining company provided simple, frame houses for its employees and usually a company store. There was often a post office and a saloon, and sometimes a school, clinic, or sports facilities. The town was founded when the coal was found, and when the coal

ran out residents usually moved out shortly thereafter. Gamerco and Allison both still have a few residents, but Heaton, Mentmore, Navajo, and Clarkville are ghost towns. If the mining towns themselves were not lasting, the impact of the coal industry was. Mines attracted workers of all backgrounds, as did the railroad. Gallup has a long history of a diverse population including European, Asian, Hispanic, and Native residents whose families were first attracted by its early industries. Mining and the railroad each helped the other industry develop and, in turn, provided much prosperity to a young and growing Gallup.

Both the Navajo and Hopi Reservations have a long history with coal mining as well. The coal mined today is not used for trains but for producing electricity in power plants that surround the reservations. Coal provides a substantial portion of revenue for the tribes and many jobs, but, like in most places, is also fraught with controversy. The Navajo Reservation also has a history of uranium mining and uranium is also found in other parts of the Little Colorado River Valley and in areas immediately surrounding it. Uranium became an important resource during WWII for the development of the atomic bomb and in the decades following for the development of nuclear weapons and nuclear power.

### **DISTINCTIVENESS OF THEME**

The variable, and not always favorable, climate and soil conditions led to the development of highly specialized crop types and farming methods in the Little Colorado River watershed. The diversity of crops and livestock breeds that farmers and ranchers introduced and adapted as much as 4,100 years

ago largely survives today, forming the richest set of traditional food biodiversity extant in the Americas north of the Tropic of Cancer. This ancient and diverse agricultural record suggests that the Little Colorado River Valley is not only one of the oldest continuously cultivated areas in North America, but the one with the greatest continuity of diverse dry land farms, spring-fed gardens, and irrigated orchards persisting to the present time.

Spanish-flavored ranching and sheep herding traditions are synonymous with the American Southwest. The American cowboy has been both a national icon and international hero for well over a century, and integrates Spanish, Anglo, Arabian, African, and Native American traditions. His historic persona, based somewhat in reality but also polished with myth, captures everything Americans think good about themselves and their country: he is free, he is independent, he is simple yet wise from experience, he is hard working, he is both tough when he needs to be and a gentleman when he needs to be, he is a straight-talker, and he lives by a code of honor. Foreign visitors flock by the hundreds of thousands to the Colorado Plateau each year, merely to catch a glimpse of the true West and its “riders of the purple sage.”

The Little Colorado also has a significant logging and mining history. The four land-based industries of farming, ranching, logging, and mining, combined with the railroad, was the recipe that fueled the development of most of the nation from the mid-1800s to the early 1900s. The East looked to the West for continued economic expansion and supply of resources, while the West looked to the east for markets for its products. The two regions left their

indelible marks on each other. Most modern-day communities of the Little Colorado are enduring legacies of the dynamic social and economic forces that drove the expanding nation during this period.

## RELATED RESOURCES LIST

- ♦ **26 Bar Ranch, Eagar:** A working cattle ranch, formerly owned by John Wayne, that now belongs to the Hopi Tribe. Operates as a bed and breakfast and participates in Valle Redondo Days celebration.
- ♦ **Amelia’s Garden, Snowflake:** A restaurant and market that features organic and locally-grown foods.
- ♦ **Babbitt Ranches, Flagstaff:** Babbitt Ranches, first established in 1886, continues to operate on land surrounding the San Francisco Peaks and near the Grand Canyon and the family continues to operate a retail shop (a modern incarnation of their original mercantile) in their historic structure in downtown Flagstaff. In addition to cattle, the Ranches are known for breeding award-winning American Quarter Horses, which are offered at a public auction on the ranch every July. Babbitt Ranches has put large tracts of land into permanent conservation and continues to seek ways to improve the ecological health of their rangelands to improve both the quality of their cattle and habitat for wildlife.
- ♦ **Bed and breakfasts, Eastern Agency of the Navajo Nation:** A number of families will host overnight guests in traditional hogans. Guests can experience a small part of Navajo culture, including sheepherding and traditional meals.



**From the Land**

- |                                     |   |  |
|-------------------------------------|---|--|
| 1 26 Bar Ranch                      | 11 Farmers' Markets                           | 20 Ramah Lake                          |
| 2 Amelia's Garden                   | 12 Farmers' Markets                           | 21 Red Rock Ranch & Farms              |
| 3 Apache-Sitgreaves National Forest | 13 Flagstaff Youth Gardens                    | 22 Riordan Mansion State Historic Park |
| 4 Babbitt Ranches                   | 14 Gallup Public Library fine art collection  | 23 Sweet Corn Festival                 |
| 5 Black Mesa Ranch                  | 15 Hubbel Trading Post National Historic Site | 24 Trappings of the American West      |
| 6 Blevins House                     | 16 Lyman Lake State Park                      | 25 Z Lazy B Guest Ranch                |
| 7 Diablo Trust                      | 17 Magdalena Cattle Trail                     | 26 Zuni Youth Agriculture Program      |
| 8 Eagar Daze                        | 18 Mountain Meadow Permaculture Farm          |  |
| 9 Farmers' Markets                  | 19 Natwani Coalition                          |  |
| 10 Farmers' Markets                 |   |  |

♦ **Black Mesa Ranch, Concho:** A goat farm where cheese is made fresh on the premises. Also offers

cheesemaking workshops and conducts open houses during the summer.

- ♦ **Blevins House, Holbrook:** Still standing on Joy Nevin Blvd., the Blevins house was the site of a famous 1887 shootout that was a result, in part, of the notorious disputes and tensions between cattlemen and shearers. Although some cattlemen and shearers cooperated, and some individuals raised both animals either concurrently or during different years of their careers, the Pleasant Valley Wars of central Arizona are among the most famous examples of when the two did not get along. Sheriff Commodore Perry Owens served a warrant for the arrest of Andy Blevins (a.k.a Andy Cooper) at the house. Andy had just arrived in town after being involved in shooting incidents in the Pleasant Valley Wars to the south. When Andy, who already had a reputation for murder and cattle rustling, tried to evade his arrest, the Sheriff, in an open and undefended position, shot him in the abdomen. This drew shots from three other men in the house, two of whom Sheriff Owens shot and killed and one of whom he wounded to the point of permanent disability.
- ♦ **Diablo Trust, eastern Coconino County:** This organization is a partnership between two family-owned ranches in Coconino County. They engage a diverse group of scientists, local government officials, the non-agricultural public, federal agencies, artists, and others to both educate people about the ranching lifestyle and its realities and to seek input and support for continued range improvements that serve both cattle and wildlife.
- ♦ **Eagar Daze, Eagar:** Eagar Daze, held annually in August since 1985, focuses on the logging history of Eagar and the White Mountains and features timber-related sporting events and competitions in addition to music, games, and a community barbeque. It is one of the few remaining logging events in the Southwest.
- ♦ **Farmers' Markets, Concho, Show Low, Flagstaff, and Ramah:** Farmers' markets in these northern Arizona communities provide an opportunity for consumers to purchase direct from local and regional growers and for growers to more directly learn and respond to their consumers' preferences. The town of Ramah and the Ramah Farmers' Market were specifically mentioned in a recent edition of a Frommer's Travel Guide.
- ♦ **Flagstaff Youth Gardens, Flagstaff:** A program for high school students that teaches a mix of traditional and modern organic farming methods with healthy doses of science, Native culture, community building, work skill development, and fun.
- ♦ **Hubbell Trading Post National Historic Site, Ganado Chapter:** John Lorenzo Hubbell began trading at this site in 1878. He and his descendants operated the post until it was sold to the National Park Service in 1967. Navajos would bring in their wool and other goods in trade for basic manufactured items. Ongoing efforts are restoring an adjacent wash and reintroducing livestock and garden crops that were present during the time of J. L. Hubbell.
- ♦ **Lyman Lake State Park:** Mormons built the earthen dam that made the lake to support their farming settlements. For thousands of years before that, Native settlements flourished and farmed along the river's edge.

- ◆ **Magdalena Cattle Trail, Springerville, Arizona to Magdalena, New Mexico:** The trail, also known as the Magdalena Livestock Driveway, is thought to be the last regularly-used cattle trail in the United States. Local ranchers used the route to drive livestock to Magdalena, which was once one of the largest shipping centers west of Chicago.
- ◆ **Mountain Meadow Permaculture Farm, Flagstaff:** A family owned and operated permaculture farm that produces a variety of agricultural products, gives tours, and hosts workshops for those interested in sustainable permaculture design and practices.
- ◆ **Native Movement, Flagstaff:** Based in Flagstaff, this organization works extensively on the Hopi and Navajo reservations as well. Current projects include school and youth gardens and alternative building workshops. Native Movement's alternative buildings make use of the natural environment to achieve heating and cooling efficiency and are designed to catch and make the most efficient use of rainwater on the property.
- ◆ **Native Seeds/SEARCH, Tucson:** An organization that maintains a seed bank for crops and wild plants traditionally used as food, fiber, or dyes in the American Southwest, including the Little Colorado River Valley. Also has a retail store to sell products made from traditional plant varieties.
- ◆ **Natwani Coalition (Natwani Tu'sawyaqam), Kykotsmovi:** An affiliation of organizations and institutions dedicated to preserving and restoring the local food system on Hopi.
- ◆ **Ramah Lake, Ramah:** Built in the 1890s by Mormon pioneers, the dam failed twice during the lake's early history. The community of Ramah, and the lake, continued to survive and today the lake is a popular fishing spot.
- ◆ **Red Rock Ranch & Farms, Concho:** This 130-acre farm is one of the largest lavender growing operations in the Western Hemisphere and the second-highest (in terms of altitude) commercial lavender operation in the world. The farm has more than 45,000 plants in the ground representing twelve varieties and more than 10,000 additional plants in the greenhouse. Plants are harvested by hand each year. Their products can be found in several local stores and the farm hosts several public tours each summer.
- ◆ **Riordan Mansion State Park:** The double, jointed home of Timothy and Michael Riordan and their respective families, the mansion is a testament to the importance and impact of Flagstaff's logging history. The mansion also hosts monthly presentations covering a wide variety of topics related to Arizona's history.
- ◆ **Rodeos:** Rodeos, the classic event showcasing cowboy skills, take place in numerous Little Colorado cities, towns, and in many chapters of the Navajo Nation. Some of the larger rodeos include the Snowflake Rodeo, Taylor Rodeo, Pine Country Pro Rodeo, Wrangler Jr. High Rodeo, Wild Thing Championship Bull Riding, and the Navajo Nation Fair Rodeo.
- ◆ **Sweet Corn Festival, Taylor:** A fall festival that celebrates sweet corn and also hosts the Arizona State Barbeque Championship.

- ◆ **Trappings of the American West, Flagstaff:** This annual exhibit, hosted at the Museum of Northern Arizona, features original artwork related to ranching and the West. Special programming, such as cowboy poetry sessions, also accompanies the show.
- ◆ **Z Lazy B Guest Ranch, McGaffey:** A guest ranch on land that the grandparents of the current owner settled at the turn of the 20<sup>th</sup> century.
- ◆ **Zuni Youth Agriculture Program, Zuni**

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