

Now May Be Heard a Discouraging Word:

The Impact of Climate Fluctuation on Texas Ranching in the 1880s

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Abstract

This thesis deals with the negative interrelationship between climate fluctuation and cattle ranching during the 1880s. The focus is on three large ranches that were used as case studies on the Texas Panhandle. These ranches were selected because of their size, longevity, and the number of primary documents that were available at the Panhandle Plains Museum and Archive in Canyon, Texas. The temporal focus is from 1880 to 1890. The primary documents that have been examined are letters from ranchers to the Capitol Syndicates that owned the ranch and the financial documents of each ranch. Scientific journals that examined grassland ecology, animal ecology, and climate were used in conjunction with the primary documents. The combination of these sources led to a nuanced reinterpretation of a cattle disaster from the 1880s. The disaster was a massive loss of stock through a series of extremely cold winters and a drought that lasted several years. In the wake of this disaster, through the use of technology, these ranches were able to recover and increase their stock numbers beyond what they were prior to the years dominated by stock losses and low cattle prices.

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TABLE OF CONTENTS

| | |
|---|------------|
| PERMISSION TO USE | i |
| ABSTRACT | ii |
| ACKNOWLEDGMENTS | iii |
| TABLE OF CONTENTS | iv |
| INTRODUCTION | 1 |
| HISTORIOGRAPHY OF TEXAS RANCHING DURING THE 1880s | |
| CHAPTER ONE | 19 |
| THE OPEN RANGE | |
| CHAPTER TWO | 36 |
| THE DISASTER | |
| CHAPTER THREE | 57 |
| THE RECOVERY AND THE ESTABLISHMENT OF THE XIT | |
| CONCLUSION | 82 |
| MAPS | |
| THE MATADOR LAND AND CATTLE CO | 21 |
| THE FRANCKLYN LAND AND CATTLE CO | 27 |
| THE XIT RANCH | 60 |
| BIBLIOGRAPHY | 87 |

“The effect of these great ranches on the subsequent agrarian history of the localities in which they existed should be studied.”¹ Frederick Jackson Turner.

Introduction: Historiography of Ranching During The 1880s

Between 1840 and 1880 bison were nearly driven to extinction in their primary habitat, the Great Plains. As Elliot West explains, “Bison had inhabited the central plains, on and off, and perhaps continuously, for thousands of years. They had provided a crucial source of subsistence for whatever humans had lived there; and it was on the central plains that the buffaloes first were pushed to the verge of extinction.”² The near destruction of the bison stands out as one of the most egregious examples of environmental mismanagement and has become a regularly used example by historians and ecologists to show humanity’s greed and desire to consume natural resources. The story of the bison, like the forthcoming story of cattle, is a cautionary tale; but, not one of environmental destruction at the hands of man. Both are examples of how there is a fundamental interconnectedness between humans, information, animals, economics, weather, grasses, and water. These strands are often not apparent at first glance, but all are necessary to tell the story in its entirety.

The number of ranches that emerged in the 1880s presents a unique difficulty in determining how the Great Plains was developed and how this environmental event ought to be examined and interpreted. In order to both simplify and make this study more intelligible, the Francklyn Land and Cattle Company, the Matador Cattle Company and the XIT Ranch will be used as case studies to determine how many cattle were brought

¹ Frederick Jackson Turner, *The Significance of the Frontier in American History* (New York: Henry Holt and Company, 1929), 23.

² Elliot West, *The Way to the West* (Albuquerque: University of New Mexico Press, 1995), 45.

into the Great Plains bioregion and how their numbers increased to the extent that by the winters of 1884 through 1887 an epic disaster was imminent. This disaster was a near collapse of the range cattle industry on the Texas Panhandle. Climactic fluctuation, misinformation, and human forces created a situation where a large number of ungulates died from various causes and could have forced the industry to dissolve in the bioregion. These three ranches were large operations and were in business before, during and after the previously mentioned near collapse. The longevity of these ranches allowed for a wealth of documents to be preserved in several Texas archives. Scientific literature which examines cattle, bison, grasses, and climate will inform the analysis of these primary documents. Using these sources together will form the backbone of the environmental argument for how carrying capacity can be diminished through environmental flux and how misinformation can result in a flawed understanding of a bioregion. Misinformation is an especially difficult phenomenon to understand. However, it is likely that the people who were promoting ranching in the bioregion were boosters. The reason for writing their pamphlets and letters was to attract investment and immigration. As such, the negative aspects of a bioregion were, regularly, ignored in favor of a more positive and unrealistic interpretation. Environmental fluctuations, in these case studies, are drought and uncommonly cold winters.

A decade after the disappearance of bison from the plains cattle ranchers in the same locations suffered a devastating loss of domestic livestock. It is surprising that the environmental argument for the cattle die-offs in the late 1880s has not been as fully explored as it has been for bison, especially because it occurred in the same bioregion, with a comparable species. The historically accepted argument for the cattle disaster has

been that ranchers, while exploiting a booming market, put too many cattle into their pastures and exceeded the carrying capacity.³ This example became popular because, at first glance, it seems to be self evident. The number of cattle had increased dramatically over these years and lack of grass was one of the largest contributors to the nutritional stress on the animals. It seemed obvious that the number of animals had exceeded the carrying capacity and the lack of grass was directly related to this. This argument does have some merit, but seems incomplete in that it has a limited environmental component. It focuses only on the damage caused during the ranching period. It does not consider that the damage could have been a cumulative effect stretching back into the bison period resulting in an altered bioregion with a diminished carrying capacity. What is suggested by cumulative effect is that the bioregion in and of itself was subject to fluctuation, and had been even during the bison period, so that it could no longer support large numbers of ungulates. By focusing solely on the few years spanning the cattle disaster historians have missed part of the story and left out a great deal of nuance for an immensely nuanced event.

The arguments found in secondary sources all seem to follow the same thread, that is, ranchers overstocked their fields and suffered economically for their mismanagement. In 1931 Walter Prescott Webb wrote “But by 1885 the time of reckoning had come. Overstocking had so reduced the grass that either a drought or a hard winter would bring disaster.”⁴ This story has been reinforced and popularized by canonical staples in Western History such as: *It’s Your Misfortune and None of My Own: A New History of the American West* by Richard White, *The American West A New*

³ Robert V. Hine and John Mack Faragher, *The American West: A New Interpretive History* (New Haven: Yale University Press, 2000), 325.

⁴ Walter Prescott Webb, *The Great Plains* (New York: Grosset and Dunlap, 1931), 215.

Interpretive History by Robert V. Hine and John Mack Faragher, and *The Day of the Cattleman* by Ernest Staples Osgood. Furthermore, studies dedicated to environmental history have also argued that cattle and other introduced species can be detrimental to the environment. During *Man's Role in Changing the Face of the Earth*, a symposium held in 1956, the damaging effect of all introduced grazers was argued by geographers and biologists alike.⁵ In *Ecological Imperialism* by Alfred Crosby he argues that “under the auspices of cowpen keepers, which move (like unto the ancient patriarch or the modern Bedowin (sic) in Arabia) from forest to forest as the grass wears out or the planters approach.”⁶ The idea that cattle overgrazed is not limited to North America. R.J. Wasson, when describing damage done to the Australian range writes: “By 1905, there were substantial numbers of cattle in the area (Bolton 1953). Weir, a pastoral inspector, reported in 1906 that river frontages had been largely de-vegetated and Forrest’s ‘fine grassy plains’ were bare.”⁷ The geographic and temporal scope of the historiography suggests that the overstocking argument became popular within a generation of the disaster and has remained so ever since. The study here does not refute their claims but adds another layer of analysis to this event. However, before additional analysis can be understood the original story needs to be clear.

In 1883 a calf could be purchased at market for \$5.00, raised to maturity, and sold for between \$45.00 and \$60.00. All that was required was grass, which was free, horses,

⁵ William L. Thomas ed., *Man's Role in Changing the Face of the Earth* (Chicago: University of Chicago Press, 1956).

⁶ Alfred Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (Cambridge: Cambridge University Press, 1986.), 179.

⁷ J.R. McNeill and Verena Winiwarter ed., *Soils and Societies: Perspectives from Environmental History* (Isle of Harris: The White Horse Press, 2006), 259-260.

a few dug outs, and some cowboys. Losing money seemed impossible.⁸ Profits such as these could not be kept secret and soon newspapers and journals were filled with notices claiming that 40% returns were the norm and not the exception. The number of new cattle operations on the plains increased exponentially in response to this opportunity.

This cattle boom rapidly and seriously overstocked the ranges. By the mid 1880s there were an estimated 7.5 million head of cattle on the Great Plains north of Texas and New Mexico. With cattle raisers betting on limitless grass and a market that would eagerly consume all the beef they could produce, ranchers stocked the plains with more cattle than the land could support. The cattle industry raced toward economic and ecological disaster. It arrived at both nearly simultaneously.⁹

The increase in both cattle operations and cattle meant that the market would become glutted and a decreased price was the result.

The cattle raisers who had expanded west began importing eastern cattle almost as soon as they had arrived. The Texas longhorn is a tough, nearly wild, animal that was not known for its docile nature or its flavor. Eastern cattle however were far more domesticated and better meat producers. The only down side was that eastern cattle were not as hardy as the longhorn, in fact, very few ungulates were. Nevertheless, to increase the value of their herd eastern cattle were imported. During this difficult time in the market cattle raisers remained determined and waited for the end of the price slump. To do this they kept thousands of cattle away from the market and in the field. The animals that would normally have been slaughtered were still grazing and the animals that would have taken their place were now added to the ballooning herds. As a consequence the range was soon overgrazed.¹⁰ What made the ranchers believe that they would be able to

⁸ Richard White, *It's Your Misfortune and None of My Own: A New History of the American West* (Norman: University of Oklahoma Press, 1991), 222-23.

⁹ Ibid.

¹⁰ Hine and Faragher, *The American West*, 325.

ride out the economic downturn in their pastures was that the weather during the early 1880s, with the notable exception of 1880-81, was wet and mild. That, however, was about to change.

Easy winters meant that the vast majority of stock was able to survive through to spring further increasing their numbers and, ultimately, the stress on the grass. “In 1870, 5 acres of grass could support a steer; in 1880, the same animal needed 50 acres to survive.”¹¹ This did not dissuade cattle raisers from continually increasing their numbers through uncontrolled breeding and importation of eastern stock. In 1885, 200,000 cattle that had been illegally grazing in Indian Territory were removed to the Texas Panhandle, Colorado and Kansas putting further stress on the already limited grass cover. Unfortunately for cattle raisers the winter of 1885-86 was one of the worst on record and the cattle, which were weakened from the lack of grass due to competition, starved and froze to death in record numbers. Fences that had been built in order to keep wandering cattle away had become places for the cattle to pile up as they wandered and eventually lay down to die. By the spring the losses, and certainly the smell, was horrific. Some ranchers claimed to have lost 85 percent of their herd, although for the majority it was likely much less.¹²

The summer of 1886 was dry and hot, not ideal conditions for grass. As a consequence the cattle entered the winter in a weakened state for a second year. In the latter part of November there was a blizzard and the weather got steadily worse from there. The only break from the cold came from a Chinook in early January but the good weather would not hold. “...from the twenty-eighth of January to the thirtieth, the

¹¹ Richard White, *It's Your Misfortune and None of My Own: A New History of the American West* (Norman: University of Oklahoma Press, 1991), 223.

¹² *Ibid.*

Northwest was swept by a blizzard such as the ranges had never before experienced.”¹³ The cold was such that the eastern cattle, which were not used to this kind of weather, suffered greatly and died in large numbers. While the storm itself only lasted for a few days it locked the plains in a cold that would not be eased for months. The only news received from the northern plains was that their cattle were faring just as poorly. When ranchers were finally able to inspect their herds hope was low. “The sight of the ranges in the spring of 1887 was never forgotten. Dead were piled in the coulees. Poor emaciated remnants of great herds wandered about with frozen ears, tails, feet, and legs, so weak that they were scarcely able to move.”¹⁴ The disaster of 1887 caused panic among creditors who began calling in their loans. This forced the cattle owners to sell their animals, such as they were, in a declining market driving it further down. The *Rocky Mountain Husbandman* sums up the accepted argument for this event well. It stated, “range husbandry is over, is ruined, destroyed, and it may have been from the insatiable greed of its followers.”¹⁵

This study will provide a more complete explanation for this ecological and financial disaster by considering that at the heart of this disaster was a bioregion where fluctuation was a common phenomenon. A further but related consideration will be that there was a fundamental disconnection between what investors and ranchers believed the bioregion to be and what it actually was. Newspapers, inexperienced surveyors, and general ignorance of the environment all contributed to this misconception, which in turn contributed to the disaster. Lastly, how the ranching industry, after suffering several devastating setbacks, did not suffer a complete collapse, will be considered. The

¹³ Ernest Staples Osgood, *The Day of the Cattleman* (Chicago: University of Chicago Press, 1929), 220.

¹⁴ *Ibid.*, 221.

¹⁵ Quoted in Hine and Faragher, *The American West*, 325.

mechanisms by which the ranching industry survived an ecological disaster of this magnitude, remained solvent, and then expanded after a successful adaptation make this study relevant for agriculture and environmental studies today.

During the 19th century bison numbers were in decline on the Southern Plains. The environment has been named as a contributing factor for this in much of the secondary literature. The hypothesis that has been used by Andrew Isenberg, Pekka Hamalainen and others is that the natural carrying capacity of the Southwest had fluctuated and no longer supported the number of bison present on the plains. Bison numbers were regulated in a density dependent system, that is, bison numbers could not exceed the environment's ability to sustain them. The animals could only survive as the conditions, like rain fall and grass cover, allowed. The conditions on the Great Plains were such that prior to 1790 bison numbers could increase to an estimated thirty million.¹⁶ However, when conditions changed their numbers began to decline. This hypothesis is outlined in Andrew Isenberg's book *The Destruction of the Bison*. In his introduction he states "...the arid and semi-arid climate also periodically wreaked havoc on its (the Great Plains) dominant plant and animal species. In wet years tall grasses invaded the western plains. During droughts, both short grasses and considerable numbers of bison died."¹⁷ The impact of environmental fluctuation began in the 1790s. During this time there was a series of environmental fluctuations, like drought, that adversely affected bison numbers because plant life suffered for a lack of water.¹⁸

¹⁶ Andrew Isenberg, *The Destruction of the Bison* (Cambridge: Cambridge University Press, 2000), 24.

¹⁷ *Ibid.*, 11.

¹⁸ Pekka Hamalainen, "The First Phase of Destruction: Killing the Southern Plains Buffalo," *Great Plains Quarterly* 21 (2001): 101-114.

Arid and semi-arid bioregions are subject to irregular rainfall. Consequently, both drought and cold winters can cause an increase in mortality for herbivore populations.¹⁹ Grazers exist in a state of non-equilibrium with their environment. This theory has been tested for cattle, bison and several other species. Ungulates consume grasses, forbs, and other vegetation in a manner that is not consistent with vegetation availability. Bison, being part of this natural system, will breed well beyond the ecosystems ability to sustain them.²⁰ In the case of cattle, theirs was not a natural system like the one described by Isenberg and therefore could not regulate itself naturally through time, like the bison. Nevertheless, cattle were subject to the same natural rules and a similar severe reaction to environmental fluctuations was the result.

In the 1880s the number of cattle was not near to the number of bison that had roamed the same bioregion thirty years previously. Where there were once 30 million bison there were only 7.5 million cattle on the entire Great Plains. Cattle were, and still are, at a disadvantage compared to bison in this bioregion. In an article published in *Ecological Applications*, it was determined that

...large and small prehistoric herds of bison responded opportunistically to naturally and anthropogenically induced changes in northern mixed prairie forage quality and availability. An examination of early historical references (1690-1880) prompted England and Devos (1969) to suggest that bison grazed heavily on a local scale, which...created a vegetation mosaic...Deep dense hair allows bison to cope with intense cold...Bison calves exhibit dramatically greater metabolic-rate reduction when exposed to intense cold (-30°C) than cattle...Thermoregulation through habitat selection has been shown to be a successful behavior pattern that allows bison to cope with temperature extremes...Clearly bison are relatively better suited to continuous year-round presence...than are cattle.²¹

¹⁹ A.W. Illius and T.G. O'Connor, "On the Relevance of Nonequilibrium Concepts to Arid and Semiarid Grazing Systems," *Ecological Applications* 3 (August 1999): 798.

²⁰ Ibid.

²¹ Jerrold L. Dodd and Glenn E. Plumb, "Foraging Ecology of Bison and Cattle on a Mixed Prairie: Implications for Natural Area Management," *Ecological Applications* 3 (1993): 631-643.

Environmental historians and biologists do not dispute that bison were better adapted to year-round life on the prairies than were cattle, but, this does not mean that cattle were incapable of surviving in this bioregion. As an introduced species cattle had not had the opportunity to evolve along with their habitat nor had they existed on their imposed one for a significant amount of time. American cattle already existing on the plains were a tougher, near wild stock than the domesticated cattle. By the early 1880s less hearty eastern breeds were being imported and, to a small extent initially, bred with Longhorns. The reason for this is that these 'softer' breeds yielded more usable meat and they were easier to manage.²² The problem was that the weaker breeds were more vulnerable to severe weather and disease which was prevalent throughout the years 1883 to 1886 on the Texas Panhandle.

Cattle are quite similar grazers to bison, that is, they have a significant dietary overlap. Jerrold Dodd et al. determined that "...bison and cattle exhibited similar levels of dietary intake."²³ In a subsequent study from Kansas State University it was further determined that cattle and bison are "...predominantly graminoid* feeders and they generally show high dietary overlap."²⁴ Nevertheless, it is important to note that there are some differences between the two species' forage ecologies. When the two species were compared to each other in a controlled experiment it was determined that,

Differences in foraging ecology between cattle and bison are due to differences in their morphology, social behavior, physiology and environmental tolerance. Although both exhibit forage selectivity (ie., use plant species and growth forms

²² Hine and Faragher, 325.

²³ Dodd and Glenn E. Plumb, "Foraging Ecology," 639.

²⁴ Said A. Damhoureyeh and David C. Hartnett, "Effects of Bison and Cattle on Growth, Reproduction, and Abundances of Five Tallgrass Prairie Forbs," *American Journal of Botany* 84 (December 1997): 1719.

*grasses and grass like plants such as sedges.

out of proportion to their availability), bison are less selective in foraging and show lower dietary niche breadth (number of available species/growth forms consumed) than cattle...Cattle diets are characterized by lower percentage of graminoids and a higher browse/forb component relative to bison. In addition, behavioral differences between cattle and bison, such as wallowing by bison, also may result in unique patterns of environmental patchiness and plant responses.²⁵

What these studies suggest is that, as far as grazing in ideal conditions is concerned, the two species can successfully inhabit the same bioregion. What is most interesting with respect to the effects of a changing bioregion and these two species is that cattle show a higher niche breadth. In simpler terms, bison can and will eat a more varied diet depending on what is available than do cattle. When there are ecological difficulties cattle had a more difficult time surviving because they were more selective grazers than were bison. When there is climate-driven bioregional change it would seem, from a grazing perspective that, bison would be better able to survive through a successive series of difficult years, while cattle suffered.

These scientific studies raise three important historical questions which will be considered in this thesis. First, were conditions in the Texas panhandle ideal at this time? Second, if conditions were not ideal, what were the environmental factors that made the Texas Panhandle inhospitable? Last, is it reasonable to assume that the founders of the Francklyn Land and Cattle Company, the Matador Cattle Company, and the XIT Ranch were aware of the environment and *knowingly* overstocked and under-equipped their ranges in order to maximize profits?

A clear understanding of the 1880s economic bonanza in the ranching industry in the American Great Plains, specifically Texas, is essential when considering these historical questions as a whole. The late 1870s and early 1880s (the bonanza period) saw

²⁵ Ibid.

an unparalleled investment of British capital into America with the bulk of this capital flooding into the plains. In 1876 the British imported 222,000 cattle from continental Europe. However, in 1877, there was an outbreak of pleuro-pneumonia among cattle in Europe and the resulting import restrictions meant that the British were 70,000 cattle short of what they required annually.²⁶ Great Britain turned to America to fill the order that could no longer be met by ranchers in Europe. It is important to note that the importation of American beef was intended only to be a stop-gap measure. Had the restrictions against European beef, specifically German, been lifted after the disease was contained European beef could have undercut American prices. Unfortunately for European ranchers the restrictions were not lifted and Great Britain was required to continue importing cattle from America. The result of this situation was a unique opportunity for investors from Great Britain who made a great deal of money investing in American ranches. The fire for this investment opportunity was stoked further in 1880 by an article in the London *Times* which stated that the importation of American cattle had increased 80 percent since 1877.²⁷ In the same year, 1880, a report was released by Clare Read and Albert Peel, who had been sent to investigate the financial viability of investment in American Ranches and the quality of the cattle therein. They reported that “...stockmen were exporting their best grade cattle to Great Britain and that few well bred animals remained in the United States...they expressed boundless enthusiasm for the range cattle industry which was returning to its investors yearly profits averaging 33

²⁶ David Zimmerman, “Live Cattle Export Trade between United States and Great Britain, 1868-1885,” *Agricultural History* 36 (1962): 46.

²⁷ Editorial, *Times* [London], April 6, 1880.

per cent.”²⁸ The English investing public was now fully aware of the investment opportunities available in the American range cattle industry.

Even before the Bonanza period the literature of the time was misleading when describing the carrying capacity of the Great Plains in Texas. A book titled *Glimpses of Texas: its divisions, resources, development and prospects* by William Brady (1871) devoted an entire chapter to the ease of cattle ranching. It is likely that he intended to lure investors and immigrants to his state and therefore some hyperbole is expected. Nevertheless, the book was fundamentally misleading. This book, and others like it, possibly played a part in the lack of environmental understanding that was common among Texas ranchers and why they were unprepared for the difficulties of a semiarid bioregion. William Brady wrote: “Stock Raising has always been a favorite pursuit of Texans. The cattle of the country thrive upon the prairie without other care than the animal herding...”²⁹ This is the first sentence of his chapter titled *Stock Raising*. From the beginning Brady wanted to make it clear that ranching in Texas was an effortless endeavor and required no investment in feed or infrastructure. Later in the chapter Brady addressed the possibility of financial difficulty.

The limit to the industry of preparing beef for market will not nearly be reached when our shipments amount to a million tierces a year, worth, say thirty millions of dollars. Beyond that, it is believed we have the capacity for almost indefinitely increasing our production. The reader will readily see that there is no danger of raising an over supply of cattle, and especially in view of the fact that in no other part of the United States or Europe can beef be produced at less than double the cost, here, we can be profitable at one-half the present proceeds.³⁰

²⁸ Zimmerman, “Live Cattle Export Trade”, 46.

²⁹ William Brady, *Glimpses of Texas: its divisions, resources, development, and prospects* (Houston: unknown publisher, 1871), 41.

³⁰ *Ibid.*, 42.

Throughout the chapter Brady continued to argue for the ease of ranching and its financial benefits. It is not until the final paragraph that he comments on the question of overstocking.

But, it is asked, is there no danger of the stock raising business being overdone? Not, we think, for fifty years to come. Not one tenth of the stock lands of Texas are yet occupied. They are the range of the wild buffalo, and his wilder herdsman, the Indian. Year by year these must give way to advancing civilization, and when the whole breadth of Texas, capable of supporting beeves, sheep, horses, etc., is brought to use, we shall have anywhere from twenty to fifty millions of beef cattle, and may export ten millions a year, at a value of one hundred and fifty millions of dollars. We will supply Christendom, to say nothing of the "heathen Chinees,"[sic] with food, and never exhaust our resources.³¹

The historiography that the ranchers of the 1880s overstocked their pastures has been popular when this tragedy has been studied. Hine and Faragher wrote: "In the first place, ranchers stocked the western range with far too many cattle...Soon the grasslands were overgrazed."³² Furthermore, in *It's Your Misfortune and None of My Own: A New History of the American West* Richard White argues: "This cattle boom rapidly and seriously overstocked the ranges."³³ The aforementioned authors are the modern adherents to a historiography that was popular in the 1930s when Walter Prescott Webb wrote *The Great Plains*. Webb, writing fewer than 50 years after the disaster argues: "The range had been overstocked, and the cattle had tramped down or eaten out all the grass near the river."³⁴ However, when examining the *earliest* literature on ranching in Texas it was explained, in no uncertain terms, that overstocking was not possible. When considering the literature ranchers would have been exposed to prior to starting their

³¹ Ibid., 44-45.

³² Hine and Faragher, *The American West*, 325.

³³ White, *A New History*, 223.

³⁴ Webb, *The Great Plains*, 242.

operations it seems likely that they would have felt that raising stock in Texas had endless possibilities and would require nothing more than land and cattle.

Most British publications, but especially the *Times*, were enthusiastic when describing the range industry in America. On April 6, 1880, the *Times* wrote that “ordinary work consists of riding through plains, parks, and valleys.” The only difficult work was described as “when masters and men, well mounted,” carried on a round-up.³⁵ The description was not overly accurate; however, such a description would have appealed to wealthy investors in Great Britain. The *Times* further reported that “cold season [even in Montana] is tempered by the warm Japan current which comes over the Rocky Mountains.”³⁶ Another newspaper, the *Fortnightly Review*, described how the “valleys and glens...serve the purpose of barns and stables.” The grasses of the West contained “highly nutritious qualities” and “retain their full strength for the whole winter.”³⁷ Along with the praises for the quality of the land the fact that it was free was a common topic for British media. The *Fortnightly Review* wrote that

To Old World ears it sounds not only strange, but hardly credible, that you or I can to-day...pick out for our stock a good range for grazing, as yet unoccupied, drive on to it a herd of ten thousand cattle, select a suitable spot near to a convenient creek, and there build our ranche [sic] or farmhouse..., and, in fact, make ourselves entirely at home, disporting ourselves as virtual owners of the land, without paying one penny for it, or outstepping any territorial or United States statute, or doing what is not perfectly lawful. There is no trouble about title, deeds, surveyors, and lawyers.³⁸

The romantic and ultimately misleading myth of the American west is evident in this quotation. The effect such a perception would have for understanding the environment of the Great Plains would become a serious issue as these ranches were established and

³⁵ Editorial, *Times* [London], April 6, 1880, 4.

³⁶ *Ibid.*

³⁷ W. Bailie Grohman, “Cattle Ranches in the Far West,” *Fortnightly Review*, vol. XXXIV 1880, 444.

³⁸ *Ibid.*

stocked with animals. Newspaper reports, like the one above, were part of the overall mechanism that created a fundamental disconnection between what the Great Plains bioregion was perceived to be, and what it actually was. This disconnection would, in a few short years, be part of the cause for a great deal of hardship in the ranching industry.

The raising of cattle to selling age was not reported as an expensive endeavor nor were the reported wages that the ‘cowboys’ commanded onerous. Each herdsman would only require £6 a month and he could take care of a thousand cattle. There was no rent and no tax, except for the head tax, which varied from 5 to 7 cents for cattle two years old and over. Furthermore, as the *Fortnightly Review* explained, “there is understood to be considerable latitude in making these returns, and there are no surveyors of taxes to institute impertinent inquiries.”³⁹ The final variable for prospective investors was the question of cattle mortality through the year. This question was not neglected by the *Times*. When they reported on this last issue, it was stated that “...[losses] vary from 2 to 3 per cent.”⁴⁰ The *Fortnightly Review* was less optimistic and indicated that losses would likely be about 5 per cent and could go as high as 10. Nevertheless, cattle were “reared and fed at a *minimum* of expense and trouble.”⁴¹ It was during the later 1870s and early 1880s that the popular media in Great Britain set the stage for the bonanza period of investment in the American ranching industry. These predictions are important because they were fundamentally misleading and seemed to have a large booster quality to them. There were no large operations in the area at this time as Charles Goodnight, the only rancher near the area, had a herd that numbered less than two thousand. The percentages being quoted in the *Times* and the *Fortnightly Review* must have been based

³⁹ Ibid.

⁴⁰ Editorial, *Times* [London], April 6, 1880, 4.

⁴¹ Grohman, “Cattle Ranches,” 446.

on mortality rates from ranches in a different bioregion, based on winter mortality rates from small operations, or just made up. The inaccuracies in the reporting, especially as it pertained to the work involved, the lack of infrastructure required, and cattle mortality rates became integral to the root causes of the cattle disaster throughout the 1880s. However, at the time, to the prospective investor, the ranching industry in Texas seemed like a sure thing.

This “phenomenon is an interesting example of how a windfall period was exploited by the lucky forerunners, whose success led to consolidation in large corporate bodies.”⁴² There were several ways for British investors to put their money into Texas. The most common method in the 1880s was the mortgage company. Investors from Great Britain were,

...frequently directors, even managing director and chairman, as well as large shareholders of many of the joint-stock ranching ventures in the American West. It took some of the very same qualities to be in ranching as in the mortgage business—and the Scots in particular were possessed with the romantic, speculative adventurousness, crossed with the mentality of a chartered accountant, which brought them—and their English brethren—to Texas in the first place.⁴³

The first large scale joint-stock venture backed by British Capital in Texas was The Prairie Cattle Co. Ltd. It was founded in 1880 and based out of Edinburgh. The cattle boom was such that by 1882 that investment had paid dividends of 19½ per cent, followed by a payment of 28 per cent in 1883.⁴⁴ The returns from this investment were well publicized and helped fuel the fire for investment in other ranches. The investment

⁴² Richard Graham, “The Investment Boom in British-Texan Cattle Companies 1880-1885,” *The Business History Review* 34, (1960): 421.

⁴³ W. G. Kerr, “Scotland and the Texas Mortgage Business,” *The Economic History Review New Series* 16 (1963): 91.

⁴⁴ *Ibid.*

craze was short lived and came to a sour end in the late 1880s, but in the early part of the decade the amount of money that was reported to be earned was seductive to investors.

Due to the investment situation that was created cattle were being introduced at an alarming rate, a condition that could not be sustained. Furthermore, from the perspective of ranchers and investors there was a fundamental disconnection between what the carrying capacity of the Texas Panhandle was believed to be and what it actually was. It is with the above hypothesis in mind that the Franklyn Land and Cattle Company, the Matador Cattle Company and the XIT Ranch will be examined. It was not necessarily greed, but ignorance of the natural capabilities of the bioregion that inspired the purchase of large numbers of cattle. These companies were not agricultural strip-miners, most invested for the long haul. Lastly, arid and semi-arid grazing systems, like the Texas Panhandle, are non-equilibrium areas where herbivore mortality was strongly influenced by bioregional weather and climate fluctuation and it was these factors, as much as overstocking, that caused the cattle disasters of the 1880s.

Chapter One: The Open Range

The Texas Panhandle was virtually unknown to Anglo-Americans until the 1870s when buffalo hunters moved into the region after the end of the Civil War. Buffalo hunting was all but over by the mid to late 1870s and the Native Americans had mostly been resettled onto reserves. After the bison were gone there was a great deal of unused grassland and to fill this void cattle were brought in when the area was opened up for ranching with a government offer of free land. The original herds were brought in as a response to this offer and they were followed by an ever increasing number of animals and ranchers. In 1876 Charles Goodnight drove a small herd of cattle into the Palo-Duro area of the Texas Panhandle, near modern day Amarillo.⁴⁵ The relatively small number of cattle Goodnight drove to northern Texas that year was part of the vanguard of what would become a booming cattle industry, with many operations having tens of thousands of animals and some with over one hundred thousand and almost all with millions of dollars invested.

In the Texas Panhandle the early 1880s was dominated by the logistical difficulties of establishing a successful cattle ranch. At this time the Texas Panhandle was still part of the unsettled west. There were few railroad lines and fewer people. The reports from the *Times* emphasized the potential for high returns on an investment, but they did not consider what problems would be faced by those who dared to set up a ranch. The early years of the Matador Cattle Company and the Francklyn Land and Cattle Company reflect their lack of understanding with respect to the bioregion.

⁴⁵ David J. Murrh, *C.C. Slaughter Rancher, Banker, Baptist* (Austin: University of Texas Press, 1981), 35.

In 1878 Henry “Hank” Campbell, a North Carolinian by birth, took the small herd of cattle he had acquired over the previous few years to Chicago and sold them for \$23.00 per head.⁴⁶ During his stay he was invited to a luncheon where he disclosed that he had paid \$9.00 per head and had made a profit of \$14.00 on each animal sold. Colonel Alfred Markham Britton, a man of considerable means, was one of the hosts of the luncheon who was particularly impressed by Campbell’s profits and Campbell’s knowledge of both the range and the industry as a whole. Campbell met with Britton later during that trip and they struck a deal whereby Campbell was to secure land and cattle in Texas. With a pocket full of money Campbell traveled home and acquired substantial acreage between the Brazos and Red rivers (Figure 1.) just south of the Panhandle and Charles Goodnight’s range.⁴⁷

⁴⁶ William Martin Pearce, “A History of the Matador Land and Cattle Company, Limited, From 1882 to 1915” (PhD diss., University of Texas, 1952), 9.

⁴⁷ Ibid.

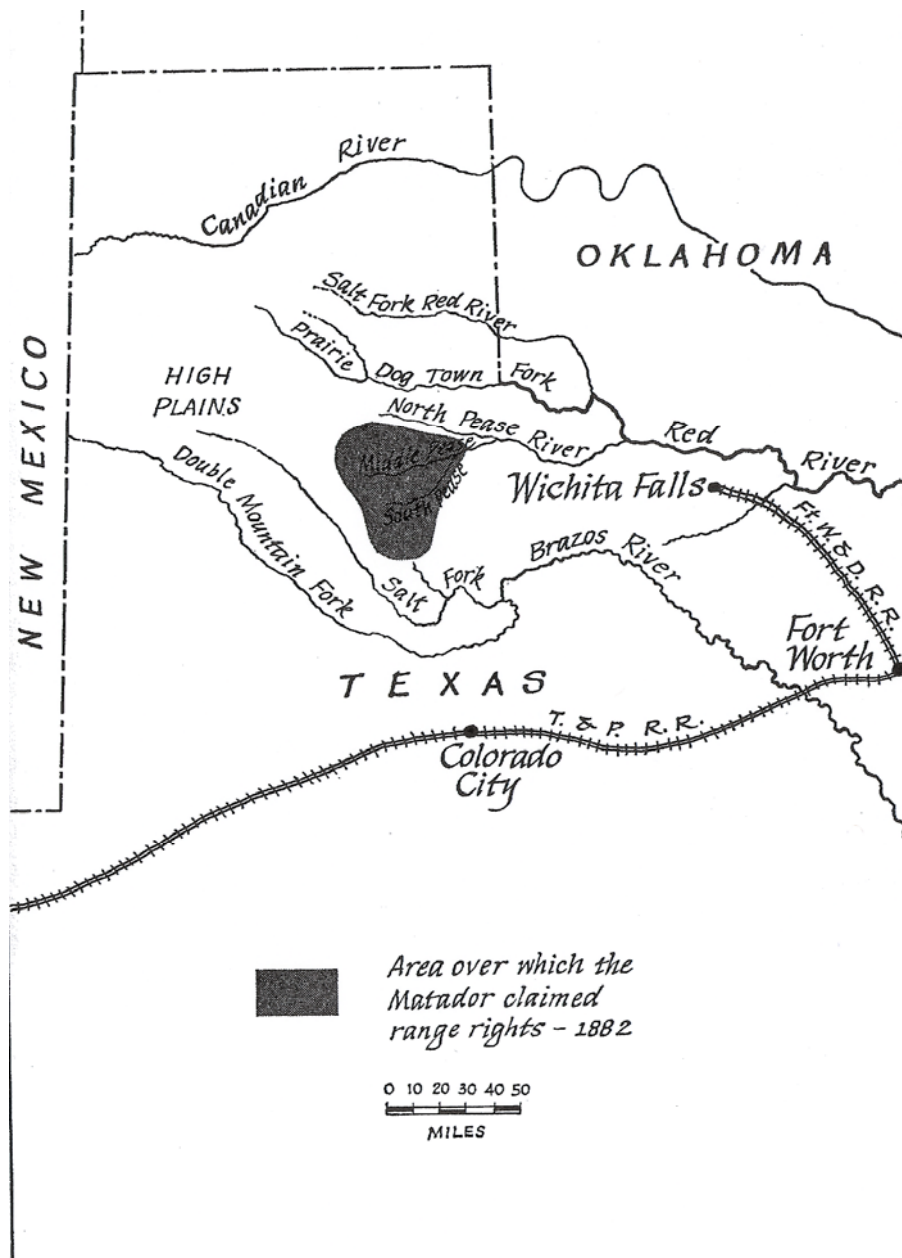


Figure 1.
 The Matador Land and Cattle Co. Source: W.M. Pearce, *The Matador Land and Cattle Company* (Norman: University of Oklahoma Press, 1964), 23.

The result of this investment in land was that in 1879 the Matador Cattle Company was legally and formally established.

Campbell had acquired 160 acres of land at Ballard Springs in Motley County, Texas.⁴⁸ The land was considered ideal for the grazing of cattle,

Physiologically the area was characterized by a series of ridges and plains featuring rolling grasslands and broken eroded hills. The prairie lands were covered by buffalo and grama, while triple-awn, blue stem and other bunch grasses prevailed in the gullies and on mesquite savannas. On the canyon floors cotton wood, hack-berry, willow, wild china and plum were present. With natural shelter, live water and vegetation, the region was ideal for cattle raising. Furthermore, the grass was free.⁴⁹

Later that same year the Matador acquired its first herd of cattle numbering 1,300 from John Dawson. The cattle were branded with a “V” on the right side. This symbol would become synonymous with the Matador ranch as it absorbed other brands on its way to becoming one of the largest operations in Texas.⁵⁰

Under Hank Campbell’s guidance the Matador Cattle Company swelled its herds by absorbing the brands of other ranchers and always securing the “range rights”⁵¹ of the sellers. This strategy allowed the Matador herds to swell to about 40,000 head by 1882. The herds were reported to be grazing on 100,000 acres of grass held in fee and on over a million more acres over which the Matador held “range privileges”. With all of this favorable news in the ledgers, Colonel Britton traveled across the Atlantic to England in 1882 with the express purpose of securing investment in the Matador Cattle Company.

⁴⁸ Ibid., 127.

⁴⁹ Ibid.

⁵⁰ Pearce, “A History of the Matador” (PhD diss., 1952), 10.

⁵¹ In the absence of actual landowners and since “statutory laws and the means for their enforcement were remote,” a body of custom was established among ranchmen to maintain order. “Ranch privileges” were established by occupation and were in effect as long as the range was utilized. It was generally accepted that the rancher controlling a stream or one of its banks held “range rights” on all land extending away from the stream to the “divide” separating his stream from the adjacent watershed. Efforts were made to keep cattle within their range by patrolling, since no fences had yet been erected and cattle are indifferent to man made boundaries. Cattle who strayed were “drifted” by cowboys back to their home range, an event that occurred almost daily. Twice yearly a round-up was held to separate cattle and mark calves. At a designated spot all the cattle in an area were rounded up with each branded animal being separated. Calves will usually follow their mothers and were thus separated. This process, theoretically, returned all animals who had strayed within a given area, back to their rightful owners.

Fortunately for Britton British investors were keen on putting money into the American cattle industry during this time due, in large part, to the spectacular returns that had been reported by British financiers who had already invested in the range cattle industry. As an additional incentive, in 1880, the first large-scale British joint-stock venture in Texas, The Prairie Meat Co. Ltd., was formed. Two years after its inception and the same year that Colonel Britton traveled to England to secure investment, that operation had paid a dividend of 19.5%.⁵² Colonel Britton's timing could not have been better. Before the end of 1882 a group of businessmen from Dundee, Scotland formed a joint-stock company, issued a provisional prospectus contemplating a capitalization of £300,000 and requested that Thomas Lawson, originally from Dundee but living in Missouri, inspect the range. The Prospectus in 1882 was favorable, it stated:

The Rancho [sic] seems to me to be quite capable of carrying at least 80,000 Cattle (or double its present stock) and graze them well...It has abundant supply of water, convenient for grass, and ample shelter for stock in hard weather; is at an elevation where nights are cool, and Cattle can rest; latitude where winters are comparably safe. If bought at fair value and managed judiciously, it will give excellent and rapidly increasing returns, and will in a few years become a very valuable property. It is, without a doubt, taking into account its large size, one of the best watered, sheltered, and healthiest Ranches in Texas.⁵³

The above prospectus was, like the quotations from the *Times*, misleading with respect to the carrying capacity of the range, although not in the same way. Thomas Lawson was not a resident of the area, he was from Missouri. The year and time of year of his inspection is also important when considering how this bioregion was misunderstood. The early 1880s were comparatively mild, especially when considering what the next few winters had in store for the Matador ranch. Thomas Lawson could not have known when

⁵² W. G. Kerr, "Scotland and the Texas Mortgage Business," 93.

⁵³ Prospectus, The Matador Land and Cattle Company, Ltd. 1882, quoted in Pearce, "A History of the Matador" (PhD diss., 1952), 1.

he wrote that “winters were comparably safe” that it would be the cold that killed thousands of cattle over the next few years. Ironically, the winter of 1880-81 was quite harsh, but Lawson only visited during the later summer and his Prospectus reflects this by completely ignoring the dangers of winter. The Prospectus indicates that from the outset of the Matador ranch there was a fundamental misunderstanding of the carrying capacity of the range.

The investment syndicate released an additional £400,000 and sold 40,000 shares in the company for £10 each. In 1882 the syndicate agreed to purchase the entire Texas range for \$1,250,000. This investment was finalized on December 23 of that year. According to the agreement for the organization of the Matador Land and Cattle Co.:

Henry Campbell remained as resident ranch superintendent, Britton became one of six directors of the company and served as “Manager” with an office in Fort Worth until 1885 when his connection with the company was severed; William F. Sommerville, a scot, went to Fort Worth as assistant manager. In the United Kingdom, the British Linen Company served as bankers...; James Robertson, Chartered Accountant, was the auditor, and Alexander Mackay, through whose office in Dundee the business of the company was conducted, was named secretary.⁵⁴

The allocation of capital to the Matador Land and Cattle Company meant that they now had the financial where-with-all to purchase the numbers of animals suggested by their Prospectus and plunge headlong into disaster.

One of the difficulties in setting up a ranch in Texas with a head office in Scotland was communication. It was crucial for the directors to play an important role in the running of the ranch, especially as it pertained to large purchases. The board met at least once a week and often more than that. The expectation was that they would receive weekly correspondence from the ranch superintendent Henry “Hank” Campbell. This

⁵⁴ W. M. Pearce, “The Matador Ranch: Range Operations from Texas to Canada” *Journal of Range Management* 15 (1962): 127.

correspondence was expected to be seen by Britton and pass through the secretary Alexander Mackay. In essence, the board would receive news regarding the condition of the herd, the weather, livestock prices, important purchases and expenditures every week and they would have the final word regarding all large purchases or sales of livestock or land.⁵⁵ Campbell was used to running a ranch his way and not requesting approval from the board for every purchase of either stock or land over five hundred dollars. The personal correspondence between Campbell and the board indicates this struggle between an independent rancher and his employers in Scotland. In 1883 Campbell purchased two hundred and fifty bulls without consent. In a letter from Alexander Mackay to William Sommerville the board indicated their displeasure,

Mr. Campbell entered into this contract evidently for the best interests of the company, but he did so apparently under some misapprehension. The board have already indicated that no important purchase can be made unless by the common agreement of the Manager and the Superintendent. The orderly conduct of the Company's business requires that this rule be strictly observed.⁵⁶

Later in the spring of 1884 Campbell bought another thirty-four bulls and the company's policy was reiterated directly to him, unlike before when that responsibility was left to Mr. Sommerville. The company wrote to Campbell: "The Board feel the necessity of again stating that they cannot, under any circumstances, sanction another purchase made in this way...our business must be carried on under certain principals, and all officers must conform to these."⁵⁷ These missteps and the resulting letters indicate the difficulty in setting up and running a large scale operation with a board of directors across an ocean. While it is understandable that the board would want to have knowledge and

⁵⁵ Ibid.

⁵⁶ Alexander Mackay to William Sommerville, letter, February 7, 1884, quoted in Pearce, "A History of the Matador" (PhD diss., 1952), 24.

⁵⁷ Alexander Mackay to Hank Campbell, letter, July 10, 1884, quoted in Pearce, "A History of the Matador" (PhD diss., 1952), 25.

approve all large purchases, it made reaction to quickly changing circumstances cumbersome and slow. The severe weather that was to come would require purchases of feed and building materials for necessary infrastructure. However, the need for approval would make it difficult to react in a speed that would save animals from freezing or starving in the field.

The year 1884 was an important one for the Matador Cattle Company for three reasons. First, Campbell was reprimanded for purchasing cattle without the consent of the board. After this year Campbell understood that any purchases, even ones that would save stock, would require approval. Second, it became apparent that the amount of land actually owned by the company was considerably less than had previously been reported. As stated before, the syndicate was under the impression that they controlled the range rights to 1.5 million acres. However, after consulting several maps, William Sommerville discovered that they were only in possession of 900,000 acres. The solution to this problem was for the Matador to aggressively acquire more land, even of marginal quality, and to purchase leases on both state and privately owned land.⁵⁸ Last, 1884 was an environmental turning point for the Texas Panhandle. The next few years would be dominated by drought and uncommonly severe winters.

The Francklyn Land and Cattle Company, like the Matador Cattle Company, can trace its origins back to the early 1880s. In 1882 Colonel B.B. Groom, a former Kentucky cattleman, leased 529,920 acres of land from the New York and Texas Company. These lands were in the counties of Carson, Gray, Hutchinson, and Roberts of the Texas Panhandle (Figure 2.). Later in that same year Groom conveyed all rights,

⁵⁸Pearce, "A History of the Matador" (PhD diss., 1952), 30.

titles and interest to Charles Francklyn, an investor from New York and London.⁵⁹ The result of this was that the company was organized with a capital stock of \$3,000,000, divided into 150,000 shares, with each individual share valued at \$20 and available for purchase. The Francklyn Land and Cattle Company, in much the same way as the Matador Land and Cattle Company, was now a cattle enterprise.

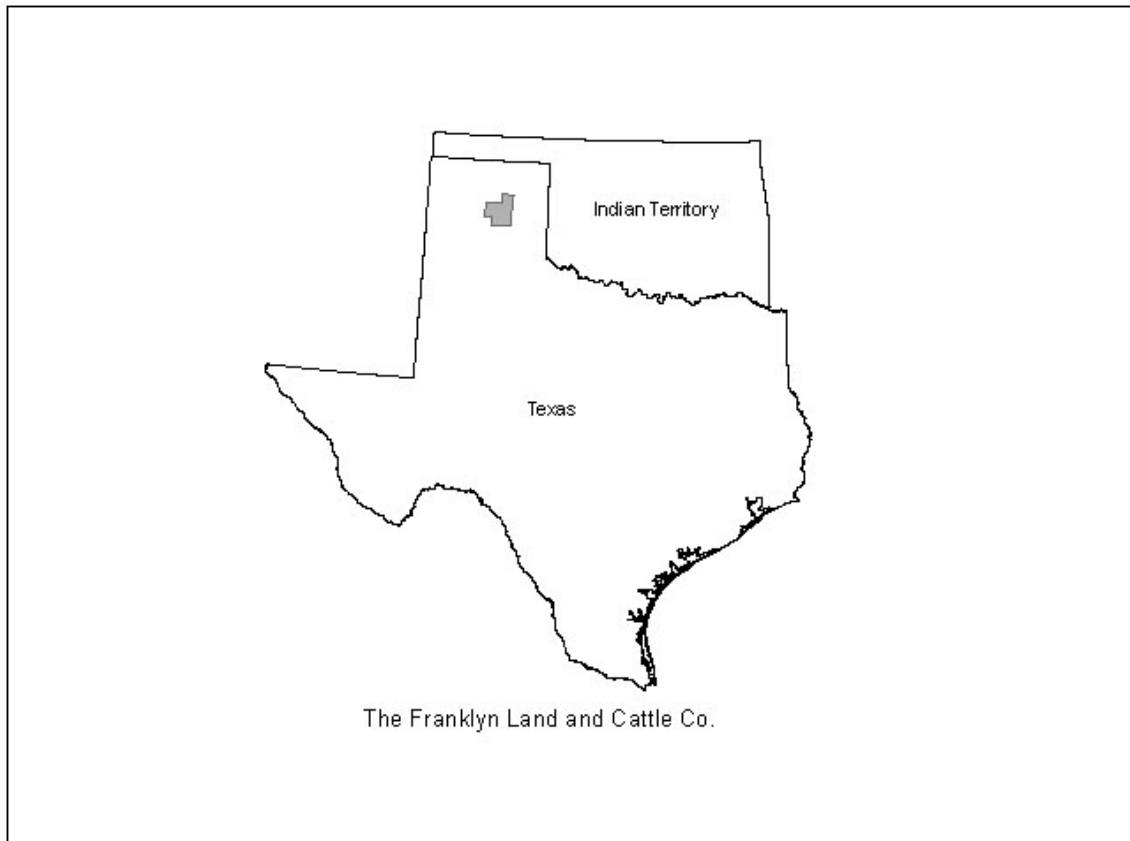


Figure 2.

Publications that preceded the creation of both ranches by a decade or more extolled the mild climate and could have therefore misled both Groom and Campbell. In 1874 the *Daily Sentinel Print* stated that “The climate is mild, even and pleasant; the air is...bracing. The winters are short, with but very little severe weather. In those portions of the country which are sheltered from the winds the severe weather is hardly

⁵⁹ Sheffy Lester Fields, *The Francklyn Land and Cattle Co. A Panhandle Enterprise 1882-1957* (San Antonio: University of Texas Press, 1963), 6.

felt...stock may be kept throughout the winter with little shelter.”⁶⁰ While this reference is specific to Wyoming it is a further indication that the bioregion was misrepresented in the literature of the time. This is similar to the misconception of the Matador’s Prospectus. In both cases the land was inspected during a mild spell and both companies felt that the carrying capacity of their ranges was higher than what was realistic. As a consequence of this misunderstanding the Francklyn Land and Cattle Company, much like the Matador ranch, acquired cattle in huge herds and placed them on their range.

Groom may have been unfamiliar with the Texas Panhandle as a bioregion, but, like Campbell, he was an experienced rancher. He knew that before large numbers of cattle could be bought and put onto his range he would have to erect many miles of fence. As Lester Fields explains, in Texas “...1883 saw the beginning of a transition from the old haphazard methods of handling cattle to more efficient and businesslike methods. Free grass and the open range were being replaced by fenced ranges and leased grasses. The Texas long-horns were on the way out, and pure-bred stock from the North and the East were being introduced rapidly into the Southwest.”⁶¹ There were difficulties in erecting many miles of fence, one of the more costly being the logistics of acquiring wire, posts, and men to do the work in a sparsely populated area. In a letter written from the White Deer range Groom elaborates on this problem,

...There will be hundred of miles of fence built in the Panhandle this fall...The country is filling up so fast that the demand will be so great in the Fall that it will be difficult to buy wire at any price...I am sure the wise thing to is to get our

⁶⁰ Editorial, “The Territory of Wyoming its History, Soil, Climate, Resources, etc.,” *Daily Sentinel Print*, December, 1874.

⁶¹Fields, *Franklyn Land and Cattle Co.*, 31.

fence built as soon as possible. I am anxious to get the fence done with so we will not be losing [sic] our grass...⁶²

In order to complete the fence B.B. Groom ordered 25,000 cedar posts to be left at the top of the Palo-Duro Canyon. In a July 25, 1882 letter dealing with this problem he wrote:

...soon found the supply of cedar is small and the demand very great and the main part suitable for post owned only by a few men, principally Goodnight & Adair on the south and H. Cresswell on the north, with Rowe & Co., Towers and Cudgell all wanting to fence their lands, and with a longstring to build from the Indian Territory to New Mexico to stop the drift of cattle from Kansas and Colorado...To have lost a day longer would have placed it out of our power to have fenced this Fall, and to have waited until Spring would have ruined our work next year.⁶³

Groom was able to purchase wire and staples at Dodge City, but now was faced with the arduous task of shipping them across the prairies where hands were few and far between. On July 20, 1882 he expressed his frustration with this difficult situation. In a lengthy letter he wrote, "I tried at Dodge City to engage the halling [sic] of our wire and failed to find anyone to do it. I came on Fort Supply and failed there also."⁶⁴ Time was pressing on Groom. Work in the Panhandle was considerably slower in the winter when it could progress at all. Furthermore, without their lands clearly marked by a fence, cattle from neighboring ranches were grazing on Francklyn Land and Cattle Co. grass. In the same letter he addressed this concern and the urgency of fence construction, "...We want to work like beavers until we get our range enclosed as to keep off the thousands of head now consuming our food...There are at least 10,000 head now grazing on us."⁶⁵ The hauling of fencing materials would be completed, albeit at both a greater cost than

⁶² B.B. Groom to Charles Francklyn, letter, September 30, 1882, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas, quoted in Fields, *The Francklyn Land and Cattle Co.*, 33.

⁶³ Fields, *The Franklyn Land and Cattle Co.*, 33.

⁶⁴ *Ibid.*, 34.

⁶⁵ *Ibid.*

estimated and piecemeal, which added an additional delay. It was not until October 11, 1882 that the freighting problem was resolved. In a letter written by the shipping company Wright & Beverly from Dodge City on behalf of Groom the delays were explained. The letter concluded with “Your wire is moving now and we hope there will be no further serious delay and that all required will be done in reasonable time.”⁶⁶ The difficulties in getting the materials and labor to construct a proper fence were not the end of the difficulties for the Francklyn Land and Cattle Co. There were other factors that span these years and extend into the period where the Francklyn Land and Cattle Co. stocked their range.

With the lands more or less fenced Groom was now charged with the task of purchasing stock. Groom made his first significant stock purchase from D.C. Cantwell. There were a total of 1,300 cattle, including sixteen imported shorthorns and “all the corn, millet, hay, plows, mowing machines, rake and harrow, ranch and house fixtures.” The price for all of this was \$26,500.⁶⁷ Groom then entrusted an old friend, R.B. Edmunson, of Lexington, Kentucky to purchase bulls for the ranch. On June 20, 1883 the acquisition of bulls was completed and Edmunson wrote Groom that “...between 1,000 and 1,100 head, and I think a very superior lot.”⁶⁸ Although this may seem like a large number of animals, considering the width and breadth of the Francklyn lands it was not. Charles Francklyn was in London during the winter and spring of 1883 so the responsibility of purchasing enough cattle to get the ranch running at full capacity fell on Groom’s shoulders. Groom was no stranger to the cattle industry and made extensive inquiries into purchasing a large herd for the Francklyn range. After making these he

⁶⁶ Ibid., 38.

⁶⁷ Ibid., 60.

⁶⁸ Ibid., 61.

found an ideal candidate in the Harrold and Ikard herds, located in Greer County, Texas. The extensive purchase included “an estimated 75,000 head of cattle of all ages, descriptions and brands, about 500 saddle horses, all wagons, harness, and branding equipment, together with lease and range rights, extending to 1885, on a 50 x 75 mile spread of fine grass lands in Greer County, Texas.”⁶⁹ The Harrold and Ikard herd were valued at \$1,500,000. Clearly a purchase of this magnitude was not a simple transaction. On March 26, 1883, after nine months of negotiating, planning and after close scrutiny of the animals, the Harrold and Ikard herd were found to be most satisfactory. “On March 27, 1883, Harrold and Ikard in consideration of the payment of \$150,000, signed and agreed to a contract by which they transferred control of the Greer properties to the Francklyn Land and Cattle Company.”⁷⁰ The Greer range was now the exclusive property of the Francklyn Land and Cattle Co. The final result of this momentous cattle purchase was that after only 2 short years the Francklyn Land and Cattle Company was now in control of nearly 80,000 head of mixed cattle, 75,000 of which were situated on the 50x75 mile Greer range.⁷¹

Now that his range was fenced and the acquisition of enough cattle to bring the ranch to full capacity was completed, Groom was once again faced with a matter of utmost importance and a logistical nightmare, water. Lands that are classified as semi-arid are not known for their abundance of lasting water, quite the opposite. The lack of water in this region, along with the unpredictable rainfall, is something that was ignored by British newspapers and not commented on by surveyors. Yet cattle require a great deal of water to survive and more to flourish. In a letter dated September 18, 1885 Groom

⁶⁹ Ibid., 63.

⁷⁰ Ibid., 71.

⁷¹ Ibid., 63.

wrote that: "...I notice many parts of the pasture away from the tanks that the grass is not touched..."⁷² Cattle, while grazing, display a noticeable trait where they favor lowland drainage ditches and moist slopes during the spring and summer.⁷³ This indicates that cattle tend to graze near to water when their grazing time is at its highest and they do not stray far from a lasting water source. This bovine idiosyncrasy was likely familiar to an experienced cattleman like Groom; however, Groom had, from the establishment of this ranch, a misconception of its carrying capacity. The Matador prospectus and the newspaper articles from the *Times* and *Fortnightly Review* all suggest that this environment was misunderstood and the lack of easily available water indicate this further. The difficulties that Groom had with maintaining enough water was a symptom of this disconnection between reality and perception. Had the land not been so highly praised in European publications or had Groom been more familiar with the Texas Panhandle he likely would have prepared infrastructure for holding and obtaining water. A more reliable solution was to find existing water by drilling, a technology that was new to the Panhandle, and costly. By November of 1882 Groom had already begun experimenting with boring wells. He wrote Brown to that effect stating:

I commenced sinking a well in the center of one of the broadest dry plains intending to go down 75 feet at a cost of \$1 per foot, but cold stopped the job, so the men said. I think it was the hard rock, called in this country the "Rim Rock" which underlies the top of the plains generally about 15 feet below the surface. After passing that, it is my opinion that there will be no difficulty. We will be compelled to sink a few wells, for to depend on drinking water from the standing water where so many cattle stand around is almost too rough for our people to

⁷² B.B. Groom to unknown, letter, September 18 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

⁷³ Charles Schwartz., "Feeding Ecology and Niche Separation in Some Native and Domestic Ungulates on the Short Grass Prairie," *The Journal of Applied Ecology*, 18 (1981): 343-353.

drink and cook with at camps that we are compelled to have at remote parts of the country.⁷⁴

Groom had decided to set up watering spots throughout the range, although this was far more easily said than done. The need for water required Groom to have work done quickly as it was the desire of all involved to have the ranch running at full capacity as soon as possible. Dams and dirt tanks needed to be built in order to catch and hold any rainwater that fell. On September 11, 1883 Groom wrote that “I am getting dirt moved at 20 cents per cubic yard...This is one of the best places to commence on as it has a fine bottom and holds water in shallow holes for a long time. Rath will begin in about two weeks on some lakes. I will try and get water in reach of every place.”⁷⁵ Collection of rainwater was not reliable as a single method for watering upwards of 80,000 head of cattle because rain was too unpredictable in the Panhandle. The Francklyn ranch was not the only cattle enterprise interested in drilling wells for a more reliable source of water. After Groom had discovered that this technology was successful at providing water Charles Goodnight asked Groom if he would be willing to drill wells on his range. In another letter Groom wrote that “...Now Goodnight wants a well bored very much at one of his line camps...”⁷⁶ It would seem from these letters that most ranches in the area had not considered the need for water prior to stocking their ranges. If the managers and investors in these ranches had had a better understanding of the lack of easily available water they would have planned ahead, as opposed to playing catch-up by drilling wells and hastily constructing tanks and dams. The successes of these wells indicate that

⁷⁴B.B. Groom to Charles Francklyn, letter, November 9, 1882, Francklyn Land and Cattle Co. Papers. Panhandle Plains Historical Museum and Archive, Canyon, quoted in Fields, *Franklyn Land and Cattle Co.*, 52.

⁷⁵ Fields, *Franklyn Land and Cattle Co.*, 51

⁷⁶ *Ibid.*, 53

Groom was ingenious but not that he was familiar with the bioregion as a whole. The lack of available water also indicated the variability of the climate and how that makes equilibrium between the bioregion and its fauna unlikely. If there was a state of equilibrium extending from the end of the bison period into the mid 1800s, the volume of water ought to have greatly exceeded the needs of the ranchers, as the number of bison greatly exceeded the number of cattle. The water requirements for cattle and bison are similar enough that it is reasonable to conclude that while the bison flourished there must have been a greater volume of water. The fact that the ranchers were required to drill for water is anecdotal evidence of the variability of this climate and that it was likely still changing. The volume of water, at this point in time, had decreased to the extent that only a fraction of the previous number of ungulates could survive without assistance. The problem had to be offset by technology, like wells, dams, and water tanks. In this example, the ranchers were able to increase the carrying capacity of their ranges through technology, something that became more prevalent through the ranching period. However, the ranchers had done nothing to offset the effects of the weather, a fact that was made clear in the winter of 1884-1885 and again in 1885-1886.

It is easy to see how the standard argument for the cattle disaster used by Richard White and others became popular. Also, why claims such as “With cattle raisers betting on limitless grass..., ranchers stocked the plains with more cattle than the land could support”⁷⁷ became the popular explanation to this disaster. However, the Matador Land and Cattle Company and the Francklyn Land and Cattle Company both misunderstood the bioregion where they were investing and the fluctuations that were possible in the Panhandle climate. It was because they had no idea what the actual carrying capacity

⁷⁷ White, *A New History*, 223.

was, only what they perceived it to be, that they put such a large number of animals onto their land. The ranches were stocked without an accurate understanding of the bioregion. A flawed understanding of any region more often than not leads to disaster and suffering for those involved, and the forthcoming disaster was no different.

Chapter Two: The Disaster

The disaster that befell the cattle industry has, from the perspective of historians, been blamed on the ranchers for overstocking their pastures. This thesis has taken a different tack by arguing that while overstocking was certainly an issue, it was a series of environmental events and an overarching misunderstanding of the bioregion that led to the overstocking and the near collapse. One of the contributors to the environmental misunderstanding has been identified as the literature from the 1870s and 1880s. Following this trend, in 1884, on the cusp of the disaster, a pamphlet was written by James S. Tait titled “The Cattle Fields of the Far West: Their Present and Future.” This pamphlet’s intended audience was prospective and current stock raisers from overseas and within the United States. One of the sections of this pamphlet was titled, “Groundless Fears of Overproduction.” Tait writes that:

The fear of overproduction disappears in the face of actual facts. According to the census of 1880 the cattle in the United States numbered 40 millions, with say 20 million males. The annual supply of steer or bullock meat from such a number, computed at 500 hundred pounds per animal, would be 2500 million pounds say, a little more than 41 pounds of beef per head of population in the United States now estimated at 60 millions. The yearly sale of old cows fattened for markets, might well swell the meat production to 50 pounds per inhabitant. That, however, is the maximum. While statistics inform us that the consumption of beef in the States is at least 100 pounds per head of the population. The unavoidable inference is that America is consuming the entire natural increase of her herds as well as steer beeves...In such circumstances there is little fear of over production, or a fall in prices.⁷⁸

Here, again, the literature at the time was informing both ranchers and investors that there was no need to fear overproductions. What this pamphlet and the other literature of the time ignored was the carrying capacity of the Great Plains. It seems to be assumed that

⁷⁸ James S. Tait, *The Cattle Fields of the far West: Their Present and Future* (Edinburgh: William Blackwood and Sons, 1884).

the environment had not changed and was still capable of supporting millions of grazers like it had during the bison period. The fear or lack there of, was all tied to economics; however, as 1884 progressed a drought and an uncommonly severe winter would prove Mr. Tait a very poor prophet.

What is significant from an environmental perspective is that these same years, 1883-1886, were dominated by severe weather. In a letter to Charles Francklyn, dated January 23, 1884 B.B. Groom wrote "...weather cold about an inch of snow...horses and cattle both suffering severely-this storm has lasted almost continuously since Dec 5th with snow on the ground most of the time."⁷⁹ The severe weather of 1883-1884 caused Groom to realize that the Texas Panhandle was not the most ideal environment for cattle. In these few years Groom and Campbell learned that there was more to keeping cattle in semi-arid northern Texas than they and the rest of the investors had previously believed. In a letter from May, 1885 Groom outlined the crops that he had had sown for the winter. These included, "197 acres of oats...350 acres of millet partly sown, and sowing more...50 acres of Johnson Grass part sown...10 acres of corn planted...25 acres of sorgam planted...25 acres of Beans, Potatoes Cabbages Onions etc...25 acres of Cotton Wood and other Tree seeds..."⁸⁰ It is curious that Groom was growing crops in order to maintain his herds for the winter when thirty years previously the bison required no such assistance, a situation that mirrored the need for water. Cattle and bison can exact similar dietary requirements from the same bioregion, but only a few decades after the bison period Groom was forced to subsidize his herd's diet when their numbers were a fraction

⁷⁹ B.B. Groom to Charles Francklyn, letter, January 23, 1884, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

⁸⁰ B.B. Groom to Unknown, letter, May, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

of what the bison numbers were. Furthermore, when cattle are grazing on forbs they are more selective relative to bison.⁸¹ In a bioregion that was changing they were less able to effectively graze when the grasses were inconsistent due to fluctuating weather and climate. Ranchers in the Panhandle were forced to supply both water and food to maintain cattle at numbers much lower than the bison at their apex. This further indicates that the Panhandle, in and of itself, had decreased in carrying capacity and could no longer naturally support large herds of ungulates without technological assistance and additional feed.

The inventory for cattle for the Francklyn range as of 1884-85 was a total of 76,629 head, comprised of 25,375 cows, 5,980 2 year old heifers, 7,997 1 year old heifers, 10,150 heifer calves, 2000 3-4 and 5 year old steers, 2,980 2 year old steers, 7,997 1 year old steers, 10,150 steer calves, and 4,000 bulls.⁸² While 76,629 head of cattle may not seem to be a very large number, in December the weather turned severe and the ground was frozen further limiting an already limited bioregion. On the same day the cattle inventory was published B.B. Groom wrote a letter to Charles Franklyn outlining the weather conditions on their range. "It is still intensely cold here, and my trip has been exceedingly uncomfortable the wind has blown continuously for a week-we had three days of sleet one fair and now again we are in the third day of another, with constant northerns."⁸³ With such harsh weather conditions the cattle required additional food to survive. Consequently on January 9, 1885 Harry Groom wrote that,

⁸¹ Damhoureyeh and Hartnett, "Effects of Bison and Cattle", 1719.

⁸² Cattle Inventory Sheet, January 1, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

The winter has been such as to cause me to use much more food than expected. I only feed to save life and not attempt to fatten any stock, just pull them through to grass...I will use all economy possible to not loose [sic] stock-the hay which I put up thinking I have gone almost to far and put up to [sic] much is being used up very rapidly and another such month as Dec will find us without a spur of it left for horses or Bulls.⁸⁴

Unfortunately for the Franklyn Land and Cattle Co. and the other cattle ranches on the panhandle the weather did not improve. On January 18, 1885 Harry Groom wrote to Charles Franklyn stating that “Hay we must have from this time forward no use talking all ranchers will lose cattle enough to pay for many tons of hay: this and keeping the Bulls from the cows...I have never seen so much snow it is said to be heavier than 80/81 by those that were here then.”⁸⁵ Had Thomas Lawson, the author of the Matador prospectus, stayed for the 1880-81 winter he may have better prepared the investors for the possibility of severe weather on the Panhandle. January proved to be a steep learning curve for cattle ranchers on the Texas Panhandle. Preparations taken by Groom where he felt he was erring on the side of caution were in fact inadequate.

By February the weather had warmed and the Francklyn Land and Cattle Co. was assessing their winter losses. On the February 22 it was reported that: “...up to this time our loss is about 300 head...The loss is in cows calving late and in late calves.”⁸⁶ While this may not seem significant those calves represented the next generation of cattle for the Franklyn ranch and a significant investment in time and money. In the same letter the

⁸³B.B. Groom to Charles Francklyn, letter January 1, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

⁸⁴ Harry Groom to Charles Francklyn, letter, January 9, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

⁸⁵ Harry Groom to Charles Francklyn, letter, January 18, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

⁸⁶Unknown to Frank G. Brown, letter, February 22, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

course of action decided upon to prevent this from happening the following winter was to “...put all the Bulls up so as to have no calves come in 86 before April 15th and I think September 15th is late enough for any to calve. This will save many cattle.”⁸⁷ This recommendation reinforces the argument that it was ignorance and not greed that led to cattle dying in the Panhandle. If the cattlemen who worked the Francklyn range knew that calving late was dangerous because of severe weather they would not have allowed the animals to breed late in the year. Furthermore, it was not only the Francklyn range that lost cattle. A letter written in September, 1885 from a cattle sale in Ogalalla Nebraska states that:

The losses north of this have always been larger than I have ever supposed but the past winter has been simply terrific. William Paxton of the Swan Land and Cattle co told me that of the Sheedy herd sold to him for 32,000 they had only gathered 12,000 and did not expect to gather over 1,000 more. Faut turned loose with the Legalalla 16,000 head of good steers, they have gathered 3,000 and do not expect to get 1,000 more but the same range as Stephens and Lytle have turned their own loose on and proposed to put out one brand of 1,600 steers were turned in and they quit with less than 500. I have not met a single business man here that does not figure a loss of 25 per cent.⁸⁸

The Matador was not immune to these variations in the weather. The annual report for the Matador ranch through the 1884 season, written by William Sommerville, illustrates the Matador’s ongoing environmental problems. In November of 1885 he wrote:

There was a good deal of rain in October and November, 1884, but notwithstanding this, the cattle went into the winter in fair condition with a good supply of ripe grass. Winter set in with unusual severity in December and hard frosts following heavy rains did considerable injury to grass over the whole range country. Losses at this time were very few, if any, however. In January the weather was again cold and boisterous and losses were reported from some sections. Till the middle of February losses were unimportant. Then the long

⁸⁷ B.B. Groom to Charles Francklyn, letter, September 3, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

⁸⁸ William Sommerville to Alexander McKay, letter, November 25, 1885, quoted in Pearce, “A History of the Matador” (PhD diss., 1952).

continued cold and rains began to tell among the overstocked ranges and in March the greatest losses occurred. About the middle of February there commenced a series of “northers” lasting from 15 to 18 days with hardly any intermission and this was the immediate cause of heavy mortality; for cattle were already weak: on overstocked ranges grass was short and cattle in poor condition and they could no longer hold out.⁸⁹

Sommerville had stated that the ranges were overstocked but it seems to be in relation to the lack of available grass. Letters like this are part of what created the original, narrow story that the ranchers had overstocked their ranges. What the original explanation failed to address was climactic fluctuation. In relation to the Panhandle’s cattle industry as a whole, the Francklyn and the Matador both suffered a significant blow to the future of their herds, yet still were fortunate. The Francklyn lost comparably few animals and the Matador was still able to report a six per-cent dividend for 1885.⁹⁰ The primary documents from the Francklyn Land and Cattle Co. relating to this event indicate that they were ignorant of the variation and harshness of the panhandle climate. These same documents also suggest that the Panhandle had changed in its capability to naturally support significant sized herds of grazers. Within a relatively short time-span the volume of surface water had decreased along with rainfall and consequently, grass quality and quantity had also declined. This created an overall diminished carrying capacity and indicates that semi-arid bioregions, like the Texas Panhandle, do not exist in a state of equilibrium with large grazers. Climate variations can directly and significantly affect the resources that large grazers require to survive on the open range. Large ungulates, like cattle and bison, exist at the mercy of the climate.

⁸⁹ William Sommerville to Alexander Mackay, letter, November 25, 1885, quoted in Pearce, “A History of the Matador,” (PhD diss., 1952), 27.

⁹⁰ Pearce, “The Matador Ranch”, 128.

It is naïve to assume that Groom, Campbell, and the other ranchers would have had a full grasp of the panhandle climate, especially the winters. They had all come from other, warmer parts of the country where a prolonged cold spell was not an event that left hundreds of cattle dead in the field. They were motivated by the desire to make a profit; no business is started without such desire. But, what seems unlikely is that this desire was the reason for their mismanagement with respect to the bioregion. Climactic fluctuation was not a new phenomenon in Texas it has been variable for thousands of years. What seems probable is that the bioregion had been changing during the bison period and this led to a variable overall carrying capacity, yet this change was unreported and unknown to ranchers and investors. The early years of the Francklyn Land and Cattle Co. and the Matador Land and Cattle Co. share a common theme with many other examples of environmental history.* Groom and Campbell, like many well intentioned people who work within a specific bioregion, had a misconception of the area's natural capabilities and carrying capacity. This is largely due to the fact that they had been misinformed by their own surveyors and by the media. While ignorance of the environment is not a defense for the disaster, it does explain how such capable ranchers could have made so many errors in such a short period of time.

The year 1885-86 was another costly learning experience for the Matador and the Francklyn ranches. They had discovered that the Texas Panhandle was not the sort of bioregion where cattle could be put out into the fields and left alone until they were cut

*A contemporary example of this was the creation of an artificial reef in Florida using discarded car tires in the 1970s. The whole of Florida was behind this endeavor and private citizens donated and dropped tires from their own boats. As time went on this proved to be an ecological disaster and did far more harm than good. It was not the intention of the people to harm the ocean but such was the result because they fundamentally did not understand the ocean ecosystem.

later in the year. On March 11, 1885 H. T. Groom related the events from the previous winter.

...the climate has changed, I notice it so does everyone here-Today we have had fine warm springy showers, a thing almost unknown in March in this country-as a grazing country this is playing out as an agricultural it is getting to be fine, in fact is already fine I think all ranchmen will be compelled to put up sheds and feed their cattle, much who had cattle on crowded ranges have lost heavily this winter all through cattle have died most entirely-in the North along the Palo Duro they are dying now rapidly-from the Rift Pitts to the Beaver.⁹¹

It is interesting that Groom stated that the climate had changed, commented on the need for infrastructure, and mentioned that the ranges would make excellent agricultural land but also commented on the problems with raising cattle. These facts were anecdotally obvious because the ranchers were struggling to maintain a fraction of the number of cattle on the same land that had supported many more bison thirty years previously. It seems the full extent of these changes was being realized by the ranchers. By 1886 it had become apparent through the environmental stresses experienced by these ranches that the climate had changed and had likely been changing for quite some time. As far as the ranchers were concerned, when they moved their cattle into the Panhandle during the early 1880s, it still had the carrying capacity to support many thousands, if not millions of cattle. However, by 1886, if not prior to that year, the bioregion had changed, and rapidly changed at that.

In the spring of 1885 the questions for the Francklyn Land and Cattle Co. and the Matador were: how do we prevent this sort of disaster from happening again? And, are there any precautions we can take to combat the weather and climate? These questions were all the more pressing because by 1885 the Francklyn and the Matador were too

⁹¹ H.T. Groom to Frank Brown, letter, March 11, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

heavily invested to leave. The response to the adversity of the previous winter was to try and make things work. This is another recurring theme in environmental history. A changing climate does not mean that the people suffering through it can pick up and leave often the case is exactly the opposite. It is how people respond to a changing environment that is fundamental to understanding the past generally and environmental history specifically.

The spring of 1885 was not off to a promising start. In April, 1885, B.B. Groom wrote a letter to Frank Brown outlining the environmental issues already plaguing the Francklyn Land and Cattle Co. "...existing drouth in Greer which is becoming now quite serious in the sequence of which horses are lame and cattle also making the use of both quite difficult-So that in order to do the heavy work before us we are compelled to buy about one hundred and forty horses ..."⁹² Drought conditions were similar on the Matador range. Although there was no official correspondence relating the specifics of the drought, the Matador's profits were too small at £8,824, to report a dividend for the year 1886.⁹³ The same drought that was making the horses and cattle weak also left them more susceptible to disease. In the same letter B.B. Groom informs Brown that this has indeed become a problem, not just on the Francklyn Range, but all over the Panhandle:

The Southern horses that were thrown amongst ours by Taylor & Kimberly had itch and gave it to ours and spite of constant effort to cure it our losses were heavy and those that escaped are very much reduced and feeble the loss all over the country has been very large. Mr Goodnight The Espenola the Matador and Curtis & R.T Runison lost the greater part of theirs & the demand for such as are fit to cut cattle on is heavy.⁹⁴

⁹² B.B Groom to Frank Brown, letter, April 18, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

⁹³ Pearce, *The Matador Land and Cattle Company*, 56.

⁹⁴ *Ibid.*

The Texas Panhandle is a semi-arid bioregion. Its carrying capacity is intrinsically linked to the weather, more so than other bioregions where the weather and precipitation are more consistent. The qualities of the naturally occurring grasses are entirely dependent on moisture and in that spring moisture was not plentiful. In the journal *Rangelands* Wayne Cook et al. comment on this problem,

Drought conditions of two or more years are serious because the health of both plants and animals is affected. First, because vigor of plants is affected by the dry conditions, and second, because lowered production of the plants brings on overuse of the plant tissue as a result of animals grazing closer in order to subsist. Thus, drought, coupled with heavy grazing, causes range deterioration that may be long lasting.⁹⁵

These difficulties notwithstanding, neither the Matador nor the Francklyn were willing to give up and move on. However, in a letter to Frank Brown, Groom explains that it would be foolish to proceed with the same strategy as the previous year.

There will be an entire change in the handling of cattle throughout the country [in the handling of Cattle]-by preparing some feed to meet such severe weather as the past-there was plenty of grass but it remained green so late that it was frozen in fact every living thing went into dirt when the thaw came and...simply left nothing until it could grow. I am satisfied our true policy is to settle down and live in our pasture.⁹⁶

Groom acknowledged that the environment of the Panhandle dictated how they would operate their ranch, as opposed to the ranch operating as it wished without any concern for the bioregion as a whole.

The Matador ranch did not embark on the same improvements as the Francklyn Land and Cattle Co. in 1885. Instead, the Matador waited until the summer of 1886 to begin building cattle pens, windmills and water dams. The Matador was, however,

⁹⁵ Wayne Cook and Edward Redente, "Development of the Ranching Industry in Colorado," *Rangelands* 15 (1993): 205

⁹⁶ B.B. Groom to Frank Brown, letter, 1885, The Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

affected by the severe weather of that winter and was forced to write off 8,500 head as losses for that year.⁹⁷ This is indicated by the fact that they did not have a dividend for 1886, much like the other ranches in the area. The story of the Matador, like the story of many of the ranches in the Texas Panhandle, is one of resilience. Their response to the environment and their ultimate success emerges again in the following chapter, beginning, appropriately enough, with a drought in the summer of 1886.

In April of 1885 the Francklyn Land and Cattle Co. was beginning to make the changes they felt would make them a profitable ranch and would protect them from another disastrous winter. The method that the company had decided upon was to remain in a single pasture with a smaller number of cattle and see if that would insulate them from the weather. It was believed that a smaller number of cattle would be possible to feed should the weather turn foul as it had the previous winter. Frank Brown wrote on April 21, 1885 to B.B. Groom asking him to undertake the measures that would make this transition possible. "...We must get all the cattle on the White deer range as soon as possible...and sell off the surplus cattle. We cannot go on as we have been doing any longer..."⁹⁸ The fact that they had decided to sell off the surplus cattle makes the overstocking argument problematic. First, to claim the range had been intentionally overstocked⁹⁹ presupposes that Groom had a precise knowledge of the carrying capacity of the Panhandle and then intentionally exceeded it to increase profits. Second, in the wake of the disaster of 1885, the Francklyn administrators had realized that they were better off with fewer cattle and working within the confines of the natural carrying capacity, now

⁹⁷ Pearce, "A History of the Matador" (PhD diss., 1952), 51.

⁹⁸ Frank Brown to B.B. Groom, letter, April 21 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon Texas.

⁹⁹Hine and Faragher, *The American West*, 325.

that they had a limited understanding of it, rather than with more cattle and exceeding it. Last, they were willing to sell off some of their cattle in order to ensure the long term viability of their ranch. While this last factor is hardly altruistic, it shows that they were interested in making money in the long term, as opposed to a 'strip mining' approach to ranching. These three actions by the Francklyn ranch indicated that the disaster of the previous year was not solely anthropogenic. It also indicated that they were following a flawed ranching strategy. The ranchers were not the root cause of the food shortages and they certainly did not drive the weather. Rather, this disastrous year was greatly influenced by a changed and changing environment, coupled with several years of bad weather.

During April and May of that year the Francklyn range was working on its new strategy for operating within an environment that was not as suitable as they had believed three years earlier. In a letter from Mobeetie Texas, sent to Frank Brown, Groom wrote, "The wind mills are boss-they do nicely if I only had now some large reservoir tanks 20ft bottom and 2 ½ ft high so cattle could drink out of them."¹⁰⁰ The Francklyn range was also invested in growing enough food to last the cattle through the winter. This was now a common precaution as the haphazard ranching style where stock was blindly put out to pasture was becoming financially foolhardy and repugnant to those who did not want to own animals they could not shelter and feed through the winter.

In the summer months water and feed were still the chief concerns for the Francklyn ranch; this was almost identical to their earlier problems outlined in April. The summer months and the dry conditions that prevailed through them further indicate

¹⁰⁰ H.T. Groom to Frank Brown, letter, April 3, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

that the environment was a significant driver of human agency in the bioregion. The climactic fluctuations, in this case drought, had limited the options of the ranchers and forced them to either adapt to the bioregion or lose more of their cattle through the winter.

There were a great many items that ranchers could not produce in sufficient amounts, but were required in order to make the improvements necessary to prevent, or at least lessen, the effects of another drought and severe winter. In 1885 freighting was the most common method of transporting goods through the Panhandle as rail heads were virtually non-existent; but, freighting was slow and costly. Moving goods by freight was, simply, transporting by wagon pulled by horses or oxen. In a June 1st letter to Charles Francklyn, H.T. Groom outlined what he had purchased in order to maintain the herds. This included "...corn, oats, supplies, wind mill fixtures, iron for troughs for holding water etc."¹⁰¹ The need for a reliable water source had also prompted the ranches to erect a dam across the Red Deer River. In the same letter H.T. Groom related the engineering behind this structure. "...he is putting up a small dam on Red Deer now about 2000 yards of dirt in it..."¹⁰² Groom also wrote that the lakes created would be of use "...unless it becomes very warm and dry and evaporates the water now in the lakes."¹⁰³ Groom was no longer confident in the ranch's ability to overcome the weather. He had been sanguine the previous year when they were laying aside feed, but that proved to be a disaster when he discovered he had not put aside enough and he suffered costly losses. The fact that he added the caveat about the weather suggests that, although the ranchers

¹⁰¹ H.T. Groom to Charles Francklyn, letter, June 1, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

¹⁰² Ibid.

¹⁰³ Ibid.

were using technology to increase the carrying capacity of their range, they were still at the mercy of the weather.

The weather of these few years was variable with both cold winters and hot, dry summers. By the end of July the ranch workers were complaining about their diet of only bacon. If the workers were to slaughter a calf or yearling, as they would normally do, the meat would go rotten and the animal wasted due to the intense heat. H.T. Groom wrote: "...the weather is so hot the meat spoils-this hot weather men complain of bacon all the time and want fresh meat."¹⁰⁴ A hot summer in Texas made life difficult for grazers. The grass suffered for want of water and animals were not able to put on weight. As a consequence, cattle were weak and more susceptible to disease and foul weather. Furthermore, cattle congregate around a consistent water source ignoring good grass that is too far distant. The health and especially the weight of the cattle were paramount to the success of a ranch in 1885. Although there was some fencing and attempts to feed stock through the winter, ranching at this time, in this bioregion, was still dependent on the open range. Wintering cattle was "nothing less than slow starvation; a test of stored flesh and vitality against the hard storms until grass comes again."¹⁰⁵ The summer months were vital to the ability of the cattle to survive the winter and during the summer of 1885 the weather was not ideal for quality grass cover. The cattle industry, which was considered a sure investment in the early 1880s, had become a gamble "with the trump cards in the hands of the elements."¹⁰⁶

¹⁰⁴ H.T. Groom to Mr. Van Pelt, letter, July 31, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

¹⁰⁵ Osgood, *The Day of the Cattleman*, 216.

¹⁰⁶ *Ibid.*, 216.

The autumn of 1885 was the backdrop for a series of events that would lead to a monumental number of cattle deaths the following winter. The deaths of the previous winter were clearly at the forefront of the preparations being made by the Francklyn ranch. They were aware that it was the condition of their cattle combined with the cold and snow that caused losses the previous winter. The majority of the casualties of Francklyn cattle were in calves and suckling cows, both of which were fundamental to the long term viability of their enterprise and were the most vulnerable to extremes in weather. Writing to Charles Francklyn on September 5, 1885 H.T. Groom outlined what preparations he was making and those that he would like to make in order to prevent another tragedy: "...let them calve all the year, but in winter shelter young calves or suckling cows...without shelter or feed both cow and calf will likely die."¹⁰⁷ Not only had the Francklyn ranchers learned from the previous year's missteps, they were actively trying to improve the carrying capacity of their range by building shelter for their most vulnerable stock. In the same lengthy letter Groom explained how he would manage with a carrying capacity that was clearly not as high as they had suspected when the Francklyn Ranch was established.

From what I can see Johnson Grass is the hay grass for us at present-the price on the plains is very fine-sowed about June 1st it is shoulder high to a man-some thick it will yield 20 bus...if it does half this it will produce 400 bushels worth. 5.00 per bushel enough to seed 400 acres 400 acres will furnish hay for 1000 cows and calves. Which I can utilize by giving through the herd and taking out thin cows and calves that would not pull through on grass alone, putting them under shelter with plenty of Johnson Grass Hay: This takes time but I'm sure this is the thing to do as it will make our business much safer for to fill the pasture

¹⁰⁷ H.T. Groom to Charles Francklyn, letter, September 5, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

with no supply on hand like this and have a hard winter follow would cause us a loss of cattle. I will utilize our teams in breaking all the sod we can this winter but from now until cold weather I would use the time in fixing shelter.¹⁰⁸

A diminished carrying capacity was determined from the losses of the previous year. There was still a fundamental misunderstanding of what the carrying capacity of the Panhandle was in 1885, although the ranchers were much better informed than they had been in 1882. What they did know was that their ranges could not naturally support all of their cattle and that they would have to actively improve upon their range to maintain the viability of their ranch. The operators of the Francklyn ranch knew that the bioregion had changed and that their strategy must also change if they wanted to stay solvent. Furthermore, the ranchers were attempting to use technology, such as cattle pens and wind mills, to offset environmental extremes, like severe winters and drought.

By the middle of September, the need for water tanks throughout the range was the new concern for H.T. Groom. He wrote that "...we should have more such as Nayside [sic] and Mild Horse, they are needed in many places between the larger ones."¹⁰⁹ Without a consistent water source the cattle would not do well through the winter, even if the weather was mild. In the same letter Groom noticed something about the behavior of the imported eastern cattle that would become a serious problem that winter, "I notice many parts of the pasture away from the tanks that the grass is not touched..."¹¹⁰ What Groom had observed was a bovine idiosyncrasy specific to imported, tame cattle from the eastern states. These cattle were superior to the semi-wild cattle of the Panhandle in terms of meat production, but they did have their drawbacks for

¹⁰⁸ Ibid.

¹⁰⁹ H.T. Groom to Charles Francklyn, letter, September 18, 1885, Francklyn Land and Cattle Co. Papers, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

¹¹⁰ Ibid.

the open range. First, as observed above, they did not venture far from a water source, likely due to years of domestication. The second and most serious problem was, “These eastern pilgrims exhibited a dangerous tendency to stand about the haystack in the winter, waiting to be fed, instead of rustling as did the native stock.”¹¹¹ The previous two quotations help explain the behavioral causes of cattle deaths throughout the Great Plains during that winter.

The commensurate blow to the cattle industry on the panhandle came at the end of autumn. The deaths of the previous year indicated that pastures were at or even past their limit to naturally support ungulates through the winter. The need to artificially increase the carrying capacity by growing feed, digging wells, and making plans for structures was now more important than ever. However, late in the fall of 1885,

...the crowded ranges of western Kansas, Colorado, and the Panhandle were burdened still further by a flood of cattle arriving late in the season from Indian Territory. The proclamation of President Cleveland, August 23, 1885, had ordered the cattleman [sic] to remove their herds from the Cheyenne-Arapahoe reservation, where they had operated under leases, made a few years previous. Over 200,000 head were, by this edict, forced upon the overcrowded ranges, just when the area was about to experience one of the severest winters in its history.¹¹²

The stage for a disaster of historic proportions was now fully set. First, the spring had been wet early, which had killed the grass. Second, there was a drought through the bulk of the summer, complete with grass fires that destroyed much of the grass cover making it difficult to fatten stock to a level where they could survive the winter. Third, the habits of the ‘pilgrim’ cattle from the east made them ill prepared to survive a severe winter on the range. Last, 200,000 cattle flooded out of Indian Territory to further burden the natural carrying capacity making it difficult to keep the cattle alive through the winter

¹¹¹ Osgood, *The Day of the Cattleman*, 217.

¹¹² *Ibid.*, 217.

and get them to grass in the spring. If there was ever a case of survival of the fittest it was on the Texas Panhandle during the winter of 1885-1886.

A wide-spread severe cold snap, followed by a blizzard, occurred that winter. Each event lasted for several days with sub-zero temperatures and driving wind. Although there are discrepancies between the precise timing and precise location in the plains of these events, all sources agree they were devastating. On January 15, 1886, in the *Galveston Daily News* it was explained that:

...reports from the ranges are to the effect that the cold weather has been particularly severe on the cattle interest. In the Cherokee Nation, where the greater part of the stock range is centered, the loss is heavy, nearly every stockman losing a number of cattle. The McClellan Cattle company has lost many head of cattle, as have also the member of the Cherokee livestock association. In the Choctaw and Chickasaw Nations the loss has also been great. Cattle have wandered for miles, and in many instances have been stopped by wire fencing, remaining there until frozen to death. The streams have all been frozen over for many days, and want of water and food, together with the bitter cold, have combined to cause the death of a large number of cattle and horses. Altogether, the cold snap has been most disastrous to stock-raising interests in the Indian Territory.¹¹³

The Francklyn Land and Cattle Co., with part of their range adjacent to the Indian Territory, suffered as well. The Harrold and Ikard purchase in 1883 included a 50 by 75 mile spread of grass in Greer County, which was part of Oklahoma in 1883 but would later become part of Texas. Before Greer County was passed between Oklahoma and Texas it was part of Indian Territory. While a cold snap may not have the 'event' status of a blizzard or drought it was no less significant. Keeping cattle on the open range was a test of their strength against the weather. Ranches had grown feed for these events but getting feed to all of the animals was a logistical nightmare as the Francklyn ranch had about 55,000 cattle at this time. Cold to this extent was rare in the Panhandle. The last

¹¹³ Editorial, *The Galveston Daily News*, January 15, 1886.

time the winters were severe was in 1880-1881 before the Francklyn and most of the ranges were established. For the most part the ranchers had no idea what damage a prolonged cold spell could cause, or that a cold snap this severe could happen. Consequently, like the previous year, they were underprepared for what nature could throw at them.

On February 8, the same Galveston newspaper reported a grim story for cattle ranchers.

Judge G.A. Brown, of Clarendon, arrived here to-day, and reports the loses of cattle in the Panhandle as very large, and not confined to through cattle, except in the Canadian country, where the grass was nearly all burned last fall, and in consequence the losses among them are as large as among the through cattle. He says they drifted against the drift fence south of the river, and-died there in great numbers. These drift fences, as a rule, are on top of the plains, and the cattle once getting there, will not face the storm to reach shelter which is north of them. They crowd together against the fence, until the weaker ones lie down and are trampled to death. It is impossible to estimate the losses in numbers, as it will take a more thorough canvass of the country to determine.¹¹⁴

The temporal proximity of the two events paints a grim picture for that winter in the Panhandle. Especially interesting is the fact that the cattle drifted to the fence and the weaker animals lay down and were trampled by the stronger. This was the result of a mediocre spring and summer where the cattle could not fatten on grass alone and were rendered vulnerable to weather extremes. The last opportunity for the animals to gain weight, the autumn, was the time when the additional animals moved in from the Indian Territory creating added competition for limited resources. The winter of 1885-1886 did not loosen its grip on the Panhandle until late in the spring. A newspaper report from April 16, 1886 outlines the final blow to an already weakened industry. From the *Galveston Daily News*,

¹¹⁴ Editorial, *The Galveston Daily News*, February 8, 1886, Issue 290.

The late cold weather has had a disastrous effect on many of the ranches in Northern New Mexico, and in Colorado the snow fell to a depth of five inches, and cattle have died in large numbers. The bad condition of the cattle had much to do with the losses. They had been left poor and unhealthy by the severe winter, and were too weak to move about and quickly succumbed to the blizzard. The scarcity of grass also added to the losses. Persons arriving over the Santa Fe railroad state that in some locations in Northern New Mexico dead stock were lying by the dozens along the track. It is believed that the cold has also caused heavy losses in the Texas Pan-handle.¹¹⁵

The effect of these devastating events was such that by the spring "...of 1886 the cattlemen in these regions found the carcasses of 85 per cent or more of their herds in the ravines or piled up along the drift fences."¹¹⁶

The primary evidence of this event indicates that overstocking was not the whole story.¹¹⁷ The ranchers were learning how to operate in a bioregion that they fundamentally misunderstood. The damage to the grass was caused primarily by drought. The cattle deaths were caused by the animals not gaining weight through the summer and freezing to death during an uncommonly severe winter. The early years of these ranches were a transition period where they learned how to operate. Any missteps, and clearly there were many, can be attributed to them being unfamiliar with the Texas Panhandle. While the ranchers were adapting quickly there was a great deal of infrastructure that was required that could not be erected overnight. Crowding was due to poor grass coverage after years of drought and 200,000 cattle being taken off of illegally leased land at a very inopportune time and driven into the Panhandle, Kansas and Colorado. Lastly, the imported animals were unsuited to survival through a difficult winter. This disaster could only have been avoided if the ranchers were not actually in the Panhandle. The cattle

¹¹⁵ Editorial, *The Galveston Daily News*, April 16, 1886, Issue 356.

¹¹⁶ Osgood, *The Day of the Cattleman*, 217.

¹¹⁷ Hine and Faragher, *The American West*, 325.

disaster over these few years was a complicated event but primarily seems to be environmental.

After years of difficulty for the Franklyn Land and Cattle Company the Board of Directors (including Charles Francklyn) were looking for a scapegoat and H.T. and B.B. Groom were the obvious choices. From 1887 until into the 1890s the primary documents from the Francklyn are littered with accusations, legal notices, and counter accusations. Ultimately, the Grooms were accused of embezzling money and left the ranch. As a consequence, the Francklyn Land and Cattle Company can no longer be used as a case study for this historical question. The primary documents from the XIT Ranch and the Matador Land and Cattle Company will form the backbone of the remainder of this study.

Chapter Three: The Recovery and the Establishment of the XIT

The final chapter of this thesis narrates the ingenious use of water technology, agriculture, fencing and land that revived this industry from its near catastrophic losses to one of immense profitability. The story of recovery begins with the establishment of the XIT ranch along the Texas/New Mexico border (Figure 3.) and its ranching strategy. This model allowed the XIT, the largest ranch in Texas history, to be profitable while other ranches were struggling.

In Texas, even in the 1800s, everything was done on a grand scale. As a consequence, when it came to constructing their capitol building in Austin, Texans wanted something bigger and better than any other state in the Union, something that would even rival Washington D.C. The problem was money. The economically minded grangers who ran the Texas Senate were reluctant to use public money or increase taxes. The lack of readily available funds did not diminish their ambitions. The solution to this problem was obvious: pay with land.

By the treaty which brought Texas into the Union and other settlements of the next decade the state retained her public lands, so that in the period following the Civil War Texas still had millions of acres to dispose of. Since so much of that land was in the semiarid section known as the Panhandle and was not likely to attract individual buyers within the immediate future, the state liked to grant the land in that area to encourage railroad building or similar projects. To the state government the land was so much dirt and grass, isolated beyond the fringe of civilization. On the other hand, money was hard to come by. The logic therefore was irresistible: contract to have the capitol built, but pay for it with land, which is plentiful and virtually worthless, instead of with money, which is scarce and dear.¹¹⁸

¹¹⁸ Cordia Sloan Duke and Joe B. Franz, *6,000 Miles of Fence Life on the XIT Ranch of Texas* (Austin: University of Texas Press, 1961), 4.

In 1882 the Texas legislature appropriated three million acres of land in the Texas Panhandle. This land would be awarded to whoever agreed to construct a suitable capitol building. The notice of this opportunity went out all across the United States and abroad; however, when the deadline passed, only two prospective investors remained. Perhaps the lack of interest was due to the fact that three million acres of land is too large to conceive of, even to land-obsessed Americans of the time. Nevertheless, a group of businessmen and politicians from Chicago took the deal and became the owners of what would become the largest fenced ranch existing at the time. The Capitol Syndicate (as it was known) “consisted of John V. Farwell...Charles B. Farwell...who had supported Lincoln for president...Amos Babcock, another prominent Republican office maker; and Abner Taylor, politically inclined but better known perhaps as the chief contractor in rebuilding Chicago after its Great Fire a decade earlier.”¹¹⁹ It is somewhat curious that a group of politicians and businessmen, none of whom had a ranching background, would end up operating a three million acre ranch. This is especially curious as not one of the members of the Capitol Syndicate had laid eyes on even one of the three million acres they now owned and this land was miles away from the nearest railhead and just as far from the nearest settlement. The answer to this curiosity would become apparent when the Capitol Syndicate devised their plans for the ranch and more importantly, the land.

The four members of the syndicate were planning on ranching, but unlike the other ranches in the area, they did not intend a single use for their land. The plan was to ranch only as long as the land could not be used for other purposes, especially agriculture. In the long term they had planned to subdivide and make their operation into a land selling syndicate and get out of the ranching industry altogether. The only

¹¹⁹ Ibid.

problem was that not one of the four, or anyone for that matter, knew when the Texas Panhandle was going to be settled.¹²⁰ For the time being, the XIT needed to become an operational and profitable ranch. The goal of becoming a land selling syndicate would come to fruition eventually; however, when “eventually” actually occurred was anyone’s guess.

Before the Syndicate was to make a move in any direction regarding their three million acres they felt it wise to have one of their members go out and have a look at what it was they had just bought. To that end, Amos Babcock traveled south to inspect the land. Babcock, like the other members of the Syndicate, was from Chicago and not familiar with either Texas or ranching and when he set out he had “prepared for his invasion of outlandish Texas like a man setting forth on a journey to another planet.”¹²¹

¹²⁰ Ibid., 5

¹²¹ Lewis Nordyke, *Cattle Empire*, (New York: Arno Press Company 1949), 32.

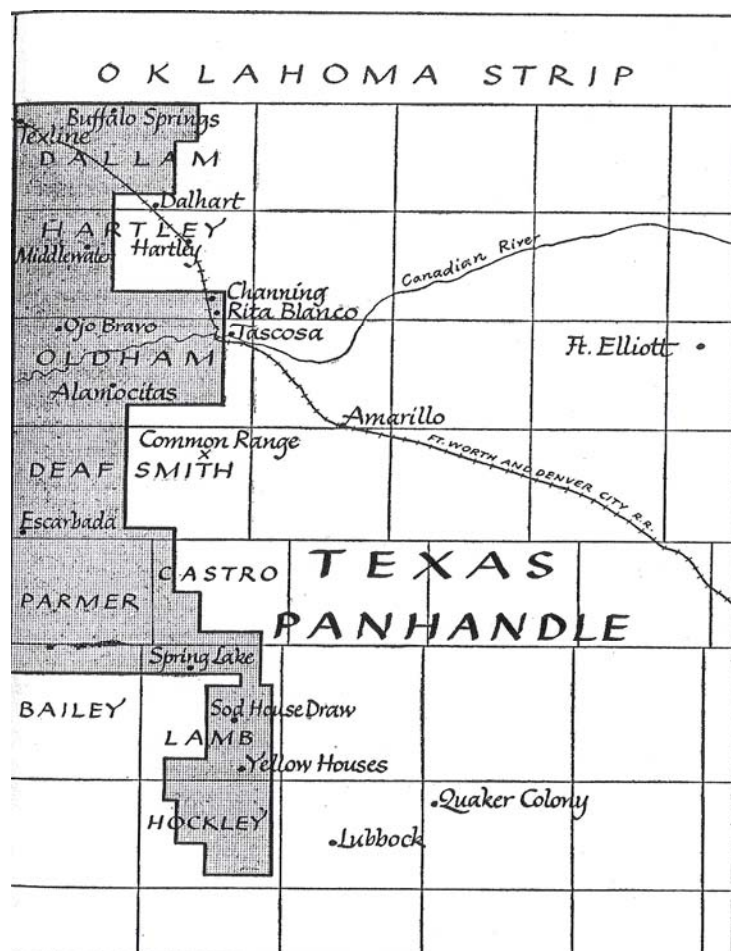


Figure 3.
The XIT Ranch Territory. Source: Lewis Nordyke, *Cattle Empire* (New York: Arno Press Company 1949), 35.

On March 7, 1882 Amos Babcock boarded the train for Dodge city, Kansas. He arrived in the city before the round-up so it was relatively quiet, although he did see the cattle pens, saloons and other sources of amusement that would be busy as soon as the city was flooded with cowhands. From Kansas Babcock hired a stage coach and traveled through part of that state, what is now the Oklahoma Panhandle, and part of Northern Texas to arrive at Fort Elliot which was established at Mobeetie, Texas. From Fort Elliot he

was outfitted with a four-mule ambulance, complete with medical supplies, tables, chairs, and a Sibley heating stove. The second four-mule wagon was fitted out to haul supplies, including the food trove, other luggage, water kegs and feed for the

mules...In addition Babcock borrowed a large four walled tent, a cot, blankets and full line of camping equipment. Many an expedition against warring Indians had gone out with less impedimenta than Babcock had at his disposal.¹²²

His caravan was then to convey him to Tascosa. On his way he travelled through lands that were already being used for ranching, including the LX ranch founded in 1876 and several smaller operations. The scenery also included millions of bison bones left behind after the end of the hide hunts. Here, much like H.T. Groom before him, Babcock could see evidence that at one time these lands were ideal for grazers. During his tour of the lands Babcock noticed that there were small herds of cattle and sheep grazing at various locations along the route. He understood this to be proof that his lands were good pasturage for both cattle and sheep. When Babcock's caravan arrived at Buffalo Springs in Dallam County, the northernmost County in the Texas Panhandle, it was as though they had entered another part of the country. Buffalo Springs was one of the few truly well watered places on the Panhandle and the quality of the grass was some of the best in Texas. The condition of Buffalo Springs was likely misleading. It was not possible for Babcock to survey the entire range and seeing this area, which was atypical of the entire three million acres, very likely skewed his impression of the entire area. This misconception, among others, very likely tempered his forthcoming report on the long term capabilities of the range.

From the green, well watered Buffalo Springs the caravan headed south toward the Canadian River. The prevalent geography throughout Babcock's tour was "a region of high, level plains, with occasional sandy areas. There were several streams and seeping lakes...Rough country was encountered near the river...there were deep cuts,

¹²² Ibid., 33.

box canyons, and rocky knolls.”¹²³ Furthermore, at this time of the year the Canadian River had dried until it was just a trickle and was more of a danger from quicksand than a sustainable source of water. Oddly enough the condition of the Canadian River was not a concern to Babcock and never made it into his report. The expedition continued south toward the village of Estacado. In this village, near present day Lubbock, Babcock asked C. W. Singer, the town’s postmaster and Dr. W. M. Hunt, the town physician, to write down their impressions of the land and its potential. Singer’s report was brief and not overly informative. Dr. Hunt, however, was enthusiastic and his boosterish letter is worth quoting in its entirety here.

In answer to your question as to the fertility of the soil of the Staked Plains of Texas, I will give you my knowledge of the facts briefly. I visited the Colony in August and September, 1880. The first crop ever planted on the plains was then growing and maturing. All planted on sod, broken the winter previous. The season was favorable, having had plenty of rain; corn, oats, millet, broom corn, sorghum, all did well. I never saw a better sod crop in all my ten years’ observation in Kansas; and larger and nicer melons, cushaws and pumpkins I never saw anywhere. Irish potatoes did moderately well, sweet potatoes were excellent. All garden vegetables did well to their chance, being planted in sod. I arrived here on the 15th of June last (1881). The season was not favorable; corn light, fall wheat, spring oats, millet, sorghum, rice corn, broom corn, melons, sweet potatoes all made fair crops, where they had a fair chance. Irish potatoes and garden vegetables, were generally nearly a failure, on account of drought and bugs. So I am prepared to make the following statements: First, the fertility of the soil and its capability to produce all kinds of grains and vegetables is established beyond doubt. Second, the rich grazing quality of the grass is also beyond question. Cattle, sheep and horses live through the winter without other feed, and get very fat in the summer. Wet seasons the surface lakes furnish abundant water for stocks. Dry seasons it is only found in the canyons and deep lakes; water is found here in abundance, from fifty to eighty feet. Further west (toward the Capitol Land) they do not have to dig so deep. What I say of portion of the plains is true of all, as they are nearly uniform in quality. The climate is above the malarial line and is very healthy.¹²⁴

¹²³ Ibid., 44.

¹²⁴ Ibid., 49.

The town of Estacado was the end of the tour for Babcock. From there he packed his letters and food and headed for Colorado City to catch the Texas and Pacific Railroad back to Chicago.

When Amos Babcock returned to Chicago he was expected to give a report to the other members of the Capitol Syndicate. Much like the Prospectus for the Matador's board of directors written the same year, Babcock's report was positive and did not mention the environment at all, except that it was ideal. The report that Babcock gave to the Farwell brothers and Abner Taylor indicated the possibility for running a profitable ranch was very real:

In arriving at the following estimate, two per cent, of the total of each grade of the stock is deducted each year, before carrying the amount forward or estimating the increase. Experience in loose herding in the Pan Handle of Texas teaches that the loss on steer cattle two years old and upwards is but a small fraction of one per cent. The greatest loss is in old cows and calves. No allowance is made for increase from two year old heifers, which in that climate average forty to fifty percent. The increase is estimated at ninety per cent. Three year old heifers are carried forward with the cows. Many ranchmen claim that it costs not to exceed fifty cents per head for large herds of located cattle per year for running expenses. It is evident that the expenses will be materially reduced by fencing. The following estimate is on a basis of one dollar per head. Interest is allowed on the principal from date of purchase at the rate of five per cent., and is credited for the amount of proceeds of sale each year. Twenty dollars per head is allowed for original purchase. Twenty-seven dollars and fifty cents per head is estimated for fat steers sold yearly, price realized before advance in cattle, the present average price on ranches in the Pan Handle being thirty-five dollars. The stock on hand at close of the five years estimated at twenty dollars per head. It will appear from the following conservative estimate that the \$3,000,000 gain in five years \$4,561,031, or an equivalent of a fraction over thirty per cent, per annum.¹²⁵

Babcock's tour and subsequent report explains a lot when considering the amount of misinformation that permeated the ranching industry in the Texas Panhandle. He did not see the entire plains, but was assured that they were uniform, so seeing one part was as

¹²⁵ Report of A.C. Babcock, 1882, quoted in Nordyke, *Cattle Empire*, 55.

good as seeing them all. This, of course, was not true. He saw small groups of cattle grazing along the way and inferred from this small sample that his range would have the carrying capacity to support thousands of cattle. This belief was reinforced by the number of bison bones that littered his range. Without any knowledge of how the bioregion had changed it is easy to understand why he assumed cattle would flourish. If millions of bison had done so it stood to reason that a similar number of cattle could have survived as well. The number of bison that existed thirty years before the ranching industry exploded onto the Panhandle was the germ from which a great deal of misconceptions grew and Amos Babcock was no exception to this. Lastly, he was informed by Dr. Hunt that animals do not need feed or shelter through the winter, something that was not true and would become a costly mistake for both the Franklyn and Matador ranches two years later. Unsurprisingly, Amos Babcock left his tour of the XIT lands with the highest possible hopes for the land's potential and absolutely no idea of what the reality of the bioregion actually was.

Amos Babcock's glowing report notwithstanding, John Farwell was cautious about launching headlong into a ranch. His hesitation would be a blessing a few years later. John Farwell felt that the best use of the land was agriculture and as a consequence he was more inclined to wait with regard to starting a ranch. The problem for Babcock and Taylor was, unlike the Farwell brothers, they could not afford to sit on their shares without making a profit. This economic issue forced Amos Babcock to persuade both Farwell brothers that ranching was a viable interim enterprise and that if they proceeded slowly they could have both a successful ranch and a successful land selling syndicate. In order to convince the Farwell brothers that ranching was a good idea Babcock

presented the plan as if the Syndicate was testing the land for its agricultural potential.¹²⁶ In order to do this he suggested that they test the range for water, a common sense idea. Babcock's misdirection was one of the most important factors that would help the XIT be a successful ranch. The lack of available water on the Panhandle was a serious issue for every rancher in the area. Without knowing it Babcock would set the groundwork for establishing a water network that would help ease this problem two years before the first XIT herd was purchased. He then suggested that if they started a comparably small ranch at Buffalo Springs they could further prove that their land was valuable for agriculture.¹²⁷ Farwell's weakness for an agricultural venture was successfully exploited and in the spring of 1883 he authorized Babcock to begin testing for water and to fence five hundred thousand acres; however, the fencing project would take several additional years. The reluctance of the XIT owners differentiated them from the rest of the ranchers in the Panhandle. This afforded them the time to improve their range, keep their herds at a manageable size, and thereby avoid the environmental disasters that nearly crippled the Francklyn and the Matador. The primary documents suggest that the XIT ranch (or what would eventually come to be called the XIT ranch) owners did not have a better understanding of the bioregion than the owners of the Matador and the Francklyn. The difference was that they were developing their ranching strategy while the environmental disasters were occurring and were not affected by them. Thus, they were able to plan how they wanted their land used and build infrastructure to facilitate its intended usage. In short, they had the time to improve their range, especially with respect to water and fencing, before a single blade of grass was eaten.

¹²⁶Nordyke, *Cattle Empire*, 62.

¹²⁷ Ibid.

In 1884 an acquaintance of the Capitol Syndicate named B. H. “Barbeque” Campbell contacted them about the possibility of starting his own ranch in the Panhandle.¹²⁸ The response of Abner Taylor was to invite Campbell to Chicago to discuss setting up the Capitol Syndicate’s ranch at Buffalo Springs. Campbell is an important figure in the success of the XIT and its ability to avoid the disasters that plagued other ranches in the area. He had a vast amount of experience in the ranching industry, was a breeder of European cattle in America, and he had followed the industry in Texas closely for several years. Although Campbell saw a great deal of potential in the XIT ranch he, like Farwell, was cautious about expanding too quickly. Campbell knew that a working water system would make or break a cattle empire. The price of cattle was down in 1884 but Campbell still felt that 20,000 animals were enough to make a solid beginning and that many more animals than that would be unnecessarily risky. Barbeque Campbell purchased the XIT’s first herd of cattle in 1884, paying fifteen dollars for two year olds and eleven dollars for one-year-old heifers.¹²⁹ In the same year the XIT embarked on an ambitious fencing project contracting to fence in 500,000 acres. The newly purchased animals were delivered to Buffalo Springs in the spring of 1885 officially beginning the XIT as a cattle operation, although the XIT brand did not yet exist. This purchase was comparably small when compared to the initial purchases of the Matador and the Francklyn Land and Cattle Co. The Francklyn’s initial purchase was 75,000 cattle and the Matador’s herd had swelled to over 40,000 by 1884. Barbeque Campbell was taking things slowly with the XIT and had made sure that they could handle the number of cattle they owned before buying additional stock.

¹²⁸ Ibid., 64.

¹²⁹ XIT purchasing records, 1884-1885, The XIT Collection, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

The price of cattle had been decimated by an overly glutted market due to several ranches attempting to liquidate their holdings after the winter deaths and disastrous drought that summer. Campbell, because of this decrease in price, could have gotten the deal of a lifetime. However, he seemed to understand that buying many cattle would only be a good investment were he able to fatten them for at least two years and then sell them at a significant profit. That year Barbeque Campbell erred on the side of caution and likely saved the XIT a great deal of money.

During the spring of 1885 there was considerable activity at Buffalo Springs. Most importantly they were building corrals, boring for water, and at the behest of John Farwell, planting a garden. Events in Austin however would begin to affect the running of the ranch. Abner Taylor, who was in charge of constructing the Capitol building in Austin, had had his project increased in complexity and expense. The construction project had faced numerous set-backs and political problems from its outset, but the reality of that project in 1885 would prove to be a turning point for the XIT as a ranch. By the time the cornerstone was laid on March 2, 1885, the building had cost just fewer than two million dollars, which was half a million more than was the estimated cost for the completed project. Furthermore, the cattle and improvements to the land had cost dearly and another drop in cattle prices had devalued the herd just purchased. In short, the value of the land would have to be dramatically increased in order for the Capitol Syndicate to meet their obligation to the Texas Government for the Capitol Building. The only option available was to get their ranch up and profitable as soon as possible. This event would force John Farwell to reassess his attitude with regard to starting a

working ranch. Farwell agreed to operate a ranch but only as long as the land could not be sold to immigrants.

The hypothesis for this thesis has been that ranchers misunderstood the bioregion. As a consequence, they stocked their ranges without a concern for winter, feed, shelter, or the possibility that they could actually overstock. With pamphlets titled, “Groundless Fears of Overproduction” this belief is hardly surprising. In 1885 the XIT was forced by financial necessity to fully enter the ranching industry. However, there were three key differences between the XIT and the other ranches of a similar size in the Texas Panhandle. First, the XIT had already fenced and made improvements on a large enough area to run a successful operation safely. Second, even though they were being forced to enter the industry, they were doing so after 1885. This meant that any cattle they purchased would be at a deflated price. Lastly, they were able to see the environmental and logistical problems on other ranches and address them in a timely manner. In a sense they were able to act on what they knew were problems instead of reacting to disasters. Babcock’s report showed no more awareness of the carrying capacity of their range than their neighbors. This ignorance is clear from the similarities between Babcock’s report, the Matador’s Prospectus and the disconnection of both from the reality of the bioregion. However, the XIT was quick to notice the problems of other ranchers and it was passionate about improving the quality of its property. Perhaps most importantly, it was cautious about buying too many cattle too soon, at least initially. While this does not indicate a greater environmental awareness of the Great Plains on the behalf of the XIT owners, it did engender a workable ranching strategy that allowed the XIT expand while other ranches were contracting.

Creating a ranch of this size was too large an undertaking for even the well-heeled Capitol Syndicate so in true Texas ranching fashion John Farwell went to England to secure investment in the XIT. Luckily for him this was still one year before the cattle industry in Texas declined even further. As it was, investors in Great Britain had not yet soured on the idea of the range cattle industry in America. Essentially Farwell wanted to establish a British company so that he could borrow money to build the capitol building in Austin and at the same time run the XIT ranch at a profit. The British believed that immense profits were still a sure thing in Texas and Farwell easily established the Capitol Freehold Land and Investment Company, Ltd., worth \$15,000,000.¹³⁰

With a secure line of funds in place the establishment of a working, profitable ranch was the next step for the directors of the XIT. In the early days of the Texas cattle industry a cowboy's job was to monitor cattle and he was rarely out of his saddle. On the XIT however, the cowboys were expected to do all sorts of jobs, many of which did not require a saddle, a horse, or a single cow. Campbell was dedicated to improving the land at Buffalo Springs and one of the first improvements he decided upon was water. Campbell and the surveyor Mabry had decided to move water by gravity in Buffalo Springs and cowboys were given the honor of digging a ditch. The ditch, actually a canal when it was finished, was over nine miles long.¹³¹ The following task Campbell set for his men was to dig a well. After being sent out with picks and shovels the XIT cowboys discovered water eighty-five feet down. The well was then bricked all the way down and the first of many XIT wind-mills was erected.¹³² Because Campbell traveled the range so frequently he understood that while Buffalo Springs was well-watered the rest of the

¹³⁰ Duke and Franz, *6,000 Miles of Fence*, 4.

¹³¹ Nordyke, *Cattle Empire*, 88.

¹³² *Ibid.*, 89.

range was not. His letters to Chicago communicated this point to the Farwell brothers and the other members of the Capitol Syndicate. John Farwell, who never lost sight of a farming empire, was particularly concerned about this problem. However, it was Abner Taylor who came up with the first possible answer to their problem. Taylor felt that all they needed to do was drill down to an artesian water supply. Taylor, soon after, sent a steam powered drill and a crew to Buffalo Springs. The drill managed to bore to a depth of one-thousand feet, but no water was flowed.¹³³ Barbeque Campbell was discouraged by this result but, like Abner Taylor, believed that drilling for water was a viable solution. He had the drill moved to a site close by, drilled a one-hundred foot well and set up another wind-mill. Drilling for an existing aquifer to get an artesian well represented a significant investment in time and money and is important to the environmental history of the XIT. This use of technology was representative of how far the XIT was willing to go in order to improve its range. While it was ultimately unsuccessful it nonetheless indicated that the XIT had learned that their land was limited and they were willing to go to any length to increase the land's carrying capacity and value. The quest for water on the XIT had begun before the first animals arrived and would continue for several years after the herds had swelled to over 100,000.¹³⁴

Campbell was informed by the directors that in the following year, 1886, 100,000 cows were to be purchased. However, this could not happen before the entire 3,000,000 acre range had been put under fence. The first year that the XIT was created 781 miles of fence was erected,¹³⁵ but this would hardly be adequate. Campbell was skeptical of acquiring such a large number of cattle without a working water system completely in

¹³³ Ibid., 90.

¹³⁴ Ibid., 91.

¹³⁵ Duke and Franz, *6,000 Miles of Fence Life*, 6.

place, however the directors were unconcerned. Campbell determined that the only way that such a number of animals could be safely accommodated was to establish a receiving and branding operation at Yellow House, on the far southern end of the XIT range. There they would brand the cattle and move them north from watering hole to watering hole. This seemed like a good plan, but much of the range would have to be fenced in order for it to work. With winter on the way the prospect of digging holes in frozen ground and stringing barbed wire in a blizzard was possible. However, Campbell knew the fence had to be erected as soon as possible and that meant he could not wait for spring. Much to the chagrin of the XIT cowboys Campbell began a practice of fencing year-round. The length of the fence increased every year until the whole range was contained. An intricate weave of interior fences were also erected for a grand total of 6,000 miles. That was enough fencing to stretch from New York to Los Angeles and back with a few hundred miles to spare.¹³⁶ The importance of fencing to the XIT was similar to the Matador. It kept the XIT cattle in, neighboring cattle out, and interior fences kept cattle separated for breeding. A sophisticated fencing system had several benefits during a severe winter or a drought, both of which were problems on the Texas Panhandle during the 1880s. First, cattle breeding could be managed. The most susceptible animals in a herd were calves and cows that had recently given birth. By separating bulls from cows breeding could be controlled so that cows would not give birth in the autumn. Second, when grass was scarce it made good sense to only have XIT cattle eating XIT grass. Last, if feeding became necessary during the winter, the cattle, because their movements were controlled by fencing, were easier to find. The advantage the XIT had over the other ranches in this study is obvious. The amount and complexity of the fencing system

¹³⁶ Ibid.

on the XIT was a significant contributor to it not experiencing the same growing pains as the other ranches studied. It is interesting to note that in most secondary explanations for this event fencing is credited only with providing a place for cattle to pile up and die. Earnest Staples Osgood wrote: "...in the spring of 1886 the cattlemen in these regions found the carcasses of 85 per cent or more of their herds in the ravines or piled up along the drift fences."¹³⁷ Richard White offers a similar interpretation, "The fences designed to protect the pastures became death traps as cattle drifting before the storm ran into them, piled up against them, and froze to death."¹³⁸ However, in the primary documents from these ranches, fencing is considered one of the most important aspects of increased carrying capacity. A fence allowed for control of the herd, especially for breeding purposes, which protected cattle against the elements. The intricate network of fencing allowed the XIT and the Matador to move beyond the original haphazard and risky ranching model into one of control, security and profitability.

The delivery of the 100,000 cattle to Yellow House took place throughout the spring and summer of 1886. Some of the more notable cash payments for cattle that year were \$50,000 to C.C. Slaughter in April and \$10,000 to Snyder for cattle in May.¹³⁹ These were not all the XIT purchases for cattle that year, not even close. But, they are the largest single outlays of money for the year. By November, 1886 over 100,000 cows had been bought by the XIT for \$1,300,000 or \$13 a head.¹⁴⁰ From that November

¹³⁷ Osgood, *The Day of the Cattleman*, 218.

¹³⁸ White, *A New History*, 224.

¹³⁹ XIT Account Ledger, March/April 1886 and May/June 1886, The XIT Collection, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

¹⁴⁰ XIT Account Ledger, annual edition, 1886, The XIT Collection, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

forward the XIT maintained about 150,000 cattle on their range, with a finishing pasture in Montana. In 1886 the XIT began to operate as a full scale ranching enterprise.¹⁴¹

The purchase of 100,000 cattle is noteworthy, especially considering that in 1886 the cattle industry in Texas had begun to fall on hard times. However, for the environmental argument presented here the most interesting expenditures of money were on the improvements made to the XIT range. In March and April of 1886 the XIT paid T.H Jones & Co. almost \$1,000 for drilling and wind-mills and J.M Shannon and Co. a similar amount towards a fencing contract.¹⁴² The following month almost \$21,000 was paid to several contractors for improvements on the house, corrals, wells, wind-mills and fencing, and the following month \$2,293.02 was paid for water tanks, dams, lumber, pipes, troughs, towers and wells.¹⁴³ Barbeque Campbell was staying true to his word that while it would be possible to have a cattle operation of the magnitude of the XIT significant improvements would be necessary. Unlike the first purchase of cattle which was relatively small, this herd was massive and would require a great deal of infrastructure to maintain. Fortunately for the XIT, and different from the other two ranches examined in this study, those improvements were either already in place or being constructed as the herds were being delivered. Logistically, the delivery of 100,000 cattle does not happen overnight or even in a month. The XIT began receiving cattle at Yellow House in April and the final animal was delivered in November. This was a saving grace as the herds came in at a manageable size and could be moved north along the water network. Had all the cattle arrived at once this story would likely be quite different.

¹⁴¹Duke and Franz, *6,000 Miles of Fence Life*, 6.

¹⁴²XIT Account Ledger, March/April 1886, The XIT Collection, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

¹⁴³XIT Account Ledger, April/May 1886 and May/June 1886, The XIT Collection, Panhandle Plains Historical Museum and Archive, Canyon, Texas.

The XIT stands out as an example of a working ranch in the semi-arid Texas Panhandle during the 1880s. Its success indicated that Barbeque Campbell had a better grasp of the bioregion than his neighbours. However, much of the primary evidence suggests that Campbell was one of the few with such an understanding. Babcock's report was full of optimism but not realistic. B.B. Groom's assessment of the Llano Estacado and the Prospectus of the Matador were similar in their degree of optimism and misconception. What set the XIT apart was that it intended to use its range for several different projects, not only ranching. As such, the ranch owners and operators took the time to find water and to put up fences. It is an historical irony that a group of businessmen from Chicago, who did not intend to ranch, would establish the largest fenced ranch in Texas. Furthermore, they created a ranching strategy that was workable in a semi-arid bioregion where so many other operations had failed.

The recovery of the Matador Ranch went into full swing after the disaster of 1886. While they were able to show a small profit in that year it became apparent to the ranch operators that they quickly needed to increase the carrying capacity of their range or face another year of poor returns, at best. At worst they would be forced to write-off even more than the 8,500 cattle they had in 1886. The disasters of the previous years inaugurated in a new era of ranching for the Matador. This era was characterized by shrinkage in ranges, reductions in the size of herds, a greater emphasis on better breeds of cattle, better treatment of the stock, and an increased use of fences. That year "...their directors [the Matador's] went into their own pockets to create a reserve out of which they paid for wind-mills, tank-dams and fencing materials. Reluctantly, yet surely, they

adjusted to the reality of the times.”¹⁴⁴ The Matador Ranch was dedicated to remaining in business even after so many other operations had failed. It is because of this zeal that this cattle operation was able to remain solvent, increase the carrying capacity of their range and once again operate at a profit.

The Matador, like the XIT, is a good case study when examining the increased use of fencing in the ranching industry. In 1884 the only fence on the Matador’s 1.5 million acres was a fifty-one mile stretch that ran along the northernmost edge of their range. Within the decade, however, there would be an intricate weave of fencing that kept cattle in, kept foreign cattle out, and isolated various types of animals for breeding purposes. For example, the fence running between the Matador and the Espuela ranch served the dual purpose of keeping the Matador cattle in, keeping the Espuela cattle out and keeping trail herds from trespassing on the main body of the range.¹⁴⁵ In fact, with good grass and water being as scarce as they often were, the latter purpose likely seems to be the more important.

The Matador began small scale interior fencing in 1883. That project continued at an increased pace as the Matador sought to improve its range in the wake of several years of poor profitability. Fencing the outside of the range was a relatively simple process and could be done at a limited expense. Although fencing in 1.5 million acres was certainly time-consuming it was the interior fencing that made the difference and absorbed the bulk of the cost. Within the fencing operations there was still another level of construction, namely corrals for branding and holding purposes, which would save money on horses and men. The true expense of a corral was that its construction required

¹⁴⁴ Pearce, “The Matador Ranch”, 128.

¹⁴⁵ Pearce, “A History of the Matador” (PhD diss., 1952), 34.

a carpenter. A fence, on the other hand, was erected by unskilled ranch hands. As a consequence, a great deal of thought went into the location of a corral. The board of directors, having placed a limit on what Hank Campbell was allowed to spend without approval, were the ones who ultimately said ‘yes’ or ‘no’ when a new corral was proposed. Getting approval for a corral required a great deal of correspondence and went through several layers of management. While Hank Campbell had gained first hand knowledge of the bioregion over the last four years he still had to convince the Directors that these improvements were necessary for the long-term viability of the Matador. Part of the problem was that very few of the Directors had ever visited Texas, let alone the Matador’s land. The Directors might still have had the false impression given by the *Times* and the *Fortnightly Review*. This would, in part, explain why the range was not improved upon until the Matador lost a significant amount of money and a significant number of animals. The complicated process of gaining board approval is worth quoting in its entirety to understand why there were delays and difficulties in improving the range.

He [Campbell] would emphasize this need to one of the board members or to McKay on the occasion of a visit of one of the latter to the ranch, and would point out the tentative site he had in mind. After the visitors returned to Scotland and had presented the matter to other members of the board, a decision would be made regarding the matter and news of it would be sent along to Sommerville, who in turn would inform the superintendent. In case approval was received, Campbell notified the Manager of his requirements as to material and the Fort Worth office sent out notices to lumber yards and fence post contractors, requesting interested parties submit bids for delivery of the specified items at a railhead nearest the site of the proposed corral.¹⁴⁶

The importance of corrals was quite simple. They allowed the ranchers to separate animals for breeding. This ensured that no calves were born too late in the summer.

¹⁴⁶ Ibid., 37.

Corrals would increase the carrying capacity of the range by controlling breeding so that the most vulnerable members of the herd, calves and cows that had recently given birth, would not have to face the scarcity of the winter when they were still weak. Considering the necessity of corrals to increase the overall carrying capacity and the time sensitivity involved delays in their construction could be costly. Delays while Hank Campbell sought the approval of the board were part of the difficulties plaguing the Matador. Such delays were not a problem for the XIT, however. Barbeque Campbell had far greater leeway with construction and correspondence only had to travel to Chicago and not Dundee, Scotland. Delays caused by absentee ownership played a role in the speed of construction and made it more difficult for the Matador to increase its carrying capacity. Nevertheless, construction continued. When a contract was awarded to a successful bidder they were notified by William Sommerville. In a letter dated January 5, 1886 to H.L. Smith and Co. Sommerville wrote,

We accept your offer to furnish us a hundred thousand feet of rough lumber, one and a half by six inches by sixteen feet long at \$8 per thousand feet at Longview on the cars. The lumber must all be good, sound and dry, and of the full thickness, width and length. We shall receive the lumber at Harrold and Colorado City, at the price, on having it checked there; send specifications of each car, ship the first to Harrold and let us know when you get ready and we will give you particulars where to ship the whole.¹⁴⁷

If the orders were short or sub-standard materials arrived, a note was made of this in the books. For example, “the delivery is short 7 posts of nine feet length each; and there are 101 on hand our agents did not think suitable to send forward; we shall however take

¹⁴⁷ William Sommerville to H.L. Smith and Co., letter, January 8, 1886, quoted in Pearce, “A History of the Matador” (PhD diss., 1952)

them but shall expect you to make good the seven short.”¹⁴⁸ While the logistics of erecting corrals and fences is fascinating, what is most important is that the Matador was actively seeking to improve the quality of its range. By 1886 the managers and directors of the Matador had come to the realization that they had been following a flawed ranching model. They had formed the ranch without any real knowledge of what the carrying capacity of the region was. In 1886, four years after the creation of the Matador, three of those years with almost no profit, a calculated plan of improvement for the Matador was underway.

The corporate principal of the Matador Ranch was to raise cattle and sell them at a profit. Unlike the XIT, this was the Matador’s only intended use for their land. In the fourth annual report from 1886 the Matador outlined its plans to improve the ranch. They intended to increase the quality of the breeding stock, to install improvements in infrastructure, reduce expenses, diminish the labor of driving and reduce the number of cattle straying.¹⁴⁹ The revisal of policy would be instrumental in justifying the expenditures of the next few years to the board of directors in Scotland.

The early years of the drought that began in the mid 1880s stimulated the search for water throughout the Matador range. Part of the problem was that when water became scarce the pools and streams would be crowded with cattle and the banks would collapse under their weight. The pools and streams, which were once clean, would become sandy and brown with only occasional pools suitable for consumption. Compounding this problem was the cattle’s predilection to remain close to a water source while good grass that was distant from water remained unused. The immediate method

¹⁴⁸ William Sommerville to Johnson Brothers, letter, January 22, 1886, quoted in Pearce, “A History of the Matador” (PhD diss., 1952), 121.

¹⁴⁹ Pearce, “A History of the Matador” (PhD diss., 1952), 122.

to resolve this issue was to dig wells and construct dams. The saving grace on the Matador range, however, was the windmill. Sommerville wrote to Mackay that:

We have seen a wind-mill, which seems to us to come more nearly to answering the purpose of cattlemen than anything that has yet been introduced; in order to give the matter a practical test for ourselves, we have sent two of these wind-mills to be fitted up on wells which Mr. Campbell has already found. The troughs we use are large wooden tanks, about two and a-half feet in diameter; they are made circular so that the staves may be tightened if necessary. There is an automatic arrangement by which the supply of water to the tanks is regulated; as the water rises in the tank, the wind-mill is thrown out of gear and remains stationary; when the water in the tank is reduced, the wind-mill comes into position again and supplies what has been taken out. In this way the tank is always kept full, but is never allowed to overflow.¹⁵⁰

While the Matador was better watered than most ranges, especially those whose lands were contained entirely within the Llano Estacado, the board very rarely failed to approve the purchase of wind-mills. The 1880s drought had proved that a semi-arid bioregion required water technology like windmills, dams, and water tanks. While the Matador operators seemed to be unaware of this problem in 1882 by 1886 they had actively began to increase the amount of water available on their range.

The market crash in 1885-86 put a halt to some of the Matador's plans but it did not disrupt the practice of increasing cattle quality through breeding. This was chiefly done by spaying heifers of all ages and by purchasing graded, thorough-bred bulls, a practice that the Matador began in 1883. To supplement the purchased bulls about five hundred of the better calves were retained from the preceding year as future breeding stock. The dedication the Matador Ranch had for its breeding program is indicative of their desire to remain in the industry for the long haul. Increasing the quality of the cattle could not happen overnight; however, as time went on, the "V" brand of the Matador

¹⁵⁰ William Sommerville to Alexander Mackay, letter, May 27, 1886, quoted in, Pearce, "A History of the Matador" (PhD diss., 1952)

Land and Cattle Co. became synonymous with quality. By 1888, after the completion of the Fort Worth and Denver Railroad, Matador cattle were increasingly shipped north for prospective buyers. The 1887 annual report from Mackay and Halley to the Directors stated that “the quality of Matador stock was being recognized everywhere.”¹⁵¹ Due to consistent purchasing of graded bulls from 1883 onward Sommerville estimated that by 1886 all the company’s cows had been bred to graded bulls. While imported cattle often fared poorer in harsh weather the changes that the Matador had made by 1886 offset this weakness to the extent that there fewer deaths caused by cold weather. The Matador had consciously managed the size of its herd and improved its range in an attempt to maintain a balance between the number of animals they had and the land’s carrying capacity. Increasing the value of the animals through breeding was the only reliable method of increasing profits while managing herd size.

While the entire 1882-1890 period for the Matador ranch was dominated by environmental disaster and poorer than expected returns, there is no evidence that abandoning the ranch was ever a consideration. The Matador ranch had decided to weather the lean years and improve its range so that when the market improved again they were in a position to capitalize. The improvements made during this era were to the quality of the cattle in terms of meat production, fences, wind-mills and water tanks. It is clear that when the ranch was established in 1882 the founders were ignorant of the bioregion as a whole. The wealth of misinformation, coupled with a general preexisting misconception of semi-arid Texas was, in large part, responsible for these lean years. However, the Matador owners and operators learned from these experiences and during the first six years of their existence they were able to improve their range and begin a

¹⁵¹ Pearce, “A History of the Matador” (PhD diss. ,1952), 57.

new era of profitability. During the summer of 1890 Sommerville notified the Dundee offices that he intended to resign his position as manager. During the same season Hank Campbell announced his resignation as well.¹⁵² These two vacancies would be difficult to fill but there was a silver lining. The new Manager, Murdo Mackenzie of Trinidad, Colorado, had an opportunity to choose a successor to Hank Campbell and to usher in an era of profitability for the Matador Land and Cattle Company.

¹⁵² Pearce, "A History of the Matador" (PhD diss., 1952), 63.

Conclusion

The story of the ranching industry in Texas is one of resilience and constant innovation. The early 1880s suggest that the growing pains for the industry were severe, costing the lives of thousands of animals and a great deal of capital, both in America and Britain. However, the silver lining to this narrative is that after moving into the Texas Panhandle and finding it completely different from what was expected and suffering severe losses, the ranchers improved their land and after 1886, began expanding.

The near collapse of the range cattle industry in the Texas Panhandle was driven by both a wealth of misinformation which resulted in a fundamentally flawed conception of the bioregion and several years of environmental fluctuation. While it is true that there were too many cattle concentrated on a small area, the reason for the concentration of stock was ignorance of the bioregion's carrying capacity. At its root, the disaster was caused by a series of poor summers and uncommonly severe winters, all of which were discounted or dismissed in the contemporary 1880s literature and thus the possibility of these events was unknown to the ranchers, directors, and investors. While the industry suffered severe setbacks it did not collapse. By altering their operating procedure and implementing technological improvements the XIT and the Matador were able to become profitable once again. In the years following the disasters the range cattle industry recovered and expanded into financially successful operations. The recovery and expansion of this industry after three years of environmental hardship make this historical study relevant to twenty-first century agriculture.

The casual attitude toward purchasing stock held by all the directors of the cattle companies examined indicates that none of them had any idea of what the carrying capacity of their ranges were. This was primarily due to the fact that the vast majority of information concerning the Texas Panhandle's bioregion was false. Cattle were purchased without fear, and, in the case of the Matador and the Francklyn, losses of animals and capital was the result. The XIT risked a similar fate, but there were several crucial differences. Barbeque Campbell had already begun creating a water system, the land was fenced (to a large extent) by the time the cattle arrived, and there was always food grown on the XIT because of John Farwell's intention that the land eventually be sold to farmers. Barbeque Campbell had created a successful ranching strategy. He had solved almost all of the problems that had plagued both the Francklyn and the Matador without the stress of having to deal with 75,000 and over 40,000 head of cattle respectively. It is important to remember that the primary evidence suggests that no one involved in any of these enterprises had a good idea of what the carrying capacity of the land actually was. This misunderstanding was coupled with an uncommonly bad winter and a drought that would last until 1893, making wells and wind-mills a necessity. While overstocking appears to be the *prima facie* cause of this disaster this study explains *why* the ranges were overstocked. With scientific journals to help inform the primary evidence it becomes clear that overstocking was the result of bad information and a general misconception of the Texas Panhandle.

The wealth of misinformation due to boosterism further undermined the rancher's conception of the reality of the bioregion. Publications in Britain during the 1880s, notably the *Times* and the *Fortnightly Review* played a significant role in creating this

misconception. The image of the cowboy sitting on his horse watching his cattle graze was a popular one, but far from accurate. The belief that weather was not a factor, fences and corrals were unnecessary, grass was all the feed that was needed, and water was plentiful were all inaccurate. The pamphlets written in Texas were no more credible than those printed overseas. With titles such as *Groundless Fears of Overproduction* the acquisition of thousands of cattle seemed like a safe investment for ranchers. Considering that most of the information available for ranchers and investors was misleading their misconceptions are hardly surprising.

A final factor that contributed to this disaster was wholly environmental, that is, several years of drought and severe winters. While the weather is not something that the ranchers ever learned to control, through the use of technology and careful planning for feed, they were able to offset its effects and become profitable. All three of the ranches examined in this thesis lasted until the twentieth century by improving their lands and controlling the size and composition of their herds. The acquisition of technology and breeding programs are the most interesting and most important aspects of this study. Without the improvements made through windmills, fencing, water tanks, corrals, and feed production the XIT and the Matador might have collapsed under environmental stress.

After the first few disastrous years the managers of the Matador and the XIT began a race against nature to improve their range before winter and another round of disastrous losses. While the Francklyn suffered internal legal battles the primary evidence prior to those indicates that both H.T. and B.B. Groom was willing to improve the Francklyn range. The tenacity and resilience of the Texas ranching industry,

combined with its ingenuity and willingness to use technology are the main contributors to its success.

The previous scholarship from Osgood, Hine, White and others treated overstocking as the central explanation for the incredible losses of stock and capital. The crux of their collective argument was summed up by Richard White when he wrote: “The combination of overstocked ranges and the new fences were instrumental in the ecological disaster that cattlemen produced on the plains between 1885 and 1887.”¹⁵³ What these historians had failed to consider was *why* the ranges were overstocked and why, if overstocking was the central problem, were these ranches able to increase the number of cattle beyond the number owned in 1885? It seems odd that this has been the case. This study has addressed what seems to be a disconnection in the historiography. That is, it is clear what happened, but there have been very few attempts at explaining why and the majority of those explanations demonized ranchers for being greedy and exploiting the land. It is true that the directors of these various ranches were not experienced in the logistics of the industry. The ranchers and investors were forced to rely on second hand publications that had a booster quality and others that outright lied. This fact very likely contributed to both their misconception and the general mythology surrounding the bioregion. However, the managers of each ranch were experienced cattlemen and should not have been taken in as easily. This study fills a significant historiographical gap in the environmental history of the Great Plains in general and the ranching industry in particular. Considering the land and how the environment had changed offers interesting insights into how new migrants to semi-arid Texas grappled with their environment and after a few bad years succeeded through the clever use of

¹⁵³ White, *A New History*, 223.

technology, management of expectations, and ultimately a better understanding of the limitations inherent in the natural environment.

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