

Chapter 3 - The Land and the People

C. Otto Lindh, while Regional Forester, described the close and sometimes fragile association of man and the land and forests in the Southwest. The local economy, he said, is tied to the land: “. . . farming, both irrigated and dry land, ranching, lumbering, and recreation are mostly dependent on the land or its renewable resources.”¹

Water is the most precious item of all in the Southwest. Civilization in the Southwest, in the long run, will depend on putting to beneficial use the maximum amount of usable water at the right time and place. Maximum usable water supplies in turn depend on watersheds in good condition. Devegetated lands, eroding lands, silt producing lands and sand-dune farming lands are leading to water shortages, dogged channels, declining water storage capacities and eventually, if not corrected, will lead to despair and financial ruin. The land must have care and rehabilitation, regardless of ownership, if society is to survive.²

“Wildlife management,” Lindh said, “timber harvesting, livestock use, stream fishing and wild land recreation are and will continue to be on the same lands.”³

Thus, very succinctly, Lindh described the ecosystem that has characterized the Southwest for thousands of years. It is a system that has become increasingly fragile and vulnerable under the growing pressures of use and populations. Usages of the forests and grasslands have been shaped in part by very ancient cultural and economic patterns. Indians and the Spanish-Americans exercised communal rights to the timber, mineral resources, and grasslands. Anglo-American cattlemen expediently believed in the “open range,” while the lumber, mining, and railroad industries of the American era advocated private ownership, as did the laws and land practices of the United States. Interestingly, the creation of the national forests in a real way marked a return to practices and land usages unique to the American Southwest, where the principle of “common use” had long existed. Yet, with the advent of Anglo-Americans into the Southwest, the renewable and non-renewable resources of the region faced serious depletion. Lumbering, mining, and cattle raising had become big business, and the Forest Service became central to the allocation of very valuable and culturally important resources. The Forest Service is today an integral part of the social management and preservation of the renewable and nonrenewable resources of the region. It is not the character of southwestern resources that has changed so much as the intensity and complexity of usage.

Early Peoples In the Southwest

During the Pleistocene age, the Southwest was much cooler and wetter than it is today. Vegetation was more abundant, and animals were more diverse, often larger, and more plentiful. Nomadic hunter-gatherers, the Paleo-Indians, were known to have lived in the region some 15,000 years ago, and probably earlier. “Killsites, “ where bands killed and butchered bison and mammoths, have been excavated. The Llano culture complex, which thrived in the region, is illustrated by the Folsom and Clovis sites, Sandia Cave near Albuquerque, and Lehner, Naco, and Ventana Caves in Arizona. These Paleo-Indians achieved a high level of proficiency in hunting, marked by the excellence and beauty of the projectile points that have been found. At the end of this period, about 8,000 B.C., the flora and the fauna began to change markedly. The mammoths, giant bison, camels, small horses, ground sloth, and giant carnivores, such as the saber-toothed tiger, disappeared; and with their disappearance the old hunter-gatherer existence declined also. The

Paleolithic period was replaced by the Archaic period, and the Desert or Cochise culture. There was relatively little difference in that the people were still nomadic hunter-gatherers, but the game they hunted and the seed or berries they harvested were of the kind we know today. Deer, elk, buffalo, and antelope had replaced the larger bison and sloth. But there is some evidence that these peoples were not doing as well as their predecessors, and their technology was less proficient.⁴

Sometime before the Spanish era, agriculture was introduced into the Southwest by nomadic tribes who encountered it in central Mexico. Corn culture, for example, is believed to have first developed there in the Tehuacan Valley. Nomadic groups became increasingly less dependent upon wild game, and increasingly dependent upon harvesting first wild, then cultivated, grains and vegetables. Certainly by 250 B.C., corn, beans, cotton, and squash had begun to transform the aboriginal culture of the Southwest, and within 1,000 years the great Pueblo cultures developed.

There were various intermediate stages in this development, as from the cave to the pit house, to the Pueblo, but it is characterized by a sedentary culture, the emergence of art, religion, basketry, and simple, but good, pottery. Baskets, clothing, cotton cloth, and wooden objects have survived from this era. The Cochise culture phase evolved into several cultural groups, including the Mogollons, 300 B.C. to 1100 A.D., who lived in pit houses, made quality pottery, farmed successfully, wove fine cotton fabrics, had a refined religion with burial rituals, and seemed generally to prosper in the upper Gila area of Arizona and New Mexico. Contemporaneous with the Mogollon were the Hohokam peoples, who were concentrated in the lower regions of the Gila and Salt Rivers in Arizona and whose most distinctive contribution was the development of irrigated agriculture. The Hohokam constructed large ceremonial “ball courts,” modeled after those in Mexico, built extensive irrigation ditching systems (which were much later adapted and used by European non-Spanish settlers), and excelled in engineering and in shell and stone artistic work. The Hohokam were by 1,000 A.D. peaceably absorbed by stronger Pueblo cultures; the Pima and Papago Indians of Arizona are their direct descendants.⁵

The Anasazi or “Ancient Ones” evolved on the Four Corners Plateau of Arizona and New Mexico around 2,000 B.C. These Pueblo Indians evolved from an earlier Basketmaker culture with some infusion from the Mogollon and Hohokam tribes. They are represented by some of the greatest Indian archeological sites, Chaco Canyon in New Mexico and Canyon de Chelly in Arizona. There, famous stone apartment complexes draw visitors from around the world. The Anasazi wove fine baskets, created beautiful pottery, elaborate stone houses, and towns, and developed a social and religious structure sophisticated even by contemporary European standards. The Anasazi population peaked between 1200 and 1300 A.D., then declined; perhaps the culture was destroyed by severe droughts. Remnants of the Anasazi met the Spanish conquistadors in the 16th century.⁶

By 1400 A.D. the early Pueblo cultures were being buffeted by intrusions of the more warlike and nomadic Athapascan peoples. When the Spaniards arrived in the 1500’s, the great cliff cultures such as the Casa Grande society were becoming memories.

Spanish March Into New Mexico

The Spanish Conquistadors, who very profitably occupied Mexico City, soon began probing expeditions along the coasts of South America and, by 1536, began hearing of rich cities to the north. Marcos de Niza, a Franciscan friar, and the Moor Estevanico led the Spanish march into what is now New Mexico in 1539 in search of the legendary “Seven Cities of Cibola.” Estevanico

was killed but Friar Marcos glimpsed from a great distance a Zuni pueblo, which he imagined to be a terraced stone city, larger even than Mexico City. His Indian guides assured him that he saw the smallest of the seven cities, and that many people and great riches lay ahead. Marcos rushed back to Mexico City with the news. Within the year plans were made to send a large expedition into the region.⁷

Led by Francisco Vazquez de Coronado, and privately financed by him and the Viceroy Antonio de Mendoza, the expedition reached the small Zuni stone pueblo of Hawikuh that Marcos had grossly mistaken for far more than the modest and largely impoverished settlement that it was. Moreover, the Zuni resisted Coronado's invitation to peacefully submit to Spanish rule, and a small battle occurred before Coronado drove out the inhabitants. In short order, Coronado or his lieutenants conquered the Hopis, viewed the Grand Canyon, were welcomed into the Acoma fortress, met envoys from 12 Tiwa pueblos, and rode into Taos, Jemez, Zia, and the Pecos Valley. As the long campaign drew out, Coronado began to requisition supplies from the Pueblos and precipitated a war with the Tiwa that resulted in the destruction of many pueblos and the death and captivity of many Indians. Soon Coronado moved eastward out of the region and finally back to Mexico.⁸ He left behind a legacy of Spanish rule, and of Indian opposition to that rule. For the next 200 years the Pueblos and other Indian tribes struggled to maintain their old way of life against their new rulers, who brought Christianity, taxes, labor conscription, and some security against the rising threat of raiders from the plains to the west and from the east—the Apaches, Utes, and Navajos. Unknowingly, the Spanish brought something even more formidable and revolutionary than its armies and priests. They brought horses, guns, metal knives, cattle, and sheep—which the Indians of the Southwest had never before possessed. The Apaches, especially, adapted to the horse and expanded their range and their threat to the sedentary and established world of the Pueblos. The Navajos, previously small farmers, became herdsmen and raiders; the Apaches, previously small farmers and occasional scavengers, became even better hunters and warriors. By the mid-17th century, the ancient contest between ordered societies and the roving marauders—or Pueblo versus Apache and Navajos—became the Spanish and the Pueblos versus the Apaches and Navajos, peoples who had become far more efficient and dangerous enemies than before. The Utes, too, flourished and were formidable enemies of them all.⁹ The 17th-century Southwest was not a peaceable kingdom.

Pueblo Revolts

The second century of Spanish occupation closed with the great Pueblo revolts of 1680, the reaffirmation of peace with Spain in 1692 and 1693, and fresh rebellions in 1696. Throughout the 1700's, the Pueblos and the Spanish generally remained allied against the Apaches and Navajos. The Pueblos held to the old ways, while adopting and adapting to the new.

They clung as tenaciously as ever to old pueblo values, but they kept their activities discreetly underground in the kivas and dutifully observed Catholic forms. Friars baptized, married and buried them; they went to Mass as well as kiva.¹⁰

The Pueblo Indians kept their ancient ways, but with plows and oxen grew more crops. Horses, cattle, and sheep allowed them to eat more meat and to weave fine woolens, as well as cotton cloths. By the time Spanish rule had been replaced by Mexican, most of the Indians of the Southwest and the Spanish settlers had found that their two cultures could coexist in a common cause. There remained, however, distinct differences between the Indian and the Hispanic communities.

Spanish and Mexican laws of land tenure contrasted somewhat with the open-range, common-use system of the Native Americans. In order to encourage settlement, Spain and Mexico made assignments of large tracts of lands, or grants, to private individuals. Ordinarily the grants were made to groups of 20 families or more. Each individual received title to the house in the village, and to the acreage farmed, but the bulk of the grant, the grazing and forest land, was held in common for the use of all, much as was the system of the Pueblo and the Plains Indians.¹¹

Anglo-Americans

When the Anglo-Americans first came, they had no system similar to that of the resident Indian and Hispanic populations. By default, that is until it was claimed or sold or given away, the public domain remained open for access. When the forest reserves or National Forest System began, there was in some respects a cultural and historical precedent for them in the Southwest, more so than in other regions of the United States. Common or communal use of the forest resources more closely reflected local custom than did private ownership and use. At the same time, however, those who controlled access to that common grazing and timber land confronted centuries of established practices, customs, and cultural traditions.

Anglo-Americans, when they arrived through war and treaty, constituted the third distinctive cultural component in the Southwest. Beneath the three major cultural groups existed a diverse subcultural pattern, with each subgroup maintaining a remarkable degree of integrity-- exemplified by language, religion, art, and occupation. Thus, Southwestern culture is distinctive for its three components: Indian, Spanish-American, and Anglo-American. The three predominant Indian groups are the Pueblo, Navajo, and Apache. Spanish-Americans actually comprised three subgroups: the descendants of the Spanish colonials; Mexican-Americans, whose ancestors came more recently from Mexico; and Mexican nationals. The Anglo-Americans are any recent arrivals, particularly people of northern European origin.¹² Clearly, in the Southwest, the Anglo-Americans were the newcomers and until recent times, a minority, albeit an influential and powerful one. It was the Anglo-Americans who were called upon to, and who did to a remarkable extent, adjust to the prevailing cultural patterns. Southwestern cultures demanded coexistence, not assimilation.

The message was early conveyed to American occupying forces after the Mexican War. In December 1846, groups of Spanish-Americans, supported directly and indirectly by some Pueblos, revolted against the authority of the United States. The rebellion was short-lived, but it signaled the popular resistance of the inhabitants to the new arrivals. After more than 100 years, that resistance has not altogether ceased, but it has been important in maintaining the cultural integrity of the Southwest.

Village Is Basic

According to Margaret Mead, the anthropologist who made a study of it, the basic cultural fact of Spanish-American life in the Southwest is the village. She might have added that the village, or pueblo, was also the basic fact of the dominant Indian and Spanish-American cultures. "These villages," she said, "belong to people who depend on one another for their livelihoods and their diversions."

... Work is an accepted and inevitable part of everyday life. Everyone is expected to do his part. Tools are shared. Cooperation on some occasions involves the whole village.¹³

The Anglo-American style of private ownership and individualism stood in sharp contrast to the cultural mores of the region. Fortunately, throughout most of the 19th century, the contrast and conflict were mitigated by the isolation of the country, and the relative paucity of Anglo-Americans.

Anglo-Americans came to the Southwest as conquerors, but offered very lenient and liberal terms to the inhabitants. Mexican-Americans were proffered United States citizenship, but they could retain their Mexican citizenship. Titles to land and possessions were safeguarded. All religious rights were preserved. Treaties and grants recognized by Mexico were to be recognized by the United States. Unlike the Spanish-American residents, the Indians became special wards of the Federal government, and while being granted special protection, were essentially precluded from political life. Tribes retained their lands, pueblos, and communities; they had separate schools and were given little opportunity to participate in the economic life of the other two groups—a condition not entirely unappreciated by the more traditional Indian groups.¹⁴

Change After Civil War

The presence of the United States, however, was little felt until after the Civil War. Then, the world, and particularly the local economy, began to change. Congressional land grants to railroads, the rising competition from Anglo-American sheep and cattle barons, taxes, court actions, and confusion left many of the Hispanic settlers bereft of land, and the Pueblos and other Indians with depleted reservations. The Southwest became for a time a great cattle and sheep kingdom, supported by great rail networks and timber and mining interests. It was in the last four decades of the 19th century that the Southwest finally became Americanized.

The cowboy and lumberman replaced the herdsman, buffalo hunter, and small village farmer. Since the introduction of cattle and sheep by the Spanish, herding had become a way of life in the Southwest. The Americans made it a business, and the cowboy, in part, became a romantic illusion, whose heyday, in reality, was quite brief.

There has never before or since been a figure who has captured the imagination or interest of the world like that of the American cowboy. He is idolized and imitated not only in this country but throughout the world. The epitome of the strong, reliable, independent character who is a purveyor of good over evil ...¹⁵

To be sure, the American cowboy, the vaquero, and indeed the American cattle industry in the Southwest, reflected an adaptation of an old established native industry. The corral, rodeo, remuda, ganado, and bronco were all part of the Southwest before the Anglo-Americans arrived.

Land-Grant Ranches

Early Spanish land-grant ranches, including the Arivaca, Reventon, Sopori, and Canoa in Arizona, had operated successfully well into the Mexican period, when the weakening of governmental authority allowed the Apaches to drive many of them away. The Apaches subsequently made ranching a far more difficult task in Arizona than in New Mexico until the close of the 19th century, when the last bands of warriors were killed or captured. But the cattlemen persevered, along with the railroads and the lumbermen.

One of the most famous Arizona ranches was the Aztec Land and Cattle Company, a large corporation operated out of Joseph City. The company ranged its cattle, in part, on lands that would become the present Coconino and Apache-Sitgreaves National Forests. The company began in 1883, and ran up to 60,000 head before going bankrupt in 1900.¹⁶ More typical of the ranchers, and illustrating the growing problem of overstocking the ranges and the depletion of the grasslands, is the case of John Cline, who came to the Salt River country in the Tonto basin about 1880.

Cline brought 1,700 head of cattle from California into the Salt River Valley in what is now the Tonto National Forest. "The grass," he said, "was as green as could be. It looked as good as the alfalfa fields do now ... The grass was so good that our cattle never scattered five miles from the place where we turned them loose, within a year." Cline said there was plenty of feed, and his herd multiplied to 10,000 head, and other cattle came in and made "big herds." "I believe there was 30,000 cattle, horses, goats and sheep on the range that now will only carry 10,000 cattle." After the hard winter of 1898 things got progressively worse. "It seemed," he said, "as if the grass got thinner. You could see bare spots where when I came here the grass had the ground covered."¹⁷

And so it came to be that by 1900 the "day of the cattleman" had reached its peak and was on the decline. In some respects the preservation of the open range by the forest reserves and then by the Forest Service prolonged and even revitalized the cattle industry in Arizona and New Mexico. That industry continues to be one of the prime preoccupations of the Forest Service in the Southwestern Region. And the romantic legacy of the cowboy lives on. The current Prescott National Forest official map, for example, welcomes the modern visitor to:

Grief Hill, Yellowjacket Gulch, Lonesome Pocket, Blind Indian Creek, Battle Flat and Horsethief Basin. These formidable names of the Prescott National Forest are a heritage from harsher times. For here, more than a century ago, Arizona Territory was proclaimed in the middle of a wilderness. Trails and camps were made by intrepid frontiersmen, who bet their lives and sometimes lost. Stolen herds once healed fresh brands at Horsethief Basin. Five desperate cowboys held off 150 Indians in a furious gunfight at Battle Flat. Ten faint graves suggest the inspiration for Grief Hill. The colorful names are authentic.¹⁸

In a 1904 inspection tour of the Prescott Reserve, Inspector Louis A. Barrett tended to confirm the authenticity of the Prescott description of 1984. Barrett remarked that all of the Reserve had been cut over at least once, except in "Horse Thief Canyon" where the only virgin timber stood, and the country was so rough no one could get the timber out.¹⁹

Mining Ventures

Barrett also called attention to another American expansion of a rather old domestic industry—mining. Hardly had the ink dried on the Gadsden Purchase agreement with Mexico, than Charles Poston and Hermann Ehrenberg, a German mining engineer, headed for the Territory. After brief inspections they raised capital among Cincinnati businessmen for a mining venture and organized the Sonora Exploring and Mining Company, which began operations at Tubac. The mine boomed, with \$3,000 per day being taken out, until the removal of Federal troops in 1861, and the resurgence of Apaches forced the closing. Gold was found along the Gila River, and up the Colorado from Yuma; copper had long been mined from the Santa Rita mines near Silver City, NM; where new silver lodes were found. Douglas, Morenci, Prescott, Yuma, and Tombstone, AZ, became major mining towns. Prospectors fanned out through all of the mountain areas in Arizona

and New Mexico and could be found at work well into the 20th century.²⁰ When the USDA Forest Service acquired the forest reserves in 1905, mining and panning were being carried on in almost all of them.

Inspector Barrett explained that in the Prescott,

Mining men and prospectors have never been very friendly to the reserve policy, as they are prohibited from cutting and slashing in the timber as they formerly did, and they delight in making life as miserable as possible for the forest officers.²¹

He noted that the total mining claims located in the Prescott Reserve would total 140,000 acres; many of these, he argued, were simply devices for defrauding the government of valuable timber land.

Saloons and Brothels

Other activities closely associated with the American mining and cattle businesses in the late 19th and early 20th centuries were the saloons and brothels. Barrett devoted three pages of his 18-page report on the Prescott to saloons. The saloon and gambling house business, he said, was in as “healthy condition today as it was before the reserve was created.” Local authorities, miners, and the cowboys were wholly on the side of the saloon keepers. County officers argued that if the saloons closed up, the county schools would have to close since there would be no tax resources to pay the teachers’ salaries. The sheriff received a percentage of the tax collections and had a vested interest in keeping the saloons open. Barrett counted 29 saloons on the Prescott in 1904, the most disreputable being the one at Middleton run by R .J. Schwanbeck and Bernice West. As was this one, most saloons were located on alleged mining claims and often doubled as houses of prostitution. Forest officials were explicitly unwelcome.²²

Residents of the area around Magdalena were described in 1910 by a Washington inspector as “hard a lot as existed on any Forest of the Nation.” Things had tamed somewhat from the “good old days” when cowboys ran their horses on the board sidewalks of Main Street and jumped them off the high end near the Santa Fe branch railroad station, firing a few friendly shots as they rode. In the fall of 1910 over 100,000 head of cattle and sheep passed through the corrals, and one could estimate a proportionate headcount in the saloons and brothels.²³ The Wild West, however, was near its conclusion, but it would leave an indelible imprint

A Comprehensive Survey

In 1851 Captain Lorenzo Sitgreaves explored the region between the Zuni and Colorado Rivers and produced a map of the area that was useful to later expeditions. Two years later Secretary of War Jefferson Davis directed Lt. Amiel Weeks Whipple to make a comprehensive survey from Ft. Smith, AR, to California along the 35th degree latitude with the view of building a railroad to the Pacific along that route. Whipple was an experienced engineer and surveyor and assembled a well-equipped expedition composed of a dozen specialists, including Lt. J.C. Ives, who later explored the Colorado River; J.M. Bigelow, M.D., who served as doctor and botanist; and Heinrich Baldwin Mollhausen, a German artist and writer.²⁴

The party traveled with an escort from the 7th Infantry and had a minimum of interference from would-be Indian raiders. After preliminary surveys west from Ft. Smith, the expedition arrived in Albuquerque early in November 1853.

They proceeded westward passing the Zuni Mountains, the Petrified Forest, and Humphrey's Peak, crossing the Colorado River at the Needles. After reaching the Pacific Coast, Whipple prepared his report describing his route in detail. This was published in 1856 as a U.S. Senate Document and became the standard reference work on the region. Included in the report was an essay prepared by Dr. Bigelow on the forest trees of the region. He described the pine, the "Douglas spruce" [Douglas-fir], and spruce that grew in the higher altitudes of the Sandia, Zuni, and San Francisco Mountains. He also mentioned the pinyons and "cedars" [junipers] found on the lower slopes of the mountains. Writing in a clear style and employing the scientific as well as the common names for the principal trees, Bigelow provided the first reliable information for interested Easterners on the forest resources that existed in the New Mexico territory.²⁵

Railroads Begun

Sectional controversy and the issue of slavery in the territories prevented any western railroad building during the 1850's despite the favorable reception of the report by Lt. Amiel Whipple. Not until after the end of the Civil War was construction begun along the 42nd degree parallel on the Union Pacific-Central Railroad, the first of the transcontinental railroads. The same year, 1866, Congress chartered the Atlantic and Pacific Railroad (A&P) to build a line along the 35th degree parallel to California. It was capitalized at \$100,000,000 and promised a land grant of 40 square-mile sections (in alternate sections) for each mile of track built in the territories. Sponsored initially by John C. Fremont, the A&P built westward slowly and by 1876 sank into bankruptcy. To salvage the potentially valuable land grant, the St. Louis and San Francisco Railroad was organized to take over the properties and continue construction. This company allied itself with the Atcheson, Topeka, and Santa Fe Railway (AT&SF, often called the Santa Fe), which was building west and south through southern Kansas and southeastern Colorado, across Raton Pass, reaching Albuquerque in the spring of 1880. The resulting tripartite agreement brought together the interests of the Santa Fe, the San Francisco, and the A&P railroads to build a railroad across New Mexico and Arizona under the A&P charter and thus earn the land grant.²⁶

Essentially, the Santa Fe built the railroad and eventually reaped most of the rewards. Beginning at the town of Isleta, a few miles south of Albuquerque, the engineers mapped out the route roughly along the 35th degree parallel and work crews laid the track, establishing the towns of Gallup, Winslow, Williams, and Ash Fork as they went. The engineers' use of the notes from Lt. Whipple's Survey of 185354 speeded their work considerably. They used local forests for construction timbers, ties, and fuel for the campsites. Overcoming all obstacles, including bridging the Diablo Canyon, the crews pushed on to the Colorado and constructed a bridge over that river, linking up with the Southern Pacific Railroad at Needles in early August 1883. Hence, northern New Mexico and Arizona were on the main line of a transcontinental railroad with connections both east and west. Travel time from Chicago to Albuquerque or Flagstaff had been cut from three months to less than five days.²⁷

Atlantic & Pacific Receives 14 Million Acres

The Atlantic and Pacific Railroad (St. Louis and San Francisco) received more than 14 million acres of land for building the railroad from Isleta to Needles. Most of this eventually passed into the hands of the Santa Fe (the A&P went bankrupt again in 1894). Much of the land was low value desert, with only limited ranching use, but some was located in the forested mountains and was much more valuable. Also, the railroad had the right to “lieu lands” in exchange for previously taken private holdings along their right of way. Later there were further land exchanges for historical and scenic sites such as the Grand Canyon Reserve and the Petrified Forest. As a result of these transactions, the Santa Fe Railway had large acreages of timberland to sell. Next to the Federal General Land Office, the Santa Fe Railroad was the largest seller of lands in the New Mexico and Arizona territories.²⁸

In the meantime, the Southern Pacific Railroad (a California corporation composed of the same four entrepreneurs who had built the Central Pacific) hastened to construct a line from Yuma across the southern part of the region to meet the federally chartered Texas and Pacific Railroad at El Paso. The engineers of the Southern Pacific benefited from Lt. John J. Parke’s survey made in 1854 from Yuma to the Pima villages, and on to Tucson and the Rio Grande. This railroad was completed in 1883 and provided east-west travel for people in the southern part of the territories.²⁹

A third railroad figured in the development of the region. Despite the so-called Treaty of Boston, in which the Rio Grande Western Railroad agreed to stay out of Santa Fe, the Colorado-based company built a branch line from Alamosa to Antonito, CO. From there the line dipped down to Chama and Dulce, both in New Mexico, and then on to Durango in southwestern Colorado. It was completed in 1881. The Denver and Rio Grande Western (D&RG) then extended a second branch from Antonito south to Espanola. In 1886 it connected to the Santa Fe by a short line called the Texas, Santa Fe, and Northern. The D&RG in turn bought this line in 1895 to give the “Rebel of the Rockies” a direct link to Santa Fe. All of these lines were narrow-gauge roads and thus did not permit interchange with the AT&SF. But they did provide access to the mines and forests north of Santa Fe and routed the traffic northward to Denver.³⁰

Santa Fe Creates Second Route to Pacific

The Santa Fe also built a line south from Isleta to Deming (on the Southern Pacific Railroad) and, under the name of the Sonora Railway, it built from Guaymas, Mexico, on the Gulf of California north to Nogales, Arizona Territory. Then by securing a lease for the use of the Southern Pacific tracks from Deming to Benson and building a short line to the border, the Santa Fe had created another transcontinental route to the Pacific and a possible link with the China trade. However, the route was hardly profitable and its chief value was as a tactical threat for William B. Strong, President of the Santa Fe, to hold over the head of Collis Huntington, President of the Southern Pacific. Eventually, the Santa Fe traded the line from Benson to Guaymas to the Southern Pacific in return for trackage west of Needles in California.³¹

Lumbering Opportunities

With the completion of this major railroad net in Arizona and New Mexico territories, many entrepreneurs became interested in the commercial lumbering opportunities of the region and

hastened to plan operations to harvest the virgin pine and Douglas-fir forests on the mountain slopes. Before this time, logging and sawmilling had been pursued only on a modest scale largely for local needs. Sash or Muley mills run by water power or steam had operated in both territories since the 1860's. The reported production in 1869 was only 8 million board feet for the entire Southwest. Ten years later, reported production was about 22 million, divided equally between the two territories. At this time some 13 sawmills were in operation, and the entire cut as reported consisted of ponderosa pine.³²

As the Santa Fe Railroad began operations in New Mexico, the demand for timbers, ties, and other forest products rose sharply. To meet these needs new mills appeared along the route and existing mills changed their cutting schedules to accommodate the railroad. A group of Mormons, members of the Church of Latter Day Saints, brought a complete sawmill (probably a steam-powered small circular saw) from Utah in 1878 and set it up near Flagstaff. Three years later another group of Mormons were operating a sawmill at Mt. Graham. About the same time (1881) Chicago lumberman Edward E. Ayer erected a larger mill at Flagstaff and purchased timber rights (stumpage) on some 77 sections of land from the A&P Railroad. In 1887 he sold both mill and stumpage rights to the Arizona Lumber Company, which expanded the operation and built a logging railroad to harvest the timber both south of Flagstaff in the Coconino region and north in the Kaibab Plateau. Other major lumber companies in the Flagstaff region included the Saginaw and Manistee Lumber Co. from Michigan, the William M. Cady Lumber Co. from Louisiana, and the Southwest Forest Industries. All of these companies built and operated steam-powered sawmills and logging railroads that climbed to the pine stands of the high Colorado plateau and cut choice timber purchased from the A&P land grant. They shipped the finished products via the AT&SF to markets in California or the Plains states.³³

Zuni Mountain Railroad

Farther east, the Mitchell Brothers, loggers from Michigan, bought timber rights on 300,000 acres of land in the Zuni Mountains in 1880 from the A&P Railroad. The company built a logging road into the mountains, later called the Zuni Mountain Railroad, and brought out logs to its mill at Mitchell (now Thoreau) on the transcontinental mainline. Eventually this logging railroad had 55 miles of track and spurs covering much of the Zuni Mountain area. Other companies that either took over or shared in this operation included the A.B. McGaffey Co. from Vermont, the McKinley Lumber Co., the George E. Breece Lumber Co. from West Virginia, and the American Lumber Co. Experienced lumbermen logged the region for four decades, getting out the choice trees for timbers, ties, and general building purposes. The Mitchell mill was moved to Albuquerque and enlarged and modernized. The entire operation was closely tied to the A&P Railroad and its forested land grant.³⁴

The construction of the narrow-gauge D&RG Railroad in northern New Mexico opened up the fine stands of ponderosa pine in the mountains north of Santa Fe. In 1888, A.T. Sullenberger built a steam-powered mill west of Aztec that was linked with the D&RG mainline by a 6-mile spur. Another spur ran 3 miles south from Chama to Laws Mill. The D&RG extended this line to the Brazos River in 1892 to serve a new mill of the Biggs Lumber Co. Later this road was built to Tierra Amarilla and operated under the name of the Tierra Amarilla Southern Railroad, serving a number of mills in the region, laying down spur track where new operations demanded and taking up track when logging had been completed. These mills featured circular saws that wasted up to a half inch of kerf with each pass of the log through the saw. But the high mountain stands of ponderosa pine, Douglas-fir, and spruce offered fine timber in a seemingly inexhaustible supply.

Lumbermen gave little thought to questions of conservation, selective cutting, reforestation --or ownership.³⁵

After the Tierra Amarilla region had been cut out, the Biggs mill closed down and the tracks were moved in 1903 to Lumberton on the main line of the D&RG branch to Durango. Here the Burns/Biggs Lumber Co. built a new mill and extended spur line tracks south to Elvado and Gallina. Burns/Biggs, or its successor, the New Mexico Lumber Co., was alternately laying down and taking up tracks, as stands in the high mountain valleys were cut out, for some 20 years. By the time operations ceased in 1924 the company had laid a total of more than 53 miles of spur tracks in the mountains. Another company, the Pagosa Lumber Co., built a mill at Dulce in 1916 and logged in the same general region as the Burns/Biggs Lumber Co. Its shortline railroad, which extended some 20 miles south, operated under the name of the Rio Grande and Pagosa Springs Railroad.³⁶

East of the Chama area, the D&RG built a narrow-gauge branch line south from Antonito, CO, to Espanola that eventually connected with a shortline to Santa Fe. This opened up a new area for logging opportunities. A number of mills sprang up with spur lines providing the motive power for both the logs to the mill and the finished lumber from the mill to the D&RG mainline. The largest operation in this region was the Hallack and Howard Lumber Co., run by two sets of brothers who had engaged in the lumber business in Colorado before moving to New Mexico. They built a large mill at La Madera in 1914 and logged under contract from the Federal forests. They cut out and moved to Idaho in 1926, and the tracks were taken up.³⁷

Vermonter A.B. McGaffey organized the Santa Barbara Tie and Pole Co. in 1907 to cut ties and timbers for the Santa Fe Railway. After cutting the timbers in the Santa Barbara grant about 40 miles north of Santa Fe, McGaffey hauled the logs to his mill and in true New England fashion floated the cut ties down the Rio Grande to Boom and then hauled them by rail to the AT&SF tie-treating plant in Albuquerque. In another Santa Fe-related venture, the White Pine Lumber Co. built a branch line north from Bernalillo to San Ysidro and Jemez. This enabled the company to lay down spurs and log the mountain canyons near the present site of Los Alamos. This was a very expensive operation, and the White Pine Lumber Co. went bankrupt during the Great Depression.³⁸

El Paso & Northeastern

One of the most impressive lumbering enterprises in the Southwest developed in the Sacramento Mountains in southern New Mexico. To open up this region for timber as well as minerals, Charles B. Eddy and a group of Eastern capitalists organized and built the El Paso and Northeastern Railway (EP&NE) in 1896 to run from the Southern Pacific junction at El Paso, TX, north to Alamogordo and on to a meeting with the Chicago, Rock Island, and Pacific Railroad at Santa Rosa. This line, nominally independent, always had strong ties with the Southern Pacific, which in 1924 took over the EP&NE.³⁹

At Alamogordo the same group built a sawmill, bought land and timber, and organized the Alamogordo and Sacramento Mountain Railway (A&SM) to get out the timber to the east. The resulting "cloud-climbing railroad" reached the settlements of Toboggan, Cloudcroft, and Russia by 1903 and laid out a series of logging spurs to reach timber in the high mountain canyons. By a series of spectacular "S" curves, switchbacks, snake-like trestles, and severe 5- to 6percent grades, small-g geared Shay locomotives fought to gain the necessary altitude and bring the logs from the high valleys to the mainline of the A&SM where they could be hauled to the mill at

Alamogordo. Though the A&SM run was only 32 miles, it descended from 7,500 feet at Toboggan to 4,300 feet at Alamogordo. The result was an exciting ride that featured a series of sharp curves, steep grades, and a view more spectacular and severe than that of any other narrow-gauge roads in the Rocky Mountains. As could be expected, the road later attracted numerous tourists for the passenger runs in the summer months.⁴⁰

Lumber Industry Is Modest

By national standards the lumber industry in Arizona and New Mexico was always a modest enterprise, not competing seriously with the companies that cut yellow pine [shortleaf and longleaf pines] in the Gulf South, [eastern] white pine in the Great Lakes States, or Douglas-fir and redwood on the Pacific Coast. Yet, by the 20th century, lumbering in the Southwest had grown into a substantial business, supplying the region with forest products and supporting an export market to the Plains States to the east and north. Production, mostly of ponderosa pine, grew from 22 million board feet in 1880 to 67 million at the turn of the century and 155 million in 1909. In that year the region reported 99 sawmills in operation. To compare with the leading lumber states in the same year, Washington cut almost 4 billion board feet, Louisiana more than 3.5 billion, and Wisconsin more than 2 billion board feet of lumber.⁴¹

The fine forests of ponderosa pine, Douglas-fir, and white [limber] pine attracted experienced lumbermen from other forested sections of the United States. Their technical knowledge and expertise, learned in more eastern regions, were not always applicable in the Southwest. They were eager to harvest the virgin stands despite the difficult terrain and the hazards of mountain logging. The stands of spruce were also attractive to paper companies, which had largely exhausted the sources of supply in the Northeast.

But the forests of the Southwest were important for grazing, recreation, watershed protection, erosion control, and wildlife habitat. The forests were important to the Indian tribes who had lived for hundreds of years in the region, and to the quality of life for the growing population of Arizona and New Mexico after statehood. To accommodate these varied interests, the forests and grasslands would need supervision and regulation for the public good. The Southwest is a land which, while rich in renewable resources, including water, grasslands, timber, and wildlife, does not easily regenerate those resources. Managing the land for its most productive use for the permanent good of the people would not be an easy mission.

Social and Cultural Patterns

The legacies of the Spanish, Mexican, Indian, mining, and cattle eras are not just romanticism or myth but social and cultural patterns that are very much alive and real. Since World War II, a new dimension has been superimposed on the older social and economic patterns. Arizona and New Mexico have developed modern urban centers, where high-tech and high-style dwell in strangely comfortable juxtaposition with the pueblo, the herding village, the mining town, and the wilderness. The Southwest is a land of startling contrasts and a very real “living history.”

Blue Lake Returned to Indians

This history occasionally awakens, as it did in 1970 when the Taos Pueblo obtained the return of Blue Lake and its 48,000-acre mountain watershed on the grounds of their being ancient sacred

religious territory. And history awakened again, when in the 1960s, Reies Tijerina united heirs of the old Spanish land grants into a near-revolutionary Alianza Federal de Mercedes, which proposed to reestablish the ancient communal rights of the Spanish land grant, which he argued never formed any part of the American public domain, as recognized by the Treaty of Guadalupe-Hidalgo. He insisted that much of the land claimed as part of the national forests should be returned to their “rightful heirs.”⁴²

Of the ten million acres of National Forest System lands in New Mexico, one million acres included lands of the Spanish communal grants. According to the Alianza, the establishment of the National Forest System in New Mexico removed millions of acres of land from the village ejido lands. Although access to the land continued, that access for farming, woodgathering, and, most significantly, grazing was controlled by the Forest Service, which granted head permits for grazing rights on a fee basis. The Alianza believed that for grazing, timber rights, and employment, the Forest Service gave preference to the Anglo-American businessmen-farmers over small, poor Indo-Hispanic farmers. Awakening old dreams and traditions, the Alianza in the 1960’s cast the Forest Service in the role of an authoritarian usurper of the rights of the people.⁴³

Trespass Was Common

It was no coincidence that “trespass” was a common affliction in the national forests, that woodgatherers ignored prohibitions, and that sheep herders and cattlemen in many cases underestimated the number of cattle in their herds and overestimated the size of the territory for which they held grazing permits from the Forest Service. The Indians, Spanish Americans, miners, homesteaders, and in some cases the general public truly believed that the lands of the national forests belonged to them. Their history said so. And in a way, so did the American law creating those forests. The problem was how to manage those forests for the best and most permanent use of all the people. It was not an easy assignment, especially given the cultural history of the region, the attitude of the people, and the physical characteristics of the forests. Yet because of that same unique history and culture, people in the Southwest better comprehended the concept of common use of the forest resources than did the American public elsewhere in the United States.

The Southwest Is Unique

The Southwest and the work of the Forest Service in Arizona and New Mexico are unique because of the special heritage of the Southwest. When asked to describe or explain those things that made the Southwestern Region unique, a number of retired foresters who had served there much of their lives and careers identified what they perceived to be the special characteristics of the region.

Dean Cutler, who served as Forest Supervisor in the region, came to the Southwest in 1933 to work in the Coconino as a CCC camp supervisor. Cutler believes that the Spanish land grant, the distinct ethnic groups, and the low average rainfall are controlling factors in making the Southwest a unique region. Rainfall and the waterways historically determine occupations and population dispersion.⁴⁴ In the Southwest, unlike most other parts of the country, the arid conditions mean that regeneration of forests and grasslands takes longer, and the ecosystem is simply more fragile.

In similar fashion, but with a slightly different perception, Robert Courtney stressed water usage as the major element in determining the character of the Southwest. Courtney came to Arizona as a CCC camp foreman in 1933 and eventually served as forest supervisor of the Carson and Tonto National Forests. He believes that in the national forests, and throughout the Southwest, keeping the soil in place is essential to assuring adequate water supplies and usage. Courtney also points out that the region has the largest unbroken stand of ponderosa pine in the United States, another unique feature of the Southwest.⁴⁵

Walter L. Graves, who served as supervisor and assistant regional forester, summarizes his view that rainfall and water usage are the critical elements in defining the character of the Southwest by explaining simply, "Here, a scar in the land lasts forever."⁴⁶

Richard S. Johnson, a forest supervisor born in Las Vegas, NM, received his training in animal husbandry. He joined the Forest Service in 1937 and spent many of his years conducting range surveys and working with the cattleherders and sheepherders in the forest. Johnson believed that the special grazing system and the cattle and sheep in industries placed an indelible stamp on Arizona and New Mexico that existed nowhere else.⁴⁷ Open range and yearlong grazing, as well as the romantic imprint of the cowboy, are a part of the heritage of the Southwest.

William D. Hurst came from southern Utah and spent much of his forestry career after 1937 in Region 2 and Region 4, Colorado and Utah. Hurst is the son and the grandson of foresters. His grandfather worked under Gifford Pinchot, and his father was a ranger in the Dixie Forest. Hurst arrived in the Southwest in February 1966 as regional forester and has since become a knowledgeable and astute historian of the Southwest. In addition to the Anglo-Indian-Spanish heritage, the critical nature of water to the region, and the grazing/cattle/sheep culture, Hurst suggests other special elements in the Southwestern composite. For one thing, he noted, there are more rich archeological sites and treasures in the Southwest than anywhere else in America. That in itself is a testament of the special cultural heritage of the region. Logging by railroad was a unique achievement, Hurst said, especially in the Coconino, Lincoln, and Zuni forests. Not just water problems, but accomplishments in research on water and water management are marks of unusual distinction, he added. The wildlife and the management of that wildlife, as exemplified by the landmark decision on the Kaibab deer herd, are exceptional features of the Southwest.⁴⁸

Thus, the Southwest has a rich and unique cultural heritage. It is a region where, perhaps more than elsewhere, the natural conditions continue to shape the human condition. Southwesterners are tied to the land. "From the top of the mountain to the last irrigated acre, people are affected by what happens on all the land," explained Otto Lindh⁴⁹ Despite the great diversity of peoples, the tri-cultural ethnic base, the vast climatic changes compressed in relatively short distances, and the other unique aspects of the region, all people and people of all times have shared a common Southwestern heritage-that it is a great land of little water. Management of the forests, of one-eighth of the total land area, where any decision affected the lives and property of most people in the region, would be a difficult assignment.

Although the General Land Law Revision Act of 1891 allowed for the creation of forest reserves, it was not until the approval of the Transfer Act of 1905 that management of the forests and grasslands by the United States Government through the auspices of the Forest Service became a reality. Only after 1908, with the organization of the Southwestern District (Region 3) and the appointment of Arthur C. Ringland as the first district forester, did the Forest Service begin to directly affect life in the Southwest.

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