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Livestock, Land, and Dollars: The Sheep Industry of Territorial New Mexico

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History

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THE SHEEP INDUSTRY OF TERRITORIAL NEW MEXICO

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ABSTRACT

Sheep growing constituted New Mexico's leading industry for much of the territorial period and had been of major importance over the preceding two centuries, since the days of Spanish sovereignty. This work is a dedicated economic history of the industry during the territorial period, a time during which sheep growing underwent a series of dramatic changes from the traditional Spanish practices of open-range grazing and large trail drives serving Mexican markets to capitalized sheep and wool production on managed lands, serving vastly larger American markets. The herds multiplied tremendously, while leadership and control of the industry shifted from a small cohort of wealthy, landed Hispanic families to well-connected and well-capitalized Anglo merchants and growers, recently arrived in the territory. This shift, how and why it came about, is the central theme of this work. It is shown to be largely the result of impersonal economic forces, as New Mexico was gradually absorbed, economically and socially, into the American mainstream. The role of capital was central.

Note on Terminology

A few words about terminology are appropriate here. All peoples of New Mexico who were not American Indian, truly Spanish, or of Spanish-Indian mixed race were, and still are, commonly called *Anglos* or *Anglo-Americans* and will be identified as such in the text. Thus, the German Jewish merchants and the French and Italian priests who arrived in New Mexico during the nineteenth century were, in this sense, considered Anglos. The term *Hispanic* is used in the text to designate the Spanish-Indian mixed-race population of New Mexico, the predominant demographic group during the territorial period. In both scholarly and popular works, these people are sometimes called *Native New Mexicans*, *Hispanos*, or *Chicanos*. In the past they were sometimes called *Spanish-Americans*, a misnomer. Anglos of the territorial era usually called these people *Mexicans*, as they often called themselves, an accurate designation before the annexation, but not after. For purposes of this study, Indians of all tribes except the sedentary Pueblos are collected under the heading of *Nomadic Tribes*.

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Introduction

When Anglo-Americans began traveling to New Mexico over the Santa Fe Trail, the first sign of life they saw upon approaching the settlements was often a herd of sheep on a hillside, usually watched over by a lone flock master.[1] This was hardly surprising since sheep played a very important role in village life. As *The New Mexico Bluebook* succinctly stated later in 1913, "The backbone of industrial husbandry in New Mexico for at least 200 years has been sheep raising, and it is still chief among the income producing occupations of the people."[2] In fact, sheep growing had been a leading commercial activity from the Spanish colonial period until the twentieth century. A small cohort of Hispanic mercantile families, over a period of many decades, had built the industry and amassed considerable wealth, largely in the form of livestock. By the time of the U.S. military occupation in 1846, they were exporting their stock to Mexican markets in massive annual drives down the Camino Real.

Hispanic New Mexicans, having initiated and, over the years, succeeded in large-scale sheep husbandry and the associated mercantilism under quite difficult conditions, were seemingly well positioned to continue to dominate this enterprise, while extending it to the much larger economic arena that opened up after the U.S. annexation. However, Hispanic dominance did not persist. The territory's sheep industry became linked to the large and growing American market for mutton and an entirely new market for wool. And while the human population of the territory essentially tripled over the half century following the annexation, the sheep industry grew more than forty-fold, as measured by

annual revenues.[3] (See Fig. 3.1, Population of New Mexico, Fig. 3.2, New Mexico Livestock Populations, and Fig. 5.1, Annual Earnings for Sheep and Wool, Cattle, and Farm Crops.) In the process, well-connected Anglo merchants and growers assumed leadership and came to control the bulk of the industry through their activities in marketing, finance, and capital-intensive husbandry, even as Hispanic herders actually tended most of the flocks and Hispanic sheepmen still owned a large fraction of the territory's sheep.[4]

Subject of the Thesis

At the human level, the sheep industry was an arena of New Mexico life that was, put simply, *taken over* by Anglo-Americans. Characterized more accurately, Anglos and American capitalism established hegemony over the industry. Economic reconfigurations under unbalanced circumstances, as the situation here might be described, are often seen as venality driven and massively unfair and detrimental to native populations. The *take-over* of the New Mexico sheep industry, such as it was, was arguably more subtle in its driving forces. Venality unquestionably was an issue. But impersonal economic forces, about which little has been written, played a major role. David Montejano has developed this line of thought in the context of his broad-based, economic and sociological history of Texas.[5] The workings of these forces underlie the central story of the thesis: the realignment of the New Mexico sheep industry from Hispanic to Anglo dominance during the territorial period. How this came about will be the focus of the work. At the heart of the various economic forces at work was capital, largely from extra-territorial sources. It was essential not just to the growth and

prosperity of the New Mexico sheep industry after the annexation, but to its very survival.

The story of the sheep industry is complicated by the fact that, aside from the shift in leadership and control, the industry underwent a multifaceted transformation that contributed to, was even an integral part of, the shift. The markets not only grew considerably but were widely scattered throughout the United States as the nation then existed. Wool, once a quantity of minor economic importance, became a major territorial export along with mutton. Rail shipment of wool, and later sheep, to market became the norm. Open-range grazing, the tradition since Spanish colonial times, ultimately gave way to farm production under controlled conditions. Scientific range management also became a consideration. New Mexico sheep breeders became strongly tied to feeder farmers throughout the Rocky Mountain-Great Plains region. And while it had initially emerged from an agricultural subsistence economy, the sheep industry became capital-intensive. All of these developments, which may be seen collectively as a process of *modernization*, were driven by extra-territorial forces. For better or for worse, those forces all contributed in some way to the shift to Anglo control.

The developments in the sheep industry can be better understood by considering the economic environment in which they occurred. The transformation of the New Mexico sheep industry was part, in fact a very important part, of a broader economic transformation in the territory that began with the opening of the Santa Fe Trail from Missouri, continued through the territorial period, and played out largely in the earlier decades of the twentieth century. American capitalism penetrated New Mexico and brought about an economic evolution from a barter-based, agricultural production system

mediated by a lord-serf hierarchy (*patron-peon* in Spanish), with an incipient capitalistic export trade, to a recognizably modern, albeit embryonic, economic system of banks, extra-territorial investors, national markets, written contracts, cash and credit transactions, and impersonal labor-management relationships.[6] New Mexico's Hispanic political and business leaders, many if not all connected with sheep in some way, accepted the new economic order with equanimity, if not enthusiasm, as it manifested itself.[7] For Hispanic sheep growers, the immediate results of the changing conditions were mixed. Some well-established Hispanics did indeed participate in, and profit handsomely, from the expansion and *modernization* of their industry; others lost their stake. In many ways, however, evolving market requirements, improved communications and transport capabilities, advancing agricultural technology, and increased competition, all tied to the rise of capital in some way, favored well-connected, Anglo risk takers, both sheepmen and merchants. Their rise to hegemony was a complex and somewhat amorphous process, spanning several decades, and is a matter of general interest. The history of sheep in territorial New Mexico is a story of what can happen when a capitalist economic system meets a comparatively small, natural-resource based, mostly-barter economy. Our study can provide points of comparison for considering similar processes elsewhere in the world.

The incorporation of New Mexico's traditional agricultural and livestock economy into the industrializing United States, incomplete as it was through the territorial period, is a sub-theme for the thesis. The sheep industry, because of its importance in the territorial economy, provides a meaningful vantage point for considering the incorporation process. The industry even played a significant role in that process.

Developments within the industry help clarify how this economic coupling got underway and illuminate some of the gains and losses of Hispanic New Mexicans.

Sheep growing held a position not only of major importance in New Mexico throughout the territorial period, but after the Civil War, it took on considerable western regional importance and even increased national importance. New Mexico figured into this extra-territorial expansion of the industry in an important and rather unique way when it provided seed stock for numerous western herds.

This study will be structured so as to form a comprehensive narrative of the New Mexico sheep industry, viewed as an important aspect of territorial life that also had national implications. The investigation will, furthermore, try to place the evolution of the New Mexico sheep industry within the context of important nineteenth-century social, cultural, and economic visions and developments, Manifest Destiny and the nineteenth-century westward movement in particular. Anglo-Hispanic interplay will thread its way though the entire treatment. Extra-territorial matters will be considered in some detail when they are relevant to the New Mexico sheep industry.

Review of Existing Work

A considerable body of work has already been produced concerning New Mexico's livestock industry in one way or another, so much that one might conclude that its history has already been written. This body of work, however, has significant limitations. In fact, little rigorous investigative work has been dedicated to New Mexico's economic history during the territorial period and even less to its sheep industry specifically. This void is surprising, considering that the period was quite dynamic economically and the

sheep industry played an important role, early on, in the integration of New Mexico into the mainstream U.S. economy. To date, no serious, dedicated investigation of the economic underpinnings of sheep growing in the territory has been undertaken. In taking up this subject, the present work is an attempt to shed light on the economic and, by extension, social integration, which has left its imprint on today's New Mexico.

The shift from Hispanic to Anglo leadership in the sheep industry was part of the integration process. More generally, the matter of Anglo influence and imposition on Hispanic New Mexico has been a source of continuing discourse and controversy. A considerable body of emotion-laden literature has decried a perceived degradation of Hispanic life by Anglo dominance in the political, economic, and social rhelms, but this work provides little indication as to how or why such dominance may have come about. The present work will attempt to shed light on how and why Anglo dominance indeed came about in one important field of endeavor, the sheep industry.

The existing work concerned with livestock growing in the nineteenth-century West, and New Mexico in particular, is largely descriptive, often providing only simplistic or otherwise incomplete explanations of important developments and why they unfolded as they did. Consideration of historical context is often inadequate, and little attention is generally devoted to how the livestock industry actually functioned. Exceptions to this are Gene M. Gressley, *Bankers and Cattlemen* and John Clay's classic, *My Life on the Range*.[8] Both these works provide considerable insight into how western livestock operations were tied to eastern and European capital but are largely dedicated to the cattle industry. The existing work usually treats ranching as an isolated phenomenon, and, in particular, provides little insight into how New Mexico's livestock industry was coupled

to, and often driven by, regional and national developments. Significantly, the work is quite fragmented, a loose patchwork with many missing pieces.

Some excellent works are available as points of departure for the present investigation. Howard Roberts Lamar's *The Far Southwest, 1846-1912: A Territorial History* provides a valuable general framework for considering New Mexico, and Colorado, territorial history.[9] The finest, and arguably most important, existing work on the New Mexico sheep industry is John O. Baxter's, *Las Carneradas, Sheep Trade in New Mexico, 1700-1860*.[10] This treatment concentrates largely on the development of the industry during the Spanish and Mexican periods. It ends just as the Civil War was about to disrupt and then significantly alter the territory's sheep business, which had been evolving moderately since the annexation. The present study will to pick up the story, with a bit of overlap for continuity, where Baxter's account ends.

A rather small collection of additional noteworthy works directly relevant to sheep in New Mexico merits attention. The short list includes Charles Weyland Towne and Edward Norris Wentworth, *Shepherd's Empire*; Edward Norris Wentworth, *Americas Sheep Trails: History, Personalities*; and Charles M. Sypolt, "Keepers of the Rocky Mountain Flocks: A History of the Rocky Mountain Sheep Industry in Colorado, New Mexico, Utah, and Wyoming to 1900."[11] These works address sheep growing over a large geographical area, provide valuable general information about the industry, but do not treat New Mexico in great detail. Numerous shorter treatments concerning aspects of the New Mexico livestock industry include Alvar Ward Carlson, "New Mexico's Sheep Industry, 1850-1900: Its Role in the History of the Territory," William J. Parish, "Sheep Husbandry in New Mexico, 1902-1903," and Ralph Charles, "Development of the

Partido System in the New Mexico Sheep Industry," a specialized treatment of one important aspect of the industry.[12] A few longer, more general works on New Mexico history, address the grazing industry in some detail. This treatment takes the form of stand-alone chapters in Erna Fergusson, *New Mexico, A Pageant of Three Peoples* and Frank D. Reeve, *History of New Mexico*.[13] No one of these works even begins to cover all the salient points in the history of sheep in New Mexico.

Useful regional studies devoted to the Texas sheep industry are also available, notably Winifred Kupper, *The Golden Hoof: The Story of the Sheep of the Southwest*, focused largely on sheep growing in West Texas, and V.W. Lehmann, *Forgotten Legions: Sheep in the Rio Grande Plane of Texas*.[14] These works provide scattered insights into the operations of the New Mexico sheep industry, which are only partially useful since the history of sheep in Texas diverges significantly from that in New Mexico.

Some fine treatments of matters peripherally related to the New Mexico sheep industry are available. These include accounts of the Santa Fe Trail, the conduit by which New Mexico's wool was first transported east. The work includes Susan Calafate Boyle, *Los Capitalistas: Hispano Merchants in the Santa Fe Trade*[15] and the primary source Josiah Gregg, *Commerce of the Prairies: or Eight Expeditions across the Great Western Prairies, and a Residence of Nearly Nine Years in Northern Mexico*. But this work only concerns livestock indirectly and ends with the closing of the Trail midway through the territorial period.

The mercantile community of New Mexico, which dealt extensively in both livestock and wool in the post-Civil War era, is addressed in William J. Parish's classic study, *The*

Charles Ilfeld Company: A Study of the Rise and Fall of Mercantile Capitalism in New Mexico.[16] This work, by its very nature, covers only limited aspects of New Mexico's sheep industry. Other biographical works are more directly relevant. Notable is Frank H. Grubbs, "Frank Bond, Gentleman Sheepherder of Northern New Mexico, 1883-1915."[17] This work, an outgrowth of a University of New Mexico masters thesis, is a detailed corporate history of the Bond brothers' innovative and profitable sheep-oriented mercantile enterprises. It covers, of course, only a single merchant, whose business was actually quite unique in its organization and did not reach full maturity until late in the nineteenth century. Along these same lines is Sister Lucretia Pittman, "Solomon Luna: Sheepmaster and Politician of New Mexico."[18] Luna was extraordinarily successful sheep grower in New Mexico. His activities shed limited light on the great majority of smaller operations.

Land has always been a critical issue for sheep husbandry in New Mexico. The industry was started on mission lands and the Spanish and Mexican land grants. A substantial body of literature has addressed land issues, particularly the loss of Spanish-Mexican land grants to Anglo-American speculators and to the U.S. public domain. The ownership transfer occurred in the same general timeframe as the rapid developments in the sheep industry. This highly controversial process was characterized by arbitrary legal decisions, political preferment, and exploitation of Hispanic land owners. Important works in this area include Malcolm Ebright, *Land Grants and Lawsuits in Northern New Mexico* and John R.Van Ness and Christine M. Van Ness, eds., *Spanish and Mexican Land Grants in New Mexico and Colorado*.[19] This body of work is focused on land that had been largely dedicated to sheep grazing, not on the grazing industry itself, and is

concerned primarily with the legal history of the ownership transfer, a complex and often confusing story. New Mexico land-grant historians generally interpret the land transfer as a failure of the Treaty of Guadalupe Hidalgo, which included provisions intended to secure the property rights of Hispanic land owners. The present study will attempt to shed further light on the land transfer by placing more weight on its economic underpinnings. The lands in question were, after all, primarily grazing lands of little value for cultivation before the advent of mechanized irrigation.[20]

Land issues are discussed more generally in Victor Westphall's two books, *Mercedes Reales: Hispanic Land Grants of the Upper Rio Grande Region* and *The Public Domain in New Mexico, 1854-1891*.[21] The latter work is important because much of New Mexico's grazing was on the public domain. The spread of Hispanic settlers outward from the Rio Grande Valley, which was driven in part by the need for new grazing lands, is covered in D.W. Meining, *Southwest: Three Peoples in Geographic Change, 1600-1970* and Richard L. Nostrand, *The Hispano Homeland*.[22] A significant body of literature addresses the controversial issue of incursions, Anglo and Hispanic, and illegal fencing on the grants and the public domain. This includes Robert J. Rosenbaum, *Mexicano Resistance in the Southwest: "The Sacred Right of Self-Preservation."*[23] The aggregate of this peripherally relevant secondary work fills some of the gaps in the dedicated studies.

Time and Spatial Frame

New Mexico's territorial period is a natural timeframe for a history of the sheep industry. Throughout the Spanish and Mexican eras, the industry evolved comparatively

slowly. The sheep population grew more or less steadily, grazing expanded outward from the Rio Grande Valley, new markets for mutton in Mexico were opened, but mercantile customs and methods of sheep growing changed little, if at all. The annexation, in addition to introducing to the region a new political order and legal system, initiated a new era of relative dynamism in the sheep industry. Changes and increased complexity accelerated throughout the territorial period. The annexation is thus a natural starting point for this study.

The study terminates roughly with statehood when further important changes were coming to New Mexico. The sheep industry was losing its economic uniqueness at this time, while agriculture was rapidly expanding. Sheep, still profitable, were being taken up as one more crop on the growing number of farms in the state. By this time, mining and cattle as well as agriculture were beginning to rival the sheep industry in annual revenues. The transition to statehood thus constitutes a natural end point for the study.

Prior to Colorado territorial status, achieved in 1861, New Mexico territory extended north into today's Southeastern Colorado. Bounded on the north by the Arkansas River, this area was an extension of the Hispanic homeland and a region of intensive sheep grazing. This part of Colorado together with today's New Mexico will thus constitute the primary geographical boundaries for this investigation. The greater Rocky Mountain-Great Plains region into which the sheep industry spread will come under discussion when developments there become coupled with those in New Mexico.

Sources

This project draws on a variety of primary sources. A problem which arises

immediately is the dearth of primary-source material from the early years of the territorial era. Until about 1880, sheep growing in New Mexico was dominated by Hispanics, following traditional practices. So pervasive were sheep that every citizen of the territory was extremely familiar with them and how they were raised. As a result Hispanic correspondence rarely gives them more than passing notice. Available documentation of mercantile activities provides some rather unfocused information pertaining to sheep in the early territorial period.

After about1880 with the arrival of the railroads and a significant influx of Anglo immigrants, a much larger body of source material becomes available. U.S. government documents address the western sheep industry in considerable detail. The annual reports put out by the U.S. Bureau of Animal Industry are quite useful. Some sections of the reports are devoted explicitly to New Mexico sheep grazing and others concern larger western regions including New Mexico. These reports are authoritative, containing articles on breeding, feeding, diseases, market conditions, and projections for the future of the industry, which may be compared to what actually happened. After 1911, the publication was subsumed in the Annual Reports of the U.S. Department of Agriculture. The U.S. Census Publications are also useful. They provide statistical information by state and county about livestock populations, wool production, the size and value of land holdings, and the number of farmers and ranchers. They also provide information on the consumption of wool, domestic and imported, and the annual profits for the U.S. woolen industry. These reports must be approached with care since the data collection was crude, incomplete, and presented differently from decade to decade. Appendix A, Interpretation of Census and Tax Assessment Data, discusses some of the problems

associated with nineteenth-century data. In recognition of these shortcomings, some of the census data relevant to open-range grazing were revised in later decades. After the turn of the twentieth century, the census bureau publications contain, in addition to the basic statistics, more detailed discussions of grazing and agriculture throughout the United States. At the territorial level, the annual reports of the New Mexico governors to the U.S. Secretary of the Interior, available at the New Mexico State Records Center and Archives in Santa Fe, are useful. Rather sketchy in the beginning, they become progressively more detailed with time and provide a running account of conditions in the territory's sheep industry from the standpoint of the Anglo political leaders. These reports reflect the optimistic visions of politicians promoting the territory and must be interpreted correspondingly. New Mexico Tax Records (County Assessment Rolls) are of some value in investigating ownership of livestock and specific parcels of land, and the assessed values of holdings. They provide information about flock sizes and numbers and identities of active sheep growers. Hispanic versus Anglo ownership breakdowns and settlement patterns, as indicated by surnames, can be extracted from them. The tax assessments must be approached with care, as New Mexico livestock owners are known to have underreported their holdings so as to minimize their taxes.[24]

Business correspondence and records of varying detail are available in the collections at the Center for Southwest Research, University of New Mexico, Albuquerque. Substantial files are available for Charles Ilfeld, Frank Bond, Montague Stevens, and other prominent sheep merchants and growers. The Catron collection contains extensive correspondence concerning the American Valley Company and Thomas Catron's ambitious attempt to establish a sheep ranch in western New Mexico. The Montague

Stevens Papers contain a substantial collection of letters from Stevens to his friend and business partner, Gen. Leonard Wood, concerning his sheep business in western Socorro (later Catron) County. These letters are unmatched for their detail and clarity. Much of the material contained therein has never been incorporated in any published work.

In 1884, an ambitious trade newspaper dedicated to grazing, *The Stock Grower,* began publication in Las Vegas, New Mexico. It contains local, national, and international news articles pertaining to the grazing industry. Its articles provide a running, on-site account of the New Mexico livestock industry as it was perceived at the time by its actual participants. Some of the articles can serve to tie national developments, described by this and other sources, to New Mexico. The successors of this publication are *The Stock Grower and Farmer*, 1889-1898, and *The Las Vegas Weekly Optic and Stockgrower*, 1898-1906. City Newspapers, including the *Santa Fe Weekly Gazette* and the Denver *Rocky Mountain News,* also published occasional articles concerning sheep, which are useful. Newspaper stories must be approached with care. They can be misleading, as they often deal with strictly local matters and conditions, which are not necessarily applicable to the entire territory. And their reporting of extra-territorial matters was sometimes delayed.

A word about the Hispanic versus Anglo primary sources is in order here. Anglos left behind a vastly larger body of material pertaining to the sheep industry and related mercantile-capitalist activities. The Catron collection, for example, contains some 275 boxes covering a broad range of activities, including sheep ranching. In contrast, Solomon Luna, despite his prominence in territorial politics and sheep growing, left behind only a single box of material. Las Vegas political leader and sheepman

Secundino Romero left a considerable body of correspondence pertaining largely to his civic activities, which however, are interspersed with brief letters from his ranch majordomo Ricardo Gauna, an interesting but limited correspondence. Government livestock investigators in the late nineteenth century expressed frustration in their attempts to establish communications and information exchange with Hispanic sheep growers. The Anglo experience, motivations, and perceptions within the sheep industry are often spelled out quite clearly and in detail in the primary sources, whereas Hispanic visions emerge in a sketchy fashion, and, as often as not, were actually related by Anglo writers, some rather unsympathetic. The danger here, besides inaccurate reporting of the Hispanic side of the sheep business, is that the source imbalance can give an Anglo bias to this work, a shortcoming the author has attempted to avoid.

Subject Limitations

The history of the sheep industry is multi-faceted. The present work, a master thesis, is not complete. Rather than gloss over some matters that should rightfully be included in an even more comprehensive history of the New Mexico sheep industry, this work largely ignores them. Such matters include The wool tariff and its effects on New Mexico growers. The ups and downs of the industry in times of national and regional prosperity and crisis. Sheep growers' organizations, including the New Mexico Sheep Sanitary Board established in 1898. Navajo sheep husbandry and wool production. Environmental matters as they pertain to the sheep industry are only touched upon here. A complex subject, this area should probably be taken up in a dedicated study. Another interesting investigation would compare the New Mexico sheep industry with that of

Scotland in the same timeframe, as there are parallels.

Organization

The thesis is organized as follows. Chapter 2 discusses briefly the Hispanic foundations of the New Mexico sheep industry that predate the annexation. This background material is needed for a full understanding of the developments that followed. Chapter 3 discusses the American presence in New Mexico prior to the Civil War and the various ways it influenced the later growth and modernization of the sheep industry. The most dramatic developments during this period were the opening of the Santa Fe Trail, the arrival of the U.S. Army, and the lucrative sheep trade with California, which all promoted capitalized marketing operations that would be employed in the post-Civil War period. Chapter 4 describes the birth and expansion of commercial wool production in New Mexico in the post-Civil War period, an entirely new component of the sheep industry. Anglos assumed a leadership role when they undertook breeding for improved wool production. Chapter 5 discusses the massive shift under a multiplicity of forces of the U.S. sheep industry from the East and Midwest to the Great Plains-Rocky Mountain region. Of particular importance to this process was the employment of New Mexico *churro* sheep to help stock the western ranges. Chapter 6 describes the post-Civil War rise of mercantile capitalism in New Mexico as it pertained to the sheep industry. A centrally important aspect of this process was the shift in industry leadership from the producers of sheep and wool to the merchants who marketed it, which was hastened by the advent of sheep feeding. Chapter 7 is devoted to the career of Frank Bond, the most successful and influential of the sheep and wool merchants. His correspondence provides

considerable insight into the financial operations of the industry. Chapter 8 discusses the capitalization of sheep ranching in New Mexico in the late nineteenth-early twentieth century timeframe. Chapter 9 focuses on the experiences of Western Socorro County sheepman Montague Stevens and his innovative, capital-intensive operation. Stevens' correspondence provides an insider's view of what sheep ranching was like at the turn of the twentieth century. Chapter 10 discusses the passing of open-range sheep ranching in New Mexico, a transformative process in which sheep husbandry became a branch of farming. Chapter 11 presents a summary of the entire work and the conclusions drawn from it.

Chapter 2

Hispanic Foundations of New Mexico's Sheep Industry, 1540-1846

The sheep industry of territorial New Mexico was built on a foundation laid by Hispanic ranchers and merchants, largely church affiliated in the beginning, during the periods of Spanish and Mexican sovereignty. They followed Old World husbandry practices little changed since ancient times, characterized particularly by open-range grazing. For many years after its establishment in the late sixteenth century, the Spanish colony teetered on the brink of collapse as it confronted unending cycles of drought, hunger, political infighting, and Indian raids. However, sheep, which were well adapted to the land, usually provided a reliable food source. Accounts of colonial New Mexico have attributed its survival largely, or entirely, to its sheep herds.[1] In the words of Charles F. Lummis, sheep "rendered the territory possible for three centuries ….He made its customs if not its laws."[2] Over time, the flocks grew, surplus production developed, and sheep growing was commercialized. Sheep, along with some cattle and goats, became the principal basis for New Mexico's limited wealth and commerce until well into the territorial era. Prior to the Pueblo Revolt of 1680, a large portion of New Mexico's sheep were owned by the church. The friars claimed to have fed many Pueblo Indians and Spanish colonists from their livestock reserves in times of famine.[3] In the years following the Reconquest, and the social changes that accompanied it, particularly after the mid-eighteenth century, sheep, and the wealth they engendered, became concentrated in the hands of a small number of families, who were or became socially and politically prominent.[4] The majority of the populace, generally impoverished, lived

under the protection of the patriarch of a wealthy, *rico* family. Some of these *pobres*, their Spanish designation, were charged with the care of the *rico's* flocks. Also, some *pobres* owned small flocks, or at least a few head, of their own. The influence of sheep thus pervaded every corner of the society, essentially from the time of the colony's founding.

The earliest Anglo-American sheep growers in the region arrived during the period of Mexican sovereignty and took up the traditional range practices, even as they sought out new markets for mutton and wool. Throughout the territorial period that followed, most of the actual herding continued to be performed by Hispanics, who had learned the trade from their forebears. Some aspects of their profession changed little as the sheep industry transformed and modernized. And many tradition-bound Hispanic ranchers remained active and productive during the territorial years. Spanish-Mexican range traditions and business arrangements thus had a considerable influence on later developments in the industry. It is not possible to fully understand the transformation of the New Mexico sheep industry and the shift from Hispanic to Anglo leadership without reference to the industry's foundations. This chapter, a brief synthesis of existing work, provides the minimally necessary information. Additionally, some general information about sheep and their care that will be useful for following the main body of this work will be provided in the appendices.

The Spanish Period, 1540-1821

Sheep were an essential part of life in New Mexico from the very beginning of the Spanish period. Domestic livestock were brought into the region in the sixteenth century

by the first European explorers, the Spanish *Conquistadores*. The earliest and most ambitious of their explorations, the Coronado Expedition, 1540-1542, a search for gold and silver numbering over one thousand individuals, included herds of cattle and sheep in the line of march, forming a traveling commissary. According to a contemporary account, there were 500 head of cattle and 5000 sheep, which were consumed during the expedition.[5] Some of the livestock were successfully driven all the way to central Kansas and back again to the Rio Grande Valley of New Mexico, proving their robustness and utility under semi-arid southwestern conditions.[6] In the ensuing years, conquistadores mounted additional expeditions, important for the information they gathered about the Southwest and for their extending the Camino Real north into New Mexico. An astute observer on one early exploration described the Galisteo-Pecos River area as "suitable for sheep, the best for that purpose ever discovered in New Spain."[7]

When the Spanish established their first permanent colony in New Mexico in 1598 under governor Don Juan de Oñate at the confluence of the Rio Grande and the Rio Chama, ostensively to convert the Pueblo Indians to Christianity, they brought along large herds of livestock: 1000 head of cattle, 1000 goats, and about 3000 sheep provided by the governor, which were probably augmented with some privately owned stock.[8] The colony's friars, supported by coerced Pueblo labor, established a subsistence economy based on stock-raising and farming, and they soon made for themselves the important, but perhaps not unexpected, discovery that their newly claimed lands were well suited for sheep.[9] In the small villages, which grew up over the following years, sheep provided meat, but also wool for clothing, as well as milk and tallow.[10]

From the colony's founding onward through the U.S. territorial era, New Mexico's

sheep population greatly exceeded both its cattle and human populations; see Fig. 3.1 and Fig. 3.2. Sheep offered several advantages over cattle besides a superior adaptability to the land: Sheep were more difficult for Indian raiders to steal than cattle and horses, which could be stampeded and readily driven away. Sheep move slowly and cannot be stampeded like cattle. A quick raid often only scattered them, enabling their owners to recover the animals after the raiders were gone. New Mexicans valued their *churro* mutton highly and preferred buffalo meat to the beef produced by the cattle of the day.[11] Many useful cattle byproducts - hides, jerky, salted tongues, tallow - could be obtained from the buffalo grazing on the eastern plains with no loss of quality. The Mexican livestock markets in Nueva Vizcaya, particularly Chihuahua and Durango, provided a commercial outlet for New Mexico's sheep, which became the colony's principal export.[12] Background information concerning the sheep raised in New Mexico is given in Appendix B.

The church was a major factor in sheep growing prior to the Pueblo Revolt. The friars established missions incorporating large tracts of land devoted to agriculture and grazing near several of the Pueblo villages. And the civil government awarded grants of land to the soldier-citizens for farming and stock-raising *estancias*, a more significant precursor of future patterns of land tenure.[13] Some of this land was forcibly taken from the Pueblos, launching a continuity of land conflicts. The tremendous outlay of labor necessary for working these lands, and insuring the survival of the colony, was imposed upon the Pueblo Indians, enslaved by the Spaniards under the brutal *encomienda* system.[14] Over time, the livestock population grew, the largest holdings belonging to the church which reportedly maintained flocks of 1000-2000 head managed by Pueblos.[15]

This success proved the viability of large-scale, open-range sheep raising in New Mexico using peasant or slave labor.

The colony grew slowly but steadily, numerous small settlements and haciendas being established along the Rio Grande and its tributaries, mostly in the Rio Abajo.[16] The capital was located at the site of Santa Fe around 1610. Mexican officials sent occasional mission-supply caravans north to help sustain the fragile colony, which never became self sufficient.[17] In time, the colony's herds grew to a point where church and some civil officials began rather sporadically to export sheep, driving them down the *Camino Real* for sale in Mexico.[18] By the mid-seventeenth century, the caravans had expanded and assumed a more commercial character.[19] Few private citizens, however, possessed the capital or the transport capabilities to engage in this trade.[20] The principal market for the sheep at that time was Parral, Mexico, seven-hundred miles south of Santa Fe, where silver had been discovered in1631. A boom then ensued, and several mines were quickly opened, drawing together a considerable population of miners. In a scenario that would recur in future years, local produce was insufficient to meet the increased demand for meat to feed the miners, hence imports from New Mexico. This livestock trade, which was tightly controlled by Mexican government contractors to the detriment of New Mexico producers, apparently grew substantially until the Pueblo Revolt.[21] In some years, the New Mexico sheep producers exported so many animals that the colony's mutton supply was seriously depleted.[22] As indicated by the magnitude of this trade, the livestock population of the colony increased considerably in the years 1620-1670.[23] The commercial viability of large-scale, long-distance sheep drives from the colony, across harsh, dry expanses, to distant markets was established at this time; the large drives

remained a fixture of the territory's sheep industry until the arrival of the railroads in the late nineteenth century. The human population also grew significantly in this timeframe.[24]

The Pueblo Revolt caused only a temporary setback for the Spanish colonization initiative. Since its founding, the colony had been dependent on coerced Indian labor and was still unable to sustain itself. Not surprisingly, a smoldering conflict between the colonists and the Pueblos persisted from the time of the colony's founding.[25] Suffering and angry, the Pueblos, joined by some Apache factions, united briefly in 1680, killed or took into captivity hundreds of colonists, and drove the rest, about 2000 individuals, out of New Mexico.[26] The survivors fled south to the small Spanish outpost of El Paso, where they remained in exile for the next twelve years. Many of the Spanish settlers from the Rio Abajo escaped with their herds, which helped sustain the exiled colony. The Pueblo alliance did not last long; by 1692, it had fallen into disarray, and the Spanish, fortified by a well-organized military force, executed a blood-soaked reconquest of New Mexico of about four years duration.[27] All the encomiendas were lost, however, and the institution was never reestablished.

After the Reconquest, the Spanish leadership under Governor Don Diego de Vargas quickly repopulated Santa Fe and the haciendas. Several outlying villages in both the Rio Arriba and Rio Abajo were reoccupied, and the villages of Santa Cruz and Albuquerque were established.[28] The population of the colony was up to about 3,000 individuals by the year 1700 and growing.[29] The colony assumed a more secular character from this time on. Missions were abandoned, and church leaders' authority was reduced. The settlers repopulating the colony were largely private subsistence farmers and stock

growers, rather than soldiers. The *encomienda* system, a major cause of the Pueblo Revolt, was replaced by the less onerous *repartimiento*.[30] Sheep growing resumed quickly. The invading army confiscated some 900 head of sheep from Cochiti Pueblo as spoils of war, and the church imported an additional 1,500 sheep and some cattle to reestablish the mission herds. The governor recruited additional colonists. To fend off hunger and discourage a repeat of the Pueblo Revolt, the Spanish government provided in 1697 a large consignment of 4000 ewes, 170 goats, 500 cows, and 150 bulls from Mexico, which the colonial officials allotted to the settlers on the basis of need, most families receiving from 10-25 ewes and two or three cows.[31] Capt. Fernando Duran y Chaves received 38 ewes, which he drove to Bernalillo where his family had settled before the revolt. This herd was the seed for a considerable family fortune. Chaves' descendants would distinguish themselves as soldiers, political leaders, merchants, and sheepmen.[32] At this time, the principle role of the colony shifted to that of a military buffer region to protect the Mexican interior from raiding nomadic Indians and foreign incursions, the French colonies in New Orleans and Illinois being sources of particular anxiety for the Spanish authorities.[33]

Besides livestock allotments, secular authorities adopted a land policy with long-term repercussions. Several officers in de Vargas' force received large tracts of land in compensation for their military service, while every family received a land allocation of some size.[34] In later years many additional land grants were awarded to prominent, well-connected individuals and to communities.[35] Appendix C describes the basic features of New Mexico land grants. By 1715, the new social structure, headed by a small, emergent class of wealthy, patriarchal, land-owning families, was well defined. Several New

Mexican families destined to be influential in later years, including the Chaves family, began their rise at this time. These families justified their favored status by claims (true or not) of pure peninsular Spanish ancestry.[36] Wealth, however, was the ultimate basis for social and economic leadership. It conveyed great honor in Spanish society.[37] The elite intermarried almost exclusively among themselves, maintaining their "Spanish" identity while building a tight, closed web of mutually beneficial commercial alliances. They performed almost none of the physical labor required for the colony's survival. Never constituting more than a few percent of the population, they came to possess most of the colony's wealth, which was primarily its livestock. From the time of the Reconquest until well after the annexation, a small number of *rico* families dominated the sheep industry, their lands recently granted or otherwise inherited. Acknowledged *mestizos*, the overwhelming majority of the populace, were restricted by their mixed race to lower socio-economic status, although many owned or had access to land and possessed a few head of sheep. At the very bottom of the social order were the *genizaros*, detribalized, Christianized Indian slaves, largely Apache, Ute, and Navajo, forcibly removed from nomadic tribes.[38] It has been estimated that by the late eighteenth century, *genizaros* constituted one third of the colony's population.[39] Opportunity for social and economic advancement was limited in colonial society. The *pobres* bore the brunt of the continuing Indian raids and food shortages during times of drought.[40]

Not only were lands and livestock distributed and a new class structure emergent after the Reconquest, but also a new allocation of labor took place. With forced Pueblo labor curtailed, most of the colony's physical work fell to *mestizos* and *genizaros*. They were engaged largely in subsistence farming, working irrigated fields along the river

bottoms.[41] They lived under the protection of the patriarch of the dominant *rico* family where they lived, a man they called *patron*. Some were occupied tending the growing sheep herds of the *rico* families, which within a few decades surpassed the size of the pre-Revolt mission herds.[42] Commercial sheep growing was dependent on cheap labor, such as the *pobres* provided, throughout the period of open-range grazing, which only ended in the early twentieth century. The sheep herder's life during the Spanish-Mexican period is discussed in Appendix D.

Poor *mestizos* sometimes fell into debt to their *patrones* from which they were unable to extricate themselves. They then became debt-*peones* and labored henceforth in the service of the *patron*, ostensively to pay off their debt. To that end, the peon was credited a small compensation from which he had also to support himself and his family.[43] In an economy of bare subsistence, one episode of ill fortune, one poor harvest, could send a man, and by extension his family, into peonage. Freed *genizaros* may have been particularly susceptible to this fate.[44] It would be an understatement to say that peonage could be quite oppressive. The institution was open to corruption, exploitation, and physical abuse.[45] Writing in 1893, Charles F. Lummis believed that 80% of New Mexico Hispanics had once been *peones*, working for $5.00-8.00/month ($125-200/month in 2010 dollars), and that "peonage in disguise" then still existed.[46] The emergence of a *peon* class, which dates from the mid-eighteenth century, affected the sheep industry because these people were sometimes employed herding sheep, their labor essentially free.[47] Their herding skills, and those of Hispanic and Indian *pobres* in general, came to be valued by the Anglo sheepmen who emigrated to New Mexico and the Rocky Mountain West after the Civil War. It is hardly a surprise that many skilled Hispanic

herders abandoned their *patrones* and took up wage employment by Anglo sheepmen, who paid $20-30/month ($500-750/month in 2010 dollars) plus board.

Open-range sheep growing was a land-intensive activity. On the average about five acres of New Mexico grassland was required to raise a single sheep, although conditions varied considerably throughout the territory. Individual flocks often contained about 1000 head. Land, therefore, was a major consideration for every sheepman. During the Spanish and Mexican periods, most of the populated areas fell within land grants, awarded by the state. Some grants were quite large encompassing several hundred thousand acres, although their boundaries were generally somewhat indefinite.[48] The grants were situated along rivers or steams, which were used for domestic water needs, irrigating crops, and, critical for sheep, watering livestock. The bulk of the grant areas, the uplands extending away from the water courses and the irrigated fields were used primarily for grazing, but also for hunting and gathering and as a source of rock and wood. The unclaimed lands beyond the grant boundaries, public domain under the Spanish and Mexican governments, were sometimes also used for grazing, either continuously or seasonally. The grants remained intact well into the territorial period and in a few cases into the twentieth century.

The colony stabilized and grew during the eighteenth century. The census of 1757 gave a population of over 5,000 individuals and nearly 50,000 sheep and goats.[49] Over half the population was congregated in and around the towns of Santa Fe, Albuquerque, Santa Cruz, and El Paso; the remainder lived at the river haciendas, now grown to settlements of more or less interrelated families and usually dominated by one or two comparatively wealthy, sheep-growing *patrones*. The *ricos* lived predominantly in the

Rio Abajo, ever the more prosperous part of New Mexico, where many of the private grants were located. In contrast, the Rio Arriba was characterized by community grants, smaller land holdings, and comparatively dense populations of small farmers, so as to serve most effectively as buffers.

The flocks grew slowly during the years immediately following the Reconquest, a result of both heavy internal demands upon them for food and frequent Indian raids. However, treaties served to suppress the devastating Navajo depredations during the first half of the eighteenth century, and herd expansion accelerated somewhat.[50] By the mid-1730s, New Mexico's flocks had multiplied significantly, and the new class of sheep-growing *ricos* began, at least sporadically, to export sheep and wool to Mexico.[51] In this timeframe, the trade caravans became annual affairs.[52] Chihuahua, settled around 1707 and now the metropolis of New Spain's northern frontier, was the principal trading destination, rich silver deposits having been discovered in the area.[53] Again, a relatively concentrated population of miners materialized quickly, and local produce was insufficient to feed it. New Mexico mutton helped reduce the shortfall. The size of the New Mexico sheep exports apparently rose more or less steadily, and by the late eighteenth century the sheep trade with Mexico seems to have been firmly established.[54]

The Partido System

As the flocks increased in the eighteenth century, labor shortages developed. Sheep-owning families with their poorly compensated *peon* and *genizaro* herders were sometimes hard pressed to manage their growing flocks. The growers, moreover, generally lacked cash to pay their hired hands, their only capital asset being their

livestock. Necessity drove them to adopt an ancient system of livestock management, called the *partido* system in Spanish.[55] A livestock leasing arrangement adapted to a cash-scarce economy with plenty of open rangeland, it was basically a share-cropping system. The earliest written record of a *partido* contract in New Mexico dates from 1766 and refers to an agreement made six years earlier.[56]

Under the *partido* system in its most basic form, an ambitious but poor man, the *partidario*, would essentially rent a flock of sheep from his *patron* for a fixed period, typically three to five years. The *partidario* was required to care for the sheep, often about 1,000 head, and to return to his *patron* as rent a fixed number of lambs and wethers each year, typically 20% of the number of ewes in the flock, and perhaps some fraction of the annual wool output in later years. The *partidario* was entitled to retain the remaining offspring and wool as compensation for his labor.[57] For convenience, he might combine his own small flock with that of his *patron*. At the end of the contract, the *partidario* was required to return to the *patron* a replacement herd equivalent to the original rented herd, i.e. the same numbers of ewes and wethers, each of the same ages and condition as the original flock. If all went well, and this was a big "if" in New Mexico, a *partidario* would, over a period of years, build up a significant herd of his own. Don Jose de Escudero described such a situation as he saw it in 1849: the *partidario*

> could construct a house, and take in other persons to help him care for and shear the sheep…. The milk and sometimes the meat, from said sheep provide him sustenance; the wool was spun by his own family into blankets, stockings etc., which could also be marketed, providing an income. Thus the wealth of the shepherd would increase until the day

> he became like his overseer, the owner of a herd. He, in turn, would let out his herds to others after the manner in which he obtained his first sheep and made his fortune.[58]

The widespread use of *partido* contracts over a one-hundred and fifty year period suggests there may have been some truth in this favorable assessment. In a land where sheep constituted the largest commercial industry, a *partido* contract offered one of the few paths to upward social and economic mobility.

The system favored the *patron*. The *partidario* assumed most or all of the risk in raising the sheep. In a surviving written contract from Bernalillo County in 1882 between *patron* Cristobal Armijo and *partidario* Jesus Armijo y Jaramillo and his wife Altagracia Lucero de Armijo, the *partidario* received "two thousand new white sheep without defect" for which he was to pay an annual rent to the owner of 2 lbs. of wool per head, "clean and in honest conformity to the accepted customs." He was also to guarantee the 2000 ewes against all losses except the "invasion from Indians that are at war against the United States." As collateral for the loan of the ewes, Armijo y Jaramillo was required to mortgage his "property, houses, lands, goods and furniture both present and future, until the end of the last payment and to its fulfillment."[59] One harsh winter storm or one devastating Indian raid might severely diminish or completely destroy a leased flock, wiping out an entire years increase or worse. If the *partidario* was unable to meet his obligations to his *patron*, he was liable to fall into debt peonage.[60] It was the opinion of Charles Lummis, on the basis of information he gathered in the late nineteenth century, that this was the norm rather than the exception, and *partidarios* were almost always reduced to *peones*. In his pessimistic view, this was the mechanism by which

New Mexico society "…gradually fell apart into two classes—sheep owners and sheep-tenders."[61] Whatever the case truly was, becoming a *partidario* was a calculated risk at best. The practice served sheep owners well. In 1819, Bartolome Baca had 8000 sheep out under contracts, providing him a yearly income of 1,500 *pesos* ($27,000 in 2010 dollars).[62] For a *pobre*, it might have been a way to make a decent living, but it was definitely not an easy path to upward mobility.

Through the years following the Civil War, when the sheep industry expanded rapidly and *genizaro* and *peon* labor again became scarce, the *partido* system flourished and was adopted in modified form by Anglo sheep growers and merchants. Acting, in part, as *patrones* for the territory's numerous small-scale sheep growers, Anglo mercantile capitalists employed the system, much like their Hispanic forebears, to secure skilled herders cheaply, while shifting the risk of actually raising sheep off their own shoulders and onto their *partidarios*.

Improved Conditions

Living conditions in New Mexico seem to have improved somewhat by the beginning of the nineteenth century, although successes were tempered with some failures. The population of the colony in 1802 was reported to be 35,751, mostly farmers in the Rio Grande Valley.[63] By this time, however, the Pueblo population had been reduced by multiple causes, including European diseases, to about 9,500, a quarter of its pre-Conquest level so the Hispanics now greatly outnumbered the Pueblos.[64] Sheep exports increased markedly after about 1785. Some sheep were driven as far as Mexico City where the price doubled between 1794 and 1809.[65] Markets in the towns of Sonora,

Coahuila, and Durango opened.

Governor Fernando de la Concha estimated that 15,000 New Mexico sheep were sold in Chihuahua in 1788 for about 30,000 pesos ($540,000 in 2010 dollars).[66] This figure is corroborated by 1794 church documents indicating that 15,000-20,000 sheep were being trailed south annually, with the numbers ranging up to 25,000 some years. Nine years later, in his economic report of 1803, Gov. Chacon stated that 25,000-26,000 sheep were being exported annually.[67] A measure of economic advancement in the colony during the eighteenth century is provided by the 1785 probate records for Don Clemente Gutierrez, known as the King of the Chihuahua Traders. His estate included 7,000 yearlings and two-year olds being held for sale, 6,600 more sheep purchased from neighboring ranchers for fall delivery, and another 13,000 ewes held under *partido* contracts with twenty-four Rio Abajo citizens.[68] Nevertheless, the colony was still not self-sustaining and ran an annual trade deficit with Mexico.[69] Sheep alleviated New Mexico's poverty, but did not eliminate it. Long of major importance to New Mexico's internal economy, they had yet to dominate the trade with Mexico, textiles and hides still being more important. This soon changed.

By the early nineteenth century, the trade caravans had become well-organized annual affairs. The New Mexico *commerciantes* congregated with their livestock and other trade goods loaded on *carretas* and pack mules at *La Joya de Sevilleta*, the last Spanish settlement north of the *Jornada del Muerto*, for departure in November.[70] The caravans now incorporated typically five-hundred men, including a military escort.[71] The sheep, however, were owned by a small handful of merchants. And the internal trade of New Mexico, which included sale of the imports, was controlled by the rather small base of

only 12-14 *comerciantes*.[72]

The sheep drives were not uniformly profitable for the New Mexicans because the Spanish-born Chihuahua middlemen with whom they had to deal maintained a tight trade monopoly and held sheep prices low. Some New Mexico traders became deeply indebted to Mexican merchants who had advanced them credit against future deliveries. The Chihuahua market also could be treacherous because of large, unpredictable price fluctuations that could wipe out a New Mexican's profit margin or worse. Additional problems included misunderstandings of business agreements, sharp business practices, and outright theft, all reflected in eighteenth-century litigation described in surviving documents.[73] The New Mexicans, continually buffeted by difficult market conditions operated as best they could under the existing system; they were truly never in a position to change it. Fortunately for them, the demand for sheep increased in the late eighteenth century and into the early nineteenth century. A small group of New Mexico traders, the smartest or luckiest, managed not only to stay out of debt but to realize substantial profits.[74]

Farmers constituted the largest sector of the colony's population, and by the early nineteenth century their crops of wheat, corn, barley, and vegetables provided the citizens a marginal self-sufficiency in food. But the great distances between population centers combined with poor roads and a lack of adequate transport capabilities discouraged agriculture on a commercial scale. The shortage of irrigable, defendable farm land, insufficient labor and capital, and the persistence of Indian depredations were added limiting factors.[75] Agriculture never matured beyond the subsistence level in pre-annexation New Mexico. Sheep growing did not have the drawbacks of agriculture since

large flocks could be produced and profitably driven to distant markets. Towards the end of the territorial period, a wave of immigrant Anglo farmers introduced commercial agriculture for the first time, cf. chap. 10.

By the early nineteenth century, sheep became an external trade item of considerable importance.[76] About twenty elite families dominated the colonial economy, several being engaged in the Mexican trade. Pino's data indicate that the wealthy trading families, controlled over 25% of the export trade considering sheep alone and perhaps much more considering all other commodities.[77] They traded imported goods with the Pueblos and the general colonial population in exchange for their produce. They extended credit to the cash-poor *pobres* against future deliveries of their crops and livestock, which were sometimes pledged several seasons in advance, reducing some of those struggling growers to peonage.[78] The *ricos*' ascent was expedited by the recognition of sheep as a medium of exchange, capital on the hoof, as little hard currency was in circulation. All items of merchandise in the colony were valued according to the number of sheep for which they would trade.[79] Dowries often took the form of livestock, entirely or in part.[80] The small group of rancher-merchants that dominated the livestock trade was its primary beneficiary. Conditions changed slowly for the remainder of the Spanish period. New Mexico society was conservative, closed to outside influences, and largely ignored by an overextended, decaying Spanish empire. The sharp *rico-pobre* class distinction, believed more extreme than it had been before the Pueblo Revolt, became a defining feature of life in New Mexico from the latter eighteenth through the nineteenth century. Against this background, a substantial livestock population and a strong tradition of sheep husbandry

were established, one of the Spanish colony's most important legacies.

The Mexican Period, 1821-1846

Mexico won its independence from Spain in 1821 after a decade of instability and armed conflict. Little is known about New Mexico commerce during this period. The Camino Real trade definitely decreased overall and the Chihuahua sheep market collapsed.[81] Without the outlet provided by the Mexican market, New Mexico's sheep population increased dramatically. A livestock census conducted in 1827 gave a total of 240,000 sheep and goats in the colony, with 155,000 in the Albuquerque area, 62,000 in the Santa Fe area, and 23,000 in the Santa Cruz area. In addition to the sheep, the colony had 5,000 cattle, 2,150 mules, and 850 horses. The sheep were valued in New Mexico at 4 reales/head (about 50 cents), about half the value in Mexico during good times, and accordingly constituted 54% of the total livestock valuation.[82] The Rio Abajo became firmly established as the colony's dominant sheep-growing region. Sheep now constituted an important source of income for those families living above the subsistence level.

Under the new central government in Mexico City, the colony, never accorded much government support, experienced even greater neglect than in the past. Political, economic, and military unrest were endemic throughout the Mexican period. The inadequate colonial military force was reduced, to the detriment of public safety. Peace with the Navajos had ended in 1818, a particular blow to sheepmen whose flocks they raided with regularity thereafter.[83] Indian depredations intensified generally after 1821 when the impoverished Mexican government discontinued annual annuities to the

nomadic tribes.[84] The wherewithal for violence increased in the following years when American traders began selling guns and powder to the Indians.

While living conditions deteriorated, a tax revolt in 1837 turned into an all-out insurrection. The *insurectos* murdered several government officials, including the governor, and in the aftermath, Manuel Armijo, a shrewd, murderous thug, seized the governorship. Later in 1841, a poorly-organized military force from the Republic of Texas, intent on annexing New Mexico's land area east of the Rio Grande, invaded the colony. Armijo's forces quickly captured the invaders and marched them to Mexico City. The legacy of this brief incident had far-reaching consequences. At this time, most New Mexicans took up a deep and lasting hatred for Texans, a sentiment that survives in vestigial form down to the present. For their part the Texans already despised Mexicans, a legacy of the Alamo and the Texas War of Independence from Mexico. The antipathy stoked by the invasion helped keep New Mexico in the Union during the Civil War when Texans, this time as part of the Confederate Army, invaded once again.[85] Following the Civil War, the Texas-New Mexico enmity contributed to the range conflict between cattle and sheep interests, the sheep herders being Hispanic, and the cowboys being largely Anglos from Texas.

After Mexican independence, New Mexico sheepmen faced the same, or even greater, difficulties. On the large sheep drives to Mexico, trail expenses for the herders' food and compensation, such as it was, were significant, as in the past. And losses of stock from poisonous weeds and bad water along the way were, likewise, expensive. For a period of years starting in 1832, the Mexican government imposed onerous taxes on imported livestock to the detriment of New Mexican ranchers.[86] The government exacerbated the

business climate by introducing high import duties on merchandise and a complicated system of internal passports and shipping manifests. Those merchants caught without the necessary papers, as determined by capricious government officials, were subject to heavy fines, or even confiscation of their shipment.[87] As in the past, many New Mexico sheepmen were deeply indebted to Mexican merchant-middlemen. In otherwise good years, their profits might be wiped out when a creditor called in long-standing debts. Sometimes, the merchants foreclosed on entire herds to cover such debts, leaving the New Mexican sheepmen with nothing to take back home. Also, large, unpredictable price fluctuations in the Mexican sheep markets remained a perennial problem. In bad years, the markets might be glutted so that there was no demand at all for New Mexico's sheep.[88] An altogether unbalanced situation favoring the Mexican merchants prevailed.

Remarkably, the sheep industry not only survived but flourished during much of the republican period. By the early 1830s, New Mexico sheepmen were delivering 15,000 head annually to Durango alone, selling them at nine reales/head. Mariano Chaves (y Castillo), whose ancestor had received a substantial sheep allotment from de Vargas, set a pre-annexation record for a single individual when he drove 30,000 head to Durango in 1832. The trade expanded so quickly that in 1835 alone 80,000 sheep were exported to Mexico, almost half belonging to the Chaves family.[89] Thereafter, prices and trade volume fluctuated widely. For the remainder of the Mexican era, sheep prices in Mexico never exceeding four *reales*/head. Nevertheless, between 1835 and 1840, New Mexicans requested permits (*guias*) to export at least 204,000 head to Mexico. And into the early1840s, New Mexicans appear to have been exporting 30,000-50,000 head in the better years.[90] About two thirds of these belonged to members of the Chaves, Otero, and

Sandoval families, while most of the rest belonged to four other prominent families – Ortiz, Pino, Perea, and Armijo.[91] In total, only twenty-eight sheep owners from sixteen families delivered substantial herds during this period.[92] The United States-Mexico War ended the Camino Real sheep drives, but high market volatility would remain a characteristic feature of the New Mexico sheep industry throughout the territorial period.

Between 1826 and 1846, a total of some 400,000 head valued at about 200,000 pesos were driven to Mexico. This constituted 47% of the measurable export value for the period, enumerated by Boyle to be 422,907.71 pesos. The bulk of the merchants after 1832 were, however, small-scale businessmen, trading in a wide variety of New Mexican and Indian products. They controlled only10% of the total trade, which, spread out broadly and thinly as it was, benefited many New Mexican families more than the sheep trade.[93] Sheep did provide employment as herders for some New Mexico *pobres,* but their compensation was always small.[94] *Partidarios*, and other small producers might on occasion sell a few head of their own to their *patron* to be driven south. Santa Fe trader Josiah Gregg reported that the *patrones* paid these men 50-75 cents per head and sold the stock in Mexico at 100%-200% profit.[95]

Class distinctions became even more pronounced. If only a handful of *ricos* profited from the sheep business, at the opposite end of the social scale, peonage grew during the Mexican period.[96] Many Pueblo Indians and freed *genizaros* employed on haciendas and ranchos fell into peonage.[97] Large *pobre* families often lived in single-room adobe dwellings, spending much of their lives out of doors, while extended *rico* families lived in the relative comfort of sparsely-furnished three or four room structures. *Genizaro* slavery persisted, although slavery had been outlawed by Mexico in 1824.[98] The growing

New Mexico sheep industry rested, if anything, on an even narrower foundation than during the Spanish period. With the opening of the Santa Fe Trail, new commercial opportunities opened up for New Mexicans. Some Rio Abajo *ricos* entered the Santa Fe trade and used the profits to purchase more grazing land, expanding further their large sheep operations. More capital came into circulation. The most successful families grew richer, a very few new families rose to prominence, while the great majority of New Mexicans continued to live at the subsistence level.[99]

At the time of the annexation, the Hispanic population was roughly 50,000.[100] Had the colony's entire sheep population at the time, estimated at about 377,000, been distributed uniformly among its citizenry, each individual would have owned seven or eight head, valued at no more than $4.00-6.00 ($120-180 in 2010 dollars).[101] Sheep being a major basis of the colony's wealth, such as it was, New Mexico was clearly still too poor to support a substantial middle class. Nor were the flocks numerous enough to support a large dedicated work force, since a single, skilled herder and his dog could readily tend 1,000 head. Year-around employment of as much as 1% of the Hispanic population, be they *partidarios*, *peones*, or *genizaros*, would have been more than sufficient. Most of the colonists were primarily engaged in subsistence farming.

During the Spanish and Mexican periods, sheep were raised on grant lands or adjoining public domain, an arrangement that persisted after the annexation until the 1870s or later. During the Mexican period, these grazing lands continued to be owned or controlled in large part by *ricos*, a result of government favoritism in the awarding of land grants to the well-connected elite. This land policy surely limited more widespread sheep ownership than would otherwise have been the case, an unintended

consequence.[102] This was particularly true in the late Mexican period when Gov. Armijo awarded a few immense private grants to a handful of influential citizens.

If the government land distribution policy discouraged more widespread participation in sheep ownership, Indian depredations stood in the way of further expansion of the industry under any conditions. Writing in 1832, Licenciado Don Antonio Barriero noted:

> The thousands of sheep raised in this territory have no parallel in the republic [Mexico]. This stock increases from day to day in an incredible manner. It may be said that, if New Mexico can establish a permanent peace with the wild Indians, and if it will provide its people with knowledge of the most advantageous methods of trading in sheep, the province will prosper from the income of this branch of industry alone as much as Chihuahua has profited from that of her mines. Happy the day when the government will extend its protecting hand to this territory; then these fields, at present uninhabited and desolate, will be converted into rich and happy sheep ranches![103]

The Mexican government, lacking in revenues and in a more or less continuous state of chaos, never acted on Barriero's suggestions. Later under American sovereignty, his conditions were met with the help of the comparatively well-funded, well-equipped U.S. Army. The dramatic expansion of the sheep industry throughout the Rocky Mountains and Great Plains in the late nineteenth century was greatly expedited by the opening of extensive areas beyond the territory's borders, newly pacified by the army. And New Mexico, aside from very significant moral considerations, indeed benefited from a considerably expanded sheep industry. In the mean time it was not unusual for settled

grants to be abandoned, at least temporarily, on account of Indian depredations.[104] New Mexican merchants insured that Indian attacks were rarely a problem on the Camino Real because the caravans were large, incorporating hundreds of men, armed and ready to defend themselves and their merchandise, not an option otherwise.

Through the entire quarter century when they controlled New Mexico, distracted Mexican leaders, overwhelmed by serious internal problems, made no attempt to promote New Mexico's sheep industry. If anything, the opposite was the case. Onerous trade regulations and restrictions, inadequate military protection, and restrictive land distribution all conspired to suppress the full potential of the industry. The annexation introduced a new economic order that removed these road blocks and enabled the industry to evolve and grow at an unprecedented rate.

Sheep and Expansion of the Hispanic Homeland

Starting in the 1790s, Hispanic New Mexico underwent nearly a century of expansion beyond the confines of the Rio Grande and its tributaries. A few words about that expansion are in order here, since it was often led by sheepmen.[105] Several factors underlie this movement, which had long-term cultural consequences.[106] One important factor was the need for outlying, settled buffer areas to shield the older settlements, with their growing populations, from nomadic raiders. However, population increase was ultimately the critical factor. It had created a shortage of the essential waterfront sites for settlers in established villages. Simultaneously, the growth of the flocks along with the population had demanded that more sheep be placed on the grazing lands then in use. However, good grazing areas were shrinking as the need for them increased. Nearly two

centuries of grazing on the older grant lands had left many of those areas depleted of forage, diminishing their stock-carrying capacity.[107] It was thus imperative that new lands be opened for settlement.

Sheepmen were attracted by the fine, seemingly limitless grazing lands with adequate water in outlying, unsettled areas, hence their leadership of the expansion. However, the nomadic tribes that occupied and used the lands for hunting and gathering resisted the expansion and sometimes drove the intruders away.[108] The expansion was thus was controlled by a contest between the attraction of desirable new lands, essential for the continued development of the northern Hispanic colony, and the resistance mounted by the nomadic tribes, who's survival was threatened.[109] The Hispanics prevailed more often than not. The expansion was generally expedited by an extended period of relative peace starting in 1790 after twelve years of bloody warfare with the Apaches and Comanches.[110]

In a pattern that repeated itself many times, the sheepmen would first move their flocks on a seasonal basis to promising outlying public lands. After they became convinced that those lands could be adequately defended, families in need of new homes would relocate and establish permanent villages in the area. Eventually, many of these new grazing areas would be incorporated in land grants, a step which formalized and systematized the existing occupancy.[111] On account of the large sheep holdings, the *partido* system flourished on these newer grants. The first lands so settled were the plains on the east side of the Sangre de Cristo Mountains in the Pecos River watershed, areas in today's San Miguel and Mora Counties. Particularly significant was the establishment around 1803 of San Miguel del Vado, a community grant on the Pecos

encompassing rich grazing lands. San Miguel, in turn, served as a staging area for the establishment of several new satellite villages, Las Vegas in particular, sheepmen ever in the vanguard. Freed g*enizaros* constituted a significant component of the early community grantees in the outlying areas.[112] The expansion extended as far west as the Bartolome Fernandez or San Miguel Grant, which had been awarded as early as 1767, on the slopes of Mt. Taylor (called Mt. San Miguel by the Spanish).[113] Ultimately the expansion extended north into what became Southern Colorado.

The sheep industry evolved slowly during the Spanish-Mexican period and was seemingly poised to persist indefinitely into the future with little change. Instead it would be turned on its head by American growers and mercantile capitalists who began arriving in New Mexico following Mexican independence from Spain. The influence of the first Americans to settle in New Mexico is described in the following chapter.

Chapter 3

The Americans Arrive, 1807-1860

The arrival of Americans brought great changes to New Mexico. The sheep industry was an area that underwent a particularly dramatic evolution during the sixty-six years of the territorial era that followed the annexation, and it was an important vehicle in drawing New Mexico into the American economy. However, the incorporation of today's Southwest into the United States, sometimes thought to date from the military conquest of New Mexico in 1846, had, in fact, begun on the economic front twenty-five years earlier when the northern colony was opened to foreign trade under a newly-independent Mexico. Prior to that, under Spanish sovereignty, trade between Mexico and the United States was banned except through the tightly controlled port of Vera Cruz, nearly 2000 miles from Santa Fe. Foreigners apprehended in Spanish territory were subject to arrest, imprisonment, and confiscation of their property. With the relaxation of trade restrictions following Mexican independence, American fur trappers and traders, merchants, and ultimately stockmen began arriving in New Mexico, their numbers and influence increasing steadily throughout the Mexican period. This American presence did much to pave the way for the military conquest that followed. Developments that would ultimately transform the New Mexico sheep industry began to unfold during the Mexican period. Communications and commerce with eastern U.S. markets were established, foreign trade routes began to shift from North-South to East-West, and a handful of Americans saw and began to appreciate the grazing potential of New Mexico.

Pike, Beaubien, and Maxwell

The American experience in New Mexico dates back to an even earlier time, however, when a small U.S. military reconnaissance mission under Lieut. Zebulon Montgomery Pike was tasked with finding the headwaters of the Arkansas River and learning something of the Spanish presence in the region. The party was discovered by a Spanish militia detachment in 1807, taken into captivity, and marched to Santa Fe and then on to Chihuahua for interrogation. Except for a few obscure lone adventurers, Pike and his men were the first Americans to see New Mexico and report what they saw.[1] Along the way south on the Camino Real, Pike observed a trade caravan destined for Mexico which included 15,000 sheep. He conveyed this information back to Washington in a comprehensive report which noted the importance of sheep in New Mexico's economy and estimated, accurately as it turned out, that 30,000 animals valued at $1.00/head were being exported annually to Mexico, cf. chap. 2.[2] It is difficult to assess the impact of Pike's reconnaissance, but it must have suggested to some Americans that New Mexico was worth further consideration. According to Prince, the report generated "much interest throughout the west," and many men in the western border lands of the United States became interested in retracing Pike's path.[3] Fergusson asserts that "The real westward movement began after Pike's book was published."[4]

After the region was opened to U.S. trade, a small number of Americans, French Canadians, and other foreign-born adventurer-entrepreneurs soon found their way into New Mexico. These men were largely part of a wave of fur trappers, "mountain men," who had been operating in the Northern Rockies since days of Lewis and Clark. Around the time New Mexico came under Mexican sovereignty, they began expanding their

operations to exploit the untapped fur resources of the Southern Rockies. Native New Mexicans had not previously developed a fur trade for lack of a satisfactory market to the south.[5] The Americans, however, had connections with St. Louis merchant-investors, who in turn had connections with European markets. Many Anglo trappers established their headquarters in the northern gateway town of Taos. And within a few years, Santa Fe became an important base for traders dealing in an ever broadening range of wares, although some men engaged in both fur trapping and trade.[6] By 1840, a few hundred American men are believed to have been living in New Mexico. Some of these men took out Mexican citizenship, converted to Catholicism, married into prominent Hispanic families, and became influential in public affairs. With their access to American markets, their influence far exceeded their numbers. Anglo-American sheepmen and merchants would later benefit similarly from their eastern connections. A few of the Anglo newcomers became landowners and entered the livestock business, a move motivated by the depletion of the fur resources after the 1830s and the collapse of the European fur market.[7]

Some of the more enterprising Americans took advantage of a new land policy which allowed foreigners who had taken up Mexican citizenship to partner with a native New Mexican and apply for a private land grant. Several such private grants, some very large, were awarded during the final years of Mexican sovereignty under Gov. Manuel Armijo.[8] These grants gave Americans their first foothold in New Mexico land ownership.

The first of these grants was awarded in 1841 to Guadalupe Miranda, Gov. Armijo's collector of customs and Provincial Secretary of State, and French-Canadian Charles

(Carlos) Beaubien, a prominent Taos merchant and one time mountain man.[9] The immense Beaubien-Miranda (Maxwell) Land Grant came to encompass some 1,700,000 acres northeast of Taos, straddling today's Colorado-New Mexico border.[10] The grantees populated the grant with a combination of sharecroppers, day laborers, and *peones*.[11] From the outset the area was apparently used for grazing, as it had been even before the grant existed. The grantees introduced large permanent herds of sheep and cattle. The exact nature of Beaubien's participation in these grazing activities is unclear; for his part Miranda was never more than a passive partner. However, Beaubien's son-in-law, Lucian B. Maxwell, acting as his *majordomo*, managed the agricultural and grazing resources of the grant. He, with the support of his father-in-law, built a considerable frontier empire, as the economy of the region expanded after the annexation.[12] In the years after his father-in-law's death in 1864, he acquired the entire grant, which thereafter became known as the Maxwell Land Grant, one of the largest estates, perhaps *the largest*, in the United States at the time.[13] Eventually, the grant grew to a population, by some estimates, of five-hundred *pobladores* (settlers).[14] Maxwell came to possess some 50,000 sheep, 10,000 cattle, 1,000 horses and mules, and farmed 5000 acres.[15] By 1868, he had an annual income of $50,000 ($800,000 in 2010 dollars), making him one of the wealthiest men in New Mexico Territory.[16] Maxwell assumed a role of *patron*, more or less indistinguishable, except for his extraordinary success, from his Hispanic, grant-holding cohorts. The key to his rise in wealth, social status, and influence was his 1844 marriage to Carlos Beaubien's mixed-race, teenage daughter Luz.[17] In the business world, family connections were all important, and such intermarriages between Anglo men and Hispanic women could, from a purely commercial standpoint, be quite

beneficial to everyone concerned. The Anglo provided his Hispanic relatives needed business know-how and access to American markets, while they, in turn, provided him a bridge to the local agricultural and livestock supply network.[18] In later years, however, such dependence on family connections would place Hispanic stock growers at a competitive disadvantage. But in the 1840s, American social influence was minimal. Spanish customs were well adapted to the isolated lands, the people, the cash-scarce economy, and the livestock production on the grants. Like his Hispanic cohorts, Maxwell employed the *partido* system, mediated by a web of personal relationships, to raise his livestock. He conducted his livestock operations on a barter and cash basis, without recourse to bank loans, credit, or outside investors.[19]

Besides the the Maxwell Grant, other similarly large grants, awarded in 1843, were the 1,000,000-acre Sangre de Cristo Grant in Colorado, awarded to Steven Luis Lee and Carlos Beaubien's mixed-race son, Narcisco, the 4,000,000-acre Las Animas Grant, awarded to Taos fur trader-merchant Ceran St. Vrain and Cornelio Vigil, and the 1,000,000-acre Rio Don Carlos Grant awarded to French-Canadian Gervacio Nolan.[20] Maxwell and his cohorts were the first Anglo stock growers in New Mexico.[21]

The Santa Fe Trade

At the same time that American fur traders were establishing outposts in New Mexico, Americans on another front opened a general merchandise trade that would impact the sheep industry even more directly.[22] Their development of a trade route between Santa Fe and St. Louis, the Santa Fe Trail, was an important precondition for the expansion of New Mexico's sheep industry. It became the principal conduit for transporting the territory's wool to eastern mills and remained so until the arrival of the

railroads in the 1880s.

What came to be known as the Santa Fe trade started in 1821 when a pack train under William Becknell out from Missouri and laden with goods intended for the Plains Indian trade ended up by chance in New Mexico. The Americans sold their merchandise for a handsome profit and returned to Missouri with news of a lucrative new market for American manufactured goods.[23] Mercantile flood gates between New Mexico and the United States cracked open, and caravans of heavy, Pennsylvania-built freight wagons were soon traversing the relatively easy, 800-mile trail.[24]

In the first years of the trade, the final destination was usually Taos, but that soon shifted to Santa Fe. The Americans exchanged textiles, hardware, and liquor for the traditional *efectos del pais*, but also livestock (oxen, horses and mules from California, c.f. chap. 3.) and Mexican silver and gold.[25] During the early years of the Santa Fe trade, merchants began experimenting with wool as a backhaul, cf. chap. 4, providing the first western wool to northeastern mills and giving birth to an industry that would grow to major proportions in the Rocky Mountain-Great Plains region.

Relations with the United States were strictly commercial during the Mexican period. The trade proved quite profitable for some, growing more than hundred-fold from an annual value of $15,000 in 1831 to about $1,750,000 in 1846 ($50,000,000 in 2010 dollars), eventually providing employment for 5,000 men, 1,500 wagons, and over 17,200 horses, mules, and oxen.[26] In the first years, fairly large shipments were necessary to realize significant profits, limiting opportunities for those without substantial capital backing.

Well positioned and well prepared to assume an important role in New Mexico's

commerce, the Santa Fe traders, had access to a broad range of American markets through their business connections in Missouri. Besides being rugged frontiersmen, some were reasonably well educated and possessed considerable communication skills. Like Beaubien and Maxwell, they established mutually profitable business and social connections with New Mexico's elite, while they coupled, however weakly, the Mexican province (later department) to the U.S. economy for the first time. Just as in the case of the Taos fur trappers, some settled in New Mexico, assimilated into Hispanic society, and became land owners.[27] New Mexican *ricos* who had been dedicated to the Mexican trade expanded their operations as the Trail opened up new opportunities. At first, a few native New Mexican merchants joined in the growing trade on a small scale. Then, in the late 1830s, a substantial number became significantly involved, sometimes dealing directly with wholesale suppliers on the East Coast, an initiative due in part to the decline in Mexican sheep prices after 1836, cf. chap. 2. A few men who had prospered driving sheep to Chihuahua made even larger fortunes in the Santa Fe trade.[28] The base of participation was, however, narrow in the sense that five families conducted 80% of the Hispanic trade.[29]

If the Santa Fe trade was lucrative for some merchants, it was far less so for the great majority of workers in their employ, many of whom were Hispanic. A skilled Anglo mule packer was paid $25-30/month, while his Missouri-based employer might be transporting tens of thousands of dollars worth of merchandise, to be sold at a considerable profit. The Anglo merchant-traders paid their Hispanic packers at a lower rate for the same work, typically about $15/month, although those men came to be highly regarded for their skills and did most of the packing throughout much of the West.[30] The

Hispanic laborers were undoubtedly happy to have the work, even at the lower pay scale. In comparison, as late as the 1860s, Hispanic merchants paid their employees only $6-8/month and sometimes much less, still an attractive wage. A *peon* living on a grant and indebted to his *patron* might be credited with 2-5 pesos/month for his labor, usually the lower figure, while a *peon* herder might receive even less than 2 pesos/month.[31] Economic opportunity was largely limited to well-capitalized Anglo merchants and those well-connected *ricos*, who owned or controlled large tracts of land and large herds of sheep.[32] The huge divide between laborer and owner was a constant and carried over into the sheep industry as it evolved through the territorial period. And skilled Hispanic herders often found the most lucrative employment with Anglo sheep ranchers.

The Santa Fe trade grew steadily for most of the Mexican period, a time of transition during which New Mexico was importing goods from both the United States and Mexico, but exporting sheep only to Mexico. For a brief period, St. Louis and Chihuahua merchants were in close competition, the Missouri traders gradually breaking the Mexican monopoly, with their cheaper, superior merchandise.[33]

Significantly, during this same period New Mexico's *rico* families began sending their sons east to American Catholic schools rather than south to Durango to complete their education.[34] This was critical for future success in business, law, and politics. Fluency in English, the ability to move freely and easily in American society, a thorough understanding of fee-simple land tenure and modern banking practices were all facilitated by an American education. Such skills would be essential for successful large-scale sheep ranching during the territorial period. Conversely, the general lack of educational opportunities deterred the development of a broad Hispanic middle class in New Mexico

and, particularly, the full participation of native stockmen in a sheep industry of increasing sophistication, even as opportunities for sheep growing expanded.

Military Occupation

New Mexico's nearly insuperable difficulties extended from the social, political, and military fronts into the commercial arena. Impoverished Mexico did nothing to promote commercial development and could not protect its citizens in the remote northern areas. Under Mexico, widespread prosperity was simply out of reach. The *pobladores* to their credit had built a cohesive, functioning society under nearly impossible conditions. The growth of the sheep industry despite the barriers it faced is testament to the extraordinary sheep-growing resources, both natural and human, of the northern settlements. But conditions in New Mexico were about to change, much to the benefit of the sheep industry. A new era for New Mexico began in the summer of 1846 with the arrival of the U.S. "Army of the West" under Col. Steven Watts Kearny and the military occupation of the Mexican department, the next phase of a conquest that had begun on the economic front twenty-five years earlier. This is not to say that life in New Mexico changed much in the early years of the American soverignity that followed. It did not, although the Santa Fe trade continued to expand, particularly as the Mexican import taxes disappeared. It was an easy victory for the American forces. After twenty-five years of political chaos, inadequate military protection, ownerous trade restrictions, and general neglect, most New Mexicans had lost any sense of allegiance to the Mexican government.[35] Initiating the five-year military occupation, Kearny imposed civil order, established a provisional, if largely powerless, civil government and a legal system based on Anglo-American

common law. Significantly, he promised New Mexicans that land ownership under Spanish and Mexican sovereignty would be honored, a promise directly relevant to the vast grazing tracts within the existing land grants and, by extension, the sheep industry. This condition was incorporated into the Treaty of Guadalupe-Hidalgo of 1848 that ended the United States-Mexico War.[36]

The annexation of New Mexico, and the large area that became the American Southwest, under the treaty was a critical factor in opening vast new markets for New Mexican produce, sheep and wool in particular, although this development advanced slowly. More immediately, the presence of the U.S. Army, and the numerous outposts it established, benefitted native New Mexicans by providing markets for a wide range of local produce. Further afield, the mining districts of California and Colorado provided important markets for sheep in the early years of American sovereignty. The integration of New Mexico into the U.S. economy that the Santa Fe trade had begun in a small way received an added impetus in the interwar years with the arrival of an emergent class of professional mercantile capitalists who would deal in sheep and wool on a considerably larger scale than in the past. Otherwise, except for a handful of stockmen, the territory attracted few immigrants due to its lack of gold or silver, its well-deserved reputation for Indian depredations, and its scarcity of arable land, the most desirable tracts having been long since taken up by the *pobladores*.

Americans who did come to New Mexico were quick to recognize the importance of sheep in the local economy. The sheep industry had grown considerably between its seventeenth-century inception and the time of the annexation. And with its large sheep population, the future territory became, by default, an important center of America's

western sheep industry, to be joined by California a decade or more later. (To assist discussions throughout this work, the population of New Mexico versus time is plotted in Fig. 3.1; and the Sheep and Cattle Populations are plotted similarly in Fig. 3.2.) In his military reconnaissance report on Gen. Kearney's traversal of New Mexico, Lieut. W.H. Emory, Kearny's chief engineer officer, noted the importance of sheep and stated his belief that fine sheep-growing conditions existed throughout New Mexico.[37] Ten thousand copies of Emory's report, combined with a couple of other related reports, were printed by the Government Printing Office. Secretary of War William L. Marcy employed the report to argue for, and secure, the inclusion of New Mexico in the southwestern lands that were annexed by the United States.[38] At the time of the American invasion, however, livestock growing conditions were deplorable.

The entry of Kearny's army gave rise to the first systematic documentation of New Mexico's state of security since the reports of Pino (1812) and Barreiro (1836). The Americans found an extremely unsettled situation. The nomadic tribes, desperate to retain control of their traditional hunting grounds, were severely harassing the villagers, threatening both their public safety and their livestock herds. During the Spanish and Mexican periods, Indians had killed, or taken captive, many *pastores* and their families and driven off innumerable sheep, cf. chap. 2.[39] At the time of the annexation, sheep herding seems to have been more dangerous than ever. The prevalence and seriousness of the Indian depredations is described in Emory's report. When the U.S. Army marched through Las Vegas in 1846, the villagers reported to the officers that "120 sheep and other stock" had been stolen a few days earlier, either by Utes or Navajos. A few days after that, a villager was murdered by Indians. Some weeks later, by which time

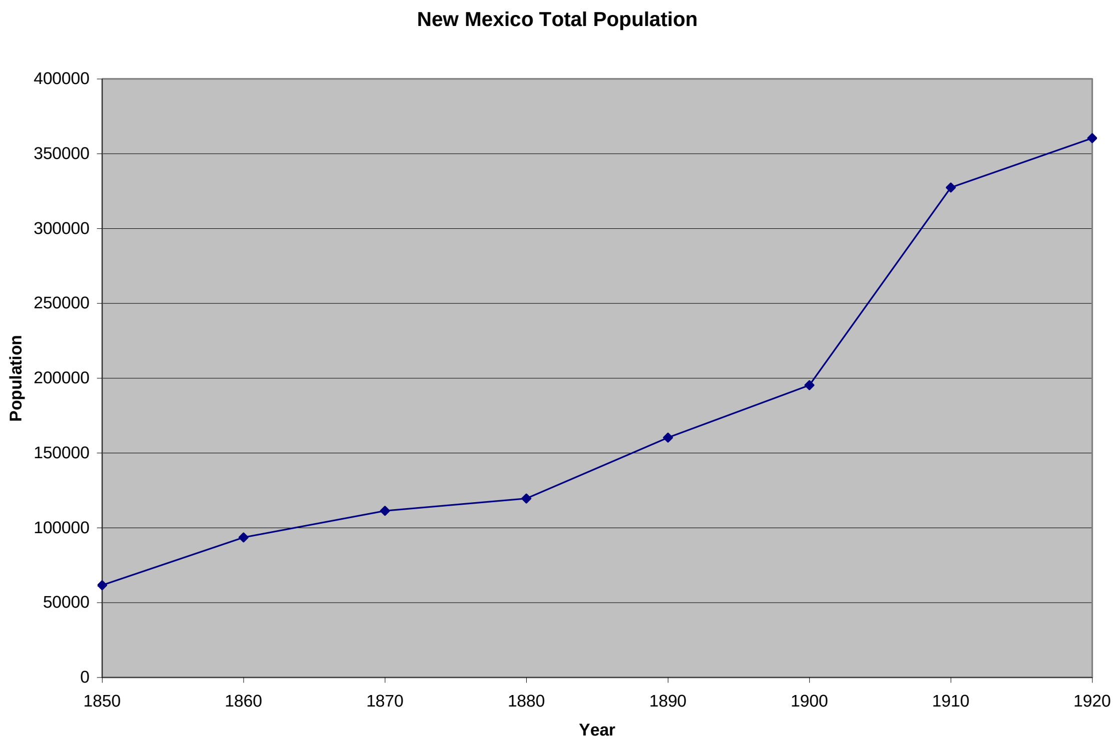

Fig. 3.1. Total Population of New Mexico versus Year. The population increased at a somewhat accelerated rate after 1880 and the arrival of the railroads. The population increase was even more rapid after 1900 due significantly to the arrival of homesteaders from the East. Data are taken from *U.S. Census, 1850-1920*.

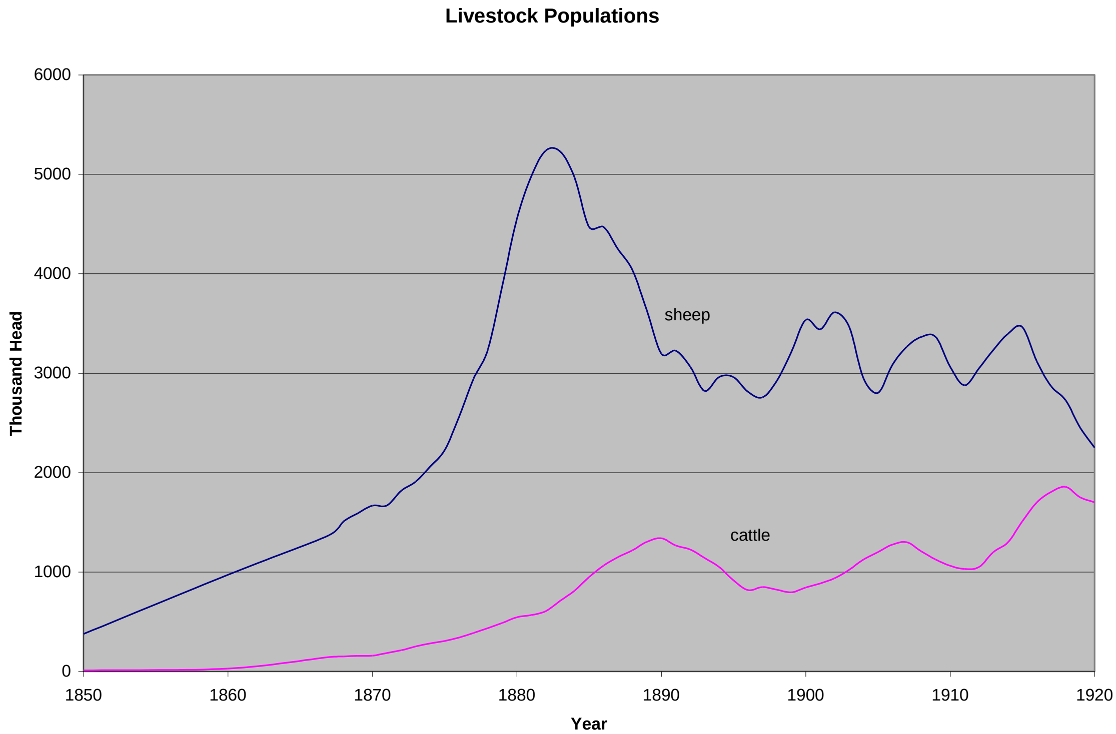

Fig. 3.2. New Mexico Livestock Populations versus Year. Series 1: Sheep. Series 2: Cattle. The sheep population reached a maximum of over five-million in the early 1880s, largely churros, and decreased thereafter to around three-million, as smaller herds of bred up stock became favored. The sheep population always substantially exceeded the cattle population. Data for 1850 are taken from *U.S. Census, 1850*, which is not considered particularly reliable. Data for 1860 are taken from *U.S. Census, 1900*, which revised the data from *U.S. Census, 1860*. This is probably reasonably reliable. Data for 1867 – 1920 are taken from *New Mexico Agricultural Statistics*, 44. This report contains the most reliable data now available.

the army was near Isleta Pueblo, Navajos attacked a nearby village and "killed one man, crippled another, and carried off a large supply of sheep and cattle." In an altercation with the Indians shortly thereafter, six *pobledores* were killed and two wounded. A few days later and further south, the Army passed through a town in which "all the horses and cattle" had been stolen by Apaches the day before. A few weeks before that, the same band was said to have attacked a village further north, taking both horses and fifteen or sixteen women.[40]

In the years immediately following the annexation, a small U.S. military force accompanied by an even smaller political contingent arrived, augmenting the Anglo community of traders and merchants. Thus began a long period of pacification of the nomadic Indian tribes. In the 1851-1861 timeframe, the average military force in New Mexico was about 1,700 men at an annual cost of $3,000,000 in Washington dollars, a considerable increase in both men and funding over the small Mexican garrison stationed in the colony before the annexation. By the late 1850s, American troops were stationed in twelve widely dispersed forts and other outposts.[41] In contrast, in the early nineteenth century, the Spanish government maintained a force of 121 paid soldiers at an annual cost of 240 pesos/man, one seventh the cost per man of the U.S. military. This small professional force was augmented by a 1,500-man, self-equipped militia in which the men typically served forty-five-day terms of service without compensation.[42] From the standpoint of the Anglo and Hispanic citizens, the superior U.S. force was badly needed, but even after it was put in place, public safety remained illusive. The army, yet inexperienced in western Indian warfare, was ineffective in suppressing Indian depredations at first.[43] In the years 1846-1850, during the military occupation, Indians

are reported to have run off 154,915 sheep from Bernalillo and Santa Ana Counties, 16,260 from Santa Fe County, 17,080 from Taos County, and 43,580 from Rio Arriba County, 50,000 from San Miguel, and 171,558 from Valencia, for a total of 453,293 head of sheep in little over four years.[44] This was a horrendous loss for the impoverished land. The depredations persisted through the Civil War period. There is evidence that Indians escaped with over 6000 head in 1868.[45] For their part the Indians were said to have systematically avoided stealing an entire flock so as to leave behind some breeding stock to replenish the herd for a future raid.[46] With the financial backing of the U.S. Government, the army, relatively well armed and well trained, eventually imposed considerable public safety. The penetration of the railroads west of the Mississippi provided the critical support the army needed in this endeavor. By about 1866, the army had largely pacified the tribes in New Mexico except for the southern Apache.[47] The grazing industry, which expanded into the vast, newly pacified areas, benefitted immensely. The pacification contributed to a confluence of additional favorable developments for the industry, including new eastern markets and improved transport facilities, commercial know-how, and financing that took hold in the latter decades of the nineteenth century. The issue of Indian pacification, as it extended into the post-Civil War period, is discussed in chap. 5.

The Growth of Trade

Under the military occupation after the annexation, the garrisons provided new markets for New Mexico produce. By 1850, Anglos constituted nearly 16% of the population of Santa Fe and at least 10% in the towns of Las Vegas, Albuquerque,

Cebolleta, and Socorro. About half these Anglos were directly attached to the military.[48] Grain, hay, and other farm products needed for both food and forage commanded high prices at the forts. Lucian Maxwell became a prominent army contractor during the inter-war period and, as such, a pioneer in an agricultural and grazing cash economy.[49]

Like Maxwell, many of New Mexico's farmers and ranchers benefited from the expanding domestic markets. However, they generally did not sell their produce directly to the army, but rather dealt with fort sutlers, middlemen-expediters who linked numerous small producers to a single army fort, launching an emergent cash economy in the process. The sutlers were some of the first sedentary Anglo mercantile capitalists in New Mexico. Anglo merchants later dealt extensively in live sheep and wool.

Trade over the Santa Fe Trail increased significantly during the 1850s, serving not just the forts, but also mountain fur trading posts and, in the last years before the Civil War, the Colorado gold camps.[50] Santa Fe became the distribution center for imported merchandise. According to Twitchell, the town saw more gold and silver in circulation than ever before in this timeframe.[51] Simultaneously trade in American manufactured goods with Chihuahua and the south resumed, many newly opened mines in Mexico purchasing supplies and machinery from the United States.

By the late 1850s, *churro* wool, despite its shortcomings, had become a profitable return commodity over the Santa Fe Trail, the prohibitive shipping expenses of earlier years to the east coast woolen mills having been overcome.[52] In fact, the increased wool shipments enabled the Santa Fe trade to continue unabated after the territory's hard currency had been seriously depleted from decades of unbalanced trade with the United States.[53] New Mexico wool thus displaced hard currency on the back-haul. Some New

Mexico merchants were now purchasing all or most of their supplies on the east coast, shipping them by rail to Pittsburgh and by steamboat to Kansas City, rivermen having learned to navigate the treacherous Missouri River. The freight wagons now departed for New Mexico from Kansas City, eliminating the expensive transport across Missouri. Wool traversed the same route in reverse. Hispanic merchants were shipping about half the merchandise over the trail by about 1860, the most prominent still largely from the handful of *rico* families that had long dominated New Mexico's economy, although a few new families became involved as capital requirements to enter the trade decreased.[54]

Hispanic Sheep Growers – A Digression

The annexation, and the arrival of a small, but growing number of Anglo Americans, brought no immediate change to the lives of sheepmen and herders or to most New Mexicans. The more prominent Hispanic sheep growers retained their standing during the inter-war years and beyond. Sheep remained an important basis of wealth and a determinant for social and political leadership. Those Hispanic families that had profited substantially from the Chihuahua and Santa Fe trades retained their interest in sheep and continued to maintain the large ranches they had controlled for decades. To digress somewhat, some comments about a few large-scale, sheep-growing *rico* families are presented here.

Pedro Bautista Pino, arguably the leading citizen of New Mexico when his peers selected him to represent New Mexico at the Spanish Cortez around 1810, was described years later by Col. Francisco Perea as "probably the wealthiest man in Santa Fe, being the owner of vast flocks of sheep and goats…" [55] Pino's sons, Miguel, Facundo, and

Nicolas, like their father sustained by large land and sheep holdings, carried on the family tradition of political, social, and in their case also military leadership until well into the territorial era.

The Chaves family, decended from Capt. Fernando Duran y Chaves who received a sheep allotment from de Vargas, cf. chap. 2, is notable for, among other things, retaining a particularly long-running prominence in the sheep industry. At the time of the annexation, family leader Mariano Chaves was said to possess the largest hacienda on the Rio Grande south of Albuquerque.[56] His son J. Francisco Chaves drove large herds of sheep to California in the 1850s and later had a distinguished military and political career in New Mexico. Manuel Antonio Chaves, Mariano's equally illustrious nephew, established a substantial livestock business around 1848.[57] In the early 1850s, he and his brother-in-law, Lorenzo Labadie, acquired lands along the Rio Pecos extending south from San Miguel through Puerto de Luna to Bosque Redondo and stocked them with sheep.[58] However, their operation was plagued by Indian depredations. Preoccupied with other activities, they turned their stock over to *majordomos*.[59] Later, around 1864, Roman A. Baca, Manuel Antonio's half-brother, acquired land for the family near the San Mateo Peaks, in today's Valencia County, notably the Bartolome Fernandes Grant. He established a 40,000-head herd on the grant and sent large wool shipments to St. Louis by ox teams over the Santa Fe Trail.[60] Manuel Antonio joined Baca around 1876. His son, Amado Chaves, had an illustrious career in law and New Mexico politics. Educated at San Miguel College, Santa Fe, and National University, Washington, D.C., where he earned a law degree, he established a successful law practice, served in the territorial legislature, and was appointed New Mexico's first Superintendent of Public

Instruction. Despite his success in the Anglo world of law and politics, he returned every year to San Miguel Ranch to supervise the lambing and shearing of the family flocks, and he undertook selective breeding experiments aimed at improved wool production.[61]

The Hispanic sheep-growing tradition continued into the twentieth century. From one of the oldest *rico* families, Solomon Luna took over his family's considerable sheep operations when still a young man. He later established for himself a place in New Mexico history when he assumed a leadership role in the successful campaign for statehood and the writing of the state constitution.[62] But for him sheep growing took precedence over political advancement, which was well within his reach. At the turn of the twentieth century, his sheep holdings were believed to be the largest in New Mexico. In 1912 at the height of his political career, he was killed in a freak accident at a remote sheep camp while overseeing a large dipping operation, cf. chap. 9.

Several other *rico* families remained prominent in sheep growing in the 1850-1880 timeframe. The Armijos of Bernalillo County were reported at one time to own 500,000 head.[63] In the same period, the Otero and Perea families together are believed to have owned another 500,000 head.[64] Don Jose Leandro Perea let thousands of sheep out on *partido* contracts in Bernalillo County and on the Ojo del Espiritu Grant on the Rio Puerco in Sandoval County, land that, incidently, he damaged with overgrazing.[65]

Hispanic *rico* families remained active in sheep growing as economic conditions evolved after the annexation. They were generally conservative in their business initiatives; some ranchers were reluctant to adopt new, more efficient methods of sheep husbandry when they were introduced.[66] They clearly understood that land and livestock provided them the greatest and most secure business opportunities under American

sovereignty and were not inclined to take risks with unfamiliar operations. But they would face great challenges in the years ahead, as sheep growing adapted to changing markets and became capital-intensive, a development over which they had no control.

The California Sheep Trade, 1849-1860

If sheep growing and the families involved remained largely unchanged in the aftermath of the annexation, significant changes in how sheep were marketed did occur. These changes were harbingers of the financial and marketing practices that would come to New Mexico's sheep industry in the late nineteenth century. They came almost immediately after the annexation in a dramatic way. Soon after the United States-Mexico War ended the Camino Real sheep trade with Mexico, a new, far more profitable market opened up in California, an unusually serendipitous development for New Mexico sheepmen.[67] And that market absorbed all New Mexico's sheep exports.

The discovery of gold in California in 1848 and the gold rush it engendered brought a massive influx of miners to the region and a concomitant demand for food far exceeding local production capabilities. And it unleashed a frenzy of speculative activity in the New Mexico sheep industry, the likes of which the sheepmen had never seen. Whatever livestock existed in California at the beginning of the gold rush was quickly consumed by the 49ers.[68] Severe shortages of food, among a range of other shortages, quickly developed and prices rose astronomically. The food shortage was exacerbated because the once-great cattle and sheep herds of the California missions, which might have helped feed the miners, had been decimated by the secularization of the missions between 1834 and 1836. The herds had been illegally sold off by their politically-connected

overseers.[69] Rumors of the high food prices filtered back to New Mexico, and it wasn't long before massive sheep drives were departing the territory for California. Once again, New Mexico mutton would feed a quickly growing population of miners when local food production proved inadequate.

Trade between New Mexico and California was not a completely new development. Despite the long distances and poor trail conditions, it had been sputtering along for a number of years. As early as 1829, New Mexico traders were traversing the Old Spanish Trail and exchanging woolen goods (*efectos del pais*) for California horses and mules on a small scale.[70] Later, an 1841-1842 expedition of New Mexicans led by Francisco Estevan Vigil drove some 4000 head of "stock", almost certainly sheep, over the same route, proving that such a drive was possible.[71]

The California trade differed in important ways from the Mexican trade. It was true that the task of driving sheep to California, always an arduous undertaking, was similar to driving them south into Mexico, although the trails were less developed, dryer in places, and plagued by greater Indian dangers than the Camino Real. However, the business arrangements were new. In the opening years, the trade did not involve Hispanic livestock producers directly, but was undertaken by Anglo-American speculators who amassed capital and purchased sheep from New Mexico growers, whose flocks had been expanding since the close of the Camino Real trade. The Anglos employed the funds, also, to purchase the needed supplies and hire armed guards and Hispanic herders. They then supervised the drives themselves or employed experienced *majordomos* in that capacity. All these initiatives bore some resemblance to the operating procedures of the post-Civil War Anglo sheep and wool merchants. In the first years of the trade, the

speculators sold their stock in California at huge profits and returned to New Mexico with the proceeds from the sales, profiting entirely from the westward leg of their expeditions, the opportunities for return trade being paltry in comparison.[72]

The trade started almost by accident in August, 1849, when a wagon train of gold seekers heading west over the southern route to Los Angeles happened to stop in Galisteo, New Mexico for a week to rest their teams and visit Santa Fe. One member of the train, remembered only as "Old Roberts," purchased 500 sheep for $250 (4 reales/head) and hired two men and a boy to assist his black slave in driving them to Los Angeles when the train resumed its course. Sometime in early 1850, Roberts sold his sheep, including lambs born on the trail, for $15-16/head, for a return of over $8,000 on his $250 investment, a considerable amount of money at the time ($235,000 in 2010 dollars).[73] This amounted to about thirty times what the sheep were selling for in Mexico.

Hearing rumors of high California food prices, but probably ignorant of Old Roberts' good fortune, a consortium of Anglo businessmen led by Santa Fe attorney William Z. Angney and including Spanish business and political leader Manuel Alvarez, combined forces in 1850.[74] Angney purchased six-thousand sheep from New Mexico ranchers and drove them to Los Angeles over the Old Spanish Trail. The drive was not without some adventure; it was attended early on by the theft of about thousand head by rogue herders and later had an unpleasant encounter with a Ute party. Upon his arrival, Angney turned down offers of $8.00/head and drove his flock north to San Francisco expecting even higher prices but instead discovered a dearth of cash buyers. He declined proffered payments in bank drafts of dubious value, i.e. checks drawn on banks in New York and

St. Louis. But after some delay, Angney sold his flock in 1851 and, having settled in Califonia in the meantime, reinvested his profits in northern California real estate.[75] Additional herds were soon on their way to the gold fields. Manuel Alvarez organized another drive on his own in1851, purchasing 4,600 head from the Gallinas area near Las Vegas and from the Perea family near Bernalillo at prices of about $1.25/head, over twice the Durango market price before the United States-MexicoWar. He entered a partnership with an experienced Spanish trader and mining entrepreneur who served as his *majordomo* and borrowed equipment, mules, and cash from various Abiquiu *ricos* to finance the drive, but unfortunately died along the way. The sheep were eventually delivered to San Diego and sold at auction for about $20,000 ($590,000 in 2010 dollars), making for a considerable profit.[76] Angney and Alvarez were fortunate. In the same timeframe, Joseph White, with a large herd from Chihuahua also bound for California, lost a substantial part of his herd to desert heat and Yuma Indians.[77]   Other inexperienced Anglo speculators lost entire flocks on the dry stretch across the Mojave Desert.[78]

The speculative sheep drives continued through 1852, when three more departed New Mexico for California. Sketchy documentation indicates that Manuel Antonio Chaves participated in one of these drives, making him one of the first Hispanic sheepmen involved.[79] Perhaps the most audacious and dramatic of the early drives was that led by fur trapper, frontier entrepreneur, and story teller Richens Lacy (Uncle Dick) Wotton. Wotton joined forces with Taos businessman, Jesse B. Turley in 1852, raising $9,275 with which the men purchased 9000 head and the necessary outfit for the twenty-one-man party. They took a more northern route than Angney, going through Colorado, Utah,

Nevada, and over the infamous Donner Pass into California. Their trek was, to say the least, one of high adventure highlighted by an encounter with a band of angry Utes near today's Montrose, Colorado, at which point Wotton fought the Ute chief in hand-to-hand combat for passage rights through Ute territory. Wotton won the contest and eventually got his herd to Sacramento where he sold most of his stock at $8.75/head for a handsome profit. He took one-third payment in gold and the balance in St. Louis bank drafts, taking a chance Angney had refused the year before.[80] That same year, 1852, Santa Fe trader, Josiah Gregg, drove a herd of 9000 head to California.[81] About the same time as Wotton's drive, Benjamin Franklin Coons, leading a 60-man outfit, successfully drove a herd of 14,000 Chihuahua sheep to Los Angeles.[82] Thereafter, Coons remained in California, setting himself up as a livestock broker in which capacity he handled some of the big New Mexico flocks that followed. Over the next few years, speculators profited handsomely from the California trade.

Ambitious Hispanic sheepmen soon entered the trade. The first to undertake a drive to California were Antonio Jose Luna, his brother Rafael, brother-in-law Miguel Antonio Otero, about to embark on a notable political career, and associate Ambrosio Armijo, all experienced sheepmen, who in 1852 oversaw the drive of 25,000 head from their homes in the Las Lunas area through Apache country - the Gila River route - to Los Angeles.[83] This was the largest drive to California up to this time. The leaders were owner-merchants. They unfortunately lost 11,000 head to quicksand, but sold the surviving sheep in Los Angeles to Coons for $5.50/head and still ended up with a massive profit. The New Mexicans returned home with $70,000 in coin and gold dust ($2,000,000 in 2010 dollars). According to tradition, Armijo received his share of the profits in fifty-

dollar gold pieces minted in San Francisco, some of which he had sewn into his leather vest for safe keeping on the journey home.[84]

In the early years of the California trade, no consensus on the best route having developed, several different trails were followed until the southern Gila route, dipping into Sonora, Mexico, came to be favored. In the winter of 1852-1853, flamboyant French-Canadian pathfinder and Santa Fe trader, Francis X. Aubry assembled a 50-60 man crew, probably including Hispanic herders, and drove 5000 sheep he purchased in the Santa Fe-Albuquerque area, along with 140-150 mules and 10 big freight wagons over the Gila route to Los Angeles.[85] True to his reputation, Aubry found a 150-mile shortcut near Tucson, Arizona.[86] The drive was well documented due to publicity-conscious Aubry's efforts. He sold 1000 head of sheep, some of his mules, and wool shorn from the sheep in the Mormon colony in San Bernardino for $12,000 and sent the rest on toward San Francisco, where they were sold, probably at $12/head. After also selling his wagons and more of his mules and covering his expenses for the drive, Aubry returned to New Mexico with nearly $60,000 ($1,700,000 in 2010 dollars), another financial killing considering that he probably paid no more than $2-3/head, and possibly much less, for his stock.[87]

In the meantime, another consortium, this time made up of former mountain men and led by Lucian Maxwell, Kit Carson, and John L. Hatcher, assembled a total of 13,000 sheep, constituted a 33-man party, and headed out in early 1853 along Wotton's northern route, but detoured even further north to Ft. Laramie to avoid the Utes that had so plagued Wotton. Each of the three principals apparently had acquired his own herd; on the trail, they broke up into three widely-spaced sections. Carson, in financial partnership

with Henry Mercure and John Bernavette, had purchased 6,500 *churros* in the Rio Abajo, reportedly for less than fifty cents per head. After six months on the trail, they arrived in northern California and sold their sheep in Sacramento, getting only $5.50/head.[88] This lower price still made for a handsome profit but was signaling the abatement of the California meat shortage.

Francis Aubry arrived back in New Mexico in the fall of 1853, about the time Maxwell and Carson were selling their stock in California. He was very satisfied with the profits he had just realized and optimistic about the future of the California trade. With Alvarez' help, he quickly assembled another herd, 16,000 head this season, and by early October was on his way back to California.[89] According to Bergman, all of Aubry's herders from his first California drive signed up again. He speculates that Aubry probably paid them as much for the 9-10 month period of the drive as they could earn in 4-5 years herding sheep for a New Mexico *patron*.[90] This time, Aubry joined forces with several large-scale Hispanic sheepmen to form a drive of some 50,000 head. Some of the other participants were Francisco Perea (Bernalillo), with 10,000 head, Judge Antonio Jose Otero (Los Lunas), 8,000 head, and twenty year old J. Francisco Chaves, with a substantial herd.[91] During this same season, another 50,000 head were driven to California, including 15,000 head belonging to Nicholas Pino, Peter Bautista Pino's son, and 35,000 head in three bunches from Chihuahua, somewhat ahead of Aubry's group on the trail to Los Angeles.[92] The size of the California drives had been growing steadily, and this would have been the largest shipment up to that time. But, as Maxwell and Carson had discovered some months earlier, the California prices had weakened.[93] Demand had decreased due to the import of the flood of sheep not just from the

southwest borderlands but also from as far away as Ohio and Illinois. Some of the New Mexico ewes were used in reestablishing the California herds, which eventually were sufficient to meet the demand for mutton in the gold fields, reducing the need for continuing imports.[94] Under rapidly evolving conditions, profits were smaller this season. Aubry's party took several months to sell all their stock.[95] They returned together to New Mexico in the summer of 1854, Aubry soon to be killed in a Santa Fe barroom altercation.[96]

The character of the California trade changed at this point. California sheep prices decreased as rapidly as they had risen. In the mean time New Mexico growers, experiencing an increased demand for their produce from the speculators, jacked up their prices.[97] Profits were squeezed at both ends of the trade. After 1854, the California trade was no longer a profitable arena for speculation, but, nevertheless, remained reasonably profitable for growers. It was taken over entirely by Hispanic rancher-merchants.

The Perea, Otero, Luna, and Armijo families were all active in this continuing trade.[98] After returning home, J. Francisco Chaves turned around immediately for a return drive. He assembled 18,000 head in late 1854 and drove them from the Rio Abajo via Los Angeles to San Francisco, just as the Panic of 1853 was fully setting in. This was an inopportune time to be marketing sheep, as the entire country was plagued with bank failures and bankruptcies, discouraging large business transactions.[99] Unable to immediately sell his herd at a good profit, Chaves remained in California for the next three years, dealing in livestock of various kinds, gradually selling off his own sheep, and marrying before he finally returned to New Mexico. Even in the face of Indian raids and desert losses, New Mexico sheep growers profited in the weakened market, if more

modestly than the speculators, by selling their own produce as they had done in the Mexican trade.

By 1856 conditions had apparently improved. That year members of the Luna and Armijo families trailed 19,000 sheep to California, Luna conducting another successful drive in 1857.[100] Even later, in 1858, one of the largest drives up to that time, 100,000 head, departed New Mexico for California.[101] The ownership breakdown of the herds from Valencia and Bernalillo Counties, driven in two distinct groups, as provided by sheepman "Santiago" [James Lawrence] Hubbell is given in TABLE 3.1.[102] The sheep

TABLE 3.1 Sheep Ownership,* 1858 California Drive

Joaquin Perea	22,000 head
Antonio Jose Luna	17,000
Senor [Jose] Jaramillo of Los Lunas	17,000
Antonio Jose Otero	11,000
Rafael Luna	10,000
Toribio Romero	9,000
Ramon Luna	7,000
Miscellaneous Persons	10,000
Total (Ewes and Wethers)	103,000
Ewes	20,000

*From Valencia and Bernalillo Counties.

may have sold for about $4.00/head. It will be noted that this stock was owned almost entirely by a few wealthy Hispanic merchant-sheepmen from the same families that had dominated the Mexican trade. This alignment would eventually change.

The last large California drive, which included 50,000 *churros* under the direction of Francisco Perea and Jesus Luna, arrived in San Francisco in November of 1860, just as Lincoln was elected to the presidency.[103] California's sheep population had by now reached 1,000,000, and prices had dropped to $3-4/head. And by 1870, the sheep population would reach 2,768,187.[104] Trade with New Mexico ceased to be essential for California. The situation for New Mexico sheepmen was exacerbated by the onset of the Civil War when the U.S. Army troops that had suppressed Indian depredations in the 1850s along the heavily used Gila route to California, and other areas further north, were withdrawn to eastern battlefields, giving the nomadic tribes a freer hand to attack the herds.[105] Low prices and increased Indian depredations shut down the trade that had been so extraordinarily profitable. The drives to California were no longer worth the risk for New Mexicans.

The California trade flourished for over ten years. According to the US Census of 1880, some 550,000 sheep were trailed from New Mexico to California before 1858. As indicated above another 150,000 head were exported from New Mexico in the 1858-1860 timeframe, for a total in the range of around 700,000.[106] This exceeded the entire 1850 New Mexico sheep population, estimated to be 377,000, as noted in chap. 2. The entire trade over the ten-year period added up to $4,000,000 ($110,000,000 in 2010 dollars) and brought to New Mexico a return of $500,000 in gold and convertible paper ($14,000,000 in 2010 dollars), increasing the short supply of hard currency in the territory.[107] During

the 1850s, the annual sheep exports to California were generally larger, perhaps by a factor of two or more, than the annual exports down the Camino Real during the final twenty years of Mexican sovereignty. The trade was initiated by comparatively well-informed Anglo speculators, who operated as middlemen between New Mexico sheep growers and California buyers. They saw opportunity and took advantage of a severe, but short-lived food shortage created by the gold rush. In later years, Anglo mercantile capitalists would link the New Mexico sheep growers to national markets for sheep and wool in similar fashion. The risks were considerable; in some cases entire herds were lost. Wealthy Hispanic merchant-ranchers took up the trade after a few years. And as California prices dropped, they took over the trade entirely and were able, without middleman, to profit from it. Their continuing drives from the early 1850s through the remainder of the decade accounted for considerably more of the exported livestock than the early speculative efforts of Wotton, Aubry, Carson, Maxwell, and their cohorts.

On the negative side, the California trade broadened the *rico-pobre* divide in New Mexico.[108] While sheep prices remained comparatively high and volume increased, the *rico* sheepmen made more money than ever. New Mexico's *pobres* gained little. The ownership base was narrow, just as it had been during the last years of the Camino Real trade. A large fraction of the exported stock belonged to the same handful of growers.[109] At the opposite end of the economic scale, the hired herders were drawn generally from the lower classes and paid poorly.

As the California trade fell off, new opportunities appeared. An important sheep market opened in the mining camps of Colorado, gold having been discovered in the Pike's Peak region in 1858. As had happened a decade earlier in California, another

flood of men, the 59ers, pursuing dreams of instant wealth, poured into Colorado. And once again, New Mexico *churros* fed a rapidly-assembled population of non-food producers, another uncharacteristically serendipitous development for New Mexico growers. For the next ten years and beyond, New Mexico sheepmen drove their sheep to market over the relatively short distances to Pike's Peak, Denver, and Boulder.[110]

An important new opportunity came to New Mexico sheep growers from the development of the western wool industry during and after the Civil War. This is the subject of the following chapter.

Chapter 4

The Wool Initiative

Writing in 1857, W.W.H. Davis, former United States Attorney for New Mexico, commented on the state of wool production in the territory:

> Notwithstanding the great number of sheep in the country, wool has never yet become become a staple item of trade. That produced is a very coarse, inferior article, and at the ranchos does not sell for more than four or five cents per pound, and but a small quantity has found its way to the United States market….When New Mexico shall have become connected with the States by rail-road, the woolen manufacturers will find it to be in their interest to raise their own wool there instead of importing so much from abroad.[1]

The New Mexico wool industry grew over the following decades, although not quite as Davis may have envisaged.

At the turn of the twentieth century, the United States was the world's third largest wool producer, accounting for about 10% of the total production.[2] Nine western states and territories were producing nearly 60% of the nation's wool.[3] And New Mexico, facing stiff competition from other western states, accounted for about 10% of the western production.[4] American wool production, now an important component of the nation's economy, was absorbed in its entirety by the domestic mills. The roughly 30% of the wool that was imported was primarily carpet wool, like that produced by *churros*, but no longer profitable for American growers. Overall, American mills were utilizing

about 15% of the world's production. By 1890, America's consumption of wool, estimated at 8.75 lbs. per capita, was the largest of any nation in the world.[5]

The fact that sheep provided both food and clothing had made them quite valuable in the frontier society of the colonial and republican eras and had led to the establishment of large herds. And, as described in the previous chapters, an export trade in live sheep developed and was even flourishing by the time of the annexation. In contrast, wool production was indeed undeveloped in New Mexico and also nationally. Prior to the Civil War domestic wool production, then centered on small farms in the East and Midwest, and woolen manufacture, which was developing in the Northeast, were of secondary, if growing, commercial importance.[6] That situation changed precipitatiously. A national woolen industry, launched in large part by wartime cotton shortages, grew rapidly in the post-Civil War years. Under the impetus of opening markets in the eastern United States, the territory's wool production grew dramatically for the remainder of the nineteenth century, and wool took on major importance in the export economy. The amount of wool produced in New Mexico is plotted versus time in Fig. 4.1. A correspondingly rapid expansion of mercantile capitalism in the territory, with which wool became strongly linked, occurred in the same timeframe, cf. chap. 6. With an important export of national significance, the territory became more strongly linked to the eastern U.S. economy.

Because mutton and wool are two otherwise unrelated market commodities, sheep are normally bred for optimal production of one or the other. However, the *churro* produced both commodities adequately during the colonial and republican

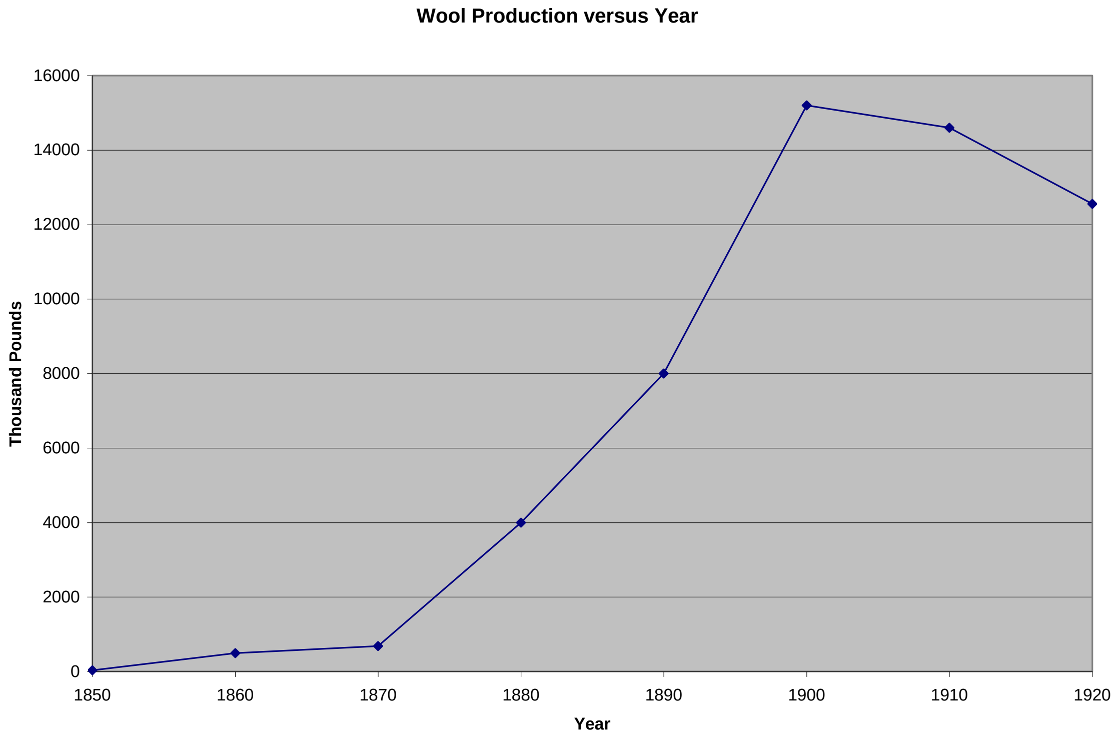

Fig. 4.1. New Mexico Wool Production versus Year. Production is seen to have developed quite slowly until 1870. Thereafter, production grew rapidly for the remainder of the century, the western wool industry having been launched by the Civil War. Production fell off modestly in the early twentieth century. Data are taken from *U.S. Census, 1850-1920*.

periods; selective breeding was not needed. The fact that the *churro* fleece was light, weighing as little as a pound, was unimportant at the time. The processing was crude; the wool was ripped off the sheep by hand or cut off with a knife, wasting about half the fleece in the process.[7] Throughout the colonial period, New Mexico's sheep provided an overabundance of wool. Because of its low-grease content, the *churro* wool could be cleaned by beating, by the wind, or by hand without a great quantity of water, often a scarce commodity. *Churro* wool was more easily combed and spun than finer wool. The coarse, long, straight strands were spun and woven domestically and constituted the major source of clothing for the lower classes. The *churro's* fleece was also useful for weaving blankets and carpets, if not for fine wool applications.[8] However, most of the colony's wool simply went to waste. Colonial political leaders had dreamed of a New Mexico weaving industry for manufacturing fine cloth and actually imported skilled weavers from Mexico to teach their craft, but little came of the initiative.[9] Wool shortages that occurred in some areas of Mexico were never met by New Mexican wool.

The Navajos came to appreciate the utility of wool at an early date. Having acquired sheep by raiding the *pobladores'* flocks, they had become highly skilled at weaving by the late eighteenth century. Writing in 1830 or 1831, mountain man and trader James O. Pattie noted that the Navajos were producing wool products markedly superior to the Hispanic output.[10] Rightfully famous for their wool blankets and rugs, they preserved the *churro* breed for those applications after Anglo and Hispanic sheepmen had graded up their flocks for finer-quality, more copious wool production.[11] The Navajo role in the New Mexico sheep industry and woolen manufacture is an important subject that has received considerable attention and will not be addressed here explicitly.

During the Camino Real trade, *churro* wool was shipped sporadically to Mexico, but it never constituted a major portion of the trade. After the live sheep were delivered, however, their wool was sometimes harvested.[12] Hand manufactured woolen products, Hispanic and Indian, were on the short list of items, *efectos del pais,* shipped south in the caravans, cf. chap. 2. But this woolen production was, and remains, a labor-intensive, modestly-profitable cottage industry.

When Santa Fe trader Josiah Gregg first came to New Mexico in the 1830s, he saw a potential for commercial wool production that the Hispanic sheepmen, perhaps in their isolation, did not appreciate. Long before Davis, he was struck by the paradox of fine grazing land and lackluster wool production. He was deeply critical of New Mexican sheepmen for their failure to breed quality, wool-producing sheep, describing their flocks as "wretchedly degenerate."[13] At this time, the traders usually returned to Missouri with their wagons lightly laden, carrying only the hard currency generated by their trade and low-profitability New Mexico produce including wool, then, as Davis noted, regarded as inferior in quality. As it was, wool could be purchased for 3-4 cents/lb. in New Mexico and sold in St. Louis for as much as 15 cents/lb. Describing conditions of the 1830s, Gregg noted, however, that a wool backhaul "barely pays a return freight for the wagons that would otherwise be empty."[14] He believed that a higher-quality product would benefit New Mexico. Reporting on conditions in 1844, Santa Fe trader James Josiah Webb corroborated Gregg's assessment, also remarking on the poor quality of New Mexico wool. Concerning the backhaul, he went on to say, "The only products, beyond the immediate needs of the people, were wool (which would not pay transportation), a few furs, a very few deerskins, and the products of the gold mines…"[15] Several Anglo

observers from the Mexican era onward were, like Gregg and Webb, critical of the lack of productivity they perceived in the New Mexicans, their surviving writings sometimes having an anti-Hispanic tenor.

The Americans were not the first to criticize New Mexican productivity in any case. As early as 1803, Governor Fernando de Chacon wrote in his report on the state of the colony's economy that New Mexico's "natural decadence and backwardness is traceable to the lack of development and want of formal knowledge in agriculture, commerce, and the manual arts."[16] The governor understood, to a considerable degree, the detrimental conditions that were retarding New Mexico's economic development. His observations would remain essentially valid for decades and were pertinent to the sheep industry as it evolved through the territorial period.

The wool trade grew slowly at first. As previously mentioned, New Mexico woolen goods had been traded in California in the1830-1848 timeframe, cf. chap. 3.[17] And some New Mexico wool was shipped to Kansas City during the United States-Mexico War. New Mexico's annual wool clip had been growing for some time before the Civil War. It increased from 33,000 lbs. in 1850, when wool production was a barely profitable sideline for traders, to 493,000 lbs. in 1860, a fifteen-fold increase.[18] See Fig. 4.1. As it turned out, New Mexico was well positioned to take advantage of the growing demand for wool created by the war. But wool industry growth was constrained by the slow, expensive shipments over the Santa Fe Trail The situation was accurately described by a government report of 1869 which described the transport problem faced by the industry and advocated the construction of railroads into the territory. It stated, "This industry is crippled, however, by the difficulty of getting it to market, transportation costing as much

as the original value of the wool."[19] The wool industry would not begin to truly flourish until the arrival of the railroads, cf. chap. 6, as Davis had suggested.

The Civil War Impetus

The establishment of large flocks in California and the decreased security on the Gila trail caused a temporary loss of business for New Mexico's sheepmen after the onset of the Civil War. This did not last. The war profoundly affected the American wool market and, in the process, revolutionized the sheep industry of New Mexico and the West. Up to this time, America's productive and profitable textile mills relied largely on the cotton plantations of the South for their raw material, cotton fabric being the favored output. At the outset of the Civil War, the South dominated the world cotton market, producing 85% of the raw cotton consumed in the United States, Britain, and Continental Europe in 1851.[20] In contrast, domestic production only supplied about half the wool employed by nation's woolen manufacturers, which constituted a smaller industry in any case; the other half was imported.[21] When the war started, the North effectively blockaded southern ports, severely curtailing cotton exports from the South. This reduced the supply and drove up the price of cotton, pricing it out of the market. New York prices quadrupled between 1861 and 1864.[22] The northern textile mills responded by converting their looms from cotton to wool, launching a new demand for it. This was, in fact, a world-wide phenomenon; mills everywhere were converted from cotton to other fabrics, including both wool and linen. The increased demand for wool was enhanced by the U.S. Army's need to supply its soldiers with wool uniforms and blankets, which were manufactured in the northeastern mills. Wool consumption in the United States more

than doubled during the war from 85,000,000 lbs./year to over 200,000,000 lbs./year, while cotton consumption in the northern mills decreased to less than half the pre-war amount.[23]

With the onset of the war, Rocky Mountain wool prices rose dramatically from 21-23 cents/lb. in 1860 to 35-45 cents/lb. in 1865, rendering the sale of western wool truly profitable for the first time.[24] Western sheepmen started shifting their focus toward wool and away from mutton. In New Mexico, sheep and wool production continued their pre-war increasing trend, which was mirrored by international production increases, particularly in Australia, South America, and South Africa, as well as the American Midwest. [25] In the 1860-1870 timeframe, the New Mexico range sheep population increased steadily to reach about 1,700,000, mostly *churros* raised following traditional Spanish methods.[26] During the same decade, the total value of woolen products produced in the U.S. textile mills surpassed the total value of cotton products for the first time and would remain dominant for the next twenty years.[27] The overall value of U.S. cotton and woolen manufactures versus time is plotted in Fig. 4.2. Traders were soon transporting larger wool shipments than ever over the Santa Fe Trail to Missouri commission merchants, who forwarded them to the northeastern textile mills.[28] Writing in 1866, Acting New Mexico Gov. W.F.M. Arny reported that “millions of pounds” of wool were being produced annually in New Mexico, while less than one quarter of the crop was used in the territory, the bulk of the crop being transported east.[29] According to the U.S. Census reports, New Mexico wool production continued to increase, going from 493,000 lbs. in 1860 to 685,000 lbs. in 1870 – not millions as claimed by Arny - , and then undergoing a massive rise to 4,000,000 lbs. in 1880, as shown in Fig. 4.1[30] Far more of

New Mexico's sheep were being retained as wool producers rather than sent to slaughter. The sheep population increased, and the number of growers in the territory increased.[31] The increased production was expedited by the expansion of federal grazing lands made possible by the subjugation of the Navajos and Apaches in this timeframe.

The pre-annexation situation where profits came almost entirely from live sheep sales ended, never to return, although this development was not fully realized until the 1870s. New Mexico sheepmen still profited primarily from mutton production. In his annual report to the Territorial Assembly in 1867, Gov. Robert B. Mitchell noted: "A very respectable number of our most enterprising citizens, I am happy to say, are already engaged in the laudable business of sheep growing, and are undoubtedly making it a profitable business, not so much from the sale of wool produced from these flocks, as their sales of mutton to the government for the subsistence of the soldiers, and Indians being furnished subsistence by the government."[32] Indeed, the first issue of the *Daily New Mexican*, July 9, 1868, contained only a single advertisement by a wool merchant, claiming he could obtain high prices on the Philadelphia market, but advertisements for ten attorneys.[33] Notwithstanding the governor's comment, and the lack of newspaper advertising space, commercial wool growing became a permanent feature of the territory's, and the West's, sheep industry, but not without negotiating post-war market imbalances. After the war, the demand for wool quickly fell, as cotton production resumed in the South, which soon reestablished itself as the leading world supplier of raw cotton.[34] The demand for wool at the nation's textile mills decreased accordingly. To make matters worse for sheepmen, an influx of cheap imported foreign wool flooded the U.S. market. And the military market for wool disappeared overnight, while the federal

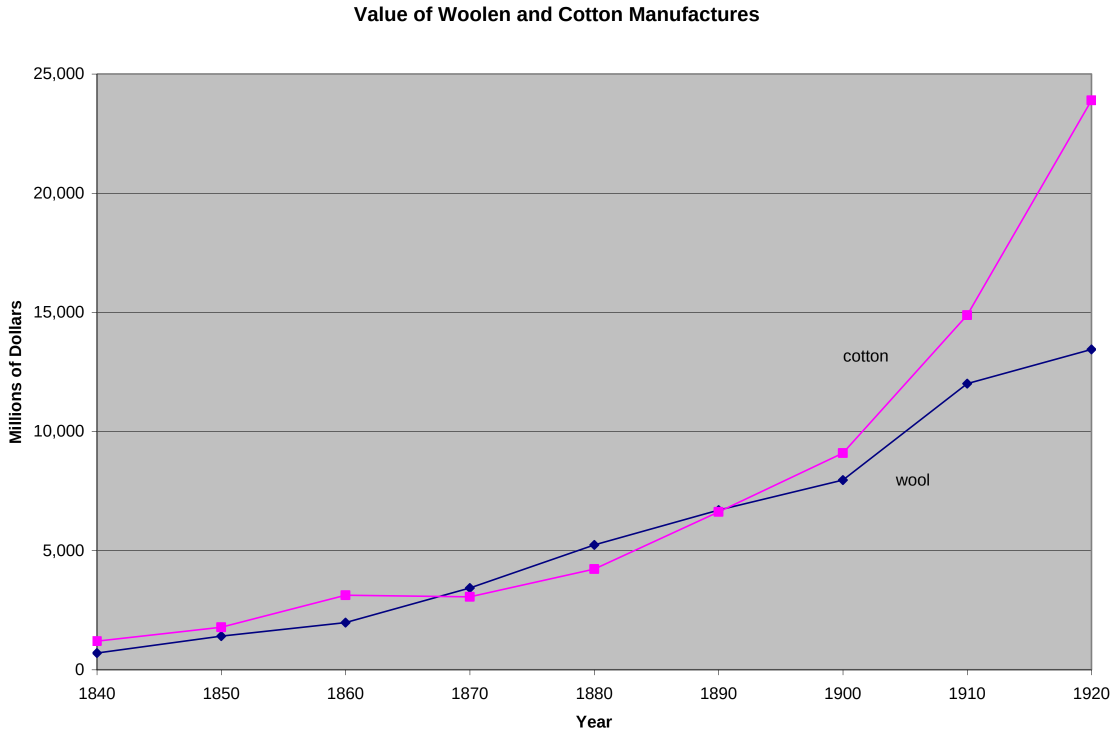

Fig. 4.2. Total Value of Woolen and Cotton products manufactured annually in the United States. In 1860 the total value of woolen goods produced in U.S. textile mills was about 60% of the value of cotton goods produced. When the Civil War curtailed the cotton supply, northern mills switched from cotton to wool. Woolen goods then surpassed cotton goods, increasing by 70% in value between 1860 and 1870, and dominated until about 1890. Thereafter, cotton products again exceeded woolen products in value, with the values of both quantities rising sharply in the early twentieth century. All data are from U.S. Census reports, 1840-1920. The dollar amounts quoted therein have been converted to 2010 dollars using the Annual Consumer Price Index for the United States.

government placed large accumulated stocks of army woolen goods on the open market, producing a temporary glut in such merchandise.[35] Wool prices fell correspondingly. After the war, Rocky Mountain wool prices collapsed from $0.35-0.45/lb. in 1865 to $0.18-0.20/lb. in 1868.[36]

Worldwide production decreased in response to the glut and the concomitant depressed prices, and the post-war surplus of wool and woolens dissipated. By about 1870, the national wool market began to improve. Wool growing remained profitable in the West, if not elsewhere, because of the low production costs of open-range ranching. The resumed demand for wool resulted in a further expansion of the Rocky Mountain flocks. The center of U.S. commercial wool, and sheep, production shifted from the eastern and midwestern farm belts to the West, cf. chap. 5.[37] In the early 1870s as commercial sheep production was just getting underway in northern Colorado and Wyoming, New Mexico wool production began a sharp increase. Wool production of the western states and territories for 1900 is given in TABLE 4.1.

In addition to the increased demand for wool, the Civil War produced a meat shortage in the American cities, which was accompanied by a rapid increase in prices. New Mexico sheep could not, however, help address that shortage because of the lack of rail transport in the West at the time. Trail driving live sheep east was not a viable option. This situation would change in the following years when rail transport of live sheep became available in the West.

Hispanic *rico* sheepmen-merchants were the major producers in New Mexico's expanded wool trade through, at least, the mid-1880s. Jose Leandro Perea, one of the

TABLE 4.1 Wool Production, Fall 1899 and Spring 1900[38]

Arizona	3,353,000 lbs.
California	13,680,000
Colorado	8,543,000
Idaho	15,474,000
Montana	30,437,000
New Mexico	15,209,000
Oregon	18,350,000
Utah	17,050,000
Wyoming	27,758,000
Western Division Total	159,968,000
United States Total	276,992,000

wealthiest men in New Mexico, with an assessed wealth of $800,000 in 1875 ($16,000,000 in 2010 dollars), was an important grower. He owned 75,000 sheep at this time, his estate having increased steadily since the 1850s, cf. chap. 3. Perea became involved in the wool trade in a substantial way fairly early. He is known to have outfitted a large train in 1867 carrying wool to Kansas City, which he exchanged for merchandise to be sold in New Mexico, establishing a routine he followed annually for many years.[39] Government livestock expert Clarence W. Gordon reported in 1880, near the time when the territory's sheep population reached its maximum, that three quarters of New

Mexico's sheep were being raised by some twenty-one families, about 80% of which were "Old Mexican families," employing "inherited pastoral traditions" and, with their large herds, were benefitting from economies of scale. And, according to his estimates, 72% of the territory's sheep were *churros,* so the sheep industry was still dominated by very large-scale family operations running sheep that had not been upgraded for increased wool production. Wool was, nevertheless, a major product. The average holding of these large-scale operations would have been about 160,000 head, considering a total sheep population of 4,500,000 in 1880.[40]

Selective Breeding

To fully exploit the growing wool market, selective breeding of sheep for heavier fleeces was required. A breeding program had been on-going in the East for many years. Prolific wool producers, full-blooded Merino sheep were, it is believed, first imported to the United States from France in 1801 and brought to a farm on the Hudson River for breeding.[41] Merinos were notable for the desireable fineness of their wool as well as their high fleece weight.[42]

Wool production having been an adjunct to its sheep industry, New Mexico was not totally unprepared for the new marketing opportunity. Selective breeding on a large scale was initiated by well capitalized Anglo sheepmen, many recently arrived, who seem to have had a clearer vision of its utility than most sheep-growing *ricos*. It became in time a permanent fixture of sheep ranching operations. In the early territorial years, a number of Anglo sheepmen established herds in northeastern New Mexico. As early as 1859, sheepman George Giddings trailed the first purebred Merinos into the territory from

Kentucky.[43] M.M. Chase and John B. Davison brought in 200 Merino rams from Vermont, a prime breeding area, to be bred with New Mexican *churro* ewes.[44] One hundred and thirty Vermont Merinos were imported to Colfax County in 1864, an area of perdominantly Anglo sheep growers.[45] Merchant-sheepman Felipe Chaves imported Cotswold rams from Canada.[46] Others imported rams from Pennsylvania and Ohio. Between 1876 and 1880, sheep were driven east to New Mexico from California, where the flocks had been upgraded with midwestern stock during the California sheep trade of the 1850s. That stock significantly enhanced the number of graded animals in New Mexico. One of the largest importers was Col. Stoneroad, who drove 10,000 Merinos from the Merced River in California to Puerto de Luna, New Mexico in 1876. He purchased the sheep for $2.00/head in California, and they were valued at $3.50 in New Mexico. A half dozen other Anglos imported large Merino flocks.[47] Altogether, some 40,000 graded Merinos were imported from California, although 13,000 head were subsequently driven on to Colorado. Trail losses were reportedly quite high, 36%, reflecting the inferior trailing abilities of the Merinos.[48] A few wool-producing sheep were also driven into New Mexico from Texas.[49] These imports occurred at the same time that New Mexico was exporting large herds of *churros* to help stock ranches throughout much of the West, cf. chap. 5.

Breeding to develop and retain the most desirable characteristics entailed considerable communication between New Mexican sheepmen both among themselves and with experienced breeders elsewhere. Commercial wool growing thus drew the territory into a larger economic arena. Western Socorro County sheepman Montague Stevens read every publication on sheep growing that he could get his hands on. He

purchased both Merino and expensive Schropshire rams to start his ranches, cf. chap. 9.[50] New Mexico's large-scale Hispanic producers seem to have retained a specialization in *churro* wool, although a large herd was required to produce a profitable quantity. Hispanic sheepmen took up breeding when they saw the Anglo Americans with improved flocks making more money from their wool and wether sales. The common Anglo sentiment at the time was that Hispanic sheepmen were not to be called "lazy or indifferent" but were generally about ten years behind the times in adopting modern growing practices.[51] The delay was, in fact, real and would cost some of those growers dearly as the sheep industry, wool growing in particular, became increasingly competitive, and efficient operations became a necessity.

The fact that Hispanic sheepmen did not attempt to develop quality wool in their flocks as soon as the wool market opened seems a bit perplexing. This failure can be traced to a few definite factors. Some authors have attributed it to the *partido* system, which shifted all the risk and little of the reward of sheep growing onto the *partidario*. According to this view, the owners of *partido* flocks were insufficiently motivated to go to the trouble and expense of initiating a breeding program since they were already earning a low-risk, effortless 20% return on their inherited principal, cf. chap. 2. The *partidario*, for his part, would have had similarly little incentive to expend the added labor to undertake selective breeding, since his *patron* would be the prime beneficiary.[52] There is probably some truth to this assessment.

An additional, and more concrete, consideration is the high risk inherent in New Mexico sheep growing. As late as 1902, government livestock expert E.V. Wilcox reporting on the western sheep industry noted the frequent complaint of growers, "One

frequently hears the statement from sheep raisers that their business is in the nature of a lottery venture – when all goes well the profits are very good, but losses of an extremely serious nature may occur when least expected."[53] The periodic droughts and harsh winters as well as the Indian raids, diseases, poisonous plants, and predators made any breeding program risky.[54] Because of the trial-and-error character of breeding, any deviation from established practices compounded the known risks. For most Hispanic growers, selective breeding would have been a step into the unknown and opened the possibility of failure and losses from which recovery might have been difficult. Since the exigencies of survival in the frontier environment were not rapidly alleviated by the annexation, breeding for improved wool may have remained a low priority in the minds of many established growers.

An additional factor that would have affected the smaller-scale sheepmen was the expense of breeding both in time and money. Graded rams were expensive, as were the required shipping costs. And the returns on the investment would not be realized immediately, but might, in practice, require a period of years. In the interests of economy, Montague Stevens and Solomon Luna shared a delivery of 150 Shropshire rams to Magdelena, cf. chap.9. Progress in breeding was retarded because top quality breeding rams were beyond the means of many of the territory's sheepmen. In time, under-capitalized growers unable to afford quality rams were placed at a competitive disadvantage. They did not fully share the higher profits that wool growing made possible. Many small producers went out of business as increased capital investments became necessary, cf. chap. 8.

Despite the above considerations, it is still curious that few large-scale, Hispanic

sheepmen seem to have given breeding a serious trial before it was introduced by Anglos. Anglos immigrating to New Mexico after the annexation brought with them a knowledge of breeding, which had been practiced in the United States for decades, that the *ricos* lacked. That knowledge substantially reduced the risks and served the Anglos well.

The cross breeding of heavy-fleeced select rams with *churro* ewes became widespread in New Mexico. And it would be practiced, to a greater or lesser extent, throughout the Rockies and Great Plains as sheep ranching developed in those regions. Once breeders gained some experience under southwestern conditions, they soon concluded that the ewe bands had to be developed from Merino stock. The *churro* blood provided the offspring with the robustness, flocking instinct, and ease of handling needed on the western ranges, while the Merino blood provided heavier fleeces of higher-quality, commercially more desirable, wool, an important consideration since wool sold by the pound. Favorable results came relatively quickly, although multiple generations of breeding were needed to obtain the most desirable crosses.[55] The first cross of Merino bucks with *churro* ewes, "Mexican" sheep as they came to be called, produced what were called "improved Mexican" sheep which gave fleeces of about 3-4 lbs., essentially doubling the *churro* fleece weight. After the fourth generation of employing the Merino rams, the offspring produced "a fleece of about eight pounds of unwashed wool, tolerably fine, yolky and of a fair medium staple" without loosing robustness, rustling ability, fertility, and herding instincts. A considerable number of sheepmen employed the less desirable "improved Mexican" rams instead of expensive pure-bred Merino rams.[56]

Sheep breeding involved considerable challenges. Successful breeding was not to be accomplished casually, but required years of steady commitment and a degree of

experimentation, as sheep grow differently in every environment. Breeding was thus a continuing process, and hands-on management was required. As Carman et al. noted in 1892, "It has been demonstrated by the experience of practical flock masters that the best methods for profitably conducting sheep husbandry, in the Territory [New Mexico], is for the owner to have personal supervision of his flocks, or if the management of the flocks must be left to hired help, to be sure they are capable, honest, and faithful."[57] A well-founded choice of rams and breeding procedures adapted to the relevant range area were essential in a newly competitive wool market. Western breeders often experienced the development of undesirable characteristics after a number of generations. The flock might drift too far in the *churro* direction or too far in the Merino direction. Even when a good average was attained, it was always accompanied by an undesirable amount of variation among the ewes.[58] While the Civil War had expedited New Mexico's, and the West's entrance into the national wool market, the results of breeding for heavier fleeces did not fully materialize until some years afterward. Raton sheepman Daniel Troy identified the fifteen-year period 1877-1892, as a time of steady, widespread "improvement" in New Mexico flocks.[59] The crossing system employed in the West not only required considerable time and effort, but was never wholly satisfactory.

Despite the enhanced breeding efforts, the *churro* remained the most common sheep on the New Mexico range for some time. Its fleece became sufficiently valuable that it assumed an important place in the national market. According to western promoter, Dr. Hiram Latham:

> A sheep raiser in New Mexico notwithstanding the coarse quality of the wool of the present stock can herd his sheep and make a profit

> from the product of his wool and have all the increase of his stock in addition thereto.[60]

The situation changed somewhat during the 1870s. A recent report estimates that by 1880, nearly 40% of New Mexico's sheep were of improved breeds, *churro*-Merino crosses.[61] A decreasing, but still substantial fraction of the wool was still *churro* produced. By the early 1890s, however, about 75% of the wool came from "improved Mexican" breeds, which had finally become widely available only a few years earlier. These were largely California Merino-*churro* crosses, or their descendents. Beyond that, about 15% of the produce was fine quality wool obtained from more carefully bred stock.[62] Thus, only about 10% of New Mexico's output was still of the coarse variety produced by *churros*. In the official governor's report of 1905, the claim was made that 6,000,000 sheep of improved grades were grazing in the territory.[63] Although this figure is now believed to be an overestimate, the boast indicates the importance ascribed to sheep breeding by New Mexico government officials.

By 1900, the average New Mexico fleece weight had risen to 4.25 lbs, not a spectacular result but definitely a significant increase. The territory was left behind by Montana and Wyoming, where the average fleece weights were 7.0 and 7.75 lbs., respectively.[64] By the late nineteenth century, western wool breeds elsewhere were producing fleeces weighing as much as 10 lbs. A group of English Cotswold lambs produced an average of 12.65 lbs. of wool in a federal research project reported in 1898.[65] Indicative of what was possible in New Mexico, Montague Stevens reported in 1899 that one of his Shropshire sheep had sheared 16.5 lbs., cf. chap. 9.[66]

Two-Component Operations

The Santa Fe Trail had, after a slow start, made commercial wool growing in New Mexico viable. The Civil War made it more profitable. When wool became important, the territory's sheep industry took on a two-component structure in which both live sheep and wool were major factors. Ranchers supplied meat to an influx of immigrant factory workers in the industrializing East and Midwest and raw wool to the textile mills of the Northeast, even as cotton rebounded after the war.[67] When the railroads arrived, they greatly accelerated the growth of both mutton and wool production in the territory, cf. chap. 6.

The emergence of two-component operations gave New Mexico sheepmen a degree of stability they had not previously enjoyed. The Las Vegas *Stock Grower* reported, in a routine article, the success of Judge Justo R. Armijo, who having sold his substantial wool clip at a good price then proceeded to sell 3000 wethers in Pueblo, Colorado. The optimistic judge predicted a period of "lasting prosperity" for the New Mexico sheep industry.[68] While extreme weather, poisonous plants, and predators remained enemies of the sheepmen and would not be eliminated as long as sheep were raised on the open range, the effects of market volatility were mitigated somewhat by wool production. The reason for this is that meat and wool prices did not necessarily rise and fall together; sometimes mutton and lamb prices rose to a relatively high level while wool prices were lackluster, as happened after 1890. Other factors could enter also. New Mexico Gov. L. Bradford Prince reported in 1889 that large flock losses over the winters of 1887-1888 and 1888-1889 were offset by an increase in wool prices. In his assessment, "…no industry in New Mexico is more prosperous at this time than that of sheep raising."[69]

Through the 1870s and early 1880s, western sheepmen concentrated predominantly on wool, which remained sufficiently profitable under western growing conditions to sustain the industry, while meat prices remained low. They bred for heavier fleeces.[70] However, by the late 1880s, wool prices had softened significantly, while sheep prices were on the rise. Chicago wether prices rose from $3.50/hundred weight in 1884 to $6.00-6.50 in 1891 and lambs were $7.00/hundred weight, an attractive price.[71] By 1888, Rocky Mountain sheepmen concluded that wool production was too unreliable to assure continued profits and redoubled their efforts to produce mutton, to which they had been giving low priority. To that end, mutton rams were crossed with the wool-producing ewes that had been so carefully bred since the Civil War. However, care was taken not to breed away the wool-bearing capabilities of the off-spring. Breeding as the markets demanded, New Mexico sheepmen never foreclosed either the wool or the mutton option.[72] They could generally profit from both.

Even before the establishment of a western rail system, the market for *churros* was growing broader and New Mexico herds were being driven to new locations, cf. chap. 5. After the railroads arrived, new markets for live sheep in Denver, Omaha, Kansas City, and Chicago began serving New Mexico growers, and meat prices assumed a degree of uniformity throughout the country, even though they might fluctuate significantly from week to week. Likewise, wool prices in the major markets of Philadelphia and Boston differed only moderately but likewise fluctuated, a significant fraction of America's wool needs being met with imports. Both cities were home to numerous wool brokers who purchased wool from all over the country and sold it to the woolen mills in their regions.[73] The broadened markets together with two-component production not only

stabilized the New Mexico sheep industry to an extent but drew New Mexico further into the national economy. By the late nineteenth century, business conditions for ranchers had improved significantly from a few decades earlier when they sold only live sheep in volatile, highly-localized markets.

As variable as mutton and wool prices might be, they combined to provide a decent return over an extended period for many New Mexico sheepmen. Assessing the situation in 1905, the governor's report stated in the ebullient language of the day, "Free lands, the finest climate in the world, irrigation, churches, schools, railroad facilities, home markets, good prices, extensive range, are all factors which help to make the life of the farmer and stock grower in New Mexico pleasant and prosperous."[74] There was more than a grain of truth in this assessment. The sheep population had tripled and wool production had increased by a factor of thirty since 1860. However, the two-component structure did not eliminate all the risk in an inherently risky industry. It only shielded sheep ranchers somewhat from moderately unstable markets, the norm. Hard times for the sheep growers still came and went with regularity. The Panic of 1893 devastated the western sheep industry for several years. The well-capitalized operations survived and eventually prospered again. But many smaller operations did not.

Scouring

Not every Anglo innovation was ultimately successful. Wool fleeces as they are sheared from the sheep are heavy and dirty with grease. They must be scoured before the wool can be spun into thread. The scouring process reduces the fleece weight considerably, and it is the reduced weight of the cleaned wool, or an estimate thereof, on

which the price is ultimately based. Before scouring has occurred, it is difficult to estimate weight shrinkage, and hence the price to be realized by any specific wool shipment. In a move to ameliorate the uncertainty, several scouring plants were built in New Mexico and Colorado starting in the late nineteenth century.[75] This capability had the further advantage, its principal motivating factor, of reducing rail shipping expenses for the wool, which were determined by weight. A two-fold impetus to New Mexico merchants to scour their wool locally thus developed. By 1902 Las Vegas had at least four scouring mills. Merchants Gross, Kelly & Co. became very active in scouring the wool they handled. The scouring plants employed a considerable number of people, largely Hispanic women, but eventually died out in New Mexico when eastern buyers elected to receive un-scoured wool because it gave them greater control over the product. They could select by grade, sort, comb, and blend the wool as their customers desired and then scour it for themselves. Most of the New Mexico scouring mills were gone after 1908.[76]

While wool exports grew steadily, New Mexico stock was sought after to be driven north and east to help launch sheep production in other Rocky Mountain and Great Plains states and territories. This is the subject of the following chapter.

Chapter 5

Stocking the Western Ranges

Agricultural Developments in the Midwest

A sequence of developments, economic and technological, starting in the years immediately before the Civil War had a profound effect on the nation's sheep industry and food production in general. The end result was a vast increase in sheep production together with a geographical shift of the industry from the eastern states and some midwestern areas to the trans-Mississippi West. A broad-based western sheep industry developed and spread throughout much of the Great Plains and the Rocky Mountains. New Mexico's *churros* played a unique role in this chain of events in that they provided the seed stock, totally or in part, for herds through much of the region.

The catalyst that unleashed the later developments was the expansion of America's rail network into the Midwest in the 1850s. Up to this time, midwestern farms were congregated in the river valleys so as to be near the water highways over which they transported their crops to market. Some farmers transported their surplus produce by wagon to the nearest navigable river for continuing transport by barge down to the Mississippi River and thence to New Orleans for further transport by ship to the markets, and the relatively dense non-agricultural populations, on the eastern seaboard, an expensive and time consuming practice. Others transported their produce east via the canal systems of New York and Pennsylvania that were built in the early nineteenth century.[1] The railroads penetrating the Midwest rendered such inefficient transport practices obsolete. In a development analogous to their effect on the New Mexico wool

industry a few decades later, the railroads could transport midwestern agricultural produce for the first time to urban eastern markets relatively quickly, safely, and inexpensively. As farms now needed only to be reasonably near a rail line, it became practical for farmers to take up lands much further from the rivers. As a result, a much greater fraction of the midwestern land area opened up for agriculture. At the same time, America was undergoing rapid industrialization, which created a growing army of urban factory workers needing to be fed. Even as their numbers grew, the midwestern farms did not sufficiently meet the expanding market for their crops.[2] This resulted in increased prices for farm produce. Increasing agricultural prices drove up the value of farm land. At the same time, a wave of farmers pursuing new opportunities took up homesteads in the Midwest, diminishing the availability of good farmland. The growing scarcity tended to drive up land values even further. However, a relatively large amount of pasture land was required for commercial livestock production, even utilizing the grassy meadows of midwestern farms. Particularly critical, the winter feeding of farm-raised livestock, a necessity in eastern areas, became considerably more expensive, considering the increasing value of the land that had to be dedicated to growing feed.[3]

In a further development that finally rendered eastern sheep growing unattractive to many farmers, the price of domestic wool dropped precipitously after the Civil War, cf. chap. 4. The rapidity and extent of these inauspicious changes caught sheep farmers by surprise. According to one government report, "…thousands of flock masters have quit the business in disgust."[4] Many, faced with ruin, sold off their stock in panic. Others continued production, but the eastern sheep industry as a whole underwent a steady decline that continued through the 1890s and into the early twentieth century.[5] Sheep

growing made less and less economic sense in the Midwest and the East.[6] It simply became too expensive to continue breeding herds on the farms.[7]

If sheep production became less profitable, agriculture became more so. In response to the opposing price trends of agricultural produce and wool and the increasing land costs, wool growers in the East and Midwest redirected their efforts away from sheep to more profitable crops, grains in particular. They ramped up wheat and corn production considerably and acquired dairy cows to produce milk, butter, and cheese.[8] Others moved their sheep operations west. This is not to say that sheep growing ceased altogether in the East. Until the early1880s, the small farms east of the Mississippi River dominated commercial mutton and lamb production. Shipments were small, buyers were numerous and small, and the produce entered the meat market through local butchers.[9]

The Far West Beckons

While conditions in the East and Midwest turned inhospitable for sheep growers, the Far West beckoned. There, large tracts of grazing land were cheaply available to immigrant stock growers, in marked contrast to the rising land prices in the Midwest. Alexander Majors, principal in the western freighting firm of Russell, Majors, and Waddell, quoted in a government report of 1870, asserted, “The country west of the Missouri River is one vast pasture, affording unequalled summer and winter grazing, where sheep, horses, and cattle can be raised with only the cost of herding.” The same government report went on to assert that there was little choice, “We must of necessity…if we grow wool at all, develop the resources of the great interior pasture land

[The Great Plains and Rocky Mountains]."[10] The land remained cheap even as ranching took hold on a much larger scale than in the past. Land prices were held down in New Mexico by "a deep and acknowledged distrust of land titles" under the American legal system. A legacy of the Spanish-Mexican land-grant system, this retarded homesteader immigration, giving ranchers a few more years to dominate the range that they would not otherwise have enjoyed.[11] Several different avenues to grazing lands were open. In the 1860s and into the early 1870s, an undivided interest in Spanish-Mexican grant land could be acquired for as little as $0.30/acre, when there was still little understanding among grantees willing to sell of the potential economic value of their holdings. Well situated land with clear title could be had for $3.00/acre.[12] But much of the territory's land was freely open for occupancy. Before1880, many ranchers simply used unclaimed portions of the public domain without, in any way, establishing legal ownership. Rights of occupancy were recognized on a first-come-first-served basis. As described by West Texas sheep rancher Winifred Kupper, your range was yours "though you hadn't paid a cent for it. It was yours by unwritten law because you'd got there first." Ranchers were expected, however, to keep their sheep on their own range and not let them stray onto anybody else's. Conversely, it was sometimes necessary to defend ones own range from intrusion by other stockmen with the help of a gun.[13] In a similar fashion, many Hispanic families owned their lands by Spanish occupancy custom.[14] Following the annexation, Hispanic herders in many areas of New Mexico retained for many years the traditional grazing areas they had long been using. Such lands would have included the common lands on community grants and unclaimed lands that had become U.S. public domain. The U.S. Census of 1880 noted that New Mexico had a substantial contingent of widely-

ranging, largely Hispanic, nomadic herders who owned no home range.[15] The various avenues to land acquisition after about 1880, when some degree of legal ownership became necessary for ranchers, are described in detail in chap. 8.

Even when grazing tracts were purchased, the entry costs were altogether manageable for many sheepmen. The lure of cheap land drew Anglo sheepmen, refugees from the eroding opportunities in the East, to the West, including New Mexico. Writing in 1881, promotional writer Gen. James S. Brisbin made the observation that the young farmer of the East could no longer afford the farm his father had acquired a generation earlier. The opportunities of the past were gone, it seemed. He continued, "What has been occurring in the East during the last two hundred years is now occurring in the West, only with ten fold more rapidity." He further asserted that "No industrious man can make a mistake in moving west…"[16] By the mid-1870s, with the considerable suppression of Indian hostilities and the increased realization of the value of New Mexico land, prices did begin to climb.[17] Land values continued increasing in the 1880s with the arrival of the railroads and the economic boom they engendered. Hispanic grantees who sold out at rock bottom prices would later believe that they had been cheated. When a proper legal title under American law was obtained, grant land took on greater value because it could now be readily bought and sold on the open market, without regard to its occupants and any pre-existing obligations to them, a necessity in a capitalist economy and a disaster for the land's Hispanic occupants. By the late nineteenth century, only fee simple ownership was practical and acceptable for Anglo ranchers. Despite the price rise, Anglo stockmen continued to find ways to acquire large tracts of New Mexico land cheaply.

If the western lands provided fine grazing, many areas, including most of New

Mexico, were recognized as poorly suited for agriculture, at least for the higher-priced crops.[18] Until the advent of mechanized irrigation, the West could not compete with eastern agriculture in the national markets.[19] Western lands would not even be fully useful for grazing until their Indian occupants were pacified.

In New Mexico, Indian depredations had caused Hispanic herders no end of grief in the past, cf. chap. 3. Large continuing of losses of livestock and significant, if less frequent, losses of human life were endemic. When forced to it, Hispanic sheepmen had expanded out from their river kingdom with considerable trepidation, despite the immense tracts of unused rangeland. When the Civil War started, Indian depredations increased throughout the West. Wagon trains no longer attempted to cross the plains without military escort.[20] Neither the Hispanic settlers nor the Anglo immigrants felt much sympathy for the nomadic tribes that had, among their other depredations, severely inhibited the development of the territory's sheep industry.[21] An 1865 article in the Santa Fe New Mexican expressed a widely held sentiment, "With a country unsurpassed for stock and grazing purposes, we are yet almost unknown in the great marts of the east and why? Because numerous bands of Indians roam at will over our territory, plunder our farmers, murder our herders, and crush out that spirit of enterprise which would otherwise give us a remunerative competition with the rest of the nation in the production and sale of such articles as our land could well produce."[22] The Report of the U.S. Department of Agriculture for 1869 presented an even harsher assessment:

> The depredations of wild Indians, many of them beneficiaries of the general government under treaty stipulations, have restrained settlement in some of the most desirable portions of the [New Mexico] territory.

> The annual loss to which the old Mexican population has submitted for ages from these savage free-booters, in livestock and grain, to say nothing of the murders and wholesale devastations, is almost incredible. The Indians infesting these regions, especially the Apaches, Navajos, Comanches, and their kindred tribes are the most formidable foes of civilization on the American continent.[23]

J. Francisco Chaves, by now a leader in territorial politics, asserted furthermore, "Were it not for the insecurity of life and property, caused by wild marauding bands of Indians, especially the Navajos, but a few years would elapse before the hills and plains of New Mexico would be literally covered with fleecy flocks."[24] He was right.

By 1870, the U.S. Army had suppressed the hostilities of the nomadic tribes throughout much of the trans-Mississippi West, in the process removing those Indians from their ancestral hunting grounds and placing them on reservations. The campaign would continue into the 1880s. In the same general timeframe, American hunters removed vast populations of buffalo from the western plains, slaughtering them primarily for their hides and tongues, but also to feed railroad laborers and to weaken Indian resistance by depriving the nomadic tribes of their most critical resource.[25] The combined Indian and buffalo removal, aside from the very significant moral and ecological considerations, which were expressed only weakly at the time, opened vast tracts of inexpensive western rangeland for domestic livestock. In this sense, the western ranching industry was built to a significant degree upon land stolen from the nomadic tribes. For their part, the ranchers taking up these lands could concentrate their resources on raising livestock rather than defense against Indian raids. And their livestock did not

have to compete with wild buffalo for the available forage.

The western rangeland, as astute observers had long noted, was prime grazing land. Santa Fe trader Josiah Gregg's 1844 assessment was typical: "…by far the most important indigenous product of the soil of New Mexico is its pasturage. Most of the high-table plains afford the finest grazing in the world being mostly clothed with different species of nutritious grass called *grama*."[26] The environment was overall more conducive to sheep growing, and stock growing in general, than that of the East.[27] And the western grasses were indeed superior. Where there is sufficient rainfall, east of the 100th meridian, natural grasses remain green and full of sap throughout the summer until the coming of frost. When the frost strikes in the fall, these grasses lose their nutritional qualities and can no longer sustain livestock. As a result, eastern farmers had to provide winter feed for their livestock for as much as six months of the year, a considerable expense, as already mentioned.[28] In the West, the feed promised to be free year around and seemingly inexhaustible. Abundant grama grass (genus Bouteloua) ranged from Texas through Arizona and north to Colorado. It was said to withstand dry weather better than any other grass.[29] Also valuable for grazing, buffalo grass (genus Buchloe) ranged north and south from Canada to Mexico and east and west from the Rocky Mountains into Kansas.[30] The western grasses required no human intervention. In the words of Brisbin, "…it is unnecessary to cut hay, for the grass cured on the ground and always at hand is better than any hay in stacks."[31] Indeed, during the summer and fall, the grasses in the West cure, i.e. dry out, before the coming of the first frost. The nutritional value of the grasses is locked in with the curing. In a good year, the dried, uncut grass of the western range would sustain a herd adequately during the winter months, despite the cold

temperatures.[32] A typically optimistic government report of 1870 described the entire Rocky Mountains from New Mexico to Montana as a land of "perennial pastures, "boundless, endless, gateless," where cheap beef and mutton may be raised to feed the millions of laborers who are to develop the wealth of this continent..."[33] The optimism proved justified to a considerable extent.

Shelter facilities were needed in the East to protect livestock from the harsh eastern winters, another significant expense. The midwestern stockyards installed sheds to protect the sheep from the elements.[34] Further west, shelters were not essential until much later, and the expense was avoided.[35] Livestock could be run freely on the open range or in feed lots, exposed to the elements year around, at least in most years.[36] Winter losses from inadequate forage or freezing storms were sustainable in good years. Western ranchers only started building shelters in the late nineteenth century when increased competition demanded that winter losses be minimized.

A further benefit for sheep growing in the West was that the large expanses of available land, allowed for substantially larger herds than the farm environments of the East, introducing money-saving economies of scale. As in the past, a skilled herder in the West could manage 1000 head or more.[37]

The Western Railroads

A technological development, the railroads, made possible the full utilization of the West's fine grazing lands. They opened the way to an expanded, and more efficient western sheep industry. Snaking their way west across the Great Plains after the Civil War, they provided transport for western livestock quickly, safely, and relatively cheaply

to the eastern and midwestern slaughter houses, in Chicago, Omaha, Kansas City, and elsewhere. Reducing travel times from months to days, they also efficiently transported wool to the east-coast textile mills.[38] The dramatic expansion of the western wool industry started only after the arrival of the railroads, spreading generally north from New Mexico and Southern Colorado, where the industry was first established, cf. Fig. 4.1.[39] The role of the railroads is discussed more thoroughly in chap. 6.

Churro Seed Stock

Cheap land and developing transport capabilities were important factors that made the West attractive for growing sheep. A third major factor was the availability of cheap, acclimated sheep, and in this regard New Mexico played a decisive role. Inexpensive and prolific, New Mexico *churros* could be used to assemble a commercially viable flock quickly and cheaply.[40] Before 1869, ewes could be had for prices in the range of $1.25-1.75/head, an attractive price despite the animals' small wool output.[41] The low cost would enable men of modest means, who might otherwise have been unable to do so, to take up western sheep ranching.[42] As it turned out, New Mexico *churros* were employed as seed stock throughout much of the West. Some western sheepmen built their flocks exclusively from *churros*. Before the Civil War, flocks were driven in small numbers to Mormon farms in Utah, to the Nevada silver mines, and, after 1858, to the Colorado mining districts, as noted in chap. 3. Flocks were also driven to Kansas, Nebraska, Missouri, and Fort Laramie, Wyoming on a very small scale for both meat production and breeding. During this period, New Mexico sheep came to be recognized as a desirable commodity.[43]

Eastern sheep also contributed to western herds. Like the *churros*, the eastern sheep were also cheap following the post-Civil War collapse of the wool market. In their worst years, 1867-1869, midwestern and eastern flock owners sold off their herds in mass at $1-2/head for animals that had been selling for as much as $20-40/head only a short time earlier (during the war). These sheep, generally bred up wool producers, were either sent to slaughter or driven west to help stock the open ranges.[44] Eastern farms also provided wool-producing rams used to upgrade western flocks for increased wool production, as discussed in chap. 4. Thus, graded stock from the eastern and midwestern farms, as well as *churros*, contributed to the western gene pool.[45]

The initial capital investment for a commercially viable western sheep ranch, including land and livestock, was relatively modest through the 1880s. Annual operating expenses for open-range grazing were likewise low, labor costs being a major component.[46] The availability of Hispanic herders was an important factor in the evolving economics of sheep ranching in New Mexico, and the West, in the post-Civil War era. A government report of 1869 described the situation rather bluntly, "Ample labor to meet the demands of the rude pastoral industry of the Territory [New Mexico] is supplied by the emancipated peons at low rates. Owing to the small outlay required, sheep husbandry continues profitable under the primitive conditions still existing, not withstanding the distance of the markets."[47] Skilled Hispanic herders could indeed be secured for $10.00/month (less than $200 in 2010 dollars) and board at the time.[48] Low labor costs remained an important consideration, even a necessity, for sheep growers through the remainder of the nineteenth century, cf. chap. 9, describing Montague Stevens' labor problems.

Cheap Hispanic labor would not last forever. Starting in the 1870s, Hispanic men began, for the first time, to leave their villages for seasonal employment in outlying areas. There were a number of reasons for this. They were pushed out by losses of grant lands to Anglo speculators, degradation of long-overstocked lands remaining in their possession, human population growth which had diminished the size of the agricultural long lots allocated to each family on community grants, and the inability of their *patrones* to provide competitive compensation for their labor.[49] They were drawn by new employment opportunities at higher pay on the western railroads, in the mines, and, much later, in the Colorado sugar beet fields, cf. chap. 9. Some of these men went to work for Anglo stockmen throughout New Mexico and the Rocky Mountain region.[50] John and Thomas Cosgriff, starting in 1882, built what became the largest sheep operation in Wyoming, eventually 165,000 head, and employed as their foreman, Adriano Apadaca, one of the cohort of Hispanic herders that spread throughout the West.[51]

The Sheep Industry Moves West

The confluence of economic developments in both the East and the West opened the way to an expanded, capital-intensive, and altogether more efficient national sheep industry. The push created by low wool prices and high land and feed prices in the East combined with the pull of low-cost western land, stock, and labor had the effect of shifting America's livestock industry to the west. This combination of conditions fell into place in a comparatively compressed timeframe. The center of commercial sheep and wool production shifted from the eastern farm belts to the Rocky Mountain-Great Plains region and the Pacific Coast, expanding outward from the two pre-Civil War centers of

sheep breeding, New Mexico-Southern Colorado and the more recently developed California-Oregon area.[52] In the 1870s, a contingent of midwestern sheepmen, from the Ohio Valley in particular, emigrated to California, Colorado, and New Mexico.[53] Large herds of wool producers owned by an increasing number of growers stocked government lands.[54] New Mexico's wool production doubled in the 1880s, cf. Fig. 4.1.[55] The new generation of growers was part of a larger post-war wave of western migration. Thousands of displaced veterans, from both the North and South, moved west to Missouri, Kansas, Nebraska, and Colorado, attracted by the cheap land on which they took up farming, cf. chap. 6.

While the easterners concluded that commercial sheep production no longer made economic sense and sold off their herds, western growers, sometimes acquiring those same herds, believed that to be profitable, they simply had to maintain larger herds, production costs being low.[56] The low land, livestock, and labor costs combined with increasingly efficient shipping facilities and the economies of scale possible with large open-range operations made for a profitable post-Civil War western wool industry. Wyoming stockman J.A. Moore reported in 1870 after eleven seasons that he could produce wool for less than half what it had once cost him in Ohio and elsewhere in the East.[57] According to other contemporary sources, the annual cost of keeping sheep in the West was reported to range from $0.25-0.75/head, while the cost in the East and Midwest was about $2.00/head.[58] In the early 1890s, production costs in New Mexico were reported to be cheaper on a per head basis than in any other area west of the Mississippi River with the exception of Texas, even though the annual lamb production per breeding ewe might have been somewhat lower than elsewhere.[59] Western growers prospered in

the 1870s, even though sheep prices were low. Southern Colorado grower Don Felipe Baca, who began raising sheep in 1864, reported that his wool clip covered all his annual running expenses. The sale of his wethers on top of that resulted in pure profit.[60] New Mexico sheepmen were now profiting substantially from both wool and live sheep.[61] And although mutton production costs were low and profits were still possible, many western sheepmen in the post-Civil War period concentrated on wool, at least until the late 1880s.[62] According to the Las Vegas *Stcck Grower*, the older sheep-producing states, with their higher production costs, Missouri, Illinois, Wisconsin, and Indiana in particular, could not compete in either wool or mutton production with "the range states," including New Mexico, and the feeder states of Kansas and Nebraska.[63] By the 1890s, the wool and sheep production east of the Mississippi River had declined substantially, despite growing national markets.[64]

As was the case with the other western states and territories, New Mexico's sheep industry grew under the impetus of evolving conditions, expanding national markets for meat and wool being major factors. The New Mexico sheep population more than tripled between 1867 and 1883 because wool had become truly profitable, cf. Fig. 2.[65] Evermore rangeland was brought into production. The newcomers to New Mexico employed traditional Spanish open-range grazing practices, which were well suited to the territory at the time. Land remained cheap or free even as ranching took hold on a much larger scale than in the past.

The territory's role was, however, unique. It supplied breeding stock for flocks throughout the West, starting in the late 1860s and continuing into the 1880s. *Churros*, particularly ewes, were employed to establish flocks in Colorado, Utah, Wyoming,

Kansas, and Nebraska.[66] Until about 1880, sheep growing in New Mexico and Southern Colorado was still largely controlled by Hispanics, wealthy, large-scale producers but also a growing population of small-scale owner-herders. Elsewhere sheep growing was an Anglo endeavor.

Anglo flock owners were, during these times, possessed of an unshakable optimism about the future, and that optimism was an important key to their success. It fostered aggressive expansion and capitalization at a time when the industry would benefit most from it. The sheep industry spread throughout the Rocky Mountain-Great Plains region with extraordinary speed. Although popular imagery has always favored the cowboy and the cattle industry, the sheep industry was, at the very least, an equally important part of the economic foundation of the West between1870 and 1900. See Fig. 5.1.

Promotional Literature

How the various economic forces translated into actions on the part of the stockmen and farmers in the East who actually emigrated is an important aspect of the westward shift of the sheep industry. The great majority must have been drawn to the trans-Mississippi West by expectations of superior lands and greater economic opportunities, but they unquestionably arrived at these expectations without much real knowledge of the region. Promotional literature played an important role in the dissemination of information, and mis-information, that influenced those who made the move. As the railroads penetrated the West, promotional writers with a range of agendas inundated the East and Europe with glowing reports of what an emigrant could expect to find. A diverse group, their numbers included recently-arrived immigrants, foreign travelers, newspaper correspondents, land developers, railroad promoters, military reconnaissance

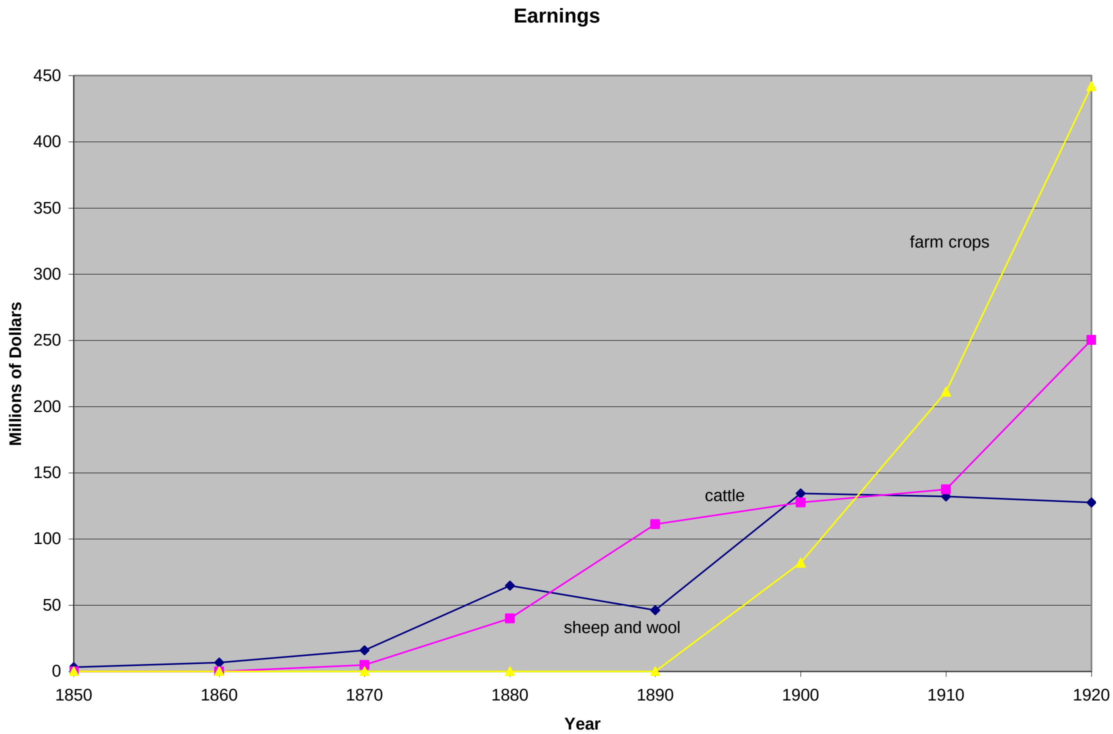

Fig. 5.1 New Mexico Annual Earnings versus Year for Live Sheep and Wool, Cattle, and Farm Crops. Data are taken from U.S. Census Reports, 1850-1920 and *New Mexico Agricultural Statistics*, 44, 56. Rocky Mountain Wool Prices for 1860-1900 are taken from Sypolt, Appendix III, 326. Annual earnings from live sheep and cattle are estimated to be produced by the sale of 30% of the total inventories. Earnings from cattle were negligible before about 1870 and did not surpass sheep earnings until after 1880. From 1890 on, cattle earnings surpassed or were at least comparable to sheep and wool earnings. After about 1900, the earnings from agricultural crops increased rapidly and surpassed both sheep and cattle earnings around 1905. Dollar amounts have been converted to 2010 dollars using the Annual Consumer Price Index for the United States.

officers, and political publicists.[67] In an era when all economic development was considered beneficial, much of the western promotional literature was aimed toward attracting eastern capital to finance western industries, including livestock operations. The doctrine of Manifest Destiny provided a quasi-religious motivation and justification for the economic development, even if it meant trampling on pre-existing, non-Anglo cultural and economic traditions, particularly those concerned with land tenure. The literature clearly played an important role in the cattle investment bubble of the 1880s, which extended as far as Europe. Deep-pocketed investors, English and Scottish in particular, responded to the storm of propaganda by pouring money into large western cattle operations that they would never see and little understood, cf. chap. 6.[68] Others, a range of men, many unprepared and incompetent, came west to actually operate the ranches *and* make money. Most eventually failed.[69] But there was no frenzy of East Coast or European interest in western sheep ranches. The Anglo sheepmen who found their way to New Mexico were primarily independent, on-site operator-investors.[70] The promoters' influence on the sheep industry is thus more difficult to quantify, although they sought to appeal to all stockmen. Some sheepmen were clearly drawn west by false information.

The railroads were particularly active promoters and, perhaps, the most influential. They had a two-fold agenda. First, they sought to create a customer base in the sparsely populated western areas through which they were laying track at great expense; farmers and ranchers settling these regions would ship their produce to eastern markets over their lines. Secondly, the railroads had been granted huge tracts of land along their rights-of-way by Congress to help finance their construction. These grants were thus a federal

subsidy to private enterprise for the construction of roads deemed to be in the national interest. They took the form of from ten to forty alternate sections of land along both sides of the line – a checkerboard pattern - for each mile of track laid, lands that were theirs to sell.[71] The railroads thus stood to profit doubly by selling these lands, so conveniently located along their lines, and, at the same time, securing a customer base for their freight services.[72]

The railroad promoters showed no restraint in making western sheep growing appear attractive. Latham, at one time a surgeon employed by the Union Pacific Railroad, predicted a "sure and profitable return" in Trans-Missouri wool growing for sheepmen who relocated.[73] In his ebullient words of 1871:

> Along the whole length of the Union Pacific railway, along the Central Pacific railway, along the Kansas Pacific railway, in the valleys of the thousands of streams bordered with timber for buildings and fences, there are untold millions of acres of luxuriant grazing lands, where sheep can be put down from New Mexico, Iowa, Illinois, Missouri, and other States for two dollars per head. Shepherds can be hired from thirty to forty dollars per month [He seems to be including the costs of board.] that can readily herd three thousand head [One or two thousand was more reasonable].[74]

Although Latham's predictions were, on the whole too optimistic, their general drift proved justified; such was the hugely successful wave of economic development that swept across America in the late nineteenth century. A profitable sheep industry developed and flourished over a wide area of the West where it had not formerly existed.

And a large number of the inexpensive sheep that would stock the newly opened lands did indeed come from New Mexico, as did many of the "shepherds." The promoter's optimism must have been quite infectious.

At their most specific, the assertions of the promoters were, to say the least, misleading. Brisbin asserted:

> With $500 or $1000 in hand, a suitable herd can be started and a ranch provided. Of course, he [the prospective sheepman] would have to build his own house for the winter, with stables and corrals for animals, but this anyone can do. In sheep-shearing time, unless an expert at the business, he would have to hire a shearer at eight cents per fleece; but now, since the bands of shearers from New Mexico and Colorado come North, a fleece can be cut for five cents, and, in some instances, three cents….They [the shearers] cut a fleece with marvelous rapidity and want little else than their food and clothing, with sometimes a pipe and a glass of beverage after supper.[75]

The experiences of Montague Stevens, described in chapter 9, belie these claims.

Extraordinary rates of return on modest initial investments were promised in the widely disseminated literature. It was asserted that sheepmen who established ranches in the West could expect to become rich within a few years.[76] Brisbin described a few instances of extraordinary success over short periods, no more than a few years, with annual investment returns in the range 35% or more and suggested such returns could be expected by anyone. He cites the case of M.E. Post [initials interchanged by Brisbin] of Cheyenne, Wyoming, who from an initial investment of $8,900, mostly in the form of

livestock, and an annual operating expense of $1,128, realized a profit of $5,172 in one [in fact one very good] year of operation, a 50% return.[77] This may have been true, but Post's case was exceptional. Very few western sheepmen ever saw such a large annual return, and none saw such returns consistently, year after year. Many would-be sheepmen apparently took the optimistic promises at face value and, unprepared for the immense efforts demanded, failed.[78] Many others, however, did establish profitable operations in the West in the post-Civil War nineteenth century and contributed to the dramatic expansion of the industry.

New Mexico political leaders promoted their territory for another reason altogether: to advance the quest for statehood and the economic advantages envisioned to follow. New Mexico statehood was blocked by the U.S. Senate for decades largely because the territory was visualized as an impoverished, foreign land with a different language, a different religion, even an altogether different culture, unprepared to participate in the democratic process. The territory's political leaders believed that an enhanced Anglo population would "Americanize" New Mexico and thus render it ready, or at least more acceptable, for statehood. New Mexico's large-scale land owners, some politically prominent, pressed the statehood issue aggressively. They understood, correctly as it turned out, that, along with statehood, an influx of settlers from the East would increase their land values.

Reflecting their sentiments, the official annual reports of the territorial governors to the U.S. Secretary of the Interior presented a glowing picture of the farming and grazing resources available in New Mexico to enterprising, presumably Anglo, stockmen and farmers, who would develop the territory's resources to their full potential. During Gov.

Miguel A. Otero's term, the governor's report, echoing official reports over the preceding quarter century, boldly asserted, "No country in the world is better adapted to sheep raising and wool growing than New Mexico."[79] A later report under Gov. Otero went into more detail, "The mild winters, the grassy mesas and watered valleys, and the sheltered canyons help make sheep raising very profitable….A moderate capital invested in sheep, a home ranch, and ample range, will bring success to the sheep raiser if he possesses good tact and experience."[80]

The territorial Bureau of Immigration, a promotional agency established in 1880, was set up specifically to attract immigrants to the territory. According to Twitchell, its efforts brought "large capital" to the territory, some of which would have contributed to an expanded livestock industry. In describing the 1882 "Tertio-Millenial" Exposition of Santa Fe, a promotional celebration of six weeks duration, which drew thousands of visitors to Santa Fe, he asserted furthermore that this was "a great factor" in the growth of the population and of the livestock and mining industries of New Mexico.[81] Twitchell was an unrestrained New Mexico booster and may, like almost all the promoters, have overstated the situation.

Even the federal government joined in the promotional efforts. In his report on the livestock industry in the U.S. Census of 1880, Gordon, echoing the railroad promotional literature, described the case of a young Colorado man who started in 1872 with 770 *churro* ewes and 10 Vermont Merino bucks for a total investment of about $2,100. Eight years later, in 1880, his flock had increased ten-fold to 7,500 head valued at $18,750. In the mean time he had established a ranch worth $7,750, sold $24,000 worth of wool and 250 wethers for $650.[82] This may have been true, but it was a most extraordinary case, a

fact that the promotional literature never mentioned. Besides, $2,100 was quite a large amount of money in 1872 ($39,000 in 2010 dollars); many sheepmen could not have made such a large an initial investment.

The promotional literature undoubtedly played a role in bringing to the West a new class of Anglo-American sheepmen. A large fraction of these men employed New Mexico *churros* to start their herds. A significant number ended up in New Mexico. The promotional literature invariably exaggerated the advantages of the West, citing as typical the most successful known operations in their most successful years. The basic point they were making that the West provided a much more favorable environment than the East for raising sheep was, however, valid.

Churros and the Expansion of the Western Sheep Industry, 1870-1885

In the post-Civil War years, there was a tremendous demand for sheep in the West as flocks were being established for the first time. As a result, New Mexico *churros*, well positioned to address the demand, were driven throughout the Rocky Mountain-Great Plains region to establish ranches. The sheep drives out of New Mexico, curtailed during the Civil War, resumed on a much larger scale afterward.[83] They involved, altogether, more sheep than the California drives of the 1850s.

Stocking of the western ranges had begun gradually during the 1850s when New Mexico speculators and sheepmen exported some 700,000 sheep to California and another 100,000 to Colorado, Kansas, Nebraska, and Wyoming combined, while boosting the territory sheep population by about 500,000, cf. chap. 3.[84] A hiatus followed during the Civil War. Then, peaking during the 1870s, western sheepmen purchased herds of

breeding livestock in large numbers in New Mexico and trailed them to their ranches.[85]

These post-Civil War sheep drives throughout the West have been chronicled in detail elsewhere and will only be summarized here.[86] The exports were largely ewes prior to 1885. By 1876, New Mexico was exporting 350,000 "Mexican" sheep annually by trail to Wyoming, Kansas, and Nebraska. The numbers increased steadily thereafter until 1885 when sheep exports, shipped increasingly by rail, reached a maximum of approximately 1,000,000 head annually ("principally to Texas" at this point).[87] In the1870s, the aggregate sheep population of Idaho, Montana, Utah, Wyoming, Nevada, and Colorado increased from 190,857 to 1,407,916, a seven-fold increase due significantly to *churro* imports, according to U.S. census data.[88]

Colorado was the first area to be extensively stocked using New Mexico sheep. By the time of the Civil War, Hispanic New Mexicans had expanded their homeland into southern Colorado, and the southern third of the territory had already been stocked with *churro* herds. A handful of Anglo sheepmen began to arrive during and immediately after the war. Some of them established large flocks using *churros*.[89] By 1871, there were several large Anglo outfits in Colorado and Wyoming.[90] Some, but not all, of the early Anglos employed rams imported from the East to build their herds.[91] In 1880, 61,420 sheep were imported to Colorado, 50,000 of which were trailed in from New Mexico.[92] The New Mexico ewes were highly regarded as seed stock and, as indicated in chap. 4, could be readily bred up for wool production. The Bennett Brothers of Livermore, Colorado were getting an average fleece of about 10 lbs from their1000 head in 1877.[93]

The sheep industry swept north, penetrating Wyoming upon the completion of the

transcontinental railroad.[94] Here sheep growing was an Anglo operation from the beginning, but New Mexico *churros* again played an important role.[95] According to one government report, 22,000 stock New Mexico sheep were driven to Wyoming in 1880. Wyoming, and also Montana, had a significant effect on the New Mexico industry; they provided serious competition. A few digressive comments are in order here. Wyoming territory was well suited for sheep, with good grazing on over half its land area. And although it got off to a comparatively late start, around 1870, it had the second largest sheep population of any state or territory by 1900, cf. TABLE 4.1. One Wyoming sheep outfit grew into the huge Warren Livestock Company.[96]

The "Big Freeze" of 1886-1887, which devastated the cattle industry over large areas of the North, had remarkably little impact on Wyoming sheep ranchers, sheep being better able than cattle to withstand drought and freezing conditions.[97] Prior to that time, cattle had been the favored livestock in the territory. Afterward, many cattlemen, wiped out and lacking the financial resources for a fresh start, entered the sheep business, which required substantially less capital.[98] The notable Swan Land and Cattle Company, originally of Cheyenne, survived when many others failed. But after years of failure to realize its pre-1886 profitability, the company began in the early twentieth century to make substantial investments in sheep.[99] Wyoming proved superior to the older areas, including New Mexico, for growing, if not breeding, sheep. By 1903, Wyoming and Montana sheep were valued at $2.58 and $2.31, respectively, while New Mexico sheep were valued at $1.98 on the average.[100] Clearly, New Mexico had not kept up with developments elsewhere in the West, due in part to environmental considerations. While it benefitted considerably from the growth, the territory's monopoly on Rocky Mountain

sheep slipped away. Even as their industry expanded, New Mexico ranchers became, within a decade, an integral part of, were even enveloped by, a large Rocky Mountain-Great Plains industry of national importance that was dominated by Anglos.

The sheep industry next swept eastward across the Great Plains. The first permanent herds in Western Dakota Territory were started in the early 1880s with flocks from New Mexico and Colorado.[101] Thousands more head were driven from New Mexico to Texas in the early 1880s and sometimes traded for cattle. Over a twelve-year period, about 1.5 million head were trailed from New Mexico and the Texas Panhandle, then occupied by Hispanic sheepmen, to Kansas.[102] During 1880 alone, some 228,900 sheep were shipped from New Mexico to Colorado, Kansas, and Nebraska, greatly surpassing in size the annual shipments to California during the 1850s. And an additional 30,000 head were driven that year to Arizona Territory and 15,000 to Texas.[103] Three to four million head in all were exported from New Mexico between 1870 and 1900.[104]

Some Anglo sheepmen built their first herds entirely from *churros*. But it became a widespread practice to build flocks by breeding *churro* ewes with graded rams imported from the East and California, just as in New Mexico, and for the same reason, i.e. to develop a robust, open-range flock that produced an optimum combination of wool and mutton, an optimum that varied from year to year with changing market conditions.[105] In either case, New Mexico sheep constituted an important component of the initial breeding stock. By the early 1880s, sheep herds throughout the Rocky Mountains were well established, the demand for *churros* died down, and New Mexico sheep exports for stocking purposes dropped off substantially. The West dominated sheep and wool production in America from this point on.

Although New Mexico ranchers prospered in the post-Civil War years, sheep and wool merchants assumed increasing importance within the industry and ultimately assumed leadership. This is the subject of the following chapter.

Chapter 6

Sheep and Mercantile Capitalism

The New Mexico's sheep industry could never have assumed the commercial proportions that it did without a local network of dealers. As the territory's sheep population increased, ever more people were employed raising sheep, since a herder on the open range could still only manage about 1000 head. And the handful of large-scale Hispanic growers that had been controlling the industry was joined by a much larger contingent of small- and intermediate-scale, independent Hispanic growers together with an influx of immigrant Anglo sheepmen.[1] It is believed that the smaller Hispanic operators, many of whom were owner-herders, were the successful *partidarios* who had achieved independence from their *patrones*.[2] Their numbers were, in any case, amplified by a growing number of freed *peon* herders, peonage having been outlawed in New Mexico by federal statute in 1867.[3] The emergence of these new classes of sheepmen constituted a significant demographic shift within the industry. By the late nineteenth century, even Solomon Luna, with a herd of 80,000 head, owned little more than 2% of the territory's sheep.[4] However, only the very large-scale growers had the wherewithal to transport and sell their own produce in the distant markets, as they had done during the days of the Camino Real and the California drives. Uneducated, Spanish-speaking, unconnected with the outside world, and having negligible financial resources in an increasingly capital-intensive industry, the numerous smaller-scale sheepmen became dependent on New Mexico's growing community of mercantile capitalists to market their produce.

A leadership shift occurred. Well-connected and well-informed merchants, largely but not exclusively Anglo, assumed significant leadership roles in the sheep industry.[5] They eventually handled the bulk of New Mexico's wool, linking the growers to a preexisting and, needless to say, Anglo establishment of eastern commission merchants and woolen mills.[6] Dealing in wool and live sheep became an important, distinct component of the sheep industry. The merchants came to play a pivotal role in its professionalization and integration into the mainstream American economy.

The landed *rico* families carried on as in the past; a few *patrones* became successful sheep and wool merchants, particularly those who had been active in the Santa Fe trade. But the number of *rico* growers was, if anything, dimishing, some of the old family fortunes being diluted by inheritance customs, particularly when there was no ambitious young heir to assume control of the herds.[7] The Hispanic monopoly in sheep production slipped away, as Anglo ranchers entered the expanding industry.

Mercantile establishments, dealing in general merchandise imported from the East, had operated in New Mexico since the opening of the Santa Fe Trail. Many more opened after the annexation. Sheep and wool were not commodities of overriding importance for these operations in their early years. But merchants soon found themselves dealing in sheep because they were an important medium of exchange in the cash-scarce economy.[8] As an adjunct to their mercantile activities, some accumulated large herds, which they maintained under a modified *partido* system. Markets expanded after the Civil War. Wool became, for many merchants, the single most important component of their business and their principal wherewithal for purchasing general merchandise in the East.[9] The mercantile community grew for the remainder of the nineteenth century, particularly

in the 1870s in response to rapidly increasing sheep and wool production.

Basic Modus Operandi

The merchants' basic modus operandi was straight forward. They bought general merchandise wholesale in the East, transported it west, and sold it in New Mexico at higher western retail prices. Their retail businesses were characterized generally by low volume and high prices. Seeking out the best deals to be had, they made important contacts and purchased merchandise from suppliers in New York City, Philadelphia, Baltimore, or St. Louis for heavy, bulky items. New Mexico merchant John Dold transacted a considerable amount of business with New York City merchant-wholesaler Leon Arnold & Co., while Ilfeld sold his wool to the Gregg Bros. of Philadelphia.[10] The merchants traded the merchandise they imported from the East for the agricultural produce and livestock of the numerous small ranchers and farmers in their respective areas, as hard currency remained scarce in New Mexico until the railroads arrived. They sometimes also made cash purchases from growers in their areas. When they had amassed a sufficient quantity of produce from several small-scale growers, they would ship and sell it in bulk.

From the time of the annexation until after the Civil War, the principal markets for livestock and agricultural produce in New Mexico, and the Southwest in general, were at the U.S. Army posts and Indian reservations, where there were many mouths to feed. During and after the war, the army brought to the territory a substantial contingent of civilian employees, who congregated in Santa Fe, military headquarters for the territory. Many soldiers and civilian employees were joined by their families, expanding the Anglo

population of the area and the market for food.[11] It goes without saying that New Mexico's entire economy, not just the livestock industry, benefited significantly from federal dollars spent at the forts and reservations. From this point forward down to the present, federal defense spending has provided a boost to the local economy and has been an important source of well-being for New Mexicans. Today, of course, the federal dollars are spent supporting military bases and national defense projects rather than simply food for soldiers and Indians. From the late 1850s on, the sedentary merchants, along with independent Santa Fe Trail traders, began shipping wool east over the Santa Fe Trail, cf. chap. 4. Beginning in the 1870s, before the arrival of the railroads in New Mexico, sheep were driven to Great Plains railheads in Kansas and Colorado and shipped on to meat packers in Chicago, Philadelphia, and other large cities. Charles Ilfeld, one of the first to do so, began shipping wool in quantity east from the Great Plains railheads around 1874.[12] During the post-war period at least through the late 1880s, the market for New Mexico wethers in the Colorado mining camps was steady and reliable, longer trail drives to more distant markets having proved generally unprofitable since the close of the California trade.[13]

The arrival of the railroads greatly expanded New Mexico's mercantile operations, enabling merchants to ship live sheep to the midwestern slaughter houses and wool to northeastern dealers in much larger quantities. Substantial mercantile houses appeared in Taos, Albuquerque, Socorro, Trinidad, Colorado, and particularly Las Vegas with its major railroad terminal and proximity to the extensive grazing lands of the eastern plains. They took the form of general stores located at town plazas or railroad depots, often conjoined with warehouses and livestock holding pens. The mercantile outlets, which

were eventually scattered throughout New Mexico, became part of a growing national commercial network that extended into the West from the industrial cities of the Midwest and the East. The merchants built lines of communication, tenuous as they may have been at first, between isolated, rural, Hispanic New Mexico and the rest of the nation. New Mexico's mercantile capitalists, and the sheep they dealt in, were thus important agents drawing New Mexico into the U.S. economy and, by extension, U.S. society in general. Wherever they set down, the successful outlets came to dominate the local economy, their customer base always mostly Hispanic. Although, mercantile establishments appeared in other sheep-producing areas of the West, they played a somewhat unique role in New Mexico in that they became involved in every aspect of the sheep business. Besides providing their customers with the only readily accessible markets for their produce, they became the sole perveyers of imported eastern merchandise. They also provided more limited services to the large-scale, sheep-growing *ricos*. Besides sheep and wool, the new establishments, dealt in a variety of other local produce including lumber, hides, and furs. They also provided financial services before the territory's banking industry developed. They remained the most prominent type of merchandising outlets for as long as transport to the eastern markets was comparatively slow and inefficient and New Mexico's population was sparsely distributed. Only in the twentieth century did industrial capitalism, with its great thrust toward specialization, replace the mercantile mode of commerce in the territory.[14]

Many of the mercantile capitalists were recently arrived Anglos who were relatively well educated, familiar with prevailing business practices, and, most critically, had access to capital. Notable among these businessmen was a small but influential community of

German-Jewish immigrants with long family traditions in merchandising.[15] Among their enterprises, The Charles Ilfeld Company, headquartered on the Las Vegas Old Town Plaza, was for many years New Mexico's largest mercantile operation. Earlier, by 1864, Jacob Amberg's store on the northwest corner of the Santa Fe plaza was said to be the "most commodious and elegant building in New Mexico."[16] With their generally superior resources, the Anglos were able to compete successfully with established Hispanic merchant-sheepmen almost as soon as they arrived. The bulk of Ilfeld's customers were Hispanic. A key to their success was the large amount of capital they invested in their operations. By the late 1860s, merchants Elsburg and Amberg held $100,000 worth of stock in Santa Fe and Chihuahua, their initial financial resources having come from outside the territory. And they were carrying a debt obligation of $210,000 to New York creditors ($3,600,000 in 2010 dollars).[17]

Although the prominent nineteenth-century merchants were largely Anglo, a few Hispanics were extraordinarily successful. New business opportunities opened by the Santa Fe Trail had enabled some mercantile families to expand their operations and significantly increase their wealth. Active after the annexation, one of the most successful Hispanic mercantile capitalists was Belin-based Felipe Chavez (1834-1906), a well-connected, well-educated cousin of J. Francisco Chaves, who built his fortune upon a foundation of preexisting family wealth. He was, for a time, one of the richest men in the territory. Like other elite Hispanic merchants, his operations were essentially indistinguishable from those of his Anglo cohorts. He established an impressive information network that extended to cities in Mexico, the United States, and England. In all likelihood, he entered the wool business before or during the Civil War, as he was

receiving reports on wool prices from his St. Louis buyer, Glasgow Brothers, during the last days of the war. Chaves' wool business, whenever it was actually launched, expanded rapidly during the post-war period when he made large sales in Kansas and Missouri. He also had extensive dealings, including wool transactions, with New York City merchants Peter Harmony and Nephews. Chaves shipped 7,642 lbs. of wool to Philadelphia in 1869, his first documented wool transaction. Nine years later, he shipped 192,668 lbs. out of New Mexico, a 25-fold increase. During this same period, the prices he received grew from $0.11-0.12/lb. to $0.18-0.22/lb. He is known to have driven herds of sheep east also. Like all the New Mexico merchants, he benefited greatly when the railroads arrived and freight rates to the East were slashed. And like many of his Hispanic cohorts, he remained active in sheep ranching. Like all sheepmen, he paid his salaried herders very low wages. Had he done otherwise, he could not have survived in the business world.[18]

Sheep and the Railroads

The extension of the nation's railroads into the West after the Civil War had an immense, transformative impact on the region's economy. In New Mexico, the arrival of the AT&SF Railway in 1879, was, as has already been aluded to, a critical factor in the development of the territory's sheep industry. But the fact that the railroad traversed New Mexico at all was a fortuitous accident. The territory's modest commerce over the Santa Fe Trail, which the line would supplant, was of little interest to AT&SF officials. However, the territory lay along the path to Southern California and its much larger, rapidly expanding economy. California business justified the line; New Mexico was a

passive beneficiary. When the AT&SF linked up with the Southern Pacific Railroad in Deming in 1881, the nation had a second transcontinental line. And New Mexico's sheep industry, linked with rail transport, was once again well situated by chance to take advantage of extra-territorial developments.

The railroads were the most important national adjunct to New Mexico's mercantile community. They could transport sheep and wool anywhere in the United States rapidly and relatively inexpensively. The roads thus provided access to far more outlets than the sheep trails ever had and opened up vast new markets for the territory's produce. The railroads also provided greater security for their cargo. Before they arrived, the trail drives to the markets were quite hazardous. Losses on the great drives down the Camino Real were always considerable, and sheepmen simply had to sustain them. They were an inherent inefficiency in the business. After 1880, weather, predators, and trail conditions, once important sources of danger on the trails, became largely irrelevant. Over the next three decades, rail transport significantly reduced the uncertainties in an inherently high-risk business. The Santa Fe Trail had engendered a basic trade pattern that linked the territory to the national economy for the first time. Modest shipments of New Mexico's wool had been exported over the Trail since the 1850s. The growing rail network, in dramatically expanding trade, greatly strengthened the territory's national connections.

After the war, sheep and cattle drives from New Mexico to the railheads became practical. The territory's sheep were, in small numbers, initially driven to recently established railheads in Missouri for shipment to markets further east. As the railroads were extended across the plains of Kansas and into Colorado, the Santa Fe Trail, along which the rails were laid, became, in effect, ever shorter. Its eastern terminus shifted

continually westward over a fifteen-year period with the advancing tracks. By 1877, the AT&SF Railway had reached Animas, Colorado, providing service to the East via Kansas City. And the D&RGW Railroad established a competing terminal at El Moro, Colorado, providing connections to markets in St. Louis and Chicago. The travel time from El Moro to Kansas City via Denver was about 50 hours for a heretofore unimaginable savings in the time and labor.

After the AT&SF reached Animas, only a comparitively short wagon haul from New Mexico was required to get wool to the rail terminus. From there, the wool could be forwarded directly by rail to Boston and Philadelphia brokers, who purchased the commodity from all over the country, scoured it, graded it, sorted it, and then sold it to the woolen mills in their respective regions. In 1879 when the AT&SF reached Las Vegas, it rendered the Trail commercially obsolete. Las Vegas, and later Albuquerque, with its rail access, became major shipping centers. Wool and sheep export volumes exploded in the ensueing years. After shearing time during Las Vegas' halcyon years, the main trail into town from the eastern plains would be backed up for four or five miles, with wool-laden wagons. In 1900, merchants Charles Ilfeld and Gross, Blackwell were each weighing in one-hundred wagons per day loaded with wool to be shipped east by rail.[19] To the west, Frank Bond was shipping large quantities of wool out of Espanola over the D&RGW.

Although wool had been shipped east from New Mexico by wagon since before the Civil War, trail drives of sheep to the U.S. markets in the Midwest had never proved profitable before the railroads. The situation changed when they arrived and introduced double-decked stock cars, which made the transport of live sheep to national markets

profitable for the first time. Chicago and Philadelphia, with their efficient mechanized packing plants, initially provided the most important markets. Later in the nineteenth century additional livestock markets opened in Kansas City, Omaha, and Denver. The railroads were used not only to transport New Mexico sheep directly to market, but also to transport them north to Wyoming and Montana for fattening in the rich summer pastures and east to feeder farms in Kansas and Nebraska. Thereafter, the stock would be again transported by rail, this time to the slaughter houses. The railroads competed aggressively for the merchants' business. One common practice they employed to this end was to offer rebates to their commercial customers who shipped in large volume. The Kansas-Pacific Railroad gave Charles Ilfeld a 25% reduction in freight rates and a free pass for his personal travel.[20] Arrangements like this, while they ultimately made the industry run more efficiently, were one more thing that made it difficult for small-scale merchants to compete.

The railroads not only facilitated the export of the territory's produce, they made it vastly easier for Americans to move west. In so doing, they brought about a considerable influx of Anglos, largely farmers and stockmen, to New Mexico, perhaps the most important and dramatic influence overall of the railroads on the territory. [Frank Bond arrived in New Mexico by railroad.] The Anglo immigrants significantly increased the territory's population and, at the same time, altered the ethnic mix of New Mexico society and of the sheep industry in particular. The population of New Mexico nearly tripled from 119,565 in 1880 to 327,301 in 1910, by which time, it is believed, over half the population was Anglo. In this same time period, wool exports expanded from 4,000,000 to 15,000,000 lbs., a factor of nearly four, cf. Fig. 4.1.[21] Not only did the

railroads bring people, they gave birth to new Anglo towns outside the Hispanic heartland, located at promising points along the rail lines. Frank Bond opened an outlet in Cuervo, while Charles Ilfeld opened one in Santa Rosa. Although this development disrupted older commercial centers, with stable Hispanic populations, like Las Vegas, it gave rise to a network of smaller, overlapping trade areas, greater competition among the established merchants together with greater specialization and greater efficiency. The Charles Ilfeld Co. moved toward a specialization in sheep and wool and, to a much lesser extent, cattle and other livestock starting in the late 1880s.

The U.S. Army forts with their cash payrolls and monetary exchange services had provided the first steady source of capital in the territory. The arrival of the railroads, three decades later, brought the first infusion of corporate capital. Their cash payrolls provided a second source of hard currency, giving merchants, sheepmen, and society in general, greater liquidity, an important benefit to businesses throughout the territory. Describing his first Sunday on the job at a Chamita store in1883, Frank Bond recalled years later, "Sunday was the big trading day in the week when the people came to church, and I recall on the first Sunday we took in so much silver the till had to be emptied. There was not much other money in circulation that day apparently. It was more money than I had ever seen before."[22] On another level, by providing a rapid response to merchants' needs, the railroads enabled them to reduce the size of their inventories, thus releasing capital into circulation that otherwise would have been tied up in merchandise sitting on shelves.[23] Some of this freed up capital was used to provide cash advances to sheep growers.

Growing Complexity of Business Practices

The retail sales of general merchandise and food supplies to army personnel, before the railroads, not only constituted a profitable new market for the territory's merchants, but the importance of that market was amplified because the sales were paid for in cash, or its equivalent, still a scarce commodity.[24] A commerce in bank drafts ensued since sales to the U.S. government were often paid for with such drafts, i.e. checks, drawn on eastern banks and backed by the U.S. government. These drafts were freely exchanged between New Mexico merchants in lieu of large cash exchanges. The introduction of secure bank drafts began to liberate New Mexico from its largely barter economy and eventually eliminated the need for clumsy, insecure transfers of hard currency, like those over the Santa Fe Trail during its early years. The drafts were carried east and used to purchase manufactured goods from wholesalers; they were used by eastern and midwestern merchants to purchase large lots of sheep and wool from New Mexican traders. The expansion of the sheep industry in the post-Civil War period, when frequent financial transactions, large and small, became the norm, could not have occurred without the introduction of secure bank drafts and the monetary exchange they engendered, an injection from the East. Since monetary exchange was the purview of the merchant, its introduction was, in the view of Parish, the most important factor in shifting sheep industry dominance from the producer to the merchant.[25] This meant that even the large-scale Hispanic ranchers would no longer dominate the industry, as they once had, even as the market for their produce expanded.

As the markets continued to grow, meat packers and wool commission houses became more aggressive and sent buyers out to western sheep growing regions including

New Mexico. They offered established merchants purchase contracts, and sometimes large advances, for livestock and wool, which, of course demanded considerable capital reserves on their part. This was not an easy job. Wool buyers had to inspect and judge each individual lot and offer a purchase price based on its estimated sale price in the East, usually months in the future. The well-known non-uniformity of American wool made for added difficulty.[26] Domestic produce would be competing with imported wool on the east coast markets so the buyers needed a thorough, up-to-date knowledge of international crop data. However, at this time no centralized information sources existed. Each buyer had his own somewhat-limited, personal information network. Wool, and also sheep, buying was thus characterized by uncertainty, instability, and risk.[27] New Mexico merchants, for their part, sometimes negotiated contracts in advance with their sheep-growing clients to insure prices and adequate deliveries. This chain of contracts could relieve them of some of the risk they had previously assumed but, at the same time, demanded careful planning on the part of everyone involved. Las Vegas and Santa Fe merchants sometimes made direct loans to their producers, issuing them checkbooks, and, when necessary, contracting with *partidarios* to tend their sheep. The merchants always, however, sought to remain strictly brokers and avoid direct involvement in production, which was even more risky.

The sheep business became sufficiently large and profitable that sheep and wool contractors and brokers connected elsewhere sometimes established residency in the territory, congregating in Albuquerque because of the vast sheep ranges then extending both east and west of the town. These dealers offered New Mexico producers an alternate source of financing, beyond that offered by the merchants. These men obtained

working capital in the form of loans from large eastern commission houses and western feeder farms and operated on a larger scale than New Mexico's established resident merchants had in the past.[28] They were able to contract for the entire sheep or wool output of large-scale ranchers. And like the merchants, they advanced operating funds to ranchers at the beginning of the growing season and settled accounts with them at the end of the season upon receipt of their produce. As their numbers grew, these independents posed some competition for the established general merchants, who had gained control of the sheep industry through their access to capital and control of monetary exchange when these were still relatively scarce. The merchants' business with the smaller New Mexico growers, who had no liquidity and were often in debt to them, remained secure however. The territory's merchants remained viable by expanding their existing sheep and wool operations to the more remote areas of the territory. In any case, the northern and eastern sheep brokers often actually preferred to work through New Mexico's established merchantile capitalists because of their greater flexibility, since they could more readily deliver a shipment of a specified size and grade. The numerous buyers from outside the territory, visiting and resident, were, like the territory's merchants, specialists within the context of the sheep industry and constituted a new component in an industry of increasing complexity.

As their livestock holdings grew, the merchants made significant capital investments that expedited their operations and, at the same time, consolidated their leadership in the sheep industry. To enhance the usefulness of his Pintada Ranch, Ilfeld went to the expense of drilling a well. Beyond the acquisition of pasture lands, the merchants built large warehouses for storing wool at the rail terminals where their businesses were

centralized.[29] Such facilities enabled merchants to stockpile incoming wool and hold it off the market during periods of weak prices in the East. The small producers did not have this luxury. They were generally forced to sell their wool to a merchant at the local prevailing price as soon as it was shorn from their sheep. They had no way to safely store it, nor did they have the capital reserves to sustain their operations, and support their families, while their wool sat unsold awaiting a turn in the market. The advice given by the Las Vegas *Stock Grower* to producers to hold their produce for three to six months at the time of a downturn in the market was out of the question for many small Hispanic growers.[30]

Merchant Bankers

The sedentary general merchants became the first bankers in New Mexico when they provided rudimentary, but badly needed, banking services for their sheep-growing clients, often advancing them money for supplies, payrolls, or the purchase of livestock at the beginning of the growing season [Spring] and settling accounts at the end of the season [late Fall] upon receipt of their produce. The growers might use the loans to purchase supplies at the creditor-merchant's store. Large-scale wool and sheep producers, who dealt directly with dealers in the Midwest and the East, similarly borrowed operating funds from those dealers, using their future wool and sheep shipments as collateral. The density of such transactions was considerable by the end of the nineteenth century, although the loans rarely ran for more than a year.[31] Frank Bond entered into such arrangements on a fairly large scale. In a more or less typical arrangement, Charles Ilfeld provided funds to Alfred H. Long of Puerto de Luna to purchase sheep in 1898.[32] Sometimes the negotiations could be more complex. J.G.

Clancey requested a loan of $400 from Las Vegas merchants Gross, Blackwell & Co., with whom he had an account, in order to pay off a note he had given to the San Miguel Bank.[33] For many years the merchants remained the sole source of credit for small-scale growers. The continuing scarcity of hard currency in New Mexico before 1880 and the persistence of barter transactions thereafter prevented many small-scale ranchers and farmers from accumulating capital reserves, a growing necessity by the later nineteenth century. As previously indicated, the same was true of many landed *ricos* whose wealth was tied up in lands and livestock. Like the small-scale growers, they became dependent on the merchants for cash and credit.

To the detriment of the growers, the last half of the nineteenth century was generally a period of tight money, correspondingly high interest rates, and moderate sheep and wool prices. Filling a critical need, the Ilfeld Company eventually became quite active in banking, taking deposits, paying interest, and issuing checkbooks to its more reliable rural customers.[34] After 1882, Ilfeld usually charged his customers 12% annually for loans, but in some cases his rate went as high as 18%. Some less fortunate growers had to pay as much as 25% on borrowed money.[35] Sometimes, the larger producers sold smaller-scale sheepmen livestock on credit, enabling them to get started or to sustain their operations when they lacked the cash required. In this case the sellers typically charged the stock buyers a monthly interest of 1%.[36] In taking out loans from various lenders, New Mexico's small-scale sheep growers were drawn into the less paternal modus operandi of American capitalism. [If the above comments seem overly general, it should be noted that banking practices had not yet become standardized during this era; almost all financial arrangements, even those with extra-territorial lenders, were transacted face-

to-face on a more or less ad hoc basis.]

With the rapid growth of the western sheep industry in the late nineteenth century and the concomitant demand for financing, New Mexico's merchants eventually found themselves unable to provide the loans needed by their many farming and ranching client-suppliers. Requiring ever larger amounts of capital, they began borrowing from a variety of sources, including, eventually, eastern wool commission houses, western feeder farmers, midwestern slaughter houses, and occasionally private investors.[37] The Bonds are known to have obtained a substantial loan, about $22,000 ($575,000 in 2010 dollars), from private investor Abraham Staab in 1902.[38] These firms charged lower interest rates than the eastern banks, presumably because they knew their customers, had confidence in the collateral, and were themselves dealers in wool or sheep. The interest rates they charged were still relatively high.[39] The New Mexican merchants employed these borrowed funds in the same way as their personal funds, both to provide advances to local ranchers and to buy outright farm and ranch produce for resale elsewhere. Loans to producers were usually granted on the condition that the borrower was obligated to sell or consign his livestock and purchase all his supplies, through the lending merchant until the debt was settled. Otherwise, the producer's livestock might be confiscated by the merchant to satisfy unpaid debts. The mercantile firms sometimes became full-service financial agents for their growers. Besides advancing needed operating funds, they honored bank drafts used by their clients to pay herders and buy equipment, and they negotiated leases for grazing lands. They were purchasing agent, sales agent, real estate broker, and banker all rolled into one and all expedited by their control of the flow of money and credit between east and west.[40] The increasing reliance of intermediate- and

small-scale producers on the merchants, helped to elevate the merchants to leadership positions in the territory's sheep industry.

A creditor sometimes had to be forceful to insure that a loan would be paid off. In one documented situation, New Mexico wool grower Eusebio Garcia y Ortiz run up a debt of $1,716 to Otero, Sellar & Co. of Las Vegas, substantially larger than the annual expenses of $1,000 that he incurred running a band of about 3,500 sheep. Perhaps sensing an impending difficulty collecting on the loan, the company took an advance assignment of his 7,000 lb. wool clip to be delivered to the company after shearing. This they were authorized to sell and to apply the proceeds to Garcia's indebtedness.[41]

Professional banking began in New Mexico in 1870 when a group of partners founded the First National Bank of Santa Fe (FNBSF) with the proceeds from the sale of the Maxwell Land Grant. The banks eventually replaced the forts as providers of monetary exchange, the commissions for which provided large profits. These banks had few depositors in their earlier years, monetary exchange being their main business. In this sense, they were just informal extensions of eastern banks. The western banks were usually small, and their high interest rates discouraged livestock financing, although that became a considerable part of their business. Western banks typically charged a monthly rate of 1.5% loans, not entirely because of the considerable risk of the livestock business, but largely because of the shortage of funds available and the resulting competition for loans. For their part, bank officers knew their customers well and understood the uncertainties they faced. In granting loans, they relied on the character and ability of their clients to pay. The merchants remained the bankers for the hinterlands populations long after the banks arrived. New Mexico banks experienced unique problems.

Responding to an inquiry from the Comptroller of the Currency concerning the large number of overdue loans in the late 1870s, the cashier of FNBSF responded: "Banking in New Mexico is surrounded by many…trials by which banks in the east are free (especially having as customers sheep growers) who though perfectly good and solvent *and always pay in the end* [an overstatement of fact] are invariably in the spring of the year hundreds of miles away with their herds."[42]

Some merchants became professional bankers. Lehman and Willi Spiegelberg of the prominent mercantile family established the Second National Bank of Santa Fe in 1872, which operated in close competition with the First National Bank.[43] Loans to sheepmen were an important component of the business of both banks. In another notable case, Don Miguel A. Otero, politically prominent partner in the Las Vegas mercantile concern Otero, Sellar & Co., sold out his interest in the company and together with several other local businessmen established the First National Bank of Las Vegas in 1881. A major part of this bank's business also involved loans to New Mexico sheepmen.[44] Sheep were thus an important agent in the development of the territory's banking system.

A word about financing in the cattle industry is appropriate here as a point of comparison. Unlike the case for sheep, absentee investors were an important factor in the Rocky Mountain cattle industry. Those interested in western livestock focused largely on the cattle business, which they visualized as new, exciting, and promising. Conversely, they expressed little interest in sheep, as the cattle bubble raged.[45] Sophisticated investors on the east coast and in Europe, men who had never been west of the Mississippi River, poured their resources into large cattle ranches, and the early returns did seem promising.[46] These investors, like cattlemen on the range, considered the sheep

industry shabby and disreputable. The industry was, of course, old and the fortunes it had produced, although real, were modest by gilded-age standards. However, the open-range sheep business was less expensive to enter than cattle ranching, so western sheepmen, to their benefit, were able to get started and operate without large-scale absentee capital investors.

Merchant Sheep Owners

Because they were often paid for their merchandise in the form of livestock, many merchants found themselves in possession of considerable numbers of sheep, which, for a variety of reasons, they often needed to hold for a time prior to shipment to market. The merchants did not actively choose to be sheep owners, but did it out of necessity. It was a situation for which they were initially ill prepared, but the practice became widespread and expanded in time. Prior to about 1875, Charles Ilfeld typically had a relatively modest herd of 3000-5000 sheep.[47] In later years, his company and his sheep holdings grew considerably. The extent of this activity is illustrated by the inventory of the Bond Brothers in 1900, at which time they had $36,000 ($1,000,000 in 2010 dollars) invested in sheep, including over 18,000 head rented out under *partido* contracts.[48] An almost natural result of the situation was that the merchants, their inclinations to the contrary, sometimes became actively involved in raising sheep. To that end, they secured grazing lands and entered *partido* contracts. Ilfeld held most of his *partido* sheep in San Miguel County.[49] The Bond brothers held large *partido* herds in the Antonito, Colorado area, as well as other locations.[50] The merchants thus assumed in part the traditional role of the sheep-growing *patron*, while the *pastores* exercised an increasing degree of

independence from their former *patrones*. For the merchants, this constituted an important adaptation to local tradition. And the small-scale producers exchanged one master for another, in a sense, one generally more impersonal but also more systematic, efficient, and arguably less exploitative, particularly when an element of competition among merchants was present. It was a relationship with which the herders were familiar and comfortable.

Business practices in territorial New Mexico were always somewhat schizophrenic. Up-to-date methods were employed in negotiations with the outside world, while dealings with local sheep growers diverged slowly from tradition, involving a considerable degree of barter. This was, in many ways, an extention of the operations of the sheep-growing *ricos* prior to the annexation. The sedentary merchants took over some, but not all, of the traditional functions of the *patron*. They provided a connection with the outside world to the isolated villagers in their area. With their specialized knowledge, they sold the local produce in national and international markets at the best prices possible. They provided the household merchandise and farm supplies needed in the villages they served, employing their wholesale sources in the East and Midwest. They extended cash advances or credit to their suppliers on produce for future delivery. And they sometimes provided translation and rudimentary legal services. The merchants did not, however, generally assume the political or the social leadership roles of the traditional *patron*. They concentrated on business, which had become a demanding, full-time activity. When Frank Bond's Taos partner, J.H. McCarthy got involved in local politics, Bond admonished him severely writing, "We have never mixed politics or religion in our business and we certainly do not wish you to do so…Keep a still mouth as

regards politics or religion. They have nothing to do with business…"[51]

While the merchants assumed a greater role in territorial life, the leadership and power of the traditional *patrones* eroded. With improved transportation and communications, outside influences penetrated the isolation and relative self-sufficiency of the village plazas. When telegraph lines reached New Mexico in 1869, it became a practical possibility for a resident of the most remote village to be in reasonably close contact with the outside world through newspapers if not personal interactions. The *patron* was thus no longer the sole link between the villagers in his bailiwick and the world at large. When small-scale sheepmen wished to sell their produce or required cash advances at the beginning of the growing season, they went to the merchants if they could. As alternative employment was offered by mines, railroads, lumber companies, beet farms, and even Anglo sheepmen, the *patron* ceased to be the sole, or even the principal, employer in his area, cf. chap. 9. When the *patron* was unable to pay the competitive wages that village men could get from seasonal employment elsewhere, he lost his overriding economic leverage over his *peones*, if he still had any, and his salaried employees. The social and economic leadership of some *rico* families thus eroded as a result of changing conditions arising from extra-territorial developments to which they did not or could not adapt.

The Partido System, Revisited

As the merchants acquired sheep, they adopted a variation of the traditional *partido* system to manage their flocks, which involved a somewhat expanded range of considerations and the exchange of both sheep and cash or credit. Although the *partido*

contracts varied in detail, in a typical agreement, the merchant furnished the supplies and advanced the territorial ad valorem taxes, ram usage fees, shearing costs, and transport fees to the nearest rail junction. The supply outlays and half the other outlays were to be repaid by the *partidario* out of his fraction of the wool and wether income. The rent for the herd was still paid in the form of sheep and/or wool. Accounts were settled each summer or fall when the sheep and wool were sold. In a typical arrangement, the owner might receive two lbs./head of the wool shorn annually from his herd and a credit for half the increase of the wethers. At the end of the contract period (possibly five years), he then received, if all went well, a replacement for his original flock together with his portion of the flock increase, possibly an annual increase in sheep count of 25-33%, as in the *partido* agreements of the past. Ilfeld initiated such a practice in 1883 at a time when his collection problems became severe and he was presumably accepting more sheep as payments for merchandise. He advanced his *partidarios* cash or credit at his stores for the necessary supplies. Under this modified system, if the *partidario* came up short at the end of the contract period, he might have to make up the difference using his own sheep as currency or simply emerge from the contract owing his merchant-*patron* a specified amount of cash to be paid off at some future time. The revised *partido* system was thus a cash-barter hybrid that reflected the increasing role of capital in the industry. Sheep themselves could no longer be used as the sole means of exchange.[52] *Partido* contracts secured for the merchant the herder's patronage for food and other supplies and left the merchant in control of the sale of the sheep and wool. As a reflection of the growth of the sheep industry in the late nineteenth century, by 1890 Ilfeld had 17,000 head under *partido* contracts, which grew to 33,000 by 1897. His maximum holdings reached

86,000 in 1905, which were managed by 44 *partidarios*. With his flocks producing an average annual lamb yield of 65-85% of his ewe holdings and with lambs valued at $0.90-1.00/head, a *partidario* could now earn from a flock containing 500 ewes a profit of $150-200 annually ($4,000-5,000 in 2010 dollars), as his expenses were quite small. Ilfeld hired his herders in Las Vegas and received more requests for *partido* contracts than he could fill. He generally turned down requests from Anglo applicants, preferring to deal with local Hispanics who were his customers and may have owed him money.[53]

The *partidarios* were often required to secure the necessary grazing lands themselves, minimizing the range requirements, and hence the expenses, for the merchant. Ilfeld generally did not acquire large grazing tracts, but chose his *partidarios* from among, small-scale, Hispanic ranchers who owned or had access to some useful land that could be readily augmented by the surrounding public domain, cf. chap. 8 concerning public domain usage by ranchers.[54] Other merchant-*patrones*, including the Bond Brothers, assisted their *partidarios* by leasing private or government lands.[55] Eventually however, Ilfeld controlled through ownership or lease the 63,000 acre Pintada Ranch, which his company began working in 1899, using it initially as a holding area for sheep acquired as payment on debts. At this time, he was holding 33,000 sheep on the ranch, but the number soon rose to 57,000 as a result of speculative purchases on the part of Nordhaus.

The *partido* system as it was adopted by the merchants provided new advantages. It gave them an outlet for excess livestock so that, like wool, herds might be held during periods of weak prices until the markets rebounded. The system enabled Ilfeld to retain many of his old customers through hard times by granting them *partido* contracts. Between 1894 and 1904, Ilfeld's annual return on his personal sheep business varied

from 5-16%, which was reduced to 3-11% after taking into account the interest expenses he incurred on money he borrowed to sustain the operations. His *partido* operations were thus only moderately profitable. But, he still went to the extreme of borrowing funds to purchase sheep for *partido* contracts with his favored customers as a means of preserving their earnings during tough times so that they might continue to patronize his stores. It served to shield his business from losses which might have otherwise occurred if his customers had suffered severe financial reverses. The system was also a vehicle for retaining old customers and obtaining new customers outside the Las Vegas area; it was a comparatively safe means of providing them badly needed credit.[56]

The system also had its drawbacks. It was believed that it discouraged selective breeding, as in the past, because neither the owners nor the renters cared to bear the expense, cf. chap. 4. The merchants were, in any case, never in the breeding business, sheep ownership being only incidental to their operations. And the *partidarios* would have had little to gain by upgrading an owner's flock.[57] Moreover, since the merchants off-loaded a heavy burden of risk onto their *partidarios*, those herders would have been disinclined to assume the added risk of breeding.

The *partido* system had always been open to abuse, and that shortcoming persisted through the end of the nineteenth century. In 1898 Sheepman Nestor Armijo notified his dealer, Gross, Blackwell & Co. that he would not be shipping in any wool since lambs were now more profitable than wool. He had persuaded his *partidarios* to keep all the wool for themselves and instead give him all the lambs for the rent, apparently contrary to the original agreement.[58] Abuses of the system did not always originate with the *patron*. Max Nordhaus sometimes had problems with *partidarios* drinking, a problem

that would not have existed in earlier years when the herders lived in greater isolation.[59] Theft by *partidarios* was an occasional problem. Sometime around 1898, Charles Ilfeld became aware that some brothers under a *partido* contract had been selling off small quantities of his sheep from time to time. The company decided, after unsuccessful efforts to stop this practice, to take back the sheep. A letter written by Nordhaus describes the situation:

> All the sheep these boys have are our sheep and they have absolutely no right to dispose of a single sheep. We have previously been informed that they have sold small numbers ranging from 10 to 25 and although we have raked them about this—time and again—we did not care to take the sheep from them, since we know [now] that they are trying to dispose of them in such a wholesale way we surely have to take decided steps against them. We have today written Wm. Hunter to *at once* take possession of our sheep.[60]

On another occasion, a *partidario* actually sold 900 Ilfeld sheep.[61]

Sometimes merchant-*partidario* relations assumed a "wild west" character. In 1892, Wagon Mound merchant John Justus Schmidt got wind that one of his *partidarios*, J.D. Gallegos, was intent on quietly relocating to Raton, taking the rented sheep in his possession with him. To prevent the theft of his sheep, Schmidt obtained a restraining order from the court in Las Vegas, apparently frustrating Gallegos. Sometime later when Schmidt and his family left town by buggy to attend to some business, Gallegos followed them, and an altercation ensued. The herdsman caught up with the buggy, threatened Schmidt with a rifle, and then shot him after he jumped clear of the buggy. Mortally wounded, Schmidt was able to shoot Gallegos with a derringer before he died.[62]

Needless to say, not all *partido* contracts were successfully concluded. As in the Spanish and Mexican periods, an assessment of just how many went unfulfilled is difficult to make. The Ilfeld Company records provide some hint, however. By the late nineteenth century, some 35% of Ilfeld's herders had fallen progressively deeper in debt to the company, which carried over their accounts from year to year. This suggests that a significant fraction of his *partido* contracts went unfulfilled. Ilfeld eventually did what any modern businessman would do and wrote many of these debts off his books as uncollectible.[63] The Bonds may have been more successful than Ilfeld in collecting debts, cf. chap. 7. This collection data suggests, furthermore, that a significant fraction of the *partido* contracts of earlier years were broken, with, of course, devastating consequences for the *partidario*.

By the early twentieth century, substantial tracts of the public domain had been taken up by homesteaders and ranchers, cf. chap. 10. The *partidarios*, who continued to depend on the availability of open rangeland, were squeezed and began to have a critically difficult time. The *partido* system gradually fell into disuse as the lands needed to sustain it became unavailable.[64]

Merchants and Cattle

A word about the marketing of cattle, territorial New Mexico's other important livestock industry in the post-Civil War years, is in order here. As previously mentioned, the first commercial markets for New Mexico cattle were at various U.S. Army forts starting on the eve of the Civil War.[65] New Mexico merchants, however, rarely dealt in cattle on a large scale. By the 1870s, cattlemen were employing a network of trails for the romanticized cattle drives to the Great Plains rail junctions, where they sold their

herds directly to dealers. After adequate rail service was in place, New Mexico cattlemen shipped their livestock out of the territory by rail to Chicago and other markets where they sold their own stock, although they often found the experience frustrating. Ilfeld chose not to deal extensively in cattle because of the long time delay in completing sales during which cattle prices could fluctuate even more wildly than sheep prices. The business was too risky for his tastes. All too often, merchants found midwestern slaughter-house prices depressed to unprofitable levels by the time they were able to actually deliver a previously purchased herd. Like Ilfeld, many other New Mexico merchants, chose to avoid this sceneario, by limiting their cattle dealings.[66]

Increasing Anglo Dominance

Mercantile Capitalism in New Mexico was always dominated by Anglos, men who had immigrated into the territory from elsewhere. They had opened the Santa Fe trade shortly after Mexican independence and achieved a degree of commercial success almost immediately. Hispanics established a major position in the trade by about 1845, but their success was short lived. The Civil War brought about considerable economic upheaval in the West, and many Hispanic merchants sustained large losses as evolving conditions upset their modus operandi and decreased their profits. Only the most successful Hispanic mercantile families maintained their wealth in the post-war years.[67] Their numbers were limited. The overriding barrier Hispanics faced was ultimately inadequate capital. By the 1860s, the nature of the Santa Fe trade had evolved considerably away from the commerce of "small traders" described by Josiah Gregg. New Mexico prices along with profit margins had decreased while the volume of trade had expanded greatly.

Also, Indian depredations, a business expense to be reckoned with, increased for at least a decade. The evolving conditions demanded of merchants larger shipments and correspondingly increased capital investment for their operations to remain profitable.[68] Trade opportunities, once possible through individual initiative, physical endurance, and a bit of luck alone dissipated. Most mid-level Hispanic merchants lacked the financial resources to stay in business. The Hispanic mercantile community contracted. Many small- and intermediate-scale operations had gone out of business by 1880, while the very wealthiest families, their capital hard at work, became even richer.[69] Only they made the transition from trail trader to sedentary merchant. To their credit, the most successful Hispanics learned the American modus operandi and, like Felipe Chaves, operated in a manner indistinguishable from their Anglo counterparts.[70] For their part, the small, but significant, number of Anglos who ended up in New Mexico and became successful merchants generally possessed adequate capital resources. They continued to prosper to varying extents. Small-scale Hispanic sheep growers became of necessity increasingly reliant, and ultimately dependent, on Anglo merchants to provide cash advances and to market their produce.

Sheep Feeding

In the mid-1860s, a new practice that would have major repercussions within the New Mexico sheep industry first appeared. A few ranchers began growing crops to feed their livestock. Later, New Mexico ranchers discovered it to their advantage to ship their sheep out of the territory to be fattened on feeder farms prior to sale. The practice was accelerated by a recovery in the late 1880s of the mutton market, which had been in

decline since the Civil War. Seeking a supply of winter mutton to feed America's growing urban populations, Chicago and Kansas City meat packing families initiated farm feeding of western sheep as a commercial enterprise, but it was soon taken over by private feeder-farmers specializing in the activity.[71] Feeding was a capital-intensive business which flourished after about 1890. It played a role in the growth of Anglo control of the sheep industry in New Mexico.

An early Colorado feeding operation was reported by Civil War Gen. William T. Sherman. On an inspection trip through Huerfano County in 1866, he visited a feeder farm with thousands of acres under cultivation, which served to feed 3,000 head of cattle, 5,000-6,000 sheep, and numerous horses.[72] Another Colorado operation dating from the same period, the Doyle Estate, cultivated over 1400 acres, mostly of corn, and ran 5,000 sheep and 600 cattle.[73] Over the following decades, an industry of commercial proportions that specialized in feeding lambs and young sheep until they were ready for market spread over the Rocky Mountains and Great Plains.[74] The feeder farms were located optimally near rail lines and relatively close to the large midwestern packing houses where they sold the fattened sheep.

Before the advent of feeding, western sheep were generally grazed throughout their production cycle on the open range, but still in a relatively circumscribed area. The land and the fodder it provided were free and, in a good year, supplied the livestock all their required sustenance. Grass was still abundant in many parts of the West; the sheep were dispersed, adequately-fed, and healthy, and losses were usually light. Such operations were, however, not very efficient, cf. chap. 9. As competition grew and market requirements became more exacting, traditional practices became less profitable. More

proactive attention to growing conditions was needed, even demanded. When the periodic summer droughts and overly harsh winters arrived, sheep became thin and weak, not suitable for market even when they survived the winter, an increasingly unsustainable situation for growers. Under these circumstances, assisted feeding was beneficial, particularly during the first three months of the year.[75] Feeding was found to produce heavier animals, which were better able to withstand the winters and brought higher market prices. Furthermore, fed sheep matured faster and could be sent to market sooner, reducing production costs. In the mid-1880s, western growers, including those of New Mexico, started shipping sheep in large numbers to feeder farms to be fattened at locations better suited for this activity. With the advent of rail transport, it became practical to ship lambs, not just mature sheep, to feeder farms, providing western growers with a new outlet for their produce. Lambs in the care of their mothers had always proven difficult to trail drive and were thus not readily marketable prior to this. The feeding process typically added the final 15-25 lbs. to a 55 lb. lamb, and the quality of the resulting meat was more desirable according to the market standards of the time.[76] Breeders found the new practice more profitable than raising livestock to full maturity on the open range, even after their profits were shared with the feeder farmers. Just prior to the Panic of 1893, the New Mexico sheep industry was flourishing, in part due to the extra-territorial demand for its feeder stock.[77]

Alfalfa and grains were the most common feed grown for sheep. The emergence of the Colorado sugar beet industry in the late 1890s on irrigated lands had an important effect on the feeding industry in that area. It was discovered that beet tops and the residue

beet pulp, a byproduct of the sugar-refining process, made good feed for both cattle and lambs.[78]

Farm feeding, as it was practiced in the West, owed its success to the fact that the southern ranges were best utilized for breeding livestock, while the northern plains and valleys were best for fattening. The grasses in the southern regions, which included New Mexico, had sufficient nutritive value for building bone and muscle, but lacked the sugar and starch needed to build up the level of fat then desired. The fields further north produced better grass for fattening. But the northern areas have colder winters that can extend well into spring and are subject to sudden, extreme climate changes, rendering them unsuitable for breeding livestock.[79] Cold, windy spring weather, during the first month after birth, could cause significant losses of the newborn.[80] Having comparatively stable weather patterns and mild springs with the ample green grass needed by the ewes, New Mexico had always been a good breeding area.[81] Late in the year, when the weather on the ranges became colder, was the best time to ship sheep to the feed-growing areas to be fattened. This proved to be more profitable than transporting feed from the farms to the sheep ranches, although that was tried.[82] New Mexico ranchers thus came to specialize increasingly in breeding. The Santa Fe *New Mexican*, ever optimistic, predicted that New Mexico would become "the great breeding ground of the Southwest where young and healthy sheep and cattle can be produced so cheap that northern dealers can better afford to come here and buy than attempt to compete with this territory by breeding in colder districts."[83] The New Mexico-Colorado border was described in one government publication as the boundary between the breeding and fattening regions.[84] Specialization made possible optimum use of the available lands.

New Mexico sheepmen sent their flocks to several different feeding areas, particularly Colorado, Nebraska, and Kansas, where the needed crops were readily grown. Feedlots proved to be quite profitable for the farmers involved. By the late 1880s, the lamb feeding industry of the Fort Collins area was described as "the most profitable industry the farmers of this county ever engaged in."[85] By the early 1890s, typically about 25% of the New Mexico sheep inventory was sold every year and shipped by rail or trail driven to feeder farms or ranches in the "North and East."[86] A measure of the growing importance of feeding is the introduction by the Las Vegas *Stock Grower* on January 1, 1887, of a new department entitled "Feed Farming," devoted exclusively to news about livestock feeding.[87] The practice of feeding grew steadily through the 1920s.

A thriving feeding industry developed in Colorado at a relatively early date following the introduction of alfalfa into the territory from New Mexico in 1863. Appendix E provides some general information about alfalfa. Commercial-scale operations were in place by the mid-1880s, when crop surpluses along the Platt and Arkansas Rivers proved useful for feeding livestock. Sheep, many from New Mexico, but also from Wyoming, Idaho, California, and Colorado itself, and smaller numbers of cattle, were brought into these irrigated areas to feed on the alfalfa and corn.[88] Typically, lambs were purchased in New Mexico, shipped by rail to Colorado where they were fattened in feeding pens for four-to-six months, and then forwarded for sale in the Kansas City and St. Louis markets.

Colorado sheep feeding received a boost in 1889 when a rail shipment of 2,400 "Mexican" lambs belonging to New Mexico growers E.J. and I.W Bennett became stalled in Walsenburg by a blizzard. When the weather finally cleared, the lambs were in such poor condition that the brothers decided to ship them to Fort Collins where they could

recoup on cheaply available alfalfa. Finally shipped to market in Chicago, they brought an excellent profit.[89] The brothers then expanded this modus operandi, feeding 3500 "Mexican" sheep the following season. Word of their success got around, and Fort Collins developed into another important feeding center. Lambs surpassed wool as the Colorado sheepman's main source of income.[90]

Following the Panic of 1893, which devastated the Colorado feeding industry, H.C. Abbott trailed 10,000 sheep partly from Folsom, New Mexico, into Las Animas, Colorado, on the Arkansas River, giving rise to a spring lamb industry in that area. In 1895, Abbott relocated to Springer, New Mexico, and went into partnership with S. Florsheim, from where the two men drove many flocks into the Arkansas Valley over the years.[91] The first lambs for rebuilding the Fort Collins feeding industry after the panic were shipped from New Mexico in 1896 The Sargent family of Grant County, Wisconsin was quite active in the San Luis Valley, where the Colorado sheep industry had started. One of the sons, Ed Sargent, entered a business arrangement with Frank Bond and eventually had sheep on feed all over Colorado and Northern New Mexico, cf. chap. 7.[92] Besides individual sheepmen, New Mexico mercantile companies became involved in Colorado feeding. Both Gross, Kelly and the Moulton-Ilfeld Company were active in the Arkansas Valley. The Colorado feeding industry grew steadily for the remainder of the nineteenth century.[93]

Feeding started in the Platt River Valley of central Nebraska in the late 1870s with a New Mexico flock. In the mid-1880s, most of the state's farmers replaced their range stock with pen-fed farm flocks. The Nebraska feeding industry subsequently spread, taking up fertile, unused farm land in several areas. Feeding in the North Platte area of

Western Nebraska began in the late 1880s when irrigation ditches were built. By this time, Nebraska led the nation in the number of range-bred sheep it fed, reportedly more than "all the balance of the United States."[94] The larger Nebraska feeders typically held 10,000-26,000 head.[95] The stock was usually shipped by rail, although as late as the 1890s, occasional flocks were still being trail-driven to the state. The Las Vegas *Stock Grower and Farmer* reported that over 12,000 head of New Mexico sheep had been shipped to a single Nebraska feeding outfit in the first seven months of 1897. More than one million sheep were readied for market by Nebraska feeders in the same timeframe.[96] Frank Bond acquired a 270-acre feeder ranch in Wood River, Nebraska in 1909 where he fed 20,000-25,000 head. He also had dealings with other feeders in Wood River, where several other New Mexico sheepmen also had feeding arrangements. A few years later, he leased additional land in Lexington, Nebraska for feeding purposes. He marketed his Nebraska-fed sheep in Omaha, cf. chap. 7.[97]

Kansas, where flocks were first developed in the late 1870s, became another leading feeder state. Beginning in the late 1880s, some farmers, following practices adopted a few years earlier in Nebraska, shifted their emphasis to feeding farm-raised sheep. The feeding industry grew steadily, as reflected by the sixteen-fold increase of the Kansas alfalfa crop between 1891 and 1904 to meet the needs of the industry.[98] The fattened sheep were sent to market from January through May, when range-raised mutton was not readily available.

The feeder industry was driven by the feeders themselves who found the specialization profitable and aggressively sought stock for their operations. By the late-1880s, farmers in all the feeder states, even Iowa and Minnesota, were sending buyers to

New Mexico, seeking not just feeder stock but also breeding ewes.[99] Fort Collins feeder and U.S. Senator William A. Drake began his highly successful operation in 1892 with 15,000 sheep purchased in Albuquerque, illustrative of the large capital requirements required in this new endeavor. By the early 1900s, Fort Collins feeders were traveling to Espanola in August to purchase lambs from the Bond Brothers and continuing on to Wagon Mound and Las Vegas to further fill out their needs.[100] Interestingly, the "Mexican" lambs, preferably 6-8 months old, still widely grown in New Mexico, were described as the most sought after by Colorado feeders. *Churros* were found to respond well to feeding, and their superior meat was desired by consumers. As mutton once again became more important than wool, their light fleeces were not an issue.[101] The men who took up farm feeding had largely been part of the wave of western migration following the Civil War when thousands of displaced veterans, from both the North and South, moved west to Missouri, Kansas, Nebraska, and Colorado, attracted by the cheap land on which they took up farming and stock growing. They discovered, perhaps to their surprise, that their newly acquired lands were capable of growing copious forage crops and were profitably devoted to feeding livestock.[102] The western sheep industry had by the late 1880s served the United States quite well. The increased supply it provided of mutton and wool "greatly decreased" the cost of those commodities to America's consumers.[103]

Several additional factors contributed to the rise of the feeding industry. Land had always been critically important for sheep raising; a great deal of land was required for open-range grazing. The growing scarcity of rangeland, and the grass it supported, as more and more stockmen placed more and more sheep and cattle on the ranges to share in

nature's diminishing bounty, was detrimental for all ranchers and an important factor in the adoption of feeding. Furthermore, widespread deterioration from over-stocking had generally reduced the stock-carrying capacity of the existing rangeland. In New Mexico, land scarcity became even more critical starting around 1880 as homesteaders immigrating to the territory in substantial numbers started taking up the best unclaimed tracts, cf. chap. 10.[104] According to Carlson, the growing land scarcity forced *ricos* who had expanded their sheep operations onto the public domain back onto their grants, thus limiting their herd sizes.[105] As discussed in chap. 10, the federal government exacerbated the situation with a misguided land policy that channeled good western rangeland into what proved to be marginal dry-land farms. This resulted in further widespread over-stocking of sheep and cattle onto the remaining, mostly inferior rangelands.[106] Naturally growing forage became altogether too scarce, and sheep growers had little choice but to become more proactive in feeding their flocks.[107] By shipping their stock out to feeders before they were fully grown, New Mexico ranchers addressed this need while also reducing their land requirements.

On another front, the development of large-scale irrigation projects in the same late-nineteenth-early-twentieth century timeframe opened up new agricultural areas, notably along the Platte and Arkansas Rivers. Many feeder farms were established in these areas, as noted above. Irrigation projects came late to New Mexico, but when they did, feeding took hold.[108] By the late 1880s, alfalfa crops were being grown for feeding purposes in the Las Cruces area.[109] And by 1910, about 300,000 sheep were on feed in New Mexico.[110] But feeding did not develop to a great extent in New Mexico; the territory's sheepmen generally favored specialized feeding areas elsewhere.

Winter feeding provided, for the first time, western sheep for consumption during the first three months of the year, important for the growing urban populations. Traditional open-range grazing could not support a winter market; the large land grants and public grazing tracts of New Mexico were of no use for this purpose. Range sheep always lost weight during the winter and were not profitably marketed at that time. Under the new system, feeder farms could provide fat sheep year around.

The development of sheep feeding in the West was part of a larger overall process occurring in America at the time. The nation's agriculture was taking on new levels of sophistication and efficiency. Each section of the country was beginning to recognize what it could do best and to specialize accordingly. By 1900, specialized farming particularly suited to the soil, climate, and geographical location was taking hold nationwide.[111] An early manifestation of that process was the emergence of a Rocky Mountain-Great Plains feeding industry that was dedicated to fattening sheep while New Mexico became increasingly focused on breeding. So successful was the new system, that by the early twentieth century, most western sheep were being fattened in what one writer designated the "grainger states."[112]

The financial arrangements associated with feeding were varied. Sometimes breeders sold their sheep to feeders through buyers operating in New Mexico. Looking to greater potential profits, but at a higher risk, some breeders contracted with feeder farmers outside the territory to prepare their stock for market. Others consigned their animals to feeders to be sold on commission when they were ready for market. For the numerous small-scale growers in New Mexico, feeding transactions were often carried out through a local merchant. Charles Ilfeld began contracting sheep he amassed from small-scale

growers with feeders starting around 1890.[113] Buyers often had to provide advances to New Mexico sheepmen to help them cover their running expenses until their sheep were actually delivered. The buyers thus required substantial capital backing, while some small-scale growers fell into debt. In a few cases New Mexicans themselves owned and operated feeder farms. As noted above, Frank Bond was heavily invested in Colorado and Nebraska feeding operations. Feeder farms were capital-intensive and required substantial up-front outlays. Beyond the acquisition of large numbers of young sheep, a farmer required irrigated land and actively growing feed crops. Many of the farmers were heavily dependent on loans from local banks, particularly during their first years in business. P.G. Scott, president of the Bent County Bank and a feeder himself financed feeding operations for a hundred miles in each direction along the Arkansas Valley.[114] Frank Bond financed his feeding operations in the winter of 1914 with a $65,000 loan at 9% ($1,500,000 in 2010 dollars) from the Denver livestock commission firm of Clay, Robinson, and Company, a measure of the financial commitment needed.[115] During 1911, his most active year up to that time, Bond and his feeding associates had a total investment of $283,000 ($6,700,000 in 2010 dollars).[116] The feeding business did not lend itself to small-scale, family operations.

The western feeder industry was well established by 1900, the feeding season generally running from November 1 to May 15. Sheep feeding was not only an important innovation, but it hastened changes already underway in New Mexico. New Mexico growers became linked to another class of sheepmen spread out over an extensive geographical area. Important commercial relationships entailing contractual agreements and large transfers of capital developed between New Mexico breeders and the northern

and midwestern feeders, linking the territory more strongly to the regional and, ultimately, the national economy. And those feeder farmers outside of New Mexico and Southern Colorado were largely, perhaps entirely, Anglo, having come originally from outside the Southwest.[117] These Anglo sheepmen often operated across state and territory lines, extending their influence into New Mexico, though they were usually not residents. The territory's sheep growers became one component of an industry of growing complexity that was predominantly Anglo. New Mexico Hispanics were thus left as a distinct ethnic minority within the industry as a whole. After the Civil War, they had become increasingly dependent on Anglo merchants with the financial resources and information networks needed to get their produce to the national markets, while at the same time finding themselves joined by a new generation of competitive, well-capitalized Anglo growers. With the advent of feeding, they lost control of one phase of mutton and lamb production to capital-intensive, Anglo-owned feeder farms outside the territory.

New Mexico sheepmen who did not embrace the changes did so to their own detriment. The added effort and initiative required for specialization within an increasingly competitive and exacting market was apparently too great an undertaking for some of the old, large-scale, sheep-growing families as well as smaller-scale marginal operators. Some *ricos*, appearing to have simply run out of steam, sold their grant lands to ambitious speculators and ranchers, both Anglo and Hispanic, and relocated to the towns.[118] Recalling his youth in Albuquerque around 1900, Harvey Fergusson, grandson of merchant Franz Huning, gave a rather harsh assessment of these relocated families: "I lived in Old Town among people who belonged to the past – surviving families of the old Mexican aristocracy who still cherished their pretensions and their hand-hammered

silver …"[119] Government investigators Carman et al. in their 1892 report expressed frustration with Hispanic growers who didn't seem interested in the new developments:

> To secure reliable data concerning the detail of the [New Mexico] sheep industry has been a task of more than ordinary difficulty, for the reason that so many of the flock masters actually engaged in this pastoral occupation care very little about literature of this or any other kind unless it is in the Spanish language, and even then it is doubtful whether they would take sufficient interest to cooperate with any representative of the bureau [Bureau of Animal Industry] unless he was conversant with the Spanish language. Owing to the general indifference, unwillingness, and too often inability of the Mexican flockmaster, the writer had to rely mainly on the American sheep-owners, together with a few of the public-spirited and educated Mexicans, for the information presented in this report.[120]

Although there may be prejudicial overtones in this comment, it is hard to believe it was totally without basis in fact. Better informed Hispanic ranchers adapted, breeding their stock for the constantly evolving wool, mutton, and lamb markets, conscientiously dipping to irradicate scab, operating on credit, and engaging in contractual arrangements alongside their new Anglo rivals. Roman A. Baca, Manuel Antonio Chaves and his son Amado Chaves, Felipe Chaves, Secundino Romero, and Solomon Luna, all comparatively well educated members of old sheep-growing families, remained prominent well into the territorial period. But their numbers were limited. Hispanic sheepmen, directly or indirectly locked into commercial relationships with well-situated

Anglo feeders, increasingly dependent on Anglo merchants, buyers, and bankers, generally buffeted by external forces over which they had no control, lost their leadership role in the industry. This development was largely the result of impersonal economic forces created by America's growing industrial economy, and not so much by avaricious Anglos actively forcing Hispanic growers to the sidelines, although this may well have occurred. It is hardly surprising that Anglos assumed the leadership of the New Mexico sheep industry.

Juan Gomez-Quinones has made an interesting point in this regard. In his view, Hispanics of the Southwest generally lost political representation in the late-nineteenth-early-twentieth century timeframe partially as a result of their diminished economic status. And it was the *rico* class, the "minuscule bourgeois or capitalist sector," that generally lost the most ground.[121] This included the large-scale Hispanic sheep growers and merchants of New Mexico. But he also attributes this development in part to the tendency of the *ricos* to assimilate socially and culturally into the Anglo upper and middle classes. Indeed, territorial New Mexico's first Hispanic governor Miguel A. Otero, Jr., the son of businessman, political leader, and sometime rancher Don Miguel A. Otero and his Anglo wife from South Carolina, himself, married an Anglo lady from Minnesota. His political associate J. Francisco Chaves had married an Anglo lady he met in California, where he gone to sell his family's sheep in the 1850s, cf. chap. 3. In the twentieth century, some of the more successful sons and daughters entered the middle class and resided in the towns.[122] Because sheep growing was traditionally a family operation carried on from generation to generation, social disruptions like assimilation adversely affected Hispanic representation in the industry.

To summarize the adoption of feeding, New Mexico's sheep industry underwent a major change with the recovery of the mutton and lamb market as America's urban population grew. Faced with increasing competition and more demanding markets, the territory's sheepmen, like those elsewhere in the West, adopted the practice of assisted winter feeding. To this end, they shipped their partially-grown stock to feeder farmers in the North and Midwest to be fattened for market on alfalfa, grains, and sugar beet products produced in irrigated fields.[123] The fattened sheep were then sold to the large packing plants in the Midwest and elsewhere. This proved to be a more efficient and more profitable way to raise sheep than open-range grazing which was, in any case, becoming unsustainable over the long term due to a growing land scarcity. New Mexico sheepmen came to specialize increasingly in breeding, for which the territory was naturally suited. With the development of a large, commercial feeder industry, which extended north into Colorado and east through Kansas, Nebraska, and beyond, New Mexico livestock merchants and growers, were integrated more thoroughly into an extended production network and, ultimately, the national economy. But, at the same time, they lost control of a substantial component of mutton and lamb production. The western sheep industry became increasingly dominated by Anglos, a process that had begun after the Civil War and then accelerated during the final two decades of the nineteenth century. By the turn of the twentieth century, the New Mexico sheep industry was controlled largely by Anglo merchants and sheepmen. The feeders assumed increased importance after the Panic of 1893 when their sheep purchases remained a source of hard currency in the territory as other sources dried up.

Mercantile capitalism played a multifaceted role in the New Mexico sheep industry. The well-documented business activities of Frank Bond and his brother G. (George) W. exemplify that role. The establishment, growth, and success of the various Bond enterprises are treated in the following chapter.

Chapter 7

Frank Bond and Innovative Organization

No mercantile company in New Mexico became more heavily invested in the sheep and wool business, more successful, and more influential than the organization of Frank Bond. Operating from his Espanola headquarters for forty-two years, and from Albuquerque thereafter, he built a frontier mercantile empire extending from the San Luis Valley of Colorado east into Nebraska and south through much of New Mexico. Although the Bond organization began as a general mercantile concern, and remained so, sheep and wool became major components of the business.[1] In Frank Bond's own words, "I am a stock-man. I gamble in wool, also speculate in land, lend a little money, make some money, and lose some."[2] His operation was innovative, complex by contemporary standards, capital-intensive, and extraordinarily profitable. In his corporate history, Frank Grubbs, succinctly and accurately described the Bond enterprises as "not only intricately interlocked corporate organizations but also numerous joint venture arrangements for buying and selling wool and sheep…"[3] The Bond organization was a transition institution between the comparatively simple, independent mercantile operations of the Santa Fe Trail era and the complex structures of twentieth-century corporate capitalism. It was well-adapted to the New Mexico economy of the late nineteenth and early twentieth centuries. Its operations mirrored the nation's sheep business which was becoming increasingly complex and capital-intensive during this period, developments driven, ultimately, by the demands of expanding national and

international markets into which New Mexico was drawn. These changes, as they played out in New Mexico, are elucidated by considering the Bond empire.

Frank Bond was born in 1863 and grew up on a farm in Argenteuil County, Quebec Province, Canada. His correspondence from his long business career indicates a stern but fair, highly-disciplined workaholic of a somewhat secretive bent. At age 19 or 20, (reports differ) he joined his older brother George, who was working at a general store in Chamita (San Juan Pueblo). Entering into partnership, the brothers soon bought out a small mercantile firm located in the recently established town of Espanola, population 150. The business, renamed G.W. Bond & Bro., was well situated as the town was becoming a rail terminal of importance since the arrival of the Denver & Rio Grande Western Railroad. It is believed that the brothers were initially financed by a loan from their father in Quebec, possibly of about $25,000, a considerable sum at the time.[4] The brothers were typical of many Anglo businessmen who came to New Mexico after the Civil War in that they had no long-standing antecedents, family or friends, in New Mexico, but through some unclear channels had learned about the economic opportunities in the territory. Smart, ambitious, and hard-working, they also possessed the sense of adventure, and the stomach for risk, to pursue the opportunities offered. Like many of their Anglo cohorts, the Bond brothers seem to have been well educated and possessed of a family background of affluence. They were fluent in French and Spanish as well as English. Frank was less than delighted by what he saw upon his arrival in New Mexico. Commenting years later on the stagecoach ride from Santa Fe to Espanola in 1883, he noted, “The country seemed to me a perfect desert, and the people we met, with their few burro loads of wood and sacks of grain in tanned buffalo sacks, seemed so poor that I was

by no means very favorably impressed with my new home."[5] If the Bond brothers were not atypical of a new class of New Mexico immigrants, their father also bore much in common with many absentee investors in the West. Western business organizations during this period, even those running large cattle ranches, were often basically closed circles of family and friends. The younger men served as on-site managers, while the older men, more often than not, remained in the East providing financing and attending to other necessary business matters.[6] The Bond brothers are not known to have had any prior involvement in merchandising or, for that matter, the sheep business.

The brothers' mercantile operation seems to have been generally successful from the start, growing quietly for its first decade. And like other New Mexico mercantile capitalists, the brothers found themselves, in time, dealing in wool and live sheep and in possession of herds of significant proportions. The earliest clear indication in company records of wool dealings was in1897, but Frank Bond recalled years later that the brothers were buying up, and marketing at a small profit, most of the wool grown in their part of the country during the Panic of 1893.[7] They purchased what they called "outside" wool from local growers. And they acquired wool in the form of rent from *partidarios* to whom they had contracted out their own flocks. The Bond sheep generally produced to the partners' credit two pounds of wool per head, indicating a degree of breeding for increased wool production. The brothers gained leverage in the trade by controlling access to the D&RGW rail service, over which they shipped both wool and sheep out of New Mexico to eastern markets. As early as 1890 they had acquired a tract of land in Walsenburg, Colorado, almost certainly used for grazing, the first hint that the company would expand far beyond the confines of Espanola.

The Bonds' first entry into the live sheep business, likewise, occurred no later than 1893. Like other New Mexico merchants, the Bonds accepted sheep from their customers in exchange for merchandise or to satisfy standing debts. And to care for that livestock, they employed a modified *partido* system, eventually enlisting Hispanic herders throughout New Mexico and the San Luis Valley of Colorado, cf. chap. 6. The earliest existing Bond *partido* contracts date from 1895. The brothers rented sheep out in the fall for periods ranging anywhere from one to five years, but most commonly for three years. The *partidario* assumed the entire risk in caring for his rented flock, including losses from bad weather, poor range conditions, and disease. Like Charles Ilfeld, Frank Bond assumed the role of *patron*, while his *partidarios*, accustomed to the situation, operated much as they always had in the past. And like the traditional Hispanic *patrones* of the past, the Bonds maintained control over their flocks through *partidarios* who were indebted to them financially. The Bond contracts were not uniform, but, being granted on an individual basis, were adapted to local conditions.[8] The brothers required their *partidarios'* wives to also sign the contracts.[9] Should the herder be unable to fulfill the terms of his contract, he would be left in debt to the Bonds at the end of the contract period. [He would not, of course, become a debt peon, as in earlier times.] The Bonds, like other New Mexico merchants, provided an interface between the traditional, small-scale Hispanic sheepman, who may have spoken no English and known little of life beyond New Mexico, and the often volatile, sheep and wool markets of the East.

The Money Flow

Significantly, when they commenced operations in Espanola, the brothers found it

absolutely necessary to extend credit to their customers; the bulk of their sales, in Espanola as well as at other branches they established later, were in fact made on credit. The Bonds also found it necessary to extend advances to their wool suppliers, usually in the late spring or early summer, against deliveries in the fall. Likewise, their *partidarios* needed credit, in addition to sheep, to get started. Their financial commitment became considerable as they engaged in a growing number of *partido* contracts. By the end of 1890, the partnership had extended $10,266 in credit while carrying a merchandise inventory of less than $14,000. This practice grew rapidly. By 1898, they had extended $55,000 or more in credit out to their customers.[10] In 1911 at the time of the partnership dissolution, Frank Bond was carrying $420,000 ($10,000,000 in 2010 dollars) in the form of notes and bills receivable. This amount was far beyond the lending ability of most western enterprises but, ultimately, enabled the Bonds to take on more business and continue to grow.[11]

Much like their mercantile cohorts, the Bonds employed three different basic modes of buying and selling wool. In the first case, they purchased wool outright with their own funds or in partnership with another investor. After collecting together a sizable shipment from their numerous small suppliers, they sold the entire lot to their Boston dealer, sharing any profits with their partner if there was one. In the second case, they would not sell but instead consign a particular lot of wool to the dealer, who then sold it on commission to the New England textile mills, the dealer operating solely as a commission merchant. For many years the Bonds sold or consigned their wool to the Boston commission house of Brown & Adams. In the third type of transaction, the Bonds would purchase wool in the West with partial or full financing from their Boston

wool house. The advantage of this was that the eastern dealer was able to borrow money in the East at a relatively modest rate and then turn around and loan it to Frank Bond at the higher rate of 6% interest. Bond would then turn the money around again, loaning it to his suppliers against future deliveries. If he borrowed from a western bank, which he often had to do, he was required to pay the higher prevailing rate, 8% or more, cf. chap.6.[12] When the Bonds engaged in such arrangements with their Boston commission house where they put up some of the money and the commission merchant put up the rest, the risk in this inherently risky business was shared.

The Bonds usually financed their wool purchases with advances from eastern wool dealers on clips not yet shorn, the third case above. They took out the advances on fall deliveries in the late spring or early summer, the loan collateral being the unshorn wool.[13] A standard condition on such transactions was that the western wool merchant would consign or sell his wool, when it became available, through the eastern dealer who provided the advance. Capital had become not just convenient, but essential for the functioning of the New Mexico wool industry. The Bonds employed a similar procedure to finance their feeding operations. At the beginning of the winter feeding season, they borrowed funds, typically from their livestock dealer Clay, Robinson & Co. of Denver, which they used to provide lambs and cash for purchasing feed to their feeder ranchers in Colorado and Nebraska. They compensated the feeder $50/month plus 15% of the profits when the sheep were sold.[14] The loan was essentially paid off in the form of fattened sheep delivered to the dealer at the end of the season.

During times of particularly uncertain markets, western buyers like the Bonds would be reluctant to sink their own funds into advance wool purchases, not knowing whether

they would experience a profit or loss on the sale at the end of the growing season. Under such trying circumstances, the eastern dealers might, out of necessity, simply provide all of the necessary funds and engage their western suppliers, like the Bonds, simply as on-site wool buyers. Another practice, undertaken in uncertain times, was for the eastern wool dealer to guarantee a minimum price to the western merchant, shielding him against loss. In both these scenarios, the eastern dealer assumed a higher degree of risk than normal practice against the possibility of realizing higher profits at the westerners' expense. In February, 1915, Frank Bond made such an agreement of guaranteed price with Brown & Adams, something he rarely did. They guaranteed him his costs plus the first cent/lb. of any profit on the wool, while reserving for themselves the next half cent of profit. Additional profits if any would go to Bond, although the tone of the letter suggests this was unlikely.[15] Thus, in this instance, Bond relinquished potential profits in return for a guaranteed price support, which would protect him from losses. It was a crude form of insurance policy. The New Mexico merchants thus had procedures for hedging their investments in uncertain times, rendering a risky business a bit less risky. Sheep growers had few such options to protect themselves in a bad year, cf. chap. 9 on Montague Stevens. Needless to say, these arrangements involved a close relationship between the New Mexico merchant and the commission house two-thousand miles away. Good communications and financial know-how were essential for consumating such deals. These new complications are one of the reasons why marketing sheep and wool became the purview of a specialist, the merchant. The grower, unless he operated on a fairly large scale, could not continue to be his own dealer. Whether he fully realized it or not, the New Mexico wool grower was absorbed into a nationwide

financial network, on which he had become fully dependent by the late nineteenth century.

During the Panic of 1893, the Bonds were forced to accept ewes as payment on debts, for which they gave a credit of $1.00/head, despite the depressed going price of only 50 cents/head.[16] During another run of tough times in 1901, the brothers experienced a loss of $1868 in a wool transaction with Brown & Adams, having paid by pre-agreement with their New Mexico growers more than the wool was actually selling for on the eastern market by the time it was shipped.[17] In 1903, the situation was even worse. Brown & Adams sold 557,646 lbs. of wool for the Bonds and their partner in the deal, Fred Warshauer, for a loss of nearly $10,000 ($260,000 in 2010 dollars).[18] The Bonds, being well-capitalized, were able to sustain an occasional annual loss, such as this, in one component of their business. Their wool profits in 1904 and 1905 more than offset the losses of 1901 and 1903.[19] This is discussed further below. At the opposite extreme, their suppliers, small, independent, undercapitalized, mostly Hispanic, were liable to be thrown out of business by one particularly bad year. Like Charles Ilfeld, the Bond brothers chose, when necessary, to forgo immediate profits and take losses in the interest of keeping their suppliers solvent, loyal, and a source of future profits both as wool and livestock producers and as customers at their general stores. This was an act of survival more than altruism. Despite such losses, the Bonds' overall business, including general merchandise, live sheep sales, and *partido* contracts, was always profitable, although the profits varied widely from year to year.[20]

Expansions

The Bonds expanded steadily over the years, establishing several branch operations. In 1892, after eight years in business, they bought out an existing mercantile store in Wagon Mound after the owner, John Justus Schmidt, was killed by a disgruntled *partidario*, cf. chap. 6. George relocated to Wagon Mound and managed this operation for over a decade until 1904, while Frank remained in charge at Espanola. The brothers capitalized the Wagon Mound branch at just under $40,000, drawing largely upon accumulated profits from the Espanola store, but with an additional $8,000 loan from their father at the modest annual interest of 4%.[21] Like the Espanola headquarters, the new Wagon Mound branch at first dealt principally in general merchandise; but within about two years, it was holding $3,300 worth of sheep in Fort Collins, Colorado feed lots. Its sheep holdings increased more than ten fold in value over the next few years to $46,000 in 1898. By 1900, Wagon Mound had 30,000 sheep out on *partido* contracts.[22] In its first year of operation, the branch realized a 20% return on the Bond's initial capital investment.[23] And during its first decade of operations, 1893-1903, the branch usually produced an annual return in the range of 18-40%. This is a huge sustained return by twenty-first century business standards and indicates what was possible for a conservatively-run, well-capitalized operation in New Mexico at the time.[24] After 1914, the bulk of the profits were coming from sheep and wool, as was also the case for the other Bond branches.[25] The territory truly could be a land of opportunity. In later years, the brothers transferred additional capital infusions from Espanola to Wagon Mound to further expand the operation. The free flow of capital between their branches, these two branches and others they established later, greatly facilitated the company's operations

and expansions. During their partnership, the brothers occasionally took out short-term bank loans when an immediate need for cash arose. They borrowed from private investor Abraham Staab and the First National Bank of Santa Fe, with which they had a close, long-term relationship.[26] This was a practice they tried to minimize because of the high interest rates for such loans. However, their expansions were, like the Wagon Mound acquisition, always financed with accumulated past profits, never by bank loans or through public offerings of stock like a modern corporation. Only when industrial capitalism finally diffused into the southwest would New Mexico businesses employ these means of finance.

Up until this point, G.W. Bond & Bro. had remained a simple partnership between the two brothers. The expansion demanded that an additional manager be hired. To help run the Wagon Mound branch, the Bonds brought in an old family friend from Quebec, Archibald (Archie) MacArthur, employing a strategy then typical of western businesses. In a similar scenario, Charles Ilfeld had brought several of his brothers to New Mexico, who later established an independent mercantile operation in Albuquerque. The Spiegelbergs did likewise. And, as previously noted, Ilfeld also brought his brother-in-law, Max Nordhaus, over from Germany, eventually placing him in charge of his Las Vegas headquarters.[27] In a more atypical move, the Bonds also employed in a managerial capacity a family outsider, former Schmidt employee and Wagon Mound native, Manuel Paltenghe.[28]

Upon the arrival of railroads on the eastern plains, the Bonds established a branch operation in Cuervo, fifteen miles east of Santa Rosa, on the newly built Rock Island rail line. [The Chicago, Rock Island, and Pacific Railroad] They employed another outsider,

Andy Wiest, to manage that operation.[29] They had serious competition here. The Charles Ilfeld Company established a similar branch in 1904 in Santa Rosa, cf. chap. 6. The Bonds initially financed the Cuervo operation with $10,000 accumulated profits from the Wagon Mound store.[30] In Taos the same year, the Bonds acquired the long-established mercantile establishment of Alexander Gusdorf in partnership with Gusdorf's younger brother Gerson and Justin H. McCarthy, the latter two men providing the on-site management and investing some of their own funds. Thus was born the Bond, Gusdorf, and McCarthy Company, initially capitalized at $30,000, predominantly with Bond funds. The partners made an agreement never to sell their interest to an outsider without first offering it to the other associates on the same terms.[31] And in fact, Gusdorf sold out his share to the other stock holders in 1907. This acquisition was notable for the mixed ethnicity of the owners, Canadian, Jewish, and Anglo-American, which was not atypical of New Mexico mercantile enterprises of this era. The extraordinary challenges and rewards of frontier enterprises often drew together talented men of diverse backgrounds in pursuit of common opportunities. The Bonds' Antonito partner, Fred Warshauer, discussed below, was also Jewish.

Not all the expansion was in the form of branch stores. In 1907 Frank Bond built, at a cost of about $1,000, a sheep loading complex with pens, scales, and a camp house in Servilleta, thirty-eight miles north of Espanola on the D&RGW line. Sheep were thereafter driven from the various grazing locations in the region to this loading site, for rail shipment out of New Mexico. The scales, a new expense, became necessary when sheep began to be sold by weight rather than by the head, around the turn of the twentieth

century, so the animals had to be weighed prior to loading.[32] In another significant capital outlay, Bond built a sheep-dipping plant in Espanola for about $3,500 in 1911.[33]

The Bonds had cautiously departed from the family business modus operandi when they hired able outsiders for important positions. In 1904, the Bonds took another major step and incorporated the Wagon Mound operation with themselves, MacArthur, and Paltenghe as shareholders, establishing a procedure that they would employ repeatedly in the future as they opened new branches. The new corporation was called the A. MacArthur Company, as MacArthur now became the on-site general manager, while George Bond departed for Trinidad, Colorado. MacArthur and Paltenghe were actually the largest shareholders, at least on paper.[34] The Bonds incorporated the Cuervo branch the same year as Bond & Wiest with Andy Wiest as stockholder-general manager.

The specific procedure employed by the Bonds to bring in their key managers as stockholders was innovative. They would first issue the man a block of stock. Since these employees generally had no funds of their own to pay for the stock, they were allowed to give the Bonds a note, i.e. an I.O.U., for the amount needed.[35] Then, instead of turning over the stock certificates to the employee, the Bonds retained the certificates as collateral for that note. In this way, an employee with no funds of his own became a part owner of the store he managed and would share in future profits. Over a period of years he would be able to pay off his note to the Bonds using the profits resulting from his own managerial efforts. The arrangement provided a powerful motivation for the employee to perform his duties well. In the meantime he was paid a salary, typically $75-100/month ($2,000-2,700 in 2010 dollars). for a general manager, which was quite substantial for the times. Thus, no cash or even stock certificates initially changed hands.

The Bond brothers, holding all the certificates, thus maintained ultimate control over the new corporation and their managers. Frank Bond strengthened his leadership position further by making personal loans to his various store managers, who would then be doubly indebted to him. He directed branch operations from his Espanola office, while his employee-stockholders oversaw the day-to-day operations. As the Bonds employed this procedure to finance and consolidate control over a succession of branches, each new enterprise constituted an individual corporation, with the stock owned by the brothers, their key managers, and a mix of pre-existing Bond corporations. The actual cash used to capitalize each new initiative came from the accumulated profits of previously established branch corporations, over which the brothers retained tight control. Just as the Wagon Mound branch was initially financed by the Espanola operation, it in turn financed other Bond start-ups in later years.[36] This arrangement made possible considerable operating flexibility since the Bonds were not beholden to any outside investors and could effortlessly transfer cash as needed from one such corporation to another. Wagon Mound was only one of a series of successful partnerships Frank Bond formed with talented, proven family outsiders.

In 1906, two years after the Wagon Mound reorganization, the Bonds incorporated their Espanola store as Bond & Nohl Company, with the Bond Brothers and Louis F. Nohl as principal share holders. Nohl, another outsider, had joined G.W. Bond & Bro. in 1900 under some sort of profit sharing arrangement, and over time he had assumed much of the day-to-day management of the store. Frank Bond retained a separate business, still part of the G.W. Bond & Bro. partnership, on the same site, buying and selling wool, overseeing his numerous *partido* contracts, negotiating lamb feeding agreements, and

looking after the financial and organizational matters for his growing empire. Bond & Nohl handled all the merchandising, the sheep trading, and financial aspects of the feeding operations, a developing activity for the company, cf. chap. 6.[37]

While George was establishing what was to be a very profitable sheep and wool operation in Trinidad, the Bonds undertook another new initiative in Colorado. A few years earlier, around 1903, they had entered a partnership agreement with Fred Warshauer of Antonito, Colorado, sharing profits 50/50 in outside wool deals in New Mexico and Southern Colorado.[38] This was another case of the Bonds identifying and entering profit sharing agreements with able family outsiders. Some years earlier, during the winter of 1894-1895, they had begun placing lambs with feeders in Colorado through their Wagon Mound branch, and they negotiated feeding contracts in Nebraska as early as 1902.[39] After about 1908, they became actively involved in the winter feeding of lambs, forming a three-way partnership with Warshauer, and E.S. Leavenworth of Wood River, Nebraska, who owned a feeding ranch. That year, they had over $100,000 ($2,400,000 in 2010 dollars) worth of sheep on feed with Leavenworth and even more with another feeder.[40] The Bonds maintained a decade-long, and quite profitable, partnership with Warshauer, with whom Frank became particularly close.[41] Feeding operations required considerable capital investment. Besides the cost of the lambs, the cost of feed - corn, hay, alfalfa - was quite substantial.[42] As mentioned above, the ranchers required cash advances in the fall that were paid off in fattened lambs in the spring. Frank Bond financed much of his winter feeding through John Clay's livestock commission firm, Clay, Robinson & Co. in Denver.[43] The Bonds continued doing business with

Warshauer's company, The Warshauer-McClure Sheep Company, after his death - by suicide- in 1913.[44]

In 1911, after twenty-eight years in business together, the Bonds ended their partnership; thereafter Frank became the sole senior managing proprietor of the business, although he continued to take on new partners from time to time. George retained his financial interest as a stock holder, but relocated to Idaho and California to pursue other business opportunities. Frank's personal net worth at this time was in excess of $500,000 ($11,000,000 in 2010 dollars), a considerable fortune at the time.[45] During the best year of their partnership, 1905, the brothers had cleared nearly $100,000 in profits.[46] At the time of the partnership dissolution, Frank had in his own account 37,296 head of sheep valued at $112,000 out on *partido* contracts. Considering his various partnerships, he held an interest in a total of 52,244 sheep, rented out under ninety separate contracts to individuals in and around Espanola and Taos, where most of the Bond sheep were grazed, and Antonito, Colorado. To manage his large holdings, he went into partnership with various individuals and other mercantile companies who oversaw the various *partido* operations in their localities. Most of these companies and individuals were Anglo, as indicated by their names. The sheep were generally run in small flocks either on public lands, with Bond paying grazing fees, or on land grants. With grazing rights on the public land becoming permanent after three years, Bond took particular care to count and report to the forest authorities all his sheep and *partido* contracts and thus protect his grazing resources from being taken over by another stockman.[47]

The Bonds made their first move to the south in 1905 with the establishment of a mercantile branch in Encino, Torrance County south of Albuquerque. The branch was

dealing in sheep and wool within a few years and remained profitable through the remainder of the territorial period.[48] Frank Bond continued expanding during the early years of statehood. In mid 1914, he opened a branch in Albuquerque that dealt strictly in sheep, wool, hides, and pelts with no general merchandise activity. Following his usual policy, Bond incorporated the business, taking on three of his managers as shareholders.[49] This start-up is notable on account of new general manager and shareholder Walter Connell. Connell was a Fordham University graduate with years of experience merchandising and wool buying in New Mexico and banking in New York; such was the level of talent now entering the territorial sheep industry.[50] In its first full year of operation, 1915, the Bond-Connell Sheep & Wool Co., as it was called, sold 151,000 head of sheep, 455,000 lbs. of wool, and 305,000 lbs. of hides and pelts, for a net profit of over $20,000, a staggering return on the initial capitalization, thought to be $25,000. Additionally, the company was still holding a considerable inventory of sheep, wool, hides, and pelts at year's end.[51] Following this success, Bond established the Bond-Sargent Company in Grants, New Mexico, a site chosen because of its proximity to the Navajo Reservation with its large sheep population. This branch developed into one of the most successful of the Bond enterprises. Its successor, the Bond-Gunderson Company, was still in operation in the early 1960s.[52]

Land Ownership

During the early years of the twentieth century, the brothers, under George's initiative, invested or speculated in various tracts of land, mostly in Southern Colorado. A few years earlier, however, they had started to acquire land in New Mexico. With

growing sheep populations in San Miguel and Leonard Wood (later Guadalupe) Counties and the pending arrival of railroads, the Bonds acquired at least six ranches in the area around 1900.[53] In 1900, they also purchased a 63,000-acre segment of the Preston Beck Grant for $43,000. At one point they were holding up to 30,000 head of sheep on the Beck land, but they sold the tract in 1907 for a profit of over $20,000.[54] They also held an interest in the Piedra-Lumbre Grant on the Rio Chama west of Abiquiu and in 1903 purchased the 27,000 acre Trampas Grant north of Santa Fe for $18,000, apparently for speculative purposes.[55] A few years later in 1909, they acquired a 270-acre feeder ranch in Wood River, Nebraska for $65,000.[56] The Bonds also invested considerable effort and some money in a futile attempt to acquire the Tome Grant in Valencia County. However, despite all their land acquisitions, their business was never dependent on huge tracts of grazing land, as was also the case with Charles Ilfeld. They held some of their tracts for a comparatively short time. In some cases they seemed more intent on land speculation than the acquisition of good grazing land for their flocks. Land ownership was no longer a prerequisite to wealth and influence.

Business Policy

By the early twentieth century, G.W. Bond & Bro. had moved far beyond a two-man management structure and had a substantial number of salaried employees, including several of managerial status, with no Bond family connections. It has been estimated that Bond & Nohl had about ten or twelve salaried employees at Espanola, presumably a typical number for an active branch operation.[57] These positions included store managers, bookkeepers, and, on account of Frank's voluminous correspondence,

stenographers, as well as store clerks, general handymen, warehouse clerks, and general laborers. Bond & Nohl always employed one or two “native clerks.” Frank Bond paid his stenographers as much as $75/month, fluency in both Spanish and English being desired, and his bookkeepers as much as $100/month ($2,400 in 2010 dollars). He generally recruited bookkeepers and stenographers from out of town.[58] An important position in his organization was that of “outside man,” a sort of assistant manager tasked with buying sheep from the growers, contracting for wool, making collections, and acting as general foreman in the field. For many years, this position at Bond & Nohl was held by Leandro Martinez, who also was a small shareholder in the company.[59] Frank Bond always paid his store managers $75-100/month, a good salary at the time, and, for key men, he augmented this with a profit-sharing arrangement including stock in the branch corporation, as described above. Business hours were long. The Bond & Nohl store was open six days a week, usually closing at 10:00 pm. The sheep and wool business could be quite profitable – it certainly was for the Bond brothers - but the efforts required to fully realize the potential gains were considerable.

Frank Bond was a hands-on manager; he kept close watch on every detail of his empire, and supplied his own labor when it was called for. He often personally supervised the loading of sheep onto railroad cars, rising at 3:00 am to serve as his own foreman, working at what has been described as a “fast dogtrot” all day long.[60] For a single shipment in October 1913, Bond loaded an estimated 27,000 head of sheep at his Servilleta facility into thirty railroad cars per day for a period of three successive days. He apparently did not mind the physical labor. Frank Bond was totally dedicated to business. He asserted in a letter to his brother George, “… in fact, I wouldn’t trade my

job with anybody."[61] When he wasn't working he was bored and unsettled. Five years later he went into detail:

> You know that you and I don't know any other pleasure except our business. I think it is a great misfortune that we should be so, and especially so when we pretend to cut adrift from business, but it can't be helped, so the only thing for us to do is to stay with the business as long as our health is good; and I believe if we can bring in and associate young men with us, we will continue to be successful.[62]

Challenges

The Bond enterprises faced several persisting challenges, which were characteristic of sheep- and wool-dealing mercantile operations. Consideration of these various challenges, which are well documented for the Bond enterprises, provides some insight into what working in the New Mexico sheep industry may have been like.

All the Bond companies, as with all weather-dependent businesses, then and now, experienced widely fluctuating profits from year to year, despite being quite conservatively managed. Such fluctuations were a fact of life that never abated and derived in part from the inherent instability of the national sheep and wool markets. And that brought the matter of capital reserves to the forefront of financial considerations. Capital was, of course, needed just to keep the company operating smoothly. The brothers routinely moved funds back and forth between their various enterprises as needed. But during extraordinarily tough times, when expenses exceeded income, capital was totally essential for survival. At Bond & Nohl, annual net profits between 1906 and

1915 ranged from \$3,400 to \$29,400.[63] The Bonds' wool partnership with Warshauer lost \$10,000 in 1903, as previously noted, and then yielded \$25,000 profits in 1906, \$46,000 in 1908, but only about \$12,000 in 1911.[64] Annual profits of the Bond, McCarthy Company, the Taos branch, fluctuated widely between 1905 and 1915, from \$1,500 in 1910 to \$18,700 in 1915.[65] Although the Bond enterprises always realized an overall annual net profit, sectors of the business sometimes underwent significant losses that had to be covered. The Bonds' policy of turning profits back into their businesses, as opposed to declairing stockholder dividends, provided a substantial cash cushion for negotiating the large ups and downs in profits as well as for meeting extraordinary expenses when they arose. Other businessmen were not so financially fortified as to prosper or even survive under such instability.[66] Volatility imparted considerable risk to the widely touted, and occasionally realized, business opportunities found in New Mexico and the West in general. When Fred Warshauer, died, Frank Bond advised the man's widow not to invest any more of her money in sheep or wool, noting that he would not want his own wife to do so if he died.[67] Expressing a similar sentiment in his will, Solomon Luna advised his wife to liquidate the family business and invest the proceeds in conservative securities. In any case, soon after his death in 1912, she relocated to California.[68] When Frank Bond's own wife's expressed an interest in investing her personal funds in sheep, he instead purchased secure bonds paying 5% for her. Frank Bond believed that the high risk could only be counteracted by close attention to the business. In answer to an inquiry from a Kansas City businessman who was considering investing in sheep, Bond replied:

> I consider this line of business very dangerous, and [it] requires

> very careful watching. Three of our renters have lost this winter over half of their flocks on account of heavy snows. These three men owe us large accounts, besides the rented sheep. They have lost over $15,000 in sheep, and as a result of their loss we are bound to loose several thousand dollars…I would advise you very strongly to have nothing to do with sheep, unless you can give the matter your personal attention…We make money out of sheep, but we make it because we give them close attention, otherwise it could not possibly be done.[69]

The merchandising of sheep, as risky as it was, actually involved less uncertainty than raising sheep, which the merchants always undertook with reluctance, cf. chap. 9.

Up-to-date market information was critical for success in the sheep and wool negotiations, particularly as the markets could be quite volatile. Information retrieval was thus an important continuing activity for western merchants. Valuable industry news and advice was provided to them by the east coast commission houses they dealt with. Specifically, the eastern establishments provided up-to-date news on domestic market trends and the effects of foreign wool production on markets in Britain [London and Liverpool], Australia, and other parts of the world. They discussed such matters as the wool tariff, wool manufacturers' current problems, and the condition of wool clips in various parts of the United States at the time. The Bonds, like other western wool merchants, were dependent on the eastern wool houses for such information. Information was transmitted west in the form of long, coded Western Union telegrams or detailed letters.[70] Max Nordhaus received intelligence from an eastern wool house by telegraph

but also directly from his boss, Charles Ilfeld, who by the 1890s was spending his winters in New York City. Adolph Letcher, Ilfeld's onetime partner now living in Baltimore, also sent his wool and sheep market forecasts to Nordhaus, who in turn forwarded them to his New Mexico suppliers.[71] The westerners would generally seek out and attach themselves to an eastern dealer in whom they could have confidence, giving him the bulk of their business year after year, and thus securing for themselves a reliable information source. The importance attached to information is reflected in a letter in which Frank Bond expresses his fear that a certain trouble maker, one Charlie Doll, was going to New York intent on sabotageing his information source, i.e. "to fix things so that we will be unable to get bona fide information."[72] For many years, the Bonds dealt almost exclusively with the Boston wool house of Brown & Adams, as noted above. In later years, they shifted their business to Hallowell, Jones, and Donald. Early in that shift, Frank Bond advised his branch manager, Andy Wiest, to shift some of his wool sales over to H, J & D primarily to diffuse competition that company was creating but also so that the Bond & Wiest branch would "…get the posting from H, J & D as well as that of B & A," thus securing two important streams of information.[73] While the Bonds benefitted from the information they received, they took pains not to pass it on to their competitors. In numerous letters to his partners and various other business associates containing important information, Frank Bond admonished the recipients to keep the information to themselves.

New Mexico's sheep and wool merchants seem to have gotten along well, generally, although competition was endemic. The harsh conditions of the frontier gave rise to a considerable degree of cooperation among businessmen. Each major wool buyer seems

to have had an agreed upon geographical area in which to operate exclusively. Frank Bond believed that invading another merchant's territory would hurt his business as much as the other merchant's when that man reciprocated. He asserted decisively, "We leave the other fellow's territory absolutely alone knowing that if he so desired he would probably do us just as much damage as we could him."[74] Nevertheless, conflicts sometimes arose. Around 1903, H.W. Kelly of Gross, Kelly encroached on Bond's turf, offering higher wool prices than Bond. Kelly, whose operation was smaller than Bond's, was able to offer higher prices to New Mexico growers at the time because he was selling directly to east-coast woolen manufacturers and receiving higher prices than Bond did from his commission merchants Brown & Adams. The matter had apparently blown over by 1907 when Kelly was once again selling his wool through a Boston wool broker.[75] Bond sustained another threat in 1915 when the Boston firm of Hallowell, Jones, and Donald sent their own agents out to New Mexico to secure wool consignments directly from producers, cutting local buyers like Bond out of the loop.[76] In response, Bond stopped accepting wool on consignment from his suppliers because he knew that once accustomed to this mode of marketing their wool, they would soon shift their business directly to the Boston houses, where they would receive an additional one-cent/lb., Bond's profit at the time. He henceforth only bought wool outright from his suppliers, a riskier proposition than accepting it on consignment and one the Boston commission merchant was not willing to undertake. Bond thus assumed added risk to retain supplier loyality. And as noted above, he also shifted some of his business away from Brown and Adams, who were by this time dealing largely in foreign wools, and to Hallowell, Jones, and Donald, who dealt primarily in domestic wool, presumably a move to placate the

company and thus reduce the threat they had posed. Competition had many manifestations. When Charles Ilfeld inquired about renting Bond's unused Cabra store building around 1904, Bond refused, believing that Ilfeld was intent on developing a branch to compete with his Cuervo store.[77]

Getting some customers and suppliers to pay their bills was a continuing headache. Since most of the general merchandise sales at the Bond branches were made on credit, the company usually valued accounts receivable on the company books at less than 100%. In the late 1890s timeframe, the Bond Brothers valued the loans they extended and the accounts receivable on their books at 75 cents on the dollar, thus assuming that 25% of their loans would never be repaid. However, by 1912, they raised the figure to 90 cents on the dollar.[78] The discount was determined by a careful annual analysis of the individual accounts on the company books. These discounts appear to have been overly conservative, if consistent with the Bonds' business practices. In fact, Bond & Wiest, the Cuervo branch, had to write off only 4% of its loans in 1912.[79] This is not to say that collections were not a continuing problem. At various times, Frank Bond engaged attorneys, collection agencies, and investigators to collect debts.[80] On one particularly dramatic occasion, a Bond employee seized an entire herd of cattle for the purpose of settling a long-standing debt just as the animals were being driven through Espanola. The herd belonged to a particularly recalcitrant pair of debtors described as two "irascible spinsters."[81] When loans were not promptly repaid, it was usually because the borrower was going through hard times, not because he was attempting to avoid his financial responsibility. The hash realities of territorial life forced, to an extent, a generally

cooperative social and business environment, despite the “Wild West” atmosphere in the railroad town saloons.[82] Frank Bond described his experiences with his Hispanic suppliers and customers after many years in business: “They [the Spanish-American people] were extremely honest about paying their bills, and to this day in case of a death in the family, a son will pay his father’s debt, or a father the son’s. They look on this as a personal obligation.” He added a note of caution, however, with his assertion that very little money was lost in trading with them “if you do not give them too much credit.”[83]

The economic history of the West is a history of panics and bank failures. The inherent volatility of the western sheep business was exacerbated by bank failures when they occurred. Frank Bond recounted his experiences during the Panic of 1907 [The so called Roosevelt Panic] when numerous banks were failing and several checks he had received from feeders, advances on sheep deliveries, were refused by his Santa Fe bank. Unbeknownst to the feeders, their banks had failed and their checks were worthless. Bond, in turn, was unable to pay for the lambs scheduled for delivery at Servilleta, which were to be shipped out to the feeders. He described the situation that ensued:

> I recall going up to Servilleta to receive lambs from a bunch of our old customers. I told them about the panic and the position we were in, that we could borrow the money to pay for the lambs, but if they did not need all the money we would appreciate it if they would wait until the lambs were marketed next spring. One of the biggest men spoke up at once and said he did not need a cent,

> and I could keep all his money, and there was not one but what left part of his money with us. One man who was not there had one of his neighbors deliver his lambs, and as I could not talk to him personally, I mailed him a check for his in full. He wrote me back at once enclosing my check, and said he understood I was giving out notes in payment of lambs as all his neighbors had told him, and he would be glad to have a note instead of the money. I never forgot how those Spanish-Americans stood by me in our time of need….I will say for our old time Spanish-American people that they are the most loyal people I have ever met, and if you get their confidence, they are your friends always.[84]

In this particular instance Bond was able to draw on the good will of his suppliers to ease his negotiation of the bank failures. It is appears that these Hispanic sheepmen did not feel exploited by Frank Bond.

The Bond enterprises had an important influence on the economies of large parts, if not the entirety, of New Mexico, as well as parts of Southern Colorado and Nebraska. They dominated the wool business wherever they set down. In later years, the Bond branches in Roswell and Albuquerque would handle the bulk of the wool produced in New Mexico.[85]

As New Mexico grazing land grew scarce and expensive, greater production efficiencies were required. Open-range grazing, an important feature of the Bond enterprises during the territorial period, ceased to be commercially viable and eventually vanished, cf. chap. 10. The Bond empire also vanished, although for

different reasons. The family liquidated their holdings around 1954, only nine years after Frank Bond's death.

The Bond empire exemplifies the capitalization, and subsequent control, of the sheep industry at the mercantile level. It was a bridge between nineteenth-century mercantile capitalism and twentieth-century industrial capitalism. The following chapter discusses capitalization of the sheep industry at the production level.

Chapter 8

The Capitalization of New Mexico Sheep Ranching

Growing Capitalization Requirements

In a 1902 report, government livestock expert E.V. Wilcox reviewed the various safeguards sheep ranchers would have to put into place if they were to see attractive profits in the future. He then asserted that individuals with "sufficient capital and industry" to impliment those safeguards would be the ones to realize the profits.[1] By the late nineteenth century, the western sheep industry was, indeed, becoming increasingly capital-intensive and, along with this, increasingly professionalized. A new range of capital investments and more highly specialized skills and knowledge were required to meet increased competition and more demanding market requirements. Sheepmen could no longer depend entirely on New Mexico's natural resources, nature's bounty, to house, water, and feed their herds. The remaining open range, growing ever more crowded, first with livestock and later with homesteaders' farms, could no longer serve as a year-around home and feed trough for the herds. The expansion of the sheep industry in other western states and territories introduced a degree of competition, heretofore absent. Labor costs increased as labor requirements became more exacting. Costly new field facilities were required to counter inefficiencies that could no longer be tolerated. Profit margins became thinner. While financial leadership in the industry shifted to the well-capitalized merchants, sheep ranches could still be quite profitable. Under evolving conditions,

sheepmen needed to invest in land, fencing, wells, windmills, shearing pens, dipping facilities, and a myriad of other items. Some undertook the growing of winter feed, alfalfa in particular, which necessitated farming equipment, seed purchases, and irrigation systems. Outdoor camps had to be updated with the construction of permanent buildings.[2] Selective breeding using expensive, graded rams became necessary, not simply desirable, to meet the changing demands of the national wool and lamb markets. Sheep diseases and predator depredations had to be combated aggressively; losses from these factors could no longer be passively sustained.

Under increasingly demanding conditions, only the financially strong prospered. The capital requirements worked to the detriment of those Hispanic sheep growers, both large- and small-scale, whose wealth remained entirely tied up in their lands and unimproved herds, those who had not amassed capital in mercantile pursuits. Raton sheepman Daniel Troy observed that the number of sheep growers in his area decreased during the fifteen years prior to 1892, the small owners being forced out. He also asserted that the "improved" flocks, then called for, required improved care, employing expensive improvements and fairly paid, clothed, and fed "American" [not Hispanic] labor.[3] Unable to compete, some *rico* families sold their private grants to Anglo speculators, others simply walked away, although they must have done so with considerable bitterness.[4] Those leading Hispanic families with capital, continued to operate, but their numbers, never great, did not grow. Entering the territory in increasing numbers, Anglo stockmen with access to some capital, and a little good fortune, prospered to varying degrees, following the advice of government reports to keep smaller flocks of higher-quality stock, which meshed with the new economic realities.[5] The

reports, somewhat naively, encouraged them to "…improve on the past traditional customs as practice judgment dictates, and there will be no apprehension or misgivings as to permanence, profitability, or future of the sheep industry of New Mexico."[6] New Mexico sheep ranching, thus, underwent a major transition, both economic and social, starting in the late nineteenth century, a transition that depended on previously unprecedented levels of capital investment. Without capital, no sheepman could prosper for much longer.

Grazing Land

Starting in the 1880s or perhaps even earlier, the most basic capital investment for sheepmen, beyond actual livestock purchases, was the acquisition of land. Forced upon ranchers by a growing scarcity of good grazing land, ownership enabled sheepmen to better control their grazing areas, construct permanent facilities, and thus work toward stabilizing production conditions, combating the large, unpredictable year-to-year fluctuations in profits characteristic of the range industry. Although New Mexico production costs, as estimated in 1890, for farm-raised, selectively-breed sheep were twice those for the open-range *churros* still being produced by Hispanic sheepmen, \$0.60/year versus \$0.30/year, and land was a major part of the added expense, ownership led to greater profits.[7] Land could be acquired in several different ways, ethical and unethical, legal and illegal. Two different classes of land figure importantly in the New Mexico sheep industry: Spanish-Mexican land grants and U.S. public domain.

The land grant system of the colonial and republican periods was a frontier exigency that populated the lands and brought them into production without many legal niceties, Spanish Civil Law providing the general framework of land tenure. The sheep industry of New Mexico was reborn on the grants after the Reconquest. The grant system also supported and propagated the *rico* class and, by extension, the commercial sheep industry those families created. After the annexation, the incompatibility of the Mexican and American legal systems made the grant lands vulnerable to acquisition by Anglo-American newcomers. In a highly controversial process, Anglo lawyers, speculators, and stockmen acquired Spanish-Mexican land grants at an astounding rate, to the detriment of the Hispanic grantees.[8]

Frequently, Anglo ownership initially fell to the land speculators and lawyers, many with influential political connections, some with ill-defined and impractical schemes for *developing* the lands.[9] The Anglo speculators employed a combination of more or less subtle legal procedures and aggressive lobbying in Santa Fe and Washington to get title to the grant lands they sought, with little concern for the Hispanic occupants. A great deal of chicanery was involved. Conversely, Hispanic grantees sometimes lost their lands because they lacked political clout and the financial resources to engage skilled, aggressive Anglo lawyers to defend their interests in the American courts. Sometimes they were able to secure viable legal representation, but, having insufficient cash resources, paid dearly for those services with land, a substantial fraction of their tracts being taken up as attorneys' fees.[10] The ownership determinations by the courts were, in the end, largely arbitrary and unfair. Suffice it to say that the spirit of the Treaty of Guadalupe-Hidalgo, as it was intended to honor and protect Hispanic land ownership,

was grossly violated, although most of the land transfers were legal in the eyes of the federal courts.

A considerable body of work, including case studies of specific grants, has been devoted to this land-transfer from Hispanic to Anglo ownership.[11] The lands included both the immense common-land tracts of community grants and the private grants that were traditionally dedicated to livestock grazing, mostly sheep. It seems unlikely that the contest for New Mexico's land would have proceeded so rapidly and assumed the bitter proportions that it did had not the land been proven livestock country.

A few of the best-positioned *rico* families held their own, as was the case of the Chaves family. With their claims in San Mateo unconfirmed, Manuel Antonio Chaves and his half-brother Roman A. Baca sent Manuel's son Amado Chaves back to Washington in 1882 to defend their acquisitions. Energetic, well-educated, and bi-cultural, he worked long and hard to obtain a patent for the grant, which covered over 200,000 acres, and ultimately prevailed.[12]

Most Hispanic families could not muster such legal talent, and many lost courtroom battles for their property. Others sold out cheaply when they were unable to pay newly-imposed property taxes.[13] Private grants fell to Anglos through other paths. When a patriarch died, ownership was distributed among the children and surviving spouse. Some or all the heirs often chose to sell their inheritance, as was the case with the Maxwell Grant discussed in chap. 3, which was consolidated by Lucian B. Maxwell, an original grantee's son-in-law.[14] A similar situation transpired in the case of the Montoya Grant. Speculators and lawyers, in a complex series of transactions acquired, by purchase or in the form of legal fees, the Pablo Montoya Grant, 530,000 acres previously

confirmed by Congress and later to be patented, from six of the seven grant heirs in 1868. Their total financial outlay was no more than a few thousand dollars. They in turn sold this and other grant lands to flamboyant entrepreneur and land promoter Wilson Waddingham in 1870 for tens of thousands of dollars. He used the lands to form part of the massive Bell Ranch, headquartered eighty miles southeast of Las Vegas, where he raised both cattle and sheep.[15] Eventually, many of the grants, both community and private, ended up in the hands of Anglo stockmen.[16] The end result, not surprisingly, was that sheep-growing resources that had once been Hispanic controlled came under Anglo control. Hispanic sheep interests diminished; Anglo interests grew.

From the standpoint of Anglos, the presence of Hispanic settlers, squatters, and trespassers on the grant lands they acquired presented a continuing problem. These occupants, such as they were, could monopolize the land's resources. The trespassers were, in many cases, men who used the grant lands to graze their modest flocks of *churros*. The permanent occupants were a mix of squatters who possessed no legal rights to the land and long-term residents with the customary rights of possession through occupancy of greater than ten years duration. When New Haven investors Harvard educated John Greenough and James Brown Potter assumed control of the failing Bell Ranch in 1893, they discovered that about seventy long-term resident Hispanic families were living in villages on the grant and using some twenty miles of river frontage to raise their sheep, thus depriving Bell livestock of grass.[17] The situation was, needless to say, unacceptable to the new owners, as good grazing land and water frontage were growing scarce. The resources had become too valuable for the new owners to share. The Bell management, determined therefore to claim the grant in its entirety, simply bought out

the families with ten or more years tenure, encouraging those families to file homestead claims on nearby public domain. Apparently, the program proceeded peaceably, although it is hard to imagine these families were not distressed over the situation. Some families moved to Trementina and La Manga, nearby villages located outside the grant. Documentation available for one family, the Munizes, indicates they received $200 cash plus 10 foals worth $50 in exchange for their holding. By 1898 most of the settlers were gone. The huge ranch was brought up to high standards of efficiency, enabling it to operate for the next half century.[18] This affair illustrates one way economic forces marginalized Hispanic small-scale, sheep-raising families. Generally, the new Anglo grant owners, or their majordomos, devoted a considerable portion of their efforts to keeping out trespassers. Thomas Catron employed stockman Montgomery Bell to keep the Anton Chico Grant, to which he laid claim, free of trespassers.[19]

Much of the land taken up by the expanding sheep industry had, from the time of the annexation, been U.S. public domain, the suppression of Indian hostilities by the U.S. Army having opened up vast grazing tracts on these lands, beyond the extent of the Spanish-Mexican land grants. Just as the Anglo acquisition of land grants has been highly controversial, so has the acquisition of public lands since much of the land in question was claimed illegally.[20] The public lands that were eventually devoted to sheep included huge areas extending east and west of Albuquerque, lying somewhat south of the extensively-granted areas.[21] The activities of the Luna family are notable. Starting from his family's ancestral grant, the San Clemente Grant in Valencia County, which extended from the Rio Grande to the Rio Puerco, Solomon Luna grazed his herds on public lands extending west across the Plains of St. Augustine to the tiny village of Luna

near the Arizona border.[22] The critical factor in the acquisition of public lands from the federal government, even when illegal means were resorted to, as they often were, was some capital outlay, if not mainly for the land itself, then for livestock and other necessary expenditures, a situation that favored stockmen with ready cash, cf. chap. 9. And once land was legally owned, it was subject to taxation.

Several paths, both direct and indirect, to public land acquisition existed. The railroads sold off their grant lands along their right-of-ways. Both military and Indian lands were at times made available for sale to the public by the federal government. Cash was not always necessary. Land might be purchased with script, which had been issued to veterans by the federal government in compensation for military service. Land could also be purchased at public auction, possibly because of tax arrears on the part of a previous claimant. And it could be bought from a private owner, possibly a failed homesteader who had managed to prove up his entry or a claimant under the Desert Land Act who could sell his claim at any time. Anglo stockmen who began immigrating to New Mexico after the Civil War sometimes chose this path, preferring to buy lands with clear title outright rather than claim government land with strings attached. This enabled them to acquire the better available grazing tracts. These more affluent individuals, men like Luna's neighbor Montague Stevens, brought the necessary funding into New Mexico from elsewhere, England in Stevens case. At the other extreme, many cash poor grant heirs, caught in a rapidly evolving financial environment, with their assets in the form of overgrazed land and marginally-improved livestock, lacked the capital resources to purchase additional, newly available land.[23] The end result, again, was that Anglo sheep interests expanded more rapidly than Hispanic interests. Much public land claimed

through the various federal programs was dedicated to grazing. Some, perhaps most, of these acquisitions were illegal.

Although the detailed paths by which public lands ended up in the hands of Anglo stockmen varied, the Homestead Act of 1862 and the Pre-emption Act of 1841 were often exploited. The general conditions of the homestead laws are summarized in Appendix F. They proved to be valuable tools for New Mexico stockmen, although that was never intended by the law makers.[24] The homestead laws were intended to populate the western regions of the country with productive, small-scale farmers and their families. Federal law, as it was written, did not permit non-agricultural lands, which constituted much of New Mexico, to be offered under the various programs. However, before the advent of mechanized irrigation, the 160-acre tracts available under the Homestead Act were completely inadequate for farming in the Southwest. Unsurprisingly, little public land in New Mexico was disposed of by the federal government before 1880.

Starting in the 1880s the situation changed. New Mexico ranchers with the necessary financial resources circumvented the homesteading restrictions by purchasing script, directly or indirectly from the veterans to whom it had been issued, and used it to purchase water-front land at $3.50-6.00/acre.[25] Others followed a different path. Much of the watered land acquired by cattlemen in New Mexico was obtained illegally by exploiting the homestead and pre-emption laws. In some cases, corrupt public officials, federal and territorial, were active participants in the excesses. The widespread practice has been described in detail by Westphall.[26] Anglo sheepmen followed similar practices. The 160-acre homesteads were required by law to be occupied or continuously devoted to farming by the claimants for five years before title was granted. The laws were, however,

easily exploited by western stockmen, who never occupied or farmed the tracts they claimed.[27] While illegal, the process was easy and basically risk free. A rancher might file a claim for land entry, but never acquire title through a confirmation and patent. Under the Homestead Act, the claimant had sole usage of the land for at least seven years, regardless of whether he satisfied the requirements for securing a patent.[28] This practice had the effect of tying up the land for years, devoting it strictly to grazing, and preventing anyone else from filing a claim or using it until the tract was again opened for entry. Ranchers seem to have had a shorter time horizon than farmers and often found this procedure for reserving land satisfactory for their purposes.[29]

With little competition from farmers whose numbers were still small, stockmen, aided by the collusion of public officials, sought in particular the quarter sections along streams or with springs needed to water their stock. Then, having secured the essential water rights, they gained control of large, unclaimed expanses of surrounding dry grazing land needed for their herds. The dry tracts alone, without water rights, were of no value to an encroaching rival, be he rancher or farmer, without mechanized irrigation, an expensive development of a later era. The dry tracts would remain unclaimed and open for grazing for many years. Both cattle and sheepmen employed this land acquisition procedure in New Mexico. Montague Stevens described the situation succinctly. "As regards the amount of land a rancher owned compared with the acreage of his free range, it was very small and consisted mainly of the actual land on which was living [running] water such as creeks or springs."[30] This land, the "home range," would often be the site of the ranch headquarters. Cattle ranch woman, Agnes Morley Cleaveland describes her family's "ranch," much of it actually public domain, as adjoining that of Stevens, although their

dwellings were located seventy miles apart![31] Former Arkansas Senator Stephen W. Dorsey is said to have controlled 10,000 acres of rangeland in Colfax County through a single 160-acre tract with several springs.[32] Miguel A. Otero and J.W. Raynolds acquired a thirty-mile strip along the Salado River [Socorro County], which in turn give them control over a thirty-mile square area.[33]

Claimed stretches of water front could be readily expanded exploiting the Pre-emption Law, which required only a six-month period of occupancy. An applicant could easily engage a bogus entryman for that period so as to appear to be satisfying the letter of the law.[34] Describing the situation in the Datil area, west of Magdalena, in the mid-1880s, Cleaveland noted that every site of "living water" in the area had been promptly homesteaded after the area was surveyed, only a few years earlier, and many families had supplemented their homestead with an additional 160-acre claim under the Pre-emption Act of 1841. She noted further that although it was not permitted under the law to sell or transfer these claims until final title was secured, this ruling was easily evaded. Most of the original homesteaders in her area, in short order after the receipt of land, sold their [would-be] patents to one of the large, open-range ranching outfits.[35] This seems to have been common practice throughout the territory. Some of these transactions were apparently prearranged. Among westerners, there was a wide-spread disrespect for federal land legislation, which must have seemed to them extraordinarily senseless. Few, seemingly, had serious compunctions about breaking federal statutes to acquire public lands, which must have appeared inexhaustible into the 1880s.

Westphall has shown that by the 1890s a substantial fraction of the New Mexico public domain had been acquired fraudulently by ranchers since there were too few

farmer-settlers in the territory to account for the number of homesteads that had been alloted.[36] Cattlemen sometimes acquired title to public domain that had been used by Hispanic herders for generations, but never filed on.[37] Some stockmen created ranches by first engaging a number of men, possibly employees, or possibly just fictitious names, to file contiguous homestead, pre-emption, or desert land claims. The false claimants would, if necessary, testify in court on each other's behalf that they were residing on or using the lands for agricultural purposes, as required by law. As soon as possible, the rancher behind this charade would buy out all the fictitious claimants, which had been the intent all along, thus carving out a large tract of rangeland for minimal financial outlay. The American Valley Company near Quemado, established in 1881 as a cattle ranch and later converted to sheep, in which Republican Party boss Thomas B. Catron held a large interest, was a particularly egregious offender.[38] Thus, many New Mexico ranches were created by Anglo stockmen through more or less fraudulent means. The questionable practices did, for better or worse, enable many stockmen to go into business in New Mexico without a large financial outlay for land, while putting the land to a use for which it was better suited.

Westphall makes a good argument that the poorly-conceived, unworkable, unpopular, inconsistently-enforced land laws opened the way for widespread corruption.[39] New Mexicans seem to have regarded the laws as senseless and, therefore, to be evaded one way or the other. Only in the late 1880s-early 1890s timeframe did public land transactions become normalized, as genuine homesteaders started arriving in New Mexico in substantial numbers and taking advantage of the homestead laws as they were intended. With the laws on their side, they were able to claim and take up some of the

best lands, an important factor in ending open-range ranching, cf. chap. 10. Stockmen were then forced to approach land ownership legally.

Reflecting the various difficulties, less than 60% of the New Mexico homestead entries were ever finalized.[40] This practice exacerbated the uncertainty in land ownership first introduced by the grants and further helped keep New Mexico land prices low. When a proper legal title under American law was obtained, land took on increased value because it could then be readily bought and sold on the open market, without any pre-existing obligations, a necessity in the developing capitalistic economy.

To summarize land acquisition in New Mexico by Anglo ranchers, a great deal of political chicanery and questionable legal determinations were involved in the cheap acquisitions. Nevertheless, once the lands were legally owned, they were immediately subject to taxation, while a period of years might be required to develop a profitable ranch on the land. Ranchers thus had to be in a position to pay taxes for a time before profits were realized.[41] The bulk of the Spanish-Mexican land grant acreage fell into Anglo hands. The Treaty of Guadalupe-Hidalgo failed to protect the grantees. The spirit of Manifest Destiny provided all the moral justification that land-seeking Anglos needed. Private grantees, like the Montoya family, sold out to aggressive Anglo-Americans, leaving the land's Hispanic occupants, who had lived under their *patron's* protection, in an ambiguous, insecure, and altogether difficult situation.[42] The federal government gave away 623,000 acres of U.S. public domain in New Mexico, once the hunting grounds of various nomadic tribes, and sold another 648,000 acres. The railroads eventually sold 356,000 acres of their deeded grant lands. Suffice it to say that the post-Civil War expansion of New Mexico's important sheep industry rested on a foundation of at best

questionable, and often fraudulent, land transactions. Congress failed to provide adequate legislation to accommodate the western ranching industry as it assumed national importance and, perhaps even more seriously, was little concerned.

Fencing

By the late nineteenth century, fencing became an important requirement, and a major expense, for an efficient, profitable sheep ranch. The introduction of barbed wire, invented in De Kalb, Illinois, and patented in 1874, made fencing possible for the first time in New Mexico, where materials for any other type of fence were scarce and would have been prohibitively expensive to ship into the territory. The railroads made it possible to ship the heavy rolls of barbed wire into the territory economically, and fencing was adopted remarkably quickly. Fences altered the character of the rangeland irreversibly and revolutionized the western livestock industry. The introduction of fences on the western range was a conflict-ridden process, strongly, even violently, opposed by stockmen in the beginning; fences disrupted their traditional grazing practices, cf. chap. 10. Ranchers eventually embraced the new technology when they came to understand its uses. The advent of fencing ultimately led to more orderly operations and generally greater, more stable profits. It was a critical factor in bringing open-range grazing in New Mexico and throughout the West to a close, cf. chap. 10.

Barbed wire fences began to appear in New Mexico around 1880. The first to use them were farmers, mostly, who employed fences to protect their crops from wandering, untended livestock.[43] Like farmers, ranchers first adopted the new technology to keep intruding livestock and stockmen off of their range and preserve it for their own stock.

Sheepmen soon discovered, however, that a more important function of fences was to contain their own livestock, rather than to exclude intruders.

Fences provided an array of advantages for sheep growers. They reduced labor and equipment expenses significantly. By containing flocks, fences reduced the need for herders. Two range and fence riders could do the work of ten herders. And the need for camp tenders, camp equipment, pack burros, and the like was eliminated along with the long-distance annual treks on the open range. Fenced livestock could be better protected and fed in winter.[44] Fencing could be employed to restrain and isolate breeding stock. All other factors being equal, fenced grazing land could carry 25% more sheep per acre since the land was utilized more uniformly. Fences made possible pasture rotation, reducing the damage from overstocking, widespread by the 1880s. Fenced watering places remained in better condition also.[45] Sheep and cattle could be raised together more readily in carefully managed enclosed pastures.[46] An important advantage of fencing for wool growers was the cleanliness of the wool produced, because fenced flocks did not crowd together in their own dust as much as range herds. Moreover, without the bunching typical of range herds, it was found that fenced lambs got more food and gained more weight. The practice of holding an entire herd of sheep in a small, compact, and thus food-scarce pen during lambing and shearing was eliminated, and the long-standing problem of weight losses during these periods was solved. When necessary, the sheep could be easily penned up in small groups instead, guaranteeing adequate feed for every animal during these critical periods. If the fenced pastures were irrigated and seeded with grass, e.g. alfalfa, they could hold considerably more sheep per acre than open rangeland. The adequately capitalzed, more progressive sheep operations

with fences would see increased profits over the long term; the smaller operations without fencing became marginalized. The value of barbed wire for westerners cannot be over-estimated.

Many of the first fences were illegal. Ranchers did not restrict themselves to installing barbed wire on their patented home range tracts. It was a widely accepted practice for New Mexico stockmen to fence tracts of public range that they had become accustomed to using, land they considered part of their "ranch." In an attempt to eliminate the practice, the fencing of public lands was declared illegal by territorial law in 1882. But the law was ineffective in many areas. Perpetrators could get around it easily because the fences were generally in remote areas where few people, and only rarely law officers, ventured. The practice was, besides, essentially a continuation of the custom of first-come-first-served usage rights. The big cattle growers with large rosters of cowboys on their payrolls could easily suppress any local protests against their fences.[47]

By 1883, large stock companies in the territory were putting up fences on the public domain.[48] The Bell Ranch together with several thousand acres of surrounding public domain, de facto part of the ranch, was completely fenced by 1889.[49] Cleaveland noted that ranchers in her area around Datil enclosed their lands with as much barbed wire as they could afford. Her family fenced in their water hole and large tracts of adjoining rangeland, which in her words they used "by custom," but did not actually own.[50] Some 3,500,000 acres of public domain in New Mexico were being acted upon or under investigation for illegal fencing from 1885 through 1888.[51] By 1900, the western range was crisscrossed everywhere by barbed wire.

The initial cost of constructing sheep–proof fences was high, but operating expenses

were lower once the fence was in place. Cleaveland noted that fences cost more than the land itself in her area.[52] In 1880, the Cimarron *News and Press* reported that New Mexico attorney Frank Springer installed 18 miles of fencing on his Colfax County ranch. Likewise, H.M. Porter installed 32 miles, and Chase and Dawson 30 miles on their ranches in the area. The average cost of the cattle fencing, the case here, was $130-140 per mile. Expenditures of this magnitude were out of the question for small-scale operators having only a few hundred head and no cash reserves. The news story went on to predict, a little too soon as it turned out, that within five years it would become the "almost universal custom to fence all ranches."[53]

If fences made a ranch more profitable, they made life more difficult for those ranchers without them. Once they had become relatively common, fences broke up the range and often restricted the route from one open section to another, making it more difficult for any herder to utilize the remaining rangeland, cf. chap. 10. Open-range herding then required more time and labor than in the past. Starting around 1890, the proliferation of fencing had the effect of leaving many New Mexico *partidarios* and small-scale sheepmen "fenced out" of rangelands they had long been using. In frustration, they sometimes resorted to violence. A wave of fence cutting swept through New Mexico and elsewhere in the Southwest. This was mainly an activity directed against large-scale stock growers, be they Anglo or Hispanic, who had erected fences by small-scale herders, whose marginal operations were most adversely affected by the fences. Fencing was one of the issues that gave rise to the *Gorras Blancas* and rampant fence cutting in San Miguel and Guadalupe Counties starting in the late1880s.[54] When Fabiola Cabeza de Baca reported that the *Gorras Blancas* had cut miles of fencing on her

family's ranch, she was probably not exaggerating.[55] The "fencing out" of smaller operators accelerated during the 1900-1910 timeframe.

The social consequences of fencing the range should not be overlooked. Fencing ultimately helped bring about a more cooperative and stable farming and ranching society. The fences designated land claims unambiguously and thus suppressed range wars as well as less dramatic land conflicts.[56]

Mechanized Irrigation

Watering crops and livestock had been a major challenge in semi-arid New Mexico since Spanish colonial times. The colonists learned to harness the forces of nature to provide their villages with water. They built *acequias* to channel river flow to their nearby fields and dug wells for domestic use, but, beyond that, made no technological progress in water procurement. The industrial revolution, which swept through the United States beginning in the late eighteenth century, gave birth to a wave of technological innovation, including mechanized irrigation, which had an immense effect on both farming and ranching in New Mexico. During the late nineteenth century, advancing irrigation technology rendered reservoirs, commercially useful wells, and windmills, at long last, practical and affordable in the West.

The reservoirs utilized the occasional flood waters in the streams, heretofore untapped. Wells and windmills to pump underground water and also artesian flow were used to fill livestock watering tanks and to irrigate fields.[57] Until this time, possession of water frontage had given ranchers control of the surrounding dry rangeland. However, those lands furthest from the water were often lightly used, if at all, because livestock

would have to be driven impractically long distances from range to water and back. This was an inherent inefficiency in the open-range system. Large tracts of otherwise good grazing land in New Mexico were simply too far away from water for stock growing and, also, farming. The advent of wells and windmills ameliorated this situation greatly.

Drilling wells, which ranged from 125 to 400 feet in depth in New Mexico, was an expensive proposition for sheep ranchers, as were the windmills used with them. However, by 1900, many New Mexico sheep ranchers had installed windmills. James Hagerman and Charles Eddy irrigated John Chisum's old ranch area in southeastern New Mexico in 1889.[58] Mechanized irrigation opened a vast expanse of heretofore unused rangeland. Watering livestock became much easier. Livestock could now congregate around a water tank on a segment of otherwise dry land and utilize the surrounding dry range more fully. Sheep could be more evenly distributed over the land, and herd sizes could be increased. Sheep growers could concentrate more on the demands of increasingly competitive markets and less on basic range conditions. In any case, more efficient use of the land became increasingly necessary after homesteaders began to take up former rangeland and natural water frontage on the public domain, cf. chap. 10.[59]

Wells worked effectively in conjunction with fences, since the fences could be employed to contain a herd in the general area of a water tank. Droughts, when natural streams ran dry, were more easily withstood, as were times of weak markets when it was desirable to keep sheep, and their wool, on the range for extended periods during which time natural water resources might vary considerably. In time, an irrigation system of some sort, like fencing, became a necessity for ranchers. Those who lacked the financial resources to irrigate their lands were subject to marginalization.

Labor Costs

With increased demands for efficiency, and a resulting professionalization, the labor requirements on sheep ranches became more exacting. Discussing the direction the industry was headed in 1892, government livestock experts, echoing a widely held view, encouraged owners to personally supervise the care of their flocks in the interest of maximizing profits. Leaving them entirely under the care of poorly-paid herders or loosely-supervised *partidarios*, as in the past, had become unwise business practice at best.[60] When Waddingham's Bell Ranch went into bankruptcy and was taken over by east-coast investors, they hired as on-site general manager Irish-born Arthur J. Tisdall [1893-1898], a knowledgeable, experienced sheep and cattle grower and, apparently, also a first-rate businessman. Tisdall, in turn, hired as "range manager" Englishman Jack Culley, a graduate of Oxford University. During the dry winter of 1894-1895, a critical time for the operation, they successfully introduced large flocks of sheep onto the ranch, which they considered the optimum livestock under the prevailing conditions. Eventually, they turned around the failing operation and put it on the road to success.[61] Combining east coast money with European managerial know-how on a New Mexico ranch proved to be a formula for success. Needless to say, such managerial talent was not cheap. Sufficient funds were needed to pay competent managers. Conversely, Thomas Catron, possibly in search of the easy profits once enjoyed by his Hispanic political cohorts, did not heed this advice. Reestablishing his American Valley Company in today's Quemado area as a sheep ranch, he hired an incompetent majordomo, Charles

H. Elmendorf, who in turn hired an irresponsible field boss. All the while, Catron carried on with his busy political and law career, contenting himself with writing long, berating letters to Elmendorf as conditions on the ranch deteriorated. Catron either did not recognize the new realities of the New Mexico sheep business, or he was unwilling to devote the effort necessary for a successful operation. He went bust. Eastern investors refused to loan him desperately needed funds as his ship sank.[62] The large-scale Hispanic outfits, in contrast, continued to rely on family members, or in any case native New Mexicans, to manage their ranches, drawing, of necessity, from a smaller talent pool than the Anglos, a practice that undoubtedly put their operations at a competitive disadvantage.

More demanding labor requirements were not restricted to the managerial levels. The labor situation in New Mexico had changed significantly since the Civil War. The cheap, skilled herders touted by the promotional literature of the 1870s were no longer so readily available by the late nineteenth century. Knowledgable, responsible herders became harder for sheepmen to find, particularly for seasonal employment, while labor expenses increased.

Lambing, which lasted about a month to six weeks in the early spring was a critical period for sheep growers that strongly affected their success in the coming year. In the increasingly competitive economy, a high survival rate for newborns was essential. Typically about 4% of the mature ewes were barren, while about 4-5% of them aborted each year. And about 5-10% of the lambs born each spring died in the first three weeks.[63] Thus, typically no more than about 85%, and frequently many fewer, of ewes produced viable offspring each year, cf. chap. 9 concerning Montague Stevens' lambing

experiences. Greater losses might be hard to sustain. For a successful season, sheepmen were required to hire comparatively large temporary lambing crews on a cash basis, a sheepmen were required to hire comparatively large temporary lambing crews on a cash basis, a practice that became increasingly difficult as Hispanic village men, who had once eagerly sought seasonal work in the sheep camps, chose other employment options opening up in the expanding southwest economy. If a birthing crew was inept or unmotivated, lamb survival could drop precipitously and cut deeply into the sheepman's profit margin.

The shearing of the mature sheep was another expense incurred about the same time of year. It commenced in the spring, not long after lambing. During the Spanish-Mexican period, shearing was hardly an issue since little of the *churros'* wool was actually used. In the decades following the Civil War, when wool became an important territorial export, shearing became more or less professionalized. Wool growers, large and small, employed shearing teams on a temporary basis. By the turn of the twentieth century, a work pattern had emerged in which teams of itinerant professional shearers, generally Hispanic, worked their way, in an annual cycle from south to north as the spring advanced. Their skills were essential for successful wool production. Poorly skilled or unmotivated shearers would not obtain the full fleece weight from an animal and their clumsy work would lead to additional mortality of the mature sheep, reducing the owner's profits.

While the number of herders needed decreased, ranch labor at all levels became more expensive. Competant managers and foremen had to be well compensated as did birthing and shearing teams. Ranchers were required to have cash on hand to pay the temporary

work forces sufficiently to attract competent workers.

The capitalization of New Mexico sheep ranching was another process that acted to shift industry dominance from Hispanics to Anglos. The experiences of Western Socorro County sheepman Montague Stevens, described in the following chapter, illustrate this development.

Chapter 9

Montague Stevens, Capital, Risk, and Labor

Western Socorro County[1] stockman Montague Stevens left a collection of letters, spanning over three decades, to his friend and business partner, army officer Leonard Wood, in which he discussed New Mexico sheep ranching in extraordinary detail. The collection, housed at the Center for Southwest Research, University of New Mexico, Albuquerque, covers a range of matters pertaining to the business, particularly the capital requirements, but also the risks and labor issues, for sheep growing in the late nineteenth-early twentieth century time period. The letters provide, furthermore, significant insights into a notable rancher's life during this period. They also express his sometimes harsh assessments of the Hispanic herders and sheepmen he encountered, assessments with which many western Anglos would agree.[2] Wood was a trained physician, a graduate of Harvard Medical School, and later attended graduate school at Georgia Tech. He played a prominent role in the Spanish-American War and rose to the rank of general in the U.S. Army. Stevens employed his own and his wife's considerable inherited wealth together with Wood's investment to build a large-scale, and quite innovative, ranching operation. The story of that endeavor will be presented here chronologically, just as Stevens related it in his letters to Wood.

Stevens Background

Montague Stevens was born in London in 1859 to an extraordinarily wealthy family.[3] His father, a general in the British Army, had spent many years stationed in India, where he amassed his wealth. His mother had inherited a fortune of her own. Stevens attended Cambridge University, where he received two degrees, one in mining engineering and one in law. General Stevens had intended for his son to join his brother's law practice in London. However, during college Montague went on a hunting trip to Wyoming and fell in love with the American West. Upon his twenty-first birthday, he inherited about $100,000 ($2,000,000 in 2010 dollars) from his mother's dowry and immigrated to America, leaving behind forever the predictable, comfortable, circumscribed existence of a London barrister. He also left behind an even larger fortune, as his father, angered by his decision to forsake a law career, disinherited him.[4] By 1882, the cattle bubble in full swing, Stevens was raising cattle in the high valleys of the Mogollon Mountains and purchasing ranches from earlier settlers in the general area of today's town of Reserve, New Mexico.[5] Stevens was one of a cohort of cattlemen who came to the area over a very short period and transformed it into cattle country.[6] Up until this time, the area had been sheep country, the growers all Hispanics who had never purchased or homesteaded the lands they were using. Within a few years Stevens was running some 8,000 head of cattle. He learned the business from the ground up, riding with his cowboys, and became best friends with his foreman and hunting buddy, Texan Dan Gatlin, with whom he shared many adventures that he later wrote about.[7] Stevens met Gen. Nelson Miles and his junior officer Leonard Wood in 1885, during the Apache Wars, when several detachments of soldiers under Miles command were stationed on his range.[8] Having become fluent in Spanish, he accompanied the army into Mexico in pursuit of Geronimo

as guide and interpreter. He was well on his way to becoming a western cattle baron when double disaster struck. First, he shot off his left arm in a hunting accident and almost died. Then, the horrendous winter of 1888-1889 killed 90% of his cattle.[9] Stevens' neighbor, sheepman Solomon Luna, lost about 19,000 head out of the 40,000 he owned at the time, a serious, but less devastating loss.[10] This nearly ruined Stevens financially and probably would have been the end of his ranching career if Gatlin, who had saved up some money, hadn't rescued him by buying up his remaining cattle and otherwise helping him rebuild his operation.[11] Broke and despondent, Stevens ended his engagement with his beloved English-Irish fiancé, thinking she would not want him under the circumstances, and spent the next several years working to recover his losses.[12] Due to a confluence of low cattle prices, overstocked ranges, and large mortgages in addition to the killer winter, many of the other cattlemen in the area simply went bust during this period.[13] For her part, Stevens' former fiancé married a wealthy, abusive Englishman, who conveniently soon died, but not before giving her tuberculosis.[14] Helen Gordon Dill, left in poor health, and Stevens eventually reunited and were married in the Woods' New York City home in 1896.[15] She gave up a considerable inheritance from her first husband's estate when she remarried, but still had about $120,000 of her own ($2,500,000 in 2010 dollars).[16] Shortly after his marriage, Stevens switched from cattle to sheep and entered a financial partnership with Wood, assuming the on-site, managerial responsibilities himself. He succinctly summed up his reasons a few years later: "…experience has proved that cattle raising in these parts is a failure at the best…" As for sheep, he continued, "they have always paid to run, no matter how low wool or

mutton might have been…"[17] In this time period, Englishmen are known to have raised sheep on a large scale in other parts of New Mexico also.[18]

Initial Land Acquisition

Stevens undertook sheep ranching in a very systematic manner. His experiences will be discussed here in some detail, as they not only provide insight into several aspects of sheep ranching, as it was conducted at the time, but illustrate many points of previous discussion. Stevens' first order of business was to acquire grazing land. Land was readily available in western Socorro County at this time because so many cattle ranches had recently failed and their extensive tracts were being foreclosed by mortgage companies or, otherwise, being sold off cheaply by the defunct outfits. In Stevens' words, "the whole country is one may say for sale."[19] The mortgagees were mostly non-residents who knew nothing about the country and were anxious to divest themselves of their ranches, now unproductive but still liable for taxes.[20] Stevens identified a property he wanted, the S.U. Ranch, and got himself appointed co-receiver for the bankrupt operation.[21] Two London-based companies held mortgages on the ranch that had gone into default. They added up to about $80,000, largely tied up in livestock. In his new capacity, Stevens worked closely with the mortgage companies and their high-powered attorneys in Denver. He hoped to purchase the property, including the livestock, from the mortgage companies for $60,000 with $15,000 down payment and the remainder to be covered by a loan to be paid over a period of five to seven years at 4% annual interest.[22] As it turned out, he was tasked with selling off the remaining cattle, 8000-10,000 head, for the mortgage companies. He later stocked the range with sheep and did eventually

purchase the property. His most immediate problem was in dealing with a Judge Hamilton, a corrupt federal judge presiding over the bankruptcy, who had a scheme for milking money out of the property and, to that end, had appointed a co-receiver he could control, a man named Smith, who, according to Stevens could barely read. Smith was later murdered and Hamilton then appointed a Mr. Balmey as his replacement.[23] The Judge attempted to bypass Stevens by means of a fraudulent sale - on paper only - of the cattle below market price to a friend, a Mr. Bruton. To gain possession of the cattle, the Judge and his friends did not plan to actually put up any money, which they apparently did not have. The plan was for Bruton to immediately turn around and sell the cattle at the market price to a legitimate buyer for cash at about $1.00-2.00/head above the fraudulent purchase price. Judge Hamilton and his circle of friends stood to clear in the range of $8,000-16,000, the difference in price between the fake sale and the legitimate sale of the 8,000 head. The mortgage companies would be paid the smaller amount, the fraudulent sale price, for their cattle and thus be swindled out of the money the Judge and his friends got. This was not in Stevens' and Wood's best interest because a smaller amount of the mortgages would be paid off by the sale, which they would have to make up if they were to purchase the property at a later time. To counter this possibility, Stevens requested Wood to put up $10,000 and, at the same time, wrote his sister in England to send him money. Wood immediately sent Stevens a check. This would enable him and Wood to put up real money and outbid Bruton in the upcoming court-ordered sale of the cattle at public auction. A larger fraction of the mortgages would thus be paid off, and Stevens and Wood would be able to acquire the ranch from the mortgage companies for that much less. When the court proceeding actually occurred, Stevens

simply presented Wood's check for $10,000 as a down payment for the cattle. This apparently bluffed out the Hamilton-Bruton ring, which had no cash to put up. No cattle were actually sold at that time though.[24] Instead, the attorneys for the mortgage companies pressured Judge Hamilton to empower Stevens to sell the cattle privately on behalf of their clients. Stevens believed he could sell off the dry cattle immediately for about $30,000-40,000, reducing the mortgage liability correspondingly so that he and Wood might purchase the ranch and the remaining livestock for about $40,000. It might seem that this would be the end, but it was not. Hamilton attempted then to somehow resuscitate his scheme and remove Stevens as co-receiver on the basis of some sort of trumped up charges, leaving his man, Balmey, as sole receiver. Stevens countered by requesting Wood, who was then stationed in Washington, D.C., to contact his friend "Judge Field"[25] about removing Hamilton from the bench, later reiterating the request "if you should have another chance to talk to him [Judge Field] at the Club." Apparently, there had been a fair amount of grumbling about Hamilton by others in New Mexico and elsewhere, so the request was not entirely specious.[26] The situation was even more unsettled than this would indicate. Balmey was also postmaster of Socorro, a political appointment, and had apparently intercepted some important letters from the attorneys in Denver addressed to Stevens, which concerned filing charges against Hamilton with federal authorities and initiating a federal investigation of the judge.[27] In a later letter, Stevens requested Wood to report Hamilton privately to U.S. Attorney General McKenna in continuation of his hope for a federal investigation. No action was actually taken, as it was later determined that sufficient evidence to remove Hamilton from the bench was lacking.[28] Apparently, several New Mexicans who had had unpleasant dealings with him

did not want to openly oppose the judge and testify against him, since he wielded considerable local influence. This was particularly true of lawyers with cases slated to come up before him.[29] The proceedings dragged on for well over a year. But Stevens eventually gained control of the property. If this sequence of events seems complicated, it was. But it illustrates both the considerable ready funds ranchers needed in order to function effectively and how New Mexico's infamous atmosphere of political corruption spilled into the economic arena where it could adversely affect ranchers. It also shows the benefits of having influential friends in Washington.

Stocking the Range

Stevens next step was to stock his range with sheep. He anticipated correctly that McKinley would be elected president in 1896, the wool tariff would be reinstated, and wool and sheep prices, depressed at the time, would go "up at a bound."[30] So he was anxious to buy quickly while prices were still comparatively low. He considered buying a flock of heavy-fleeced California ewes but was uncertain whether they could tolerate the harsh New Mexico range conditions. So instead, he shifted his attention to a flock of Arizona Merinos, which sheared a heavy 7-8 lb. fleece. The Arizona sheep dealers were anxious to sell at a relatively low price.[31] In the mean time Stevens' sister sent him $3,100 ($83,000 in 2010 dollars).[32] But his hands were temporarily tied, as the English mortgage companies, concerned that the cattle sales might not cover their initial investments, needed to approve Stevens' proposed sheep purchases. At this point, one of the Denver attorneys traveled to London to negotiate with his clients and to clarify their conditions on the sale of the cattle and Stevens' purchase of sheep to be grazed on the

property. As it turned out, Stevens sold half the cattle to a Kansas bank president and purchased the other half himself, deferring his sheep purchase until the fall. The cattle he sold were to be delivered in several shipments over a period of a year and a half, and the mortgage companies were determined to put off the sale of the land until the cattle were completely gone. As the S.U. ranch was not to be sold for some time, Stevens managed to lease the property from the mortgage companies and stock it with his own sheep.[33] As rent, he agreed to pay the annual property taxes, about $250 per year. With Stevens' funds now tied up in cattle, it was agreed that Wood would put up $5,000 ($130,000 in 2010 dollars) toward the purchase of 5,000 head of sheep, the minimum number for a profitable operation in Stevens' assessment. To manage the sheep, he estimated further, it would be necessary to hire "one good white man" at $30.00/month.[34] In the mean time, he delivered the first S.U. cattle shipment of 2000 head to the Magdalena rail terminal in late July or early August. He then bought the Arizona herd, 3,750 ewes at $1.60/head, and 100 graded rams at $5.00/head. Wood put up $5,000 and Stevens $1,500 for the purchase.[35] Other sheepmen in the area imported large numbers of sheep from both California and Texas, where prices were depressed due to severe droughts.[36] Stevens then hired a Mr. Hayes at $30.00/month as *majordomo* and two "Mexican" herders for the two herds he thus constituted.[37] On the 150 mile drive from Arizona to the ranch, Hayes died, and Stevens had to hire another *majordomo* quickly. [38] In the mean time, Helen's father visited the ranch and gave her $5,000 to invest in sheep apparently.[39] Later, in November of 1896, Stevens bought another flock of 1080 sheep in Albuquerque, apparently upgraded *churros* - improved Mexican sheep – that produced 5 lb. fleeces.[40] By the late summer, sheep and wool prices had started their climb in anticipation of

McKinley's election.[41] The following spring, Wood sent out another check to Stevens, this time for $3,000.[42] In late March, Stevens made another large purchase of 3,300 mature ewes, 400 yearling ewes, and 1,200 wethers for which he made a down payment of $4,500, the balance to be paid in July when the wethers and wool were sold. He described these as 7 lb. sheep, apparently also upgraded *churros*.[43] This third sheep purchase turned out to be a major headache. The dealer attempted to substitute inferior ewes for the ones he had agreed to sell and Stevens had to go to a great deal of trouble to get the man to live up to the original agreement. Then, the delivery of the stock was late. Difficulties like these were routine in New Mexico and had to be dealt with by the growers as best they could.[44] When the matter was finally settled, the partners were holding about 8,000 ewes.

Lambing, Shearing, and Sales

In anticipation of the 1897 spring lambing, his first, Stevens read everything on the subject he could get his hands on and started building a dipping facility.[45] About 5,000 lambs were born during the lambing. The survival rate after two months was an above-average 85%, losses having been sustained due to dipping, blowflys after ear-marking, coyotes, and the like.[46] With lambing completed, shearing yielded 42,000 lbs. of wool. After investigating the possibility of selling the wool through a Boston dealer, the partners marketed it in New York City through Wood's brother, Jacob H. Wood. Like other large-scale New Mexico growers, Stevens dealt directly with east coast dealers, bypassing local merchants like Charles Ilfeld and Frank Bond.

By this time operating expenses were beginning to add up. The cost of the lambing had been $500; the cost of the shearing had been over $200; and the cost of shipping the

wool to the rail junction in Magdalena was $250. Stevens decided to have the wool scoured in Las Vegas at a cost of $0.01 per lb., $420 total. This reduced the weight of the wool and, thus, the cost of transporting it east. Stevens hoped to realize $4000 from the sale of the wool, of which $2000 was needed for the final payment on his last sheep purchase.[47] Presumably he got this. Jacob Wood sold the partners' wool shipment in late 1897 or early 1898. It was a very successful first year.

More Expenses

A new opportunity for land acquisition arose in the spring of 1897. Apparently, prior to declaring bankruptcy, the S.U. Cattle Company had made an $800 down payment on two other ranches on the Tularosa, below the S.U. range. An amount of $1,200 was coming due to finalize the purchase, but the mortgage companies were balking at this further expenditure.[48] Stevens suggested to Wood that they buy these two ranches, which were fenced, would be excellent lambing grounds, and could be irrigated with the existing S.U. dam. By owning these two ranches, Stevens believed that the partners would "virtually own the heart of the S.U. range and practically prohibit anybody else from bidding on the S.U. ranches [when they went up for sale], and I think it will therefore enable us to make our own terms with the mortgagees for the purchase of them." The bulk of all these "ranches" was, in fact, dry rangeland in the public domain, which would be controlled by the tracts owned and patented along the Tulerosa, the essential water source for the livestock.[49] By late spring, Stevens had indeed negotiated the purchase of the two ranches, one for $450 and the other for $650, freeing the mortgage companies from sinking additional funds in the properties.[50]

Obviously, a considerable amount of planning underlay the establishment of the sheep operation. Stevens' experiences are revealing. A large amount of money was required to establish a sheep ranch. It was more complicated, and expensive, than suggested by any of the promotional literature. In the fall of 1897 before the first year's wool was sold, Stevens had additional, apparently unforeseen, expenses and was squeezed for funds. He spent $50 for wool sacks, $200 for cement for the dipping facility, $150 for burros and pack saddles, and $150 for sheep dip, all necessities. And the monthly operating expenses for his four flocks were now running $300. He requested Jacob Wood to advance him $3000 on the upcoming sale of the wool. And he requested Leonard Wood to invest another $1000 in the ranch, which Wood did.[51] Stevens knew he could, if necessary, borrow the needed operating funds from an Albuquerque bank, but if possible he wanted to avoid the 12% interest the bank would charge.[52] The good news was that sheep prices were rising rapidly, essentially doubling since the first purchases. Also, Stevens made $1,200 on the sale of his calves from the S.U. cattle he owned, which he invested immediately in sheep.[53] In December, after dipping, Stevens moved his sheep to a leased winter range of 5000 foot elevation, about 70 miles northeast of his headquarters ranch.[54]

At this point, Stevens was faced with another challenge, the acquisition of heavy-fleece rams. He had already acquired about 90 Merino rams, which he had used the previous season, and planned to use again on the "common ewes." Now, to boost his wool production further, Stevens sought Shropshire rams, copious wool producers. He needed forty or fifty, but to get the best price, $15.00 per head delivered in Magdalena, it was necessary to buy an entire railroad car of one-hundred and fifty. Such rams

purchased individually or in small lots were considerably more expensive. Large-scale growers with the resources to purchase a full car load of rams thus would realize an economy of scale. To this end, Stevens made an agreement with his neighbor, Solomon Luna, to share a full car load; Stevens ended up with forty-seven, and Luna took the rest, about one-hundred.[55]

Stevens then turned his attention back to land. In particular, he was in the market for a lower-elevation tract to use as a winter range, about 4,500 feet as compared to the 6,000-8,000 foot elevation of the S.U. range, which had good grass but underwent a killer winter about every ten years. During the1888-1889 winter, as previously mentioned, Luna lost 19,000 out of 40,000 sheep on his 8,000-foot elevation range. The snow had gotten so deep that he was unable to drive his flocks to lower elevations where the weather was milder; they died in place.[56] Hoping to avoid such a disaster, Stevens searched extensively and found two ranches for sale, "the Blain ranches on the Baca places," that satisfied his requirements. He used Wood's most recent $1000 investment to make the down payments, $400 and $450, on the $2,500 properties.[57]

Early Success

By the fall of 1897, Stevens had 10,923 sheep, divided into four flocks. He also had 80 "fine Merino bucks," the rams constituting a fifth flock.[58] A large herd, such as this, was desirable, as Stevens reported, "Of course the more sheep we have the cheaper and better we can run them..."[59] This herd was, nevertheless, much smaller than the massive *churro* herds held by some Hispanic sheepmen in years past. Anglo sheepmen tended generally to have smaller herds of more highly graded sheep than Hispanics. Montague

Stevens was no exception. This was, in fact, a fairly typical holding for New Mexico's Anglo sheep ranchers, whose herds ranged from 5,000 to 30,000 head.[60]

Stevens' sheep had done well over the winter of 1897-1898 on the leased lower-elevation land. By the early spring he was in the market for his own winter pasture land. He found some properties in foreclosure on, or near, Alamosa Creek, near the town of Luna. The Spur Ranch, as they were called, was available at a cost of $4,500, payable in three installments. Stevens believed the tracts could hold 50,000-100,000 head.[61] Cattle investors had paid $60,000 for them a few years earlier. One tract consisted of about thirty patented claims of 160 acres, which controlled the grazing over a twenty-mile square area, with houses on site that would be useful for "our Mexican herders' families." The property also included 200 acres of "fine farming land" with water for irrigation.[62] Stevens was prepared to obtain a bank loan to make the down payment, but requested Wood to loan $1000 for the purchase at 6%, to be paid off when his brother, Jacob, sold their wool in July (1898). Some time later, after he acquired the property, Stevens made the Spur Ranch his headquarters. It was 125 miles from Magdalena, four days travel in winter; mail delivery took from four to seven days.[63] In the mean time he had sold the partners' remaining interest in the yet unsold S.U. cattle to Dan Gatlin, but would not receive payment until the fall when the stock was sent to market.[64] The New Mexico sheep economy demanded that major capital assets needed for future expansion be bought on credit. Financial commitments could only proceed smoothly upon the successful execution of previous contractual obligations. A steady stream of income was required if all the agreements a grower was engaged in were to be consumated. Stevens' sources of capital ranged from small local banks to east-coast private investors to family

funds from England. Without good credit, it would have been impossible for him, or any other large-scale rancher, to operate efficiently and compete successfully.

Stevens achieved a nearly 100% lamb crop in the spring of 1898, his second lambing season, for an income of $4,000-5,000 in future sales. A typical lamb crop in the area was 70%. He proudly boasted that his was the highest percent lamb crop the area had ever seen, and he was able to do this with only one third of the usual labor costs by employing an innovative system of movable wire fences, which he had developed himself. To his satisfaction, Stevens discovered that his graded sheep were easier to herd and their lambs sold for 15-25% more than the common lambs. He proudly reported to Wood that their sheep were so large that only 155 could be loaded onto the deck of a stock car whereas 175 was the usual load. They were, he claimed, "the finest that ever left Magdelena."[65] As for wool, the Arizona Merinos, which the locals had predicted would do poorly on the open range, had in fact each produced $1.00 worth of wool, on average, while the common "Mexican" sheep were producing about $0.40 worth. He did concede that the common sheep would do better on the open range under "unfavorable conditions," which, of course, had been an important factor in the adoption of the *churro* some three centuries earlier. After two years in the business, a rather overconfident Stevens' concluded that "…the sheep men out in this section know very little really about sheep." The men he was referring to were mostly Hispanic "small holders", following traditional practices that had never been challenged. He further wrote that the "old sheep men out here" hold "many misconceptions." They ran their sheep near their ranches at the same elevation year around, while he was finding that the key to success with graded sheep was to run them at low elevations in winter, where there was little snow, and at

high elevations in the summer, where it was cool and shady. Unquestionably, up-to-date sheep growing methods were slow to penetrate rural New Mexico. However, Stevens may have been overly critical of his neighbors. The partners now had about $40,000 ($1,000,000 in 2010 dollars) invested in the business, which Stevens' believed was worth $50,000-60,000 at the time. Wood, having served as a brigade commander during the recently concluded Spanish American War - his command included Theodore Roosevelt's Rough Riders - was now a Brigadier General and Military Governor of Cuba. He had his mind on matters other than sheep.[66]

Disaster Strikes

If Stevens' reports to Wood sounded too optimistic, too self-assured, they were. With the flocks in good order and his wife experiencing health problems, he accompanied her back to England in December of 1898 so she could see her family's eminent doctor. While they were away, the worst winter in years swept through the West, causing large sheep losses from Wyoming south into Texas, New Mexico, and Arizona. In January 1899, Stevens' weather-weakened sheep contracted scab from some diseased traveling herds. His foreman quickly exhausted the inadequate supply of sheep-dip chemicals that was stored at the ranch for combating the affliction, and the supplier in Magdalena ran out. It was a month before a new shipment arrived. At that point, the foreman dipped the flocks during very cold winter weather, causing substantial losses. Upon his return in April 1899, Stevens, frustrated and angered by the losses and the man's poor management, fired his foreman. But his problems had just begun. Matters worsened when winter was followed by "the driest spring on record." Stevens reported that there

was no rain or snow between February and July. There were forest fires, but no new grass came up. And with green grass lacking, the spring lamb losses were devastating, the weakened ewes producing only 2,500 lambs. Many of the ewes, having no milk, abandoned their lambs. Out of 16,000 head at the start of winter, 6000 had perished by mid-summer. During the same period, Luna lost 1,600 head from a single herd [probably about 2000 head], Stevens reported. Next, with his herds severely depleated, his fall wool clip was only 40,000 lbs., where he had anticipated 120,000 lbs. Overall, the ranches suffered a $30,000 loss in sheep and wool.[67] In his own words, Stevens, contrite and under immense stress, described himself as having worried until he didn't have "the power to worry any more." Resuming personal oversight, he stayed out at his sheep camps almost every night following his return from England. In a separate short letter to Wood in the summer of 1899, he wrote, "I have been nearly worked to death."[68] Despite the disaster, one of his sheep sheared sixteen and a half pounds of wool, as noted above, cf. chap. 4. He proudly sent a wool sample to Wood.[69]

Lessons learned

In the aftermath of the disaster, Stevens admitted to himself and to Wood that they had not been adequately prepared for the inordinantly harsh conditions they had just experienced. He had seen the considerable potential for profits in sheep, but now saw, for the first time, the barriers. He stated, "I think there is no business [here] or anywhere else for that matter that pays better than the sheep business provided you are fixed to run it right on every point, otherwise you are always liable to serious loss." He admitted further that he had possessed "not the least conception at the time" of the risks in raising

sheep when he entered the business. Stevens had identified the fallacy of the absurdly optimistic promotional literature of the period, cf. chap.5.[70] He noted that the profits in sheep were "so great because the risks are so great, unless you are properly fixed." It was the failure to prepare for every contingency that keeps "everyone" from entering and prospering in the business. A rancher might not need every one of his safeguards as various contingencies arose, but he would never know which one might be essential. All of them had to be in place if his operation was to be secure. And money was needed for this. "But to be fixed for every contingency that might arise it naturally needs lots of capital which of course we haven't had," Stevens wrote. In his assessment, one needed about $40,000 to start a secure, stable sheep operation, although others had done it successfully with "much less." In those cases, an element of luck was involved, "shear good luck" in Stevens words. Promotional literature presented cases of initial investments ranging from $5,000 to $15,000 leading to a profitable sheep ranch. In reality, by the end of the nineteenth century, running expenses had increased substantially from a few years before. In Stevens' assessment, those who enjoyed "a series of good seasons combined with good prices for wool and mutton" in the first years after they entered the business were most likely to succeed. A few men had indeed made fortunes in sheep starting from a small scale, he conceded. Thousands of others began on a small scale and had failed. The "principal cause" of the many failures in sheep growing in the past was "lack of sufficient capital." Stevens was critical of his neighbor Solomon Luna, who attributed his own losses to "bad luck." Luna, his family's involvement in New Mexico sheep extending back over two centuries, now held what might have been the largest herd in New Mexico. He preferred, in Stevens' view, running big risks to making

the capital investments that would render his operation safer financially.[71] For his part, Luna was no stranger to capital investment; he was President or Vice President [sources differ] of the First National Bank of Albuquerque for many years.[72] A hands-on manager like Stevens, Luna was one sheepman who could sustain very large losses and still recover. Following the killer winter of 1888-1889 when he suffered the huge losses noted above, he is known to have purchased large numbers of sheep over a period of months entirely on credit, and rebuilt his flocks within a couple of years.[73]

Rebuilding

After his losses, Stevens began to address his newly appreciated need for various safeguards. In particular, he considered growing his own winter feed, which would have prevented the worst of the terrible losses he had just undergone. He saw this as possibly the most important of the safeguards he had heretofore lacked. Specifically, he was thinking of employing the agricultural sections of the Spur Ranch to grow alfalfa and other feed grasses. The start-up cost to plant 300 acres was $1,000-1,500, money he didn't have.[74] At this point, Stevens found himself in even more serious financial straights than in the past. He and his wife had by this point invested over $25,000 ($700,000 in 2010 dollars) in their sheep ranches. Now, he needed cash to rebuild his flocks as well as create expensive new safeguards, but had no immediate personal resources. Forced to take his least favored option, he borrowed money from an Albuquerque bank, some amount over $12,000.[75] It would be many years before he paid off this loan. And Wood invested another $1,000 in December 1899, bringing his total investment up to $10,000.[76]

Stevens now also understood that he needed a better dipping facility, one that included a building that could house over night the 800-1000 sheep dipped each day, allowing them to dry off safely, since exposure to sub-freezing weather and cold winds could kill the wet sheep during the night. With such a facility, sheep could be dipped any time of year, whenever a flock became infected, scab having become a persistent problem due to the increasingly crowded range. Scab was at its worst and spread fastest in cold weather. The location of the dipping facility was important. It had to be accessible to driven flocks in the harshest winters, never isolated by deep snow drifts. Alkaline water, as ran in most lower-elevation streams in New Mexico, was to be avoided as it tended to neutralize, and thus weaken, the acidic dip solution then in use. Stevens built his facility at his recently-acquired ranch at Horse Springs, midway between his summer and winter range, where the water was "absolutely pure." It cost $2,500, which was taken out of a total of $8,000 his wife invested in the ranch using funds she brought back from England in April of 1899, $14,000 apparently from her father.[77] He stated that a dipping facility could be built for $500, but it would be "virtually useless," probably an exaggeration. Having built the most advanced dipping facility in the area, Stevens earned about $500 the first year it was in operation, dipping the flocks of other local sheepmen, including 36,000 head for Luna. This was in stark contrast with the self-destructive practice of some local sheepmen, who refused to dip their flocks, or did so improperly, despite recent territorial law which now demanded it on a yearly basis. Stevens expressed considerable frustration over this widespread negligence, as did many other responsible sheepmen whose flocks were subject to infection.[78]

Some of Steven's other capital expenditures paid off relatively quickly. To reduce

the cost of shipping wool the 90 miles from his shearing camp to Magdalena, which had been running about $1,000 per year, Stevens purchased four large freight wagons and ten mules to pull them for $625. Then, he was able to hire teamsters to drive his wool to the rail depot for less than $375, so that his outfit paid for itself within a year. Wool growers who could not come up with the necessary funds for their own transport equipment, were constrained year after year to pay a premium for shipping.[79]

Summarizing their highest-priority capital requirements in a seventeen-page letter to Wood, after their first three years in business, Stevens listed good summer range, which included the leased S.U. Ranch [later purchased by Stevens]; good winter range, which included the Garland and Spur Ranches, currently owned; good sheep dipping facilities, the Horse Springs facility; and hay growing, which required a good irrigation system and had been heretofore neglected.[80] He understood now that sheep needed to be maintained in good condition at all times, so they could tolerate any weather that came along, be it a sudden winter cold snap or summer heat and drought. Feeding and dipping were expensive, high-priority items to this end.

Stevens had been learning fast. He "studied every book, pamphlet, etc. that I could possibly get hold of and besides making a very close study of conditions as they exist here I have tried numberless little experiments in order to get at the right way of doing things and I am pleased to say I have succeeded in many ways in doing things not only infinitely cheaper but infinitely better than they were ever done before, at any rate in this section." Stevens was looking ahead to a prosperous future. Innovative Anglos, like Stevens, with capital and knowledge not commonly possessed in New Mexico did indeed play an important role in bringing New Mexico sheep ranching, which had, under trying

conditions, progressed little, if at all, under Spanish and Mexican sovereignty, up to contemporary stardards.

Ups and Downs

By the fall of 1900, things were looking up again. As Stevens described the stock, "Our herd is without exception, the finest herd in these parts both in the quality and size of the sheep." With the ranches apparently flourishing, Stevens hoped to accept an invitation from Wood to visit him in Havana, but that would have to wait until the spring of 1901 after the "backbone of the winter" was broken.[81] The trip never took place; Stevens, perhaps spooked by his previous experience, had not become sufficiently comfortable to take another extended leave from his ranches. With his growing awareness of the large element of chance in western sheep growing, the gamble inherent in the business, he shifted direction. At this time, he was devoting ever more of his energy to developing his agricultural resources. During the previous spring he had dammed up a stream running through his land and created a large reservoir capable of irrigating five-hundred acres. He had dug several miles of irrigation ditches and built flumes to carry water across the stream bed. Additionally, he put up several miles of fence to keep loose range stock off his hay fields. It was slow, expensive work, which he undertook despite being in debt, a source of continuing anxiety for years to come, but a common condition among stockmen. In his own words, it was "one constant expense and outlay for several years."[82] Farm implements, in particular, were expensive, and Stevens had just purchased a saw mill for $300, a move to combat the high price of the lumber he needed for his farm structures.[83] In later years he dealt commercially in

lumber. Lacking the resources to seed all his agricultural lands in the beginning, Stevens rented out sixty acres on shares and planted only eighteen acres of alfalfa on his own. But by the end of 1902, he had planted 250 acres of rye to be used in the following spring and summer.[84] He was making a major investment in agricultural resources.

Around the end of 1900, Stevens faced a new complication. The federal government established a forest reserve that took up about half of his "range and ranches," i.e. land that he never owned but considered part of his ranches. The end result, after months of uncertainty, was that he now had to obtain a grazing permit to run a restricted number of sheep on the reserve, his former "ranch land," and then only between April 1 and September 1.[85] The agricultural lands that he did own lay within the boundary of the newly established reserve, making it almost impossible to get his sheep from outside grazing areas to his farms for winter feeding since that would require that the flocks be driven illegally across reserve land.

From this point on, Stevens seemed to come up against an endless sequence of setbacks and few successes. Some of his misfortunes were beyond his control. In 1901, drought in the cornbelt decimated the corn crop and, along with it, the market for feeder lambs throughout the midwestern feeding region. In 1902, drought in Colorado drove the price of alfalfa so high that it made no sense to feed it to lambs, eliminating the market for feeder lambs in Colorado. As a result, there was little or no market for New Mexico feeder lambs two years in a row.[86] To make matters worse, it was not easy to borrow large sums of money when they were needed to carry ranchers through hard times. Stevens noted that capital was "naturally timid" about entering the sheep business. Investors had not forgotten their losses in western cattle ranching in the late 1880s.

However, he considered this a good thing, as outside investment would give rise to too much competition, too many sheep and a decrease in profits for western growers.

In the late spring of 1903, another killer blizzard hit suddenly in Montana. In a period of forty-eight hours, hundreds of thousands of lambs and mature sheep were lost. As Stevens described it, "…Many sheepmen lost the results of years of toil." In New Mexico it was just another bad winter, fortunately, but the damage, such as it was, left an even deeper and more lasting impression on Stevens than his many previous difficulties. After eight years raising sheep, he understood clearly the inherent insecurity of sheep ranching in all its ramifications. More generally, he now possessed a comprehensive understanding of the entire business, the risks and the benefits. Once so optimistic, he became quite pessimistic about the industry. As he described to Wood:

You may go rapidly ahead for a time (like we did at the start) and then like a thunderbolt in a clear sky, you may get a back-set from which it takes years of patient toil to recover, and even when you have made the recovery there is no telling when you may not have another one from some entirely new and unexpected cause. Besides all this, when a man feels he has got his all invested in a thing [as Stevens had] which may any day break him through no fault of his own (except perhaps being in it!) the constant worry and anxiety for fear of sudden calamity, even when things seem to be running most smoothly, is beyond belief except to those who have tried it. ….Of course it is precisely because of the huge risks and losses incidental to the range sheep business that there are also big profits for the lucky ones…Under certain conditions there is no doubt that the sheep business is about the best paying business out but it is much like a complicated machine which

works well as long as each part is perfect but let even one insignificant part be missing and the whole machine is useless."[87]

Capital Investment Summary

By 1902, Stevens and Helen had invested about $30,000 in their sheep ranches, while Wood had put up $10,000 ($1,000,000 total in 2010 dollars). Stevens believed the total operation, the land, the capital equipment and facilities, was now worth far more than the start-up costs. But he seems never to have had any excess cash on hand to pay the dividends Wood had hoped for. He reinvested all his profits in the ranches year after year, increasingly redirecting his efforts to developing his agricultural resources. He now had five-hundred acres under irrigation. His goal was to develop a feeding operation for raising high-quality lambs.[88] He held a total of 6,000 acres of patented lands, which he estimated were worth anywhere from two to ten times their purchase costs.[89] By this time, however, Stevens was plagued by an entirely new matter, a growing labor problem which he had not, in the least, anticipated.

Labor Problems

By the late 1890s, Stevens was finding it increasingly difficult to hire good herders. He lamented in his correspondence that the Hispanic sheep herders that he was now able to hire were, with few exceptions, lazy, mean, and irresponsible. Continuing, he noted that in his first years after entering the sheep business, he had been able to readily hire competent, responsible herders, but "Now they will only work for a month at a time. When they get a few dollars, they quit and go off to some plaza to drink and gamble," he

complained to Wood.[90] This development was real and did not occur without reason. New Mexico sheepmen were actually facing serious competition for labor for the first time. And that was almost certainly an important factor in their views toward their employees. Both the western railroads and mines and the Colorado sugar beet farms had started employing Hispanic labor on a large scale. The effects seemed to have hit western Socorro County rather suddenly. Working as section hands and repairing washouts on the railroads and picking sugar beets in Colorado, the most common emerging employment opportunities, were acknowledged to be tougher than herding sheep, but the pay was better. As Stevens described the situation, these options drew the most ambitious, energetic, and responsible men away from New Mexican villages on a seasonal basis, leaving behind the marginal workers. In particular, the men who had been the ablest, most reliable herders went elsewhere for employment, wherever railroads were being built or sugar beets grown. The sheepmen simply could not match the wages being offered elsewhere, despite the fact that the Hispanic villagers were seen by their new employers as a source of "cheap labor."[91] Open-range sheep growing had always depended on cheap, or even free, labor. And the supply was disappearing. Other Hispanic men, who stayed behind, had modestly successful small farms and ranches and were not overly anxious to hire themselves out, although many certainly had the skills to do so. The large-scale sheepmen had to make do, to a considerable extent, with the un-ambitious men who stayed behind or drifted back home after they found out how hard the new jobs were. During the first years of the partners' operation, starting in 1895, there had been a ready supply of good Hispanic herders, although otherwise "totally illiterate and ignorant." They were, Stevens observed, actually happy to be employed once again

herding sheep after being economically marginalized for so many years by the cattle takeover in the area. But after the turn of the century, the available labor force had deteriorated. "Years ago there were quite a number of good Mexican herders but the present generation as a class has all the low class white man's vices with none of his redeeming qualities," Stevens asserted in 1905.[92]

Not only herders but supervisory employees became hard to find. In years past, Stevens noted that he had employed a few "really good" Mexican foremen, apparently men who demanded and received what he considered a fair amount of work from the herders under their supervision. But now, he reported to Wood, if he had a good foreman, the workers would gang up and "all work against him" and demand his discharge. Likewise, if there were a particularly responsible, hard-working man on the crew, the others would demand he be discharged. Stevens responded in frustration by firing whole crews at a time and, as a consequence, found himself in a constant state of hiring. He found it necessary to hire men who lived along the Rio Grande, one-hundred and fifty miles distant, where there was still an adequate labor supply. He would then transport them by wagon to his ranches. Many other stockmen undoubtedly did likewise. Stevens was bitter because he believed the kindness and fair treatment he felt he had extended to his workers over the years was to no avail. He claimed that "man after man has quit me because he said "I worked him to death.""[93]

The most difficult time to hire workers was during the April-May lambing period when extra men were needed at all the sheep ranches. During lambing, Stevens reported, the hired hands would "wait till you were short of men and then quit you in a bunch." To compound his difficulties, incompetent shearers were killing 200-300 of his sheep each

season through their carelessness, while presenting similar labor problems.[94] It was becoming necessary to contract and pay laborers in advance, and then they did not always show up as agreed. The courts provided no recourse. “If the least little thing happens to offend one of them [during lambing] the whole lot may go on strike and leave you in the middle of lambing, and there were no others to be hired.” By his own account, Stevens, always short handed at lambing, at times put in twenty-four-hour days for two or three days running during the month to six-week period.[95] During dipping, probably during the spring of 1905, he precipitated a general strike, when he fired one recalcitrant employee. The same scenario repeated itself some weeks later during shearing. Stevens then hired a replacement crew of “good Indian shearers,” who competently sheared about half his stock and then abruptly departed. He found out subsequently that the local Hispanic shearers had threatened to kill the Indians if they did not quit. Under the circumstances Stevens had to hire another Hispanic crew, sub-standard in his assessment, to finish the job.[96] The problem was exacerbated, as Stevens noted, because “the Mexicans were all more or less related to one another…” If a man were fired, all his relatives would quit in protest. What Stevens did not mention in his letters was that a significant portion of these temporary workers, were themselves small-scale farmers and ranchers and did not depend absolutely on the extra sheep work for their livelihood. If they found the employment did not suit them, they could and did walk away. The contrast to the *peon-patron* relationship, widespread only a half century earlier, where the *peon* was totally beholden to his master, could not have been more dramatic. Sadly, the Hispanic sheep workers seem to have left little, or no, written records describing working conditions on the sheep ranches during this period. The basis for any dissatisfaction they may have had is

unclear. Their untold story might have been revealing.[97]

Solomon Luna managed his men more successfully than Stevens. As Stevens, reported to Wood, Luna's men were beholden to him because many had worked for his father and their families lived on his land at Las Lunas. And like *peons* many were also in debt to him, for an aggregate of several thousand dollars.[98] Longevity in the business clearly had its advantages. In describing Luna's modus operandi, Stevens noted that although Luna generally "treated his men very well," he controlled them through fear. He occasionally would beat a recalcitrant herder.[99] If a man seriously failed him in some other way, Luna would have the man thrown in jail on some pretext and left there for a few months awaiting trial. Then the man would, upon Luna's order, be turned loose with an admonishment to mend his ways and made an example for the other herders. According to Stevens, Luna's unopposed political power and influence in the region was such that he could get things like this done on the quiet.[100]

Withdrawal from Sheep Ranching

Stevens' problems had become overwhelming by late 1903. His incompetent herders were losing 20-25% of his lambs before fall, severely cutting into his profits. At some point, his Hispanic foreman, a good man whom he had employed for years, quit, fearing for his life according to Stevens, the herders under him having become so unruly. To make matters worse, another drought had badly hurt both sheep and cattlemen. The Rio Grande south of Albuquerque had run dry. The spring lamb crop had been poor. Also, sheep and wool prices had gone into a steady decline. Stevens began pulling out of the sheep business in the summer of 1903. His letters suggest that it was primarily his labor

problems that drove him to this action. A year later, with 400 acres under cultivation and employing “a few pretty good men” to run his farms, Stevens withdrew entirely from sheep ranching, selling his remaining stock and leasing his ranges, water rights, and dipping facility to Luna for about $2,500 a year, an arrangement that continued for several years. He used the proceeds to pay off the bank loan he had taken out upon his return from England in 1899.[101] He put a handful of his best men to work in his lumber mill.[102] His ranches now added up to about 6,300 acres, 600 acres of which was farm land, about forty patented quarter sections in all, scattered over a 70-mile by 25-mile area. He estimated the land was now worth at least $30,000, his saw mill and farm machinery $4,000, and his remaining livestock (not sheep) $3,000, while taxes on the land ran about $500 annually. In total he believed the entire operation, after nine years, was worth something over $50,000 ($1,300,000 in 2010 dollars), at most only a bit more than the original investment, but a considerable amount of money at the time.[103]

Stevens had not made the financial killing he hoped for, despite his innovations and near super-human efforts. However, in 1909 he sold some of his land, including the two Baca Ranches, at a considerable profit.[104] He claimed in his correspondence that many other large-scale sheepmen were also quitting the business on account of labor problems. In any case, the practice of open-range sheep growing was coming to an end. In 1912, at the peak of his political career, Solomon Luna’s dominance in the industry ended when he was killed accidentally at the Horse Springs dipping facility he leased from Stevens. The small-scale Hispanic sheep enterprises in the area persisted. They were basically family operations, with few, if any, wage employees and, thus, not subject to the growing labor problems. During lambing, entire extended families, both men and women, would

work together and get the job done. Stevens concentrated on farming and continued growing alfalfa for many years. For a short time he raised hogs. He eventually settled primarily into his lumber business, but retained some of his ranches.[105]

Stevens' experiences show just how risky open-range sheep ranching in New Mexico could be. Although he had previous experience raising cattle, Stevens knew comparatively little about sheep when he embarked on the life of a sheep rancher. He learned quickly. After an auspicious beginning, he seems to have been plagued by an endless sequence of setbacks, many beyond his control. A corrupt legal system as it related to land negotiations, a growing incidence of scab, an evolving and uncertain federal public lands policy, a diminishing pool of competent herders and shearers, and the unpredictable weather were all continuing sources of frustration, worry, and financial difficulties. He was not alone in this regard. His friends and fellow ranchers in the area, Dan Gatlin and Ray Morley, Agnes Morley Cleaveland's brother, also experienced considerable ups and downs in their operations. Stevens' later letters often allude to the many western ranchers that had gone bust. For his part, Stevens made a decent living in sheep ranching, but worked tremendously hard for it. He remained for decades a prominent figure in western New Mexico, until his son moved him and Helen to Albuquerque to live out their final years in relative comfort.[106]

The lives of Montague Stevens and Frank Bond provide an interesting contrast. Both men were smart, educated, hard-working risk takers of serious demeaner and about the same age. They both arrived in New Mexico from elsewhere and started in business with family money. And both approached their business in a very systematic and innovative fashion. Bond entered the mercantile side of the sheep industry and was very successful

financially. Stevens took up ranching, faced more extreme ups and downs, and was far less successful financially. Their contrasting experiences point up the greater risks in ranching than in sheep and wool dealing. Bond successfully overcame the various difficulties he faced, flourished, and was in business for decades, while Stevens, buffeted by more severe setbacks, moved out of sheep ranching after less than a decade.

As it turned out, open-range grazing as Stevens practiced would soon be a thing of the past. This is the subject of the following chapter.

Chapter 10

The End of the Open Range

In the final sentence of his seminal essay, “The Significance of the Frontier in American History,” Frederick Jackson Turner states, “And now, four centuries from the discovery of America, at the end of a hundred years of life under the Constitution, the frontier has gone, and with its going has closed the first period of American History.” Turner’s meaning is clarified by recalling that he launched his essay with a quote from the Superintendent of the U.S. Census of 1890 to the effect that a “frontier line” no longer existed and all the wide expanses of completely unsettled lands had disappeared.[1] The disappearance of the frontier as envisaged in the superintendent’s comments was an irrefutable fact. But what this would mean to America when Turner’s essay was published in 1893 was largely unknown. Of course, his implication that great changes were in the offing has been born out in ways beyond enumeration. A clear and comparatively immediate manifestation of the closing of the western frontier was a dramatic transformation of the New Mexico’s livestock industry. Changes were inevitable since stockmen no longer had the option of moving their operations further west and continuing traditional practices when their rangeland was settled by farmers.[2] Cattle and sheep raising on the open range, the tradition since Spanish colonial times and adopted by Anglo newcomers following Mexican sovereignty, became a thing of the past within a generation. Henceforth, livestock would be raised in fenced pastures on farms or on leased federal lands under controlled conditions, a modus operandi that continues

down to the present.[3] This transformation was part of a complex of interrelated national developments that gained momentum in the late nineteenth century: industrialization, capitalization, labor reorganization, technological advances, and changing demographics.

Land Usage

Land and its usage were the immediate factors driving the transformation. Open-range herding, depending solely on naturally growing forage and natural water frontage, required very large tracts of land for commercially viable operations. But by the late 1870s, the New Mexico livestock industry had expanded to the extent that land was taking on an element of scarcity. In the same timeframe, as a result of technological advances, open-range grazing no longer constituted the most efficient use for much of the territory's land. Writing at the turn of the century, Wright described the practice as "an unnecessary waste" of land.[4] Farming would soon surpass the grazing industry in commercial importance, farm crops surpassing in value both cattle and sheep production in the first decade of the twentieth century. See Fig. 5.1 for a comparison of sheep and wool, cattle, and farm-crop earnings. Nevertheless, observing a herder tending his flock on the New Mexico public domain in 1880 would give no hint of the changes about to transpire. The tipping point was reached in the 1890s when an array of land-related developments rendered open-range practices unsustainable. Competition for land between ranchers and arriving homesteaders, small-scale nomadic herders, and national forest allocations, with the concomitant adoption of barbed-wire fencing, all played a role. The degradation of the diminishing public domain was an additional critical factor pushing ranchers off unclaimed rangeland. New efficiencies made possible by fencing

and other technological advances attracted stock growers onto privately owned tracts.

During the Spanish colonial period, New Mexico's herders grazed their sheep on the land grants and outlying unclaimed areas. As long as ownership of the grants remained uncontested, the herders' most critical tasks were to defend themselves and their hardy flocks against Indian raiders and the sometimes harsh physical environment, major but ultimately manageable detriments. Under the pressures of a growing population and the concomitant need for more grazing land, first the herders and then entire communities spread out from the Rio Grande Valley, as described in chap. 2. Any claims to the lands by Indian tribes were disregarded by the Hispanic settlers and later negated by the Americans. The nomadic tribes, overwhelmed by growing *poblador* populations, were the ultimate losers in this early contest for land. By the time of the annexation, Hispanic sheepmen held usage claims to large grazing tracts both within and outside the established grants. The lands legally unclaimed under Mexican sovereignty became public domain under the U.S. Government. The first Anglo stock growers, largely Texas cattlemen who came to the southeastern portion territory after the Civil War, usually found ample open rangeland for their herds on these lands. Thereafter, access to public lands throughout the territory generally followed the western custom of first-come-first-served, cf. chap. 5, which, among other shortcomings, led to overstocking and subsequent range deterioration.[5] For a time, sheepmen, mostly Hispanic, and cattlemen were usually able to keep out of each other's way. But as more Anglo stockmen arrived in the territory, the range became heavily stocked and access to grazing areas became contested. Cattlemen were pitted against sheepmen and large-scale growers of both cattle and sheep were pitted against small-scale growers.[6] In the most extreme cases, brutal land

skirmishes occurred. Although, an uneasy peace usually prevailed, as evidenced by the post-Civil War growth of both cattle and sheep interests in New Mexico, and throughout the Rocky Mountain-Great Plains region, this would not persist indefinitely. In fact, the situation would be totally upset by a new factor.

Homesteaders Arrive

To the land conflict was added a serious threat to both sheepmen and cattlemen: the arrival of homesteaders. The homesteaders started taking up significant expanses of land that had once been the sole domain of stockmen, who, as discussed above, actually owned little of the land they used. In New Mexico, this brought about a significant decrease in the aggregate acreage available for grazing.[7] One might question how the first farmers taking up comparatively small 160-acre tracts removed enough rangeland from production to concern ranchers. In fact, the farmers used the land much as the ranchers had before them. They filed homestead claims on the most desirable tracts available, which were rarely adjacent to each other, but instead, spread out along the water frontage and in the valleys. They then used the contiguous, yet-unclaimed lands as pastures for their own small livestock herds. This practice had the effect of removing from the open range possibly ten times the acreage actually claimed as homesteads.[8] With the land laws on their side, homesteaders were a far greater threat to New Mexico cattle and sheep interests than those two factions ever were to each other.

Homesteading got off to a late start in New Mexico, beginning significantly around 1880.[9] This was due in part to the fact that the Spanish-Mexican land grants had long since taken up much of the best arable land. With a conservatism forged by over two

centuries of survival under very harsh conditions, fearful and resentful of Anglo incursions, the *pobladores* maintained a precarious hold over their lands for a considerable time after the annexation.[10] As noted in chap. 5, many Anglos considered land ownership in New Mexico undesirable because a substantial portion of the land, some thirty-five million acres, had unsettled titles, a legacy of the Spanish-Mexican land tenure system, which was incompatible with fee-simple ownership under Anglo-American Common Law, the law of the land after the annexation.[11] The grant system had worked adequately in the pre-annexation, subsistence economy, but apart from legal considerations, it could not have persisted for long in the cash and credit economic order that came with the annexation. Title uncertainty was a deterrent to forward looking Anglo settlers, who wished to establish farms and homes and raise families on the land. Lands without clear title might be confiscated by a rival claimant through legal maneuvering with the help of a skillful, well-paid lawyer. The title difficulties were exacerbated by the inability or unwillingness of the U.S. Courts and Congress to address them promptly or fairly. The mass of unsettled titles held land prices low to the advantage of stockmen and their land-intensive industry.[12] The inadequate land laws also appear to have delayed certain measures in the sheep industry that would have opened up more grazing areas.[13] By about 1884, nearly every good tract of grazing land in the territory had been claimed, legally or by custom, for sheep, cattle, or horses. Government investigators concluded that the amount of rangeland in use peaked about this time.[14] Government livestock expert E.V. Wilcox later concluded that *all* public lands suitable for grazing were occupied by 1900 and that traditional open-range grazing had reached a limit.[15]

Agriculture Takes Hold.

Important developments in the late nineteenth century rendered farming more attractive than in the past. The homestead laws together with the placement of large tracts of grant lands in the public domain by the Court of Private Land Claims, active during the period 1891-1904, provided additional farmland with clear title. Aside from title considerations, mechanized irrigation opened up large areas of New Mexico for farming. Commercial agriculture then began to take hold in New Mexico. During the first decade of the twentieth century, the territory experienced a particularly large expansion in its agricultural population.[16]

Starting in the late 1880s, areas outside the New Mexico grant periphery were opened for agriculture by ambitious, privately-financed irrigation projects, particularly in the Estancia Valley and the Lower Pecos region.[17] Then, following the passage of the Newlands Reclamation Act of 1902, the federal government undertook the construction of large irrigation projects throughout the West, including New Mexico. Mechanized irrigation converted large expanses of dry rangeland into viable farm land so that farming penetrated areas that had once been devoted solely to grazing. The aggregate acreage available for grazing was thus reduced.

Just as they made possible an expanded sheep and wool industry, the railroads expedited farming by providing ever more efficient transport of farm produce to the important markets in the Midwest and the East. They made farming in New Mexico commercially viable, removing a barrier that had stood since Spanish colonial times. Conversely, the increasingly recognized potential for agricultural development in New

Mexico lead, in the first years of the twentieth century, to an aggressive expansion of the AT&SF into the Pecos River Valley and across central New Mexico from Amarillo, Texas to Belen – the so called Belen Cutoff, which became the line's main freight route to the East.[18] Expansion bred expansion. Besides shipping farm produce, the railroads provided fast, comparatively convenient transportation to New Mexico for farm families, their livestock, and their farm equipment. The railroads also sometimes transported winter feed from the farms where it was grown to the ranch country where it was needed.[19]

Homesteaders responding to a combination of advancing technology, favorable land laws, and the declaration of nearly 33,000,000 acres to be public domain, claimed some of the best public grazing tracts and water resources in New Mexico, public policy having, in effect, given them priority over ranchers.[20] In the time frame 1890-1900, the population of the territory grew by about 22%. In the following decade, 1900-1910, the population grew explosively from 195,000 to 327,000, a 68% increase. See Fig. 3.1. Anglo farmers accounted for much of this population increase. The number of farms in New Mexico increased by 176% in the 1890s and by 189% in the 1900s, an eight-fold increase over the two-decade period.[21] During the Otero Administration (1897-1906), numerous farmers took up dry farming on the eastern plains and the Estancia Valley.[22] Agricultural production exploded, as shown in Fig. 4.2, while sheep population held more or less steady at around three-million from the 1890s until World War I, cf. Fig. 3.2.[23] Stockmen, already squeezed, came under steadily increasing pressure from the homesteaders. In the words of John Clay, "Its [the open range's] death rattle was echoed over its broad acres in three words, "the dry farmer." You can fight armies or disease or

trespass, but the settler never. He advances slowly, surely, silently, like a great motor truck, pushing everything before him."[24]

Public Domain Degradation

As homesteaders claimed the most desirable lands, stockmen crowded their herds of sheep and cattle onto the ever smaller tracts of the inferior land that remained in the public domain.[25] Overgrazing and range degration on the public lands, long a concern of more thoughtful stock growers, became more acute. To make matters worse, farmers often grazed their small livestock holdings on the public land near their homesteads, as indicated above, intensifying even further the deterioration. From the early 1880s, many Rocky Mountain ranchers had disregarded the dangers of overgrazing and placed too many animals on the range they controlled, sacrificing long-term sustainability of the land for short-term profits.[26] Wiser growers looked on in alarm and frustration as they saw the steady range deterioration. At a time when public domain was becoming scarce, its stock-holding capacity on the basis of head per acre that it could support was diminishing. Few, if any, ranchers possessed the resources to prevent their careless, irresponsible neighbors from degrading the land in their area. At the same time, everyone seemingly wanted and needed more land.

The crowding of livestock onto the remaining public lands was largely the work of smaller, less affluent growers without the resources to purchase their own land. These herders, "drifters" as landowners called them with their "tramp" or "arab" flocks, utilized the range heavily, often trailing their small herds far to the north in the summer and far to the south in the winter in an increasingly desperate search for free fodder. Their flocks

denuded the unclaimed lands with overgrazing during the summer, rendering them useless for landowning stockmen who still continued to employ some public tracts for winter grazing.[27] These marginal herders introduced a new level of conflict over land. Many of them, with no permanent base of operations and no home range, paid no county taxes and purchased no supplies from local merchants, rendering them despicable to established ranchers, farmers, and merchants alike wherever they appeared. A government publication characterized them as a "public nuisance."[28] According to the Troy Brothers of Raton, their arab flocks were diseased and spread scab.[29] Living day-to-day, they exploited whatever land they could find and demonstrated little concern for its sustenance over the long term. By the early 1880s, this development had become a serious problem for all open-range stockmen.[30] The overstocking accelerated the land degradation, long underway in some areas, diminishing the useful public range even further [a negative feedback loop]. Although conscientious sheep growers could do little about these invaders, cowmen sometimes ran them off at gun point, but that never resolved the problem.[31] The nomadic herders eventually disappeared when their marginal operations became completely unsustainable. After the degraded lands were taken out of production, as they eventually were, decades sometimes passed before they again became productive.

Homesteading in New Mexico did not have the immediate effect anticipated by the land laws. Many homesteaders were not able to obtain irrigated land. Dryland farming, which many early homesteaders took up, was a disaster in New Mexico. The first wave of immigrant farmers that found their way to the territory crested during the wet years immediately following 1900, when prospects appeared bright. A double tragedy resulted

when homesteaders, in New Mexico and elsewhere, discovered for themselves that they could not build a successful dry farm on a quarter section in the semi-arid West. Many gave up and abandoned their homesteads after a few heart-breaking years, but often not before their plows had destroyed the underlying deep root system of the native grasses, which served to efficiently utilize the limited natural water supply.[32] These were the very grasses that had long sustained the range livestock. The plowing furthermore opened up the soil and released its natural moisture into the dry western air, and the winds subsequently eroded away the loosened, dried out topsoil. When the dryland farmers departed, as most of the first wave did, they often left behind horribly destroyed land that would not recover, and be productive again, for decades.[33] Of no use for agriculture as it was then practiced, these lands were left likewise useless for livestock, causing further reductions in grazing area. Needless to say, stockmen were extremely critical of these developments.[34] One unsympathetic government report described the first homesteaders in the semi-arid regions as "poor men who have no cattle."[35] A well-intentioned government program went awry. Some of the unsuccessful farmers took up livestock growing and survived.[36] Others with sufficient resources built their own irrigation systems and survived as farmers.[37]

Farmers Crowd Out Stockmen

When homesteading did finally become well established in New Mexico, it had a dramatic impact on ranching. Within a comparatively short time, farmers literally crowded out the open-range stockmen. Fabiola Cabeza de Baca described the situation at the high point of farmer immigration to the Ceja-Llano region in eastern New Mexico,

“Hardly a day went by but some new family arrived, until nearly every inch of ground was taken.”[38] The homesteaders were taking up land that her family had long used for growing sheep and cattle. Sheepmen found it increasingly difficult to find land open for grazing or even for temporary sheep holding areas. Writing in 1909, Bond partner Andy Wiest wrote: “We know of no other land this side of the Pecos [east side] where 5,000 head of sheep could be grazed, all available land is being taken up rapidly by the homesteaders, this means that the sheep business in this section [the area north of Cuervo] will soon be a thing of the past.”[39] A few years later in 1915, Harry Kelly expressed the extreme opinion that ewes would soon disappear altogether from San Miguel County.[40] The phenomenon was territory wide. At a more official level and somewhat belatedly, the 1917 *New Mexico Blue Book* asserted:

> Important changes affecting the livestock industry of New Mexico are now in progress, the result of homestead entries and agricultural expansion. The open range is being steadily reduced, and in time will become a thing of the past, and in the final readjustment agricultural areas will be proved and cultivated, and lands valuable only for grazing will become permanently the property of stockmen. ...“small” stockraisers will become numerous in New Mexico, and …feed lots as well as ranges will figure prominently in the production of livestock wealth.[41]

By 1900, much of the better grazing land and water sources had indeed been claimed under one of the federal programs. Both Anglos and Hispanics participated in the homesteading process.[42] The remaining public rangeland, subject to increased competition, became ever harder for any individual stockman to occupy and control.

Changes in land usage were going to happen in any case. While the arrival of homesteaders was the principal factor pushing stockmen onto smaller, patented tracts, other factors were at work. Fencing, more highly-bred smaller herds, alfalfa growing using mechanized irrigation, and the export of young sheep to be fattened elsewhere were reducing the acreage needed for a viable commercial sheep operation, while land prices were increasing. For their part, the farmers who crowded out the sheepmen would eventually bring about more efficient food production from the land. They also quickly outnumbered them.

Sheepmen's Response

As might be expected, the arrival of homesteaders in grazing country produced considerable conflict. Established stockmen and merchants sometimes welcomed the homesteaders, provided them with water rights, and otherwise helped them get started, confident that they would probably soon fail and sell their land cheaply, providing an inexpensive addition to the stockman's holdings.[43] Contentious interactions were more common. As more and more farmers fenced their lands, this sometimes blocked the path from one remaining open grazing area and to another, constricting the customary movement of range herds, a problem since large-scale stock growers had begun fencing the tracts they used on public land. The problem just became more acute with the influx of farmers. Moreover, when public water frontage was acquired by farmers, it became unavailable to stockmen. Angry sheepmen blamed the farmers for the new constraints they faced. In time it became impossible to drive a herd from New Mexico to the grazing tracts of Colorado or further north, as had once been common practice. Even when an

open path remained, there could be conflict. During the drives from the1870s on, sheepmen often combined several bands into large herds of 5,000-7,500. The frontage along which these herds were driven was as wide as the herders could manage. Frontage widths varied from 10-40 miles in open areas for maximum use of the lands traversed, which could affect many settlers along the drive. Even in confined areas, along established roads, a two-hundred foot wide front was needed. This brought sheep herders into direct conflict with homesteaders along the road when the sheep encroached on their fields and damaged their crops.[44] Ultimately, rail shipment of their produce became the only remaining option for sheepmen.

With their grazing lands disappearing, stockmen found themselves on the defensive for the first time. After 1880, the sheep population of New Mexico began a long slide from five-million, leveling off to around three-million in 1900, although there was a multiplicity of reasons for this.[45] The shrinking of the open range together with the widespread destruction of the remaining tracts prodded sheep growers to purchase land and use it at a sustainable level. Their survival depended on their willingness and ability to modify their operations so as to reduce their land requirements to the tracts they were able to purchase or lease. This was their only viable path to sustained production over the long term. It was the only way to guarantee sufficient land and forage for their flocks and the only way to maintain the tight control over their lands that was becoming increasingly necessary. As early as 1880, Gordon reported that Anglo sheepmen in Colfax, Mora, and San Miguel Counties were filing homestead and pre-emption claims to establish their home ranges.[46] The process accelerated in the following years. In the late 1880s, and continuing through the early 1890s, stock growers throughout the West, those

with the most foresight and some available capital, began to extend their legal holdings beyond the 160-acre tracts of water front that they had once found adequate.

Changing Sheep Growing Practices

As sheepmen moved their operations onto patented tracts, their growing practices changed considerably. H.M. Taylor's 1889 government report, while noting that western sheepmen were settling on titled lands to a much greater extent than ever before, while farmers and cattlemen were likewise acquiring titled land at a great rate, mentioned an additional consideration. The report asserted, "The tendency of the times is for the sheep raiser of the West to acquire range by purchase, then to gradually work towards a proper system of stock farming, changing his methods as means and intelligence dictate. Sometimes this causes a decrease in the flock, but it generally leads toward safety for the investment, and more uniformity in the amount annually derived as income."[47] The report correctly noted that raising sheep on fenced pasture land could reduce the risks and uncertainties. The information was widespread. Going into somewhat more detail, the *Rocky Mountain Husbandman* recommended to its Montana readers that they own their own land, fence it, create pastures and meadows, grow their own hay, and build winter enclosures, even while noting that open-range husbandry might still be profitable. And it likewise asserted that the new methods would remove some of the risks from what had traditionally been a high-risk business. The article was quoted in the Las Vegas *Stock Grower*.[48] Additional considerations included combating scab and predators and identifying and avoiding poisonous plants, which could be addressed more expeditiously by restricting flocks to privately owned fields. Sheepmen were not only pushed off the

open range, they were ultimately forced to adopt recent advances in range management, no longer just an option. The more conscientious and more financially sound accepted the range-management goal of maximizing livestock production "consistent with conservation of the range resource." This was actually a major undertaking of a technical character. It involved mapping range resources, estimating the grazing capacity and forage production, prescribing kinds and numbers of livestock best suited to each land parcel, and developing systems of grazing usage, fencing, salting, and irrigation. Stockmen began, moreover, to systematically address range restoration through artificial reseeding, burning, weed control, soil and water conservation. Such sophisticated range management became imperative on account of the wide-ranging, distressed land conditions of the late 1890s. Stockmen called on the federal government for assistance, and the U.S. Department of Agriculture began to undertake scientific studies of grass and forage.[49]

For the next several years, most New Mexico sheepmen, including the *ricos*, still only held title to small tracts and grazed their livestock on nearby public lands.[50] Their time was limited, however. Those stockmen who would not or could not purchase land and take up the new array of considerations, which were expensive, would be left behind. In the words of Cabeza de Baca describing the situation she had witnessed in the Ceja-Llano region, "The few cattle and sheep men who were left [after the arrival of the homesteaders] and had not been foresighted [and bought land], had to diminish their herds and they also had to live on credit from the country store. One by one, they also disappeared…" She described the herders still running sheep on the Llano as late as 1915 as "sad people, these men, for their days on the Llano were numbered."[51] Her

father actively purchased land to preserve his ranching operation.

National Forest Reserves

A second federal policy caused further loss of grazing lands, at least in the near term. Congress, taking an increased interest in conservation and "reclamation" of America's natural resources, passed the Forest Reserve Act of 1891. As a result, substantial parts of the public domain were declared National Forest Reserves and thus closed to settlement, cf. chap. 9. These lands included much of the traditional western summer range, where sheep were fattened for market or for the coming winter.[52] Then in 1899, sheep were excluded from the National Forest Reserves. The policy did benefit the flora and fauna of these areas, as intended. But it also denied some established stock growers usage of lands they had been using for decades. When the Cebola National Forest was established in Western Socorro County, ranchers, including Ray Morley, were ordered to remove the fences they had put up on the public lands. According to Cleaveland, the ranchers in the area were shocked and incensed by the order. They felt the directive was a violation of their "natural rights," but they complied. Her brother took down miles of fencing.[53] In addition to fences, some ranchers had constructed various structures on the public land that they were ordered to remove. They had considered these structures a legitimate capital investment in their ranching operations. Having to remove their fences and buildings constituted an additional, apparently unforeseen, expense. An Arizona sheepman commenting on the establishment of the National Forest Reserves around 1903 asserted, "From a wool grower's and a mutton raiser's point of view it is a decidedly wrong and dangerous condition of affairs."[54]

The situation for ranchers was ameliorated in 1905 when the forest reserves were transferred to the Department of Agriculture and the federal government began issuing annual grazing permits through the U.S. Forest Service to be used by stock growers on national forest land.[55] The fees were fairly modest. Regulatory provisions restricted the number of animals and the months of the year for which grazing was permitted on each leased tract, generally reducing its usage from the past. Ray Morley, like many other ranchers, and also merchants, then obtained grazing leases on national forest land he had once used without charge.[56]

The program was ultimately successful on several levels. By 1914, twenty-nine thousand stock growers had grazing permits for 1.6 million cattle and horses and 7.6 million sheep and goats on national reserves. Under systematic federal range management, the range in some badly overgrazed areas was restored and even improved. The success of the federal program was such that stockmen requested its extension to the remaining public range outside the boundaries of the national forests, which no longer supported as many animals as in the past. The national forests became self-supporting, grazing actually becoming a secondary resource for the federal government, as the Forest Service had hoped.[57]

During the last two decades of the nineteenth century, when overgrazing was degrading ever more of the western range, neither the New Mexico Legislature nor any of the stockmen's organizations took measures to curtail the practice. In this instance, the federal government's involvement seems to have been beneficial. Under careful management, by 1914 the national forest land was supporting 50% more livestock per acre than ten years earlier. The range wars had been brought to an end, ranch property

had increased in value, forage productivity had been increased, the grazing industry had been stabilized, and the quality of stock produced had been improved.[58]

By the end of the territorial period, open-range sheep growing had, in large part, come to an end. In the future, sheep would be raised on farms or leased ranges under controlled conditions and become essentially another farm crop.

Chapter 11

Summary and Conclusions

By the turn of the twentieth century, New Mexico had established itself as a major supplier of the nation's mutton and lamb. The territory's sheep industry had grown tremendously since the annexation, particularly since the close of the Civil War when New Mexico and California had the only large sheep herds west of the Mississippi. New Mexico's sheep population exploded in the decades following the annexation from an estimated 377,000 head in 1846 to over a 1,000,000 in 1867 and to over 5,200,000 in 1882, a fourteen-fold increase.[1] Thereafter, the sheep population fell off somewhat to about 3,500,000 through the World War I period. Of the states and territories, only Montana and Wyoming had larger sheep populations than New Mexico at the end of the century, Montana with 6,000,000 and Wyoming with 5,000,000 head. At this time, about 8% of America's sheep were being raised in New Mexico.[2] The growth of U.S. sheep production, and livestock production in general, was driven by the country's industrialization and the growing army of urban laborers in the East and Midwest that were part of that process and constituted an expanding market for western mutton, lamb, and wool.[3] Between 1878 and 1888, the number of sheep received annually at the Chicago stockyards increased fivefold from 310,000 to 1,500,000 head.[4]

In the same timeframe, at the beginning of the twentieth century, the United States, with less than 5% of the world's population, was producing about10% of the world's wool.[5] Among industrialized countries, it was the world's largest wool producer, by more than a factor of two; overall it was the third largest producer, trailing only Australia

and Argentina. The volume of wool consumed in the United States was at this time, five times what it had been in 1860. Some 60 % of America's wool was being produced in nine states and territories west of the Mississippi.[6] Wool production in New Mexico had risen from about 33,000 lbs. in 1850 to an estimated 17,000,000 lbs. in 1909, a 500-fold increase! The average fleece weight had grown to 5.5 lbs. During this same period, New Mexico's human population increased by a factor of five, due in substantial part to Anglo immigration. Of the states and territories, Montana and Wyoming were, by 1900, the two largest wool producers; New Mexico was tied with Idaho for fifth place, trailing only slightly Utah and Oregon, and was producing about 10% of the western wool.[7]

America's woolen mills were utilizing essentially all of the domestic production and importing an additional 30% of their wool supply.[8] American manufacturers chose foreign wool over the domestic product whenever it was the cheaper commodity.[9] Overall, they were consuming about 15% of the world's production, a measure of the nation's extraordinary prosperity. By 1890, America's consumption of wool, estimated at 8.75 lbs. per capita, was the largest of any nation in the world.

The nation's expanding rail network was the critical factor in the growth of the western sheep industry. Western wool was shipped east by rail in great quantity, since over half of America's woolen manufacture was in Pennsylvania and Massachusetts. Live sheep were shipped by rail to feeder farms in the West and Midwest as well as directly to the meat packers in Chicago and elsewhere. America's oldest sheep growing region, New Mexico, recently so isolated, became a full participant in the U.S. markets and thus subject to national and international economic forces. The conditions outlined here were the end result of a period of rapid and transformative developments in the territory's

sheep industry.

For decades after the annexation, sheep husbandry generally flourished in the territory and was widely appreciated. In 1892, federal investigators concluded "Animal Industry" [predominantly sheep] was the "the leading enterprise of the Territory."[10] The predictions of early observers of New Mexico's grazing resources had been born out. Describing New Mexico, a contemporary of sheepman Solomon Luna noted, "Some parts of it [New Mexico] are adapted for cattle, but it is essentially fitted for sheep grazing…This is our most profitable industry. Sheep owners are learning to direct their breeding so that their flocks may be maintained either for wool or for mutton."[11] Seven Rivers sheepman Thomas Gardner concurred; he regarded sheep as more profitable than any other livestock. [12] The situation changed little through the first decade of the twentieth century. Although other regions had surpassed New Mexico in sheep and wool production, the territory was still widely regarded as an attractive sheep-growing region. The New Mexico Bluebook of 1913 noted with only a little exageration, "… the breeding and raising of sheep [is] the largest industry in our state; because the mineral covered soil grows the best grass (Grama) known in the whole world." This is significant because agriculture and mining were then becoming established and growing rapidly, while traditional open-range grazing, which had given rise to the New Mexico sheep industry in the first place, was disappearing.[13] New Mexico's lack of surface water continued to favor sheep growing, which, unlike farming, did not depend on abundant water resources.[14] Despite, the post-Civil War influx of well-financed cattle companies, large portions of the territory remained devoted to sheep.

Timeline Review

From the time of its founding in the late sixteenth century, the Spanish, and later Mexican, outpost in the land of today's northern New Mexico depended heavily on sheep for its survival. The animals provided both food and wool clothing, and the *pobladores* quickly observed how well they were adapted to the environment. The need for quite large tracts of land under the open-range system did not present any insurmountable barriers.

So successful was sheep growing in the colony that within a comparatively short time, a few decades only, the colonists opened a commercial export trade that grew to impressive proportions. It was characterized by *churro* stock and massive trail drives down the Camino Real for delivery to Mexican markets. The industry grew, albeit at an unsteady rate, for two centuries or more before the American annexation of the region. It was plagued from the beginning by harsh trail conditions, considerable market instabilities and exploitation by the Mexican merchants to whom New Mexico growers were constrained to sell their herds. The barter economy restricted, to an extent, economic development of the region and became a greater constraint in later years.

The ownership base was quite narrow. Although the church owned most of the herds early on, sheep ownership eventually became concentrated in the hands of a small number of well-connected, wealthy, land-owning families sustained by the Spanish-Mexican land grant system. These *rico* families were, from a commercial standpoint, the main beneficiaries of the sheep industry. They grew the bulk of the colony's sheep and dominated the export trade. Profiting to varying degrees from their own herds, they also marketed the produce of the small-scale growers within their bailiwicks at a considerable

markup. Their operations were family affairs, a modus operandi that worked well under frontier exigencies, but would become a liability in the rapidly changing, competitive, mercantile capitalist economy of later times. They depended on skilled, but cheap or even free, labor performed by debt peons and others who profited little from their work. When this labor supply became inadequate, the *ricos* employed the *partido* system, shifting much of the considerable risk in raising sheep onto their herders. They provided also social and political as well as commercial leadership for the colony, enhancing their authority over their dependents. Large sheep herds became the embodiment and principal source of wealth in the colony.

During this period, a seemingly unlimited supply of good grazing land that had been long occupied and employed as hunting grounds by the nomadic Indian tribes of the region lay beyond the populated confines of the colony. As the population of the colony increased and established grazing lands became inadequate, sheepmen were in the vanguard for opening up areas outside the Rio Grande Valley for seasonal grazing and subsequent settlement. The nomadic tribes mounted an on-going, armed resistance to the invasion of their homelands, but the colonists sufficiently overwhelmed the Indians by their larger, denser populations that they were able to establish permanent footholds in several new areas. Nevertheless, Indian depredations restricted the growth of the sheep industry significantly for many years.

In the years after Mexican independence from Spain until the Civil War, American influence in New Mexico increased steadily, while sovereignty was forceably transferred from Mexico to the United States. After independence, the Mexican government relaxed trade restrictions, cracking open trade with the United States, and a

handful of American adventurer-traders began to arrive in New Mexico. An extended period of expanding markets for New Mexico produce in the United States ensued. The Americans brought about changes on several fronts that set the stage for the expansion of the sheep industry in the latter nineteenth century.

Americans first learned of New Mexico's sheep resources when the Pike Expedition witnessed a drive down the Camino Real, reports of which may have helped stimulate interest in what became the Southwest. After Mexican independence, American fur trappers and traders established their headquarters in Taos, as they exploited the fur resources of the Southern Rockies while maintaining business connections in St. Louis. Some assimilated into the local elite Hispanic society and under a liberalized Mexican land grant policy became large-scale land owners by partnering with native New Mexicans. They became, in the process, the first Anglo stock growers in New Mexico. Lucian Maxwell, employing traditional Hispanic stock growing methods and business relationships, was exceedingly successful following this trajectory.

On another front, Anglo-American traders opened the Santa Fe Trail to St. Louis, Missouri, over which a modest, risky, but often lucrative, trade with the United States developed. They established the first important commercial and communication links between New Mexico and the United States. Santa Fe became an important trade center. The traders exported wool over the trail as a backhaul to the United States, launching an industry that would have great repercussions throughout the West. Hispanic merchants joined the Santa Fe trade a few years after it was initiated, and some were quite successful. This provided a link between New Mexico's most influential families and the U.S. economy. Hispanics eventually accounted for about half the Santa Fe trade but lost

market share around the time of the Civil War when capital requirements, which they could not meet, became more demanding.

Following the United States-Mexico War and the American annexation, the U.S. Army occupied New Mexico and was instrumental in pacificing the nomadic tribes of the region, ultimately opening up vast new range areas that had previously been unsafe for livestock grazing. At the same time the army forts provided a new market for New Mexico agricultural produce and livestock, which introduced an incipient cash economy to the territory and expedited the rise of a community of Anglo mercantile capitalists with extra-territorial financial resources. Sheep and wool would later be the most important export commodities for New Mexico's merchants. Maxwell was a particularly notable army supplier of livestock and agricultural produce in the early years of the territory. The monetary exchange services provided by the forts ameliorated the business climate.

In the decade before the Civil War, the California gold rush gave rise to a lucrative new trade in New Mexico *churros*. The discovery of gold brought about a massive influx of treasure seekers into the area, and a food shortage quickly developed. In a harbinger of later sheep and wool business negotiations, well-informed Anglo speculators with capital resources initiated the California trade by purchasing large herds of sheep from New Mexico growers, employing skilled Hispanic herders to drive the herds to California, and selling them at the gold fields for a considerable markup. The trade was a high-risk endeavor, but extraordinarily profitable for the more successful practitioners during its first years. When the speculation frenzy played out, large-scale Hispanic growers continued the trade under the less favorable terms which for them were still

profitable. They exported the bulk of the New Mexico sheep during the decade-long trade. A substantial sheep trade with Colorado developed after the California trade ended.

The annexation brought little immediate change to New Mexico's ranching operations, which continued to be dominated by a handful of *rico* families running large *churro* herds. The foundation of the impressive sheep industry thus remained quite narrow. These family operations would be severely challenged in the years to come. The impoverished general populace of New Mexico benefited little directly from the Santa Fe trade or the California drives, although they provided employment for a considerable number of packers and herders. In their somewhat delayed entry into both the Santa Fe trade and the California sheep trade, Hispanic merchants and sheep growers appear to have been rather more conservative and risk averse than their Anglo cohorts.

Despite the success of its sheep industry, commercial wool production began rather late in New Mexico. After the Santa Fe trade opened, Anglo traders and sheepmen, cognizant of America's small but emerging woolen industry, began systematically exporting wool over the Santa Fe Trail in small quantities. This was not very profitable in the opening years of the Santa Fe trade due to high transport costs back to the northeastern markets where the woolen mills were located. The traders employed wool as a backhaul, the sale of which barely covered the costs of their return trip to Missouri. Prior to the annexation, there was little demand for *churro* wool even in New Mexico. Existing production was more than sufficient to meet the colonists' needs. The *churro's* light fleece was not an issue. The over sufficiency went to waste. During the post-annexation period before the Civil War, America's woolen industry was consuming little wool from the West. Only with the economic disruptions brought on by the Civil War,

and the resulting national cotton shortage, did the market for wool expand, and U.S. woolen production grew to significant proportions. Prices rose sharply for a brief period, and wool growing in the West became quite profitable. When prices dropped in the post-war years, the western wool industry, by now reasonably well established, remained profitable and grew because open-range production costs were low.

In the last years before the Civil War, Anglo sheepmen in New Mexico initiated selective breeding on a small scale for heavier fleeces of the finer wool most in demand at the time. And to that end, they imported graded, prolific wool producing animals, particularly rams to be crossed with *churro* ewes. After the war, Anglo sheepmen imported upgraded herds – Merino rams - from California on a much larger scale, a major factor in upgrading the territory's sheep population. Selective breeding was ultimately a response to increased competition from other states and territories in the post-Civil War period. It was an early manifestation of the capitalization of New Mexico sheep ranching, since the wool-producing rams needed to upgrade the *churro* herds were expensive, were purchased with dollars from extra-territorial sources, and the investment would not be recovered immediately, but might actually take a few years to pay for itself. Anglo sheepmen with access to some capital were far better positioned to take up breeding than those Hispanics whose wealth was tied up in their land and livestock. Hispanic ranchers upgraded their herds when they witnessed and became fully convinced of the advantages.

Hispanics had not previously taken up breeding for enhanced wool production for a variety of reasons besides the lack of domestic demand. Harsh environmental conditions, the widespread *partidario* system, the cost of breeding rams and, arguably, a general

conservativism on their part were all factors. Some cash-poor ranchers continued to run *churro* herds long after the advantages of selective breeding were well established.

From the Civil War onward, both live sheep and wool were important components of the New Mexico sheep industry. Having two, otherwise-unrelated products had a stabilizing effect on the generally volatile industry, reducing some of the risk inherent in open-range ranching. Wool growers, their numbers expanding, generally prospered as New Mexico came to produce a sizable fraction of the raw material for the nation's growing woolen industry. The territory's wool exports grew steadily for the rest of the territorial period.

Starting in the years immediately before the Civil War and continuing through the 1870s, a confluence of economic developments in the East and Midwest had a profound effect on sheep growing in the West. The introduction of rail transport, the growth of urban markets for agricultural produce, an expansion of farming, an increase in land values, and a post-war collapse in wool prices all contributed to a decline in sheep growing on eastern farms. It became significantly less profitable over a rather short period of time. In the same timeframe, the pacification of good-to-excellent grazing lands, the availability of inexpensive skilled labor and acclimated livestock, and in later years the penetration of railroads rendered the West more favorable for growing sheep and wool than in the past. As a result of these conditions, which were touted in a significant promotional campaign, America's sheep industry shifted from the small farms in the East and Midwest to the open ranges of the trans-Mississippi West. A wave of Anglo stockmen emigrated west and established ranches throughout the Great Plains-

Rocky Mountain region. Their operations were generally more profitable than the eastern farms.

New Mexico played a somewhat unique role in this westward shift. It supplied land, labor, and particularly livestock. New Mexico *churros*, mostly ewes, well acclimated to western conditions and highly regarded for the same reasons as in the past – robustness, ease of handling, good taste - were employed as seed stock to quickly and inexpensively start herds throughout much of the region. The ewes were commonly crossed with wool producing rams imported from elsewhere. From the late 1860s into the early 1880s, massive herds raised by Hispanic sheepmen were driven from New Mexico to new ranches in Colorado, Utah, Arizona, Texas, Wyoming, Kansas, Nebraska, and Dakota Territory. The annual exports during this period were considerably larger than the exports to California in the 1850s. They helped give rise to a major western industry that came to supply a substantial fraction of the nation's mutton, lamb, and wool. Until the late 1880s, the primary focus of western sheepmen was, however, wool.

Sheep growing conditions in some of the newly opened ranching areas were quite favorable, and those areas were soon giving New Mexicans substantial competition while their production, along with that of the rest of the region, increased rapidly in response to the growing national markets for food and clothing. The territory's sheep industry became one part of a greatly expanded western industry that was predominantly an Anglo enterprise and, of course, served American markets. In time Anglos accounted for a significant part of the territory's ranching population, although sheep growing in New Mexico and Southern Colorado continued to be dominated by a few wealthy Hispanic families until about 1880. This was a generally prosperous period for New Mexico

growers. There was little, if any, absentee investment in New Mexico sheep ranches, as was often the case with cattle ranches.

In the years following the Civil War, a much expanded community of knowledgeable, ambitious, and energetic mercantile capitalists, Anglos from elsewhere, recognizing or stumbling upon opportunity, settled in New Mexico and greatly expedited trade between the territory and the eastern United States. A handful of native Hispanic merchants with the needed capital resources participated in this development. The merchants' basic operation was to import manufactured merchandise from the East and trade it for New Mexico produce, including livestock, and some hard currency. As sheep remained an important medium of exchange in the territory, the merchants soon found themselves dealing in sheep and wool. These merchants served the numerous independent, small-scale growers, who had become active in sheep raising in the latter decades of the nineteenth century. Eventually, many merchants held large herds of their own and became, of necessity, involved in every phase of sheep growing. They managed their herds using a modified *partido* system and provided the first banking services in the territory. They eventually were marketing most of the sheep and wool produced in the territory. Wool, which the merchants exported in increasing volumes over the Santa Fe Trail, became in some notable cases their most important commodity.

Mercantile activities in the territory were greatly advanced by the arrival of the railroads, which provided rapid, inexpensive, secure transport of wool and live sheep to market for the first time. The roads were the catalyst that finally opened the vast new markets for New Mexico's produce. As such, they were a critical factor in the expansion

of mercantile capitalism in New Mexico and the concomitant growth of the sheep industry. They were also the first source of corporate capital in New Mexico.

At this juncture, capital began to play a larger, and more critical, role in the sheep industry than it had in the past. The increased trade with the East mediated by the merchants was first made possible by the arrival of the Army, and later sustained by the railroads and commercial banks, through the monetary exchange services they provided, which were essential for efficient, multi-faceted, long-distance trade. In the financial environment that resulted, the merchants were able to control the flow of cash and credit in the territory, while serving all the financial needs of the increasingly capital-intensive sheep industry. They drew the numerous small-scale Hispanic growers whom they served into national markets, while those producers transferred their allegiance from their former *patrones* to the merchants.

An important activity of the merchants within the territory was to provide cash advances for operating expenses, and possibly livestock, to their sheep suppliers at the beginning of the growing season. Since the small-scale growers usually had no cash resources of their own and no other sources of operating funds, they became totally dependent on their dealers for these advances. Even if they could get a loan from one of the small regional banks, they would have to pay very high interest rates. For their part, the merchants initially acquired the capital that they loaned out from private extra-territorial sources or profits from their own mercantile activities. As capital requirements increased, however, New Mexico merchants obtained loans from wool dealers in the Northeast and meat packers in the Midwest against future deliveries, funds that they turned around and advanced to their suppliers. They settled accounts at the end of the

growing season when the wool and live sheep were delivered to market. The merchants negotiated the actual sale prices the ranchers would receive. New Mexico's mercantile capitalists thus controlled the financial transactions with their growers at both ends of the growing season. They had considerable capital tied up in their suppliers' herds for the entire season; and their suppliers were thus in debt to them for much of the year. As an almost natural development, the Anglo mercantile capitalists took over, in large part, the control and leadership of the sheep industry from the landed *patrones* who had long dominated it, a major shift from Hispanic to Anglo dominance in which capital played a critical role.

Mercantile operations grew with the introduction of winter feeding. In the last decades of the nineteenth century, the practice of winter feeding swept through the western industry in response to new market demands for grain-fed mutton and lamb through the winter months. This occurred at a time when each region of the country had begun to understand what it did best and concentrate on those activities. The ranges of Colorado, Wyoming, Montana, Kansas, and Nebraska to the north and east had proved best for fattening lambs for market, while the southern ranges, New Mexico's in particular, were determined to be best suited for breeding. Many New Mexico sheepmen began to concentrate strickly on breeding and shipped their young sheep out of the territory by rail to feeder farms and ranches where they were prepaired for market. This became a more profitable alternative than raising the animals to maturity on the open range. The business transactions were oftened carried out through the sheep merchants, who became a conduit between New Mexico breeders and feeders located outside the territory. The feeder industry was capital-intensive, as large financial outlays were

required to acquire feeder herds, maintain them in enclosed pastures for extended periods, and grow forage to fatten them. The feeder ranches were generally large-scale operations, predominantly Anglo owned. Capital was typically tied up for months in sheep being fattened for market. With this development, New Mexico sheepmen, no longer raising their sheep to maturity, lost a segment of their operations to well-capitalized, Anglo feeders, shifting the industry further toward Anglo dominance. In the process, the territory's sheepmen became linked to a network of feeder farmers and ranchers outside the territory and, by extention, more deeply integrated into the national economy.

The well-documented business correspondence of Frank Bond and his brother G.W. reveal in detail the dynamics of New Mexico mercantile capitalism as it pertained to sheep and the shift in industry leadership. The development of the Bond empire is seen to hinge on the flow of capital. Conditions were evolving rapidly at the time, and land ownership, a critical factor for the large-scale, sheep-growing families of the past, was, by this time, only a secondary consideration for merchants like Frank Bond.

The Bond brothers, starting with a single mercantile enterprise in Espanola financed with Canadian funds provided by their father, became, like many New Mexico merchants, deeply involved in wool and live sheep dealings. Acting as middlemen between slaughter houses and wool dealers and mostly small- and intermediate-scale Hispanic growers in their region, they prospered from the start. They employed their accumulated profits to capitalize several branches throughout New Mexico. Having established good credit, they were able to finance a large volume of sheep and wool purchases in New Mexico and Colorado as well as winter feeding operations in Colorado

and Nebraska using short-term loans from western banks, Denver livestock dealers, and Boston wool dealers. They maintained a tight control over all the financial transactions with their sheep and wool suppliers and their feeder farmers. From the beginning, their access to capital gave them control over a significant segment of the industry because their sheep and wool suppliers, their *partidarios*, and their feeder ranchers were financially indebted to them. With conservative, conscientious, hands-on management, they became exceedingly successful in a fundamentally risky business. And they became quite wealthy in the process.

Several added factors contributed to the Bonds' success. They enlisted able, unrelated managers through profit-sharing agreements and stock ownership. They developed channels of critically important market information. Their loading facility at Servietta enabled them to control rail shipping from their part of the territory. They learned and understood the traditional Hispanic sheep business and, like Lucian Maxwell a half century earlier, they were notably flexible in adapting to New Mexico customs and conditions. They maintained good relations with their suppliers, and they stepped into the role of *patron* when the occasion called for it, employing *partido* contracts, open-range grazing on grants and public lands, barter transactions when necessary, and flexible loan arrangements with their suppliers.[15]

When George Bond gave up active management of the New Mexico-based operation in the early twentieth century, Frank, whose role in the partnership seems to have been growing for some time, then took over entirely the management of the empire and presided over its continuing expansion. He possessed a thorough knowledge of the business practices of his day and knew how to use it. His relationships with bankers,

wool merchants, livestock dealers, and feeder ranchers strengthened his competitive position. Smart, indefatigable, and totally dedicated to his business pursuits, Frank Bond became a specialist in an industry of increasing complexity and provided essential marketing and financial services that in his time few others could provide.

The magnitude of the Bonds' dealings, the large number of growers they served, and the financial control they maintained made them, almost by default, leaders in the New Mexico sheep industry. Considering the long reach of their operations, they were also important agents in drawing New Mexico into the larger national economy.

During the last two decades of the nineteenth century, New Mexico sheep ranching adopted advancing technological developments and became capital-intensive. This was another factor contributing to the shift towards Anglo dominance. It was brought on by the same economic forces that contributed to the growth of mercantile capitalism: vastly expanded markets for mutton, lamb, and wool, opened up by America's growing rail network. Growing markets led to increased competition. New Mexico ranchers faced competition from growers throughout the Great Plains-Rocky Mountain region, while contending with national and international pricing over which they had no control. It became more important than ever for them to adopt the most efficient and profitable methods of sheep growing, and that necessitated increased increased capital investments, up-front costs that might not pay off for a period of years.

As public lands became scarce, New Mexico sheep ranchers were required to purchase or otherwise acquire substantial tracts of grazing land. This included Spanish-Mexican grant lands formerly in the possession of Hispanic sheep growers and herders. In their headlong quest for land, many ranchers acquired tracts, both private and public,

either fraudulently or through questionable legal procedures, sometimes to the detriment of Hispanic grantees.

On another front, breeding to produce the most desirable sheep and wool for continuously evolving markets became a necessity rather than an option. Smaller, closely-managed, graded herds proved to be the most profitable under the new conditions. And this required growers to erect costly barbed-wire fencing, sheep-dipping facilities, and irrigation systems, to plant winter feed crops, and to pay increasingly demanding, temporary work forces during lambing and shearing. These investments helped provide for steady production through a cold winter or a summer drought.

The various initial investments were large, but they made possible increased efficiency and profits. Ranchers unable to make these capital improvements remained, as in the past, dependent on favorable weather and range conditions, never a given in New Mexico. They were, as a result, at a competitive disadvantage. Those with access to capital were best positioned to enter the sheep business and prosper. Anglo sheepmen who brought capital to New Mexico prospered to varying degrees and took over an increasing segment of the ranching business, while many Hispanic ranchers, their assets tied up entirely in their lands and unimproved herds, lacked the cash resources necessary to capitalize their operations.

The rise of capitalized sheep ranching is exemplified by the activities of Socorro County rancher Montague Stevens, as described in his correspondence with Gen. Leonard Wood. His correspondence provides an insider's view of large-scale sheep ranching in western New Mexico in the years spanning the turn of the twentieth century. The letters document the building of Stevens' operation, including his land and sheep

acquisitions, which was initially funded by extra-territorial resources. They provide a detailed, unvarnished picture of what large-scale, open-range sheep ranching was like in New Mexico at the time. They document Stevens' often harsh assessments of the Hispanic herders and sheepmen he encountered, assessments that were shared by many Anglos at the time. Stevens was an extreme example of a hands-on manager, a role that had become necessary for successful ranching. His letters show how a well-connected Anglo, an advocate of innovation and technological advances, assumed local leadership in the business with the outlay of considerable amounts of capital. And they point up the inherent counteracting risks involved.

By the mid-1890s when Stevens got started in sheep, it was difficult, if not impossible, to enter the open-range business with only a modest bankroll. He used as seed money his own and his wife's considerable inherited wealth brought from England together with a sizable investment from his passive business partner, Gen. Leonard Wood. While the promotional literature of the 1870s claimed that a successful sheep ranch could be set up for a few thousand dollars, and some were, Stevens invested nearly $40,000 in his operation, a considerable amount of money at the time. His innovations included introducing a new breed of wool-bearing sheep to his region, developing more efficient lambing procedures, building a state-of-the-art sheep dipping facility, and shifting his herds from one elevation to another as the seasons progressed for optimal growing conditions, all in the interests of future profits and stability. The many growers in his area apparently took notice of his successes. His activities were made possible by a continuing series of capital outlays that would have been out of the question for most small-scale growers but which promised Stevens a competitive advantage. The

management of capital was an important component of his operation, and occupies considerable space in his correspondence with Gen. Wood. Always under stress by the need for operating funds, he nevertheless reinvested his profits in capital improvements, the benefits of which were usually not immediate. And although he never made the financial killing he had hoped for, he was at least moderately successful producing live sheep and wool during the last years of open-range grazing.

Beyond illustrating the role of capital, Stevens' experiences show just how risky open-range sheep ranching in New Mexico could be. Although he had previous experience raising cattle, Stevens knew comparatively little about sheep when he embarked on the life of a sheep rancher. He learned quickly. After an auspicious beginning, he seems to have been plagued by an endless sequence of serious difficulties: a corrupt legal system as it related to land negotiations, a growing incidence of scab, an evolving and uncertain federal public lands policy, a diminishing pool of competent herders and shearers, and unpredictable, devastating weather damage.

After about eight years, Stevens concluded that sheep ranching, at least as he had experienced it, was not worth the trouble, while acknowledging that some few fortunate men had, indeed, become extraordinarily successful and wealthy at it. He had come to understand that even though sheep growing was potentially the most profitable business in the West, that potential was not often realized. The element of chance was ever present, and the risks were high. Ultimately, Stevens' significant capital expenditures did not counteract all the risks he, like all open-range sheepmen, had assumed.

Great changes came to the New Mexico sheep industry around the turn of the twentieth century. Open-range grazing, the practice dating back over two centuries, came

to an end over a remarkably short period of time. The loss of rangeland, resulting largely from the influx of Anglo homesteaders who claimed the best grazing lands and water frontage, pushed sheep growers off the public domain. The process was hastened by the deterioration due to overstocking of the remaining unclaimed, mostly less desirable, public rangeland. With the western frontier closed, herds were, of necessity, moved from the vanishing public rangelands onto ranches and farms with fenced pastures or onto carefully-managed, leased national forest reserves. With advancing irrigation technology and barbed wire fencing, farming was proving to be a more efficient use of much New Mexico land than stock growing. In the end, the practice of open-range grazing thus collapsed under its own weight.

The loss of rangeland was ultimately the catalyst for the transformation of the range sheep industry into a component of farming. Raising sheep on farms under closely controlled conditions proved to be significantly more efficient than open-range grazing. The capitalization of sheep growing carried over from ranch environments where little of the range land was actually owned to fenced farm environments where all the grazing lands were owned or leased. This transformation coincided with a rapid expansion of farming in New Mexico starting around 1890 that resulted from a wave of Anglo farmers entering the territory to take up some of the last lands in the West open for homesteading.

Substantial capital investments in land, forage production, irrigation systems, and structures continued to be necessitated by the competitive nature of the sheep and wool markets and the resulting need for greater production efficiency. Labor requirements were significantly reduced, winter feeding became the norm, and with the construction of shelters, dipping and lambing were conducted under safer, generally more favorable

conditions. The risks inherent in what had been a high-risk business were significantly reduced. Those who could made the transition. Those who could not were forced out of business. Conditions worked particularly against small-scale Hispanic herders who had never acquired a home range. In many cases, small, fenced herds came to constitute only one "crop" of several, giving farmers additional income most years but other crops to fall back on in poor years for sheep or wool. Absorbed into a growing agricultural industry, sheep lost their particular importance in New Mexico's economy and life in general. The Hispanic populace no longer depended on sheep for their sustenance or their clothing. An era extending back to the Spanish colonial period ended.

Final Summation

Momentous extra-territorial economic developments impacted the direction of the New Mexico sheep industry repeatedly during the territorial period. The industry underwent a sequence of dramatic changes, but perhaps most significant for the general populace was the shift from Hispanic to Anglo dominance. Leadership and control of the industry passed from a small cohort of wealthy, landed Hispanic families to primarily Anglo mercantile capitalists and ranchers. Whereas the Hispanic *pobladores* had built a frontier commercial sheep industry of impressive proportions that served Mexican markets, by the end of the territorial period, Frank Bond was the largest sheep and wool merchant in New Mexico, and he served far greater, and more stable, markets in the eastern and midwestern United States. On another front, according to 1900 county tax records, Charles Ilfeld had the largest sheep holding in San Miguel County, long an active center for sheep growing. Anglos dominated the New Mexico Sheep Sanitary

Board. At the production level, ranchers like Montague Stevens were establishing the most technologically advanced facilities New Mexico had yet seen. And the adoption of feeding transferred the final phase of the sheep growth cycle to the care of extra-territorial Anglos.

There are a multiciplicity of reasons for the shift. But it was primarily the result of economic forces extending across the entire United States that favored well-capitalized Anglos with a stomach for risk. Considerable opportunities presented themselves with the opening of a large American market for mutton and an entirely new market for wool combined with the low New Mexico production costs and the arrival of rail shipping. But seed capital was needed to establish successful mercantile operations and efficient, productive ranches. This the Anglos who came to New Mexico and rose to prominence possessed. Their funds derived from cash they brought into the territory from elsewhere, profits they realized from extra-territorial sales, and loans from sheep and wool dealers outside the territory. As such, capital was the key to Anglo ascendence within the industry. A handful of Hispanic merchants and ranchers, men like Felipe Chaves and Solomon Luna with access to capital, participated in the expanding market opportunities, but their numbers were never large. Some, perhaps most, *rico* families, their wealth tied up in land and un-improved livestock, never amassed the significant cash reserves they would need to compete as ranchers or merchants in the increasingly capital-intensive business environment.

Demographic, cultural, and political factors tended to amplify the role of Anglo capital. At the time of the U.S annexation, New Mexico had a small population, and the sheep industry was dominated by a very small number of families, as few as five or six,

sustained by the Spanish-Mexican land grant system and dependent on very cheap labor. As late as 1880, U.S. government investigators concluded that the sheep industry was still dominated by about twenty, mostly Hispanic families. But during the post-annexation period, particularly after the arrival of the railroads, the expanding sheep industry incorporated a broader base of participants. These were, in the most general terms, Anglos recently arrived in the territory together with a considerable cohort of small-scale, cash-poor Hispanics. Indeed, with the influx of Anglos to the territory, the *rico* class would have become a decreasing minority in any case. The grant system that had once sustained the elite Hispanic families had, of course, been terminated, eroding their future prospects. To exacerbate that development, grants lands once devoted to sheep growing ended up in Anglo ownership as result of political chicanery, unpaid tax liabilities, bloated attorney's fees in the form of land, breakup of estates by inheritance, and the sale or abandonment by grant heirs. The Hispanic position was further weakened by the tendency of prominent *ricos* to assimilate into the Anglo middle class. While Anglo ranchers aggressively acquired public lands, sometimes illegally, small-scale Hispanic ranchers more often squatted on unused tracts, only to lose them to later claimants. On another front, Anglo merchants and ranchers optimized their business operations by employing talented, knowledgeable men from an international pool.

Of particular but non-quantifiable significance, it appears that the Hispanic ranchers and merchants were rather more risk-averse than the Americans. The large-scale ranchers knew better than to risk their family fortunes on unproven schemes. Three-hundred years of farming, stock growing, and surviving under exceedingly difficult circumstances had forged an inherent conservativism in Hispanic society, which may

have inhibited its success in the rapidly changing economic environment of the late nineteenth century.

Ultimately, the New Mexico sheep industry became part of a large, Anglo-dominated western industry that shifted from open-range to farm environments. Anglo dominance within the territory developed in the post-Civil War period along with the rise of mercantile capitalism. Considering the multiplicity of factors in force, capital and the other secondary considerations, the end result could have gone no other way.

Appendix A

Interpretation of Census and Tax Assessment Data

Through the nineteenth century, the science of demographic data collection was in its infancy, and published reports must be interpreted correspondingly, at least with regard to western livestock. The investigators who assembled the U.S. census reports every decade were well aware of shortcomings in the data at their disposal. The explanations and footnotes accompanying the various tables of data often contain a bewildering array of caveats. In the words of government livestock expert, H.A. Heath, "It has been quite difficult to obtain any reliable data from the Territorial records of New Mexico by which the exact number of sheep owned in the different counties of the Territory can be computed."[1] In the published U.S. census statistics through 1890, no distinction between farm stock and range stock was made. Animals "unrestricted by any tenure of lands," i.e. open-range livestock, were often not counted by census takers. Animals grazing partly on open range and partly on established farms and ranches constituted a source of error and confusion. Furthermore, the reporting of young animals was likewise inconsistent and confusing. Through 1880, lambs under one year of age were not counted; thereafter they were.[2] Livestock populations reported in the U.S. census reports are, thus, for these reasons alone, unquestionably low.

It was a widespread practice for New Mexico sheep owners to conceal the true size of their herds from the tax assessors and census takers so as to reduce their tax liability, a situation that apparently prevailed for much or all of the territorial period. This was easy and risk free. No practical way existed for the assessors to count livestock on range lands.

They were reliant on the sheep owners for that information. For this reason also, tax assessment rolls and census reports thus underreported the livestock populations of New Mexico, at least until the turn of the twentieth century. In the 1900 Census, a first attempt was made to revise the sheep populations reported in 1860, 1880, and 1890 to more realistic levels, "exclusive of spring lambs wholly or in part."[3] Later estimates by the New Mexico Department of Agriculture in cooperation with the U.S. Department of Agriculture were made in 1962.[4] The author regards this work as the most reliable source for New Mexico sheep populations and wool production in the period under consideration and has employed it wherever possible.

Reported wool production statistics are similarly problematic. Wool comes directly from the sheep in a dirty, greasy state, "in the grease." Washing and scouring the wool, a necessary step prior to any use, results in a loss of weight ranging from 20 to 85%, with an average around 60%. Yet the wool production was simply designated in pounds without any distinction as to its categories, "in the greasy state, in the washed state, and in the scoured state."[5]

Nevertheless, with some interpretation, the nineteenth-century statistical data can still be useful. It may be employed for estimating relative numbers, identifying general trends and substantial changes with the passage of time. The data can provide such information as sheep/cattle ratios, geographic distributions of livestock populations, and substantial increases and decreases in the rate of livestock production, but not absolute numbers.[6] And even though the quoted figures for wool production are for an unknown mixture of the various degrees of cleanliness, if the mix is about the same from decade to decade, as

is usually assumed, the general trend given by the reported weight of wool produced from year to year will be meaningful.

Appendix B

New Mexican Sheep and Their Management

The western flocks were constituted of three types of sheep, as was common everywhere. The females, ewes, typically constituted the bulk of a flock and were generally valued most as lamb producers. When their reproductive years were over, they were slaughtered for mutton or else employed strictly as wool producers. The breeding males, the rams, were relatively few in number. Often imported from outside New Mexico, they were the most valuable animals of the flock and the key to selective breeding for desirable characteristics. The most common graded ram employed in the West was the Merino. Such graded rams were often beyond the price range of small-scale New Mexico growers, in which case they ran purely *churro* herds. The wethers, males castrated shortly after birth, constituted the third class of sheep. Before the wool market developed, these animals were employed only for mutton. Thereafter, they were valued as wool producers and sometimes kept six or seven years for this purpose. Later, they would be sent off to fatten and then to slaughter.[7]

Churros

There is some controversy over precisely what breed of sheep the *pobladores* brought with them to New Mexico after the Reconquest. Some believe they were high-quality Spanish Merinos. The official 1897 governor's report to the secretary of the interior of interior asserted, "The original stock was of Spanish Merino, which for one hundred and fifty years had been bred in and deteriorated in character …"[8] Others, New Mexico

sheep merchant George Bond in particular, believed the original stock were *churros*, the common sedentary sheep of southern Spain, whose lineage extends back to Roman times.[9] Both breeds had thrived in Spain, which has an environment and topography similar to New Mexico, the Merinos having been brought originally to Andalusia from North Africa. Merino rams would, indeed, be imported to New Mexico in the late nineteenth century for breeding purposes, cf. chap. 4. What is known is the general character of the breed as reported by Anglo-American observers after 1821; what they saw was unmistakably a *churro*. Either the New Mexico flocks were constituted of *churros* from the outset, the original Merino stock had been diluted with *churro* blood introduced by imported stock over the years, or the flocks were degraded over time by inbreeding.[10] Anglos referred to the *churro* as the common "Mexican" breed.

Whatever the case, the *churro* breed was a good choice for the locale. They were small, easy to feed, and travelers of great endurance. The ewes were good mothers. They were easily managed because of their strong herding instinct. They could forage for themselves and withstand hunger and harsh climatic conditions well. Most important in the semi-arid environment, they were drought resistant, needing to drink from a stream or pond only every few days. They could survive the rest of the time on succulent plants and the morning dew. *Churros* were also well known for their good taste. The *churro's* hardiness, drought resistance, and herding instinct made it well adapted to the long trail drives to Mexico and, later, to California. It arrived at its destination in good condition, maximizing its owner's profits. In sum, the *churro* could live and multiply in New Mexico and be profitably driven to distant markets.[11] *Churros* were poor wool

producers. However, wool growing was not an important component of the colonial economy.

Field Organization

The sheep *patrones* employed a simple hierarchical administrative structure to manage their large herds. Few owners actually managed their own flocks, but instead employed for that purpose a *majordomo*, who functioned as a field boss or foreman.[12] Directly under the majordomo were the *vaqueros*, each typically responsible for three or four flocks of roughly 1000 head. The *vaquero* continually traveled by horse from one flock to another, checking up on its general condition, looking for any diseases, supervising the *pastores* in charge, and bringing them supplies. Significantly, most herders in the Southwest throughout the territorial period were Hispanic or Indian, regardless of whether their bosses were Hispanic or Anglo. Sometimes the flocks were as large as 2000-3000 sheep in which case they were tended by two *pastores*, typically a man, his boy, and their dogs.[13] By the late nineteenth century, a *pastor* might still be paid as little as $10.00/month plus board.[14] Their compensation generally took the form of credit, which their families might apply to the purchase of food and supplies in their absence; accounts were usually settled annually; little cash actually changed hands. This basic hierarchy evolved little over the years.[15]

The Annual Cycle

Sheep growing in New Mexico followed an annual cycle. Lambing was the most critical time of the year. It was carried out in some valley known to have early spring

grass (salt or alkali) and running water, as was the case in the Rio Grande, Pecos, and Mimbres river areas. The birthing time was planned by keeping the rams apart from the rest of the flock for most of the year. They were usually turned loose with the ewes from around mid December until mid-January, one buck to 40-50 ewes typically, but as many as 100 ewes for an expensive pure-bred ram. In this way the births were timed to occur in the spring when the New Mexico weather is relatively mild and lamb survival rates were high.[16] If the ewe band was robust and adequately fed, as many as 90% of the ewes would mate with a ram over the one-month period. Typically 65-85% of the ewes produced a lamb, the birthing season extending from late April to early May.[17] During this period, a temporary, expanded workforce of herders and lambers was sent out from the haciendas to the sheep camps to help the year-around herders with the birthing. If the weather was particularly cold and damp or if forage and moisture were scarce, the ewes might refuse to recognize their own offspring. Unless the herder was able to intervene in some way, a large fraction of the newborns would die. The frustrations are expressed by herder F. Carpenter in a letter to his boss, Las Vegas merchant W.H. Kelly:

> I thought I woud [sic] drop you a few lines to let you know how I [am] getting along with the fine sheep. I have a Hell of a time with them. I never had such a time with a bunch of sheep. I can't get them to own their lambs, they are hardest to make own their lambs I ever saw but of coarse [sic] it is on account of the grass being poor.[18]

Conversely, if the lambs were born under hot, dry conditions, their growth would be stunted.[19] A few weeks after lambing, the new-born males would be converted to wethers.[20] About a month later, the mature sheep would be shorn for their health if not

for their wool. After wool growing became important in New Mexico, shearing was sometimes performed by organized bands of shearers, who worked their way north, moving from herd to herd, with the advancing season.[21]

At the start of the annual cycle, the *majordomo* would decide on the path each of his flocks would follow during the coming year. As the spring grass came in, each *pastor* would drive his flock four or five miles a day, grazing all along the way.[22] He rarely kept his animals in the same location for more than two days at a time, and then only when the grass was particularly abundant. Typically, the annual path would first traverse an upland circle which might extend as far as 50 miles from the home base. In the fall, the flocks might be sheared again; they were then driven over a lowland circle through the fall and winter, returning to the home base in time for lambing.[23]

Appendix C

Spanish-Mexican Land Grants

Private Land Grants

Private grants were awarded to influential *ricos*, a single individual or sometimes a two-man partnership, but with strings attached. The grantees were legally obligated to live on the land for a minimal period, typically four years, a condition that often went un-enforced.[24] Additionally they were to populate the grant and develop its agricultural, grazing, or mining resources. This minimally involved recruiting settlers to farm and/or raise livestock, providing them with personal plots for homes and garden crops, and giving them access to grazing areas for their small livestock holdings. In return, the settlers were typically required to pay the grantee rent in the form of a fraction of their annual produce. Private grants were usually quite sparsely populated and devoted largely to grazing.[25] Establishing a private grant could entail a considerable initial investment on the part of the grantee. The wealthy Luna family is thought to have settled some fifty families on their original private grant, the San Clemente Grant in today's Valencia County.[26] With his basic obligations met, the grantee was then legally entitled to sell the property. Otherwise, when he died, the grant, and the continuing obligations connected with it, passed on to his heirs and thus remained in the family.

Community Land Grants

Community grants were awarded to groups of men, all heads of families. Again, minimal occupancy requirements were imposed. Each grantee received a personal plot

for a house (*solar de casa*) and a separate irrigable plot for growing crops (*suerte*) together with a fractional interest including usufructory rights in the common lands, the *ejidos,* which made up the bulk of the land area. The common lands were, like the the private grants, fundamentally grazing tracts. They were un-partitioned in that no grantee could claim a specific area for his/her exclusive use, nor could a specific plot be sold. Only the private plots along with a fractional ownership of the common lands that went with them could be sold. When a grantee died, the property was divided among his heirs. Although ownership was in principal distributed among all the grantees, community grants were, like the private grants, often dominated by a leading family that might have owned most of the livestock and, as a result, come to control the grazing lands. That family's patriarch assumed the role of *patron* for the other grantees.[27] He might have been instrumental in securing the grant in the first place and, as in the case of a private grant, expended considerable financial resources to bring it into production.[28]

Appendix D

The Sheep Herder of the Spanish-Mexican Period

Basic Routine and Minimal Qualifications

The life of the sheep herder during the Spanish-Mexican period, the tasks involved, and the kind of person who succeeded in this line of work reflect some light on how the industry evolved after the annexation and on labor issues that arose in the late nineteenth century, since many aspects of the actual work of herding changed little through the nineteenth century. The sheep herder's life was, beyond question, hard. A *pastor* had to be robust in body, since his life was, minimally, one prolonged hiking and camping trip. A skilled outdoorsman, he slept under the stars or in a small tent year around, rain, snow, high winds, or oppressive heat notwithstanding, usually trailing his herd several miles every day. He cooked himself two meals a day, at dawn and at night fall. His small supply of provisions, a frying pan and a coffee pot, a sack of flour, some salt, a bag of red pepper, and some coffee were all packed on his burro.[29]

Responsibilities, Skills, and Knowledge

Beyond keeping them watered and fed, the *pastor* was charged with protecting his animals, which have no survival instincts, from predators, poisonous plants, a considerable variety of which he had to be able to identify, accidents, Indian raiders, freezing winter storms, disease (scabies in particular later), prairie fire, and after the annexation thieves and murderous cowboys.[30] He had to be able to sense in advance the full array of dangers and take appropriate action when needed, and he had to deal with

field conditions that were changing from day-to-day. Isolated as it was, his life was not monotonous. South Dakota herder Archer B. Gilfillan described the situation thusly:

> the sheep rarely act the same two days in a succession. If they run one day, they are apt to be quiet the next. They herd differently in a high wind from what they do in a gentle breeze. They travel with the cold wind and against the warm one. They are apt to graze contentedly where feed is plenty and to string out where the picking is poor. Herding at one season is so different from herding at another as almost to constitute a different job. No one herding day is exactly like any other day, and there is more variety in them than there is in the day spent in the office or factory.[31]

Theft Losses

The herder's financial responsibility was large. Prior to the annexation, a 1000-head flock under his care might be valued at $500-1000, four or more years of his usual compensation, possibly $10-20/month at most. A single unfortunate incident could be devastating. It could turn an ambitious *partidario* into a *peon* if he was unable to cover his *patron's* losses. Indian attacks were an ever-present danger. As late as about 1870, Juan Luna, Solomon Luna's uncle, was one of several men killed in an Indian attack on the San Clemente Grant.[32] Sheep rustling was easy and involved minimal risk because the herder was usually alone on the open range, poorly armed and poorly mounted. With the expansion of the Anglo population and the sheep industry after the Civil War, the problem persisted. In 1868, the Denver press reported the case of a sheep thief, who had allegedly slit the throats of two Hispanic herders and hid their bodies. The stolen sheep

were identified and in his possession when he was captured by an Army detachment near Trinidad, Colorado.[33]

The Herder's Mental Disposition

The profession of sheep herder in the West demanded more than physical stamina, skills and knowledge, and a sense of financial responsibility. A specific mental disposition, including but not restricted to stoicism, was required. The ability to work hard and responsibly in isolation was essential. In the words of Towne and Wentworth, who devoted years to the study of the western sheep industry, the successful sheepherder needed "the unique temperament which sends a man forth to live alone for weeks on end, devoid of human contact, but weighted with full responsibility…" [34] The herder's only companions, besides his sheep, might be his dog and burro. In the words of one Texas *pastor*:

> ……*pastores* have very lonely lives. Sometimes they go for weeks with nothing to talk to during the day but sheep and goats. At night there is nothing to do but sleep, or, if they cannot sleep, then to listen. At such times the voice of the coyote is company in the night's stillness.[35]

The sheep herder was not always completely solitary, since he sometimes worked together with a boy, possibly his son, or with another adult herder if the flock was large. And his *vaquero* would visit every few weeks. But his human contact was, indeed, minimal. Ranch woman Agnes Morley Cleaveland might as well have been describing sheep herders when she noted of her cattle ranching community in the Datil area, "We were all uncompromisingly self-contained."[36] Considering the array of requirements, it

appears that the best herders must have been men of a sort of mental acuity, although they were largely illiterate. These requirements, unnecessary for the less demanding sheep husbandry on eastern farms, were unique to the West.

Additional Shortcomings of the Herder's Life

The sheep herder's occupation was not just lonely, but often lacking in respect. Hispanic herders were, in later years, a subject of derision by Anglos not involved in sheep growing. Many cowboys, in particular, considered them subhuman. A considerable collection of jokes and stories about crazy sheep herders, driven to insanity by the loneliness, circulated around the West, although they had little, if any, factual basis.[37] Another disadvantage of the herder's life was the hardships endured by his family in his absence. His wife and daughters might have to assume, in addition to their traditional tasks, all the family responsibilities ordinarily performed by the man of the house, including staving off Indian attacks. Furthermore, they would be unduly subject to assault, rape, or seduction while their men were away, according to Gutierrez, a danger whenever men spent extended periods away from home, the case with soldiers, muleteers, and hunters as well as sheep herders.[38] Herding clearly wasn't for everyone. And it became less attractive when other employment opportunities for Hispanic villagers opened up in the late nineteenth century, at which point good herders could be hard to find, cf., chap. 9. The herding profession could, however, provide a decent living for men possessing the required attributes.

Appendix E

Alfalfa

According to a late nineteenth-century government report, “Alfalfa is the most valuable and most important plant known to Western agriculture.” It is “unsurpassed as feed for sheep.”[39] The qualities of alfalfa are indeed almost too good to be true. And the feeding industry drew heavily from the development of alfalfa farming in the West. There was a New Mexico connection in that the important Colorado feeder industry, the earliest and by the mid-1880s well-developed, traces its origin to 1863 when Col. Jacob Downing brought the first alfalfa seeds into the territory from New Mexico.[40] Alfalfa is extraordinarily prolific; as many as three crops per year, i.e. three mowings, could be grown on irrigated land. It was a good protein source for animal growth and was a particularly effective feed when used in combination with corn. Comparatively cheap to produce, it promoted fast growth and heavy fleeces; and the sheep liked it. Its influence on the New Mexico sheep industry was largely indirect. Readily grown, it opened up expanses of previously unused farm land on the Great Plains for growing feed to fatten sheep on site. The grass develops a large, deep root system, is drought resistant, stands up to harsh climatic conditions otherwise, and is generally well-adapted to the high plains. Once established, it becomes a perennial, requiring little care. It produces more feed value per acre than most other crops.[41]

Appendix F

The Homestead Act of 1862

The Homestead Act of 1862 was intended provide free farmland in the public domain for settlers willing to take up lands in unsettled areas. Its importance as an agent of change in nineteenth-century American life cannot be overestimated, although its effectiveness in bringing successful small farms to the Southwest was severely compromised by its shortcomings.

Under the Homestead Act, for a fee of $10, a U.S. citizen or an immigrant who had declared an intension to become a citizen, man or woman over the age of twenty-one, could claim a quarter section [160 acres] of public land that had been surveyed. Final title - a patent - was to be secured by cultivating the land, improving it with the construction of a house or barn, residing on it for five years, and paying a few modest additional fees. Alternatively, one could purchase the homestead outright after six months residency for a minimum fee of $1.25 per acre.[42] An additional quarter section of public land could be purchased for $1.25 per acre under the Pre-emption Act of 1841 without a survey.[43] A quarter section was a sufficient amount of land to support a typical farm family in the humid East, but not west of the 98th meridian. By judicious use of the Pre-emption Act, the Homestead Act and its later amendments, the Timber Culture Act (1873) and the Desert Land Act (1877), it was possible to legally acquire 1120 acres of public land at minimal cost but with added provisos that were hard to satisfy in the West.[44]

After a homestead claim was filed, the land became free of any government intervention until final title was awarded. Even if a claimant did not satisfy the conditions required by the laws, he was assured sole use of the land for at least seven years, and possibly longer if no one else filed on the land when it was reopened for entry.[45] A total of 80,000,000 acres in the West were homesteaded after 1862.

Appendix G

Monetary Comparisons

Historical accounts of economic matters face a technical problem concerning the true value of dollar amounts taken from primary sources. The United States has experienced a general inflationary trend dating back to colonial times. Thus a dollar in 1850 was worth far more in purchasing power than a dollar in, for example, 2010. Throughout this work, contemporary dollar amounts for various goods and services during the territorial period of New Mexico have been quoted. To sensibly understand the full meaning of such quotes, these historical dollar amounts, designated "current" dollars in the technical literature, have been converted to 2010 dollars, an example of "constant" dollars. This provides the reader with an understanding of the various monetary values under discussion in terms of today's values, while giving a constant standard for comparisons of monetary values at different times during the historical period under discussion.

The procedure employed here uses the Consumer Price Index (CPI) published by the United States Bureau of Labor Statistics, which has been extended back to the late eighteenth century. The CPI is a measure of the cost in dollars of a bundle of goods and services of constant value for any given year compared to the cost in a base period. This is discussed in detail in John J. McKusker, *How Much Is That In Real Money?* Similar information is also available on the Web site, http://www.measuringworth.com.[46]

Using the CPI to restate "current" dollars into today's dollars proceeds thusly. Considering a restatement of 1850 dollars into today's dollars, the CPI for 1850 is 7.57 and the CPI for 2010 is 218.06. One dollar in 1850 would buy as much as 218.06/7.57 =

28.81 dollars in 2010. Thus, one hundred dollars in 1850 would buy as much as $2,881 in 2010 and so on. The dollar amounts quoted in the text and employed in graphs have been similarly converted to 2010 dollars and have been designated as such.

Notes

Chapter 1

[1]John O. Baxter, *Las Carneradas, Sheep Trade in New Mexico, 1700-1860* (Albuquerque: University of New Mexico Press, 1987), 90.

[2] This comment is understood to mean that sheep husbandry had provided, and continued to provide, a more widespread economic benefit to the people of New Mexico than any other single industry. By this time, mining, if not it's individual mineral subdivisions, and agriculture, if not it's individual crops, had surpassed the state's sheep industry in annual revenues, while cattle were comparable to sheep in revenues. However, cattle and mining were largely controlled by outside investors and a few local entrepreneurs who reaped the bulk of the profits. *The New Mexico Blue Book, 1913* (Santa Fe: n.p., n.d.), 24-26, 42.

[3] According to the most reliable data now available, New Mexico's sheep population grew from a roughly estimated 377,000 in 1850 to 3,535,000 in 1900, a factor of about nine. See *The Seventh Census of the United States: 1850* (Washington: Robert Armstrong, Public Printer, 1853), 170; New Mexico Department of Agriculture, *New Mexico Agricultural Statistics*, Vol. I (Las Cruces, New Mexico: New Mexico Department of Agriculture cooperating with The United States Department of Agriculture, 1962), 44; *Twelfth Census of the United States taken in the Year 1900,* Vol. V, *Agriculture,* Part I, *Farms, Livestock, and Animal Products* (Washington: United States Census Office, 1902), ccxiv. The annual revenues (sheep and wool) grew from very roughly $100,000 ($3,000,000 in 2010 dollars) during the best years under Mexican sovereignty to about $5,000,000 in 1900 ($134,000,000 in 2010 dollars) , a factor of 40, while the human population of the territory grew from 61,547, including Arizona, to 195,310 a factor of 3.2 between 1850 and 1900. See *U.S. Census, 1850* , p. 993; *Twelfth Census of the United States taken in the Year 1900, Vol. I, Population, Part I* (Washington: United States Census Office, 1901), xlix.

[4] William J. Parish, "The German Jew and the Commercial Revolution in Territorial New Mexico, 1850-1900." *New Mexico Historical Review* 35 (January 1960): 1-29; 35 (April 1960): 129-150. William J. Parish. "Sheep Husbandry in New Mexico, 1902-1903." *New Mexico Historical Review* 37 (July 1962): 201-213; 37 (October 1962): 260-309; 38 (January 1963): 56-77.

[5] David Montejano, *Anglos and Mexicans in the Making of Texas, 1836-1986* (Austin: University of Texas Press, 1987), 313, particularly, gives a general summary of this view.

[6] The *peon-patron* characterization is an oversimplification; not all lower-class Hispanic New Mexicans were *peones.* See chap. 2.

[7] Of interest along these lines is the often quoted comment of sheepman and merchant Mariano Chaves to his son, J. Francisco Chaves, upon the latter's 1841 departure for school in St. Louis: "the heretics [Americans] are going to overrun all this country. Go and learn their language and come back prepaired to defend your people." Mariano Chaves, quoted in Maurilio E. Vigil, *Los Patrones: Profiles of Hispanic Political Leaders in New Mexico History* (Washington, D.C.: University Press of America, 1980), 56.

[8] Gene M. Gressley, *Bankers and Cattlemen* (Lincoln: University of Nebraska Press, 1966); John Clay, *My Life on the Range* (Chicago: privately printed, 1924; reprint, New York: Antiquarian Press, Ltd., 1961).

[9] Howard Roberts Lamar, *The Far Southwest, 1846-1912: A Territorial History*, rev. ed. (Albuquerque: University of New Mexico Press, 2000).

[10] John O. Baxter, *Las Carneradas, Sheep Trade in New Mexico, 1700-1860* (Albuquerque: University of New Mexico Press, 1987).

[11] Charles Weyland Towne and Edward Norris Wentworth, *Shepherd's Empire* (Norman: University of Oklahoma, 1946); Edward Norris Wentworth, *Americas Sheep Trails: History, Personalities* (Ames, Iowa: Iowa State University Press, 1948); Charles M. Sypolt, "Keepers of the Rocky Mountain Flocks: A History of the Rocky Mountain Sheep Industry in Colorado, New Mexico, Utah, and Wyoming to 1900," (Ph.D. diss., University of Wyoming, 1974).

[12] Alvar Ward Carlson, "New Mexico's Sheep Industry, 1850-1900: Its Role in the History of the Territory." *New Mexico Historical Review* 44 (January 1969): 25-49; William J. Parish, "Sheep Husbandry;" Ralph Charles, "Development of the Partido System in the New Mexico Sheep Industry" (M.A. thesis, University of New Mexico, 1940).

[13] "The Stockmen," chap. 22, in Erna Fergusson, *New Mexico, A Pageant of Three Peoples* (Albuquerque: University of New Mexico Press, 1951), 315-332; "The Range Industry," chap. 25, in Frank D. Reeve, *History of New Mexico* (New York: Lewis Historical Publishing Company, 1961), 2:207-228.

[14] Winifred Kupper, *The Golden Hoof: The Story of the Sheep of the Southwest* (New York: Alfred A. Knopf, 1945); V.W. Lehmann, *Forgotten Legions: Sheep in the Rio Grande Plane of Texas* (El Paso: Texas Western Press, 1969).

[15] Susan Calafate Boyle, *Los Capitalistas: Hispano Merchants in the Santa Fe Trade* (Albuquerque: University of New Mexico Press, 1997); Josiah Gregg, *Commerce of the Prairies: or Eight Expeditions across the Great Western Prairies, and a Residence of Nearly Nine Years in Northern Mexico* (New York: H.G. Langley, 1844; reprint, Philadelphia and New York: J.B. Lippincott Company, 1962.)

[16] William J. Parish, *The Charles Ilfeld Company: A Study of the Rise and Fall of Mercantile Capitalism in New Mexico* (Cambridge: Harvard University Press, 1961).

[17] Frank H. Grubbs, "Frank Bond, Gentleman Sheepherder of Northern New Mexico, 1883-1915," *New Mexico Historical Review* 35 (July 1960): 169-199; 35 (October 1960): 293-308; 36 (April 1961): 138-158; 36 (July 1961): 230-243; 36 (October 1961): 274-345; 37 (January 1962): 43-71; "Frank Bond, Gentleman Sheepherder of Northern New Mexico, 1883-1915," (M.B.A. thesis, University of New Mexico, 1958).

[18] Sister Lucretia Pittman, "Solomon Luna: Sheepmaster and Politician of New Mexico," (M.A. thesis, St. Louis University, 1944).

[19] Malcolm Ebright, *Land Grants and Lawsuits in Northern New Mexico* (Albuquerque: University of New Mexico Press, 1994); John R.Van Ness and Christine M. Van Ness, eds., *Spanish and Mexican Land Grants in New Mexico and Colorado* (Manhattan, Kansas: Sunflower University Press, 1980, part of the July 1980 issue of *Journal of the West*.)

[20] Some speculators had grandiose plans for the "development" of their acquisitions. But these were rarely, if ever, realized.

[21] Victor Westphall, *Mercedes Reales: Hispanic Land Grants of the Upper Rio Grande Region* (Albuquerque: University of New Mexico Press, 1983) and *The Public Domain in New Mexico, 1854-1891* (Albuquerque: University of New Mexico Press, 1965).

[22] D.W. Meining, *Southwest: Three Peoples in Geographic Change, 1600-1970* (New York: Oxford University Press, 1971); Richard L. Nostrand, *The Hispano Homeland* (Norman: University of Oklahoma Press, 1992).

[23] Robert J. Rosenbaum, *Mexicano Resistance in the Southwest: "The Sacred Right of Self-Preservation"* (Austin and London: University of Texas Press, 1981).

[24] In the words of sheep merchant Frank Bond, "We have all been tax dodgers for years, and I don't know anybody who has not been." Frank Bond to J.H. McCarthy, Taos, August 14, 1915, Frank Bond & Son Records, 1870-1958 (FBC henceforth), Center for Southwest Research, University Libraries, University of New Mexico, Albuquerque, 84:413.

Chapter 2

[1] David J. Weber, *The Mexican Frontier, 1821-1846*, *The American Southwest Under Mexico* (Albuquerque: University of New Mexico Press, 1982), 139, n. 61.

[2] Charles F. Lummis, *The Land of Poco Tiempo* (New York: Charles Scribner's Sons, 1893; reprint, Albuquerque: University of New Mexico Press, 1952), 15.

[3] France V. Scholes, "Civil Government and Society in New Mexico in the Seventeenth Century," *New Mexico Historical Review* 10 (April 1935): 108.

[4] Baxter, 42-49. See also Ramon A. Gutierrez, *When Jesus Came, the Corn Mothers Went Away: Marriage, Sexuality, and Power in New Mexico, 1500-1846* (Stanford, CA: Stanford University Press, 1991), 148-151.

[5] Baxter, 2-3. For more detail, see Paul F. Horgan, *Great River: The Rio Grande in North American History*, 4th ed. (New York: Rinehart, 1954; reprint, Austin: Texas Monthly Press, 1984), 127-128. Some sheep were left in New Mexico with a few friars who stayed behind and were later killed by the Pueblo Indians. Those sheep disappeared entirely.

[6] Baxter, 3.

[7] Hernán Gallegos, quoted in George P. Hammond and Agapito Rey, eds., *The Rediscovery of New Mexico, 1580-1594* (Albuquerque: University of New Mexico Press, 1966), 89.

[8]Baxter, 4. The initial party consisted of about six- or seven-hundred individuals: soldier-settlers, their families, servants, and slaves, and Franciscan friars, a heterogeneous population of Spaniards, creoles, *castas* (of mixed blood), and Mexican Indians. Interestingly, the original settlement was near the present-day town of Espanola, New Mexico, later headquarters of one of New Mexico's most notable sheepmen, Frank Bond.

[9] Gutierrez, 57; Erna Fergusson, 166.

[10] Wentworth, 113.

[11] Pedro Bautista Pino, quoted in H. Bailey Carroll and J. Villasana Haggard, eds., *Three New Mexico Chronicles* (Albuquerque: The Quivira Press, 1942), 99n.

[12] Robert MacCameron, "Environmental Change in Colonial New Mexico," *Environmental History Review* 18 (Summer 1994): 21-22.

[13] Gutierrez, 102, 105-106.

[14] The *encomienda* was a system of grants of Pueblo tribute, often in the form of labor, to the soldier-citizens. See Gutierrez, 102-105; Ebright, 14-15, 21-22.

[15] Scholes, 107-108; Baxter, 8; Gutierrez, 115. For their part, the Pueblo Indians, already skilled in cotton textile manufacture, learned wool production, spinning, and weaving along with sheep husbandry.

[16] Referring to the Rio Grande in New Mexico, the Rio Abajo is the downriver country and Rio Arriba the upriver country. They are separated by *La Bajada barranca*, southwest of Santa Fe. See Nostrand, *Homeland*, 37.

[17] The imports included tools, builder's supplies, various foodstuffs, clothing, and religious articles. Sometimes these caravans brought along additional infusions of livestock. See Scholes, 110; Horgan, 225-226.

[18] Baxter, 8-9.

[19] Woolen stockings and textiles (fabricated by Pueblo coerced labor), salt, livestock, hides, and pinon nuts were shipped south and exchanged in Mexico for dry goods, hardware, tools, and weapons, all essential for survival in the remote northern settlements, all on a rather small scale.

[20] Scholes, 110-111; Gutierrez, 300; Baxter, 9-11.

[21] Baxter, 10-11.

[22] Baxter, 11-12.

[23] Baxter, 11.

[24] By the time of the Pueblo Revolt, the colony extended from Taos to Socorro in the north-south direction and from the Jemez Mountains to the Rio Pecos in the east-west direction, with outlying settlements at Zuni, Acoma, and Hopi Pueblos.

[25] The situation was exacerbated by the imposition of religious repression upon the Pueblos, together with a confluence of more concrete developments, including drought, crop failures, starvation, and a related increase in Apache raids.

[26] Gutierrez, 103-135.

[27] Gutierrez, 143-175.

[28] Nostrand, 38-48; Westphall, *Mercedes Reales*, 19-23.

[29] Gutierrez, 166-172.

[30] Gutierrez, 155-159. The *encomienda* system was gradually abolished throughout New Spain in the early eighteenth century because of the depletion of indigenous populations. See John L. Kessell, *Pueblos, Spaniards and the Kingdom of New Mexico* (Norman: University of Oklahoma Press, 2008), 174. The *repartimiento*, a rotational labor draft, was abolished in 1786. See Gutierrez, 304.

[31] Baxter, 13-17.

[32] Baxter, 16, 27.

[33] California and Texas were given similar roles as military buffers. See Gutierrez, 146. In this general timeframe, Illinois-based French traders initiated trade with tribes on the Great Plains, nominally Spanish territory, while French reconnaissance expeditions from Illinois and New Orleans reached Santa Fe. See Donald J. Blakeslee, *Along Ancient Trails: The Mallet Expedition of 1739* (Niwot, CO: University Press of Colorado, 1995), 197-208.

[34] Baxter, 15-17; Ralph Emerson Twitchell, *Old Santa Fe: The Story of New Mexico's Ancient Capital* (Santa Fe: Santa Fe New Mexican Publishing Corporation, 1925; reprint, Santa Fe: Sunstone Press, 2007), 151-152.

[35] The grant system adopted after the Reconquest may have been a continuation of the previous land distribution practice to some extent. The policy promoted settlement and general economic development, while providing rudimentary administrative oversight for the colony.

[36] The extensive miscegenation between the Spanish settlers and Indian women that had persisted since the colony's founding belied the *ricos'* invariable claims of pure blood. See Gutierrez, 103, 149-150; Twitchell, *Old Santa Fe*, 177.

[37] Gutierrez, 176-206.

[38] *Genizaros* often served as domestics as well as farm laborers, soldiers, and artisans, augmenting the labor of the *mestizos*. The *genizaros'* term of service in a Hispanic family was typically limited to ten years, after which they would be freed and could, if they hadn't already done so, intermarry into the lower rungs of colonial society. See Gutierrez, 295; James F. Brooks, *Captives and Cousins: Slavery, Kinship, and Community in the Southwest Borderlands* (Chapel Hill and London: University of North Carolina Press, 2002), 123-126.

[39] Gutierrez, 171-175.

[40] A good general summary of the eighteenth-century colonial class structure is given by Gutierrez, 148-152. He asserts that the nobility then consisted of fifteen to twenty families.

[41] Don Jose Agustin de Escudiero, in Carroll and Haggard, 89.

[42] The flocks were also sometimes herded, or at least overseen, by the young men of the *patron's* family, who were required to learn the livestock business from the ground up. These young *ricos* sometimes supervised the sheep drives into Mexico, while their elders remained at home.

[43] W.W.H. Davis, *El Gringo: New Mexico and her People* (New York: Harper, 1857; reprint, Lincoln: University of Nebraska Press, 1982.), 231-233.

[44] Gutierrez, 323.

[45] Gutierrez, 323-327; Maria E. Montoya, *Translating Property: The Maxwell Land Grand and the Conflict over Land in the American West, 1840-1900* (Berkeley: University of California Press, 2002), 65-68. Peonage was prohibited by the Thirteenth Amendment to the U.S. Constitution in 1865. The custom persisting, Congress passed an anti-peonage law in 1867 directed specifically at New Mexico. See Twitchell, *Old Santa Fe*, 322-323.

[46] Lummis, *Poco Tiempo*, 15-16.

[47] Charles, 22-23. *Peon* sheep herding existed in parallel with *partidario* herding.

[48] Altogether, the Spanish and Mexican Governments awarded some twenty-two million acres of grant lands in New Mexico and Southern Colorado. It has been estimated that about two thirds of the colony's population lived on large grants, somewhat more on community grants than private grants. Outside the grants, some 20% of the rural population is believed to have lived on small, single-family holding claims, perhaps of about 10 acres. See Westphall, *Mercedes Reales*, 11-12, 143-144.

[49] According to the census of 1757, the "Spanish" population of the colony stood at 5,170 individuals. They possessed 2,543 horses, 7,832 cattle, and 47,621 *ganado menor* (sheep and goats). Additionally, there

were almost 9,000 Pueblo and Hopi Indians who owned 4,813 horses, 8,325 cattle, and 64,561 *ganado menor*. See Baxter, 42. See also Kessel, 175.

[50] By the beginning of the nineteenth century or earlier, the Navajos had built up large sheep herds of their own by raiding Hispanic flocks and had begun the wool manufacture for which they would become renowned.

[51] Baxter, 26.

[52] Gutierrez, 300.

[53] Baxter, 42; Meinig, 14.

[54] Baxter, 47-48.

[55] Gregg, 99; Baxter, 28-31.

[56] Charles, 79-82.

[57] Escudero, in Carroll, 40-42.

[58] Escudero, in Carroll and Haggard, 41. One hundred years later, Fabiola Cabeza de Baca, whose wealthy, stock-growing family engaged in numerous *partido* contracts, propounded a similarly serendipitous view of the system. See Fabiola Cabeza de Baca, *We Fed them Cactus*, 2nd ed. (Albuquerque: University of New Mexico Press, 1994), 57-58.

[59] *Partido* Contract, Jesus Armijo y Jaramillo to Cristobal Armijo, 1882, Bernalillo County Records, Albuquerque, New Mexico, trans. Charles, 85-86.

[60] Gutierrez, pp. 326-327.

[61] Lummis, *Poco Tiempo*, 15-16.

[62] Gutierrez, 326. When the British monetary system was abandoned in America, the dollar was based on the Spanish peso (8 *reales*). The expression "two bits" comes from the value of two *reales* or two pieces of eight, about 25 cents. For much of the nineteenth century, the peso and the US dollar remained about equal in value. See Donald E. Worster, "The Significance of the Spanish Borderlands to the United States," *The Western Historical Quarterly* 17 (January 1976): 4; John J. McCusker, *How Much Is That In Real Money?* 2nd ed. (Worcester: American Antiquarian Society, 2001), 43, 61-62, 84-87.

[63] Marc Simmons, "The Chacon Economic Report of 1803," *New Mexico Historical Review* 60 (January1985): 84; Baxter, 68.

[64] Nostrand, 54-55.

[65] Baxter, 59, 72.

[66] Gutierrez, 319-320.

[67] Baxter, 58-60; Simmons, "Chacon," 85. See also Gutierrez, 319-320.

[68] Baxter, 52.

[69] Gutierrez, 301.

[70] Simmons, "Chacon," 86-87. In addition to sheep, the trade goods included deer hides, buffalo robes, furs, tobacco, salt, and copper work as reported by Lieut. Zebulon Pike, the first American observer to report on a New Mexican trade caravan and the important role of sheep in the trade with Mexico. See Zebulon Montgomery Pike, *The Expeditions of Zebulon Montgomery Pike*, vol. 2, ed. Elliott Coues (Minneapolis: Ross & Haines, 1965), 631-632, 739; Horgan, 367, lists additional exports which included woolen blankets, dried meat, and strings of red and green chili. See also Pino, in Carroll, 109. The New Mexicans attended the January Chihuahua trade fair and returned home in April, with horses and mules, fancy textiles, hats, ironwork, hardware, drugs, paper, dyes, and specialty foods, an ever widening variety of goods. They also brought home imported goods from the Philippines, China, South America, and Europe as well as some gold and silver. An additional drive departing in August was added later. See Baxter, 63, 69.

[71] Pino, in Carroll and Haggard , 106-108.

[72] Simmons, "Chacon", 87.

[73] Baxter, 44.

[74] Baxter, 72-75.

[75] Weber, 140-141; Simmons, "Chacon," 84; Pino, in Carroll and Haggard, 35; Barriero, in Carroll and Haggard, 38; Escudero, in Carroll and Haggard, 89.

[76] Pino reported in 1812 that 15,000 sheep were being exported every year to Durango with a valuation of around 17,000 pesos, while total exports to Mexico were estimated to be valued at 60,000 pesos. Pino, in Carroll and Haggard, 36. Pino's figures are only to be considered rough estimates, but indicate general relationships. See also Simmons, "Chacon," 85-86.

[77] Besides owing most of the colony's sheep, the *ricos* filled most if not all the positions of influence and honor and were, as a result, deeply involved in New Mexico's political and religious affairs. See Gutierrez, 149.

[78] Boyle, 7-13; Gutierrez, 301; Baxter, 43-47.

[79] Baxter, 59; Barreiro, in Carroll and Haggard, 109-110.

[80] Gutierrez, 231, 262.

[81] Baxter, 75-76, 79.

[82]Escudero, in Carroll and Haggard, 43; Baxter, 90.

[83] Weber, 11; Twitchell, *Old Santa Fe*, 198.

[84] Boyle, 23-24.

[85] Erna Fergusson, 269.

[86] Baxter, 100-101.

[87] Twitchell, *Old Santa Fe*, 217-218. Gregg, 203-204, 207-209; Baxter, 101-102.

[88] Baxter, 97.

[89] Baxter, 95-96, 104.

[90] Baxter, 107-109; See also Weber, 140, n. 62.

[91] Of these, the Chaves brothers owned 52,500 head; Antonio Sandoval 38,500; the Otero family 44,500. See Baxter, 103-104, 107. Records indicate Manuel Armijo drove 34,916 sheep south over the decade, 1835-1845. See Boyle, 39.

[92] Boyle, 35-36.

[93] Barriero, in Carroll and Haggard, 109.

[94] Boyle, 35-44.

[95] Gregg, 99.

[96] Weber, 209-212.

[97] Gutierrez, 302, 323.

[98] Like other inconvenient laws, this ruling went un-enforced on the northern frontier of New Spain. See Brooks, 121-142. The slave trade with Mexico continued through the Mexican period. See Weber, 213. It has been estimated that as late as 1862, there were still 600 Indian slaves in New Mexico. See Westphall, *Mercedes Reales*, 5-6.

[99] Weber, 209-210; Boyle, 41, 44.

[100] Gutierrez, 167, TABLE 4.2.

[101] John R. Van Ness and Christine M. Van Ness, "Introduction," *Journal of the West* 19 (July 1980): 6; *The Seventh Census of the United States: 1850* (Washington: Robert Armstrong, Public Printer, 1853), lxxxii, 1007.

[102] Montoya, 35, 142, discusses this point in the context of the Maxwell Land Grant.

[103] Barriero, in Carroll and Haggard, 79, 103. Gutierrez attributes the high incidence of Indian raids to retaliation for Hispanic slave raids on the nomadic tribes. See Gutierrez, 153. If this is true, the policy of bolstering the colonial economy with Indian slave labor had the counter-effect of suppressing the important sheep-growing component of the economy.

[104] During the first decade of its existence, several settlers on the isolated Beaubien-Miranda (Maxwell) Grant died at the hands of Jicarilla Apaches. See Montoya, 44.

[105] A detailed account of this expansion is given in Richard L. Nostrand , *The Hispano Homeland.* See in particular Nostrand, 70-76.

[106] Meinig, 27.

[107] Gutierrez, 304.

[108] Westphall, *Mercedes Reales,* 19, 21.

[109] Meinig, 30-31.

[110] Nostrand, 70-71.

[111] Nostrand, 71.

[112] Nostrand, 77; Gutierrez, 305.

[113]Floyd W. Lee, *Bartolome Fernandez, Pioneer Shepherd on the Hills – in New Mexico* (New York, San Francisco, and Montreal: The Newcomen Society of North America, 1954), 5, 22, 35.

Chapter 3

[1] At least two earlier visitors from the United States had previously entered New Mexico but attracted little attention. See Erna Fergusson, 236; Horgan, 401-407.

[2] Pike, 631-632, 739-740; Baxter, 62-63.

[3] L. Bradford Prince, *A Concise History of New Mexico*, 2nd ed. Cedar Rapids, Iowa: The Torch Press, 1914), 166.

[4] Erna Fergusson, 236.

[5] Weber, 130.

[6] Nostrand, 101.

[7] The American fur trade declined sharply following a switch in European fashion from fur to silk hats. Some western fur trappers then redirected their attention to buffalo hides. See Weber, 133.

[8] Armijo's motivation for awarding these overly large land grants is a matter of debate among historians. Armijo apparently received a kickback in the form of partial ownership upon awarding the Beaubien-Miranda Grant. See Westphall, *Mercedes Reales*, 45-46. And that may have also been the case with other grants. It is a matter of speculation that he may also have had the legitimate goal of bolstering the defenses of New Mexico from encroaching Americans by creating large buffer areas in the North. See Westphall, *Mercedes Reales*, 56-57.

[9] Charles Beaubien was one of the most notable new arrivals in New Mexico prior to the annexation. He had been quite successful in the fur trade, branched out into more general mercantile activities, and then married into Taos high society, securing for himself a position of status, wealth, and influence

[10] Montoya, 31; Westphall, *Mercedes Reales*, 44-52.

[11] Montoya, 38.

[12] Maxwell was born in Illinois into an influential fur-trading family and later served, along with Kit Carson, as a scout under Gen. John C. Fremont during his western explorations. He settled in Taos in 1844. A man of considerable energy and industry, he became an astute and highly successful businessman, operating largely within Hispanic customs.

[13] Montoya, 62.

[14] Montoya, 71, 142.

[15] Wentworth, 237; Helen Haines, *History of New Mexico*: *From the Spanish Conquest to the Present Time, 1530-1890* (New York: New Mexico Historical Publishing Company, 1891), 244.

[16] Montoya, 71.

[17] Montoya, 50.

[18] A detailed investigation of the dynamics of Anglo-Hispanic intermarriage in Mexican California is presented in Louise Pubols, *The Father of All: The de la Guerra Family, Power, and Patriarchy in Mexican California* (Berkeley and San Marino: University of California Press and the Huntington Library, 2009.), 105-148.

[19] Montoya, 75.

[20] Westphall, *Mercedes Reales*, 53-56.

[21] Other notable Anglo stockmen in this timeframe were Connecticut-born brothers J.L. "Santiago" Hubbell, married into the distinguished Gutierrez family and believed to have owned 103,000 sheep in 1858, and Sydney A. Hubbell, married into the Perea family, believed to have participated in the large 1857 California sheep drive, and later a mine owner and prominent jurist. See Baxter,143.

[22] There was an overlap between the fur trappers and Santa Fe Trail traders during the early years of the trade.

[23] Boyle, 17; Meinig, 17-18.

[24] Twitchell, *Old Santa Fe*, 215.

[25] Boyle, 97; Escudero, in Carroll and Haggard, 66; Nostrand, 101. See also Boyle, 64, concerning Hispanic traders. Westbound manufactured goods from the eastern United States were shipped by steamboat to trailheads on the Missouri River where they were transferred to wagons bound for New Mexico and beyond.

[26] Grubbs, 35: 169.

[27] Nostrand, 103.

[28] Boyle, 42, 57-61. See also Erna Fergusson, 240; Marc Simmons, *The Little Lyon of the Southwest: A Life of Manuel Antonio Chaves* (Chicago: The Swallow Press, 1973), 64.

[29] Boyle, 43, 96.

[30] Boyle, 33.

[31] Boyle, 45-46.

[32] Boyle, 47.

[33] Parish, "The German Jew," 2; Weber, 122; Boyle, 60-64; Meinig, 19.

[34] Prior to the annexation, future New Mexican political leaders and sheepmen attending American schools included J. Francisco Chaves, Francisco Perea, Miguel A. Otero, Jr., and Solomon Luna.

[35] Escudero, in Carroll and Haggard, 61-62.

[36] Prior to the American annexation, the law of the land in New Mexico had been Spanish civil law, which treated land ownership quite differently than Anglo-American common law. This legal disparity, and the

divergent social values that accompanied it, have given rise to long and bitter land disputes, some of which persist to the present day. See Ebright, 69-70.

[37] W.H. Emory, *Lieutenant Emory Reports: A Reprint of a Military Reconnaissance*, Introduction and Notes by Calvin Ross (Albuquerque: University of New Mexico Press, 1951), 96.

[38] Calvin Ross, "Introduction," in Emory, 16.

[39] Gregg, 135. A dramatic Indian raid-kidnapping incident is described in James O. Pattie, *Personal Narrative of James O. Pattie*, (Cincinnati: E.H. Flint, 1833; reprint, Missoula, Mountain Press Publishing Company, 1988), 77-78.

[40] Emory, 48-49, 80, 84.

[41] Charles F. Coan, *A History of New Mexico* (Chicago and New York: American Historical Society, 1925), I:360, 399. During the Civil War, Gen. Carleton's force stationed in New Mexico rose to 3,089 men, although it was reduced after the war.

[42] Pino, in Carroll, 68-69.

[43] Twitchell, *Old Santa Fe*, 324-325.

[44] John R. Bartlett, *Personal Narratives of Exploration and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua* (New York: D. Appleton and Company, 1854; reprint, Chicago: Rio Grande Press, 1965), II:385-386.

[45] *Rocky Mountain News*, April 8, 1868.

[46] Gregg, 99-100; Emory, 80.

[47] Parish, *Ilfeld*, 37.

[48] Nostrand, 105-108. The army officers were largely American born, although two thirds of the enlisted men were born in Europe, largely in Ireland and Germany.

[49] When the army established a post at Rayado, the principal settlement on his grant, Maxwell rented out quartering for the soldiers and stables for their horses. He also sold food for the troops and feed for their horses and mules, produce of the grant, charging the high prices that this market would bear. In later years, Maxwell supplied the Jicarilla Indian Reservation with livestock and agricultural produce. See Montoya, 51, 70.

[50] Glaab, 161; Twitchell, *Old Santa Fe*, 324.

[51] Twitchell, *Old Santa Fe*, 324.

[52] Boyle, 113.

[53] Glaab, 161.

[54] In 1859, 63 of the 112 shipments departing Council Grove, Kansas, the trailhead by then, were Hispanic owned. This amounted to 556 wagons carrying over 1400 tons, accompanied by 779 men. Boyle, 96; Charles N. Glaab, "Business Patterns in the Growth of a Midwestern City: The Kansas City Business Community before the Civil War," *The Business History Review* 33 (Summer 1959): 161-162.

[55] W.H.H. Allison, "Santa Fe as it Appeared During the Winter of the Years 1837 and 1838." *Old Santa Fe* 2 (October 1914): 181. Pino is remembered for having written a comprehensive report on conditions in the colony during the late Spanish era

[56] Simmons, *Little Lyon,* 50-51.

[57] Simmons, *Little Lyon*, 109-110.

[58] Simmons, *Little Lyon*, 113-114.

[59] Simmons, *Little Lyon*, 147.

[60] Simmons, *Little Lyon*, 200, 205, 211; Lee, 32.

[61] Simmons, *Little Lyon*, 205.

[62] Robert W. Larson, *New Mexico's Quest for Statehood, 1846-1912* (Albuquerque: University of New Mexico Press, 1968), 245-247, 275, 277.

[63] *Rocky Mountain News*, May 17, 1874.

[64] Ezra A. Carman, H.A. Heath, and John Minto, *Special Report on the History and Present Condition of the Sheep Industry of the United States*, Department of Agriculture, Bureau of Animal Industry (Washington: Government Printing Office, 1892), 922; Erna Fergusson, 316-317.

[65] Erna Fergusson, 343; Other important Hispanic sheep-growing families were Gutierrez, Lucero, Mirabel, Romero, and Yrisarris, while Capt. John G. Clancy and Santiago Hubble were prominent Anglo growers. See Sypolt, 43; Wentworth, 114.

[66] Olen E. Leonard, *The Role of the Land Grant in the Social Organization and Social Processes of a Spanish-American Village in New Mexico* (Albuquerque: Calvin Horn Publisher, 1970), 60-61.

[67] After the war, the trade in merchandise with Mexico recovered. New Mexico merchant-stockman, and later political and military leader, Francisco Perea was quite active in that endeavor. Starting in 1849, he made several trading expeditions into Mexico, carrying American manufactured goods, some of which he purchased in New York City. In the same timeframe he was participating in large sheep drives not to Mexico but to California. See Allison, 215-216; Boyle, 65.

[68] Sypolt, 26-27.

[69] Weber, 66-67.

[70] The Old Spanish Trail went from Abiquiu, New Mexico to Los Angeles through southwestern Colorado, Central Utah, and Southern Nevada. Some American traders from New Mexico drove the California horses and mules all the way east to Missouri. LeRoy R. Hafen and Ann W. Hafen, *Old Spanish Trail*, *Santa Fe to Los Angeles* (Glendale, CA: Arthur H. Clark Co., 1954), 155, 165-169. See also Weber, 126-127, 134-135; Boyle, 41-42.

[71] LeRoy R. Hafen, "The Old Spanish Trail, Santa Fe to Los Angeles." *Huntington Library Quarterly* 11 (February 1948): 149-160; Hafen and Hafen, 185-188, 206, 211.

[72] Sheep enjoyed an advantage over inanimate merchandise in that they provided sustenance on the trail for the herders. See Pittman, 13.

[73] Baxter, 112-114.

[74] Angney had arrived in New Mexico with Kearney's army and quickly established himself as a political leader, while Alvarez was a successful Santa Fe-based merchant who had been active for many years and, prior to the annexation, had served as U.S. consul in New Mexico. The two men had served together in the territorial legislature.

[75] Baxter, 114-118.

[76] Baxter, 116-119, 122-124.

[77] Baxter, 116-118.

[78] Sheep had several advantages over cattle on the trails to California. They grazed on any available grass as they were driven and after watering, bedded down for the night, while cattle would spend the night on their feet grazing and rarely got enough to eat. The flocking instinct of sheep made them easier to drive, whereas cattle were subject to stampede by thunder and lightening storms, Indian raids, predatory animals, or the smell of water if they were seriously thirsty. Survival on the trail was greater for sheep than cattle. In any case, New Mexico was the closest important source of meat to California, and that meat was mutton. The territory had not yet developed a cattle industry of commercial proportions. See Towne and Wentworth, 101; Donald Chaput, *Francois X. Aubry: Trader, Trailmaker and Voyageur in the Southwest* (Glendale, CA: Arthur H. Clark Co., 1975), 119

[79] Simmons, *Little Lyon*, 114.

[80] Baxter, 119-120.

[81] Pittman, 14. Gregg made the drive in 107 days, a very good time.

[82] Baxter, 120-121; Bartlett, 293. Coons' drive started out inauspiciously when Apaches stole several of his horses and mules, causing a six-week delay while he returned to the city of Chihuahua to buy more animals and hire more men.

[83] Antonio Jose Luna's wife was the mother of Solomon Luna, later reputed to be the largest sheep grower in New Mexico. Antonio Jose's paternity is in question, although he seems to have always treated Solomon, who eventually took over the family business, as his own. See Pittman, 59.

[84] Baxter, 121-122.

[85] Aubry's biographer believes he probably knew nothing about sheep. Dalton C. Bergan, *The Pathfinder, The Story of Francis X. Aubry on the Santa Fe Trail and the California-Santa Fe Trail, 1846-1854* (Carpintera, CA: by the author, c. 1983), 34.

[86] Bergan, 152; Chaput, 120.

[87] Francis Aubry was a remarkable man in many ways. He acquired legendary status and the title "Skimmer of the Plains" in 1848 when he rode from Santa Fe to Independence, Missouri, a distance of 780 miles, in five days, 16 hours, allegedly to win a bet. Hardly stopping to sleep, he tied himself in the saddle to keep from falling when he dozed off. He set a distance-speed record that has never been broken. Aubry got his start as a trader in the spring of 1846 with a $600 loan from his employer, a St. Louis merchant. He proved to be an astute business man and by the time he entered the sheep trade had amassed a personal fortune estimated at $75,000 ($2,000,000 in 2010 dollars). See Bergan, 1, 54, 63; Chaput, 61-69.

[88] Christopher Carson, "The Kit Carson Memoirs, 1809-1856," in Harvey Lewis Carter, *'Dear Old Kit': The Historical Christopher Carson* (Norman and London: University of Oklahoma Press, 1968), 132-135, nn. 283-285.

[89] Bergan, 146.

[90] Bergan, 166.

[91] Bergan, 131-132, 142, 156; Baxter, 126-127. Antonio Jose Otero had been appointed New Mexico Supreme Court Judge by Kearny. His nephew, Miguel A. Otero, Jr., was later appointed governor of New Mexico by President McKinley. Francisco Perea, also became prominent in politics, served as New Mexico's delegate to Congress, became friends with President Lincoln, and was present at Ford's Theater the night Lincoln was assassinated. See Maurilio E. Vigil, *Los Patrones: Profiles of Hispanic Political Leaders in New Mexico History* (Washington, D.C.: University Press of America, 1980), 53-54.

[92] Bergan, 152; Baxter, 126.

[93] Bergan, 156-157.

[94] Lee, 35.

[95] Bergan, 165; Allison, 216.

[96] Bergan, 197-198; Twitchell, *Old Santa Fe*, 346-348.

[97] Bergan, 156.

[98] Pittman, 13. Baxter, 142-144.

[99] Baxter, 139-140.

[100] Baxter, 142; Pittman, 13.

[101] Baxter, 143-144.

[102] *Santa Fe Weekly Gazette*, October 9, 1858, quoted in Lee, 35. See also Baxter, 143-145.

[103] Baxter, 147-148; Allison, 217.

[104] Clarence W. Gordon, "Report on Cattle, Sheep, and Swine," in *Report of the Productions of Agriculture as returned at the Tenth Census, 1880*, Vol. III (Washington: Government Printing Office, 1883), 1000, 1005.; Bergan, 156.

[105] Baxter, 148.

[106] Gordon, 992. The data given are: 1852, 40,000, $12-15/head; 1853, 135,000, $9-12; 1854, 27,000, $3-4; 1855, 19,000, $3-4; 1856, 200,000, $3-4; 1857, 130,000, $3-4; 1858, "small number"; 1859, 0. The last two entries are clearly erroneous. See Baxter, 143-148.

[107] Baxter, 150; Sypolt, 30.

[108] Baxter, 128.

[109] The Perea, Otero, Armijo, Baca, Jaramillo, Luna, Ortiz, and Pino families dominated, as they did during Mexican sovereignty. See Kupper, 24-25, for a more extreme assessment of the *rico-pobre* divide.

[110] Sypolt, 30; Alvar Ward Carlson, "New Mexico's Sheep Industry, 1850-1900: Its Role in the History of the Territory," *New Mexico Historical Review* 44 (January 1969): 28-29.

Chapter 4

[1] Davis, 205. W.W.H. Davis assumed the office of United States Attorney for New Mexico in 1853. He later served as Secretary of New Mexico and for a time as Acting Governor.

[2] *Thirteenth Census of the United States Taken in the Year 1910, Volume X, Manufacturers, 1909* (Washington: Government Printing Office, 1913), 33, 107; See also P.T. Cherington, "Some Aspects of the Wool Trade of the United States," *The Quarterly Journal of Economics* 25 (February 1911): 341.

[3] The remaining 40% of the nation's wool was produced by small flocks of less than a thousand head, incidental to general farming east of the Mississippi River.

[4] *Twelth Census of the United States taken in the Year 1900, Census Reports, Volume V, Agriculture, Part I* (Washington: United States Census Office, 1902), 673. See also *Twenty-First Annual Report of the Bureau of Animal Industry for the Year 1904* (Washington: Government Printing Office, 1905), 511-512.

[5] *Report on Manufacturing Industries in the United States at the Eleventh. Census: 1890,Vol. 6, Part III, Selected Industries*, (Washington D.C.: Government Printing Office, 1895), 31, 34, 69; *U.S. Census 1910, Volume X*, 107.

[6] The predominant breed of sheep on these small farms was the Spanish Merino. *Eleventh Census: 1890, Vol. 6, Part III*, 15.

[7] Wentworth, 545.

[8] Prior to 1800, wool production was important at the missions, as the padres sought to use it to cloth the Pueblo Indians.

[9] Baxter, 59-60.

[10] Pattie, 71, 87.

[11] Carman et al., "Special Report," 929-230.

[12] Wentworth, 419.

[13] Gregg, 99. A few Hispanic sheepmen apparently undertook selective breeding on a small scale, but the practice never caught on.

[14] Gregg, 99, 165.

[15] James Josiah Webb, *Adventures in the Santa Fe Trade, 1844-1847* (Glendale, CA: Arthur H. Clark Co., 1931; reprint, Lincoln and London: University of Nebraska Press, 1995), 101. See also Pattie, 71-72, 75; Davis, 203-205.

[16] Simmons, "Chacon," 87; MacCameron, 28.

[17] Carlson, "New Mexico's Sheep Industry," 27; *The Spanish-American Homeland: Four Centuries of New Mexico's Rio Arriba* (Baltimore and London: The Johns Hopkins UniversityPress, 1990), 79; Meinig, 19.

[18]*U.S. Census 1850*, 1008; *Agriculture of the United States in 1860, Compiled from the Original Returns of the Eighth U.S. Census* (Washington: Government Printing Office, 1864), 185.

[19] *Report of the Commissioner of the Department of Agriculture for the Year 1869,* Commissioned by 41st Cong., 2nd Sess. (Washington: Government Printing Office, 1870.), 621.

[20] David G. Surdam, "King Cotton: Monarch or Pretender? The State of the Market for Raw Cotton on the Eve of the American Civil War," *The Economic History Review*, New Series, 51 (February 1998): 122.

[21] In 1850, the annual valuation of U.S. cotton product manufacture was $65,000,000, while the corresponding valuation of woolen manufacture was $43,000,000 with an additional $5,000,000 from carpet manufacture, half this production utilizing imported wool. See *Manufactures of the United States in 1860; Compiled from the Original Returns of the Eighth Census, Under the Direction of the Secretary of the Interior* (Washington: Government Printing Office, 1865), xxi, xxii, xxxv, xxvii.

[22] Surdam, 128. The war not only severed the North-South trade in cotton but devastated the South's cotton industry.

[23] Surdam, 125. Military wool consumption alone in 1862 has been estimated at 50,000,000 lbs, well over half the prewar annual production. See *Manufactures of the United States in 1860*, xxxiv.

[24] Sypolt, 326. The prices given here are for Ordinary-Medium wool.

[25] Sypolt, 139. To help meet the Civil War demand for wool, Iowa, in particular, was populated with sheep shipped west by rail, an initiative that collapsed after the war. See Wentworth, 138-139, 141-142.

[26] The 1880 *Census* reports only 619,000 head of sheep in New Mexico, although Gordon, *Report on Cattle, Sheep, and Swine*, 992, admitted that this figure was inaccurate. F.A. Manzanares, sheep owner and President of the New Mexico Bureau of Immigration, put the number closer to 3,000,000. See F.A. Manzanares, quoted in Carman et al., "Special Report," 918-919. A 1962 Department of Agriculture Report puts the 1870 sheep population at 1,667,000 and the 1880 count at 4,547,000. *New Mexico Agricultural Statistics*, 44. See also Fig. 3.2.

[27] *Census 1890, Manufacturing Industries, Part III*, 3-4; *Twelfth Census of the United States Taken in the Year 1900, Census Reports, Volume IX, Manufactures, Part III* (Washington: United States Census Office, 1902), 75.

[28] Manzanares, quoted in Carman et al., "Special Report," 918-919.

[29] W.F.M. Arny, *The Second Annual Message of Acting Governor Arny to the Legislative Assembly of New Mexico*. (Santa Fe: Manderfield & Tucker, 1866), 17. TA-NMSRCA, roll 98. This was probably an over-estimate, typical of the overwrought, politically-motivated claims of the day. Nevertheless, the essence of Arny's statement was true: more wool than ever was being produced and exported.

[30] *Agriculture of the United States in 1860*, 185; *Ninth Census – Volume III, The Statistics of the Wealth and Industry of the United States* (Washington: Government Printing Office, 1872), 74; *Tenth Census Report on the Productions of Agriculture*, 141. The Census Reports from this period can be expected to provide general trends, but not accurate absolute values; Grubbs, 35:172; Coan, I: 390.

[31] Carlson, "New Mexico's Sheep Industry," 34.

[32] Robert B. Mitchell, quoted in Lee, 36. The fact that there was any mention of wool in this report is notable.

[33] Hester Jones, "The Spiegelbergs and Early Trade in New Mexico," *El Palacio* 38

(April 1935): 84.

[34] Surdam, 125.

[35] Lehmann, 40; Sypolt, 139-140. The price drop has also been attributed in part to a decrease in the national wool tariff. During the brief Franco-Prussian War, international wool prices spiked upward but then quickly settled back down afterwards.

[36] Sypolt, 326.

[37] Wentworth, 285.

[38] *U.S. Census, 1900*, ibid.

[39] Boyle, 92-93.

[40] Gordon, 991, 993; Coan, I:390. These numbers look reasonable, considering that the modern estimate of the 1880 total New Mexico sheep population is 4.5 million. See *New Mexico Agricultural Statistics*, 44.

[41] *Manufactures of the United States, 1860*, p. xxvii.

[42] *1900 Census, Volume V, Agriculture, Part* I, ccii.

[43] Carman et al., "Special Report," 919; Wentworth, 237.

[44] Haines, 480.

[45] Gordon, 989.

[46] *Rocky Mountain News*, August 22, 1878.

[47] Carman et al., "Special Report," 919. See also Grubbs, 35: 171; Coan, I: 389-390.

[48] Gordon, 989.

[49] Carlson, "New Mexico's Sheep Industry," 32.

[50] Montague Stevens to Leonard Wood, August 2, 1896; September 7, 1897; October 10, 1897, Montague Stevens Papers, 1894-1950 (MSC henceforth), Center for Southwest Research, University Libraries, University of New Mexico, Albuquerque, Folder 2.

[51] Carman et al., "Special Report," 920.

[52] Carman et al., "Special Report," 922, 926.

[53] E.V. Wilcox. "Sheep Ranching in the Western States," *Nineteenth Annual Report of the Bureau of Animal Industry for the Year 1902* (Washington: Government Printing Office, 1903), 98. The element of risk is discussed further in chap. 9.

[54] Carlson, *Homeland*, 81.

[55] Carman et al., "Special Report," 915.

[56] Carman et al., "Special Report," 923.

[57] Carman et al., "Special Report," 926.

[58] Wentworth, 565-566.

[59] Daniel Troy, quoted in Carman et al., "Special Report," 931-932.

[60] Hiram Latham, *Trans-Missouri Stock Raising, The Pasture Lands of North America: Winter Grazing* (Omaha: Daily Herald Steam Printing House 1871; reprint, Denver: The Old West Publishing Company, 1962), 78

[61] Carlson, "New Mexico's Sheep Industry," 33. At this time the estimated sheep population was 4,500,000 so that somewhat less than 2,000,000 were likely to be of improved breeds. See *New Mexico Agricultural Statistics*, 44. Gordon's 1880 report estimated that 72% of the New Mexico flock were "Mexican sheep," the remainder being various grades of Merino. See Gordon, 991.

[62] Carman et al., "Special Report," 923.

[63] *Report of the Governor of New Mexico to the Secretary of the Interior, 1905* (Washington: Government Printing Office, 1905), 8. TA-NMSRCA, roll 149.

[64] *Seventeenth Annual Report of the Bureau of Animal Industry for the Year 1900* (Washington: Government Printing Office, 1901), 589-590; See also Wentworth, 568.

[65] James Wilson and C.F. Curtiss, "The Feeding of Lambs," *Fifteenth Annual Report of the Bureau of Animal Industry for the Year 1898* (Washington: Government Printing Office, 1899), 466.

[66] Stevens to Wood, August 19, 1899, MSC, Folder 2.

[67] Carman et al., "Special Report," 923-924.

[68] *Stock Grower*, July 6, 1889. Only a few years later, the Panic of 1893 devastated sheep and wool operations nationwide.

[69] As reported by Gov. Prince, two bad winters in a row were in part the cause of a reduction in the New Mexico flock from 1.749 million head in 1887 to 1.340 million in 1888, while wool prices rose from 12-14 cents/lb. in 1888 to 18-20 cents/lb. in 1889. Prince's sheep population numbers are erroneous, but his point is valid. *Report of the Governor of New Mexico to the Secretary of the Interior, 1889* (Washington: Government Printing Office, 1889), 14 -15; *Report of the Governor of New Mexico to the Secretary of the Interior, 1890* (Washington: Government Printing Office, 1890), 28. TA-NMSRCA, roll 121.

[70] Wentworth, 445.

[71] Sypolt, 151-152.

[72] Sypolt, 150; Carman et al., "Special Report," 923-924. Throughout the 1880s, wool prices were lower than in the previous decade, but still adequate for profits. Sheep prices began increasing after 1886 until the Panic of 1893 when they fell and remained low through 1896. Similarly, wool prices fell and remained quite low between 1893 and 1897.

[73] Domestically produced wool was never exported in quantity, but American wool growers were drawn into a market of international extent, imports being a significant factor.

[74] *Report of the Governor, 1905*, 9.

[75] *U.S. Census, 1900, Vol. IX, Part III*, 111.

[76] Parish, *Ilfeld*, 140-142.

Chapter 5

[1] Ray Allen Billington, *Westward Expansion: A History of the American Frontier*, 4th ed. (New York: Macmillan Publishing Co., 1974), 525.

[2] Hiram Latham, *Trans-Missouri Stock Raising, The Pasture Lands of North America: Winter Grazing* (Omaha: Daily Herald Steam Printing House 1871; reprint, Denver: The Old West Publishing Company, 1962), 3-6. The comments here apply to livestock rather than grain production, however.

[3] *Report of the Commissioner of Agriculture for the Year 1870* (Washington: Government Printing Office, 1871), 307; *The Las Vegas Stock Grower*, January 1, 1887; Latham, 6.

[4] *Report of the Commissioner of the Department of Agriculture for the Year 1869,* Commissioned by 41st Cong., 2nd Sess. (Washington: Government Printing Office, 1870), 378.

[5] Chester Whitney Wright, "Wool Growing and the Tariff Since 1890," *The Quarterly Journal of Economics* 19 (August 1905): 629.

[6] Latham, 6, 70.

[7] Feeding sheep on farm-produced grains was later found to be quite profitable in Kansas, Nebraska, and other midwestern states as well as the Far West.

[8] Wright, 631-635; Latham, 46-49.

[9] Wentworth, 581. See also *Report of the Commissioner of Agriculture for the Year 1869,* 378-381.

[10] Alexander Majors, quoted in *Report of the Commissioner of Agriculture,1870,* p. 303.

[11] Westphall, *Mercedes Reales*, 145.

[12] Westphall, *Mercedes Reales*, 235-236.

[13] Kupper, 81-82. The first-come-first-served custom worked adequately as long as the ranching and livestock populations remained relatively sparse. In later years, it was the root cause of innumerable range conflicts, which occasionally escalated into out-and-out war, where neither of the opposing parties possessed legal ownership of the lands in contention. These land wars could be particularly vicious when sheepmen were pitted against cattlemen. See Alvin T. Steinel, *History of Agriculture in Colorado, 1858-1926* (Fort Collins: The State Agricultural College, 1926), 147-148.

[14] Under Spanish custom, and effectively continuing under American rule, continuous occupancy of a tract of public domain for an extended period conveyed ownership. This would, however, have involved comparatively small tracts of land insufficient for raising large herds of any sort. See Westphall, *Public Domain*, 18-19; *Mercedes*, 193-194.

[15] Gordon, 992. The report identifies these herders as "Mexican."

[16] James S. Brisbin, *The Beef Bonanza or, How to Get Rich on the Plains. Being a Description of Cattle-growing, Sheep-farming, Horse-raising, and Dairying in the West.* (Philadelphia: J.B. Lippincott and Company, 1881, new edition Norman: University of Oklahoma Press, 1959), 8-10. It must be noted that

Brisbin excluded New Mexico and Texas from his discussion. He was apparently unfamiliar with these areas, but his comments apply equally well to them.

[17] Westphall, *Mercedes Reales*, 228-229.

[18] Sypolt, 140. After about 1880, many western stockmen grew alfalfa and other grasses for winter feed on irrigated parts of their lands.

[19] Wright, 638.

[20] Marian Russell, *Land of Enchantment: Memoirs of Marian Russell along the Santa Fe Trail.* (Evanston, IL: Branding Iron Press, 1954; reprint, Albuquerque: University of New Mexico Press, 1981), 101-102.

[21] Manzanares, quoted in Carman et al., "Special Report," 918-919.

[22] *The New Mexican*, September 1, 1862.

[23] *Report of the Commissioner of Agriculture, 1869*, p. 623.

[24] J. Francisco Chaves, quoted in *Report of the Commissioner of Agriculture*, *1870*, p. 309.

[25] Brisbin, 99; Clay, 43.

[26] Gregg, 82.

[27] Latham, 8-22.

[28] *Report of the Commissioner of Agriculture, 1870*, p. 307; *Report of the Commissioner of Agriculture, 1869*, p. 620.

[29] Carman et al., "Special Report," 925.

[30] Gordon, 960.

[31] Brisbin, 92-93.

[32] *Report of the Commissioner of Agriculture, 1869*, pp. 619-623; *Report of the Commissioner of Agriculture for the Year 1868* (Washington: Government Printing Office, 1869), 460. See also E.V. Wilcox, "Sheep Ranching," 90; Archer B. Gilfillan, *Sheep* (Boston: Little, Brown, and Co., 1929), 16.

[33] *Report of the Commissioner of Agriculture, 1870*, p. 303. See also Latham, 6.

[34] Wentworth, 580.

[35] Brisbin, 92-93.

[36] Wentworth, 346-347.

[37] For comparison, in the Western Highlands and Islands of Scotland in the early twentieth century, an immensely different environment, a single shepherd might manage a flock of five to seven hundred head. Richard Perry, *I Went a'shepherding: Chapters in the Life of a Shepherding Naturalist and His Wife in the Western Highlands and Islands* (London: Lindsay Drummond Limited, 1944; reprint, 1945), 16-17.

[38] Latham, 70-71; Brisbin, 101.

[39] The trans-continental railroad was completed in 1869; the AT&SF Railway reached Las Vegas, New Mexico in 1879.

[40] Brisbin, 105-106.

[41] Gordon, 1006; *Rocky Mountain News,* June 4, 1869.

[42] Carman et al., "Special Report," 915.

[43] Carlson, "New Mexico's Sheep Industry, 28-29.

[44] Sypolt, 141.

[45] Sypolt, 83.

[46] Steinel, 147.

[47] *Report of the Commissioner of the Department of Agriculture, 1869,* 620.

[48] By 1892, herders were being paid $15-25/month ($370-620 in 2010 dollars). See Carman et al., "Special Report," 924.

[49] The matter of ever narrowing long lots is discussed in Alvar W. Carlson, "Long Lots in the Rio Arriba," *Annals of the Association of American Geographers* 65 (March 1975): 55-57.

[50] Nostrand, 139-143; Sarah Deutsch, *No Separate Refuge: Culture, Class, and Gender on an Anglo-Hispanic Frontier in the American Southwest, 1880-1940* (New York: Oxford University Press, 1987), 31-33; Carman et al., "Special Report," 920-921.

[51] Sypolt, 122-123.

[52] Wentworth, 285.

[53] Billington, 597-598.

[54] Carlson, "New Mexico's Sheep Industry," 34.

[55] Billington, 598.

[56] *Rocky Mountain News*, September 25, 1869.

[57] Latham, 16.

[58] Carman et al., "Special Report," 924; Henry S. Randall, *The Practical Shepherd; A Complete Treatise on the Breeding, Management and Diseases of Sheep,* 7th ed. (Rochester, N.Y.: D.D.T. Moore; Phildelphia: J.B. Lippencott & Co., 1863.), 97-99 [electronic resource, UNM]; *Rocky Mountain News*, June 4, 1869; Sypolt, 142. A particularly large east-west discrepancy was reported in 1862 in which the cost of keeping a flock of 3000 sheep in the East was $7950, while the corresponding cost "on the plains" was only $1200. See Latham, 86.

[59] Carman et al., "Special Report," 921.

[60] *Rocky Mountain News*, April 16, 1873.

[61] Carlson, "New Mexico's Sheep Industry," 34-35.

[62] This was particularly true in Colorado where from 1865 through 1888, most growers focused on wool and treated mutton only as a by-product. See Sypolt, 94.

[63] *The Stock Grower*, February 2, 1889.

[64] Parish, *Ilfeld*, 144.

[65] *New Mexico Agricultural Report*, 46.

[66] Carman et al., "Special Report," 914.

[67] Kupper, 63-67.

[68] Clay, 22, 77, 80.

[69] Clay, 74-75.

[70] *Report of the Governor of New Mexico to the Secretary of the Interior, 1897* (Washington: Government Printing Office, 1897), 375. TA-NMSRCA, roll 148.

[71] Billington, 609. The Atlantic & Pacific Railroad, later acquired by the AT&SF, received extensive grant lands in New Mexico and Arizona, but actually sold little land in New Mexico prior to 1891. See William S. Greever, *Arid Domain: The Santa Fe Railway and its Western Land Grant* (Stanford, CA: Stanford University Press, 1954.), 29, 43, 48-49; Westphall, *Public Domain*, 92-93.

[72] Billington, 615.

[73] Jeff Dykes, "Introduction" in Latham, *Trans-Missouri Stock Raising*, xiii-xvi.; Latham, 70.

[74] Latham, 68.

[75] Brisbin, 111.

[76] Brisbin, 103-105.

[77] Brisbin, 113-114.

[78] Kupper, 64-68.

[79] *Report of the Governor of New Mexico, 1897*, p. 373. The message was broadcast for decades. For comparison a similar assertion was made eighteen years earlier under Gov. Lew Wallace. See *Report of the Governor of New Mexico made to the Secretary of the Interior for the Year 1879* (Washington: Government Printing Office, 1879), 4. TA-NMSRCA, roll 148.

[80] *Report of the Governor of New Mexico, 1905*, 55.

[81] Twitchell, *Old Santa Fe*, 408, 457.

[82] Gordon, 1006.

[83] Town and Wentworth, 168, 181; Wentworth, 258. Sheep were also driven north from Mexico to New Mexico and Texas as part of the expansion. See Lehmann, 70-71.

[84] Wentworth, 165. For the statistical sources, see *U.S. Census*, *1900*, *Vol. V*, *Part I*, ccxiv. Presented here are revised New Mexico sheep populations for 1860, 1880, and 1890. The 1860 New Mexico sheep population was estimated at 972,000, a 500,000 increase over the reported 1850 population of 377,261, which unfortunately was not regarded as terribly accurate. See *U.S. Census*, *1850*, 170.

[85] Carman et al., "Special Report," 920.

[86] Towne and Wentworth, 165-181; Wentworth. 258-285.

[87] Carman et al., "Special Report," 920.

[88] Wentworth, 264. The primary sources of the Montana, Idaho, and western Wyoming sheep were California and Oregon.

[89] Anglos settled early on in Huerfano County and the South Park-Colorado Springs area. See Steinel, 146; Gordon, 1006.

[90] See Latham, 73, for a list of the prominent sheepmen.

[91] Gordon, 1006; Steinel, 146; *Rocky Mountain News*, April 18, 1866.

[92] Gordon, 1008.

[93] *Rocky Mountain News*, July 13, 1877.

[94] Sypolt, 105.

[95] Wyoming sheep growers also imported sheep possessing various desirable qualities from Canada, Ohio, Vermont, as well as other midwestern and eastern states. Sypolt, 111.

[96] Sypolt, 107.

[97] Sypolt, 126, 324 (Appendix I).

[98] Sypolt, 126.

[99] Clay, 228.

[100] *Twentieth Annual Report of the Bureau of Animal Industry for the Year 1903* (Washington: Government Printing Office, 1904), 521.

[101] Wentworth, 338-339.

[102] Towne and Wentworth, 170.

[103] Gordon, 993, 999, 1001, 1008. See also Wentworth, 273; Towne and Wentworth, 170-172.

[104] Town and Wentworth, 181; Wentworth, 286.

[105] Carman et al., "Special Report," 788-789.

Chapter 6

[1] This development seems to have occurred around the 1880s. The evidence for it is indirect. As noted in chap. 4, government livestock expert Clarence W. Gordon reported in 1880 that three quarters of New Mexico's sheep were being raised by some twenty-one families, about 80% of which were Hispanic. By the 1890s, a large fraction of the sheep that Las Vegas merchant Charles Ilfeld dealt in came from small- and intermediate-scale growers. See Parish, *Ilfeld,* 120, 124. And the Bond Brothers, who were heavily involved with wool by the late 1890s, had a similar clientele. See Grubbs, 35: 176. Montague Stevens reported in 1898 that the sheep growers in his area, Western Socorro County, were almost all "small holders." See Stevens to Wood, August 26, 1898, MSC, Folder 2. Trade journal reports describing the New Mexico sheep industry in the same timeframe, edited by William J. Parish, suggest that by the early twentieth century, most of the large sheep outfits were Anglo owned. William J. Parish, "Sheep Husbandry in New Mexico," *New Mexico Historical Review* 37: 201-213; 37: 260-309; 38: 56-77.

[2] Wentworth, 429.

[3] Twitchell, *Old Santa Fe*, 322-323.

[4] This assertion follows from the total estimated sheep population of New Mexico in 1900, 3,500,000. See *New Mexico Agricultural Statistics,* 44.

[5] The initial membership of the New Mexico Sheep Sanitary Board in 1898, a measure of leadership in the industry, was Solomon Luna, president, Harry F. Lee, Secretary, W.S. Prager of the prominent mercantile family, and J. Manuel Gonzales, soon to be replaced by Las Vegas merchant Harry W. Kelly. Sheep and wool dealers Frank and George Bond were among the fifty inspectors appointed by the board. See Grubbs, 36:287; Henry J. Tobias, *A History of the Jews in New Mexico* (Albuquerque: University of New Mexico Press, 1990), 126. Las Vegas merchant Max Nordhaus was one of the founders of the New Mexico Wool Growers Association in 1896. See Parish, *Ilfeld,* 145.

[6] Carman et al., "Special Report," 924.

[7] Upon the death of a family patriarch, his property was, by custom, left in part to his surviving wife and in part divided equally among all his children, male and female, of which there were frequently several.

[8] Parish, *Ilfeld*, 113.

[9] Parish, *Ilfeld*, 42, 112-134 (chap. IX); Carlson, "New Mexico's Sheep Industry, 35-36; Grubbs, 35:194-195.

[10] Parish, *Ilfeld*, 42-43, 135-136.

[11] Twitchell, *Old Santa Fe*, 387.

[12] Parish, *Ilfeld*, 135; Carlson, "New Mexico's Sheep Industry," 36.

[13] *The Stock Grower*, July 6, 1889; Parish, *Ilfeld*, 42.

[14] Parish, *Ilfeld*, 35-36, 60-61, 66.

[15] Tobias, 51-102; Parish, "The German Jew," 35:1-29, 129-150. Meinig, *Southwest*, 57.

[16] Parish, *Ilfeld*, 9.

[17] Parish, *Ilfeld*, 10.

[18] Boyle, 73-88.

[19] Erna Fergusson, 321.

[20] Parish, *Ilfeld*, 76-81.

[21] *Thirteenth Census of the United States taken in the Year 1910, Vol. VII, Agriculture* (Washington D.C.: Government Printing Office, 1913), 148, 155; *Tenth Census Report on the Productions of Agriculture*, 141; *Statistics of the Population of the United States at the Tenth Census (June 1, 1880)* (Washington: Government Printing Office, 1883), 72; *Report of the Governor, 1905*, p. 12.

[22] Frank Bond, "Memoirs of Forty Years in New Mexico," *New Mexico Historical Review* 21 (October 1946): 340. The D&RGW Railroad - the so called Chili Line from Antonito, Colorado - had arrived at Espanola in 1880, three years before. See John A. Gjevre, *Chili Line: The Narrow Rail Trail to Santa Fe*, 2d ed. (Espanola: Rio Grande Sun Press, c.1969), 4.

[23] Parish, *Ilfeld*, 60.

[24] The relationship between merchants and the forts is described in Parish, *Ilfeld*, 37-38, n. 14.

[25] Parish, *Ilfeld*, 45.

[26] Cherington, 351.

[27] Cherington, 347-348.

[28] Parish, *Ilfeld*, 113.

[29] Montague Stevens criticized Solomon Luna for not making capital improvements. Conservatism ruled among even the most successful Hispanic sheepmen, cf. chap. 9.

[30] *Stock Grower*, March 30, 1889, p. 9.

[31] Sypolt, 160.

[32] Charles Ilfeld Co. to Alfred H. Long, February 17, 1898, Charles Ilfeld Company Records, 1865-1929 (CIC henceforth), Center for Southwest Research, University Libraries, University of New Mexico, Albuquerque, New Mexico, 107:537.

[33] J.G. Clancey to Gross, Blackwell & Co., March 17, 1898, Gross, Kelly & Co. Records (GKC henceforth), Center for Southwest Research, University Libraries, University of New Mexico, Albuquerque, New Mexico. Series II.

[34] Parish, *Ilfeld*, 110, 114, 201-205.

[35] Parish, *Ilfeld*, 86; Charles Ilfeld to Elias Perea, October 23, 1875, CIC, 66:84; Sypolt, 164-165.

[36] Sypolt, 165.

[37] Parish, *Ilfeld*, 113, 121.

[38] G.W. Bond to Abraham Staab, May 2, 1902, May 31, 1902, February 21, 1903, FBC, 76:5,8,22.

[39] Sypolt, 164-166.

[40] Parish, *Ilfeld*, 35-36.

[41] Eusebio Garcia y Ortiz to Otero, Sellar & Co., November 12, 1880, GKC, Series I; Sypolt, 159.

[42] Cashier, First National Bank of Santa Fe, quoted in Larry Schweikart, "Early Banking in New Mexico from the Civil War to the Roaring Twenties," *New Mexico Historical Review* 63 (January 1988): 13.

[43] Jones, 87; Tobias, 64.

[44] Miguel A. Otero, *My Life on the Frontier, 1864-1882, Incidents and Characters of the Period when Kansas, Colorado, and New Mexico were passing through the last of their Wild and Romantic Years* (New York: The Press of the Pioneers, 1935), II: 181. The mercantile enterprise subsequently became Gross, Blackwell & Co. in 1881 and later Gross, Kelley & Co. in 1901.

[45] Stevens to Wood, July 5, 1903, MSC, Folder 3, notes the dearth of outside sheep investors; John Clay, who represented English and Scottish investors during the cattle bubble, says almost nothing about sheep in his book, *My Life on the Range,* although he is known to have had a business relationship with Frank Bond.

[46] Gressley, 62-88; Clay, 80. Many investors lost their entire investment following the horrendous winter of 1886-1887 and the wholesale destruction of cattle herds it brought on. See Clay, 178-179, 208.

[47] Parish, *Ilfeld*, 42.

[48] Frank Bond to J. Herbert Reeve, April 5, 1915, FBC, 82:518.

[49] Parish, *Ilfeld*, 162. Ilfeld was listed as the owner of 20,000 sheep on the 1900 New Mexico Tax Role for San Miguel County, NMSRCA; Charles, 33.

[50] Grubbs, 35: 299; Sypolt, 183.

[51] Bond to J.H. McCarthy, Taos, June 9, 1905, FBC, 76:80-81. This comment is a reflection of the comparative under-development of capitalism in New Mexico at the time. The entrepreneurs building the nations's transcontinental railroads had discovered that politics has a great deal to do with business. See Richard White, *Railroaded: The Transcontinentals and the Making of Modern America* (New York and London: W.W. Norton & Company, 2011), 93-133, particularly.

[52] Other mercantile companies that operated this way included the various Bond organizations in New Mexico and Colorado, the Hubbles, the Ilfeld-Moultin Company of Albuquerque, Louis B. Ilfeld and Company, and Gross, Kelly & Co. See Wentworth, 436-437.

[53] Parish, *Ilfeld*, 154, 168.

[54] Parish, *Ilfeld*, 172.

[55] Grubbs, 35:300.

[56] Parish, *Ilfeld*, 154, 169-171.

[57] Carman et al., "Special Report," 920.

[58] Nestor Armijo to Gross, Blackwell & Co., March 9, 1898, GKC, Series II.

[59] Parish, *Ilfeld*, 165. Montague Stevens also complained of herders' drinking, cf. chap. 9.

[60] Max Nordhaus to A.G. Mills, Jan. 8, 1898, CIC.

[61] Parish, *Ilfeld*, 166-167.

[62] Grubbs, 36:138.

[63] Parish, *Ilfeld*, 163, 167.

[64] Parish, *Ilfeld*, 174, 177-180.

[65] Cattle markets developed at Ft. Craig and Ft. Fillmore on the Rio Grande, Ft. Union near Las Vegas, Ft. Marcy in Santa Fe, and Ft. Stanton in the Lincoln Mountains. During the war, Gen. Carleton purchased cattle from local ranchers, including Maxwell. See Gerald Baydo. "Cattle Ranching in the Pecos Valley of New Mexico," *Rocky Mountain Social Science Journal* 8 (April 1971): 86.

[66] Parish, *Ilfeld*, 42.

[67] Boyle discusses the declining fortunes of various prominent Hispanic mercantile families in this timeframe, but provides no systematic explanation of the development. See Boyle, 89-99.

[68] Boyle, 100.

[69] Boyle, 101.

[70] Boyle, xv, 73-88.

[71] Wentworth, 158.

[72] *Rocky Mountain News*, November 1, 1866.

[73] *Rocky Mountain News*, September 10, 1867.

[74] The terminology is somewhat confusing in that the term "feeder" was employed both to describe a farmer or rancher specializing in livestock feeding and also a sheep or lamb destined for a feeding facility.

[75] The utility of supplemental feeding was, in fact, recognized in New Mexico as early as 1700 when grasses were grown in the Rio Grande Valley for this purpose. See Wentworth, 496. But the practice did not become widespread at that time. Of course, winter feeding was absolutely required for raising sheep in the East.

[76] Lowell Clarke, "Lamb Feeding in Colorado," *Eighteenth Annual Report of the Bureau of Animal Industry for the Year 1901* (Washington: Government Printing Office, 1902): 277.

[77] Carman et al., "Special Report," 921.

[78] Steinel, 150.

[79] H.M. Taylor, "On Importance of the Range Industry," *Second Annual Report of the Bureau of Animal Industry for the Year 1885* (Washington: Government Printing Office, 1886): 294-296.

[80] E.V. Wilcox, 79-80.

[81] Carman et al., "Special Report," 925.

[82]Towne and Wentworth, 170-171.

[83] Reported in the *Stock Grower*, July 6, 1889.

[84] H.M. Taylor, "On the Condition of the Range Cattle Industry," *Third Annual Report of the Bureau of Animal Industry for the Year 1886* (Washington, D.C., Government Printing Office, 1887): 116-117. Interestingly, the south-to-north shipment of livestock mimicked to an extent the natural migration of the once great buffalo herds on the western ranges. The wild beasts ranged north during the summer months for the grass, but went south in the winter to breed.

[85] Clarke, 276-277; *The Stock Grower*, February 2, 1889.

[86] Carman et al., "Special Report," 924.

[87] The dedicated section didn't last long, but from this point on, the *Stock Grower*, once devoted almost entirely to cattle, published increasing numbers of articles about sheep.

[88] Steinel, 150; Wentworth, 265-266, 285. Western sheep-population statistics are given here. A discussion of Colorado cattle feeding is given in S.H. Standart, "On Condition of the Livestock Industry of Colorado and the Territories of the Northwest," *Second Annual Report of the Bureau of Animal Industry for the Year 1885* (Washington: Government Printing Office, 1886): 326-334.

[89] Steinel, 150; Clarke, 275.

[90] Steinel, 151.

[91] Wentworth, 366; Parish, "Sheep Husbandry," 37: 210-213. Florsheim later acquired Steven Dorsey's huge ranch in northeastern New Mexico, when Dorsey went bust, due at least in part to his legal expenses arising from the Star Mail Route trials. See the *Weekly Optic and Stock Grower*, August 5, 1905.

[92] Wentworth, 367-369. Some feeding took place on the Western Slope after the establishment of sugar factories in the region.

[93] Clarke, 275.

[94] H.M. Taylor, "Conditions of the Cattle Interests West of the Mississippi River," *Fourth and Fifth Annual Reports of the Bureau of Animal Industry for the Years 1887 and 1888* (Washington: Government Printing Office, 1889): 331. The Nebraska feeding industry served not just New Mexico breeders but also those of Colorado, Wyoming, Idaho, and even Oregon. See Wentworth, 158-159, 347-348.

[95] Cattle and hog feeding were also important industries in Nebraska. See Wentworth, 370-371.

[96] *Stock Grower and Farmer*, August 7, 1897, p. 10; Wentworth, 349-350.

[97] Frank Bond to Clay-Robinson & Co., October 12, 1914, FBC, 80:457; Frank Bond to H.A. Wiest, June 25, 1913, FBC, 76:169-170; Frank Bond to G.W. Bond, September 19, 1910, FBC, 76:133-136; Frank Bond to H.S. Eaton, March 11, 1914, FBC, 78:423; Frank Bond to J.E.D. Graham, December 31, 1914, FBC, Vol. 81:406; Frank Bond to Clay, Robinson & Co., Denver, Colo., February 8, 1915, FBC, 82:13.

[98] The planted alfalfa acreage of Kansas increased from 34,400 acres to 557,500 acres between 1891 and 1904. See I.D. Graham, "Alfalfa for the Growing and Fattening of Animals in the Great Plains Region," *Twenty-First Annual Report of the Bureau of Animal Industry for the Year 1904* (Washington: Government Printing Office, 1905): 242.

[99] R.F. Hardy, quoted in H.A. Heath, "Condition of the Sheep Industry West of the Mississippi River," *Sixth and Seventh Annual Reports of the Bureau of Animal Industry for the Years 1889 and 1890* (Washington: Government Printing Office, 1891): 318.

[100] Wentworth, 362.

[101] Clarke, "Lamb Feeding in Colorado," 276-277.

[102] Herbert O. Brayer, "The Influence of British Capital on the Western Range-Cattle Industry," *The Journal of Economic History* 9. Supplement: The Tasks of Economic History (1949): 87.

[103] H.M. Taylor, "Conditions of the Cattle Interests West of the Mississippi River," 330.

[104] *Report of the Governor of New Mexico to the Secretary of the Interior for the Fiscal Year Ended June 30, 1910* (Washington: Government Printing Office, 1910), 31. TA-NMSRCA, roll 188.

[105] Carlson, "New Mexico's Sheep Industry," 37.

[106] Wentworth, 496.

[107] Wilcox, 94-96.

[108] *Report of the Governor of New Mexico, 1897,* p. 371. Described herein are the rapidly developing irrigation projects in New Mexico, which would increase the agricultural capacity of the territory significantly, the raising of alfalfa in particular.

[109] *Stock Grower*, January 1, 1887.

[110] Parish, *Ilfeld*, 177-178.

[111] John D. Hicks, "The Western Middle West, 1900-1914," *Agricultural History* 20 (April 1946): 66.

[112] Wright, 641.

[113] Parish, *Ilfeld*, 118, 127, 132.

[114] Wentworth, 366-367.

[115] Frank Bond to Clay-Robinson & Co., Denver, October 12, 1914, FBC, 80:456. See also Frank Bond to Clay, Robinson & Co., Denver, Colo., February 8, 1915, FBC, 82:13; Frank Bond to E.S. Leavenworth, Wood River, Neb., August 23, 1915, FBC, 84:472.

[116] Grubbs, 36: 291-292.

[117] Wentworth, 365-366.

[118] The case of the Pablo Montoya Grant discussed in chap. 8 is a good example of this scenario.

[119] Harvey Fergusson, *Home in the West* (New York: Duell, Sloan and Pearce, 1944), 8.

[120] Carman et al., "Special Report," 920.

[121] Juan Gomez-Quinones, *Roots of Chicano Politics, 1600-1940* (Albuquerque: University of New Mexico Press, 1994), 305-306.

[122] New Mexico author Fabiola Cabeza de Baca is a representative of this trajectory. Born into a wealthy cattle and sheep ranching family in the late nineteenth century, as an adult she worked for many years as an agent for the Agricultural Extension Service. See Tey Diana Rebolledo, "Introduction," in Cabeza de Baca, xv.

[123] Wentworth, 582.

Chapter 7

[1] Frank Bond's activities additionally encompassed hides, pelts, lumber, feeder ranches, land speculation, and community service. See Grubbs, 36:303.

[2] Frank Bond to M.B. Otero, January 19, 1914, Frank Bond & Son Records, 1870-1958, Center for Southwest Research, University of New Mexico, Albuquerque, 77:669-670. Henceforth, references to the archive are abbreviated as FBC.

[3] Grubbs, 35:173.

[4] Grubbs, 35:174, 177. For his 1958 University of New Mexico masters thesis and the series of *New Mexico Historical Review* articles drawn from it, Frank H. Grubbs painstakingly extracted basic financial data pertaining to the various Bond enterprises by drawing together fragmentary information from a variety of sources, many poorly documented, in the voluminous Frank Bond & Son Records, 1870-1958, at the Center for Southwest Research, University of New Mexico, Albuquerque. Grubbs' work will be cited extensively in this chapter. Documentation of the Bond brothers' first decade in business contained in the collection is rather sparse, however.

[5] Bond, 340.

[6] *The Las Vegas Stock Grower,* November 20, 1886, p. 7.

[7] Bond, 347-348.

[8] Frank Bond to G.W. Bond, September 19, 1910, FBC, 76:133-136; Frank Bond to J.H. Sargent, El Rito, October 29, 1913, FBC, 77:155; Frank Bond to J.H. McCarthy, July 2, 1915, FBC, 84:3.

[9] Frank Bond to Sostenes Lucero, Santa Cruz, New Mexico, January 28, 1915, FBC, 81:625.

[10] Grubbs, 35:179-180.

[11] Grubbs, 35:296.

[12] Frank Bond to Clay, Robinson & Co., Denver, Colo., February 8, 1915, FBC, 82:13; Wentworth, 434.

[13] Grubbs, 35:181.

[14] Frank Bond to C.J. Stauder, Fowler, Colo., October 16, 1914, FBC, 80:509.

[15] Frank Bond to J.H. McCarthy, Taos, New Mexico, February 8, 1915, FBC, 82:12-13.

[16] Bond, 347-348.

[17] Frank Bond to Brown & Adams, Boston, April 23, 1902, April 25, 1902, FBC, 76:3, 4.

[18] G.W. Bond to Brown & Adams, Boston, June 27, 1903, August 1, 1903, FBC, 76:40, 48-49.

[19] Grubbs, 35:182-183.

[20] Grubbs, 35:195-196.

[21] Grubbs, 36:139, 141.

[22] Grubbs, 36:141-143.

[23] Grubbs, 36:139.

[24] These figures come from a rather simplistic bookkeeping system which may overstate the returns. Nevertheless, the returns were quite large. See Grubbs, 36:141, Table 19; 156, Table 27; 154-155.

[25] Grubbs, 36:158, Table 29.

[26] G.W. Bond & Bro. to A. Staab, Santa Fe, New Mexico, February 21, 1903, FBC, 76:22; G.W. Bond to R.J. Palen, June 8, 1903, FBC, 76:38.

[27] Parish, *Ilfeld*, 101-103.

[28] Grubbs, 36:140.

[29] The branch was first opened in Cabra, twenty-two miles north of Santa Rosa, in 1899, but later relocated to Cuervo (probably in 1902) when the railroad bypassed Cabra.

[30] Grubbs, 36:231-233.

[31] Grubbs, 36:325-328.

[32] Frank Bond to Fairbanks, Morse & Co., Denver, Colo., December 3, 1914, FBC, 81:203.

[33] Grubbs 36:288, 299. Western New Mexico sheep grower Montague Stevens had invested $2,500 in an extraordinarily well-equipped dipping facility at his Horse Springs Ranch, in 1899. See Stevens to Wood, August 1, 1899, MSC, Folder 2, long letter. See also Montague Stevens to Leonard Wood, April 4, 1897, MSC, Folder 2.

[34] Grubbs, 36:150-151.

[35] Frank Bond to Walter M. Connell, Albuquerque, July 17, 1914, FBC, 79:374.

[36] Grubbs, 36:158.

[37] Grubbs, 35:298-299; 36:274-275, 284, 303.

[38] G.W. Bond & Bro. to Fred Warshauer, March 6, 1903, FBC, 76:33; Frank Bond to G.W. Bond, Trinidad, Colo., February 21, 1908, FBC, 76:93-94; Frank Bond to G.W. Bond, San Diego, California, September 19, 1910, FBC, 76:133-136.

[39] Grubbs, 35:185.

[40] Grubbs, 36:291.

[41] G.W. Bond to Fred Warshauer, March 6, 1903, FBC, 76:33; Frank Bond to G.W. Bond, February 21, 1908, September 19, 1910, FBC, Vol. 76:93-94, 133-136; Grubbs, 36:284.

[42] Frank Bond to C.J. Stauder, October 16, 1914, FBC, 80:509.

[43] Bond borrowed $65,000 at 9% for the winter of 1914 and shipped his lambs to the company in the spring. See Frank Bond to Clay, Robinson & Co., Denver, Colo., February 8, 1915, FBC, 82:13; Frank Bond to E.S. Leavenworth, Wood River, Neb., August 23, 1915, FBC, 84:472; Grubbs, 36:290.

[44] Frank Bond to Walter M. Connell, Albuquerque, July 23, 1914, FBC, 79:439-440; Grubbs, 35:301; 36:285.

[45] Grubbs, 35:199.

[46] Grubbs, 35:196, Table 10.

[47] Grubbs, 35:299-301.

[48] Grubbs, 36:336-345.

[49] Frank Bond to Walter M. Connell, July 17, 1914, FBC, 79:374.

[50] Frank Bond to J.H. McCarthy, Taos, July 17, 1914, FBC, 79:371.

[51] Grubbs, 37:51, 56, Table 55.

[52] Grubbs, 37:61.

[53] Grubbs, 36:146.

[54] Grubbs, 36:146-147. The Preston Beck Grant was part of the Hacienda de San Juan Bautista del Ojito del Rio de las Gallinas awarded to Juan Esteven Pino, son of Pedro Pino, in 1825. He was said to have run as many as 900 cows and 30,000 sheep and goats on the grant. Pino's heirs, plagued by Indian depredations, sold the grant to Beck in 1853-1854. The Bonds purchased a relatively small tract within the grant in1900 from a later owner and ran sheep on that land.

[55] Grubbs, 36:305-306.

[56] Frank Bond to G.W. Bond, Trinidad, Colo., March 16, 1910, FBC, 76:123-127; Grubbs, 35:199; 36:289.

[57] Grubbs, 36:292-293.

[58] Frank Bond to G.W. Bond, Boise, July 17, 1914, FBC, 79:382; Bond & Nohl to K.O. Windsor, March 10, 1915, FBC, 82:318; Bond & Nohl to Geo. J. Constantine, Denver, August 31, 1909, FBC, 76:122. This letter was a job offer for a stenographer at $75/month, with an advance in salary if he learned Spanish and learned the business.

[59] Frank Bond to J.N.N. Quintana, January 1, 1914, FBC, 77:599.

[60] Grubbs, 36:286.

[61] Frank Bond to G.W. Bond, San Diego, September 23, 1910, FBC, 76:137-139.

[62] Frank Bond to G.W. Bond, April 26, 1915, FBC, 82:650.

[63] Grubbs, 36:297, Table 42.

[64] G.W. Bond & Bro. to Fred Warshauer, August 1, 1903, FBC, 76:50; Grubbs, 35:303.

[65] Grubbs, 36:331, Table 50.

[66] The dramatic ups and downs, needless to say, extended to western ranchers, cf. chap. 9, where they were if anything more extreme.

[67] Frank Bond to Mrs. Fred Warshauer, June 5, 1913; July 2, 1913, FBC, 76:168, 171-174; Grubbs, 35:301-302.

[68] Pittman, 97-98.

[69] Frank Bond to S.H. Wilts, Kansas City, Mo., April 5, 1915, FBC, 82:534-535. Wilts was president of the John Page Plow Company.

[70] Brown & Adams to Frank Bond, October 16, 1914, FBC, 80:582-584; Brown & Adams to Bond-Connell Sheep & Wool Co., Albuquerque, October 13, 1914, FBC, 80:585. A typical letter of this sort in the company records from wool brokers Salter Bros. & Co., Boston, to Frank Bond discusses London wool auctions, U.S. purchases, current domestic needs, Australian shipments to the United States, and Arizona wool prices and supply. Salter Bros. & Co., Boston, to Frank Bond, March 19, 1915, FBC, 82:445-447.

[71] Parish, *Ilfeld*, 138.

[72] Frank Bond to Earnest A. Johnston, Santa Fe, New Mexico, January 2, 1915, FBC, 81:419.

[73] Frank Bond to A.W. Wiest, June 11, 1915, FBC, 83:459.

[74] Frank Bond to Warshauer-McClure Sheep & Wool Co., July 28, 1915, 84:238.

[75] Frank Bond to Fred Warshauer, Conejos, Colo., February 25, 1903, February 28, 1903, FBC, 76:27-30; G.W. Bond & Bro. to Brown & Adams, Boston, Mass., June 25, 1904, FBC, 76:67-68; Grubbs, 36:320-322.

[76] Bond & Nohl to W.M. Marston, C/O Hollowell, Jones, and Donald, Boston, Mass., June 13, 1915, FBC, 83:664; Frank Bond to The Warshauer-McClure Sheep Co., Antonito, Colo., June 28,1915, FBC, 83:632; Frank Bond to The Warshauer-McClure Sheep Co., Antonito, Colo., June 30, 1915, FBC, 83:662.

[77] Grubbs, 36:242.

[78] Grubbs, 36:143.

[79] Grubbs, 36:236, 328-329; TABLE 49 gives the actual receivables, charged off amounts, and subsequently collected amounts from 1905 through 1915 for the Bond, McCarthy Company, the Taos branch. The losses only exceeded 10% in one year and were usually far less.

[80] Bond & Nohl Co. to K.G. Dunn & Co., Denver, Colo., February 27, 1915, 82:234; Bond & Nohl Co. to The American Adjusting Company, San Francisco, Cal., April 17, 1915, FBC, 82:600; April 29, 1915, FBC, 82:701; Benj[amin] M. Read to Bond & Nohl Co., June 14, 1915, FBC, 83:510; Grubbs, 36:280-281.

[81] L.F. Nohl to Miss May T. Bryan, March 9, 1914, FBC, 78:404; L.F. Nohl to Miss Clara D. True, Espanola, New Mexico, March 22, 1915, FBC, 82:418; Grubbs, 36:283.

[82] This was not always the case, however. Montague Stevens' experiences with corrupt judges and sheep merchants are described in chap. 9.

[83] Bond, 343.

[84] Bond, 349. See also Grubbs, 35:194n.

[85] Paul A.F. Walter, "Necrology, Frank Bond." *New Mexico Historical Review* 20 (July 1945): 273. Frank Bond died in Los Angeles in 1945 at age 82 or 83.

Chapter 8

[1] E.V. Wilcox, 98.

[2] Kupper, 89. In the 1902 timeframe, Thomas Catron, like many other sheepmen, invested in irrigation, a saw mill, a dipping facility, and fencing at his American Valley Company ranch. Thomas B. Catron Papers, Center for Southwest Research, University Libraries, University of New Mexico, Albuquerque, New Mexico (TBC henceforth) , Series 601, Vol. 2.

[3] Daniel Troy, quoted in Carman et al., 931-932. See also David Remley, *Bell Ranch: Cattle Ranching in the Southwest, 1824-1947* (Albuquerque: University of New Mexico Press, 1993), 99 for a discussion of the economies of scale realized at the Bell Ranch, although this discussion applies most directly to cattle.

[4] In their efforts to acquire the Antonio Ortiz Grant, Thomas Catron and Steven Elkins tracked down some of the heirs, a surviving son and several grandchildren relocated in Juarez, Mexico, for the purpose of buying up their shares. TBC, Series 305, Microfilm Reel 5. In situations like these, the obligations to the settlers that went with the private grants were sometimes ignored by the new owners, giving rise to considerable conflict.

[5] Olen E. Leonard's 1940 study of the village of El Cerrito and the surrounding area, within the San Miguel del Bado Grant, noted a large decrease in the number of major Hispanic sheep owners after the end of the nineteenth century, a result of the loss of the common grant lands to public domain. In the same time frame, Anglo cattle and sheepmen purchased land and established large ranches on the grant. Leonard, 14, 17-18.

[6] Carman et al., "Special Report," 927.

[7] H.A. Heath, "Condition of the Sheep Industry," 312.

[8] Westphall, *Public Domain*, 49-50. According to Brayer, over 80% of the Spanish-Mexican grants were eventually taken over by Americans. See Herbert O. Brayer, *William Blackmore: The Spanish-Mexican Land Grants of New Mexico and Colorado, 1863-1878* (Denver: Bradford-Robinson, 1949), 17-19.

[9] Remley, 67, 95-97.

[10] Ebright, 42-43. Attorney John S. Watts received half the massive Pablo Montoya Grant from the heirs in payment for his legal services around 1867. See Remley, 67-68.

[11] Fine works on the subject include previously cited works by Ebright, Van Ness and Van Ness, and Westphall.

[12] Amado Chaves later had a distinguished political career in the territorial legislature and as New Mexico's first Superintendent of Public Instruction. See Lansing B. Bloom, "Necrology, Amado Chaves," *New Mexico Historical Review* 6 (January 1931): 100-104.

[13] Westphall, *Public Domain*, 49-50.

[14] Montoya, 52-54.

[15] Westphall, *Public Domain*, 68; Remley, 67-68, 97.

[16] Westphall, *Mercedes Reales*, 154-156. As was largely the case for the Montoya Grant, much of the grant land initially passed into the hands of Anglo cattlemen, but was employed for sheep growing in later years.

[17] Remley, 154. Greenough was a cousin of historian Francis Parkman.

[18] Remley, 302-303.

[19] Town of Anton Chico versus New Mexico Land and Livestock Company, Hearing Transcript, January 8, 1915. TBC, Series 306, microfilm reel 11.

[20] George W. Julian, "Land Stealing in New Mexico," *North American Review* 145 (July 1887): 17-31.

[21] By the late nineteenth century, substantial sheep-ranching operations had spread to areas outside the periphery of the Spanish-Mexican land grants in today's Union, Guadalupe, Quay, Catron, and Valencia Counties. See U.S. Census, 1900, Vol. V, Part I, 463, 679.

[22] Pittman, 41-42.

[23] Remley, 39, has noted that many grant heirs, like those of the Pablo Montoya Grant who sold out to Anglo speculators, were cash poor.

[24] The Timber Culture Law, in effect from 1873 through 1891 was another vehicle for obtaining western land, but it was never employed extensively in New Mexico. See Westphall, *Public Domain*, 72-76.

[25] Parish, *Ilfeld*, 175. Script was a veterans' benefit. It had been issued to veterans of the Civil War and other wars and could be exchanged for public land without meeting the residence or improvement requirements of the Homestead Act. It was transferable and could thus be purchased by anyone and used to acquire public land.

[26] Westphall, *Public Domain*, 42-65.

[27] In later years, however, many stockmen grew alfalfa and other grasses for winter feed

[28] Westphall, *Public Domain*, 44.

[29] Westphall, *Public Domain*, 65, 81.

[30] Montague Stevens, quoted by Roy Willoughby, 16, from personal correspondence with Montague Stevens.

[31] Agnes Morley Cleaveland, *No Life for a Lady* (Boston: Houghton Mifflin, 1941; reprint, Lincoln and London: University of Nebraska Press, 1977), 226-227.

[32] Westphall, *Mercedes Reales*, 185-187; *Public Domain*, 55-56.

[33] Parish, *Ilfeld*, 176.

[34] Westphall, *Public Domain*, 66.

[35] Cleaveland, 33; Westphall, *Public Domain*, 43-46.

[36] Westphall, *Public Domain*, 48, 62-65.

[37] Westphall, *Public Domain*, 49.

[38] Westphall, *Public Domain*, 56-60.

[39] Westphall, *Public Domain*, 53-54.

[40] Westphall, *Public Domain*, 65, 79-80, 136-145.

[41] Stevens to Wood, August 6, 1904, MSC, Folder 3.

[42] Remley, 154-160. See also Montoya, 121-156.

[43] This practice followed the custom in rural America, which, unlike that of England, was to fence out livestock and fence in crops to protect them from wandering livestock. See Earl W. Hayter, "Livestock-Fencing Conflicts in Rural America," *Agricultural History* 37 (January 1963): 12.

[44] *Report of the Governor of New Mexico, 1897*, pp. 367-368.

[45] Wentworth, 408-409.

[46] Towne and Wentworth, 202; Fergusson, 328.

[47] U.S. Department of Agriculture, *Annual Report of the Secretary of the Interior, 1885* (Washington, D.C.: GPO, 1886), I:471-472.

[48] Westphall, *Public Domain*, 111-113.

[49] Remley, 98-99. The Cimarron and Renello Cattle Company fenced 276,000 acres of public domain in San Miguel County. Further south, Greyson and Borland fenced in 100,000 acres in Socorro County. See also Earl W. Hayter, "Barbed Wire Fencing," *Agricultural History* 13 (October, 1939):196.

[50] Cleaveland, 140, 320.

[51] Westphall, *Public Domain*, 111-113, 153.

[52] Cleaveland, 140, 320.

[53] Cimarron *News and Press*, June 24, 1880. The cost breakdown on a per mile basis reported in the article was about $100 for wire, $16 for posts, $18 for setting the posts, and $8 for stretching the wire and incidentals.

[54] Robert J. Rosenbaum, *Mexicano Resistance in the Southwest, "The Sacred Right of Self-Preservation,"* (Austin: University of Texas Press, 1981), 99-110, 122.

[55] Cabeza de Baca, 89-90.

[56] Hayter, "Livestock-Fencing," 18-20.

[57] *Blue Book, 1913*, pp. 25-26.

[58] Erna Fergusson, 352.

[59] Remley, 186.

[60] Carman et al., "Special Report," 926. Kupper presents accounts of sheepmen who had achieved extraordinary success, but only through hard work and conscientious, hands-on management. See Kupper,

62-70. Frank Bond expressed similar sentiments, cf. chap. 7. Las Vegas political leader and sheepman Secundino Romero was sent a letter every few weeks by his majordomo, Ricardo Gauna, keeping him apprised of the condition and location of his herds. See Secundino Romero Papers, CSWR.

[61] Remley, 125-164.

[62] Catron's complex financial arrangements, including defaulted loan payments, unpaid debts, empty bank accounts, and refused loan applications, concerning the American Valley Company sheep ranch are discussed in his considerable correspondence with his majordomo Charles H. Elmendorf. See for example Catron to Elmendorf, June 17, 1901; March 12, 1902; April 21, 1902; TBC, Series 602, Box 2.

[63] Gordon, 990-991; Carman et al., "Special Report," 923.

Chapter 9

[1] Today's Catron County.

[2] Stevens also wrote *Meet Mr. Grizzley, A Saga on the Passing of the Grizzley* (Albuquerque: University of New Mexico Press, 1944, c. 1943.), an authoritative work on hunting dogs and bear hunting in New Mexico.

[3] Stevens was born three years before Frank Bond.

[4] George Richard Montague Stevens, *Rambling Through the !880s – And Beyond* (Santa Fe: by the author, c.1983), 15, 82.

[5] Apparently a number of wealthy Englishmen settled in western Socorro County and took up ranching. See George Stevens, 15, 49. Similarly, a considerable number of Englishmen settled in West Texas and took up sheep ranching. See Kupper, 65-70.

[6] The Morley family, which developed a notable cattle-ranching operation, arrived in the area during this period. Their experiences, and contact with Stevens, are chronicled in Agnes Morley Cleaveland's, memoir, *No Life for a Lady*.

[7] George Stevens, 15-17.

[8] Stevens was remarkably well connected. He, Miles, Wood, and painter Frederick Remington hunted together. Some years later Stevens planned a western hunting trip with Theodore Roosevelt, which, however, never took place

[9] George Stevens, 42-44, 83. This is not to be confused with the disastrous winter of 1886-1887, which destroyed cattle ranches further north from Montana to Texas.

[10] Montague Stevens to Leonard Wood, September 7, 1897, MSC, Folder 2.

[11] George Stevens, 44.

[12] George Stevens, 83.

[13] Stevens to Wood, August 14, 1905, MSC, Folder 3.

[14] George Stevens, 83-88.

[15] George Stevens, 91-93, 100.

[16] Helen Stevens received these funds over a period of several years, investing some of the money in sheep. Like her husband, she was bold, resilient, and self-reliant and apparently had few misgivings about exchanging England, and a predictable life of wealth and privilege, for ranch life in rural New Mexico, three days by buggy from the nearest town, Magdalena - four days if the road conditions were poor. Helen recovered her health to a significant extent in the dry southwestern climate and led an active life as a ranch wife. See Stevens to Wood, March 2, 1897, September 20, 1897, MSC, Folder 2. She died in Albuquerque in 1946 at the age of 82.

[17] Stevens to Wood, March 21, 1898, MSC, Folder 2.

[18] William J. Parish, "Sheep Husbandry in New Mexico, 1902-1903," *New Mexico Historical Review* 37 (October 1962): 265, 304.

[19] Stevens to Wood, May 20, 1897, MSC, Folder 2.

[20] Stevens to Wood, August 14, 1905, MSC, Folder 2, 36 pages!

[21] Stevens had apparently been running cattle on this property previously, as evidenced by a running notice in the Las Vegas *Stock Grower*. See e.g. the *Stock Grower*, September 25, 1886. See also George Stevens, 41.

[22] These were fairly typical terms for large property transfers in New Mexico. Stevens eventually did purchase the S.U. Ranch land on his own account for an unknown amount; he later sold it, probably the land only, for $6,000. See Stevens to Wood, May 26, 1918, MSC, Folder 3.

[23] Stevens to Wood, February 27, 1896; March 24, 1896; April 30, 1896; May 20, 1897, MSC, Folder 2.

[24] Wood's check was apparently never cashed.

[25] Possibly Judge Stephen Johnson Field, Associate Justice of the United States Supreme Court, 1863-1897.

[26] Stevens to Wood, April 30, 1896; December 10, 1897; March 21, 1898, MSC, Folder 2.

[27] Stevens to Wood, November 4, 1897; December 28, 1897, MSC, Folder 2.

[28] Stevens to Wood, October 10, 1897; February 16, 1898, MSC, Folder 2.

[29] Stevens to Wood, November 8, 1897, December10, 1897, MSC, Folder 2.

[30] Stevens to Wood, April 30, 1896, MSC, Folder 2.

[31] Stevens to Wood, May 9, 1896, MSC, Folder 2.

[32] Stevens to Wood, May 31, 1896, MSC, Folder 2.

[33] Stevens to Wood, May 31, 1896, MSC, Folder 2.

[34] ibid. This was about twice what Hispanic herders were then being paid.

[35] Stevens to Wood, April 4, 1897, MSC, Folder 2.

[36] Stevens to Wood, August 14, 1905, MSC, Folder 3.

[37] Stevens to Wood, August 2, 1896, MSC, Folder 2.

[38] Stevens to Wood, September 17, 1896, MSC, Folder 2.

[39] Stevens to Wood, October 21, 1896, MSC, Folder 2.

[40] Stevens to Wood, April 4, 1897, MSC, Folder 2. Later in the fall of 1896, Stevens took time off to take large party including Gen. Miles bear hunting. See Stevens to Wood, October 21, 1896, MSC, Folder 2.

[41] Stevens to Wood, August 2, 1896, MSC, Folder 2.

[42] Stevens to Wood, March 5, 1897, MSC, Folder 2.

[43] Stevens to Wood, April 4, 1897, MSC, Folder 2.

[44] Stevens to Wood, May 20, 1897, MSC, Folder 2.

[45] Stevens to Wood, March 21, 1897; April 4, 1897, MSC, Folder 2.

[46] G.S. Davis, "Report, The Shropshire Sheep Company", October 6-8, 1897, MSC, Folder 2.

[47] Stevens to Wood, July 6, 1897, MSC, Folder 2.

[48] Stevens to Wood, March 21, 1897, MSC, Folder 2.

[49] ibid.

[50] Stevens to Wood, May 20, 1897; June 26, 1897, MSC, Folder 2.

[51] First National Bank of Albuquerque to Wood, September 29, 1897, MSC, Folder 2.

[52] Stevens to Wood, August 1, 1897, MSC, Folder 2.

[53] Stevens to Wood, October 10, 1897, MSC, Folder 2.

[54] Stevens to Wood, December 10, 1897, MSC, Folder 2. This tract was about 50 miles northwest of Magdalena on Alamosa Creek, which empties into the Rio Puerco.

[55] Stevens to Wood, October 10, 1897, MSC, Folder 2.

[56] ibid.

[57] ibid.; Stevens to Wood, September 5, 1909, MSC, Folder 3.

[58] Stevens' holdings, in addition to the rams, now consisted of 8176 bearing ewes, 2437 lambs, and 310 wethers. Of these were 3308 graded Arizona ewes and 4868 "Mexican" ewes. See G.S. Davis, foreman, Report of the Shropshire Sheep Company, October 10, 1897, MSC, Folder 2.

[59] Stevens to Wood, December 10, 1897, MSC, Folder 2.

[60] Parish, "Sheep Husbandry in New Mexico," 37:201-213, 260-309; 38:56-77.

[61] See Stevens to Wood, August 14, 1905, MSC, Folder 3. This price was confirmed in later correspondence.

[62] This property has the earmarks of a ranch illegally constituted from a large number of homesteads. Stevens said nothing about this in his letter to Wood.

[63] Stevens to Wood, February 1, 1903, MSC, Folder 3.

[64] Stevens to Wood, April 21, 1898, MSC, Folder 2.

[65] Stevens to Wood, August 1, 1899, MSC, Folder 2, long letter.

[66] Stevens to Wood, August 26, 1898; August 1, 1899, MSC, Folder 2.

[67] Stevens to Wood, January 1, 1914, MSC, Folder 3.

[68] Stevens, an extraordinarily robust man despite the loss of his arm, died in 1953 at the age of 94. See George Stevens, 44, 134.

[69] Stevens to Wood, August 19, 1899, MSC, Folder 2.

[70] Sypolt, Appendices II, IV, V, and VI.

[71] Stevens to Wood, August 1, 1899, MSC, Folder 2.

[72] Pittman, 87.

[73] Pittman, 50.

[74] Stevens to Wood, June 25, 1899, MSC, Folder 2.

[75] Stevens to Wood, August 1, 1899, MSC, Folder 2, long letter!

[76] First National Bank of Albuquerque to Wood, December 11, 1899, MSC, Folder 2.

[77] In later correspondence, Stevens stated that the Horse Springs Ranch, the land itself, had cost him $3,300 while the former owners, cattle investors, had paid $25,000 for the property before the cattle bubble burst. See Stevens to Wood, August 14, 1905, MSC, Folder 3.

[78] Stevens to Wood, August 1, 1899, MSC, Folder 2, long letter.

[79] Ibid.

[80] Stevens to Wood, written from 8/1/1899 thru 12/23/1899, MSC, Folder 2. This 17-page letter is the source for the next several paragraphs.

[81] Stevens to Wood, September 9, 1900, MSC, Folder 2.

[82] Stevens to Wood, August 25, 1902, MSC, Folder 3.

[83] Stevens to Wood, August 6, 1904, MSC, Folder 3.

[84] Stevens to Wood, December 2, 1902, MSC, Folder 3.

[85] Ibid.

[86] ibid.

[87] Stevens to Wood, July 5, 1903, MSC, Folder 3

[88] Stevens to Wood, December 2, 1902, MSC, Folder 3.

[89] Stevens to Wood, July 5, 1903, MSC, Folder 3

[90] Stevens was hardly unique in his opinion of Hispanic labor. His sentiments were widespread among Anglos at this time. Thomas Catron's majordomo of the American Valley Company, Charles Elmendorf, made an almost identical assessment. See Elmendorf to John Morrison, January 25, 1901, TBC, Series 602, Box 1. Anglo farmers in Texas on the lower Rio Grande held almost identical opinions of their Hispanic laborers. See Montejano, 76-79.

[91] Stevens to Wood, August 14, 1905, MSC, Folder 3. See also Leonard, 49, 149-150. Sarah Deutsch has described the late-nineteenth through early-twentieth century exodus from New Mexico villages in considerable detail. See, in particular, Deutsch, 20-40.

[92] Stevens to Wood, August 14, 1905, MSC, Folder 3.

[93] Ibid.

[94] Stevens to Wood, August 6, 1904, MSC, Folder 3.

[95] Stevens to Wood, August 14, 1905, MSC, Folder 3. Lambing was always an exhausting period of very long work days for western sheepmen. See Gilfillan, 102-103, 129.

[96] Stevens to Wood, August 2, 1905, MSC, Folder 3.

[97] It should be noted that many men found Stevens difficult to get along with, which may have exacerbated his labor difficulties. He drove himself relentlessly and expected much from his employees, who had little to gain from their jobs. He was a humorless, loquacious man, and his personality traits apparently did not sit well with some people who had to deal with him. See George Stevens, 16, 63.

[98] Stevens to Wood, August 14, 1905, MSC, Folder 3.

[99] This characterization contrasts with Lucretia Pittman's description of Luna as a much beloved boss.

[100] Stevens to Wood, July 5, 1903, MSC, Folder 3.

[101] Stevens to Wood, January 28, 1914, May 26, 1918, MSC, Folder 3.

[102] Stevens to Wood, September 5, 1909, MSC, Folder 3.

[103] Stevens to Wood, August 14, 1905, MSC, Folder 3.

[104] Stevens to Wood, September 5, 1909, MSC, Folder 3.

[105] Stevens to Wood, August 6, 1904, August 14, 1905, MSC, Folder 3.

[106] George Stevens, 44, 134.

Chapter 10

[1] Frederick Jackson Turner, "The Significance of the Frontier in American History," in *Frontier and Section, Selected Essays of Frederick Jackson Turner,* Introduction and Notes by Ray Allen Billington (Englewood Cliffs, NJ: Prentice-Hall, 1961), 37, 62.

[2] Wright, 639.

[3] Wilcox, 98.

[4] Wright, 638.

[5] James I. Culbert, "Cattle Industry of New Mexico," *Economic Geography* 17 (April 1941): 166.

[6] Westphall, *Public Domain*, 120.

[7] *Report of the Governor, 1897,* pp. 367-368.

[8] Taylor. "Conditions of the Cattle Interests," 331-332. See also Clay, 338.

[9] Parish, *Ilfeld*, 174. Homesteading apparently started comparatively early in the Roswell area, although on a fairly small scale. See James D. Shinkle, *Fifty Years of Roswell History* (Roswell, NM: Hall-Poorbaugh, 1964): 72-73, 128-129.

[10] Meinig, 43.

[11] Westphall, *Public Domain,* 50-52.

[12] Ibid.

[13] The late nineteenth-century government report of Carman et al. asserted that because of the unfavorable land laws, New Mexico sheep owners were not building reservoirs or drilling wells, which would have brought more land into production. See Carman et al., "Special Report," 926.

[14] Taylor, "Cattle Interests," 331-332.

[15] E.V. Wilcox, 98.

[16] *New Mexico Blue Book*, 1913, p. 25. This was part of a larger process in which homesteaders took up lands in the semi-arid West, the last public lands still available for homesteading by that time. See Hicks, 74.

[17] Westphall, *Mercedes Reales*, 271. Mechanized irrigation, as it affected ranchers, was discussed in chap. 8. Its influence on farming was even greater.

[18] Keith L. Bryant, Jr., *History of the Atchison, Topeka, and Santa Fe Railway* (Lincoln and London: University of Nebraska Press, 1974), 191-196.

[19] Remley, 193.

[20] Large tracts of land placed in the public domain by the courts had been the common-land portions Spanish-Mexican community grants. Converting this land to public domain was a massive injustice to the grantees on the part of the federal government. See Westphall, *Mercedes Reales*, 272.

[21] Westphall, *Mercedes Reales*, 271. These data were compiled by Westphall from the census reports of 1890, 1900, and 1910. For a more complete discussion of the growth of farming in New Mexico in this timeframe, see *New Mexico Blue Book*, 1913, pp. 24-26.

[22] L. Bradford Prince, *A Concise History of New Mexico*, 2nd ed. (Cedar Rapids, Iowa: The Torch Press, 1914), 213. The Estancia Valley is located in today's Torrance and southern Santa Fe Counties.

[23] *New Mexico Agricultural Statistics*, 44-46.

[24] Clay, 228. World War I brought about a further reduction of grazing areas in New Mexico when it created a soaring demand for agricultural products. Prices increased correspondingly, and New Mexico farmers responded by increasing production dramatically. Between 1916 and 1918, the acreage devoted to wheat production nearly doubled; that devoted to beans quadrupled, and that devoted to other crops, particularly corn and potatoes, likewise increased considerably. See *New Mexico Blue Book, 1919*, p. 94.

[25] Meinig, 66-67.

[26] According to one report, Wilson Waddingham, founder of the immense Bell Ranch, placed a large number of cattle on his range that was later considered over twice the optimal number for sustained operations. See Remley, 4-5, 100, 106.

[27] Wilcox, 86-87. This scenario as it played out in Wyoming some time after 1880 is described briefly in Clay, 36.

[28] Taylor, "Cattle Interests," 350.

[29] Troy Brothers, quoted in Heath, "Condition of the Sheep Industry," 317.

[30] Taylor, "Range Cattle Industry," 106-107.

[31] Kupper, 87-88.

[32] Meinig, 67.

[33] See Cabeza de Baca, 152-153, for a personal account of this scenario in the Ceja-Llano country of eastern New Mexico.

[34] Clay, 23.

[35] Taylor, "Range Cattle Industry," 106.

[36] Westphall, *Public Domain*, 46; Meinig, 67.

[37] A second wave of immigrant farmers arrived ten years later as conditions on the Great Plains once again appeared favorable. They were better prepared and more successful than their predecessors.

[38] Cabeza de Baca, 152.

[39] Andy Wiest, quoted in Grubbs, 36:239.

[40] Harry Kelly to unknown, August 11, 1915, FBC, 84:384.

[41] *The New Mexico Blue Book*, *1917*, 41-42.

[42] A list of recent New Mexico homestead patents published in the Las Vegas *Stock Grower* in 1889 includes many Spanish names. See *Stock Grower*, April 28, 1889, p. 8. See also Carlson, "Long Lots," 56. Deutsch, 31, describes the downside of homesteading from the Hispanic standpoint.

[43] Westphall, *Public Domain*, 45-46. Cabeza de Baca, 152-153, gives a personal account of this scenario.

[44] Towne and Wentworth, 174.

[45] *New Mexico Agricultural Statistics*, 44-46.

[46] Gordon, 992.

[47] Taylor, "Conditions of the Cattle Interests," 330. The report, furthermore, described the area once available for grazing sheep as "now very much curtailed."

[48] Quoted in the *Stock Grower*, June 8, 1889. See also Wilcox, 98.

[49]C.H. Wasser, "Early Development of Technical Range Management ca. 1895-1945," *Agricultural History* 51, Agriculture of the Great Plains, 1876-1936: A Symposium (January 1977): 63-65.

[50] Carman et al., "Special Report," 923.

[51] Cabeza de Baca, 133,153.

[52] Wright, 638; *Annual Reports of the Department of Agriculture For The Year Ended June 30, 1915* (Washington: Government Printing Office, 1915), 46; see also Sypolt, 156.

[53] Cleaveland, 320-321. See also chap. 9 for an account of Montague Stevens' experience with Cebola National Forest Reserve.

[54] Mr. Morgan, quoted in Frank D. Reeve, "The Sheep Industry in Arizona," *New Mexico Historical Review* 38 (July 1963): 246-247.

[55] Wasser, 67.

[56] Cleaveland, 321.

[57] *Annual Reports of the Department of Agriculture For The Year Ended June 30, 1914* (Washington: Government Printing Office, 1914), 9-10.

[58] "The National Forests," *Annual Reports of the Department of Agriculture For The Year Ended June 30, 1915*. (Washington: Government Printing Office, 1916), 46-47.

Chapter 11

[1] Van Ness and Van Ness, "Introduction," 6; U.S. Census, 1850, lxxxii, 1007; *New Mexico Agricultural Statistics*, 44.

[2]*U.S. Census, 1900,* Vol. V, Part I, cciv, ccvi, 326; Towne and Wentworth, 181.

[3] James Wilson, "The Cattle Industry of the United States," *Eighteenth Annual Report of the Bureau of Animal Industry, 1901* (Washington: Government Printing Office, 1902.), 268.

[4]*The Stock Grower*, February 2, 1889.

[5] 277,000,000 lbs. for the fall 1899 and spring 1900. *Twelfth Census, 1900*, Vol. V, Part I, 679. 330,000,000 lbs. [in the grease] in 1909; Cherington, 340; *Stock Grower and Farmer*, August 19, 1893.

[6] *U.S. Census, 1900*, Vol. V, Part I, 326.

[7] *U.S. Census, 1850* , 1008; *New Mexico Agricultural Statistics*, 56. *U.S. Census, 1900*, Vol. V, Part I, 326.

[8] *The Stock Grower*, March 30, 1889, p. 9; U.S. Census, 1900, Vol. IX, Part III, 88.

[9] Wright, 623.

[10] Carman et al., 925, 929.

[11] Quoted in Pittman, 78-79.

[12] Carman et al., "Special Report," 931.

[13] *The New Mexico Bluebook, 1913*, p. 42.

[14] New Mexico had the smallest water area of any state as of 1943. See Christine A. Heller, "The Spanish-Americans of New Mexico and Arizona." *Annals of the American Academy of Political and Social Science* 225 (January 1943): 49-51.

[15] Conversely, Montoya attributes the general lack of success of the Maxwell Land Grant subsequent to its sale to the inflexibility of the European owner-investors, who understood and cared little about New Mexico and its traditions and insisted on running their ranching operations strictly according the modern practices of industrial capitalism. See Montoya, 142-143.

Appendices

[1] H.A. Heath, "Condition of the Sheep Industry," 314.

[2] *U.S. Census, 1900*, Vol. V, Part I, cciv.

[3] *U.S. Census, 1900*, Vol. V, Part I, ccxiv.

[4] *New Mexico Agricultural Statistics,* Vol. I.

[5] *U.S. Census, 1890*, Part III, 29.

[6] Robert A. McGuire, "US Agricultural Statistics: State Estimates, 1866-1914," *Agricultural History* 54, (April 1980), 336-342.

[7] The distribution in a typical New Mexico herd in 1880 has been estimated as 1.25% rams, 62.13% ewes, 21.78% wethers, and 14.84% lambs under a year old. See Wentworth, 233, 413.

[8] *Report of the Governor of New Mexico, 1897*, p. 373; see also T.B. Miller, quoted in Carman et al., "Special Report," 919.

[9] Carman et al., *Special Report*, 21, 919; Baxter agrees with Bond and believes that Coronado, Onate, and de Vargas all brought *churros* into New Mexico. See Baxter, 20.

[10] Carman et al, “Special Report,” 918.

[11] Like *churros*, and unlike some other wool-bearing breeds, Merinos were also strong long-distance walkers in compact flocks. See Kupper, 31.

[12] For a full description of Spanish ranch management structure, see Wentworth, 401. A few large-scale sheepmen acted as their own *majordomos,* notably Solomon Luna. See Pittman, 30, 46. And several large-scale Hispanic sheepmen participated in the California drives, as described in chap. 3.

[13] Gordon, 980-981; Sypolt, 33.

[14] *Rocky Mountain News*, July 13, 1873.

[15] Documentary evidence of a drive of 25,000 New Mexican sheep to Kansas in 1895, owned by the Charles Ilfeld Company, indicates that the drive was under the general direction of Max Goldenberg and foreman P.D. McElroy, who were accompanied by two *mayordomos* and 14 *pastores* under them. See Parish, *Ilfeld*, 130-131. The job titles differ somewhat here, but the basic hierarchy appears to be unchanged.

[16] Escudero, writing in 1849, describes a situation where *partidarios* tended herds of 1000 ewes and 10 breeding rams never separated from the rest of the herd. In this way there would be two or three births a day year around, which the herder could easily handle by himself. See Escudero, in Carroll and Haggard, 40-42. It is unclear when this practice was superseded by the more systematic practice described here.

[17] Carman et al., “Special Report,” 923.

[18] F. Carpenter to W.H. Kelly, May 5, 1898, GKC, Series II; Sypolt, 280.

[19] Sypolt, 283.

[20] The castration was a quick, two-man process, optimally performed 4-6 weeks after birth, at which time losses were light. See *Stock Grower,* April 13, 1889.

[21] Towne and Wentworth, 298-299.

[22] Lehmann, *Forgotten Legions*, chap. 5, states that the Texas sheep of the Rio Grande Plain were trailed 7-10 miles/day.

[23] *Rocky Mountain News*, April 16, 1873. The flock might, for example, be driven, during this period, into the eastern valleys and Llano Estacado, grazing eastward until year’s end and then back toward the mountains along the Gallinas and Mora Rivers. See Wentworth, 396-397.

[24] Westphall, *Mercedes*, 10-11, 18.

[25] Westphall, *Mercedes*, 12.

[26] Pittman, 3.

[27] Leonard describes the situation in the village of El Cerrito on the San Miguel del Bado Community Grant in which usage of the common lands was dominated by two or three large-scale, stock-owning families. Leonard, 125-126; see also Erna Fergusson, 316.

[28] The case of a single family’s attempt to take over the Tierra Amarilla Community Grant legally is described in Westphall, *Mercedes*, 127-131.

[29] Sypolt, 276.

[30] Pittman, 11.

[31] Gilfillan, 37-38.

[32] Pittman, 11-12.

[33] *Rocky Mountain News*, April 7, 1868.

[34] Towne and Wentworth, 269.

[35] Edgar B. Kincaid, quoted in Towne and Wentworth, 257.

[36] Cleaveland, 255.

[37] Sypolt, 269.

[38] Gutierrez, 215.

[39] Carman et al., "Special Report," 928.

[40] Towne and Wentworth, 171.

[41] I.D. Graham, "Alfalfa for the Growing and Fattening of Animals in the Great Plains Region," *Twenty-First Annual Report of the Bureau of Animal Industry for the Year 1904* (Washington: Government Printing Office, 1905): 242-244.

[42] Billington, 606; Hine and Faragher, 333-334.

[43] Billington, 323-324.

[44]Westphall, *Public Domain*, 43.

[45] Westphall, *Public Domain*, 44.

[46] John J. McCusker, 13-37; http://www.measuringworth.com

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