

SANTA FE NATIONAL FOREST AREA:
AN HISTORICAL PERSPECTIVE FOR MANAGEMENT

BY

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## SANTA FE National Forest



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#### Introduction

The Santa Fe National Forest, being adjacent to the earliest Spanish settlements in the present United States, plays a part in some of the first recorded history of this Nation. However, the written record is not as directly relevant to Forest lands as might be expected. The reason for this lies in settlement patterns, land use patterns and the events which culminated in the granting of Spanish lands and American homesteads.

When the Spanish first entered New Mexico they found that the sedentary Indians were concentrated along the fertile river valleys. This settlement pattern had evolved as a response to the environmental needs of farmers. It had the secondary effect of relinquishing effective control of all other lands to the wandering tribes of the plains and to the Utes, Navajos and Apaches who often supplemented their hunting and gathering by trading with, or preying upon, the farmers.

In many respects the material culture of the Spanish settlers was little different from that of the town-dwelling Indians. Most historic sites which were excavated at Cochiti Reservoir, for example, were defined on the basis of Indian ceramics of the historic period. The sites contain only minute percentages of European goods; in fact, it was not demonstrated that the sites actually represent non-Indian occupation (Biella and Chapman 1977: II). Perhaps the most significant items of material culture introduced with the first wave of Spanish settlements were firearms and domestic herd animals, the beginning of today's cattle and sheep industry.

Housing was copied, or appropriated, from the Indians and agriculture long remained at a small scale. It is true that the Spanish participated in the larger cultural world of Mexico and Europe but they remained at the periphery of that civilization and enjoyed relatively few of its material advantages. However, this picture may be overdrawn; Plowden (1958) notes that Spanish ceramics are present at many archeological sites, although in small quantity, and may have been overlooked by prehistorians at many other sites.

More important for this discussion is the fact that the Spanish also located their dwellings in the environmental zones chosen by the Indians. The significance of this fact to the Santa Fe National Forest is that the bulk of all sites mentioned in the historical record are located on lands which are excluded from Forest management. Exceptions to this generalization can usually be attributed to late acquisition through land exchange or forfeit. Much of the present Forest lands may have been used as common land by grazers but such activity is seldom noted by historians and less often is specifically described.

The actual numbers of Spanish remained small through the first phase of settlement ending with the successful Pueblo Revolt of 1680. In that year, following nearly 100 years of domination, scarcely 2500 Spaniards lived in New Mexico and of those less than 2000 survived the revolution (Twitchell 1911: I, 361). Such a small population, concentrated mainly along the Rio Grande, would have made little impact on the Forest.

The study of history in New Mexico is conventionally divided into segments based upon major political transitions. That scheme is mainly followed here with the exception that the frequently used distinction between the "Territorial" and "Statehood" periods has been abandoned in favor of the combined "American" period. This paper does not purport to be a political history and there appears to be little difference in material culture or Forest impacts which would be marked by the older dichotomy.

The useful divisions of historic times in New Mexico then include: Spanish Exploration (1540-1598), Spanish Colonization (1598-1680), Pueblo Revolt (1680-1692), Spanish Colonial (1692-1821), Mexican (1821-1846), and American (1846 to present). Although archeological data can not usually distinguish such short spans of time as that of the Pueblo Revolt, each of the six periods is marked by documentary evidence and generally the periods have potential for analysis of material culture which might be found in archeological context. Of the six periods, the Spanish Exploration (1540-1598) had the most negligible impact upon Forest lands in the vicinity of the Santa Fe National Forest.

#### Spanish Exploration Period

It is possible that Cabeza de Vaca should be credited with the first Spanish reconnaissance of New Mexico. He traveled in the area in 1536, a survivor of a disastrous expedition in the east, but the map of his travels has never satisfied historians (Hodge 1907: 7). Friar Marcos de Niza headed the first real expedition into New Mexico but did not penetrate as far north as Santa Fe. That accomplishment was first credited to the expedition of Francisco Vasquez Coronado about 1540 and still more information about the country was reported by the joint expedition of Fr. Augustin Rodriguez and Francisco Sanchez Chamuscado in 1581 and by that of Don Antonio de Espejo in 1582. These explorers took back to Mexico stories of potential gold treasures and the more substantial information that there was land there available for colonists.

Most of the early exploration was confined to observation rather than to collection of goods for return to Mexico. Nevertheless, the impact of these early travelers upon the Indians was great. For example, Coronado's troops fought a battle with the

inhabitants of the Pueblo Tiguex in which some 200 Indians were killed with some being burnt at the stake. The former good disposition towards the Spaniards was not recaptured after this, and similar incidents, became widely known. The location of Tiguex is not known precisely and all possibilities are discussed in Twitchell (1911: I, 206) but apparently it was along the middle Rio Grande near Bernalillo. Some of Coronado's men reached Jemez, followed the Rio Grande above the Chama River and even crossed the Plains far out into Kansas.

Official policy dictated that the Indian's property rights should be respected but the realities of contacts often found confiscation leading to open hostilities and various outrages being committed on both sides. The friars exposed themselves to great personal dangers in order to bring Christian teachings to the natives and often paid with their lives for the privilege. Perhaps the most amazing fact about the Exploration period is that so many Spanish survived the experience. For the next hundred years and more history tells of the stalwart Spanish, outnumbered many times, not only surviving but imposing their will.

#### Spanish Colonization Period

The Spanish Colonization period (1598-1680) saw Spain begin to attempt exploitation of the vast northern lands of the empire. In the prior phase the impact on the native material culture would have been small as few trade goods had been carried by the explorers and few of the people left with the Indians had long survived. The colonists entered New Mexico with large herds of animals and all they required to set up housekeeping. They came not with tools to mine for the legendary gold of Cibola but rather with hoes and domestic articles needed by frontier farmers. Colonization began with less bloodshed than some of the exploration but many battles would soon be fought as Indian resentment grew over the Spanish demands for labor and adherence to Christian doctrines.

Tools, techniques, concepts and competition for resources which had but transient significance during the Exploration period became a permanent part of Indian/Spanish relations after 1598. Perhaps one of the most important disruptions caused by the Spanish was curtailment of former trade relationships among the agricultural Pueblos and the hunting Plains Indians. Apachean surplus buffalo meat had been traded for the Pueblo's surplus vegetable foods, a system which worked to the advantage of each group (Forbes 1960: 119-121). The Spanish demands for food and labor from the Pueblos, and their conscious efforts to exclude the "wild" tribes from the river valleys, limited these friendly contacts. Further, introduction of domestic herds both reduced the Pueblo's need for buffalo meat and provided the Apache with new species upon which to prey. This situation developed into

intermittent warfare which was not finally resolved until well into the American period when the U.S. Army finally was able to confine the migratory Indians on reservations.

In terms of numbers of people, the Spanish presence was not great during the Colonization period (Figure 1). One reason for this was that there was no known mineral wealth to attract people to the frontier. The friars continued to come to New Mexico in hope of converting souls to the Church. Soldiers came because they were told to and administrators hoped to show off their skills and win rewards of land grants. Attractions for dirt farmers must have been negligible for few were induced to seek a living among the Pueblos. At the close of the period scarcely 2500 Spaniards were in the state including 250 who bore arms (Twitchell 1911: I, 361).

The first site selected by the Spanish as their administrative center was San Gabriel de Yunque near present day Chamita (Twitchell 1911: III, 505). Twelve years later Santa Fe was made the capital, it being a more central location in relation to the subject pueblos. The Spaniards were spread very thinly over the land with a few at each of the pueblos and others living in almost isolated ranches and haciendas in nearly all of the valleys of the Rio Grande and Chama River.

During this period the Indian's surplus was controlled by the Spanish and they were pressured by the friars to give up what was viewed by the Spanish as devilish rites. Added to these problems were famine and epidemics in the 1660's accompanied by increasing raids by the Apaches. From the Indian point of view the Spanish were providing little to compensate for what they took and thus resentment grew to culminate in one of the most successful native challenges to Spanish rule.

Some things introduced by the Indians did serve to improve production by the Indians. The iron plow and horse transportation with carts were the major material items and sheep the major farm product. The introduction of the horse and sheep had long range impacts on the surrounding areas as the Plains Indians soon adopted the horse for raiding and the Navajo forged a new subsistence pattern based on a herding economy.

To facilitate administration of the Pueblos it was Spanish policy to encourage pueblo consolidation and thus many sites which had been occupied prior to 1600 were abandoned. Spanish settlements were then built in the vicinity of the pueblos to allow close supervision of Indian labor and to concentrate strength for defense. The locations of but few of the isolated farms can be determined today from the historical records. Many of the documents kept in New Mexico must have been destroyed by the victorious Indians in 1680. A few sites are mentioned in records dating from the reconquest of 1696 and Colonel Granillo's account (Twitchell 1911: III, 512) should be consulted for clues to Spanish sites of 1680. He describes his ride through

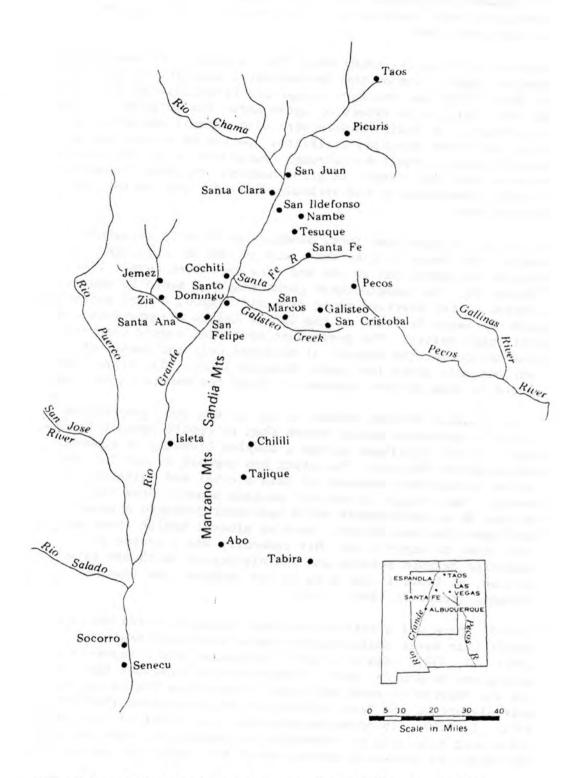


Figure 1. New Mexican Pueblos of the Seventeenth Century.

the Espanola valley and lists the owners of each abandoned farm along with evaluation of the number of people who might be supported there.

Relatively little is known about the appearance of the earliest Spanish homes. One of the few excavated examples is described by Snow (1973) and has been summarized by Cordell (1978, 236). In that site, as in others of later date, the material culture is primarily of Indian manufacture with a small admixture of iron, and other European artifacts. Dating of such sites has usually been accomplished through comparison of Pueblo ceramics because they are present in great numbers and their chronology is well understood by the archeologists who have headed the excavations.

It is not strange that local products so heavily outnumber imports. The Santa Fe area was truly at the very frontier of Spanish influence and at the end of a very long supply line (Figure 2). Any manufactured goods reaching Santa Fe had been carried on the overland route from old Mexico, a fact which later made the Santa Fe Trail to the United States a competitive and profitable entity. The government sponsored supply caravans from Mexico for the support of missions only and these were sent out only every few years (Scholes 1930: 95); others were forced to seek private avenues of trade for manufactured items.

It is a matter of some debate to try to fix the cause of the Indian's discontent which caused them to revolt against Spanish rule. In all liklihood it was a complex blending of economic and religious factors. The state had imposed on the Indians a double bureaucracy composed of both a civil and religious branch. Each sought to extract maximum benefit from the natives in an environment which had never produced a great deal more than was needed. Lacking mineral wealth there was only labor to exploit and this commodity was a source of squabbles between priests and administrators which may have divided, at least in the eyes of the Indians, the Spanish strength (Bancroft 1962: 174).

In 1672 there was a serious increase in Apache raids with the result that seven Indian pueblos were destroyed (Bandelier 1892: II, 338). Again in 1675 the Apache took a heavy toll, wiping out Senecu (p. 249). Numerous such incidents finally led the Viceroy to send additional troops from Mexico but they were dispatched too late to head off the revolution (Twitchell 1911: I, 350). It seems certain that one effect of the Apache's raids must have been to undermine the Spanish position for they had obviously failed as protectors of the sedentary Indians.

Whatever causes, the end of this period marked the end of expansion of Spanish interests in North America. Although they would return shortly and again subjugate the Pueblos it seemed that the steam was lost from their drive to the north. In part, this may

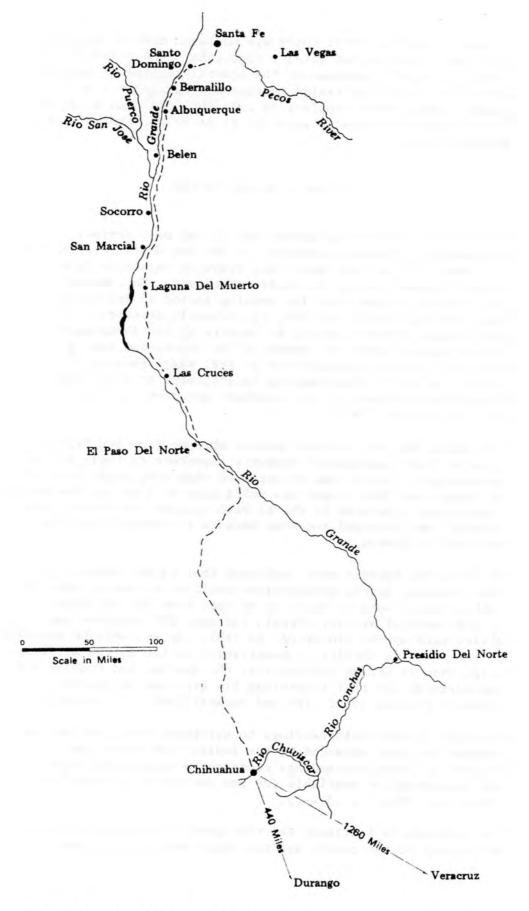


Figure 2. The Chihuahua Trail.

be due to the fact that there was no known mineral wealth or civilized tribe beyond Raton. More likely the frontier was pushed no further because of the general decline of Spanish power due to the increasing success of England as a world power. Spain would continue to rule for more than a century but the glory had mostly gone out of it by the time of the Pueblo Revolt.

#### Pueblo Revolt Period

The Pueblo's revolution marked one of the most serious challenges to Spanish authority in the New World. In Yucatan they were held at bay longer but dramatic expulsion from a large area was foreign to their experience. So complete was the turn of fortune that the ensuing period of Indian self-rule, ending finally in 1692, is virtually ahistoric. The few records pertain largely to reports of the abandonment, investigations into the causes of the revolution and to Otermin's tentative expedition of 1681 which soon ascertained the folly of attempting resettlement at that time. Translations of most of the relevant documents are available in Hackett (1942).

The reason for the 10-year Spanish absence from New Mexico lies in their fundamental weakness elsewhere in their northern possessions. For a time it appeared that they might lose all of Sonora and that threat was sufficient to keep the New Mexican expatriates clustered in the El Paso (Juarez) area until their strength was recouped and some measure of control could be restored in Sonora.

At first the Spanish were confident that in the absence of their troops, Apache depredations would be so severe that the Pueblos would soon be ready to welcome back the old order. In this hopeful spirit, Otermin led some 200 soldiers and allies back up the Rio Grande in 1681. He was able to penetrate as far north as Cochiti, accomplishing little in the military vein, when it became obvious that the Apaches and Pueblos were confederated and that to prolong his stay was to invite disaster (Forbes 1960: 186 and Hackett 1942: I, ccviii).

Governor Otermin held hearings to determine from captives what reasons had been advanced by the Indians for their revolt. The records of those proceedings represent a substantial share of the documentation available for the period of the revolution (Twitchell 1911: I, 374-5).

The emphasis in testimony led the Spanish to believe that the main cause of the revolt was not their own cupidity but rather

the influence of the devil who promoted abandonment of Christianity in favor of "heathen" gods (Forbes 1960: 189 and Hackett 1942: II, 355). If the Indians were quick to abandon the trappings and philosophy of the priests, at least the material world of the Spanish was retained; the domestic crops and animals remained important in the Indian way of life. Archeological sites of the period attest to a shift to new living sites but a retention of many old patterns. Isolated locations were favored for new pueblos, even at the cost of farming less fertile lands, particularly if the sites were easily defended (Biella and Chapman 1977: I, 157).

Concurrent with ferment in New Mexico, Athapascans were beginning to have an impact on French operations in distant Illinois. In 1682 the French were hearing of mounted Indians sweeping the plains (Forbes 1960: 192). Later the French were to have an impact on New Mexico history through their trade with the Plains Indians as they became a supplier of firearms to the Commanches, Pawnees and even Apaches (Bandelier 1890: I, 212).

#### Spanish Colonial Period

The Spanish Colonial period (1692 to 1821) is marked by several changes in the strategy for exploitation of the land and Indians. However, all was still accomplished with the frame of mercantilism, the economic theory which dominated all European thinking about how best to use colonies to increase the wealth of the mother country. Essential to the operation of the mercantile philosophy was use of the colonies as exclusive markets for manufactured goods and supplier of raw materials. Thus, New Mexico was to export wool and hides and consume Spanish products. To improve the profitability of these transactions, only Spanish bottoms were to be used in trade between the Old World and the colonies. Spain was somewhat less proficient at this game than others, notably England, but was determined to allow no other nations to profit from her colonies. This set the stage for conflicts with both French and American interests in North America.

Prior to the revolt, land use had followed a pattern of exploitation by the missions' use of Indian labor and by encomiendas/haciendas which had both land rights and title rights. These large and wealthy units were de-emphasized after the reconquest in favor of smaller farming units settled by Spanish peoples. Immigration was encouraged on a larger scale than before and those who responded were expected to earn their own bread rather than depend on Indian labor.

The reasons behind the new strategy may be found in affairs outside of New Mexico's boundaries. Spain's position as leading world power was being challenged and eroded. French incursions were seen as threatening and the Indian menace posed by the various "wild" tribes was always great. Planting a larger friendly population in New Mexico could place a barrier between these forces and the more vital properties in Mexico. Northern Mexico contained mines which more than repaid their cost but New Mexico was largely a sink into which money could be poured. As a buffer it could serve to protect the more valuable interior.

Inside New Mexico, the decrease in numbers of settled Indians was another argument in favor of importing labor. From an estimated 30,000 Indians at the time of the revolt, their numbers dropped to around 10,000 in the closing decades of the 18th century (Twitchell 1911: I, 455).

Land grants of this period were for both individually held lands and for lands held in common, much of which was used for grazing. Herding of sheep became more important as a market developed for wool but meat was also an important commodity and the New Mexico sheep, first the churro and then the merino, evolved with the twin admirable qualities of being both tasty and capable of walking the long trail to market (Kupper 1945: 19). These traits were not appreciated in the American period and were replaced by introduction of other breeds, but the pattern of sheepherding has survived.

Histories of the Colonial period dwell at length on the quarrels between the secular and religious leadership. In 1767 an event occurred which tipped the balance of power in favor of the Governor, secularization of the missions at Santa Fe, Santa Cruz, and Albuquerque. This event marked the beginning of the end for the 28 New Mexico missions and their conversion into regular parishes, a process which was completed in 1798. One of the reasons given for the shift from mission to parish organization was the growth of the Spanish element and decrease in need to make conversions.

Another topic which frequently arises in records of the Colonial period relates to continual hostility of various Indian tribes. A picture emerges of a kind of balance of forces with the Spanish seldom being confronted by universal hostility yet seldom enjoying secure peace. Military posts, presidios, were set up both for defense and as bases from which to mount occasional punative expeditions. One of these, in 1719, directed against the Utes and Commanches, reached into Colorado and Kansas. Apaches remained the most consistently war-like until the end of the century when some thirty years

of peace was purchased by a subsidy program which gave guns and food to the Apache to end their dependence on raiding for a living (Worcester 1975: 28-29).

The spread of firearms from European to Indian during the 18th and 19th centuries was an important issue. At the time arming the Indians served both practical short-range goals and also as an instrument of empire. Today it makes an interesting research topic. The earliest firearms possessed by the Pueblo Indians came into their hands by theft from Spaniards prior to the revolt but by 1714 the debate was whether christianized Indians should be allowed to keep their firearms, a condition favored by the military and opposed by the friars (Bancroft 1962: 222).

Firearms were to be found in the hands of Indians far out on the plains because French traders were pursuing their national interests by trading guns there. With the shift of European power alignments France would sometimes follow a trade policy designed to discomfort Spain. One of the most spectacular results of such a policy occurred in 1720 when a Spanish force of some 200 men encountered the Pawnee on the plains. These Indians were armed with French firearms and used them to good effect; only enough Spaniards survived the battle to carry the tale back to Santa Fe (Duffus 1975: 21). In the 18th century New Mexico was a listening post directed at the French and Americans operating along the fringe of the Spanish Empire and this battle was but one round in the conflict of interest.

Early Spanish policy had been quite explicit in its prohibition of firearms for the natives (Bancroft 1962: 278) but New Mexico's eastern tribes found a source in the French traders as far away as Illinois. Also, incidents such as the 1720 massacre provided them with Spanish weapons. Thus, it should not be unexpected when evidence of firearms are found in archeological sites ascribed to Indian occupation.

Until the end of the Colonial period the firearm in use would have used flintlock technology. Very little physical evidence of their use has been found; Spanish flintlocks exist today in the Southwest in only a few museum specimens but some gunflints have been found in archeological context (e.g., Biella and Chapman 1977). Additional finds of gun parts and flints (whose nation of origin can often be identified) will certainly be studied carefully for further evidence of French influence in the area. Distribution of the weapons at pueblo sites might also be studied to determine the rate of native acceptance of this new idea. Since many Spanish were armed with weapons other than firearms it may be found that the Indians were in no great hurry to adopt this new technology.

#### Mexican Period

The brief period of Mexican rule of New Mexico (1821 to 1846) was not well documented in official records. However, due to increased contacts with the United States, there is good source material in existence. The well-known diary of Susan Magoffin (Drumm 1926) is an example of the richness of detail available for the period.

In 1834 New Mexico's first printing press arrived and was soon put to work on the area's first newspaper, El Crespusculo. No known copies of that paper exist but the earliest official publications of the Department of New Mexico, La Verdad and El Payo de Nuevo Mejico, are both represented in the State Archives (Grove et al., 1975). These, and the numerous other newspapers published in the vicinity of the Forest, offer a great potential source of information about events which altered Forest lands. Examples are provided in the discussion of the American period.

The primary political event of this period, severence of ties to Spain, will be little noted in the archeological record because few material goods had been imported from there previously. Trade with Mexico continued but was soon subordinated to the importance of commerce with the United States. That trade would soon bring new goods to the Mexicans and a new awareness of the West for Americans.

The Santa Fe Trail, as a concept, was born in the Colonial period. A short segment of the trail as used from the earliest days passes over Glorieta Pass on National Forest land. The history of the Santa Fe Trail is long and colorful, sprinkled with events which changed the fortunes of nations and full of names of men who were to assume leadership roles in the United States. The story begins with French traders who set out from the Mississippi about 1763 although there were other Frenchmen on the plains before them. The first trading venture ended with imprisonment of the entrepreneurs, an event which must have warned off others for no known traders followed until 1804. There was potential demand for eastern goods in New Mexico but that demand was held in check by Spanish officials who forbade commerce in that direction.

Before 1821 all important trade was conducted along the north-south axis known as the Chihuahua Trail. Along that route New Mexican products of farms and chase traveled south in yearly caravan to supply the northern Mexican mining communities. In return there were limited amounts of very expensive manufactured goods to carry back to Santa Fe. Some sources, of uncertain pedigree, indicate that a trickle of trade managed to pass over the Santa Fe Trail before 1821; it is more useful to generalize

that Spanish officials were decidedly opposed to allowing an American trade until their authority ended with the birth of the Mexican state.

The true start of significant amounts of trade with America was in 1821. Under Mexican rule it was perceived that advantages of relatively cheap industrial goods from the United States outweighed the old political considerations. The opening of a large potential market soon attracted a steady stream of traders from the east and by 1843 half of the trade was being conducted by native New Mexicans.

At first small groups of men carried their goods on pack animals. The trade quickly matured. Wagons were used on the second expedition at the same time that an alternate route was pioneered, the Cimarron-Cut-off (Figure 3). The Cimarron route had the disadvantage of crossing a lengthy stretch of desert but saved the effort of ascending the Arkansas to the mountains. Both routes were in use as long as the trade continued.

Archeological sites dating after 1821 should reflect growing dependence on American-made goods due to the influence of the opening of the Santa Fe Trail. The actual amount of goods, in terms of numbers of items, is difficult to estimate. It is known that a typical wagon load weighed several thousand pounds and that wagon trains were composed of from 20 to 60 wagons. The cash value of goods carried to Santa Fe by Americans in 1843 was almost a half million dollars (Gregg 1954: 332). At the end of the period the Mexicans were charging duty, their main source of revenue, on the basis of a wagonload thus leading to the use of larger wagons. Another subterfuge to reduce taxes was to consolidate loads just prior to reaching Santa Fe, a trick which was thwarted when Mexican troops rode out to meet the trains at Red River (Twitchell 1911: II, 136). When Brig. General Kearny invaded New Mexico in 1846 there were 300 wagons just in his own command (Duffus 1975: 194).

Most of the events of the Santa Fe Trail occurred far from Forest lands. In a few places (e.g., Forts Union and Larned) traces remain of the thousands of wagon wheels which formed the Trail but no such tracks can be found on the Forest. One of the few significant events which may have left physical evidence on the Forest portion of the trail was the abortive defense of the capital by the Mexican Governor Armijo. In August of 1846 he marched troops to a defensive position somewhere near Apache Canyon. He later decided to fall back without contesting the spot. Defensive works erected by Armijo might be discovered by archeologists.

This was not a particularly happy time for the government of New Mexico. Taxes were difficult to raise locally yet the central government could not support Santa Fe. With revolution



Figure 3. Western end of the Santa Fe Trail.

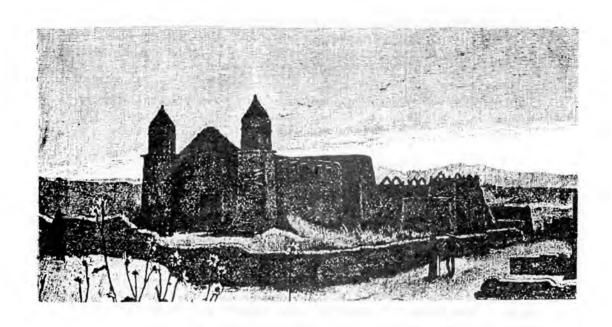
from within and threats of invasion from First Texas and then from the United States, governors were successively killed, disgraced, or persuaded to resign. Indians continued depredations and Santa Fe's lifeline, the Santa Fe Trail, was preyed upon by bands of Texas desperados. With such a disheartening background it is understandable that Armijo discarded his plans to resist the American invasions (Emmett 1965: 36). On August 12, 1846, unopposed, Kearney rode into the capital to accept the surrender of New Mexico.

#### American Period

Changes in New Mexico in the American period have been fundamental, extensive and continuing. The economy underwent healthy acceleration based on diversification. The population swelled dramatically. Thanks to the U. S. Army, the Indians finally abandoned their opposition to the white man's incursions. The power of wealthy land owners was weakened as new power factions emerged and cheap transportation brought new ideas as well as new goods to the area. Political alignments were drawn on the question of Union and then Statehood. These major themes underlie many of the events which occupied New Mexico's attention in the early years of the American period.

Resolution of the question of land ownership was thorny and protracted. The United States fell heir to a tangle of conflicting claims to land based on old Spanish and Mexican grants. Boundaries had never been clearly fixed in the old days so many grants overlapped and others were sufficiently vague that owners were able to claim large areas which, it now appears, may not have been intended by the grantors. The story of land grant litigation is too long to recount here; a relevant summary would be that much land which might have become National Forest instead became privately owned. In the end over 80 percent of the Spanish grant land was owned by American lawyers and settlers (Lamar 1966: 149).

Extension of the American land survey grid into New Mexico was authorized in 1854. Under the new land laws citizens could claim a quarter section, however, the survey proceeded slowly and there were no sales of public land until after 1863. It was soon found that 160 acres of New Mexico would not usually support a family so many homesteads were abandoned or absorbed by larger neighbors. Contests over land ownership were to delay some aspects of economic development, such as mining. The surveyor general of New Mexico in 1886 added to the uncertainty when he declared that 90 percent of all land entries in the territory were fradulent (Lamar 1966: 182),



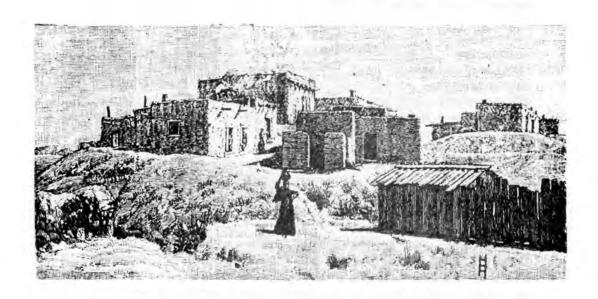


Figure 4. The oldest church in America is located in Santa Cruz, midway between the Pecos and Jemez Divisions of the Forest. A group of adobes near Espanola (bottom engraving), part of the old Mexican life style. Illustrations from Harpers magazine (1885) as reproduced in Whitson (1977).

The Santa Fe National Forest has watched over many significant events since man came to the area. Races have clashed and empires have succeeded each other while cultures have been blended and reblended to produce the modern amalgam. Most of the notable events of the region occurred on lands which are not now part of the Forest although many historic sites, such as old Bland, are within the Forest boundaries. Preeminent among properties actually part of the Forest is the land which witnessed the most significant western event in the American War of the Rebellion. The battle of Glorieta Pass is often referred to as the Gettysburg of the West. It is a fair analogy.

Confederate forces under Brig. General Sibley marched from Texas with the goal of seizing Fort Union and thus commanding the Colorado gold fields. Had they been victorious, it is unlikely that the war would have ended differently but it may well have ended later. In the event, stalled short of Fort Union and having lost their supply train, the Confederate tide turned and Sibley withdrew from New Mexico. Glorieta was the "high water mark", the furthest northern penetration of the Confederates in the western theatre.

Several locations connected with the battle of Glorieta Pass are of interest to historians. The Union forces made their headquarters at the east end of the pass, on Kozlowski's ranch, having wisely decided to "head 'em off at the pass" rather than await a seige at their fort. The rebels camped at Johnson's ranch near Canoncito from which they launched a probe of Glorieta Pass. Engagements followed at various sites, the largest being at Pigeon's ranch on March 28, 1862 (Figure 5). Here almost 100 troups were killed in a day of fierce fighting. An engagement involving fewer casualties, but greater consequence, developed the same day when Major Chivington managed to outflank the enemy and burn the Confederate supply train (Utley 1962).

Chivington's action reversed the outcome of the day. On the verge of victory at Pigeon's ranch, Lt. Col. Scurry heard of the loss of his supplies and sent out a flag of truce. The following day he retreated from the pass and the long march back to Texas was begun. Had Sibley been able to bring his entire force into battle (almost half were elsewhere) New Mexico, Colorado and Arizona may have spent the next few years under the Confederate flag. If Fort Union, the major military supply point in the Southwest, had fallen to Sibley he could have equipped his men well enough to tie down large numbers of Union troops in the defense of Southwestern interests.

Pigeon's ranch is within the boundary of the Santa Fe National Forest but is located on privately owned land. Some of Chivington's route also is on private property. An archeo-

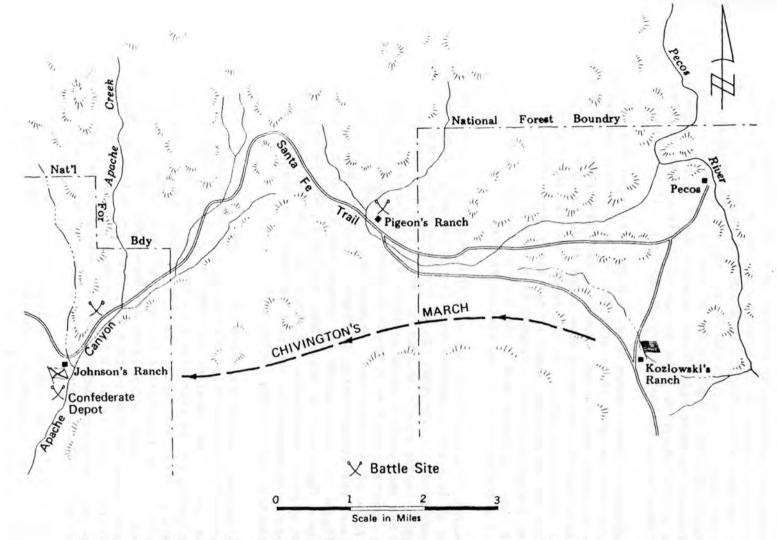


Figure 5. The Battle of Glorieta Pass, March 1862. The Pigeon's Ranch site is within the boundary of the Santa Fe National Forest but is on private land. Map is adapted from Robert Utley's "Fort Union" (1962:30).

logical survey along Chivington's route and on Forest lands adjacent to Pigeon's ranch may produce information of value for interpretation of the battle for the public,

Most of the participants in the Glorieta battle were Texas volunteers or Colorado volunteers. In terms of battle deaths the war touched the general population relatively lightly. Some of the main effects felt by New Mexicans came from the depredations of bandits along the Santa Fe Trail, at least some of the bandits claiming to be operating on behalf of the South. The cash from Army payrolls and contracts freed many men from peonage. Another result of the war was that some Indians were free to revert to raiding. Worcester thinks that Apaches gave themselves the credit for withdrawals of troops from their areas but that mostly meant trouble for Arizona rather than New Mexico (1975: 31). Miller (1979) provides a fresh perspective of the role of Hispanos during the war.

#### Mines

Some mineral exploitation had been going on in the mountains of the Santa Fe National Forest for many centuries. Small-scale use of clays for ceramics, stones for building and similar high bulk but low value minerals was well-known to both the Indians and Spaniards. Economics dictate that such products be utilized near their sources. Turquoise was perhaps the one valuable mineral which the Indians could locate and transport economically over great distances. The Spanish, and perhaps the later Indians, also knew of high grade copper deposits (Bingler 1968: 52) and some lead was mined for bullets. The Cerrillos turquoise mine was the largest known Indian mine. It is estimated that between 30,000 and 50,000 tons of rock was moved on Mount Cahlchihuitl in search for turquoise (Elston 1967: 8).

There are a number of prerequisites to mining and not all of them could be secured by the Spanish or Mexicans. Exploration and discovery, safety, cheap transportation, and capital are essential before large-scale mineral exploitation can occur. Some mines which the Spanish were aware of could not be worked because the Apache would not allow it. Other resources were not economical when large quantities of low grade ore had to be carried by animals. Capital was not abundant until New Mexico became a Territory. Once the U. S. Army made it safe for a white man to venture alone into the mountains, and the railroads provided cheap transportation, it became possible to attract capital for development of New Mexican mining.

Legends tell that there are lost Spanish gold mines to be found in the mountains (e.g., Dobie 1930 and Elston 1967: 23). Some stories claim that the cause of the Pueblo Revolution was the Indians' resentment due to being forced to work the mines and that, to ensure against ever again being so ill-used, they erased all trace of the gold mines in 1680. Historical facts do not support these attractive tales. It appears that there were no known gold mines worked in New Mexico prior to the revolution and an official report of 1725 declares that not a single gold or silver mine had ever been worked (Twitchell 1911: II, 177-184 and Bandelier 1890: 194-196).

Even by 1800, mining was not very important to New Mexico's economy. It might be argued that gold and silver were always disappointing in that very few mines returned enough on investments to be considered good producers. Metal mines, (Figure 6) must produce for 10 to 15 years to be considered profitable but none in the area of the Forest have lasted that long (Elston 1967: 9). Albermarle's claims produced for only 8 years (Sherman and Sherman 1975: 2).

Although the Spanish operated no large metal mines on the Forest, some silver and lead was taken from a mine on the Cerrillos mining district and some placer gold was undoubtedly found. The first significant location found was the Old Placers in 1828 (Number 17 in Figure 6).

The mining district is a rather vague concept in that no specific area or number of mines is implied by the designation. The concept of mining district does focus attention on places where metals are found. All those districts identified in the area of the Santa Fe National Forest have been given in Table I and Figure 8. Metals listed range from as little as one ounce of gold upwards. The primary historical interest of the districts is that they often contain ghost towns and other abandoned properties.

Availability of rail transportation worked big changes in mining. As rails extended into the Territory, they made it possible to bring in heavy machinery for mills and to more easily haul out coal and lowgrade ores. This made it profitable to mine lead, zinc, copper etc. Coal was shipped to Colorado and used to fuel local smelters and run the railroads. Coal soon became king (all other metals mined after 1828 from Forest lands amount to less than 15 million dollars). Coal later suffered from competition of petroleum fuels and never completely recovered from the Depression (Elston 1967: 10).

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Figure 6. Metal Mining Districts of New Mexico's Santa Fe National Forest area (after Anderson 1957).

Table I

Metal Mining Districts of the Santa Fe National Forest Vicinity

1.	Rio Grande Placer	Gold
2.	Anchor (La Belle)	Gold
3.		Copper, lead, zinc, gold
4.	Red River	Molybdenum, silver, copper, lead
5.	Baldy (Ute Creek)	Gold, silver, copper, etc.
6.	Cimarroncito	Gold, copper, silver
7.	Elizabethtown (Moreno)	Gold
8.	Poni1	Gold
9.	Willow Creek	Gold
10.	Rio la Casa	Gold
11.	Upper Rociada	Lead, zinc, copper, etc.
12.	Jemez Springs	Gold, silver, copper
13.	Nacimiento Mountains (Cuba)	Uranium, copper
14.	Placitas	Gold, silver, copper, lead
15.	La Bajada	Copper, silver, uranium
16.	New Placers (San Pedro)	Gold, silver, copper, etc.
17.	Old Placers (Ortiz, Dolores)	Gold, copper, tungsten
18.	Santa Fe	Gold, silver, copper, etc.
19.	Santa Fe Manganese	Manganese
20.	Rinconada (West Picuris)	Tungsten
21.	Tecolote	Copper
22.	Willow Creek (Pecos, Cooper)	Zinc, lead, gold, etc.
23.		Silver, lead, zinc
24.		Copper, iron
25.		Copper, uranium
26.	- [ [ [ [ - [ - [ - [ - [ - [ - [ - [ -	Copper, gold, silver, lead, zinc
27.	El Rito Placer	Gold
28.		Copper, lead, silver, uranium
29.	Petaca	Beryllium, columbian
30.	Picuris (Copper Hill)	Copper, gold, silver, etc.
31.		Copper, silver, uranium
	El Porvenir (Hermit Mountain)	Molybdenum, bismuth, tungsten
	Ribera	Beryllium, rare earths
	Rociada	Gold, silver, copper, etc.
35.	Cochiti (Bland)	Gold, silver, uranium

(See Figure 6. Condensed from Anderson 1957).

#### Railroads

Of the many changes which occurred in New Mexico with the advent of American rule the coming of the railroads ranks high in both drama and effect. The race between the Santa Fe and the Denver and Rio Grande for possession of Raton Pass ended with the spoils of war going to AT&SF in 1879. Within a few years, she had pushed on south to Deming where a link was made with the Southern Pacific to give New Mexico a transcontinental rail connection. Very little of the AT&SF passed over the Santa Fe National Forest (see Figure 7).

The former, almost feudal, economy of the Territory had been burdened with expensive goods, difficult transportation and an unfavorable balance of trade. A glance at the maps of the old Chihuahua Trail and Santa Fe Trail will show the distance over which manufactured goods were carried to New Mexico. The route through Mexico began at the port of Veracruz almost 2000 miles from Santa Fe. Americans had cut transportation costs sharply by hauling from Independence, less than 800 miles, but passage over the rude trails was slow, dangerous and exacted an expensive toll on men, animals and equipment. When Pike visited Santa Fe he noted that a yard of good cloth was selling for \$25.00 (Duffus 1975). To place that figure in perspective it should be noted that an ounce of gold would have fetched about the same price. After the railroad was built the price of gold held but cloth and other products of American industry became more affordable.

To the Santa Fe National Forest railroading mainly means the Denver and Rio Grande for this is the road which brought the iron horse through the Forest and led to the birth of short lines tapping Forest resources. The D&RG has the distinction of being the first railroad in the U.S. to use the narrow gauge, a choice which reflected the engineering problems associated with crossing the mountains of Colorado and New Mexico (Chappell 1969: 3). The narrow gauge was lighter than standard gauge and allowed for sharper turns.

The "Chili Line", the affectionate nickname for the D&RG, was conceived as a link between Denver and Mexico City but it never reached south of Santa Fe. An agreement with competing railroads restricted the southward expansion of the D&RG to a point north of Santa Fe. At the time the agreement was reached the D&RG had already extended its grade into White Rock Canyon but had not yet laid rails there. In order to meet the agreed terms all grade south of Espanola was abandoned (Gjevre 1971: 2).

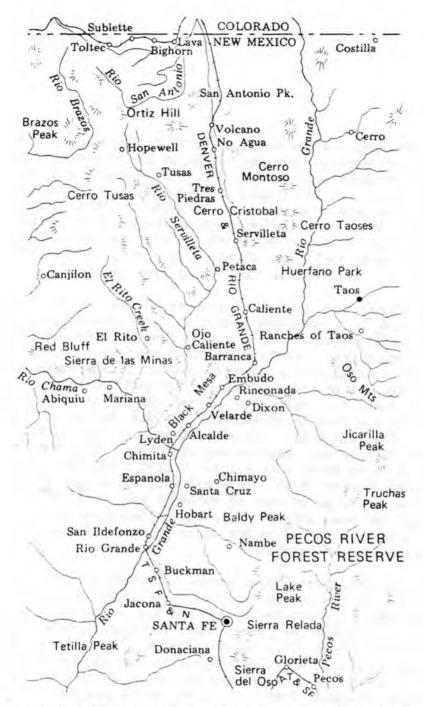


Figure 7. The Denver and Rio Grande Railroad was pushed south from Antonito, Colorado to the company town of Espanola. There the line joined the Texas, Santa Fe & Northern Railroad for the rest of the distance to Santa Fe. Limited archeological tests were made at the TSF&N facility at Buckman (Wiseman 1978). A second railroad serving Santa Fe was the Atchison, Topeka and Santa Fe shown here where it crossed the old Pecos River Forest Reserve at Glorieta Pass. Map adapted from Chappell (1969).

Construction for the D&RG's push into New Mexico began in 1880 at Alamosa, Colorado. Work was quickly finished so that the line could be declared completed to San Juan on December 31st of the same year. A new company town, Espanola, was built at the end of the track at the agreed southern limit which left 28 miles to be covered by stage coach to Santa Fe (Chappell 1969: 7).

A second railroad of interest to the Santa Fe National Forest is the short Texas, Santa Fe & Northern Railroad Company. This was renamed the Santa Fe Southern and finally absorbed completely by the D&RG. The line was completed in 1887 thus giving Santa Fe connecting rail service to Espanola. Following a series of financial manipulations this line was fully incorporated into the D&RG in 1895 although passengers had been able to obtain through service to Denver for many years before that (Myrick 1970: 103).

Historians have long known the importance of the railroads and as a result there are few topics which have generated so many publications. The few cited here focus on the Santa Fe area but there are many other general works as well as company records and other pertinent documents which were not used in this study. Archeologists have paid much less attention to the remains of the railroad although one very limited excavation was carried out at Buckman by Wiseman (1978). Public interest in the subject is reflected in the great success of that portion of the D&RG which has been preserved to allow tourists to ride on the narrow gauge rails through the Carson National Forest.

In the 1880's the impact of the railroads on New Mexico was dramatic. Prices of manufactured goods dropped, the wagon trains of the Santa Fe Trail became a memory and the capital value of the Territory went up like a rocket. The gross worth of New Mexico according to census figures, was just under 21 million dollars in 1860 and 31 million in 1870. In 1890, after most of the railroad construction had been completed, the gross value of the Territory was up to 231 million dollars. Of the total, over 75 million dollars was invested in the railroads; that figure is almost 4 times greater than the combined value of all mines and mining equipment in New Mexico at that time.

The Carson and the Santa Fe National Forests, mainly the former, were directly impacted by the railroad as they were the source of much of the raw materials used for construction. The ties alone for a mile of narrow gauge track required the harvest of from 10 to 15 acres of New Mexico Forest (104,000 board feet per mile) and bridges and telegraph lines created a

demand for larger timbers. Coal for locomotives created new market demands leading to construction of still more miles of track. In addition, access to the D&RG main line fostered other projects such as the Halleck and Howard Lumber Company which built its own railroad and tapped Forest resources above La Madera. Many thousands of ties were once floated down the Rio Grande to collect at the tiny town of Boom near Cochiti.

The end of the railroad era came to the Santa Fe National Forest, except for Glorieta Pass, in 1941. Scrap work on the D&RG began at Santa Fe and moved north in September 1941 just two years before the sudden growth of Los Alamos into a major government facility. Rails and ties were quickly removed, bridges became piles of timbers. Remaining on the ground are the right of way, weathered mileposts and a few old stations or their foundations. The D&RG did not use ballast or tie plates (Gjevre 1971: 4) so the right of way will erode quickly.

Two other Lines also ended their work in the area in 1941. The Santa Fe Northwestern logged the Porter area. The Cuba Extension, built by mining interests, served as a common carrier briefly in 1930 under the name of Santa Fe, San Juan and Northern Railroad. This line never actually reached Cuba but did help exploit coal in the area (Myrick 1970: 176). Diesels of the AT&SF, last active railroad on the Forest, still haul loads over Glorieta Pass using the Santa Fe Trail Route for much of the distance.

#### The Forest

The Santa Fe National Forest can boast of being a senior member in the system of National Forests. It can trace its lineage back to the administration of President Harrison who, by proclamation, created the Pecos River Forest Reserve in 1892 (Figure 8). Over the years there have been different administrative arrangements for that land as it was combined or subtracted from lands of other Forest units, but it has retained its geographic boundaries to such a degree that, today, it can still be found as the Pecos Division of the Santa Fe National Forest.

At first there was no bureaucratic mechanism for the administration of the Forest Reserves. Partly, this was because the lands were given to the Department of Interior for management while the fledgling Division of Forestry was in the Department of Agriculture. Until 1897, even Interior had no legal authority to allow use of the Reserves, an omission that goes far in explaining initial opposition from local interests who were legally excluded from making any use of the reserved lands (Barker 1953: 37).

Interior's first appointment to the Pecos was an easterner and, as were all early Forest Supervisors, a political appointee.

January 11, 1892

#### THE PECOS RIVER FOREST RESERVE

### BY THE PRESIDENT OF THE UNITED STATES OF AMERICA A PROCLAMATION

Congress, approved March third eighteen hundred and ninety-one, entitled. "An act to repeal the timber-culture laws and for other purposes"; that "The President of the United States may from time to time set spart and reserve, in any State or Territory having public lands bearing forests, in any part of the public lands wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations; and the President shall, by public proclamation, declare the establishment of such reservation and the limits thereof";

And Whereas, the public lands in the Territory of New Mexico, within the limits hereinsfter described, are in part covered with timber, and it appears that the public good would be promoted by setting apart and reserving said lands as a public reservation.

How Therefore, I, BENJAMIN HARRISON, President of the United States, by virtue of the power in me vested by Section 24 of the aforesaid act of Songress, do hereby make known and proclaim that there is hereby reserved from entry or settlement and set apart as a Public Reservation, all those certain tracts, pieces or parcels of land lying and being situate in the Territory of New Mexico, and particularly described as follows, to wit:

Commencing at the Standard corner to Township seventeen (17) north, ranges thirteen (15) and fourteen (14) east... thence south six (6) miles to the fourth (4th) Standard parallel north; thence east along said fourth (4th) Standard parallel to the place of beginning.

Excepting from the force and effect of this troclamation all land which may have been, prior to the fate hereof, embraced in any valid Spanish or Mexican grant, or in any legal entry or covered by any lawful filing duly made in the proper United States Land Office and all Mining Claims, duly located and held according to the laws of the United States and rules and regulations not in conflict therewith:

Provided that this exception shall not continue to apply to any particular tract of land unless the Entryman or Claimant continues to comply with the law under which the entry, filing or location was made.

warning is hereby expressly given to all persons not to enter or make settlement upon the tract of land reserved by this proclamation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the City of Washington, this eleventh day of January in the year of our Lord, one thousand

(STAL) eight hundred and ninety-two, and of the Independence of the United States the one hunand sixteenth.

BENJ HARRISON

By the President:

James G. Blaine

Secretary of State

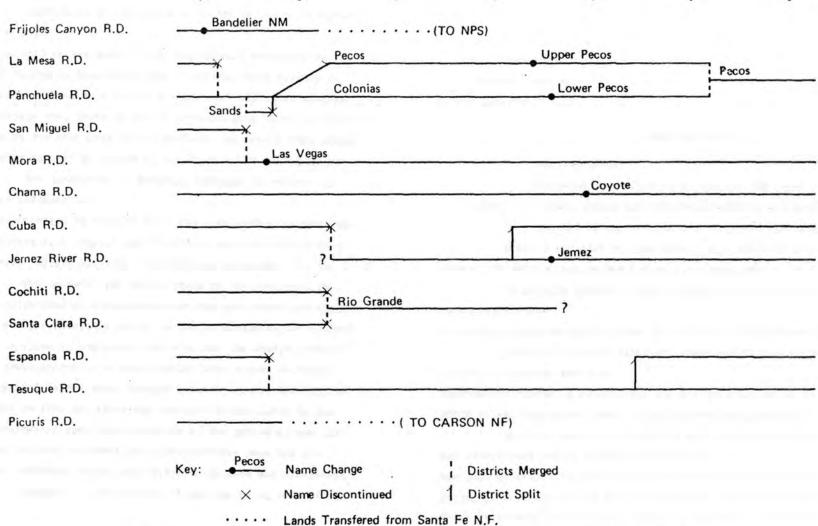


Figure 9. Ranger Districts of the Santa Fe National Forest. Data is based on Tucker (1965) and personal communications (Landon Smith).

The level of expertise in the first generation of supervisors (Table II) did nothing to bring about a better feeling among local ranchers. Some advise was sought by the Interior Department from Agriculture's growing forestry group which was renamed the Bureau of Forestry in 1901 while under the direction of Gifford Pinchot. Growing pressure was directed at Congress to switch management of the Forests to the Department of Agriculture and the move was finally authorized by the Transfer Act of 1905. Shortly thereafter two name changes created the Forest Service and the old reserves became National Forests (Executive Orders 908 and 2160). The Pecos River National Forest continued in existence and thus became a charter member of the National Forest System.

The exclusion policy was changed so that legal uses could be made of the Forest Reserves. But if there was any doubt about who owned the land it was made clear in 1905 when a system of fees for grazing was announced. The Prescott Weekly Herald reported that ranchers were not happy about the new Department of Agriculture edicts. "Those seen have without exception denounced the order, and some of them in terms that would not sound good to those responsible for the order" (Tucker 1965: 123).

The controversial fees would be up to 50 cents per head for cattle or horses per season. This was considered far too high a price to pay for the privilege of feeding on oak brush but there were other reasons for objection as well. In order to pay the fee, the ranchers would have to state how many head of sheep and cattle they had and it was an open secret that the number of animals owned was generally much higher than the number reported to the County Tax Assessor. By the end of the year, the fee system had been reviewed and a much more palatable schedule was announced; the new fees would be 10 cents per head per year and the first 100 animals would be free (Tucker 1965: 130). The respite was brief and in 1917 fees were up to 48 cents and it was proposed that they be nearly doubled in 1919 (p. 782).

The actual number of animals grazing on the Forest was always difficult to discover. In the case of sheep, the census was made easier due to the herding practices. New Mexico appears to have been made for sheep rather than steers; the climate here is much like that of the sheep's ancestral home in Spain. Escudero wrote that in 1827 sheep with meat of excellent quality were being sent as far as Mexico City in large herds. The census of 1827 listed 23,000 sheep and goats in the La Canada area and another 62,000 around Santa Fe. The Baca family headed the ricos in the early 19th century with a total of some 2,000,000 sheep; several other families counted their sheep in the hundreds of thousands (Towne and Wentworth 1945: 63).

Table II.

Supervisors of the Santa Fe National Forest and Its Antecedent Units

Jemez Forest Reserv	re .	Pecos River Forest Reserve
Leon F. Kneipp to 1907		James B. Wilhoit to 1899 Robert C. McClure 1903
		George C. Langenberg 1905
		Leon F. Kniepp 1907

Jemez National Forest and Pecos River National Forest Single Supervisor with Office at Santa Fe

Ross McMillan	4/07	to	8/07
Thos. R. Stewart	9/07		11/07
Ross McMillan	12/07		6/08
Thos. R. Stewart	7/08		8/08
Ross McMillan	9/08		5/09
Thos. R. Stewart	6/09		10/09
Frank E. Andrews	11/09		4/14
Don P. Johnson	4/14		4/15

Combined to Form Santa Fe National Forest 4/6/15

Don P. Johnson	4/15	to	4/16
Joseph C. Kircher	4/16		2/20
Frank E. Andrews	2/20		9/44
G. Lee Wang	9/44		3/47
Kester D. Flock	3/47		2/51
Clarence A. Merker	2/51		4/61
Robert E. Latimore	4/61		68
John M. Hall	68		73
Chris Zamora	73		79
Jim Perry	79		

<sup>\*</sup> Supervisor Hanna Replaced Langenberg briefly and was in turn replaced by R.J. Ewing who also had a short tenure (Barker 1953: 40).

(Source, through 1951: Tucker 1965)

The sheep business had evolved an organizational hierarchy made to order for the tax collector. Given the number of herders it was a simple matter to make an educated guess about the number of sheep and it was fairly easy to drive them through check points because, unlike cattle, a stray sheep would not survive long on the range. A rich patron would have in his employ vaqueros, caporals and pastors, the latter being the man closest to the sheep and responsible for their safety. Each pastor, or herder, would tend from 1,500 to 2,000 sheep, a vaquero supervised three herders, and a caporal on horse-back organized several vaqueros (Kupper 1945: 56 and Towne and Wentworth 1945: 61).

Don Merino, or the range maggot, as sheep are affectionately known to their supporters and detractors, has a history in New Mexico as long as that of the Spanish. The churro, the common Spanish sheep, accompanied Coronado and came to be the leading economic factor of the area. The breed was altered over the years with introduction of new blood lines including principally the Merino and Rambouillet.

The partido system by which sheep were parceled out and profits shared did much to influence the structure of Spanish society. When cattle were introduced in large numbers from Texas, range wars erupted but most of that kind of discord did not disturb the Santa Fe National Forest lands. The small camps left by pastores as they continually moved their sheep will have left little for the archeologist and even identification of sheep remains, particularly to the subspecies level, is notoriously difficult for paleontologists.

An interesting fictional account of the first encounters of the Forest Service with the ricos is drawn in "Ranger District Number Five" (Moles 1923). Resistence to government interference with a century-old social pattern is the theme of the story. As seen through the eyes of rough-and-tumble Rangers the natives of the Upper Pecos region were unsavory. Their adventures probably reflect some of the reasons for early bad feeling towards the Service. Recollections quoted in Tucker (1965) indicate that Moles' story has some basis. For example, Cuba was cited as one of the roughest places on the Forest, one where Rangers went two-by-two and never went as far as the barn without sidearms (p. 315).

Life for the first generation of Rangers was not especially flush. Pay was low and the hours long with fringe benefits limited to clean air and camping spots free of neighbors. The pay scale for Rangers in 1904 was divided into three classes with the top men getting \$90 per month and the new

hands earning only \$60; the government expected each man to provide two horses and feed them as part of the deal (Tucker 1965: 258). Uniforms were first proposed in 1905 but nothing was decided until 1918 when Ranger A. O. Waha got approval for a design based on the English officer's uniform of the period; that uniform (Figure 10) remained in use until 1934 (p. 168).

It took a while to acquire office space and other physical structures for running the Forest. One of the first cabins was built by Ranger Tom Stewart for the Pecos River Forest. The structure went up with \$20 and a lot of Ranger sweat (Tucker 1965: 267). The location of that log cabin is not stated in the records but it may have been moved during its life time. Ranger Merkle was living on the Coyote District in 1918 along the D&RG tracks which went through a New Mexico Lumber Company timber sale. When an area was logged out, his home would be loaded on a flat car to be moved on to a new area (p. 620). A more substantial early Ranger Station, now owned by the Park Service, is shown in Figure 11.

#### Management Considerations

It is hoped that reading this brief historical overview will help to raise the general awareness level of Santa Fe employees about local historical events and sites. Once land managers are familiar with the outline of events which have occurred on their lands they may help ensure that critical pieces of the past are not inadvertently lost. Archeology is the continuation of history by other means and history starts today, not yesterday.

Leveling an old railroad grade might remove the last physical evidence that a portion of the Forest was commercially utilized. That clue to employment patterns, population growth and trade may be saved by a simple mapping exercise. The first step is realization that the grade is an historical artifact which may have value.

Barely 40 historic sites are presently listed in the Forest's cultural resource inventory. To a large degree this probably reflects a lack of interest in non-Indian sites by an earlier generation of archeologists who recorded prehistoric sites. Although on-going surveys will be aware of the value of historic sites, management should consider that some older surveys may have failed to report everything seen in the field.



Figure 10. The first official Ranger uniform as worn on the Santa Fe National Forest for the April, 1923 Ranger meeting.



Figure 11. The Ranger Station in Frijoles Canyon in July, 1924

This brief summary of events on and about the Santa Fe National Forest has, of necessity, been based mainly of secondary sources. For purposes of defining desirable directions for management of historical and cultural resources on the Forest this data base is probably sufficient. It should not obscure the fact that there is a wealth of primary documentation available for the area. Conspicuous among these are the extensive government records ready at hand in Santa Fe archives, numerous newspaper accounts beginning in 1835, official U. S. Army documents available from the Federal depositories, U. S. Forest Service files and a great potential oral history which only needs collection to illuminate many areas of Forest history which could otherwise be reconstructed only at great expense.

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