

A HISTORICAL GEOGRAPHICAL ASSESSMENT
OF BISON HUNTING ON THE SOUTHERN
GREAT PLAINS IN THE 1870s

By

Jeff Liles

Bachelor of Science in Occupational Education

Wayland Baptist University

Plainview, Texas

1993

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 2008

UMI Number: 1454894



UMI Microform 1454894

Copyright 2008 by ProQuest Information and Learning Company.
All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

A HISTORICAL GEOGRAPHICAL ASSESSMENT
OF BISON HUNTING ON THE SOUTHERN
GREAT PLAINS IN THE 1870s

Thesis Approved:

Carlos Cordova

Thesis Adviser

Alyson Greiner

James Shaw

A. Gordon Emslie

Dean of the Graduate College

ACKNOWLEDGEMENTS

The thesis committee, chaired by Carlos Cordova, has been instrumental in arriving at a conclusion and working within the time constraints. Dr. Cordova's energy and enthusiasm makes him a great advocate, and I look forward to keeping up with his publications through the upcoming years. Dr. Greiner's rigorous approach has emphasized important details which make this study presentable and coherent. Dr. Shaw's thorough knowledge of bison literature and creative insight into ecology has facilitated especially the chapter on bison movements.

Many other people have generously contributed their energy and talent in helping me complete this project. Mike Larson of Cartography Services at Oklahoma State University, Stillwater, Oklahoma, offered practical advice and constructive criticism for the maps. Mike teaches but one class, the best in the department. Jim Bradshaw at the Nita Stewart Haley Memorial Library in Midland, Texas, energetically consulted the primary sources available there. Multiple staff at the Center for American History at the University of Texas at Austin patiently assisted me. The Interlibrary Services of the Edmon Low Library in Stillwater, Oklahoma, has been instrumental in obtaining maps and texts which would not have been viewed at this time without their efficiency.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
The Research Problem.....	3
Hypothesis.....	3
Research Questions	3
Objectives.....	4
Research Methodology.....	4
Limitations	7
Structure of This Thesis.....	8
 II. REVIEW OF LITERATURE AND MAPS	
Bison Biology and Modern Distribution.....	9
Taxonomy and Range	12
Published Atlases	15
Comanche War Trail.....	20
Ciboléros and Comancheros	26
Cattle Trails	35
Western Trail.....	36
Goodnight-Loving Trail.....	39
Remarks	41
 III. THE TRANSPORTATION AND TRADE NETWORK OF THE BISON HUNT	
Access to the Bison Range.....	44
Bison Hunters Enter Texas.....	53
Networks of Trading	54
Jones & Plummer Trail and Mobeetie	57
Dodge City-Tascosa Trail and cowtown of Tascosa	61
Mackenzie's Trails: Fort Griffin versus Fort Concho.....	62
Center Line Trail.....	66
Henrietta, Texas.....	67
Brownwood, Texas	68
Trading Posts	69
Jim Springer on Wolf Creek	6

Cator Brothers at the Zulu Stockade	70
Adobe Walls Trail, Trading Post, and Milestone Battle	72
Tuck Cornelius and Pete Snyder at Deep Creek.....	75
Bill McCamey near Double Mountain	77
Whalen brothers and John (or Jim) Martin at Red Mud.....	78
Henry Jacobs on Champion Creek	79
Frank Conrad and Charles Rath at Camp Reynolds (Rath City)	80
Dockum's Store on Dockum Creek	83
Mobeetie	83
Teepee City.....	83
Jones and Plummer	84
Exclusions	84
Gerlach's Store	86
Store at Soldier Mound, Dickens County.....	86
George Singer's Store at the Head of Yellowhouse Canyon.....	87
Doan's Store on the Red River.....	87
Hardesty Ranch on the Tascosa-Dodge City Trail	88
Hoodoo Brown's Ranch on Crooked Creek.....	88
 IV. BISON DISTRIBUTION AND MOVEMENT DURING THE HIDE HUNT ..	90
Background of Models.....	90
Summary of Issues Regarding Movements	96
Sample of Group Movements	97
Desperate Movements	97
Dependability of Wooded River Bottoms.....	101
Bison Finding Water at <i>Playas</i>	104
Large Herd Observed Before Hide Hunt	105
Bison Retreating to the Upper Brazos River.....	106
Bison Killed in Winter Along Creeks.....	107
Stampede Observed by O. W. Williams	108
Sythesis.....	109
 V. CONCLUSION.....	117
Summary of Historical Geography.....	117
Retrospect on the Methodology	120
Retrospect on Initial Study Questions.....	120
Suggestions for Future Studies	124
 REFERENCES	126
 APPENDIX A: ARCHIVAL COLLECTIONS SEARCHED	136
APPENDIX B: THE DIE-OFF CHARLES GOODNIGHT OBSERVED	139

LIST OF FIGURES

Figure 1.1 Map of Study Area.....	2
Figure 1.2. Pool's Map of Hunting by Mooar Brothers, 1873-1878.....	6
Figure 2.1 The Range of Modern Bison According to McDonald.....	10
Figure 2.2 Range Map for Modern Bison.....	13
Figure 2.3. Pre-Settlement Bison Corridors in Texas	14
Figure 2.4 Map of Sheridan Hunt of September and October, 1871	16
Figure 2.5 Cultural Features of Bison Range and Frontier Settlements .	17
Figure 2.6 Hunting Camps of John R. Cook, 1875-1876	18
Figure 2.7. Map of Hunters Camps from Fort Concho to Fort Griffin	19
Figure 2.8. Carl. C. Rister's Map of the Red River Region 1865-1885	21
Figure 2.9. Haley's Comanche War Trail	22
Figure 2.10 Day's Sketch Map "Some Texas Buffalo Trails"	25
Figure 2.11 Comanchero Trails on the Southern Great Plains	28
Figure 2.12 Kraisinger's Map of the Western and Chisholm.....	37
Figure 2.13 Haley's Map of Goodnight's Cattle Trails.....	40
Figure 3.1 Transportation and Trade Network of the 1870s	55
Figure 3.2 Bison Hide Trading Posts Out of Dodge City, 1874 to 1878...	58
Figure 3.3 Bison Hide Trading Posts Out of Fort Griffin, 1874 to 1878....	63
Figure 3.4 Chrisman's Sketch Map of Adobe Walls Cutoff from.....	74
Figure 3.5. Chrisman's Sketch Map for Second Edition in 1998.....	75
Figure 3.6 Trading Posts Excluded from Bison Locations, 1874 to 1878.....	85
Figure 4.1 Migration Model by Ahr.....	92
Figure 4.2. Average Annual Precipitation in Texas in Inches	103
Figure 4.3. Bison Hide Trading Posts, 1873-1878, with Buffers	112
Figure 4.4. Range for Late Hunting of Free-Ranging Bison.....	114

CHAPTER I

INTRODUCTION

The main purpose of this research is to reconstruct the historical geography for bison hunting on the Southern Great Plains during the 1870s. The idea is not to create a complete historical atlas of the commercial bison hunt but rather to clarify some of its issues which might lead to a greater understanding of the bison.

A combination of social and technological issues came to a head in the early 1870s, focused around the railroads on the Great Plains. From Dodge City, Kansas, the bison hunting spread into the Southern Great Plains (Fig. 1.1) in 1873 and 1874. By 1875 the hunting was well underway, and by 1876 such a mass of hunters had gathered in the study area that the 1876 to 1877 winter might be considered the peak of the hunt in this region. By the spring of 1877 bison were notably depleted from the eastern locations, and by 1879 most of the commercial hunters had given up the chase because the bison numbers were so few that they could not support payment of a skinning and camp crew. By 1879 the trading posts established to trade in bison hides had to change their trading basis else quit trading altogether. The implications of the hunt in regard to trading is a special interest of this study.

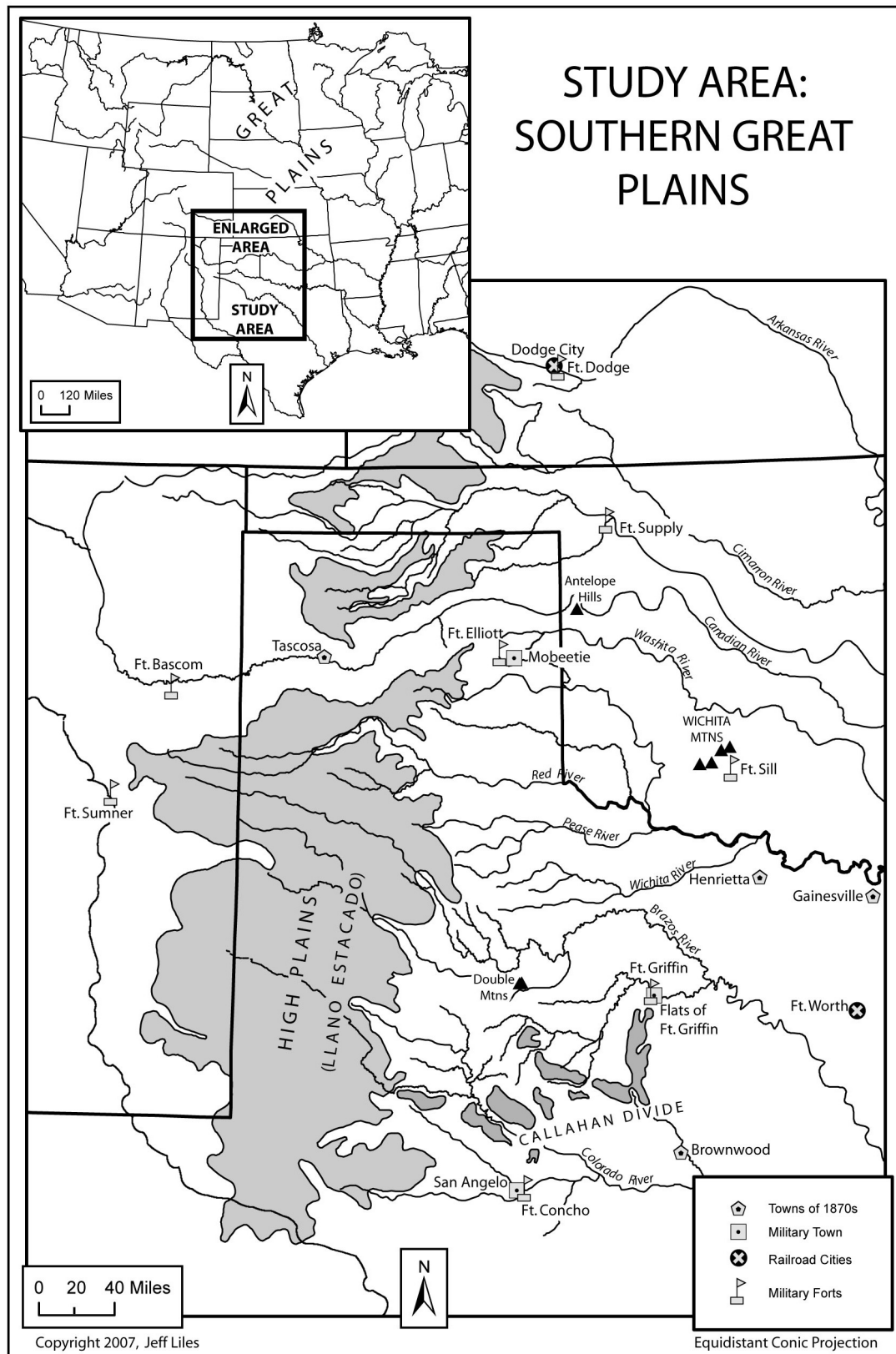


Figure 1.1. Map of Study Area.

The Research Problem

Bison hunters were great story tellers, and writers frequently have utilized the hunters' personal narratives. While some of these stories are exaggeration, these stories appear underutilized overall. The student expects that spatio-temporal information still unused but residing in such accounts can be utilized for understanding the hide hunt and for understanding the prey, the bison. Thus, the aims of this research are to reconstruct the geographical context of commercial bison hunting on the Southern Great Plains (Fig. 1.1) in the 1870s and to present any implications for the bison.

Hypothesis

This study assumes that the information available for extraction from primary sources can be properly located and represented on maps. That representation could then serve as a source for reconstructing the historical landscape on the Southern Great Plains, adding something to the understanding of Great Plains ecology, in particular movements of nomadic animal species.

Research Questions

Spatial information is the focus of this study. Specifically, it pursues the following questions:

1. Where were the hunters, and what were their movements?
2. Where did the hunters specifically not find bison, and when?
3. What factor(s) might lend itself to quantification, especially regarding population of bison?

4. Is there evidence of bison migration, and if so, then what was the pattern regarding both time and place?
5. Do movements generally support the idea that bison were responding to the presence of hunters or changing behaviors due to large numbers of deaths of their own kind?
6. Where and when were hunter densities greatest and least? And from where did these hunters appear?
7. Can clues be obtained as to responses bison exhibited to defend themselves against the near extinction they experienced?

Objectives

1. Collect primary source materials pertaining to the hide hunt on the Southern Great Plains.
2. Process the materials by utilizing geographical references. Create maps that display these.
3. Interpret the results in the context of the historical and geographical setting for the hide hunt.
4. Cross reference the stories and maps in a context ecologically meaningful.

Research Methodology

Because most of the secondary sources gloss over the geography of the bison hunt, they cannot serve as the basis for geographical research. Therefore, the method of research here is the bibliographic and archival discovery of primary sources such as textual information.

The best example of using primary sources for a purpose similar to that here comes from A Historical Atlas of Texas by William C. Pool (1975: 118-120). The maps in his atlas were not executed with sufficient contrasts to make them readily reproducible, but they reflect some geographical information from a specific hunter, the Mooar brothers (Fig. 1.2). The thought that this seemingly represents is that if a map follows hunting outfits, then the hunt will be depicted with the greatest accuracy. It locates the hunters and indicates their direction, including the dates of their movements.

A supplemental form of analysis is considered in the methodology of physical geographer, Richard Rieck, who studied over 1000 journals and diaries of those who traveled the Oregon Trail. Rieck (1993, 1994, and 1995) published his analyses in a very readable set of three articles with maps, topographic profiles, and diagrammatic profiles. These indicate route choices and changes in elevation on different routes that the original writers experienced. His maps and text together reflect both the broad and specific pictures. What the people saw and experienced when they wrote—landmark geological formations, available water, and some features of the landscape that do not exist today—these all come through in Rieck's three brief articles. A reader of such primary sources develops a sense for common and uncommon occurrences, identifying features and events most interesting to map and to describe.

Shaw and Lee (1997) used published maps from historical reviews for combining, or overlaying, travel routes. Their maps included routes that were drawn with a reference grid in the form of current county lines. This study

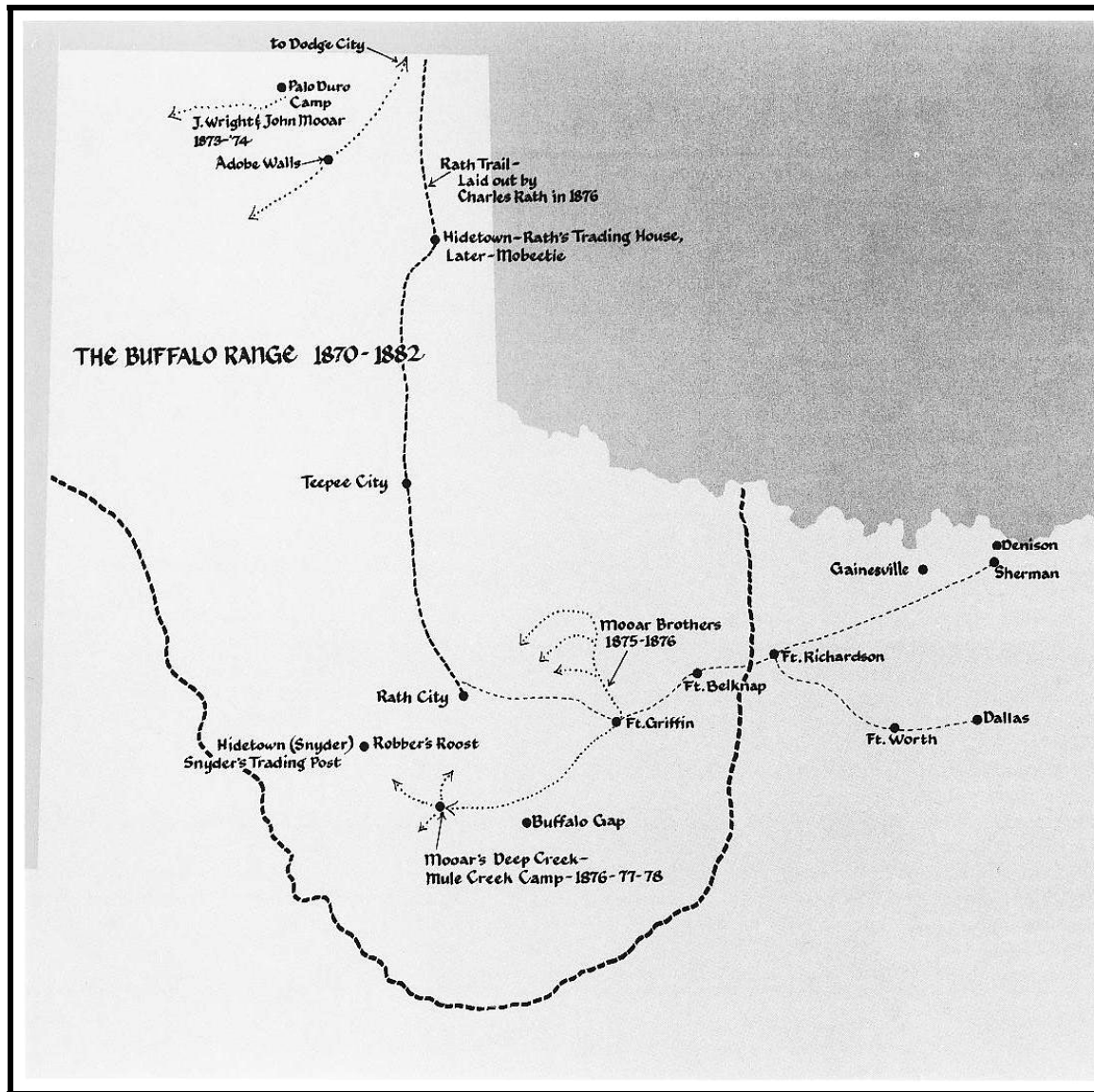


Figure. 1.2. Pool's Map of Hunting by Mooar Brothers, 1873-1878
Source: Pool 1975: 119.

improvised a blending of these two approaches first by recognizing the value of the eyewitness accounts and second by utilizing multiple layers of transportation routes in the mapping process.

A detailed description of primary-source collections searched appears in the Appendix. A summary is as follows:

- The Center for American History (Austin, TX), approximately 11 weeks
- Texas State Library (Austin, TX), approximately 2 weeks
- Haley Library (Midland, TX), approximately 4 weeks

The best available sources, textual and graphic, were used to create maps in ArcGIS, which were finished in Adobe Illustrator. The goal with each map was to communicate effectively by creating maps that are visually pleasing and readable while also being accurate and useful.

Limitations

Regarding the methods of research, there were two main arteries of limitations upon this approach. One of them deals with limitations of the research opportunity, and the other with biases. The lack of an opportunity to replicate the environmental conditions at that time has never served as an obstacle for creative hypotheses about events of the bison hunt, but it has precluded any scientific verification of them. Any new ideas about bison behavior might be restricted to bison under those extreme pressures, which are circumstances that cannot be replicated for testing. The bias inherent with this study mostly comes from the fact that many hunters recalled in their later years only those events which people helped them to recall or encouraged them to recall.

Due to time constraints, some relevant items were not obtained from the Kansas State Historical Society in Topeka, Kansas, and the Panhandle-Plains Museum in Canyon, Texas. One other major restriction was the unavailability of sources pertaining to J. Wright Mooar at the Haley Library in Midland, Texas.

After approving a new biography on Mooar based upon the holdings there, the directors cut off all access to materials pertaining to Mooar indefinitely to all other researchers. If time had allowed, a slight degree of improvement could be made in mapping by ground-truthing the information. These limitations altogether still do not render this study ineffective.

Structure of This Thesis

Chapter one simply outlines the basis and intentions of the research. Chapter two examines the literature of diverse topics that pertain to the spatial and temporal setting of the Southern Great Plains bison hunt of the 1870s. Chapter three presents the locational information, conveying the basis for the items which appear in maps and explaining the relationships between the map features. Chapter four interprets the implications for bison. Chapter five concludes the study by summarizing it and offering suggestions for future study.

CHAPTER II

REVIEW OF LITERATURE AND MAPS

Bison Biology and Modern Distribution

The American bison (*Bison bison*), most often called a buffalo, is a type of cattle, or bovid. The bison is the largest land mammal by weight in North America. The two variants of this type which are widely recognized are the wood bison (*B. b. var. athabasca*), which can be found in Wood Buffalo National Park in northern Canada, and the plains bison (*B. b. var. bison*), which can be found on the National Bison Range in Montana and at various locations southward into Texas. The two taxonomic authorities of McDonald (1981: 104) and Hall and Kelson (1959: 1023-1026) agree in a general fashion about the current potential geographic distribution of bison (Fig. 2.1).

The first characteristics observers notice are the heavy, bearded heads with horns. With a short, tufted tail and a distinctive mane, the bison appears disproportionately small in the hindquarters and large in the front. Male bison today average a peak size near 2,000 pounds, and females have a peak average about 60 percent of that. The horns of the females grow with their proportions. The permanent horns are useful in defense or in aggression.

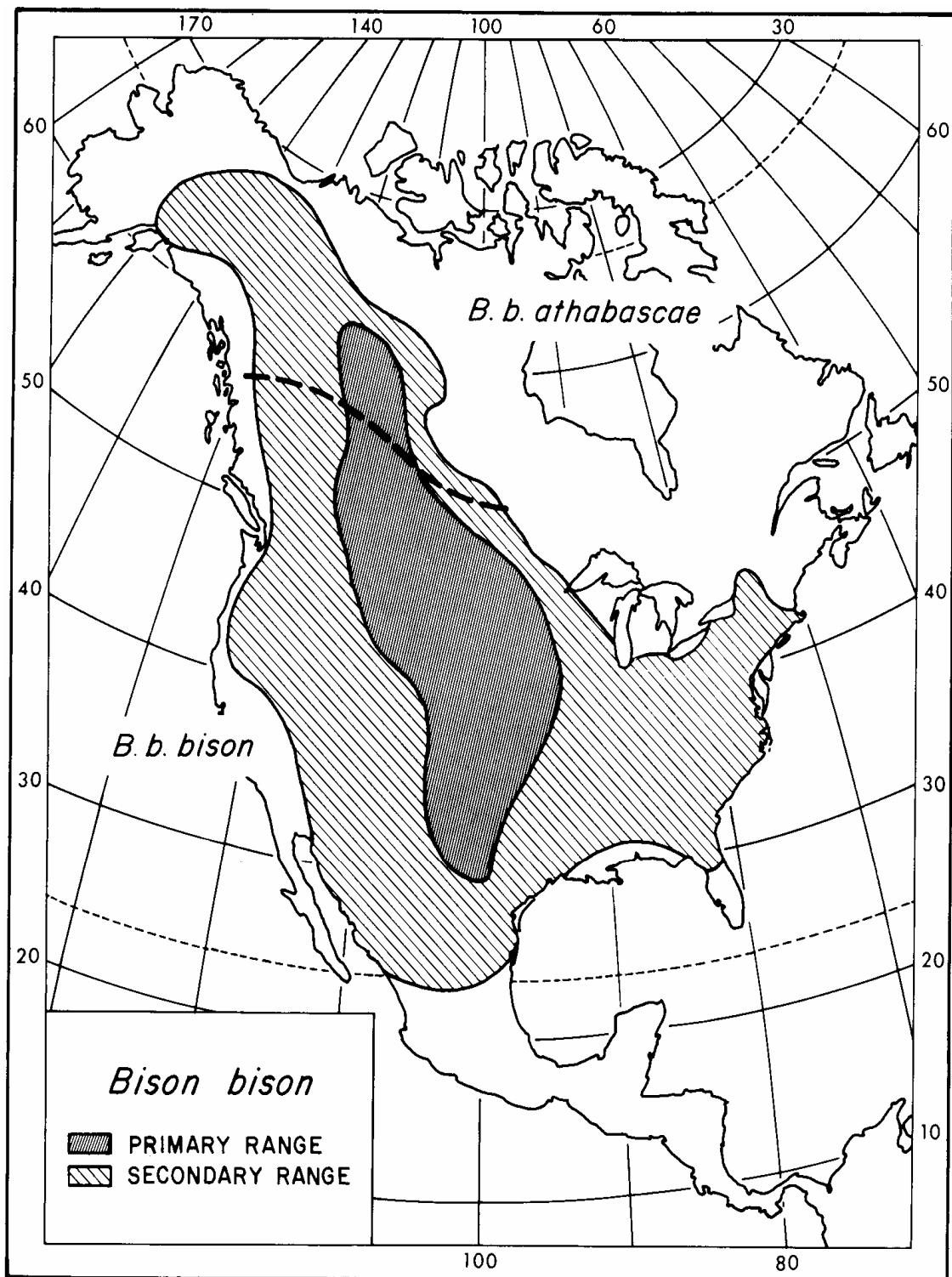


Fig. 2.1. The Range of Modern Bison According to McDonald
Source: McDonald 1981: 104.

Bison also have surprising speed and endurance. They can maintain speeds over 30 miles per hour for distances in excess of a half mile (McHugh 1972: 171). The classification of bison movements remains the subject of debate and conjecture (West 1995: 73-79), but a general agreement could be made that the bison are so hard on the land cover that the need for travel increases with the size of the group with smaller herds potentially localized enough to consider as sedentary (Dickens and Wiederhold 2003: 34).

Bison are adaptable herbivores. They mostly graze upon grasses, but they can eat woody vegetation, becoming browsers at least temporarily (Hall and Kelson 1959: 1024). They rub against standing features and wallow on the ground to clean themselves when molting but also whenever they are not and just feel like doing so (McHugh 1972: 151). Even though the senses of sight, smell, and hearing all tend to be important for the bison, that of sight received the least respect from hunters. Because hunters respected the bison's sense of smell above any other senses, they were most likely to approach bison on the basis of wind direction.

Bison have a long and dramatic history of interactions with humans. They have been the most enduring animal source of food and clothing for humans in North America since the earliest immigrants arrived (Frison 2004: 61, 67). Several diverse types of bison have existed over the past 20,000 years. In proportion to the number of people who have hunted bison, relatively few tried to preserve the species even when it was near extinction.

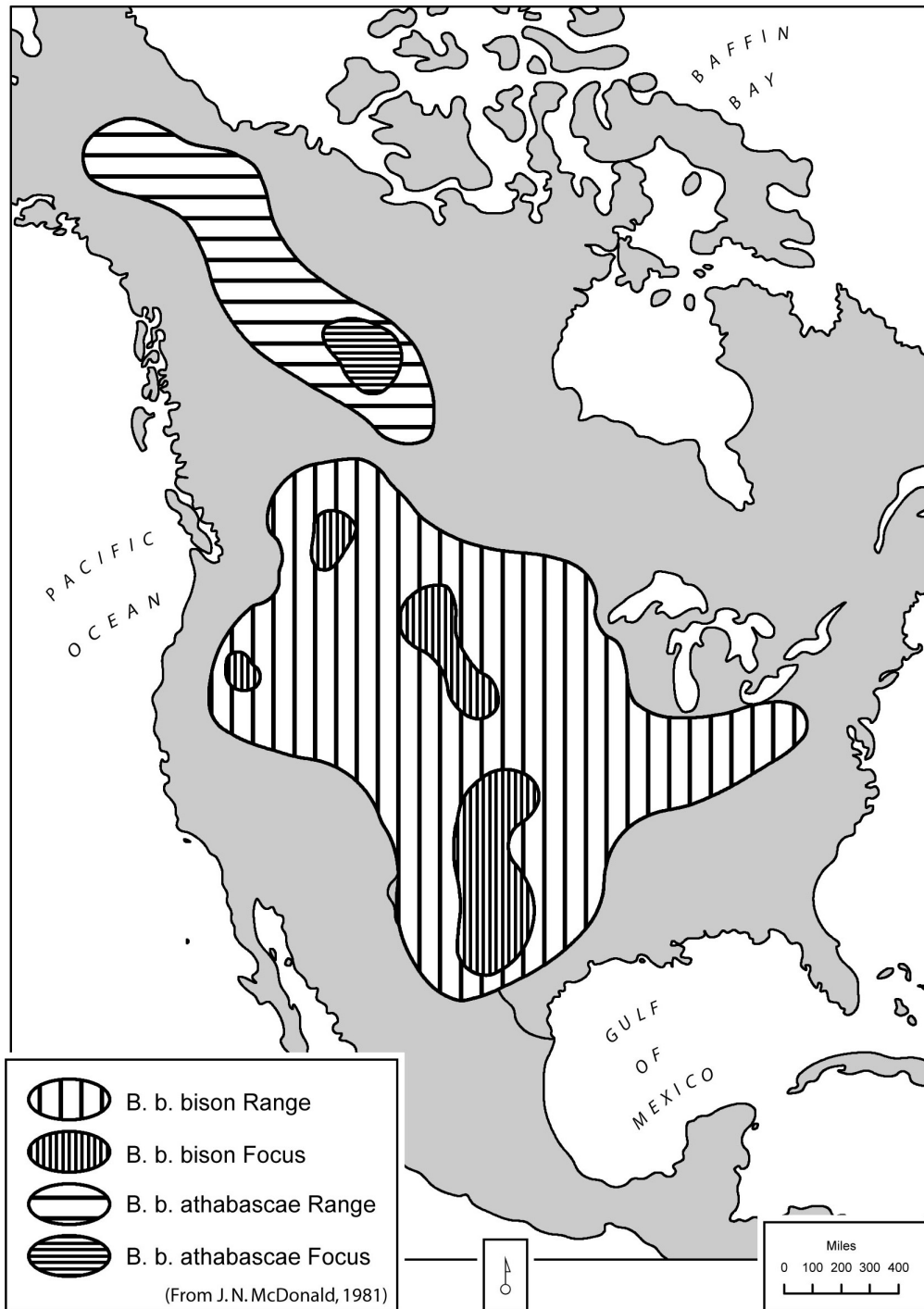
Taxonomy and Range

Much in the same way the professional hide hunt dominates discussions about bison hunting, taxonomy dominates discussions of biology. Since the focus here is the nineteenth century, the bison types which appeared and then became extinct before the historical era are not described here. McDonald (1981: 251-256) would be a source for someone wanting to gather more about those species. The diversity of bison types during prehistoric times reflect a fairly rapid speciation process which resulted in the modern bison types (Fig. 2.2).

Two recent papers from the anthropologic literature address bison numbers and locations. They include a blend of historical documents in their approaches. In one Shaw and Lee (1997) studied the records of explorers to determine that bison had disappeared from the tall-grass prairies of the Southern Plains decades before 1870. Due to conflicts with humans growing crops in the tall-grass areas or due to proximity to points of trade in the short-grass areas, bison fared better in the isolation offered by the mixed-grass areas from 1806 to 1857. This was a result of hunting that extended from those points of trade, not an indication of bison preference for any of the grass types.

In the other paper utilizing historical documents, Dickens and Wiederhold (2003: 33 ff.) discuss the corridors in Texas through which bison passed during their movements. Their proposed model (Fig. 2.3) stresses a north-south trend

Modern Subspecies of Bison in America



Copyright 2006, Jeff Liles

Equidistant Conic Projection

Figure 2.2 Range Map for Modern Bison.

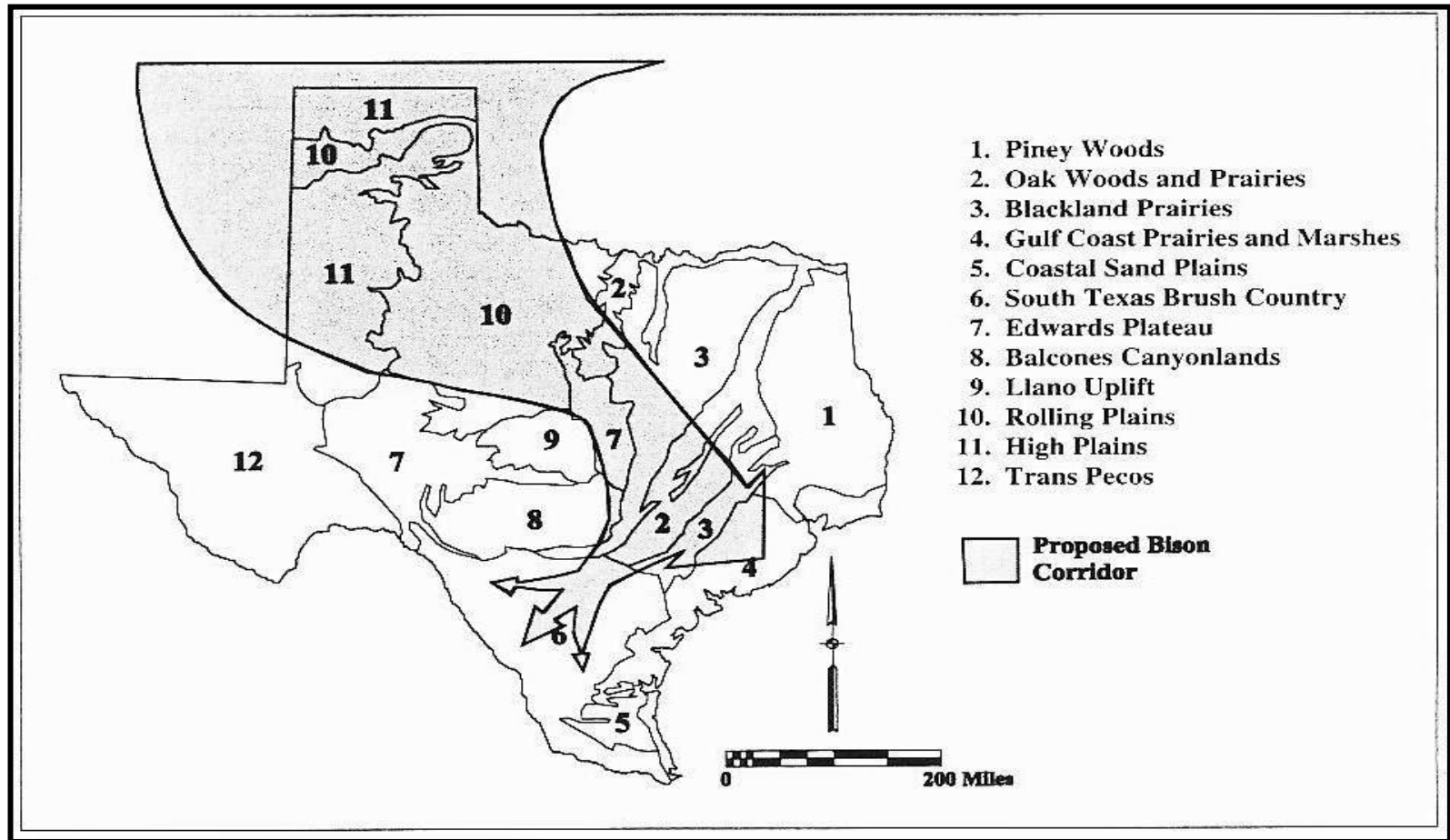


Fig. 2.3. Pre-Settlement Bison Corridors in Texas
 Source: Dickens and Wiederhold 2003: 43.

in bison movements on the Southern Great Plains. The Callahan Divide would serve mostly as a redirecting barrier. Smaller herds of bison would be able to navigate the somewhat confining post oak savanna and adapt to a combination of grazing on grasses and browsing on woody vegetation. These smaller and more adapted groups would have been able to maintain a year-round presence in the post oak savannas because of the diminished intensity of their environmental impact.

Published Atlases

Atlases recently published indicate generally two themes—what the bison range was at specific points in time and the locations and dates of specific hunters, some of them celebrities. One example of locating famous hunters is the 1871 hunt of General Phil Sheridan (Fig. 2.4). Another example is the work of Pool (1975: 119) in locating the Mooar brothers' hunting camps (Fig. 1.2) and setting the stage for the contemporary cultural features (Fig. 2.5).

The most recent reference work on bison hunters and skinners, the Encyclopedia of Buffalo Hunters and Skinners (Gilbert et al. 2003), finally gives the geography a serious look with a map of John R. Cook's camp sites from 1875 to 1876 (Fig. 2.6). This reference work also presents a map of bison hunter camps known from Fort Concho to Fort Griffin, the heart of the Southern Plains hunting (Fig. 2.7).

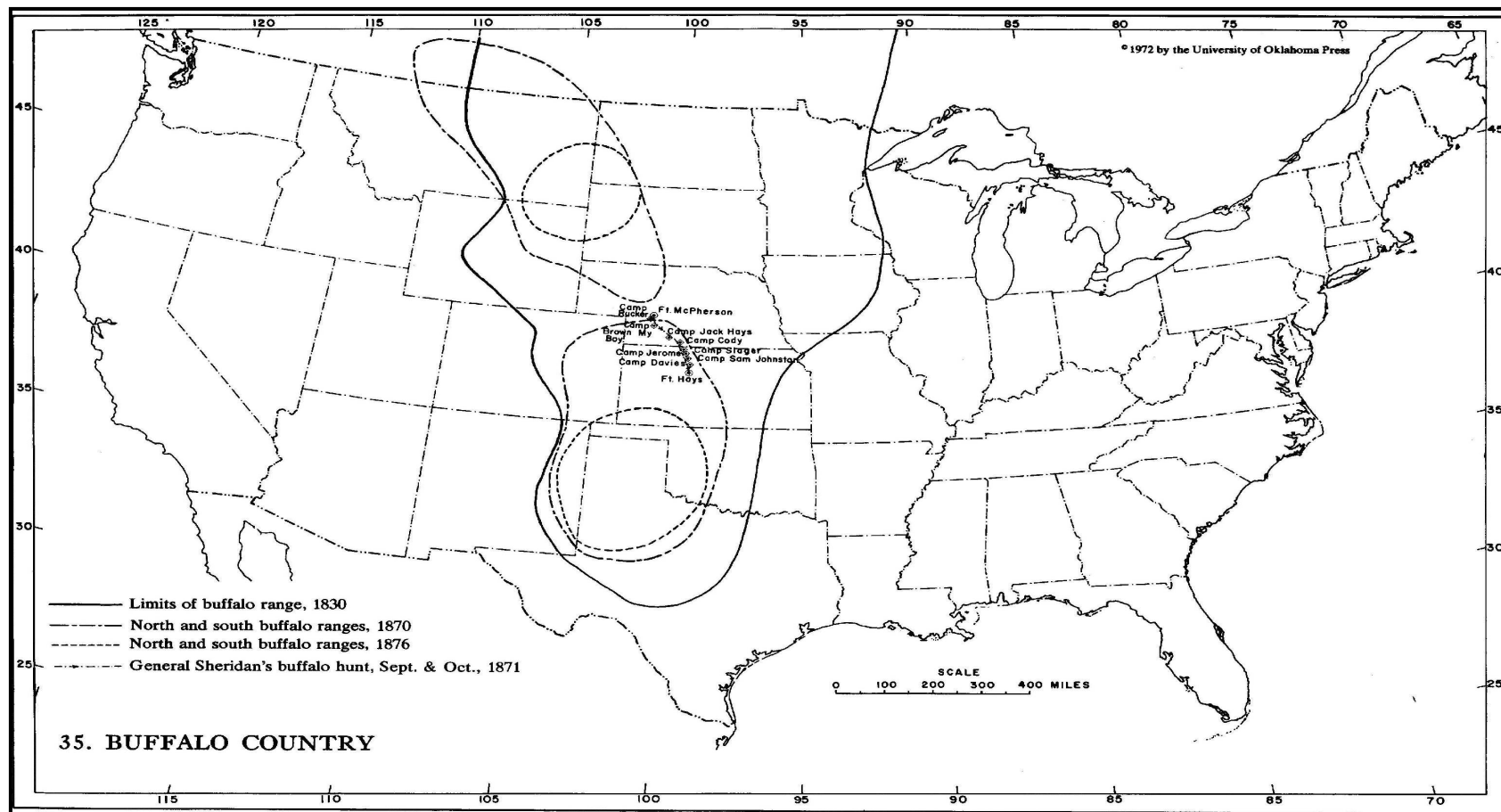


Figure 2.4. Map of Sheridan Hunt of September and October, 1871
 Source: Socolofsky and Self 1988: 35.

Source: Pool 1975: 114.

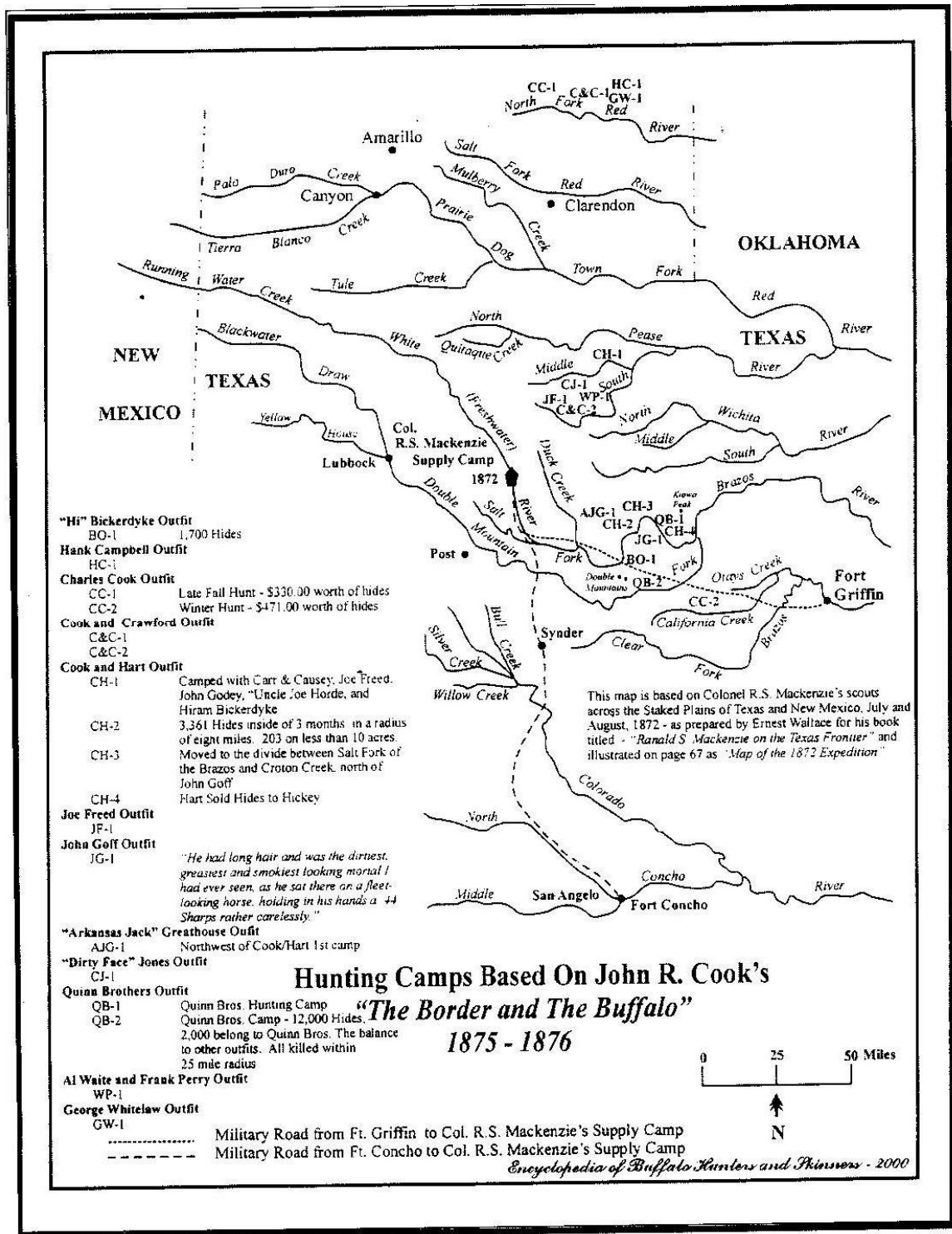


Fig. 2.6. Hunting Camps of John R. Cook, 1875-1876
Source: Gilbert, et al. 2003: 135

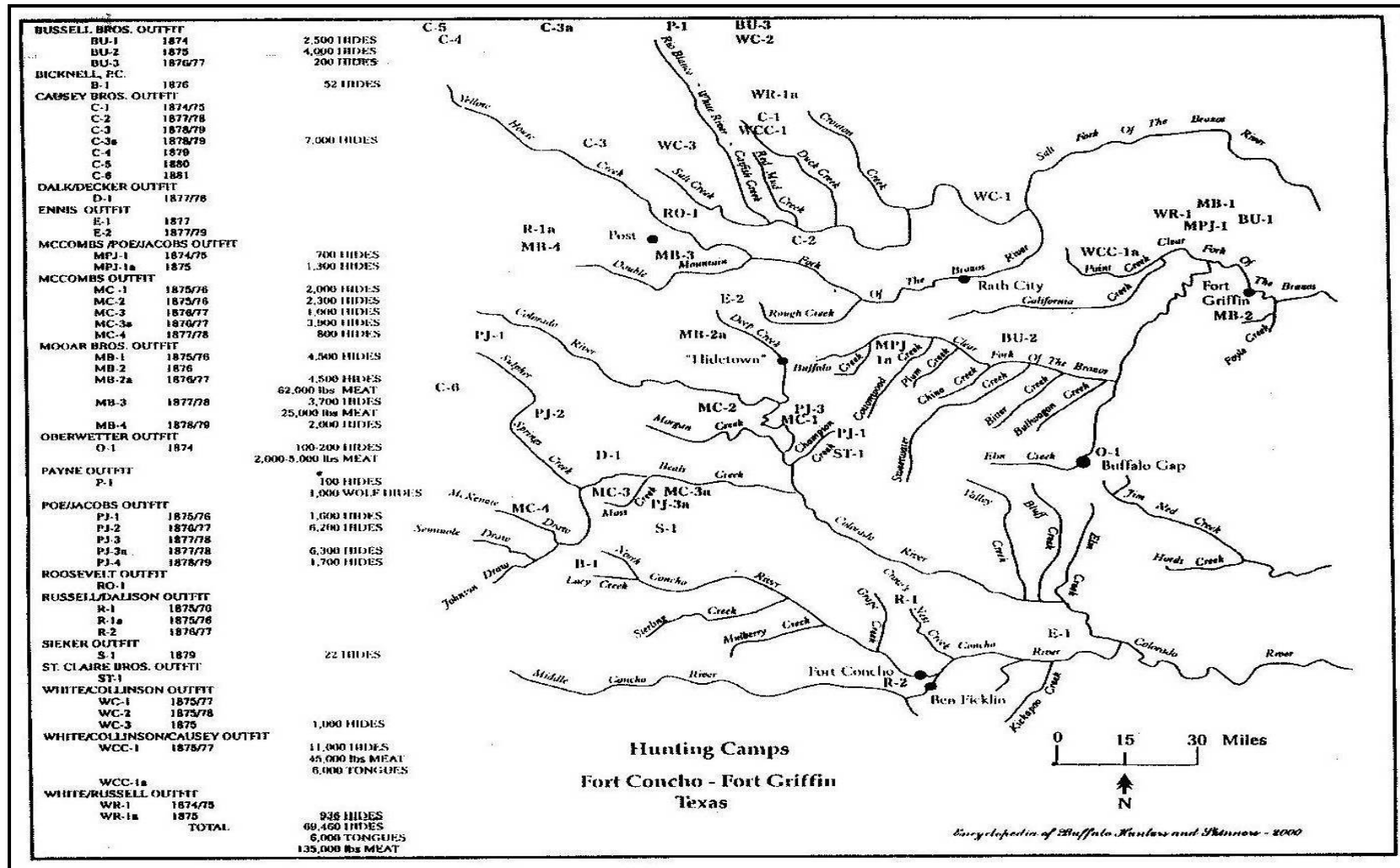


Figure 2.7. Map of Hunters Camps from Fort Concho to Fort Griffin

Source: Gilbert, et al. 2003: 273

Another type of published atlas attempts to establish a fairly complete context such that the main topic becomes the general time and place. Published in 1978, C. C. Rister's map (Jackson 1978) includes the array of 20 years of history on the Southwest frontier in its most volatile years (Fig. 2.8). The map includes the bison range, but also it includes Indian battle sites, store sites, cattle trails, wagon trails, Indian reservations, and basic topography. Battle sites appear, but not specific bison hunts. This map gives the sense that relationships should exist between these various elements but leaves such interactions unclear.

Comanche War Trail

Present-day Texas is at a very important crossroads. It is a biotic intersection, containing deserts, plains, and woodlands. More importantly, it is the bottleneck for a continent for travelers moving south and a gateway that opens the land up to those headed north. The story of trails begins with these early traders, travelers, and hunters, and the Comanches were among them (Fig. 2.9).

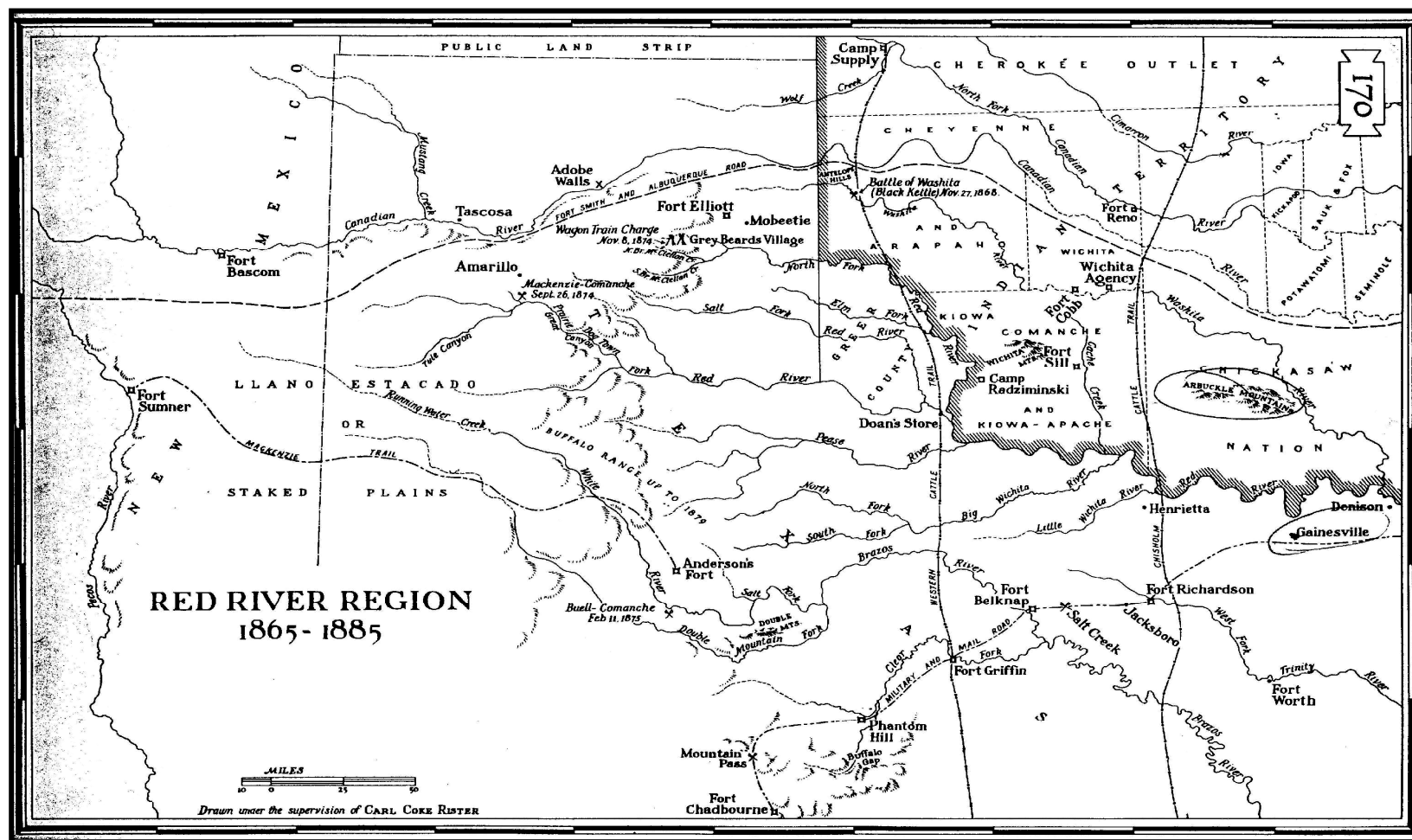


Figure 2.8. Carl. C. Rister's Map of the Red River Region 1865-1885.
Source: Jackson 1978: 170.

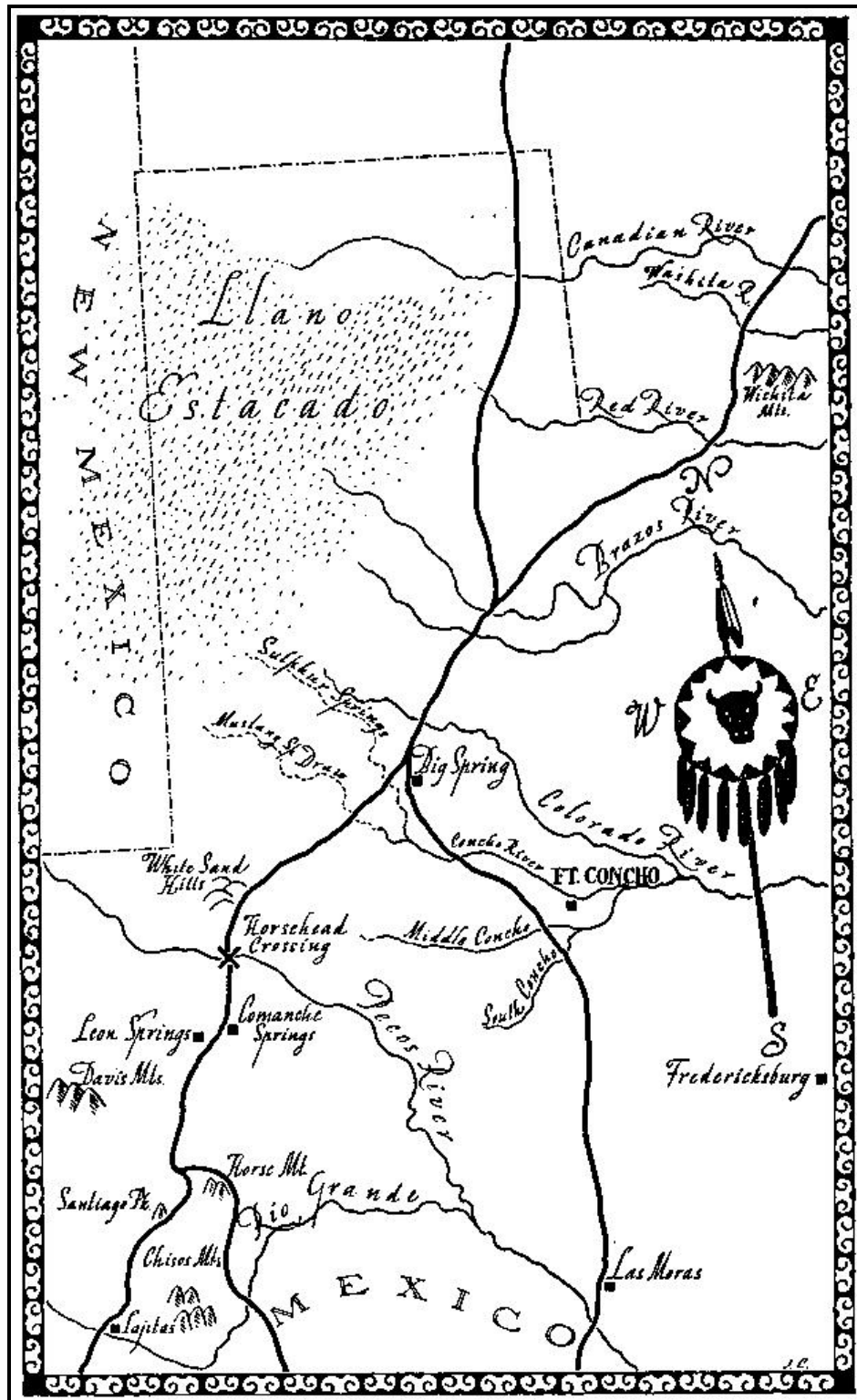


Figure 2.9. Haley's Comanche War Trail.
Source: Haley 1952: facing page 1.

Haley did not claim to be the ultimate authority on the Great Comanche War Trail, but he (Haley 1952: 2-6) offers the most eloquent and thorough description. He states:

One great trail, however, crossed this region for more than a thousand miles from north to south. It was blazed in blood long before this land was settled. It began in the Comanche range where the upper tributaries of the Arkansas and the Red finger for their sources in the breaks of the Great Plains. It stretched across Texas to carry destruction to the Mexican settlements as far south as Durango. . . .

Raiders from Indian Territory took a course that passed the western extremity of the Wichita Mountains. Others came down from the Arkansas across the upper reaches of the Red River. The Staked Plains shunted their converging lines by way of game, water and grass along the base of the Plains to come together at Sulphur Springs, near the lower end of Sulphur Draw. From there the main trail pointed by Mustang Springs, east by north of the site of Midland, and by a hard and dry ride to permanent water in the Sands. It struck the Pecos at Horsehead Crossing, cut its broad course across out of the bowels of the earth at the site of Fort Stockton—Comanche Springs. (Haley 1952: 2-3)

This explains the two general areas of the trail heads, that from just beyond the Wichita Mountains and that from somewhat west of there. From Leon Water Holes the trail continued south to about present-day Marathon, and the trail forked just north of Camel Hump, also known as Horse Mountain. The western fork went to one water source, Maravillas Creek, and the eastern to another, Bone Springs. The eastern fork continued south to just east of the Chisos Mountains before turning westward in order to cross the Rio Grande at what became known as The Grand Indian Crossing. Captain John Love observed in 1850 that the trail at this crossing was wide, well-beaten, and resembled a thoroughfare (Haley 1952: 4). Haley emphasizes the increasing use of the Comanche War Trail for raids steadily through the nineteenth century, including usage by Kiowas and Apaches who joined in using the trail to make

raids. Haley describes the importance of this trail as a source of horses, which became increasingly important to the Comanches in their role as skilled riders and traders of livestock.

Even though Daniel Gelo (2000: 301) debated the name and purpose of this trail as well as its origin, he never debated its existence. In fact, his debate even sounds somewhat self-contradicting when it begs for a cleavage between warfare and livestock raiding. He stated:

...References to a singular "Comanche War Trail" are misleading in all respects. The pathways, landmarks, and trading places that the Comanches commanded were inherited from the Apaches and Jumanos and their predecessors, with many routes originating as game trails. . . Warfare was not the reason for these routes, but seasonal migration, trade, and livestock raiding, the latter activity gaining prominence in the mid 1800s with the convergence of Comanche, Mexican, and Anglo-Texas spheres. And despite dependable eyewitness accounts about heavy traffic along some segments, there was no "single linear trail but rather a complex system of branching trails" (Gelo 2000: 301)

The way this trail is patterned, it was intended to keep its travelers sheltered in the watered areas just to the east of the Caprock Escarpment. It is the kind of pattern travelers would follow since the creation of the Escarpment and the introduction of animals to it.

There might be no way to trace the complete set of origins. Hickerson (1994: 215) stated in regard to the Jumano trade network, "Although segments of this network can be historically documented, its wider extension and its continuity with prehistoric cultural complexes and trade routes can only be inferred." Large game and their trails were certainly important considerations for all that indigenous people did, beginning with their arrival on the continent, and the map

of bison trails drawn by James Day (1960: 145) not surprisingly in many respects overlaps the Comanche War Trail (Fig. 2.10).

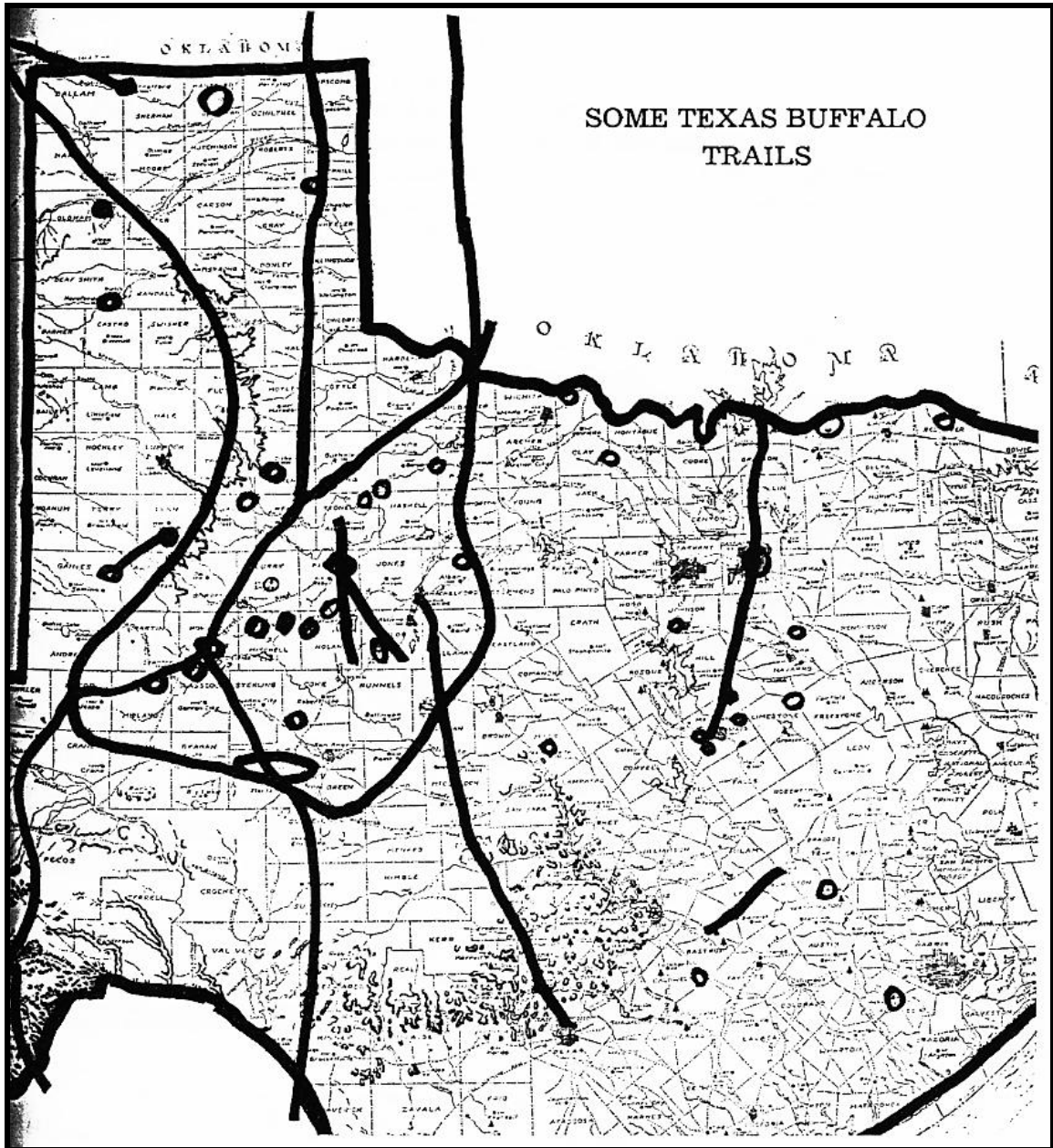


Figure 2.10. Day's Sketch Map "Some Texas Buffalo Trails"
Source: Day 1960: 145.

Ciboléros and Comancheros

The differences between the *ciboléros* and *Comancheros* were longstanding. The name for each tells of their occupation. The *ciboléros* were interested in the bison, or *Cibolo*; the *Comancheros* were traders with the Comanches. The latter had been known as a *viagero* in New Spain, but the name changed to *comanchero* in recognition of the importance that the Comanches had in regional trade networks (McCollough 2004: 58). The difference between *ciboléros* and *Comancheros* in the end was that the former brought back meat obtained by honest ways, according to Texas settlers' standards, but the latter frequently possessed stolen horses and livestock obtained elsewhere on the frontier.

The Spanish-speaking, horse-mounted, spear-thrusting hunter was the *ciboléro*—a unique blend of Indian and Spaniard. He insisted on the fastest horse but considered a firearm optional. His preferred method of lancing was spectacular for observers and exhilarating for himself, but the risk to rider and horse were high. His home extended anywhere from Santa Fe down to Chihuahua, and his delicious salted bison tongues obtained from what is today the Texas Panhandle were traded as far away from the High Plains as Mexico City (Morris 1997: 155-158)

Problems resulted from the trading, not the hunting. When the *Comancheros* of New Mexico traded their trinkets, food, and alcoholic beverages for cattle and horses, they received with increasing frequency stolen livestock which the Comanches obtained from the northwestern frontier of Texas.

Comanches acquired livestock in Mexico early in the nineteenth century, but this shifted so that the more likely source became the Texas settlements. Haley (1936: 189-197) explained how John Hittson, Oliver Loving, and Charles Goodnight took stands against the *Comanchero* trade along with the governors of Texas and New Mexico. However, the corralling of the Indians onto reservations by General Ranald S. Mackenzie in the early and middle 1870s was the only thing that scattered these traders.

Meanwhile the *ciboléros* continued their efforts even into the twilight of the hide hunt in the latter 1870s. The trails that they traveled were likely the same as those used in the previous two centuries, changing routes only when the bison could not be found in sufficient numbers at locations which had become favorites for them. The trails that they traveled (Fig. 2.11) were likely hard to detect for most travelers. As Haley (1952: 194) wrote, *Comanchero* trails were “ABC to the seasoned Texas frontiersmen, but nothing short of Sanskrit to the army.” Some of the hide hunters in the 1870s did not see the trails either, and when they did, they often did not know who made them.

The best geographical description by a first-hand interviewer of one of these Mexican hunting outfits is from Frank Collinson (1936), who contributed articles to Ranch Romances. He wrote of his finding a *ciboléro* outfit, although he just referred to them as Mexican hunters, in camp not far from his own camp. He said he found in Blanco Canyon, which is within modern Crosby County, the typical Mexican camp. It was his first observance of such hunters, and they apparently entertained him, his two companions, and their curiosities.

Collinson (1936: 248) estimated at least 50 wagons all drawn by oxen, at least 200 men, half as many women, and some children and dogs. Of course,

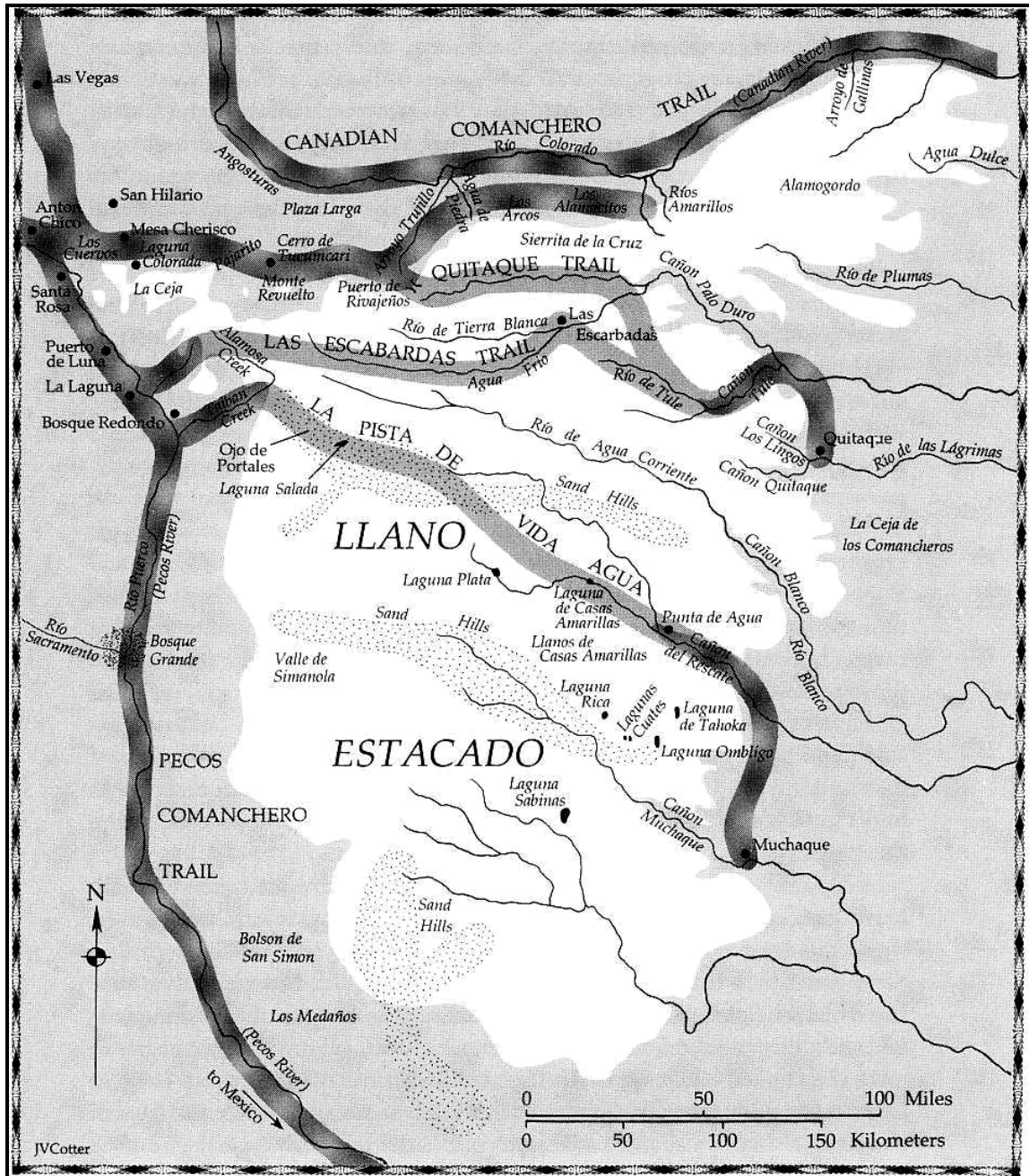


Figure 2.11. Comanchero Trails on the Southern Great Plains
Source: Morris 1997: 185.

they had a good herd of horses. They were from Chihuahua by way of the Pecos River, traveling by Guadalupe Peak and through Fort Sumner. The trip had taken 3 months to get to Blanco Canyon, southeast of present Plainview, Texas.

Collinson wrote,

These hunters were from Chihuahua, at least eight or nine hundred miles from Blanco Canyon. They had been over three months on the trip, coming by way of Guadalupe, crossing the Rio Grande there and going by the Big Salt Lake, just south of Guadalupe Peak, to where Carlsbad, New Mexico, is now located, and up the Pecos to Fort Sumner. (Collinson 1936: 248)

He added that the salt they used for curing bison tongues, the only meat they salted, and general camp usage was obtained enroute at the Big Salt Lake.

They had no guns for killing but used horses from which they mostly used lances, blades being made from old bayonets or old rasps. They had no guns for killing, but they did possess some older guns mostly for protection against Indians, which was also the reason their party was so numerous. On the return trip, these numbers would scatter in different directions after they had escaped to the Pecos River. Collinson conveyed a sense that the trip was very well rehearsed, and nothing was brought which was not needed.

Although hunting strategies are not the main interest here, it is worth noting that Collinson did not sound eager to try hunting in the dangerous style of the *ciboléros*. He said he rode along on a hunt with this group but just as an observer and did not attempt to use a lance. This was the only time in his writings when Collinson sounded afraid to do something. John R. Cook (1907: 54-58) left a record of a hunt in which he actually did lance a bison from a

running horse, from which he fell when trying to remove the lance from the bison, making him the only white hide hunter to do this and survive to write about it.

This type of killing, the bison running did not sit well with hide hunters from the east, who preferred the herds to keep still. As the hide hunters reached the foot of the High Plains, they clashed with these Mexican hunters, said Collinson (1936: 249), “. . . and a good many fights came off.” In the winter of 1877-1878 an agreement was struck between some hide hunters and some *ciboléros*, effecting a partnership whereby the Mexicans were given meat if they would just help with the skinning and not attempt to do any hunting. “That was the last winter of the big hunt. There were still a few left on the plains, but not many. After the winter of ’78-’79 they quit coming; it was all off,” stated Collinson (1936: 249-250).

During the trip, which was six to eight months, many dangers likely were encountered. Collinson (1936: 250) stated of the *ciboléros*, “Although on the whole the Mexicans got along very well with the Indians and a lot of trading both ways was done, they had to watch the Indians all the time.” This necessity of trading, which was a way to peacefully confront each other and promote tolerance was apparently the origin of the *Comanchero*, a professional trader to the Indians.

Fabiola Cabeza de Baca (1954: 40-41) wrote from her interviews that the *ciboléros* from New Mexico would leave for the bison range only after they finished taking in the harvest at the settlements on the Rio Grande and Pecos Rivers. This was timed well so that the party would meet the bison, which the

hunters expected would be wandering south in the late summer and fall. The trip from Las Vegas, New Mexico, to Palo Duro Canyon east of the Caprock Escarpment required about two weeks of traveling for a caravan of 10 to 30 wagons.

There was a time when the *ciboléros* existed in peace with the Indians of the Southern Plains, and trade occurred to ensure that they greeted each other in peace and tolerance. A period of peace began in 1786 when Governor Anza of New Mexico set up an agreement for the *ciboléros* and *Comancheros* to enter deeply into Comanche lands from the Concho Rivers to the Canadian River (Morris 1997: 162).

Comancheros in this period of peace came to identify with the unfortunate situation of the Comanches, that of being caught in between competing and encroaching groups. Cabeza de Baca (1954: 47-48) related:

“The Comanche Indians had been friendly with the *ciboléros* for more than a century. As we traveled to the Ceja [Caprock] and the Llano to hunt for buffalo, we carried with us bread, panocha—sprouted wheat pudding, whiskey, guns, cotton fabrics, beads, knives, and other articles. These we traded with our friends, the Comanches.

“The Comanches resented the moving of the Texans and other stockmen with their cattle into their land. Stealing cattle was the means of revenge which the Indians used against the cattle owners. The Comanches would meet us at our camps along the buffalo country. There we exchanged our goods for cattle and horses that the Indians had driven from the unfenced land of the cattle kings. We gained very little from the trade, as the Americans to whom we sold the cattle paid us low prices for them. It was merely getting rid of them for whatever we could get. . . .

“The Americanos around us were the real racketeers in the business. They did the buying from us, then they would drive the loot to Colorado, Kansas, Nebraska, or to California where they sold it at great profit. Very few of the stolen cattle ever were kept in new Mexico.

Thus, widespread trading of stolen cattle explains in part why the cattle industry spread across the Great Plains dramatically after the Civil War. Although rustlers and con men had a part, the role of the Comanches and *comancheros* must have been the lion's share. In 1867 Texas Governor Throckmorton wrote to the Secretary of War Stanton that since Appomattox, Indians had killed 162 Texans and stolen 31,000 cattle and almost 3,000 horses (Cashion 1996: 82). The Comanches obtained the bulk of the cattle and horses from the Cross Timbers frontier, which was the most northwest of Texas settlements after the Civil War (Haley 1935: 157). This frontier was centered in Palo Pinto, Comanche, and Erath counties (Jordan 1993: 216, 220)—transitioning to Shackelford County in the early 1870s due to Ft. Griffin. Sometimes the traders did not make their return to the Pecos before the Comanches had stolen the same stock again, this time from the traders. Gelo (2000: 283) wrote that the stock traded to the *comancheros* was watered at the same water holes the traders used, and this allowed non-native plants from Mexico, and by implication Central Texas, to be introduced by these animals.

Indian Transition from Hunting to Stealing

The Indians of the Southern Great Plains believed that the bison would last and so would their way of life. However, by 1867 no whites believed the bison would last. The best evidence for this is the 1867 Treaty of Medicine Lodge. The Comanches and Kiowas negotiated the right to go out on bison hunts where there were bison herds. The hunting grounds would be the Big Bend of the Arkansas, which is in south-central Kansas. Neither the Peace

Commission nor the newspaper correspondents believed that the government had promised the Indians anything because, stated Jones (1966: 119), "The extinction of the animals was taken for granted, and no one discussed saving the herds."

The idea that the bison would disappear was not cloaked. Senator John B. Henderson said openly and directly to Comanche Chief Ten Bears during the treaty talks that as much would happen, that 'the buffalo will not last forever . . . now becoming few' (Noyes 1999: 3). Since this message had been communicated to Comanches and Wichitas since 1834 and the bison had remained, there was no reason for tribes to believe it in 1867, except that it had become the basis of a treaty restriction. Without the justification of hunting the free-roaming bison, the Indians would be confined to the reservations. While Plains Indians had not restricted their hunting to simply bison but had included elk, deer, and pronghorn (Lowie 1954: 13), the focus of Indian restrictions based upon the bison really convey the tenuous position of that animal and those monocultures based upon it.

Furthermore, at a council in the summer of 1872 at Fort Cobb, representatives of the civilized tribes, the Five Nations, told the Kiowas and Comanches that in a few years the bison would be gone, and they should settle down and raise crops, else they would starve. Their reply:

The Kiowas and Comanches responded that it did not seem possible that so awful a calamity could happen as the total disappearance of the buffalo; but, if such a danger was impending, they would abstain from killing the buffalo for a year or two in order to allow them to multiply. In the meantime they could get along very nicely on cattle stolen in Texas. (Nye 1942: 156)

Instead of agreeing, the warlike tribes still had trouble conceptualizing a future that did not allow them to go out from their reservations to conduct raids. Stealing stock from the Texas settlements was the way they would obtain food if unable to find bison. Stealing and waging war was the life profession of Kiowas, and this was a legitimate and honorable occupation to them (Nye 1954: 135).

Although hunting prowess in pursuing bison had been highly revered, its importance declined with the appearance of the horse. By the middle of the nineteenth century, according to Foster (1991: 3), "the horse trade may have replaced bison hunting as the dominant economic fact of Comanche life, further entangling Comanches in the developing Euro-American political economy." When horses became a preferred standard of value by which payments could be made to obtain a privilege or to rise in prestige (Lowie 1954: 42), stealing prowess rose in importance above hunting prowess. By 1865 states in the Midwest traded cattle at \$25 each; Kansas and Missouri, \$20 a head; and Santa Fe, \$60 apiece (Cashion 1996: 93). The Indians simply responded to conditions existing in distant Euro-American population centers, which were low levels of food resources due to the Civil War, resulting in cattle becoming cash on the hoof (Cashion 1996: 88). As early as the mid-1860s, cattle took priority over horses when Indians raided settlers (Cashion 1996: 87). This adjustment to Euro-American values, however, was in direct conflict with the societies from which these Indians were stealing but which were also killing off the bison.

Although horses might have fallen in value to cattle, this fall was only relative and for a time because horses were the means for all of the Plains

Indians' activities. With an estimated 250,000 horses kept by the Southern Plains tribes and another 2 million wild mustangs spread throughout the same area, these animals naturally displaced the bison (Flores 2001: 65; Lowie 1954: 42). The decline of the importance of the bison also resulted from the relative fall in the value of bison products because of increasing values for livestock that could be stolen or otherwise gathered and then herded to a trading point.

Cattle Trails

Before the price of bison hides rose enough to draw up the frontiersmen and the unemployed, cattle trails resulted from the demands for food after the Civil War. Stock owners trailed cattle to markets in New Mexico and Colorado and railheads in Kansas before the hide hunting ever jumped south of the Arkansas River. A number of the trails that became known from the 1870s had been a trail of another type before being known as a certain cattle trail. None of these people in need of a trail were very particular about exactly what kind of trail it was before or after their arrival, but they were willing users of a trail if it already existed in a close approximation to their needs.

Here are two examples here of how cattle trails were linkages of other trails. These examples are not offered to discredit the traildrivers from their difficult and dangerous work, but they serve to illustrate that the drives of the 1860s and 1870s were not made on a landscape empty of trails and other human-caused features. These trails show how trailblazing by the 1870s was usually not involving much exploration but more interpretation and selection of extant trails and linking them together where gaps existed. These two trails in

essence surrounded the bison, marking their distribution limits of the early 1870s on the Southern Great Plains. These are the Western Trail, marking the eastern line of the bison herds, and the Goodnight-Loving Trail, which generally was at the southern and western limits of the bison range in the mid-1870s.

Western Trail

The Western Trail (Fig. 2.12), which ran through Fort Griffin, was one of the reasons that Griffin had much commerce. The Western Trail was used to follow the bison along a north-south pattern. As John R. Cook was traveling this trail, he ascended a point in the Wichita Mountains and observed the landscape.

From the summit of one of these western spurs of the beautiful Wichita Mountains, I got a view of an inland empire-to-be. . . . The great herds of buffalo were in sight from any point of view, east, west, north and south, but the heaviest, thick, dark mass was many miles to the west.

Skirting the edge of the tablelands, on the northern line of the Llano Estacado, northwest as far as the vision extended, were to be seen the seemingly countless bison. Looking down the Otter creek way were many scattering bands of antelope; and yonder to the southwest were three big gray wolves following a limping buffalo, whose leg perhaps some hunter had broken.

Coming down off that mountain, east of me were hundreds of wild turkeys; looking back adown the trail we came over and on still south of Red river, on a big flat as large as two Congressional townships, could be seen the herd of 3000 Texas cattle that we had passed by on the Wichita river. . . .

Looking northward, coming down the trail is a covered wagon and a buggy and thirty-two cow-ponies being driven by two men, whom I learned afterward were on their way to Cleburne, Texas, after 2500 head of cattle, to stock a range on the Cimarron in the southwestern part of Kansas.

. . . As I turned away from this inspiring scene I felt that I had witnessed the greatest animal show on earth. (Cook 1907: 157-158)

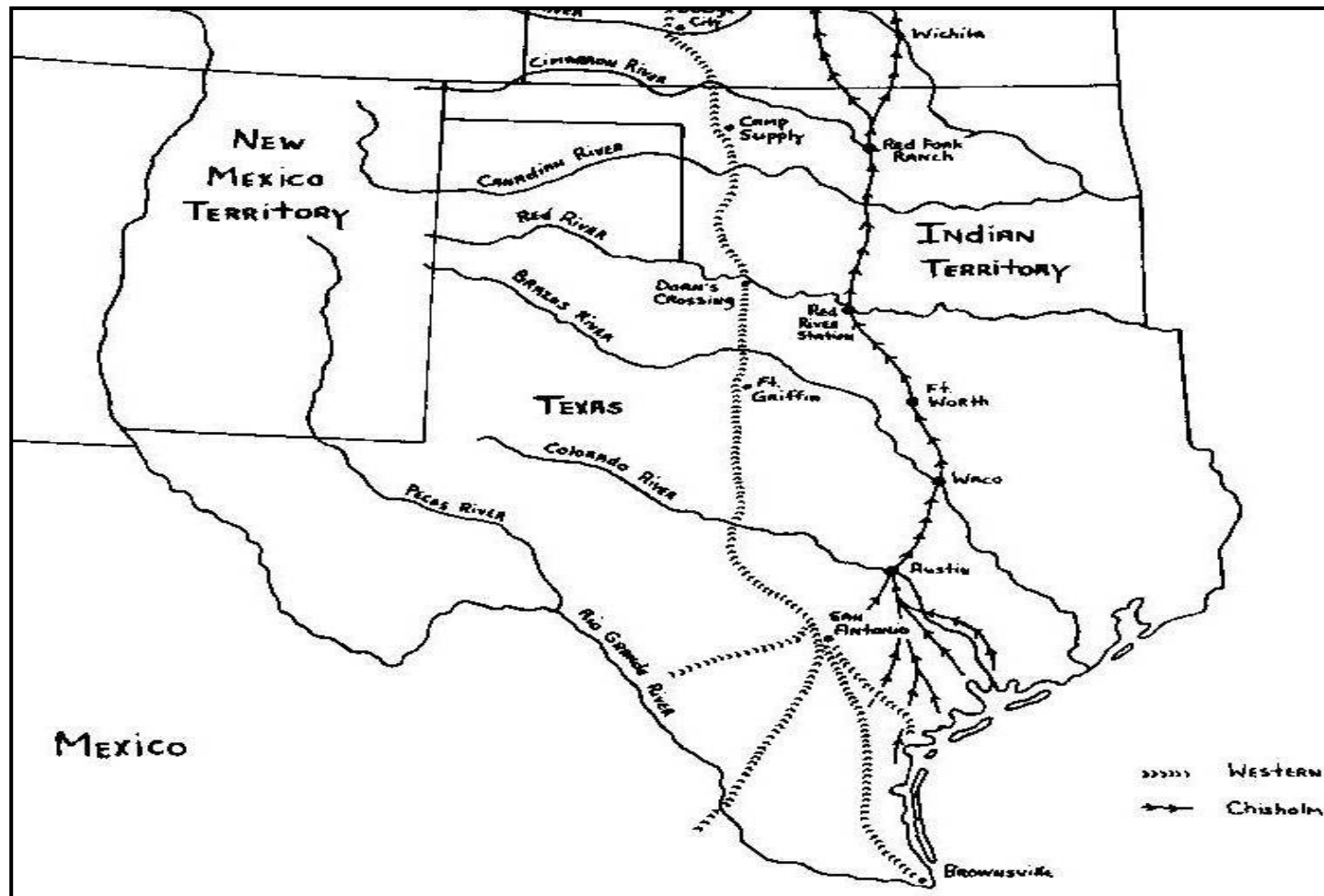


Fig. 2.12. Kraisinger's Map of the Western and Chisholm
Source: Kraisinger and Kraisinger

This party of bison hunters was using the Western Trail in 1875 to cross the Red River and advance through the Wichita Mountains only after this trail had been blazed by cattle drivers the year before—in 1874.

Frank Collinson was among those who put that trail together. Blazing the trail is not really an honest way of thinking about these trails made in the mid-1870s because they were often just linking together the pieces that already existed. They were at least half the time using trails that already clearly existed but perhaps less formally or for some other purpose. Collinson admitted as much, but he nonetheless wanted credit for linking the parts. He stated:

When I recall that first long cattle drive to the Northwest and think of the hardships we experienced, I wonder if there was really much glamour or adventure to the trip. It was 98 per cent hard work, but I am glad I had the experience, and we helped make cattle history on that drive. We beat out a trail over sections of the country that had not been traveled before, and over which thousands of cattle would later be driven to the ranges in Montana, North and South Dakota, Wyoming, and Colorado. (Collinson 1963: 31)

Collinson (1963: 33 ff.) wrote about the pattern in which he and his employer, John T. Lytle, established the Western Trail. He stated,

Eighteen men, some of them veteran trail hands, left the Lytle ranch on March 16, 1874, with that herd of big steers, headed for Comanche Creek in Mason County where Lytle would receive one thousand more. . . .

We reached Fort Griffin in Shackelford County the last of April and rested up a few days on Collins Creek. We bought fresh supplies in that thriving frontier town, alive with soldiers, teamsters, and the first of the buffalo hunters.

Since we planned to head across unknown country from Griffin to Camp Supply, Indian Territory, with the first herd of cattle to be pointed in that direction, the government furnished us a guide, Champ Means, who . . . had been with General Mackenzie for two years. . . .

It was my job to ride ahead of the herd from Griffin to Camp Supply to watch out for buffalo herds and keep them off our trail. Lytle was afraid the running buffalo would stampede our cattle, and stressed the

importance of finding good bed ground where the steers would be comparatively safe from such an attack. . . .

After we crossed into Kansas we saw very few buffalo, and we saw none at all after crossing the Arkansas River.

We followed a plainly marked trail from Camp Supply to Fort Dodge. . . .

After resting up there and buying supplies, we headed for the Platte River. . . .

The South Platte was crossed near Sterling, Colorado, a small town on the Union Pacific Railroad. The journey was continued uneventfully, and we later crossed the North Platte near Camp Clark. It was a relief to follow a well-marked government trail from that point to the Indian reservation, which we reached at the end of July. (Collinson 1963: 33 ff.)

If Collinson and the cowboys on the Western Trail were running their cattle herds into herds of migrating bison, then the sense that people and bison had similar geographical preferences can be felt early in the story of the southern hide hunt.

Goodnight-Loving Trail

Charles Goodnight offered his information to Haley, who then checked out the information and mapped it according to Goodnight's account. Apparently, both of them understood that Goodnight was following in the steps of others but did so in such a marginal way that the work could be called trailblazing.

And thus, upon the sixth day of June, 1866, the most momentous day in young Goodnight's life, he left the frontier of Texas to blaze a new trail for longhorned cattle. . . .

For many miles their course was plain as they followed the trace of the Southern Overland Mail, with which the name of Butterfield is synonymous. Captain R. B. Marcy, the army explorer, Boundary Commissioner John R. Bartlett, Captain John Pope, and others had explored portions of the course in the later forties and fifties. Travel by the Emigrant Trail to California had removed some doubts concerning the country they faced, but none of its difficulties and dangers. They trailed out into a tried, but still an uncertain, land. (Haley 1936: 127-128)

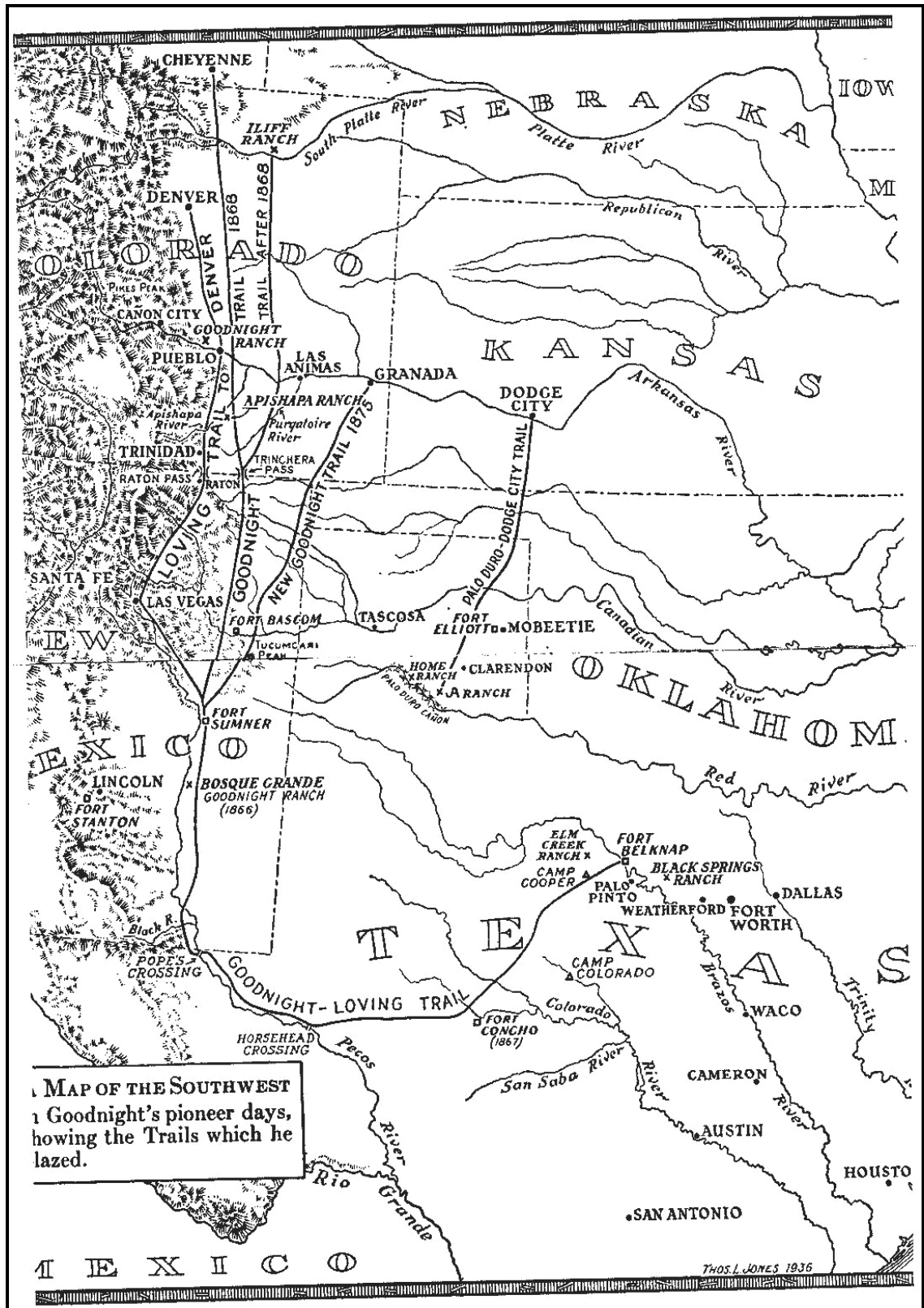


Fig. 2.13. Haley's Map of Goodnight's Cattle Trails
 Source: Haley 1936: [xiv-xv]

Actually, just a few months before Goodnight and Loving drove their first herd on this trail, three others from this same area drove a herd of 125 cattle to Santa Fe (Cashion 1996: 88). Other than the final destination, the routes match pretty closely, again having followed the Butterfield and then Indian and *Comanchero* trails. This did not stop Goodnight and Loving from this trail with their names, which might be most appropriate anyway if the basis were numbers of times utilized.

Remarks

The story of bison is largely a story of movements, speciation, and adaptations. All people who have come into contact with bison have hunted them, but the post-Civil War hide hunt marks the tightest bottleneck for the two surviving species. The bison is a symbol of hunting as a way of life, but the efficiency of the hide hunters has made them a source of controversy.

Just the aspect of humans hunting bison is a long-enduring and integral part of America's past. According to Frison (2004: 67), ". . . we can claim with confidence that with the possible exception of the mammoth in Clovis times, bison were the major prehistoric human food source on the plains of North America, beginning with the earliest humans there." In addition, present-day Texas has served as a crossroads of biotic types, including the plains, woodlands, and deserts. Texas is also a geographical bottleneck as people moved southward across the two American continents from the north. These facts have always placed it in an important position for trade. This has included trade routes meeting with or corresponding to bison movements.

James L. Haley (1976: 1-20) paints an unusual portrait of Southern Great Plains tribes—the Cheyennes, Arapahoes, Kiowas, and Comanches—as people who had desired a more sedentary way, even one involving farming, before being pushed to the south by other tribes. But when proposed to them as a way of life during treaty talks, these activities were too many generations away for their medicine men and tribal leaders to recall with the same fervor by which they chased bison and raided settlements.

Matters came to a head when a disheveled country realized that Texas beef could feed them cheaply after the Civil War. As the cattle industry received strong socio-economic favor, neither the bison nor Indians could last as free-roaming herds and tribes. Indians were seen as loafers, and cattlemen were seen as respectable businessmen who needed to have the bison cleared out of their way in order to infuse and disseminate the ways of scientific agriculture. This viewpoint—more than any technological advancement in firearms or tanning processes—was the most important cause of the dramatic ecological changes on the Great Plains after the Civil War.

The stage where the hunt would be played was well marked even if the hunters did not recognize all of the cues. West Texas had many trails at the time of the big bison hunt. It had the Butterfield Stage, the Indian trails, animal trails, and trails left by military expeditions and traders. Hunters quickly added their wagon marks to the scene. The trails of the *ciboléros* that went to the bison range just east of the Caprock Escarpment met up with The Comanche War Trail added to the grid of potential trading points and hunting locations. Where trails

did not previously exist sufficiently or continuously, sometimes they required only widening or extending to be added to the network. If a trail were used only intermittently, it could still be visible to an observer looking for it after years of disuse. In an informal book about Big Spring, Texas, Shine Philips (1945: 14) relates how trails used by horseback from Colorado City and Abilene going north up to Kansas were visible from airplanes 37 years and longer from the time they had gone out of use.

CHAPTER III

THE TRANSPORTATION AND TRADE NETWORK OF THE BISON HUNT

Access to the Bison Range

The bison hide hunt can be seen as having three stages. The first stage begins when hunters went south from Dodge City, Kansas (Fig. 1.1). Enough interest in the southern herd had developed that by 1873 hunting extended into Texas before Colonel Dodge gave implicit permission in the fall of 1873. The partial retreat from the Texas Panhandle officially began on June 27, 1874, when a large band of mounted, painted warriors attacked Adobe Walls. This partial retreat marks the rise of the second stage.

This second stage begins with a shift to Fort Griffin, deeper in Texas and more close to the bison. Fort Griffin became the base of Texas hunting in the latter part of 1874. During this second stage the hunters became a large labor pool so that they covered the range by 1876, blocking off the water sources and the shelter of river bottoms. The winter of 1876 to 1877 was very likely as productive for the growing mass of hide hunters as the previous winter, but afterward the hunters generally had trouble finding bison in groups large enough to merit large-scale hunting.

Finally, 1877 to 1878 marks a third stage, a shift to the High Plains and back into the upper Texas Panhandle because bison herds worth hunting were rarely in the more accessible places. The records of hunters reflect that bison still existed in certain locations, and some hunting occurred. However, the general impression is one of discouraged hunters in 1877 and 1878. By 1879, the remaining bison in the southern herd were so few and separated that hunters who had persisted through the third stage had finally quit hunting altogether or shifted to hunting something else like antelope and wolves. The trading posts, the pivotal indicator for this study, also made a shift by 1879 at the latest away from trading in bison hides, usually trading dry goods with the cowboys who were already coming through in 1879.

Trails of animals, Indians, explorers, and traders existed on the Southern Great Plains before the bison hunt, but the deep ruts of the hunters' and traders' wagons created a trail network that was the immediate predecessor of the current network. The standout work on these trails and their economic basis is Trails South by C. Robert Haywood (1986). He explained that society in general has disconnected from the socio-economic and political structure that made the wagon road economy of the 1870s on the Southern Plains. This is the result of changes brought by railroads and the organization of states. Haywood (1986: 9-10) states, "The wagon roads and those who used them in servicing the Region in the 1870s and 1880s were not restricted by arbitrary state lines, and it is this apolitical condition that was fundamental to the success of the transitional period in the Region."

Haywood's analysis rings especially true when considering the long travel times and heavy loads of the bison hunters. The answer to the old question of why the hunters were so wasteful becomes very obvious when taking into account the bottlenecks, especially the transportation used by hunters. Skinner and hunter John R. Cook (1907: 117), for example, noted that the wet hides of a single day's hunt were sometimes too heavy for the animals to pull back into camp in one trip.

. . . We would throw the hide in the wagon, and proceed as before until all the hides were skinned from the dead carcasses.

Many times we had in one killing more hides than the two ponies could pull to camp, in which case we spread the hide, flesh side down, by the carcass, in order to get them when there was a slack time in the work. (Cook 1907: 117)

Joe McCombs (1935: 98) had a similar experience when hunting with John Poe in the winter of 1874-1875. One of their animals suffered an injury to its shoulder such that they did not have a way to pull a wagon for a while. So they just pegged the hides down to the ground at the site of each skinning. It was at such places as the scene of the dead animal that a decision was forced as to what would be collected and how it would be done. Cook (1907: 136) also stated that some wounded animals, even if they ultimately fell, did so after walking from the field into an isolated ravine or thicket, where the animal began to decay before it was found. The hunter needed to think about his location in terms of the skinning task to follow before firing upon a herd.

For freighters and hunters alike, weather was often a source of frustrations. Even when wagon loads were limited due to topography, the wagons were too heavy to be on a road of deep ruts in a heavy rain. When the

trail turned into a sea of mud, the freighter had to disconnect wagons many times and trail them one at a time through the worst parts of the trail. Sometimes wagons had to be left where they were for a while. All of this effort and time at freighting, if conducted entirely by hunters, cost them money for spending time away from the bison range (Pope 1956: 33).

Hunters could not have taken supplies out to their camps nor returned to trade bison hides without teams and wagons. If hunters freighted in all of their hides, not selling them in camp to a third party as some had opportunity to do, this might mean seeing better hide prices. Since hunters did not want to spend much time away from hunting, the location of trading posts in relation to hunters became an issue for trading successfulness. Traders needed to be in the best place with the supplies hunter demanded in order to have all the advantages. This barter system was necessary because relatively little currency circulated on the frontier (Dick 1941: 433).

This system heavily favored traders, leaving the hunters as a labor force. The bison hunters were essentially transients (Sheffy 1930: 9). In some cases they were hunting something else before bison, and they were relatively comfortable in living out on the wind-swept plains. Their temporary camps and short-lived trading posts were not objects at which the railroads could take aim. The resulting hesitation by railroads to build through West Texas gave to the bison there some isolation from the intensive hunting for a few years beyond their destruction in Kansas (Allen 1974: 151-152). The extension of railroads through

Kansas directly facilitated early organized hunting there—first for food and shortly thereafter for robes and hides (Clark 1958: 101-102).

If a railroad somehow successfully had cut through the bison range and Comanche territory before 1870, then wagon roads still would have been used extensively. Frank Collinson (1940: 114) wrote that when the Texas & Pacific Railroad crossed the Pecos River, the country surrounding the tracks “was as it had been since the creation.” Of course, Collinson was aware of the faunal changes and developments in ranching by that time, but his point was that more had stayed the same than had changed. The railroads get great publicity, but that highlights the importance of transportation in general. Even when railroads were built, that did not cancel out the significance of the wagon roads locally. For example, after railroads appeared near present Abilene, Texas, settlers readily recognized the continued importance of freighters getting supplies to them where the railroad did not reach directly (Clack 1979: 155).

Billy Dixon was among those who had first hand knowledge of bison locations based upon his observations while freighting. He began as a freighter when he was practically still a boy (Dixon 1987: 17-18). He was among the freighters in the giant freight train of approximately 100 wagons that established Camp Supply, Indian Territory (Haywood 1986: 20). This Camp Supply is not to be confused with General Mackenzie's Supply Camp in Blanco Canyon. General Sheridan wanted Camp Supply, which later became Fort Supply, so that the army would not be in want for supplies while patrolling to enforce the Treaty of Medicine Lodge. At that time Fort Hays was the supply point for all government

forts to the south of it and remained so until the Atchison, Topeka, and Santa Fe Railroad went through Kansas in the fall of 1872. The 100 wagons pulled by 600 mules left Fort Hays, Kansas, in the fall of 1868, and the freighters met with a very large herd of stampeding bison near the Cimarron River.

Billy Dixon remembered the immensity of this herd and its location. By the time Dixon went into the winter of 1869 to 1870 with some fellows from freighting the previous summer, he was well-acquainted with the opportunities that hunting could offer. That winter he could get \$2.50 to \$3.00 for each beaver or wolf. In the spring of 1870, the year he turned age 19, the hides of bison increased in value such that he began hunting them strictly for their hides (Dixon 1987: 61). This is how the professional hide hunter evolved—just taking opportunities that the outdoor life on the frontier offered.

Hunters shifted from other animals over to bison hunting, and as others joined in who were not hunters particularly but willing to do skinning for having meals covered and some wage earned. Bison hunting was something that two-thirds of the population around Dodge City did to occupy idle time when railroad construction stalled at Granada, Colorado, due to a financial crisis known as the Panic of 1873 (Clark 1958: 101). Kansas quickly ran out of bison for them to hunt, forcing the decision to hunt bison elsewhere or do something different altogether such as head to the Dakota Black Hills for gold (Whitlock 1962: 10). George Causey, who became well-known for hunting the southern bison herd, went south of the Arkansas River to continue after bison.

The challenge to going south was determining how far would be safe to go. The dead lines, lines which hunters did not cross without the expectation of meeting Indians in war paint, descended southward from Dodge City (Dixon 1987: 82 ff.). First it was the Arkansas River, then the Cimarron. That was officially the case anyway. Hunter and freighter J. Wright Mooar said he and Steel Frazier represented the bison hunters at Fort Dodge by asking Major Richard I. Dodge there just what the consequence would be for going into Texas (Rathjen 1998: 123). Major Dodge's response that he would hunt bison where they were if he were a hunter is one of the most famous quotes of the bison hunting story, recognized as implicit but official permission for hunting in Texas. However, the hunters' question was based upon a fear that was not entirely unfounded. Even though documentation has been poor, the threat of losing teams and wagons to the U. S. Army by confiscation due to being in Indian Territory was genuine and real.

Hunter Seth Hathaway said that when his hunting party reached the Cimarron River, a troop of Fifth U. S. Cavalry took the hunters as prisoners because Indians had complained about hunters killing bison inside Indian Territory (Hathaway 1931: 108). The U. S. government's response was sending some cavalry to patrol the northern boundary of Indian Territory. Hathaway continued:

We were held all that day till late in the afternoon, and were told by the commanding officer that if we were caught in that neighborhood again he [would] send us to Fort Sill. With an escort of ten men we were started back north. After going about four miles soldiers left us, and we continued going north till after dark. Then we held a council, and decided as we had come that far we would not turn back and take chances of being caught

and shut up in Fort Sill. So we changed our course to the west, traveling till midnight, when we stopped to rest the stock. (Hathaway 1931: 109)

Frank Lloyd's account of the confiscation of George Causey's outfit is similar. For all the adventure that Frank Lloyd knew in his early life, buffalo hunting might have seemed boring to him. Lloyd was born in Ireland and ran away from home at age 11. At age 13 after serving as cabin boy on a steamer that ran the St. Lawrence River, he wrecked the ship, and it sunk in the middle of a cold night. Then he sailed from Boston to Sitka, Alaska, after which he went to Africa for a load of ivory. He continued:

I come west in '71. I come right down and landed in Dallas, which was the end of the road. The railroad comes in by Memphis and Marshall, the T & P. I went to work there for a fellow named Tom Haley. He had a lot of cattle, and I went to work for him and gathered a bunch of steers and took them to Dodge City. That was in '72. Dodge was a pretty wild town then. I quit at Dodge and went a-hunting buffalo.

I went out with George Causey. . . . We hunted buffalo there and would ship the hind-quarters back to Kansas. We started hunting in '72. We hunted '72 and '73 in Kansas, right there twenty miles from Dodge City. . . . (Lloyd to Haley 1935: 2)

Lloyd continued about his hunting ever-southward, and he boiled over the confiscation of the hunting outfit, especially the means of transportation.

. . . We just hauled them in. We were close there to Dodge City. I have seen them so thick up there that they stopped the train for an hour for a herd to cross. We got so much a pound for it, and then we saved the hide. It brought about six cents a pound. We made plenty of money. When we moved south, we had to salt the meat. We had to cut it up and salt it, and finally we go so we made jerky out of it and shipped it over there to the Mexicans down at Vegas [Las Vegas, New Mexico] by team....

We hunted through the spring of '73, and the buffalo went south from there. I don't think they ever went north again. Then we hunted in the fall of '73 and in the spring of '74 we came into the Panhandle. We didn't do our hunting there in the Nation. We started out in the fall, and we done it on the south side of the Canadian. We were arrested, all of us, and taken to Fort Smith for hunting in the [Indian] territory, and we wasn't

near the territory. George Causey and Rankin Moore and Jim Harvey and Bill Benson was all there in camp, and they arrested us all. They took our mules—as fine a mules as anywhere. You could get five hundred dollars for them anywhere. They confiscated them and we were put in jail for three days. We were sentenced to jail under Judge Parker. They never give us a trial. They turned us loose without ever giving us a trial. Our horses were owing, and mules and wagons and all our hunting outfit. They kept them to give them to the Indians, I guess. We started out trying to make money enough to go back to Fort Griffin. . . .

After the fight [Battle of Adobe Walls] some of them went back [to Dodge City], but the biggest part stayed right there at Dobe Walls [*sic*]. The buffalo went south and we went down to Fort Griffin. . . .

After we left Dobe Walls, we went down on the Canadian, towards the Territory. We was just in camp when the soldiers came out to arrest us. We were camped close to the Territory but were hunting all south. They never found no buffalo in the Territory that we killed. There was a lot of United States Marshals, instead of soldiers, that come out and got us, and they made us take the whole outfit in to Fort Smith, teams and all. (Lloyd to Haley 1935: 3, 14)

Lloyd concluded his story of his times of hunting with Causey:

When we got to Griffin, we got together again. We got supplies and went out right south of the Yellowhouses [Yellow House Canyon]. There were some big surface lakes out there west of Tahoka way on out. That was in '76. '76 and '77 was the big hunt when we killed that seventy-five hundred. From that time on buffalo was damn scarce. (Lloyd to Haley 1935: 17-18)

. . . After they confiscated our outfit on the buffalo range, we bought another one from a fellow on credit, and we got four hundred dollars worth of chuck from F. E. Conrad on credit. He didn't lose a cent in the world on it. We outfitted with corn, flour, and baking powders, but didn't take any kind of meat. We used buffalo meat. We rendered out buffalo tallow from the buffalo. We got four or five kegs of powder and lead. That was in '75. . . .

After we hunted in '76, we freighted out hides to Fort Griffin ourselves with bull teams [oxen]. We loaded about three hundred hides to the wagon, but a bull team would take three wagons. They had a frame on them, and we put more on them. (Lloyd to Haley 1935: 1-2)

These accounts of confiscation of hunting outfits, particularly the wagon and mule team, highlights their importance to the bison hunt. Hunters would not go out on the range to do anything more than scout around if they did not have a

wagon and team. The news that the hunters would not be chased by federal soldiers at least from Dodge, Kansas, was permission enough to open up the Southern Plains. The bison hunting went southward from Dodge City via the wagon roads.

Bison Hunters Enter Texas

When Mooar and John Webb brought back news of the bison they had seen, the company of hunters receiving the news was less than eager to face the Indians which they believed would eventually discover them and put up a fight (Mooar 1930: 109-110). Mooar described that his party had 10 men in it and mentioned another party the same size crossed into Texas at the same time—late September of 1873. One of the men in the other party eventually died of wounds received in an Indian attack on that early trip. So the bison hunters at Adobe Walls were neither the first wave of hide hunters from Kansas nor the first hide hunters to fight Indians. The earliest hunters were just willing to take chances. Only the outright military defeat of the Indians, mostly the work of General Ranald S. Mackenzie, kept them on reservations (Rathjen 1998: 141).

About one year following General Mackenzie's successful campaign against Indians in 1874, hunting quickly boiled up like a wildfire. The hunt which immediately followed in 1874 and 1875 was mostly organized and systematic. Then in the year following that, the hunting suddenly began to resemble mayhem. Biggers (1944: 13) wrote that 1875 was a turning point. That year hunters began pouring into the bison range from all parts of the country, and this reached its climax in 1876. Merchants all across Texas paid a basic wage to any

man who would kill a bison, even sending inexperienced men out alone. The big outfits, “realizing the result of this pernicious assault, doubled their efforts, and soon but few buffaloes roamed the range, and the hunters’ guns were silent (Biggers 1944: 13).” The professionals had to keep several men around them as helpers, but they also depended upon him to be good at hunting, and this focus with its division of labor was detrimental to the herds. Biggers (1944: 17) added that in 1876 if 5,000 total hunters were hunting in Texas, then about 800 were professionals; the balance were amateurs who sometimes discovered “that they couldn’t get close enough to a herd of buffaloes to see them with a field glass.”

Networks of Trading

The primary points of trading bison products (Fig. 3.2) that went east were points along railroads. The railroads provided both an initial cause and then a means of sustaining interest in bison hunting. The railroad points of primary importance to bison products were first Dodge City, Kansas, and later Fort Worth, Texas. The absence of railroads west of Fort Worth meant that wagon roads were more important in the devastation of the southern bison herd than for bison in Kansas and Nebraska. The semi-skilled pool of laborers in Kansas, marksmen more expert with a rifle than almost any given soldier at the time, trailed their wagons into Texas. Their trading focused first at Dodge City, from where they started until the Battle of Adobe Walls, and then they focused trade out of Fort Griffin. Following that their trading included Mobeetie, the town neighboring Fort Elliott. Significant trading occurred near Fort Concho at Saint Angela, known today as San Angelo, which was linked economically to San

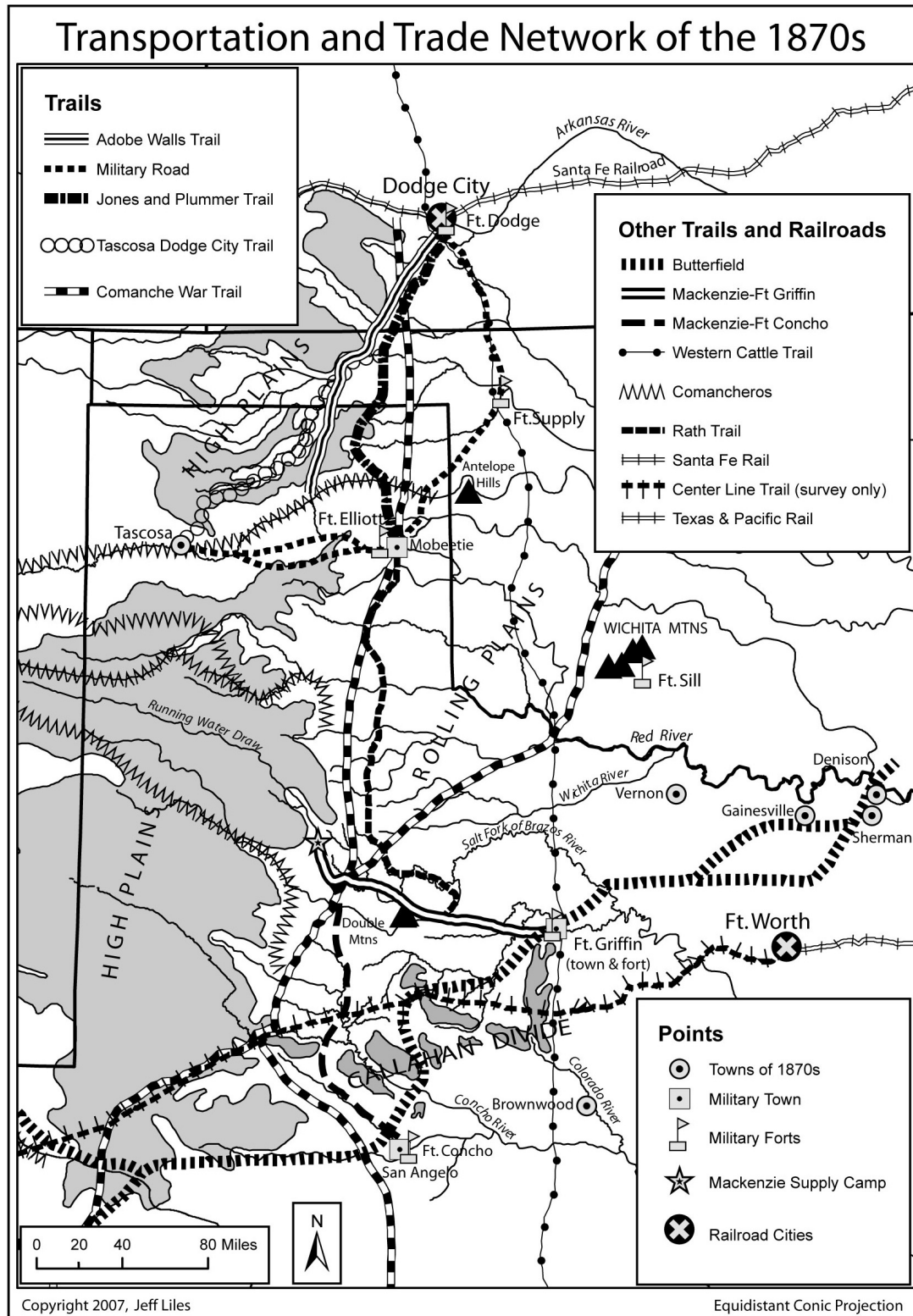


Figure. 3.1 Transportation and Trade Network of the 1870s.

Antonio. From these secondary points, all military-related, trading extended to small trading posts which usually had short lives. These short-lived, tertiary trading points with a focus upon trading with bison hunters might be the best indicators of where the majority of hunting occurred and thus where most of the bison were at a given time.

Jim White and Mike O'Brian went down to Texas to scout for bison (Biggers 1991: 14-15). They sent a letter back to their own men and the Mooar brothers. When they first set out, they were sent back to Dodge City in retreat from Indian troubles at the Cheyenne agency on the Cimarron River. They restarted their journey, arriving at Fort Sill for safety rather than making a direct route to Fort Griffin. Upon arriving at Fort Sill, they requested a permit to camp inside the walls. And from Fort Sill, these men again went east, entering Texas at Denison, following the Butterfield Stage Road all the way to Fort Griffin.

At Fort Griffin the outfits left their freighting teams in camp, and the men went out scouting for hunting prospects west and northwest of there. A location known as the Black Holes in Haskell County was their first hunting camp. It yielded a few bison, and the hunters went on to Millers Creek, afterward the head of Lake Creek, and a few days later to Big Lake, seven miles west of Lake Creek. They made a permanent winter camp at Big Lake, and there they made a big hunt (Biggers 1991: 17). In such a manner the commercial, large-outfit hunting carried over from Kansas to the north-central Texas frontier.

Jones & Plummer Trail and Mobeetie

The quality of the road of the Jones and Plummer Trail (Fig. 3.2) was comparatively superior (Haywood 1986: 88). Watering places were spaced closer; the topography was less undulating; and the worst sand pits were avoided more on the Jones and Plummer Trail than many other trails. The military road between Camp Supply and Fort Elliott and the neighboring town of Mobeetie was safer, but the Jones and Plummer Trail was more convenient for the freighter. The adding of way stations and the filling of gaps at river crossings made the trail an easy choice for freighters.

Freighters made Fort Elliott possible in the summer of 1875 when they used the Jones and Plummer Trail to haul the original building materials to the site (Sheffy 1930: 3). Although the Jones and Plummer Trail did not create Mobeetie, Texas, it was a very important link to the once most important town in the Texas Panhandle. In explaining the extension from the Jones and Plummer store southward to Mobeetie, Haywood (1986: 86) said that this southern leg was viewed as a continuation of the Jones and Plummer Trail since the people who first traveled it, whomever they were, gave it no other name.

According to the Gerlach Brothers, who had a road ranch on this trail, this road from Mobeetie to Dodge City was shorter than the Military Road by 50 miles (Gerlach to Sheffy 1929: 1). The Gerlach Brothers' Road Ranch is not on the maps produced here because John Gerlach did not build a dugout until 1884, and his brother George, who brought the supplies with him, did not join him until 1885. They moved their store to the town of Canadian after the railroad put in

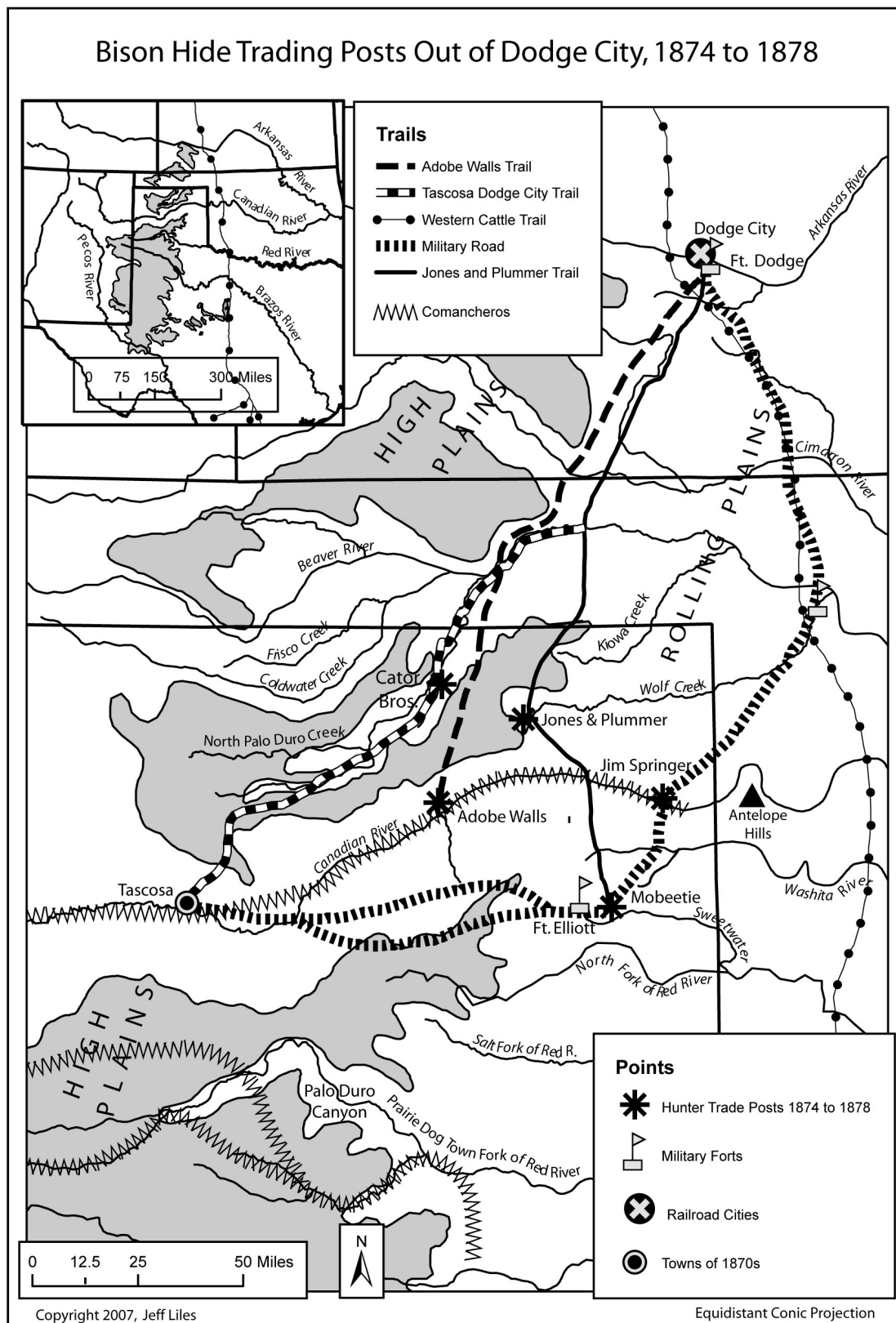


Figure 3.2. Bison Hide Trading Posts Out of Dodge City, 1874 to 1878

there in 1887, but George went off to Woodward, Oklahoma, for the land rush in 1893 (Anderson 2001: [n.p.]). The importance of their recalling more than a generation later the usefulness of the Jones and Plummer Trail should not be missed.

When the Rev. L. H. Carhart established the Methodist colony of Clarendon, he created another important Panhandle town (Rathjen 1998: 192), but its date of origin—the fall of 1878—was practically the end of the bison hunt. Mobeetie, on the other hand, was a town that was so important as an outlet for trading hides that it became known as Hidetown.

Once in Mobeetie, alias Sweetwater, alias Hidetown, the traveler had reached the Mother City of the Panhandle. It had all the advantages of Dodge City: gambling and dance halls, saloons, hotels, and by 1882 two banks. . . . Mobeetie residents built a bigger jail, but the town didn't have as spectacular a Boot Hill. (Haywood 1986: 88)

From a description of how George Simpson operated out of Mobeetie, the pattern of hunters' general movements from a trading point or camp of origin can be known.

Buffalo hunters would always have one main camp, and then a number of more or less temporary camps surrounding the main camp. Our main camp was near Fort Elliot. Somebody stayed at the main camp all the time. From this central camp we would go out 15 or 20 miles and camp for a week or two at a time and hunt buffalo. We sold our hides at Hidetown, which was located one mile east of where Mobeetie now stands on the Sweetwater Creek. There was no post office there, however. Hides were collected there by the thousands. This was on the main road between Mobeetie and Fort Dodge and the government freighters and town freighters hauled these hides to Dodge City. Fort Elliot was the center of trade for all of the northern Panhandle in the 70's. This trade territory reached about thirty or forty miles south of Mobeetie. South of that line the trade went to Fort Griffith [*sic*]. (Simpson to Sheffy 1929: 2) (underline added)

The figures of travel distance at 15 or 20 miles become significant when considering the distances that any other freight wagons might travel in a single day's time.

In later life Charles E. Jones was living in Woodward, Oklahoma, the present town closest to the location of what once was Fort Supply. Back in a much earlier day he was "Dirty Face" Ed Jones and was about as tough and down-to-business as any man was known to be, but when he wrote historian J. Evetts Haley in 1934, he began with an apology for not replying sooner. Then he described his trail as follows:

. . . We—Joe Plummer and myself, Buffalo Hunters, at that time laid out the trail from Dodge City Kas—South in 1873. We worked south until we reached Wolf Creek—where we established a store—trading first with the Buffalo Hunter & Indian tribes Arapahoes & Cheyennes—at that time we had about 50 head of work cattle & 10 wagons we also kept a Buffalo [--?--] south of there, where Plummer Hunley & I freighted to farther Forts Elliott & Supply—loaded back with Hides to Dodge City Our reason for laying out this Jones & Plummer Trail was that the gov[ernment] Trail after July had no grass or water. While on our trail, we had that & Wood—Water & grass the year around—consequently cost us about 50% less to freight—We continued until 1878 later the trail traveled west When I began to locate cattlemen & Supplied them with goods from south of Beaver to Tascosa Texas. (Jones to Haley 1934)

This is about when the Jones and Plummer Trail's midlife crisis occurred because by about 1879, bison were all but done, and cattle were starting pretty heavily. The peak freighting years on this trail were approximately 1880 to 1886 (Haywood 1986: 78-80, 88-89). During that time this trail was the main supply link to Mobeetie, the frontier town of the Panhandle most like Fort Griffin in that it contained the same three categories of people. With Fort Elliott near Mobeetie, it first had the soldiers and hunters, joined quickly by the cattle people (Sheffy

1930: 7-12). The fates of Mobeetie and this trail became inextricably mutual when the railroad passed Mobeetie. In 1889 half of the town's inhabitants fled when Oklahoma opened up its lands, and afterward the trail was strictly a local road despite being well-marked with deep ruts by that time (Haywood 1986: 88).

Dodge City-Tascosa Trail and cowtown of Tascosa

The Dodge City-Tascosa Trail (Fig. 3.2) was essentially a cutoff from the Jones and Plummer Trail, emphasizing the importance of both Dodge City and the Jones and Plummer Trail. More associated with herding than bison hunting, this trail deserves only a passing recognition here. Hispanic sheep herders had been in the area of Tascosa long prior to 1870, but the road to Beaver, where this trail joined the Jones and Plummer, was a connection to Dodge City and the cattle industry. The beef cattle industry brought to Tascosa new businesses, a new reputation, and in 1880 the official organization of Oldham County (Rathjen 1998: 183).

Any trading posts along this road which served bison hunters had to make the transition to the cattle industry in some way, possibly starting their own herds of cattle. The increases in cattle business opportunities inspired freighter Jim Lane to establish a cowboy supply store at the Beaver River, or North Fork of the Canadian River, crossing in early March of 1880. He drove in all the supplies in a large wagon train and pitched camp near a large cottonwood grove on the south bank. He built a three-room sod house, traded with cowboys, raised some cattle, and hunted and fished. Developers created the town Beaver City. These settlers used the last remnants of the bison, gathering chips for fuel and bones

for cash income (Rister 1948: 58-59, 62-63, 72-73). Ironically, the railroad that was to save Tascosa gave its residents a means for escape when the cattle industry went bust and the flood of 1893 devastated it (Haywood 1986: 116).

Mackenzie's Trails: Fort Griffin versus Fort Concho

General R. S. Mackenzie understood horses were the primary resource and weapon for Comanches, and it was his decision to kill the Indian horse herds rather than lose them back to the Comanches during night raids. His actions against horses began with his killing of horses at McClellan Creek on the North Fork of the Red River in 1872 after a loss of many horses during a raid upon the soldiers' camp (Wallace 1964: 145).

Mackenzie certainly knew that his success in the field would depend largely on how well his forces were supplied—both horses and soldiers. His continued requests for supplies indicate he was unwilling to chase and fight without supplies. To this end, he established a supply camp at Blanco Canyon (Fig. 3.3). He received supplies there from both Forts Concho and Griffin, but Fort Griffin became the preferred source since it was closer—closer to both the Supply Camp and the origin of his supplies, Fort Sill, Indian Territory. Also the

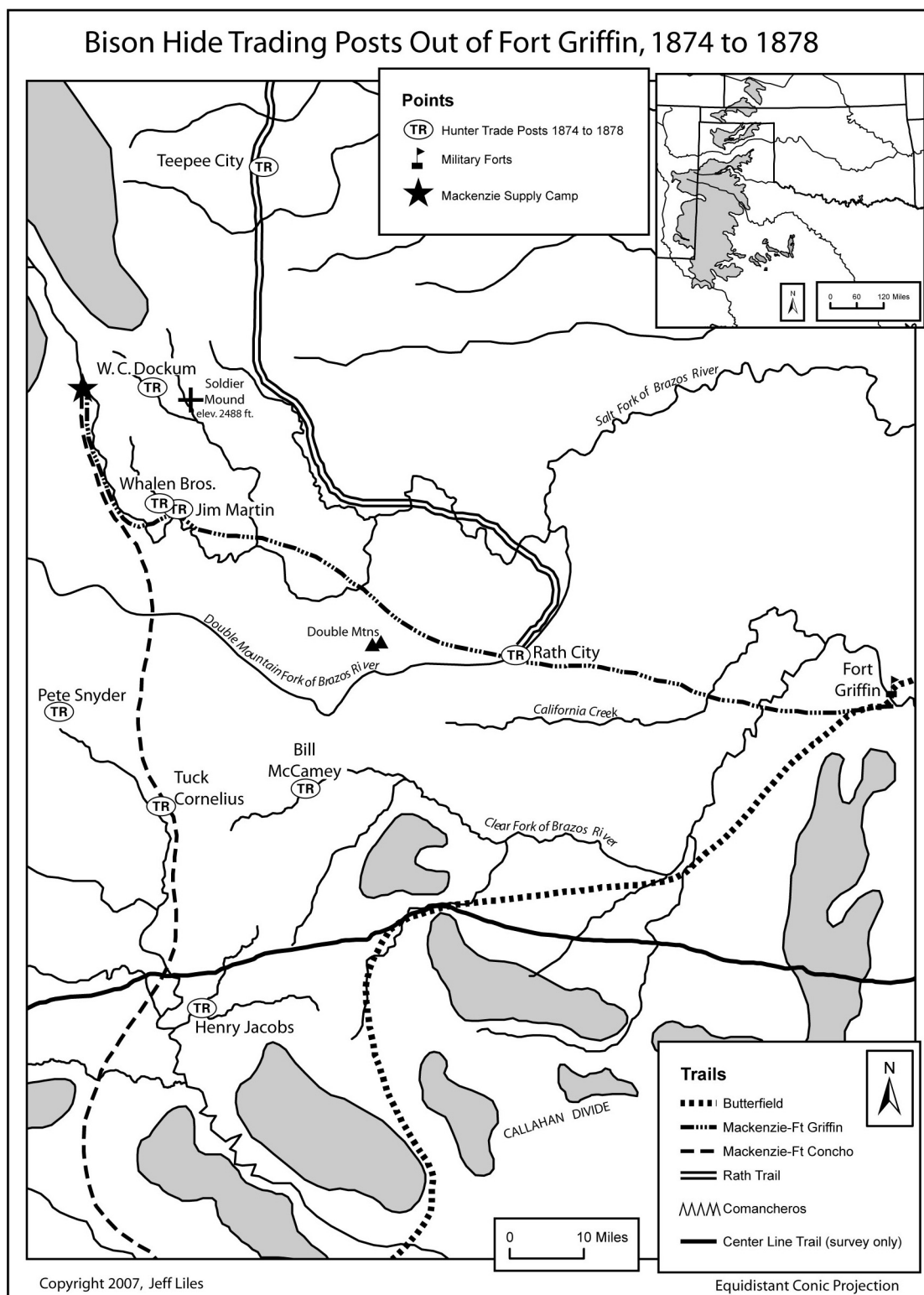


Figure. 3.3. Bison Hide Trading Posts Out of Fort Griffin, 1874 to 1878.

road from Fort Griffin to the Supply Camp was easier for wagons to travel and more quickly covered in marches by the 10th Infantry (Haley 1952: 200; Wallace 1964: 68). Mackenzie's Supply Camp is not to be confused with Camp Supply, Indian Territory, which became Fort Supply.

Besides proximity, almost every traveler would have a wagon, and bison hunters were known for loading theirs to extremities of volume and weight. Tom Green County receives on average 20.5 inches of rainfall per year, Shackelford County with Fort Griffin averages 28.6 inches (Ramos 1999: 257, 268). This difference over time has resulted in remarkable differences in soil development and vegetation. For example, the sandy and chocolate loam soils of Shackelford County allow wagon wheels to roll more smoothly than the stony hillsides of Tom Green County.

The differences in topography are perhaps even more noticeable than the soils and vegetation. Steeper grades associated with the Callahan Divide between Fort Concho and the Supply Camp made the animals work harder for each mile, either pulling the loads or holding them back from running out of control. The Callahan Divide is now home to a growing number of wind energy turbines, representing that it places the traveler exposed to weather, which is often turbulent in West Texas. On the other hand, the general east-west flow of the hunters from Fort Griffin corresponds more logically with the general west-east flow of the upper portions of all the rivers in Northwest Texas. Therefore, the Mackenzie Trail made Fort Griffin a natural preference.

Besides topography, Fort Griffin had definite ties to the hide trade network which originated in Kansas. Its ties to the military and cattle industries added further people and financial interests. Frank Collinson went to Fort Griffin in the fall of 1874, just after the famous Battle of Adobe Walls. He discovered that the hunt which was “just commencing” had already been somewhat derailed by the Comanches, Kiowas, and Arapahoes who had jumped their reservations. As a result of many hunters being in the towns, Collinson had the opportunity to meet many hunters, including Jim White, who had come from Kansas. Collinson offered to be a skinner for White, but White was not in immediate need due to the uncertainty of the Indian war. White did offer Collinson a place in his camp until a job could be realized.

The wagon road established by General Ranald S. Mackenzie's supply trains was known well early in the hunt, and travelers became accustomed to it. It was the most important wagon route of the bison hunt south of the Canadian River, prominent both in reputation and actual usage. It was known simply as the Mackenzie Trail. It held so much travel that its travelers could hope to find others, possibly soldiers, in the event of needing help. Many hunters would join forces in such a way that the Mackenzie Trail provided—either meeting people on the trail or in camp or in Fort Griffin. If they were in Fort Griffin when they met, the road they most took west after 1873 was the Mackenzie Trail. This became a confusing label due to some other trails that Mackenzie made and which also have his name. Here the only trail referred to as the Mackenzie Trail was the one from Fort Griffin to his Supply Camp at Blanco Canyon, and so this excluded

the extension from the Supply Camp to Fort Griffin. The extension should be credited to the Comancheros and *ciboleros*.

Center Line Trail

The New Handbook of Texas states, “The present Buffalo Gap highway (Farm Road 89) follows the old Center Line Trail, which was surveyed in 1874 and ran from Texarkana to El Paso.” This description appears to be unclear because the terrain around Buffalo Gap, Texas, strongly encourages routes there to run north-south, but actually FM 89 quickly veers west, just as Elm Creek, after passing through the gap. However, this would not explain how J. W. Woody used that trail to get to Snyder, two counties northwest of there. Woody said, the Center Line Trail . . .

. . . was the name given a trail made from the east, across by where Colorado City now stands, and out to the buffalo camp established by Anderson and Long, at the Big Springs. We followed this trail out to where the Mackenzie Trail crossed it, about four miles west of the site of Colorado [City], and then followed it [i.e., the Mackenzie Trail] north to Snyder. (Woody to Haley 1926: 5)

Woody’s mention of Anderson and Long as hunters is not associated with Anderson’s Fort (Fig. 2.13), established under Major Thomas Anderson, in present Dickens County, which was the location that the Tenth Infantry under General Mackenzie’s command defended the Supply Camp (Jackson 1978: 170). Anyway, Woody’s description would place the Center Line Trail north of the Callahan Divide, not south of it. Since The New Handbook of Texas would locate the Center Line Trail south of the Callahan Divide, the current route of the Missouri Pacific, which had been the Texas & Pacific previously, is used as an approximation of the trail used by J. W. Woody and his associates (Fig. 3.4).

Perhaps hunter S. P. Merry followed the Center Line Trail. He left Indian Territory where his family had been raising cotton and corn and went out to the frontier of Texas in the fall of 1876. Merry said:

We followed what they call the Center Line Trail. This trail was made by the surveyors of the T & P [Texas & Pacific] Railroad. Old Fort Griffin was the headquarters of the buffalo hunters. We left there, went out by Old Fort Phantom Hill, but there was nothing there but ruins. The first buffalo we struck were about north of the site of Colorado City. . . . (Merry to Haley 1926: 1-2)

Regardless of the twists and turns, the products of the bison hunt on the Brazos River to just north of the Red River ran east ultimately into Fort Worth, Denison, or Sherman. John Doss hunted with Poe and Jacobs outfit which totaled 11 men in the winter of 1876 to 1877. Doss said,

The freight wagons came in just like the buses run now, and took the hides in—five or six yoke of cattle to each wagon. We'd sell those hides to hide-buyers, and they'd send in teams after them. As a rule, we sold them on the range. They'd bring from a dollar to a dollar and a quarter apiece. We sent them in to Fort Griffin, and then they freighted them to Sherman. (Doss to Haley 1935: 5)

Henrietta, Texas

A local history for Clay County describes the bison hunt trading networks in part, but the time frame was the earliest stage of the Texas hide hunt, 1874. The large size of hunting parties also describe the well-organized groups with expert marksmen which came from Kansas. Henrietta citizen W. G. Eustis was quoted to have said in an interview:

When I cam to Clay County during the winter of 1875-76 buffalo hunting was at its height. This was a concentration point for hides and a great many hunters obtained their outfits and supplies here. The season of 1877-78 was a big year for buffalo, but they began to disappear about that time and the following year was a bad one for hunters and merchants

alike. The merchants had been in the habit of staking the hunters but during the winter of 1878-79 most of the hunters who went out did not obtain any hides and many of the merchants lost money. (Students of Henrietta High School 1936: [5-6])

Brownwood, Texas

Brownwood was a frontier point at which hunters could outfit and resupply. Because of its location south of the Callahan Divide, freighting to Waco, Texas, the point of the nearest railroad, was more likely than freighting to the railroad terminus at Ft. Worth.

Brownwood was Brooke Smith's (1935: 40 ff.) chosen location for initiating a dry goods, or mercantile, business in 1876. From Waco to Gatesville, then 65 miles from Gatesville to Comanche, and then the Ft. Worth-Ft. Yuma Stage Road went from Comanche to Brownwood. Smith traveled the distance from Waco to Brownwood in two days on a strong horse what took his supplies on wagons drawn by cattle a full two weeks in good conditions.

Once in Brownwood a hunter found at the Smith & Steffens store all that he needed. Brooke Smith recalled:

Hunters would come through with their large wagons drawn by oxen, come by the store and load up with ammunition and supplies, and be out on these hunts for one or two months at a time through the fall and winter seasons. They would kill, and skin, and cure in the open air by hanging the meat in trees and bushes around the camp and in the course of one or two months would come in with a large wagon bed full of nice, sweet buffalo meat, dried on the outside and fresh within, and on the top of this big wagon would be buffalo hides that they had cured, making a load as big as a ton of hay. We bought these hides at market prices and shipped them to the railroad, and we bought many, many loads of buffalo meat at three cents a pound, and it sold readily to our customers at five cents. Just peel off the outside dry coating and it was as nice and fresh as if just killed, and slice it cross grain, broil it just a moment over the hot

coals, and then a little butter and a little pepper sauce or ketchup and, mmmmmm! Fine eats. (Smith 1935: 49)

Trading Posts

Aside from the major towns that involved several types of businesses, some trading posts, even some large enough to approach description as a temporary community or village, became places of trade almost exclusively for bison hunters. The primary factor determining inclusion among trading posts used for analysis was the timing of their establishment. A primary document referring that a trading post was on the bison range, particularly near one of the trails identified here, for trading with bison hunters specifically during the years 1873 to 1878, a period known for hide hunting, is the best qualifying reference for inclusion among the following 13 trading posts.

1. Jim Springer on Wolf Creek.

In the summer of 1875, John R. Cook was with the Wood family hunting along the Canadian River when their party learned of the Springer Ranch's existence and its location being near enough to them that they did not need to go back to Dodge City just to trade in their bison hides. He stated:

. . . we learned that there was a way-station about a mile and a half north of the river crossing, and that the proprietor kept hunters' supplies and bought hides.

Buck and I rode over to the place and found we were at the Springer Ranch. It was built on the blockhouse, stockade, Indian frontier plan. It faced south towards the river. A square pit six by six feet and six feet deep had been dug inside the building. The from it, leading south, was a trench running outside fifty feet, where was dug a circular pit ten feet in diameter and five feet deep. This and the trench were cribbed over and the dirt tamped down over it. The circular pit was portholed all around. Also, from the pit inside the blockhouse there was a trench running to the corral and stable. The stockade being loopholed made the

whole place so impregnable that a few cool, determined men could make it impossible for the allied tribes to take it without artillery.

We traded our hides to Springer for provisions, ammunition, etc. Here I was fortunate enough to get me two fair suits of underwear, stockings, boots, and such necessities as I was in need of. (Cook 1989: 95)

2. Cator Brothers at the Zulu Stockade.

A surviving photograph of the Zulu Stockade itself appears in the Hansford County history book. It looks like an old, hand-fashioned barn with a tin roof added—a simplicity that cloaks its importance to the many people it served. When the Cators established this camp in the spring of 1872, this was a move ahead of many hunters and when permission to be in the area was still in question.

The Texas Panhandle was ‘forbidden territory’ to bison hunters at the time the Cators entered the area and established their home, the first permanent home by white settlers in the Panhandle (Cabe 1933: 8). They started with a dugout and a corral for their horses. It was the hub of their bison hunting, in the first three years of which Jim Cator alone killed more than 16,000 bison. The Cator camp became a well-known stopping place until the Cators finally made it officially a trading post business in the fall of 1875, essentially necessary since bison hunting was becoming more difficult and cattle herding became more popular.

They built a two-room house, furnished it with groceries and ammunition obtained from Dodge City, and called it the Zulu Stockade. It was for the next 10 years a main trading center north of the Canadian River. It was also during that time, beginning in 1876, an important mail connection along a road that opened,

connecting Fort Bascom on the west to Fort Dodge to the north. When bison hunting declined rapidly after 1876, Jim Cator went into the cattle business, and he stayed around to influence developments as a County Judge and County Commissioner while his brother Bob moved to Oregon (Cabe 1933: 8-9). Nine miles south of present Gruver, Texas, a historical marker succinctly recognizes the site of the original bison camp (Dooley-Awbrey and Dooley 1992: 208).

In a strange tribute to the days of freighting, Spearman, Texas, is home to the largest selection of mules in the Southwest United States. The Rolling Plains Mule Train, Inc., founded in 1963, makes appearances in period dress and period style for the target year 1870. The organization is an all-mule wagon train that gives Spearman the title Mule Capital of Texas (Hansford County Historical Commission 1980: 78).

Apparently, hunter George Simpson visited Zulu in 1875 and could not tell who ran the place, but he gave a good sense of its isolation. He recalled:

We left Colorado in October of 1875 and came to the head of the North Palo Duro. There was a buffalo camp there. Charlie Newall, Miller Scott, Bob and Jim Cator were camped there. The Newalls had a dugout which was tunneled around under the ground. . . . There was no regular traveled road except the trails laid out by the buffalo hunters. . . . They had gone down in the spring of 1875 and this camp was on the head of the North Palo Duro.

We stopped at the Palo Duro [Creek] but for a few days and then came on to Moore's Creek where we camped about fifteen miles south of the Palo Duro hunters. There was a store on the Palo Duro which bought a few hides and furnished supplies to the hunters. A man named "Hoodoo" Brown kept it and there was another man with him. This store was just below Newall's. It was about the last of October when we got there but the grass was still green. (Simpson to Haley 1926)

If Simpson meant mouth instead of head of the North Palo Duro, then Simpson's description fits the Zulu Stockade. The distance given to Moore Creek certainly fits Zulu.

While Cabe (1933: 8) marked the Cators' arrival as spring 1872, Haywood (1986: 106) wrote that the Cator brothers might have arrived as early as late 1871. Haywood (1986: 106) confirmed the basis of their dwelling to be a dugout and stockade and that those gave them credit as the first permanent settlers in the Texas Panhandle.

3. Adobe Walls Trail, Trading Post, and Milestone Battle

Adobe Walls was busy with activity when a united band of several hundred Kiowas, Arapahoes, and Comanches struck the trading post while its occupants altogether number fewer than 30. The victory of the hunters and traders on June 27, 1874, was not only a warning sign for the loss of the bison but an act that brought on the campaign which General Mackenzie led against them. Earlier that year, sometime in March, this first major bison hide trading post venture began in the Texas Panhandle when some hunters and traders in Dodge City struck an agreement. The first wagon train was centered around the trading partnership of Charlie Myers and Fred Leonard, who would get the hides of the hunters who committed that they would hunt year-round in exchange for guaranteeing to sell supplies to hunters at Dodge City prices. As many as 100 wagons went south to the Canadian post in March 1874 (Baker and Harrison 1986: 10-11).

They traveled the following course:

On the first day out they reached Crooked Creek, where they spent the night. They continued on the second day to the Cimarron River, another camping spot with running water. . . . The fourth day brought the long train to Beaver Creek, in the middle of No Man's Land. . . . The next night found the caravan at the mouth of Palo Duro Creek, in the middle of No Man's Land. . . . They struck Moore's Creek at its head and followed it downstream to the Canadian River, where they camped the sixth night out. Disappointed at the grazing conditions in the area, which were much drier than usual, they moved on down the Canadian to a point already known to some of the hunters as the Adobe Walls. (Baker and Harrison 1986: 11-12)

Whatever their exact course southward, Myers and Leonard sent the professional teamsters Jones and Plummer northward back to Dodge City to mark the best trail to Dodge so that the wagons could get the hides to Dodge in the easiest way possible (Baker and Harrison 1986: 15).

The sketch map by Chrisman (1998: 2) offers a general idea that the Adobe Walls Trail, going from Dodge City to the Adobe Walls trading post on the Canadian River, was not the same as the Dodge City-Tascosa Trail. The Adobe Walls Trail cut west of the other at Dugan's Store on Mulberry Creek. Chrisman (1998: 50) offers a second map indicating that the Adobe Walls Trail crossed back to the east of the other trail between the Cimarron and Beaver Rivers. The Adobe Walls Trail would have been about 10 miles east of the Dodge City-Tascosa Trail on southward trips by the time these trails crossed the Beaver River. Thus, the Adobe Walls Trail never went west enough to contribute on its own to the business at the Catons' Zulu Stockade. The representation of the northern portion of the Adobe Walls Trail here is an estimation from Chrisman's (1998: 41-42, 50, 128) description and maps (Figs. 3.4 and 3.5), and the route for the southern portion is just an approximation of how the trail might have

concluded. The exact route of the entire trail does not appear on maps obtained in this research, but minor errors will not prevent an understanding of the relative locations and travel patterns.

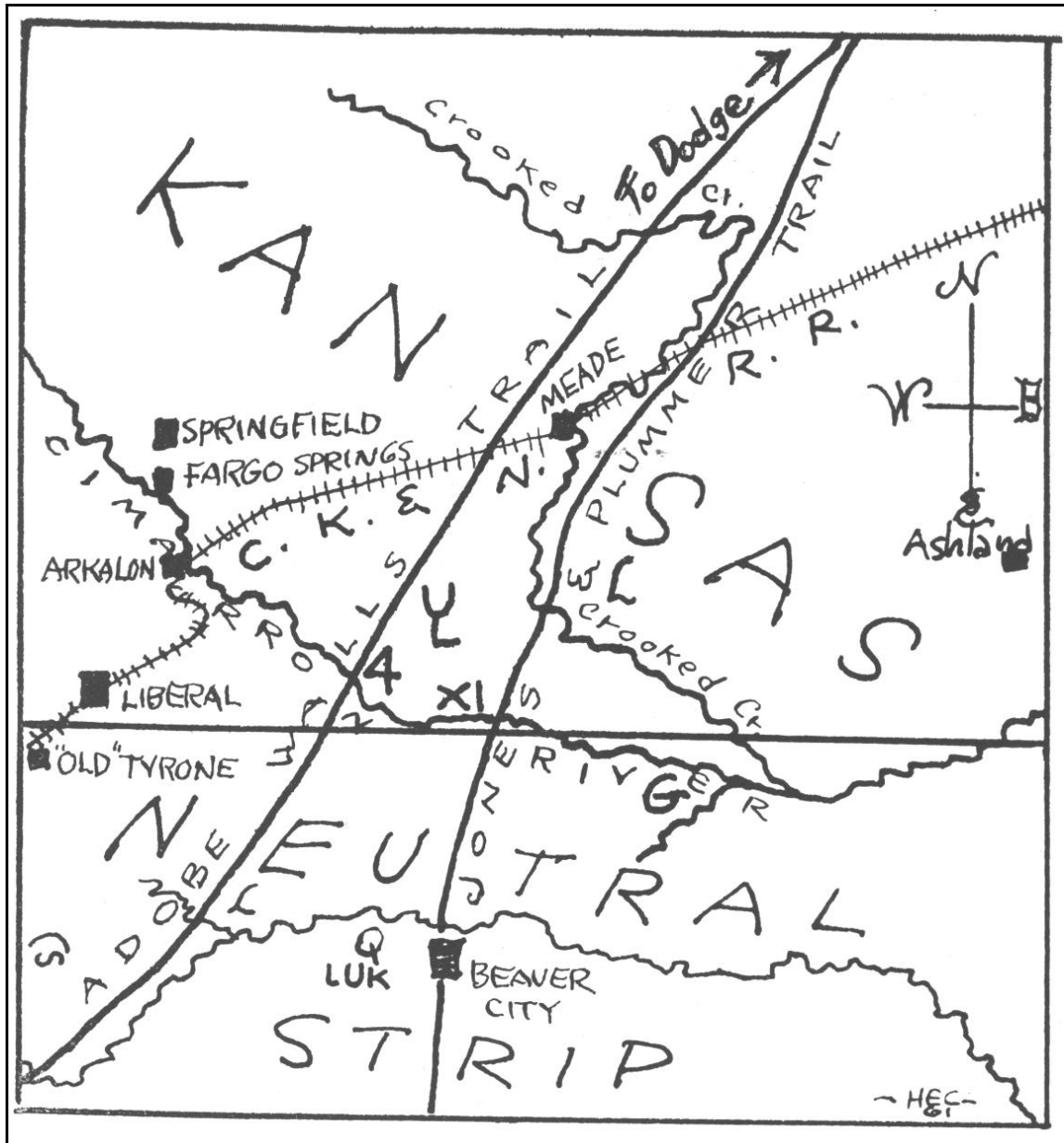


Figure 3.4. Chrisman's Sketch Map of Adobe Walls Cutoff from 1961
Source: Chrisman 1998: 128.

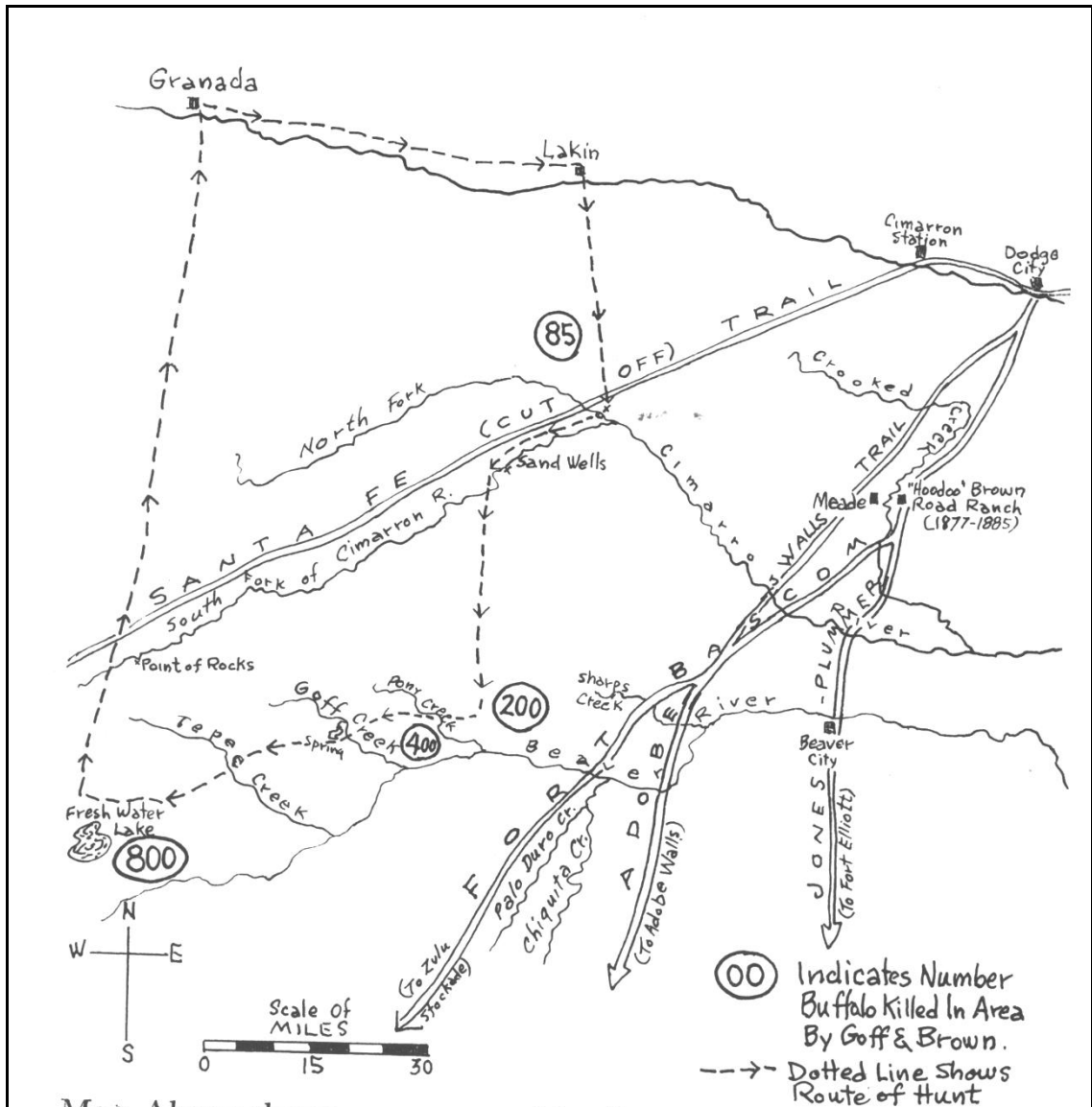


Figure 3.5. Chrisman's Sketch Map for Second Edition in 1998.
Source: Chrisman 1998: 50.

4 and 5. Tuck Cornelius and Pete Snyder at Deep Creek.

Frank Lloyd made reference to the well-known Deep Creek trading (Lloyd to Haley 1935: 3). William Henry "Pete" Snyder's biographer said that others were in the area of present Scurry County before Snyder arrived on Deep Creek in 1876, but Snyder was the one who had the trading post (Anderson 1984: 18-

19). Actually, the people who traded there gave the community the name Snyder due to the trading post. And this name stuck even though Pete Snyder himself had moved to Colorado City, Texas, by the spring of 1881.

This research recognizes Snyder's first and second locations. Snyder established his first trading post, one prior to 1878, near present Fluvanna, Texas, northwest of the Deep Creek location. Tucker "Tuck" Cornelius had already become the first merchant, first to the bison hunters, and then to the cattlemen. However, Snyder's store near Fluvanna was not getting much of the cattle money, and he bought Tuck's store on Deep Creek in the spring of 1878. When he saw a town developing around the store, he laid out a plan and mapped the community. The name he labeled the town was his own, but already it was used customarily by that time, 1883 (Anderson 1984: 18, 53).

J. W. Woody said that he went out to that area, present Garza and Scurry Counties, on about October 10, 1876, establishing a camp about 8 or 10 miles south of where Post, Texas, presently stands. He claimed that freight teams with bulls ran back and forth from there to Fort Griffin. He added that another set of freighters that ran the route from Fort Griffin to Fort Worth, and some teams went all the way through to Fort Worth. Woody was just north of Snyder and close enough to trade at his store. Woody said:

Snyder had an ox team of four or five yoke of steers and kept them on the road to Fort Worth and back all the time. Hides were freighted to San Antonio and to Fort Worth. Almost all in this country were freighted to Fort Worth Freighters came out, loaded up with buffalo hides, and took them in; then they would come back for another load. They would generally have from ten to twenty five and sometimes thirty yoke of oxen and as many as ten wagons, sometimes twelve or fourteen. They usually had a wagon for about every three yoke. They would make ten or twelve

miles a day. There was one man who handled the team and a herder who watched them at night and brought them in of a morning. . . . (Woody to Haley 1928: 1-2)

6. Bill McCamey near Double Mountain.

. . . We'd sell those hides to hide-buyers, and they'd send in teams after them. As a rule, we sold them on the range. They'd bring from a dollar to a dollar and a quarter apiece. We sent them in to Fort Griffin, and they they freighted them to Sherman. McCamey and Anderson used to buy a good many. They were over around Fort Griffin. That was Bill McCamey. He had a fellow named Rhodes with him. He married his daughter, I think. McCamey had a store up around Double Mountain. I think the house was built out of hides. He had a fellow by the name of Ira Ferguson running it. (Doss to Haley 1935: 5) (underline added)

This recollection by John Doss that McCamey and Anderson were hide buyers based near Double Mountain, and then mentions others that worked with or for McCamey. This sounds like a large enough operation that a description of a bison hunter trading post on Walker's (1972) map might fit that location. Walker located "McKaney & Hamburgs' Trading Post 1877-1879" based upon a reference to Rister's (1956: 177) book on Fort Griffin. If the mapping is trusted more than the textual description, then Walker (1972) might have located the Bill McCamey store near Double Mountain. As he shows the post location, it is about 20 miles south of the Double Mountains.

One source deserves consideration as a local and more contemporary authority. Harry H. Campbell wrote a history of early Motley County, Texas, and his father, H. H. Campbell, started the Matador Ranch. Campbell (1958: 35) wrote about Tee Pee City and then stated:

. . . The next permanent settler was named Ballard, a buffalo hunter, who came to Motley County in 1876 or 1877. He settled at Ballard Springs, the present site of the Matador Ranch. McCamey of Fort Griffin,

established a trading post at Ballard Springs and put a man named Hamburg in charge. This was 1877 or 1878.

Frank Collinson and his partner, [Jim] White, sold Hamburg 250 hides of buffalo they had killed on Bridle Bit. . . . (Campbell 1958: 35)

Frank Collinson (1963: 58) confirmed the interchangeability of the store's named reference when he explained that he and Jim White traded there. He said they traded with Henry Hamburg, a Jew, at a store at Ballard Springs. In 1878, just before he and Jim White settled their partnership and parted company, they traded in one wagon load of hides to Hamburg, who said the bison were playing out. Hamburg (Collinson 1963: 58) stated, 'I'll have to find something else to buy or close shop.'

7 and 8. Whalen brothers and John (or Jim) Martin at Red Mud.

Frank Lloyd's (Lloyd to Haley 13 June 1935: 3) references, which include the Whalen brothers at Red Mud, are strong enough to attempt to locate both trading posts. Frank Lloyd specifically recalled:

. . . Right there at Red Mud was two Irishmen, the Whalen brothers. They had a store on one side of the creek. It run into the Clear Fork. Jim Martin had one on the other side about a mile down. We got a gun, a four-pound cannon, and old Martin ran out of whisky [*sic*] and sent an old man over there to get some from Whalen, and he wouldn't let him have it. They were all drinking there, and I loaded up the cannon—the last time it ever was fired. . . . We fired two or three shots over there and couldn't get no returns from them. (Lloyd to Haley 13 June 1935: 4)

Although the Whalen name did not appear in the Dickens County history (Arrington 1971), Martin's did. The county history (Arrington 1971: 287) mentions a W. H. (Will) Martin in some detail, but it mentions one of his brothers J. J. (John) Martin "was already here when he came." This brother owned a place about eight miles south of the cemetery in the lower Red Mud community. It is

not certain if this was a reference to the same person who had the store, but the lower portion of the Red Mud Creek would place this person near this creek's confluence with Salt Fork of the Brazos River, the general location to which Lloyd referred.

C. B. Holt was ranching when wells first were starting in West Texas. Holt identified the Whalen brothers as early settlers when he said:

We bought our first well from Jim and Barney Whalen, who had put down a well close to where they had their old buffalo camp. They were old buffalo hunters. We bought a well for \$60.00, put up a wind-mill and some little wooden troughs, and turned our cattle loose. The range was all free, and the ranches were about twenty miles apart. There was no trouble over anyone's coming in. There was no opposition. There were a few wind-mills out here when I came. The first to be put up were put up by some sheepmen. (Holt to Haley 1927: 3)

The location recognized here is near to the location of the present community of Red Mud in Dickens County but closer to the mouth of Red Mud Creek. This would place the store near to or on the Mackenzie Trail from Fort Griffin.

9. Henry Jacobs on Champion Creek.

John Doss (Doss to Haley 1935: 6) said that the man for whom he worked, John Jacobs, had two brothers that came with him from Kentucky.

. . . Mr. Jacobs had a brother that had a store over here on C[h]ampion Creek in this county [Mitchell], and when I started back in he hired me to stay there in the store for the balance of the year. That was Henry Jacobs. It was a little buffalo trading store.

There was a fellow that brought a tenderfoot boy out there to work for him and killed him to keep from paying him, and they would have hung the old man for killing the boy, but they wouldn't on account of his wife.

The store was on Champion Creek. The real name of the creek is Clamplin, but everybody called it Champion. It is six or seven miles southeast of here [Colorado City]. It runs into the [Colorado] river. Seven Wells is on Champion Creek. The store was about four or five miles from the [Colorado] river.

The store was made of buffalo hides and was twenty-five by forty. Our principal stock was ammunition and flour and bacon and coffee and sugar and tobacco. We didn't handle whiskey. We were prohibitionists. We handled the whisk[e]y when we got back to civilization. We did a pretty good trade. I stayed there about six months. The was abandoned. He pulled out. That was along about May, 1877. No, it was in August instead of May.

There was no cash trade. We didn't have any cash. We collected good. Nobody beat anything [in debts]. That was the first store in this county—the first and only one until about 1880, I guess. There were no ranches in the country. There wasn't nothing but buffalo and wild animals. I never saw a cow out here. (Doss to Haley 1935: 6)

The description for the store's location given by Doss matches up with the same spot marked for the hunting camp of the winter of 1875-1876 at the confluence, just above it anyway, of the North and South Forks of Champion Creek (Walker 1972). Even though hunter J. Wright Mooar recalled the store being on the river (Chesley 1979: 49), Doss likely recalled it more correctly since he worked there. Henry Jacobs went on to become prominent in Shackelford County as a County Sheriff and donor of the town site for the town that became county seat, Albany, Texas (Reynolds 2000: 255-256).

10. Frank Conrad and Charles Rath at Camp Reynolds (Rath City).

Hunter Frank Lloyd (Lloyd to Haley 1935: 3)said that F. E. Conrad was the main trader there despite Reynolds and Rath jostling for the town to be the namesake of each. Lloyd said,

There wasn't no town at Reynolds City except a bunch of houses and a saloon and a barber shop. The whole thing was built out of summer hides. They wasn't no good. The hides got dry and didn't smell.

. . . I never heard it called Rath City. . . . (Lloyd to Haley 1935: 3)

The first half, or northern half, of the Rath Trail was the portion from Dodge City, Kansas, to Mobeetie, Texas. This portion was certainly no

trailblazing because it went down the Jones and Plummer Trail. The southern half of the Rath Trail was apparently new in part at least, resulting from the wheel ruts of the estimated 50-wagon freight train that established Rath City. However, the judgment here based on sources available in this research do not strongly validate any level of originality for even the southern half. In fact, by the time Rath set out in late fall of 1876 for his new trading post that would cut off competition in Fort Griffin, he most likely had plenty of wagon wheel marks and surely some game trails to observe.

As for the course of the Rath Trail, even Rath's biographer (Rath 1961: 143-144), despite her insistence that the trail be remembered in Charles Rath's honor, did not attempt to lay out the exact location of the trail between Mobeetie and Rath City. Instead, she details the location of Rath City, which is easily recognizable without her description due to the remaining stone foundations. The trail as presented by artist Harold Bugbee (Haley 1948: [19]) depicts Haley's research but only roughly. Although this present research has yet to find a map with enough contextual references to present here an accurate impression regarding the course of the Rath Trail, there is a good description from a hunter. Mapping here is based on that, except that the trail starting point is placed at Mobeetie. The student mapped the Rath Trail in light of the rivers and terrain layers provided from the USGS (24 February 2007) and the 1:400,000 maps published by DeLorme Mapping (2003: 30-31, 34-35, 42-43). Without actually traveling any remnants of the Raht Trail, if such remain, and setting points based

on GPS, this new map generated here is the most accurate known to the student.

Richard "Uncle Dick" Bussell described the Rath Trail in more detail than Rath's biographer. As a bison hunter, he knew first-hand of the existing network of wagon roads, but his style of reflection in claiming no other roads existed then is more a reflection on the way he would have expected his interviewer to consider roads at the time he told the story.

. . . When the Rath [T]rail was made there were no roads. Rath and Reynolds had ten or fifteen ox teams, six or seven yoke to the team, with which they started south from Dodge. About six or seven miles east of Double Mountain, Rath & Reynolds built a little store there and a hide town was built. W. L. R. Dickson was wagon boss and started from Dodge. York was one of the foreman. Thus was the Rath [T]rail laid out in the winter of 1876. they got their store opened there to buy hides about the first of April and it was called Reynolds City. The Rath [T]rail went up Red Deer, crossed Washburn Arroyo, went out and around the head of the Washita, and, I guess, by Fort Elliott; thence up Big Hackberry, crossed North Fork south of Mobeetie about 10 miles, crossed the Salt Fork of Red River out by Worley Lake (Lelia Lake), down Indian Creek to the south Red River, thence to North Pease just below the mouth of what we called Wind River; thence across the middle Pease just above the mouth of Tepee, next across the Tepee, thence to South Pease, on over and down Croton Creek, across to North prong of the Brazos, above the mouth of Double Mountain Fork, and up it for 20 miles. It then crossed just below Double Mountain and thence led out six or seven miles on Big Flat and there they located a town. . . . (Bussell to Haley 1926: 9)

This was also the general direction of the hunting grounds in the final days of the hide hunt, about 1875 through 1878. Hunters found the Mackenzie Trail more useful than the Rath Trail throughout the hunt. There is no evidence to indicate that the Rath Trail was used nearly to the extent of the Mackenzie Trail, the latter having an east-west line. Being only 50 miles away from Rath City, Fort Griffin was the supply and communication line, having twice per week mail,

further emphasizing the importance of the Mackenzie Trail (Rath 1961: 157).

Frank Conrad, the largest merchant in Fort Griffin, also had a store in Reynolds City while the railroad closest to them was still Fort Worth (Chesley 1979: 48).

11. Dockum's Store on Dockum Creek

Bison hunters at Soldier Mound, mentioned in the following section, would have traded most likely at the Dockum Store, which began in 1877 (Holden 1986: 76). W. C. Dockum apparently had the assistance of a man named Thompson at this store on Dockum Creek (Spikes and Ellis 1952: 22). The standard county history marks the establishment of the store as 1878 (Arrington 1971: 240). The country history also confirms that the store was on Dockum Creek about eight miles southwest of Dickens and about the same distance northwest from Spur (Arrington 1971: 240). The location of this store on maps here is an estimate based on these sources and the current creek route.

12. Mobeetie

Established because of the nearby Fort Elliott and listed above as Mobeetie, but known first as Hidetown, the bison hides were so extensively used as coverings of basic shelters for the hunters who had gathered that Mobeetie was first called Hidetown. This location for early stores and trading is considered as a point for trading posts even though there is not a specific trading venture to name specifically.

13. Teepee City

This point was a trading post with origins similar to those of Rath City. On Rath's way to establish Rath City, he actually stopped at this site for at least two

weeks but decided not to stay (Traweek 1973: 46). Campbell (1958: 35) stated, “Armstrong and Sharp opened a store and trading post at Tee Pee City in 1875. No doubt they came to Texas with Rath and Reynolds, who originally intended to open the post there.” Two ways exist for interpreting these events—either Rath and Reynolds gave up on the place and Armstrong and Sharp took control as partners (Traweek 1973: 46), or Rath and Reynolds left Armstrong and Sharp to represent them as a part of the trading controlled by Rath and Reynolds (Potts 2001). Unlike Rath City, however, settlers found Teepee City a suitable place by 1879, the year it obtained post office status.

14. Jones and Plummer

This reference simply emphasizes that Jones and Plummer, as discussed in the section covering their trail, first served bison hunters and those who freighted in the bison trade.

Exclusions

The following six trading posts (Fig. 3.6) or stores were eliminated from bison hide trading posts examined closely here for at least one of several important reasons. One reason could be timing. A store established for the purpose of trading with cowboys on trail drives or for some other purpose not included for further analysis. Stores established in 1879 and afterward were excluded because the professional hunters mostly had dispersed by then. They might have remained in the area in a different role—perhaps as a lawman, freighter, or ranch hand. While some of the locations mentioned such as Jim Lane’s store at Beaver City or the cowtown of Tascosa clearly were established

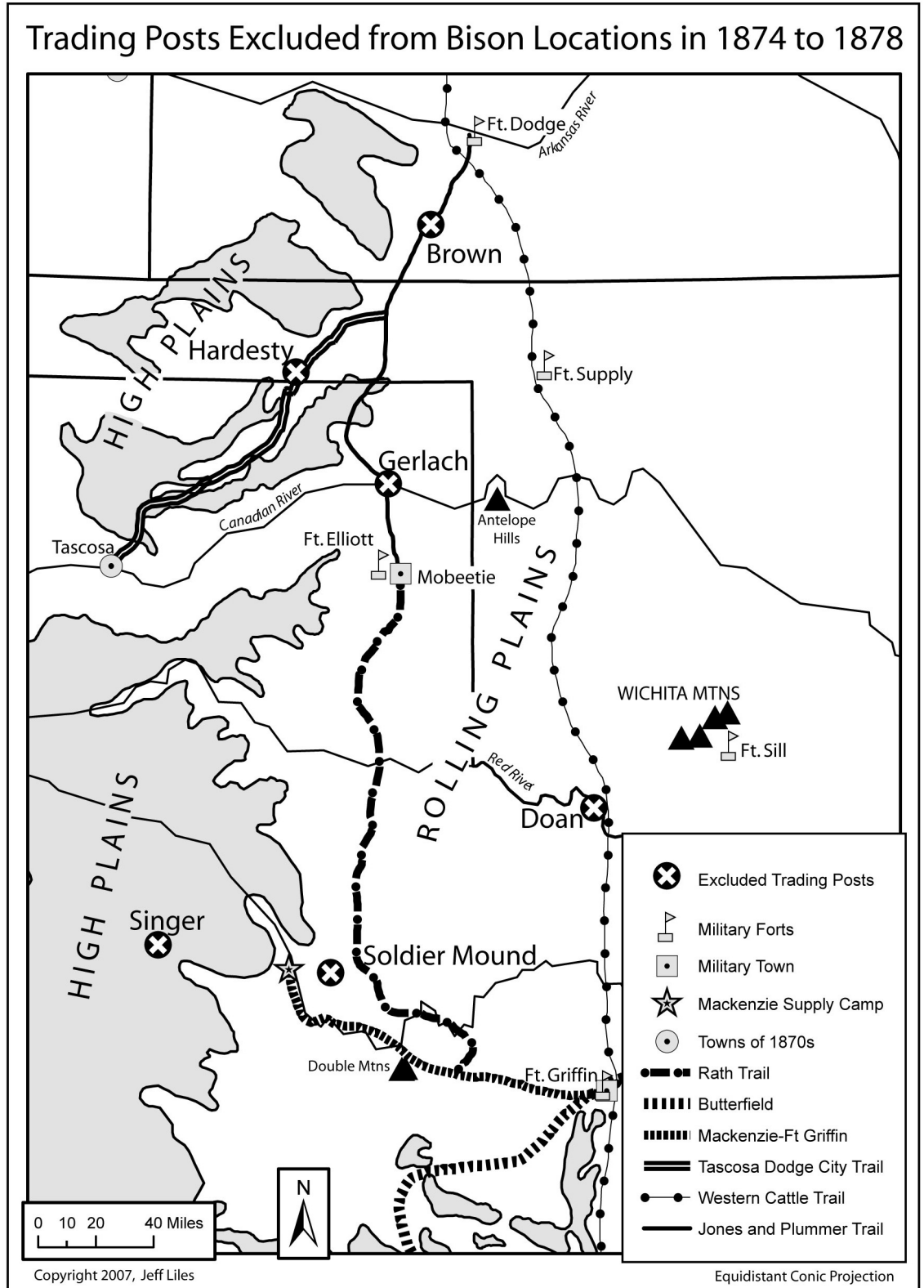


Figure 3.6. Trading Posts Excluded from Bison Locations, 1874 to 1878

for a reason other than the bison hide trade, these following locations are discussed to clarify why these were not considered significant to that trade.

1. Gerlach's Store

The Gerlach brothers had a store on the Jones and Plummer Trail just to the north of the Canadian River. However, it was established in November 1884 John Gerlach erected a dugout on Horse Creek about four miles northwest of its juncture with the Canadian River. After his brother George joined him in 1885, they opened their road ranch and then moved it to Clear Creek. Also they moved to the town of Canadian after the Panhandle and Santa Fe Railway built through in 1887. With a lumberyard and mercantile store at Canadian, the Gerlach brothers were prominent in business there until John moved to Woodward, Oklahoma, for the land run into the Cherokee Strip in 1893 (Anderson 2001). The timing of the Gerlach's trading excludes a direct connection to the bison hide trade.

2. Store at Soldier Mound, Dickens County

Soldier Mound is a physical map element, a rise in the land. On this hill, or mound, Major Thomas Anderson defended supplies intended to support Mackenzie's field campaign against tribes of the Southern Great Plains. The place was located approximately, or mapped in the general area of its actual location, in C. C. Rister's map (Fig. 2.8). However, the grid used here in this present cartographic effort more correctly identifies the location as Soldiers Mound (Fig. 3.3). Any reference to Anderson's Fort or Soldier Mound should be considered a reference to the same physical location. However, one of them is a

reference to a specific point in time and for military purposes. Major Anderson held this position for the 1871-1872 and 1874-1875 campaigns.

The location thereafter became other things. Bison hunters camped there, and they undoubtedly used the hill to their benefit in observing bison and other potential game. This does not mean these hunters set up a store. The first store at this hill was that of R. B. Faulkner's, which he built in 1883 ("Soldier Mound" 2001). Consequently, this location is not included among bison hunter trading posts.

3. George Singer's Store at the Head of Yellowhouse Canyon

W. C. Holden (1986: 73) wrote how Singer was lured out to the High Plains to establish a trading post for the bison trade as early as 1879. When Singer arrived, however, he found the opportunity for such trade already had past. Holden stated:

. . . He went up the Yellow House to the last hole of living water, and there built a square "boxed" storehouse with his lumber, unpacked his goods, and started waiting for customers. They were slow in coming, for the hunters were leaving the range, and not many cowboys had as yet arrived. However, two military trails crossed at this waterhole, one from Fort Griffin to Fort Sumner, New Mexico, and the other from Fort Stockton to Fort Elliott. Few people traveled the Fort Stockton-Fort Elliott road, but quite a few cattle herds went out the Mackenzie trail to Fort Sumner, and the cowboys contributed to Singer's business. (Holden 1932: 73)

On account of the year being 1979, the cut-off year for sufficient trade in bison hides for stores to conduct business, and Singer's business plans changing accordingly, this store was not mapped as significant to the bison hide trade.

4. Doan's Store on the Red River

This store was integral to the cattle drives on the Western Cattle Trail because it was the last store before crossing the Red River and driving up through Indian Territory. It was a point of trade in hides and skins generally but not solely based on that. It was located to be on course of the cattle drives more than anything, and therefore is not included in mapping specifically for bison trading posts.

5. Hardesty Ranch on the Tascosa-Dodge City Trail

The Jack Hardesty ranch was a stage stop on the Tascosa-Dodge City Trail, being about halfway between the Zulu Stockade of the Cator brothers and Beaver City. McCarty (1946: 188) identified each stop and distances. From Tascosa on the Canadian River to Little Blue station, 35 miles; then to Zulu, 30 miles; then to Hardesty's ranch, 40 miles; then to Beaver City, 35 miles. However, the Hardesty place did not get started until 1879, which made it suitable for trading among cow people, and Hardesty himself was an important figure among cattle raisers (Haywood 1986: 101-103). Even though the location certainly allows that some bison hides could have been traded at some point or another, the preponderance of evidence indicates that Hardesty's interest was cattle mostly but never bison.

6. Hoodoo Brown's Ranch on Crooked Creek

George W. Brown, commonly known in his day as Hoodoo Brown, established a road ranch just south of Dodge City, Kansas, in the spring of 1879. While bison appeared on that part of the range again, he attempted to hunt them not as a business but a memorial to earlier days of that form of life (Haywood

1986: 239-240). For example, in November of 1885, Brown organized a small group of local people to go after a few stragglers, which they killed enthusiastically and recalled time and again to anyone who would listen. The last of Brown's nostalgic bison hunts was in the fall of 1886. Due to the date of establishment and the novelty of bison occurrences, the Hoodoo Brown Ranch is eliminated from those trading posts indicative of bison hunting locations.

Remarks

The wagon tracks that scarred the land deeply were the evidence of the trails that led to the hunting grounds and localized trading posts. The hunters required small and local trading posts in order to save time during the peak of hunting, generally 1873 to 1878, but especially 1875 to 1877. By 1875, the Southern Great Plains was crossed with trails which the hunters could easily recognize and utilize. When the commercial hide hunt picked up its pace, the traders sought to establish posts close to the hunters, and this was the design for bison towns such as Adobe Walls and Mobeetie in the Texas Panhandle and Rath City near Fort Griffin. The trading posts located for the convenience of the bison hunters and which traded specifically in bison hides can serve as indicators of hunting activity and, consequently, the presence of bison.

CHAPTER IV

BISON DISTRIBUTION AND MOVEMENT DURING THE HIDE HUNT

Background of Models

Doughty (1983: 45) stated that two questions invariably occur in a discussion of bison—how many existed, and in which pattern did they move. Late in 1875 the character of the bison hunt began to change, and past this point the behaviors exhibited by bison could have been mostly responses to hunting pressures. The general area bison could be found in 1873 was east of the Pecos River, north of Fort Concho, west of Fort Griffin, and south of Fort Dodge. However, the distribution of bison within that area varied dramatically just as the habitat varies dramatically. The degree of direct observation by hunters within that area makes some of the primary sources questionable in comparison to current scientific methods of observation—methods which make an animal's identity certain. Nevertheless, this chapter turns to those records for insight.

First, a half step sideways is appropriate to see what anthropologists have been doing. Two recent models by anthropologists (Dickens and Wiederhold 2003: 34; Ahr 1998: 31) serve as a good start for this topic because they

demonstrate a vague representation of movements in the northwest portion of Texas, focusing on potential movements south of the Callahan Divide. The Callahan served as a restrictive influence, a bottleneck, in both models. Besides debating the suitability of the post oak savanna, both models offer basic ideas about bison movements while discussing the suitability of the blackland prairie and post oak savanna as habitat for bison movements and residency (Figs. 2.3 and 4.1).

Dickens and Wiederhold (2003: 34) wrote bison are constantly on the move for good grazing areas. They substantiated that some bison resided in the post oak savanna within South Texas because it was suitable for grazing and browsing throughout the year (Dickens and Wiederhold 2003: 43). However, they leave unclear whether bison that journeyed into the post oak savanna and stayed for at least one year would ever want to leave it and return to the places from which they came. While Dickens and Wiederhold (2003: 34) acknowledged the debate over seasonal migrations, they did not take a specific position. Their purpose was to demonstrate that bison could have been and were year-round residents in the post oak savannah.

Ahr (1998: 23-30) recognized that variations in bison distributions and movements are the general rule for bison. Over long time scales considered by anthropologists, the evidence indicates more variation than consistency in the

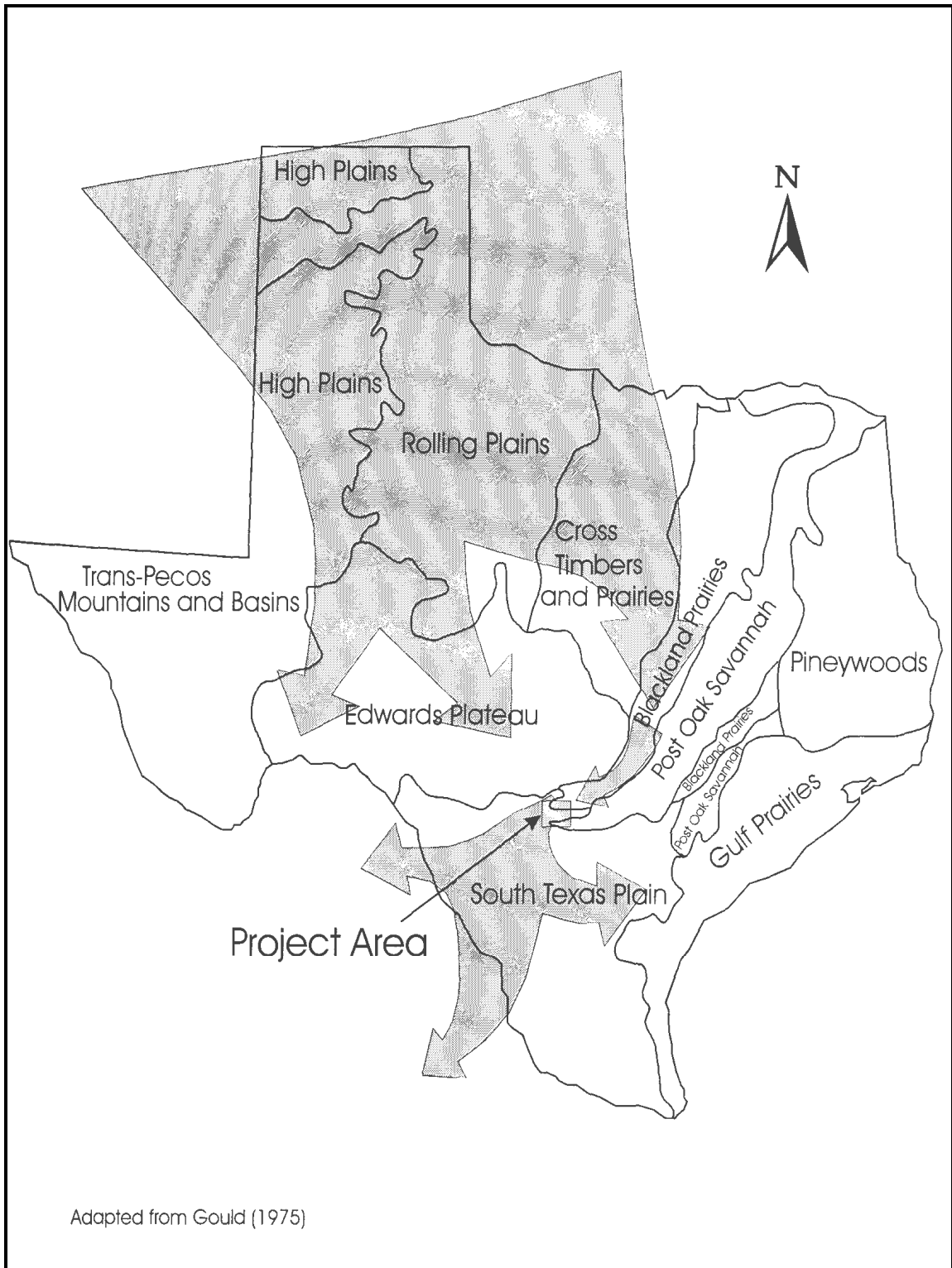


Figure 4.1. Migration Model by Ahr.
Source: Ahr 1998: 31.

presence and absence of bison. Ahr (1998: 23-32) points to potential migration paths such as the blackland prairie and the coastal plain of Texas, and he gives the general impression that he assumes seasonal migrations were possible, complicated by a dual dispersion strategy whereby some bison migrate seasonally between grasslands and woodlands, others remaining in wooded locations the entire year. However, he states clearly,

Thus, there is considerable interregional variation in bison migrating behavior. It appears that a significant factor influencing unpredictable behavior is marginality of habitat. This explains in large part the variable nature of bison presence and absence on the Southern Plains throughout much of prehistory and early history. (Ahr 1998: 27-28)

When addressing any pattern for the Southern Great Plains, the first things to ask appear to be when and where. Was the migration seasonal? Roe (1951: 521 ff.) mocked attempts to explain migration in bison. For example, Roe (1951: 535) notes that so-called regular movements based upon weather are expected to be particularly irregular where seasonal weather is highly variable. However, there was one document that gave him pause.

The document with which Roe took certain favor was that of J. A. Allen. Roe (1951: 524) says that Allen “puts his finger on the real cause of the north-and-south main trend of the trails” when Allen stated the bison liked to cross the streams at right angles to their general path. Roe quoted Allen directly:

The streams throughout the range of the buffalo run mainly in an east-and-west direction, and the buffaloes, in passing constantly from the broad grassy divides to the streams, soon form well-worn trails, which, running at right angles to the general course of the streams, have a nearly north-and-south trend. . . . That there are local migrations of an annual character seems in fact to be well established, especially at the southward, where the buffaloes are reported to have formerly, in great measure, abandoned the plains of Texas in summer for those further

north, revisiting them in winter Doubtless the same individuals never moved more than a few hundred miles in a north and south direction, the annual migration being doubtless merely a moderate swaying northward and southward of the whole mass with the changes of the season. . . . (Allen quoted in Roe 1951: 524) (underline added)

Thus, Roe was less inclined to think bison sought a latitude shift, but he agreed with the idea of water courses determining most of the bison movement pattern.

This agrees with Isenberg's (2000: 18) assessment of the importance of water availability—the availability of water on the Southern Great Plains being less than the northern equivalent due to evaporation caused by the heat and wind in the Southwest U.S. Isenberg (2000: 18) described the source of the dryness, “The change in climate is the result of both latitude and prevailing southwesterly winds from arid Mexico and New Mexico. Greater average wind velocity also contributes to the drier climate” The unadjusted precipitation levels would not indicate evaporation’s increasing influence upon the Great Plains at its lower latitudes. Isenberg described (2000: 28) the result of drought striking here as exceeding in severity all other causes of bison mortality. In a communal breeding system that required water and forage for the animals to congregate, an acute long-term decline in population could result as much from the lack of reproductive success as from the immediate effects such as a die-off.

Sources for water during the hottest month, usually August, apparently overcast all other concerns bison had. Hornaday (2002: 417-418) described the hunt for water in late summer:

. . . Hole after hole would be passed without finding a drop of water. At last a hole of mud would be found, below that a hole with a little muddy water, and a mile farther on the leader would arrive at a shallow pool under the edge of a “cut bank,” a white snow-like deposit of alkali on the

sand encircling its margin, and incrusting the blades of grass and rushes that grew up from the bottom. The damp earth around the pool was cut up by a thousand hoof-prints, and the water was warm, strongly impregnated with alkali, and yellow with animal impurities, but it was *water*. The nauseous mixture was quickly surrounded by a throng of thirsty, heated, and eager buffaloes of all ages, to which the oldest and strongest asserted claims of priority. There was much crowding and some fighting, but eventually all were satisfied. After such a long journey to water, a herd would usually remain by it for some hours, lying down, resting, and drinking at intervals until completely satisfied. (Hornaday 2002: 417-418)

This restful drinking that might have otherwise been observed was not the case when a throng of hunters was encamped all along the creek bottoms in the winter of 1876 to 1877.

Bison have a great affinity for wooded areas, especially if along a creek bottom after a heavy snow (Hornaday 2002: 423). Even though this preference might be mostly seasonal, it is distinct and certain. McHugh (1972: 178) identified this as the one certainty that Plains Indians had about bison movements—that the bison would head for timber along a wooded stream when the animals sought refuge from winter weather. The Assiniboin and Mandan tribes were able to predict this seasonal movement for successful hunting, but Plains tribes found no other type of movement successfully predictable.

West (1995: 74) drew a hard line, a halfway self-contradicting line, against any predictable movements calling migration a myth, and then he backed off a little bit when he stated, “A buffalo might be in any particular spot by chance, but the type of setting and terrain was chosen purposefully.” West followed the idea that bison had home ranges and moved randomly within them. He stated that the microenvironments of the Great Plains, rather than the open expanses of windswept grassland, were the resources that supported bison, and that bison

moved from one to another of these in response to fire, hunting, or seasonal changes in weather (West 1995: 74). After conceding this, West spends four and one-half pages (1995: 75-79) describing regularities of bison movements and the causes of them. He commented:

Early spring found buffaloes in the low grassy valleys of rivers and creeks. . . . By June the bison were grazing mostly across the millions of acres of grama and buffalo grass on the broad, rolling divides between the rivers. . . . By summer's end, buffaloes had started to drift off the highlands in a gradual process consuming several weeks. They headed once again to the riverine bottoms. . . . The main reason for staying so close to the valleys, however, had to do with the weather. When blizzards and "northers" roared onto the plains, bison crowded into the woods along the streams. . . . Two points should be made about the bison's yearly cycle. First, the pattern of convergence and dispersal between the different environments was a splendidly choreographed adaptation. For reasons just explained, it fit the bison's needs; but the grasses also benefitted [*sic*]. . . . Second, this mechanism, like all finely calibrated systems, was easily disrupted. The mid-century invasion of people and animals had a devastating effect. (West 1995: 74-77)

Summary of Issues Regarding Movements

The water requirements of bison emerge as the first priority. Then vegetation and topography play a role afterward. Bison movements on the dry Southern Great Plains were mostly due to water availability, and the west to east line of water courses is consistent with the north and south patterns bison might have preferred to access those water sources in the study area. In following their social impulse to congregate in the summers, the amassing was timed to correspond to the north and south movements to water sources. Thus, movements which gave the appearance of a regular migration to direct observers could have been bison moving from one water source to another.

However, when finally the winter weather—primarily winds—encouraged bison to seek a wind break, bison sought the shelter of wooded creek bottoms. This is indicative of localized dispersion being the most important seasonal movement strategy, not migration, because dispersion signals the importance of the desired habitat and not a specific location. The variability of the Southern Great Plains environment—that is, the patchiness of the habitat and the disparity in local weather—would cause any dispersions to vary in timing and place. This patchiness translates into bison survival relying upon a very adaptable dispersion strategy, varying seasonally but also annually, so the same bison were not necessarily moving between exact locations.

Bison formed groups because the open grassland facilitated it in the warm season when bison would not need shelter from the winds and the grasses along the wooded creek bottoms had been consumed that winter. As bison groups journeyed to the fresh growth of grasses, they coincidentally formed a mass of animals. Also these masses of bison could have moved distances extending beyond normal, especially as the pressures concentrated bison so as to cause rapid depletion of water, resulting in the requirement to travel to still farther. The following is a sample of observed bison movements.

Sample of Group Movements

Desperate Movements

What did group movements in the study area look like? They were extraordinary, often etched in the memories of the observers, and they were noticeably costly to the bison. John Chadbourne Irwin relates being among the

observers of bison migrating south to the Brazos River in the area near Camp Cooper, which was just north of Fort Griffin. He said:

When we arrived at Camp Cooper [near Fort Griffin] there were few buffalo in the country but after the soldiers left they came in by the thousands. I have seen them in their migration both south and north pass for a week at the time passing all day long by the thousands—the bulls would be in the lead, always coming ahead of the cows, and sometimes on the migration south the old bulls, when they reached here, would be weak and would die in the Clear Fork [of the Brazos River] bogs. Have seen them die there so bad that we could not eat the fish from the River. There were lots of antelope, prairie chickens and wild turkey in the country in those days. Speaking of buffalo, I remember that my father used to make me go out and keep the old buffalo bulls off the calf range around the house. . . . (Irwin 1934: 3, 12-13) (underline added)

Similarly, the assault that bison meted out to water sources was a brilliant display of water's significance in bison survival. J. Wright Mooar was just south of the Canadian River, and he recalled the event:

Once I crossed Gageby's Creek and the fork of the Red River below where Fort Elliott was afterwards built on the Sweetwater, in what is now Wheeler County. That is where I saw something that when I tell the story you all will call me a liar. Lots of people did; but it is a fact.

When we struck the Salt Fork of the Red River it was belly deep and side deep to a horse and was running from bank to bank, one hundred yards wide. We met the buffalo right there on their migration to the north, and we stopped, and they kept going. The river was running and in forty-eight hours they drank it up.

They struck the stream on a front of 115 miles. I told this story to Reverend [James Winford] Hunt and he said he wouldn't put it down, that it was too unreasonable. There was an old crippled fellow who used to be with the [Pete] Snyders all his life. Died a few years ago. Was a big Methodist. And I was telling him this story and he had a better story than I did, about buffalo drinking a river dry. I had him write it down and sent the letter to Hunt who then accepted the story.

. . . A buffalo will drink twice as much water as a [domesticated] cow. I have no idea how far they would smell water. (Mooar quoted in Chesley 1979: 45) (underline added)

Mose Hayes was herding cattle up the Western Trail one fall, perhaps that of 1877 but no later, when he observed a devastating mass of bison in the

Antelope Hills of western Oklahoma. The result of the bison invasion was that no water remained for him or his cattle. He stated:

We saw many after that fall. There were thousands of them that fall going south. We met them as we went up, after we crossed the north fork of the Red River and went around the Wichita Mountain. Then we struck that government trail going up to Fort Elliott, and we turned and went up that. But before we got in on the Sweetwater, we had to go through the sand hills, and the buffalo just came in.

The leader gets started, and they all trot. We sent one fellow on out north to turn them, and when we got in on the Sweetwater they had passed down there and had tramped everything into the ground. We couldn't get a drop of water that night. After we got up on the Washita, there by Fletcher and Donnelley's place, every night and evening I'd go out and meet them with my six-shooter and fire a shot or two, and get them started away and circle them around my herd. They ran through the herd, two or three hundred of them, one night. (Hayes to Haley 1935: 45)

The Western Cattle Trail skirted the settlements since farmers did not want cattle trampling their crops. Bison traveled this same area until the access provided by the trail itself found those bison as early targets of the hide hunters.

Professional hunters on the range for extended periods had the opportunity to compare bison migrations from year to year. Richard "Uncle Dick" Bussell was such a hunter. Bussell hunted buffalo for a few years in Kansas, hunted until he and his similarly-equipped outfits had run the bison out of the area. After hearing the rumor that bison were in Texas, he headed straight south out of Dodge City in 1874. The news of the Battle of Adobe Walls had not reached him and his crew before leaving Dodge. When the news of the battle reached him while traveling to Texas, his cook and all the skimmers quit and went back to Dodge. He and his brother remained determined to get to Texas, and so they veered east and then went down to Fort Griffin by way of Dennison. They hunted without a crew in the fall of 1874 on Elm Creek, just north of Fort Griffin.

There [was] mighty good hunting as the buffalo stayed around that winter. We killed about 2500

There were hardly any Texans out on the range until 1876. The Kansas hunters came down early in the spring of 1876, and more in 1877. I expect there were from 15,000 to 20,000 men on the buffalo range then. They were hunting from the Beaver to the Concho.

In 1875 [we] were out on Elm Creek and four other fellows came out in the spring. They wanted me to show them how to hunt. They had a couple of good wagons and teams. The buffalo had drifted west, and we told them we couldn't fin[d] them unless we went fifty or sixty miles west. These were the first hunters I knew to come out from Texas. This made six in the bunch. The buffalo were out toward the head of the Pease, Red and Bra[z]os rivers. We pulled out toward the head of the Brazos. We never saw any buffalo and thought they were up north. We kept coming north and west and pulled up on what we called Mulberry, near the site of Clarendon, I think, and struck lots of buffalo. We commenced striking them about Red River but could not find a good camping place and so came on up the Mulberry. . . .

That summer, 1876, most of the buffalo went out. I never saw as few summer buffalo before in my life but they came back in the fall. I hauled my other hides to Dallas and came back to Griffin. A fellow offered me about twice what my outfit had cost me and I sold it to him. . . .

I got an outfit again [that winter] and came up to Croton Creek which runs into Pease River from the north in King County, I think. I killed about 2500 and sold the hides on the range. Charley Rath sent teams out and bought them. I think I got one dollar for the bulls and seventy five cents for calves. I quit that camp and moved up Pease River and got into camp about October, 1877. About 25 miles southwest from the corner of Indian [T]erritory, and there we killed our last buffalo. We got them as they came out of the [T]erritory as there was nothing to bother them in there. We got about 3500 that year and went to Fort Griffin where I hired all kinds of teams, from two yoke of steers to six, and had a string of wagons about a mile long, not two teams belonging to the same man. I hauled to Sherman and got about one dollar around for them. I ought to have held the hides for another year as I had plenty of money and could have stayed right with them. Those hides the next year would have brought from four dollars to five dollars apiece. (Bussell to Haley 1926: 3-6)

Bussell recognized that degrees of migration could be judged based upon the percentage of animals that might be left in a general area when most others moved from it. Thus, factors affecting migration might encourage it more strongly or less.

Dependability of Wooded River Bottoms

The summer of 1876 must have had all the best factors for bison to decide to move. George Simpson was in the north part of the Texas Panhandle when he observed,

We went back to our camp on the Gageby [Creek] which we made our headquarters. We hunted as far as the [N]orth Fork and Sweetwater Creeks, a strip about twenty five miles wide. During the summer of 1876, during June and July, we had buffalo by the thousands right at our home. Later we had to go out ten or fifteen miles to get good hunting. The best hunting we ever had was in the summer of '76.

Early in the spring we would go as far south as Red River, 100 miles, to meet the buffalo coming north. The main herd would reach here along in June. During June and July there would be good hunting, and then they would pass on north and begin to get scarcer. By about the first of October then, but not so good as that in June, as the buffalo were able to spread out over more country for water and grass. Of course they had regular trails that they followed. They came up Red Deer and White Deer Creeks, passing up the ridge. There was fine hunting along there in October and November and we hunted there in the fall. From there back to the head of Gageby, about fifteen miles, they were very scattering. . . .

During the summer of 1877 we hunted here [Canadian]. . . .

It was good until about October, and then we started south. The buffalo had all got by going south and we started to go where they were. They had passed and we knew they were to the south of us somewhere. We left here with something like ten wagons as there were several other parties with us, and followed the buffalo on. . . .

There was a sprinkling of buffalo but they were shooting them every way. We went on to the [D]ouble [M]ountain [F]ork of the Brazos and camped for the winter. There we hunted the balance of the winter until all the buffalo were killed. Nothing was left but calves and we killed lots of them ourselves. Hunters were at nearly every place where there was water and every two or three miles you would strike one of their camps. The hunt wound up about the middle of January, 1878. We hired our hides hauled to Deep Creek. There was nothing there but buffalo stores and tents.

. . . The biggest killing done the last year that I know of was down in the Brazos and Yellow House country and up on the edge of the plains. The buffalo stayed down in that country in the winter. The hunters camped in every place they could find water in 1877 and 1878 and you could hear guns going all the time. There was good hunting in this country in the summer of 1877. (Simpson to Haley 1926) (underline added)

Bison were attempting to winter in the river bottoms of the Brazos and in the protected canyons such as Yellow House Canyon, but hunters were camped in every place water existed. Bison would have had a difficult time wintering on the open country of the High Plains, and so the hunters had all of the conditions in their favor.

In offering a general picture, George Simpson conveyed his personal understanding about bison movements as follows:

. . . In the early days the buffalo stayed mainly under the Plains [below the Caprock] as they would have to come to the streams for water. But in the summer they did graze out on the plains, especially during the summer months when the lakes were full of water. The breaks also gave them a good deal of protection.

A buffalo could do without water a week in cold weather, but only a day or two in the summer. Buffalo hunters hunted buffaloes as long as it was profitable. With some hunters there was no buffalo season. One could get many more of them in the summer than in the winter. . . . (Simpson to Sheffy 1929: 2-3) (underline added)

The recurring theme in Simpson's understanding is water. Bison moved based upon water, and hunters exploited this. The season of the year helped hunter gauge their expectations of bison movements.

Another factor affecting movements was pressure by people which might have caused movements to locations that were more dry and, thus, less desirable—the High Plains in particular. Precipitation decreases westward until it drops to averages less than 20 inches across the High Plains (Fig. 4.2), but the many springs that can be found in the canyons and breaks just to the east of the

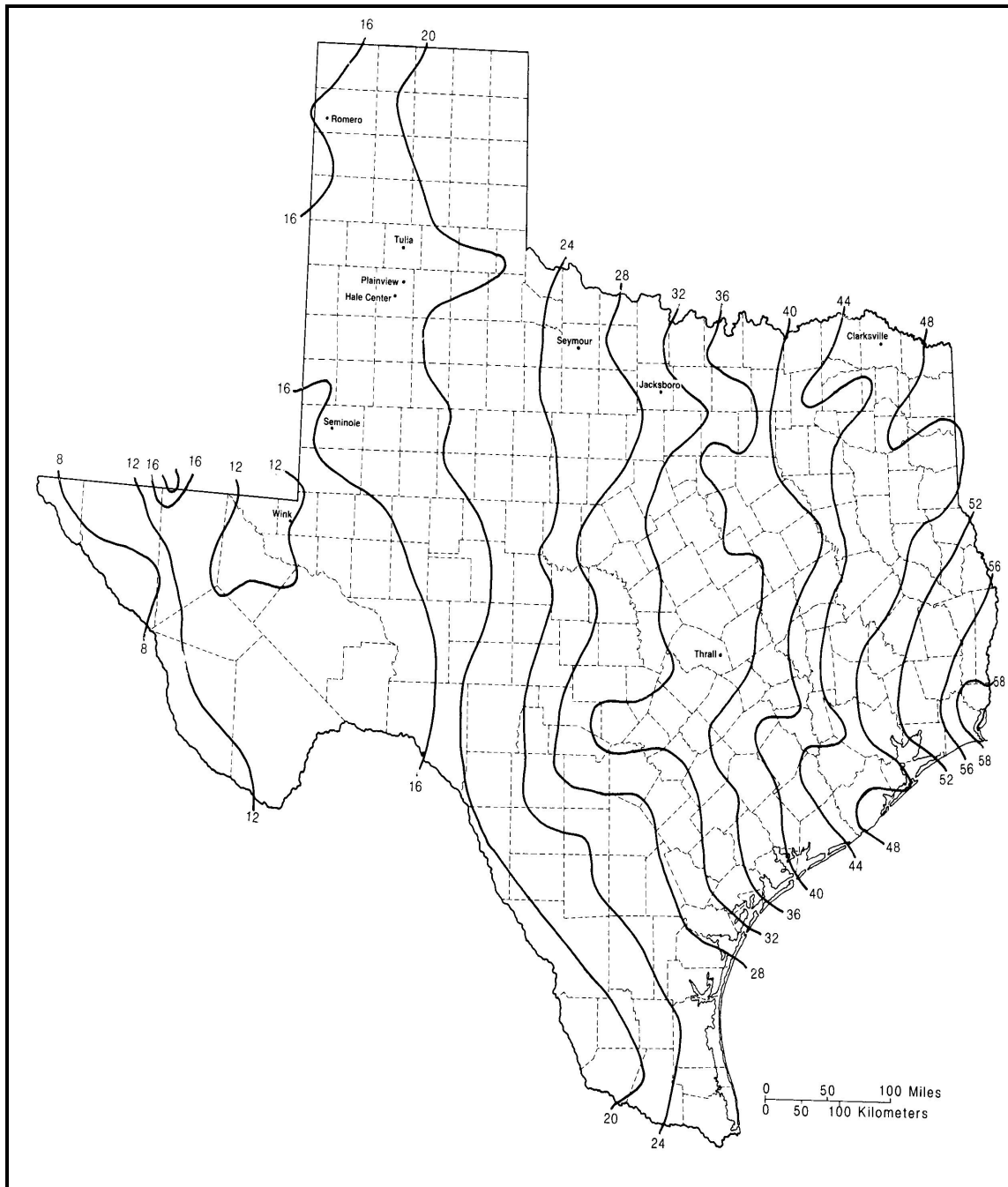


Figure 4.2. Average Annual Precipitation in Texas in Inches.
Source: Stephens and Holms 1989: 5.

High Plains provide additional water to rainwater catchments. Moreover, this area to the east is also the drainage for rainfall on the High Plains.

Bison Finding Water at Playas

The intermittent rainwater lakes on the High Plains supported some bison. J. W. Woody and his brother had two other men with them when they went from Young County to the southern buffalo range in October of 1876. Their headquarters camp, or main camp, was about six miles from where Post, Texas, is now in Garza County. That first winter they attempted to anticipate the bison but discovered the vast emptiness of the Pecos. J. W. Woody recalled that winter trip to the extreme head of the Colorado River:

We left the Big Springs to our left. We lacked about two hours by the sun of being three days without water, not having even a canteen in that time. . . .

After we left the head of the Colorado and went out twenty-five or thirty miles we began striking the biggest herds of buffalo I ever saw. We delayed there one day looking for water. The herd was so big that the lead ones wouldn't run, and we were driving through buffalo for fifteen miles. There was no water and no use trying to kill them.

After we left the Mustang watering [Draw] we went on down (south) until we struck the Overland Mail route, and found where we were at. We decided that the buffalo were going to the Pecos river. Me and three others got on horseback and cut across to the Pecos. When we got there we found no buffalo. They were watering at Cedar Lake, but we didn't know it then, and didn't know where the lake was.

. . . Right around Big Spring for a mile or two I've seen the carcasses so thick that you could jump from one to the other. The buffalo began to drift in about the first of September, and kept drifting until cold weather set in. The hunters usually left Kansas and following them this way about the first of September. (Woody to Haley 1926: 1-3) (underline added)

This stands out because bison were in a lethargic herd that stretched for 15 miles, and no hunters wanted to shoot them. The winter of 1876 to 1877 bison found their choice habitat occupied by people, and other places did not

have one of the factors making suitable winter habitat. In the case of the *playas*, for example, they did not have wind breaks or grass because it was eaten by one species or another that summer. Every man and animal was thirsty enough that water was the only consideration. Ultimately, the bison found water at Cedar Lake, but the hunters confessed to not knowing enough to continue with the herd. Admitting the bison's wisdom in locating water could save people from dehydration.

John Doss left Young County for the bison range, and he met John Jacobs at Ft. Griffin. Jacobs had already been out hunting and had a big outfit together. When Doss joined, the outfit totaled 11. Doss stated:

The buffalo kept drifting in—hundreds and thousands of them. They migrated all the time. They were either going south or going north. When they started back, the country would get depopulated of buffalo, and we'd move. We only moved once, I think, during that winter [1876-1877]. We moved out west of Big Spring along in the spring of the year. It was up the Sulphur Draw twenty or thirty miles in north. (Doss to Haley 1935: 1-3)

To a new hunter the bison might have appeared to be migrating all the time, especially in late 1876. The Big Spring area is right at the well-used passage across the Callahan Divide that Mackenzie passed through on his way to his Supply Camp. Bison previously using that pass and the spring water it provided most certainly remembered and liked to return there.

Large Herd Observed Before Hide Hunt

John Doss and John Jacobs had in their hunting outfit a man named Joe McCombs. McCombs (1935: 96) recalled how bison used their sense of smell to

carry them in their movements at the same time he seemingly describes a migration—but importantly did not give it that label in spite of its prevalent use.

In the fall of 1872 I was out with a surveying party headed by Captain C. W. Holt. We were out locating the H. & T. C. Railroad surveys and sent all the way to the foot of the [High] Plains due west from Fort Belknap, and our same mission later carried us down south to the mouth of the main Concho.

It was on the trip west from [Belknap] that I saw the most buffalo I ever saw in my life. In fact we were in buffalo most all the way from the mouth of Miller's Creek . . . as far as we went. The largest individual herd though was near Kiowa Peak on the Salt Fork of the Brazos northwest of Haskell—there was no Haskell then. Our party estimated that there were 50,000 head of buffalo in that vast moving mass of buffalo heading south.

When we neared the Double Mountains on this trip we had what you might call a dangerous experience in a Buffalo [sic] stampede, heading into a cloud of dust which we knew to be caused by a moving herd. The dust was not thick at first but animals scattering became frightened and started running, heading into the wind as always they did, and the ones behind kept following.

The dust thickened as did the herd. The wagons were ordered rounded together and all hands inside. It had begun to look squally. The herds were running blind every animal with his tongue out and the dust so thick that they could hardly see the wagons which was the only danger. It was soon over and my only experience of the kind. It would not have happened but for the blinding dust as a buffalo was always afraid of a man and there was no danger from one unless you crowded him. (McCombs 1935: 96-97) (underline added)

Bison Retreating to the Upper Brazos River

W. S. Kelley went out to the San Angelo area in 1871 to take charge of the stage stop at Ben Ficklin—a stage coach stop for those headed to El Paso on the road previously used by Butterfield to California. Kelley said that the Concho River area was full of hunters waiting for bison when they moved southward. Hunters were likely waiting for them on their trip north to the Double Mountain Fork of the Brazos. Kelley said:

The North and South and Middle Conchos were good range; the Middle the best of any as it was in the center of the buffalo range. It heads fifty miles West of San Angelo in the Centralia [D]raw. Dove Creek and Spring Creek were fine buffalo ranges too. . . .

In 1877, I believe, I had a buffalo camp about forty-five miles from Angelo up the Middle Concho, where a big draw came into it and, in the latter part of February all the buffalo left and never came back. W. J. Bishop, a Virginian, was with me. He worked at hay camps in the summer. That or wood contracting was about all there was to do then. We killed about one thousand head of buffalo that year.

I believe that it was in February, 1877, that a drizzly east rain came and the buffalo left in it. Bishop followed them back as far as the Double Mountain Country, but he didn't do much good. (Kelley to Haley 1931: 1-2)

Bison Killed in Winter Along Creeks

S. P. Merry spoke of the problems the winter weather created for bison during the winter of 1876-1877. He said:

Our outfit began killing on a tributary of Deep Creek close to where Snyder now stands. There were lots of hunters everywhere and you could hear guns popping all over the country. I saw the main herd there on this creek. There was a little creek which ran pretty near straight from there for six miles. A snow storm had come and the buffalo seem to have gathered in this little valley which was about a mile wide and it looked like a man could walk on buffalo. That turned out to be the last main herd. This was in December of 1876. The men I was with killed one hundred buffalo one day. . . . (Merry to Haley 1926: 1-2) (underline added)

The bison preferred not the open plain but some protection from wind such as creek bottoms provided during winter storms. These storms caused bison—the last of the main herd by the above account—to be concentrated in a way that was convenient for hunters.

Stampede Observed by O. W. Williams

A stampede would not be ordinarily the way bison would want to travel. In accounts of bison stampedes, there are almost always negative consequences of

a headlong rush. Bison apparently easily stampeded when smelling water or when being spooked by hunters. The last bison hunting for hides involved animals very easily spooked, senses at high alert. O. W. Williams, the famous frontier observer, surveyor, and judge in Pecos County, observed a stampede of bison on the High Plains of Hale County, Texas, on a hot day in late July of 1878.

We ran our line of meander down the creek on the north side, two chainmen and two flagmen afoot, while I carried the transit from station to station on a gentle horse, wise to frontier life as we soon learned. We had come some six or eight miles down the water course, when as I was setting up my instrument, the flagman asked if I had not heard a peculiar sound. I stopped my work to listen. I caught a throbbing sound of somewhat irregular cadence such as I had heard two years before when twenty miles away from Niagara Falls. It came from the north, and looking in that direction, we could make out what seemed to be a low-lying cloud sweeping down on us quite rapidly. It was late July so it could hardly be a norther, and there was nothing in its appearance to lead us to suspect it might be a rain cloud. We were for a moment at a loss to account for it. But when we caught sight of dark objects showing up on the ground-front of the grayish whit cloud, and then dropping back from sight, everywhere almost at once the cry went up, "Buffaloes! A stampede!" Immediately we began to prepare to meet the storm. Looking back, we saw our wagon and ambulance about half a mile away, apparently being lined up to meet the charge with the smallest possible front, but too far away for us to hope for union with them in time. So we prepared our little party to face the stampede on our own ground.

. . . As soon as I felt safe in doing so, I turned back to see in what shape the onrush had left our party. During the terrific uproar of the passing multitude, I had dimly made out sounds which might have come from the men or the horse behind me, and when I turned I greatly feared to find that some calamity had befallen us. But beyond a horse that was trembling, and a party of four men exceedingly dust laden and full of strange oaths, there was nothing to show that we had been in any danger.

. . . As soon as the last of the animals had passed us and our vision opened to the west, we could see that our main party had weathered the storm, and were beginning to get ready to follow our march. We learned later that the herd was not so dense and heavily packed with them as at our point of contact, but the estimate made by members of that party as to the number of animals in the stampede ranged far higher than ours, and it was set by some of them at fifty thousand. It was impossible for us to make any reliable estimate But it was almost surely the last great herd of the Southern buffaloes, after it had been cut off from any migration

to the north and after five years of the Sharps rifle in the hands of the professional hunters. (Williams to Grant 1930: 1-6)

This full run on the High Plains in a direction they would not ordinarily desire in the hot month of July demonstrates how the movements of bison can represent their health status, which was in this case a very desperate condition.

Synthesis

The general picture is that bison had so few places to go that the concentrations of bison numbers increased beyond what those local environments could sustain. The impact upon the habitat was so destructive that local environments were unfit for the bison themselves after they arrived and stayed only a short time. Moreover, the exhausting strain these animals were under, especially the young and the old, was obviously directly detrimental. If these so-called migrations were not really regular migrations, then what other explanation fits these observations to what is understood today about bison movements?

First, the area deserves consideration. The river courses running west to east generally would encourage a north-south pattern as bison sought water sources in open areas with fresh grasses during the summer. In addition, the general absence of shrubs and almost complete absence of any thickly wooded shelter belts made the High Plains undesirable even in times of good water sources, when rains had renewed the intermittent lakes, the *playas*. The bison had the strength and agility to go on the High Plains practically any time they wanted, but they only wanted to ascend to it if water was there or if given no

choice by hunters. The rolling plains just to the east of the High Plains had the resources for larger groups of bison--higher annual precipitation and the drainage of the river systems, both beneficial to vegetation growth.

Second, the term migration deserves consideration. Frontier hunters and trappers lived a life that involved terminology and concepts that are different from the way scientists would use them today. If the general belief by hunters was that bison migrated, then hunters can be expected to place their observations in a context that would fit that pattern of description. The terms allowed them to tell their stories to people, other hunters and their families, and anyone who told a story about how bison could have never migrated would have sounded strange around the campfires. If a hunter observed a group of bison moving north in late spring or summer or moving south in late summer or fall, the story was likely to be that bison were on their migration. In times when the movement and season did not fit and the observer was aware of the incongruity, he could just state that bison drifted

The factual movements the hunters described, not necessarily a particular term, are what gives researchers today an opportunity to understand what bison were doing. These events can be described in terms that are meaningful to the current audience. In the desperate movements related here, bison were not just going from one water source to another; they were responding to severe hunting pressure. The result was movements very likely quicker and more detrimental to their own health than they would otherwise allowed. The hunters conveyed a sense that these movements were erratic and desperate, but neither the idea nor

the term dispersal strategy ever appeared in any of the hunters' stories examined in this study. Nevertheless, the clauses that bison drifted in, stampeded, drank up rivers, or gathered in a valley full of hunters add up to as much—movements generally predictable but also generally transfigured by various pressures from all corners of the Great Plains.

To place the bison distribution and movements in the context of hide hunting, this study utilizes the hunters' trading posts. A time restriction is placed upon these, beginning with 1873, the first year in which numerous hunters entered the Texas Panhandle from Kansas. The first such trading post was that of the Cator brothers, already in existence by then. Any trading post established after 1878 was almost strictly for cattle drivers or wagon freighters in general. So posts which began 1873 to 1878 and operated for at least two years are included in mapping.

If hunters or traders were willing to freight hides and supplies a day or two in any direction, then a travel distance might be derived. A thesis on freighting in the Panhandle-Plains area in particular provides such—generally 25 to 30 miles, less 5 or 10 miles per day if traveling in the breaks (Pope 1956: 43). If we have a conservative distance, 20 miles per day, then a one-day and two-day series of buffers from the trading posts south of Dodge City and west of Fort Griffin and north of San Angelo would appear as shown on the map here (Fig. 4.3). These towns themselves are excluded because they were not established and maintained for the strict purpose of bison hide trading.

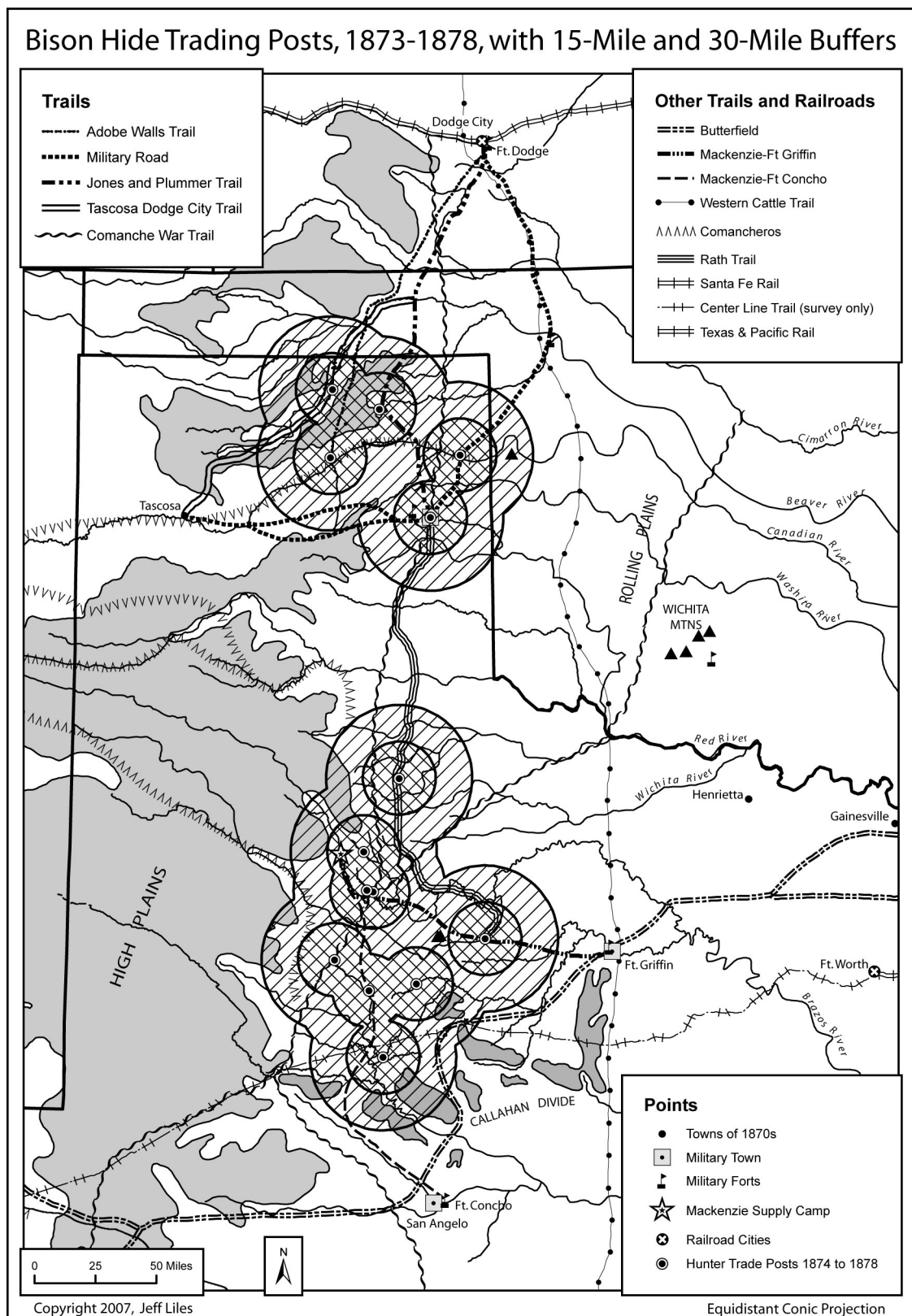


Figure 4.3. Bison Hide Trading Posts, 1873-1878, with Buffers.

The intention here is not to exclude the area south of the Callahan Divide. W. S. Kelley went to the Concho area in December of 1871 to run the stage stop at Ben Ficklin for the El Paso Stage Line. His occupations varied from that to freighter and bison hunter. He (Kelley to Haley 1931: 1) told of the hunters who had camped along the Concho River and successfully hunted there, but apparently no trading posts existed in the Concho River basin outside of San Angelo.

Much more interesting than the Concho River is the Brazos River. The trails and trading posts that concentrated around the headwaters of the Brazos River at Yellowhouse Canyon and just below might signal some particular affinity to the area. The number of trails that crossed that area and their prominence is extremely unusual. These canyons and the broken country to their east served travelers with water and shelter and game. They could have also been year-round habitats for bison much like the post oak savanna.

The canyons and their surrounding short grasses on the High Plains and mixed grasses on the rolling plains would have been able to provide bison herds with year-round forage and water if checks remained on bison numbers, and the *ciboléros* would have always met up with them at these canyons and river bottoms. Fabiola Cabeza de Baca (1954: 41, 45) related that the *ciboléros* who came from the area around Las Vegas, New Mexico, sometimes stayed on their trails in the area of Palo Duro Canyon and the Quitaque country south of Tule Canyon (Fig. 4.4) until winter because the bison robes had a greater value when they were more heavy with winter pelage. Personal accounts also ensure bison

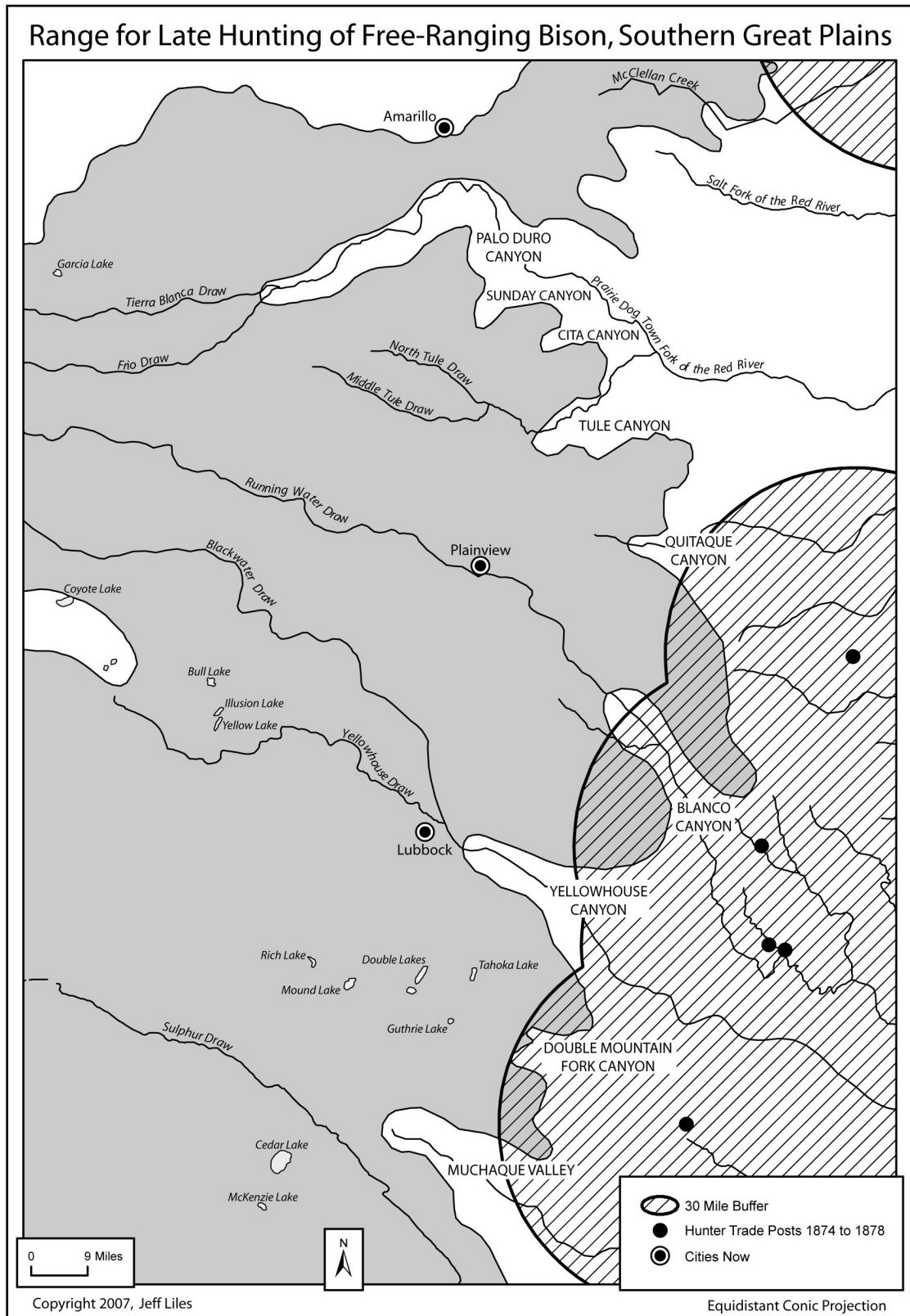


Figure 4.4. Range for Late Hunting of Free-Ranging Bison

were present year-round in the area of Yellowhouse Canyon as well (Flores 1990: 55-56).

The best information that these canyons and the grasslands immediately surrounding them furnished for bison a year-round habitat is the story of Charles Goodnight's occupation of Palo Duro Canyon. In late October of 1876, Charles Goodnight and Leigh Dyer drove their first cattle herd, numbering 1600 head, into Palo Duro Canyon. Their approach was from the west, along the Tierra Blanca Draw, and they put the cattle in the narrows and headed toward the east. They began to meet up with bison as the canyon widened, and Goodnight and Dyer rode in the lead, stampeding the bison that were grazing high on the canyon sides so that they would join the drive. Haley (1936: 283) conveyed that the sound of the herd crashing through the brittle cedars in a mad stampede was very loud, even scaring some of the black bears that still inhabited the canyon.

Goodnight, who was famous for his ability to count cattle, even if among a moving herd, estimated that he had gathered 10,000 bison at the time he dropped back from driving them east toward the mouth of the canyon. Dave McCormick and another ranch hand rode the east line of the canyon consistently for months until the bison slaughter was completed (perhaps just the winter of 1876 to 1877) because cattle drifted east toward the canyon mouth, and bison attempted to drift west and enter the ranch. These two hands estimated that between 800 and 1500 head of bison approached this line from the east over some months.

The effects of the hide hunt on bison locations were known to Frank Collinson (1940: 113 ff.), who said that when the Texas and Pacific Railroad built across the plains in 1881-1882, antelope were killed by the thousands. In the fall of 1882 George Causey went to see Collinson to recruit his financial involvement in obtaining bison to be shipped likewise. The order called for whole bison, which Causey knew to be roaming in a herd of about 100 in the sandhills between Midland and Cedar Lake (Fig. 4.4). These shipped whole by rail from Midland to St. Louis would obtain as much money as 500 hides. Causey needed some money to supply his outfit, and he found Collinson willing to help.

In early winter 1882-1883, Causey went out with an outfit and hired help to a winter camp at Cedar Lake. He located some rainwater lakes, or *playas*, and they found the bison. Hired men came behind Causey, gutted the fallen bison, and loaded them whole, hides still on them, into the wagons. The weather was cold enough for the meat to keep, and the train took them to St. Louis. This was the last of the hunting of any scale on the Southern Great Plains, accomplished by a hunter who had started after bison in Kansas 13 years prior to this hunt. His total count was about 40,000 dead bison. The agent for his last bison was the railroad, the same cause and means as his first. The persistence of these last bison amidst an extraordinary wholesale loss of fauna speaks of the habitat's potential for supporting bison year-round.

CHAPTER V

CONCLUSION

Summary of the Historical Geography

When the Comanches adopted a nomadic lifestyle and moved southward down the Great Plains, they became integral to the trade networks that crossed the Southern Great Plains. They stole from one place and sold to another, and stealing rather than hunting became their preferred profession. Their reputation as ferocious people discouraged the spread of settlements and transportation routes directly through their range. The latter more than the former was the cause for the southern bison herd to discourage general hunting of the bison there. The former event was accompanied by thousands of horses being brought onto the Southern Great Plains and competing for the resources that bison needed.

As travelers crossed the Southern Great Plains on a north-south route, they ordinarily made a path that would avoid the dry High Plains as well as the roughest breaks of the eastern escarpment. The rolling plain just east of the breaks has diverse vegetation and watering opportunities. Mostly due to water sources, trails that did cross the High Plains tended to be east-west descending into the canyons with cottonwood-lined draws, some of which are fed by artesian

springs along the escarpment. Where they ascended onto the High Plains, they often met with a *playa*, a rainwater lake. The many wagon trails that crossed the area are evidence of the importance of these water sources as the primary means by which travelers met the challenges posed by the Southern Great Plains. The wagon routes out of Dodge City, Fort Griffin, and Fort Concho demonstrate the challenges of the environment of the Southern Great Plains.

Dodge City and Fort Griffin were drastically more important in the hide hunt than Fort Concho, but hunters faced their task by setting out from those three locations to make their first camps and some of their first trades in hides and hunting supplies. Other towns such as Brownwood and Henrietta played some role even if not on the main roads to the bison range because of their proximity to the frontier and to sources of supplies. From these locations—the frontier settlements—the bison disappeared first. Then they disappeared from the well-watered areas where the bison hunters were camped. They disappeared also from the canyons along the escarpment of the High Plains when the ranchers came in with cattle and ran the bison out of these retreats. Then finally, bison were killed from their retreats at the playas on the western portions of the High Plains and their retreats between the Beaver and Cimarron Rivers of No Man's Land, or the Oklahoma Panhandle.

The movements of bison can be evaluated to a degree through these movements of people. Bison dispersed in the cool season because they sought the protection of the canyons and wooded creek bottoms, locations that not only supplied them with water and forage but also protection from the windy winter

weather. The warm season brought the rains and grasses that would support their larger social groups on the open plains and prairies. The west to east pattern of the water courses encouraged bison to move in north and south patterns to utilize both the water sources and the grass-covered divides separating the river basins. The idea here is that the winter habitats could have supported bison on a year-round basis if bison numbers could be held in check. The majority of the primary accounts can fit into a pattern of seasonal dispersion strategy more easily than a pattern of seasonal mass migrations. Those direct observations of mass movements indicate a level of intense habitat impact that discourages considering those movements as beneficial and sustainable for bison.

The general relationship of bison with people resulted in trails across the study area. These trails were for trading in bison products initially, but they came to be known more for ransoming people which had been taken captive and trading cattle and horses that were known to be stolen. The trails themselves still indicated a pattern of activity for bison hunters in the eighteenth century. Archival research has produced some stories of hunters which can be hard to track geographically. Most hunters did not leave records, and the surviving sample of records might not be representative of the others. Consequently, the trading post locations appear to be the best geographic reference points if each point included is a close fit to the hide trade. Following that, a rigorous identification of the trading post locations during the peak of the hide hunt and estimation of the radius of service from each trading post has resulted in a set of

locations. These areas were where transportation and trade met the bison hide hunters. The gaps outside of these buffered areas, which includes the outlying rainwater lakes of the High Plains and the canyons and some creek bottoms of the rolling plains, supported the last bison because they were challenging to reach by wagon and team.

Retrospect on the Methodology

The approach has been to emphasize a wide array of historical and geographical tools. The usage of primary documents is necessary to derive bison geography because of the general lack of bison historical geography in mass publications. ArcGIS was utilized for the map making, and Adobe Illustrator used for map finishing. The student believes that the anecdotal materials which hunters provide in archives, while time-consuming to gather and process, still hold details and ideas about Great Plains ecology that have yet to be discovered and utilized.

Retrospect on Initial Study Questions

1. Where were the hunters, and what were their movements?

While meat hunters and occasionally robe hunters killed bison along the frontier, the professional hide hunters began in Kansas and entered Texas at her Panhandle from Dodge City. So many hunters had an interest that the town of Adobe Walls was established in the spring of 1874 to trade specifically with bison hunters. These hunters generally, but not entirely, moved down to the Ft. Griffin area in 1874 due to the outbreak of fighting known as the Buffalo War of 1874. Some of these hunters moved southward later on account of finding few bison in

the northern Texas Panhandle—fewer than they believed would make continued hunting worth the effort.

Ft. Griffin quickly saw an end to the bison in the immediate area, and the hunters used the Mackenzie Trail along with other trails to access the bison west of Ft. Griffin. As hunters moved out from these two towns with military posts—south from Dodge City and west from Fort Griffin—they killed bison closest to them for concerns of freighting their collection of bison hides to another freighting point that would eventually carry their hides eastward for tanning. Due to issues of transportation, therefore, the bison closest to these towns disappeared first; the bison drawn to the creek bottoms in winter were killed in the peak of the hunt; and bison in the most remote areas were killed last. Thus, the location of hunters appears to have been a function of proximity to larger trading centers and main wagon trails.

2. Where did the hunters specifically not find bison, and when?

This is a complicated question because of its initial phrasing. First, only a limited number of hunters left records. Furthermore, bison hunters were scattered far more widely than the first-hand accounts could all verify. In order to answer this question as originally stated, more documentation would be necessary to substantiate the non-presence of bison at particular places. To get at the intent of the question, the student believes that bison could have ranged throughout the entire study area.

3. What factor(s) might lend itself to quantification, especially regarding population of bison?

Counting bison hides taken at specific points is a task being started by the authors of the Encyclopedia of Buffalo Hunters and Skinners. The student believes it would essentially emphasize the importance of the wagon trail network and the trading posts it included. That is why this study emphasize trading posts. However, the results will not be known until the mapping is conducted.

The most interesting pattern of the maps in this study is the concentration of trails and trading posts at the head of the Brazos River basin. The dependability of finding bison in that area would give a cause to so many trails leading there. However, what remains to be known is what is special about that place that drew the many trails for both animals and people? Often people found the sheltered creek bottoms attractive for the same reasons the animals did with the added reason that the animals were there to furnish game.

4. Is there evidence of bison migration, and if so, then what was the pattern regarding both time and place?

Limited first-hand observations exist regarding bison locations and movements. Since hunting outfits usually had a substantial amount of camping and cooking equipment to load when time to move camp, the headquarters camps were not easily moved. The result is that hunters observing bison passing often were not in a position to immediately follow those animals even if they wanted to.

The majority of the detailed direct observations do not fit a viable population of regularly migrating bison. The more dramatic the mass movement described, the more desperate the bison condition appears. The impact upon

bison themselves indicates that the seasonal dispersion strategy incorporates a better blend of three facets of this study—1) the direct observations of hunters, 2) the documented behaviors of bison, and 3) the resources available to bison in the study area.

5. Do movements generally support the idea that bison were responding to the presence of hunters or changing behaviors due to large numbers of deaths of their own kind?

Yes, bison responded to human pressure, and their desperate responses were the cause for the answer to the above question (4).

6. Where and when were hunter densities greatest and least? And from where did these hunters appear?

Hunter concentrations were based upon accessibility issues. They could be expected to be greatest near the railheads of Ft. Worth and Dodge City. But Ft. Griffin was served by trails from Ft. Worth. Early hunting occurred south of Dodge City, jumping further southward according to rivers, the Cimarron, the Beaver, and then to Adobe Walls on the Canadian. This dealt more with Indian policy than with the presence of bison. Then hunting appears to have declined in the Texas Panhandle, rising strongly in latter 1874 from Fort Griffin. Then Fort Griffin was the major depot for hides 1875 through 1877. Scattered and thin remnants of the southern bison herd remained in isolated areas of the High Plains of Texas and the Oklahoma Panhandle into the 1880s.

7. Can clues be obtained as to responses bison exhibited to defend themselves against the near extinction they experienced?

Briefly, their best defense was running to some isolated place. The bison continued to run westward, but their avoidance of the Pecos River is interesting. The bison were apparently willing to be out on the High Plains, which had short grasses and intermittent lakes and draws to supply them with necessary water and forage. Since these animals did not continue on to the Pecos River even though very close to it, then the bison appear to have avoided the Pecos, the western border of the study area.

Suggestions for Future Studies

Perhaps the most important consideration for future studies is to relinquish the traditional attempts to quantify bison in the traditional manner. Anyone who could have accurately counted bison likely would have done so by now. Bison were always moving, and their numbers were always changing according to place and timing. One specific suggestion toward quantification might be to align which hunters traded at each trading post during specific times and quantify the transactions of each account. A comparison of transactions across times and trading posts might yield some ideas regarding the bison in the respective areas. Very likely, however, the possibility is remote.

The best prospects for future geographical information about bison will involve multidisciplinary approaches that utilize increasing amounts of prehistoric information. Anthropology appears to offer more potential for new ideas than history, and the major reason for this is scale. While those who examine historical issues usually look at the broadest canvas, new ideas about bison will likely be on a smaller geographic scale than historians have preferred taking with

bison. The more restricted geographic scale but extended time period of anthropology looks more promising.

REFERENCES

- Ahr, S. W. 1998. Ramifications of late Holocene hide-processing geographies along the lower Medina River, Texas. M. A. Thesis in anthropology. Texas A&M University.
- Allen, J. A. 1974. *The American bisons, living and extinct*. Reprint from 1877. New York, NY: Arno Press.
- Anderson, H. A. 2001. Gerlach, John J. In *Handbook of Texas online*. <http://www.tsha.utexas.edu/handbook/online/articles/GG/fge9.html>. Accessed 7 March 2007.
- Anshutz, Mr. & Mrs. M. W. to J. E. Haley. 1937. TMS of interview. Vandale (Earl) Collection. Center for American History. The University of Texas at Austin. 16 June.
- Anderson, C. G. 1984. *Deep Creek merchant: The story of William Henry "Pete" Snyder*. Art III. By L. Bright. Snyder, TX: Scurry County Historical Commission.
- Arrington, F. 1971. *A history of Dickens County: Ranches and rolling plains*. Nortex Offset Publications.
- Bamforth, Douglas B. 1987. Historical documents and bison ecology on the Great Plains. *Plains Anthropologist* 32 (115): 1-16. February.
- Baugh, S. T. 1986. Late prehistoric bison distributions in Oklahoma. *Plains Anthropologist* 31(114): 83-96.
- Baughman, R. W. 1961. *Kansas in Maps*. Topeka, KS: Kansas State Historical Society.
- Beck, Warren A., and Ynez D. Haase. 1989. *Historical Atlas of the American West*. Norman, OK: University of Oklahoma Press.
- Biggers, D. H. 1944. *From cattle range to cotton patch*. Reprint. Bandera, TX: Frontier Times.

Branch, E. Douglas. 1997. *The Hunting of the Buffalo*. Reprinted from 1929 with an Introduction by J. Frank Dobie and an Introduction by Andrew Isenberg. Lincoln, NE: University of Nebraska Press.

Bussell, R. D., to J. E. Haley. 1926. TMs of Interview at Canadian, Texas. 19 July. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Cabe, E., Jr. 1933. A sketch of the life of James Hamilton Cator. *Panhandle-Plains historical review* 6: pp. 13 ff. Reprinted 1980 in Hansford County Historical Commission, *Hansford County Texas: Covering the lives of its citizens, their hopes, dreams, failures and successes*. [Dallas, TX]: Taylor Publishing Co. Pp. 6-9.

Cabeza de Baca, F. 1954. *We fed them cactus*. Drawings by D. L. Peters. Series: Zia Books. Albuquerque, NM: University of New Mexico Press.

Campbell, H. H. 1958. *The early history of Motley County*. 1st ed. San Antonio, TX: The Naylor Company.

Cashion, T. 1996. *A Texas frontier: The Clear Fork Country and Fort Griffin, 1849-1887*. Norman, OK: University of Oklahoma Press.

Chesley, H. E. 1979. *Adventuring with the old-timers: Trails traveled—tales told*. Intro. by J. E. Haley. Ed. By B. B. Price. Midland, TX: Nita Stewart Haley Memorial Library.

Chrisman, H. E. 1998. *Lost trails of the Cimarron*. 2nd ed. Foreword by J. Hoy. Norman, OK: University of Oklahoma Press.

Clack, M. H., and T. Clack. 1979. *Pioneer days . . . two views: A reprint of Early days in West Texas, Recollections of Miss Tommie Clack*. Presented by K. Duff and B. K. Seibt. Chapter designs and endsheets by J. A. Black. Abilene, TX: Zachry Associates, Inc.

Clark, I. G. 1958. *Then Came the Railroads: the century from steam to diesel in the Southwest*. Norman, OK: University of Oklahoma Press.

Collinson, F. 1936. Nimrod's children. *Ranch Romances* (2 May 1936): 246-251.

———. 1940. George Causey, buffalo hunter and cowman. In *Ranch romances* 16 February. Pp. 110-118.

———. 1963. *Life in the saddle*. Ed. and Arr. By Mary Whatley Clarke. With drawings by Harold D. Bugbee. Reprint. Series: The Western Frontier Library. Norman: University of Oklahoma Press.

Cook, J. R. 1907. *The border and the buffalo: An untold story of the southwest plains: A story of mountain and plain; the bloody border of Missouri and Kansas; the story of the slaughter of the buffalo; westward among the big game and wild tribes*. Topeka, KS: Crane & Co. Reprinted 1989 with Foreword by D. Dary. Austin, TX: State House Press.

Crabb, V. C., to J. E. Haley. 1925. TMs of Interview at Lake View, Texas. 22 June. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Day, J. M. 1960. A preliminary guide to the study of buffalo trails in Texas. *West Texas Historical Association Year Book* 36(October): 137-155.

DeLorme Mapping Company. 2003. *Texas atlas & gazetteer*. 5th ed. Yarmouth, ME: DeLorme Mapping.

Dick, E. 1941. *Vanguards of the frontier: A social history of the northern plains and Rocky Mountains from the earliest white contacts to the coming of the homemaker*. New York, NY: D. Appleton-Century Company.

Dickens, W. A., and J. E. Wiederhold. 2003. Some notes on bison, the Texas post oak savanna, and the late prehistoric period of Texas. *Bulletin of the Texas Archaeological Society* 74: 31-54.

Dillehay, T. D. 1974. Late quaternary bison population changes on the southern plains. *Plains Anthropologist* 19(64): 180-196.

Dixon, O. K. 1987. *Life of Billy Dixon*. Reprint with an Introduction by G. B. Ward. Abilene, TX: State House Press.

Dooley-Awbrey, B., and Dooley, C., and the Texas Historical Commission. 1992. *Why stop?: A guide to Texas historical roadside markers*. 3rd ed. Houston, TX: Gulf Publishing Company.

Doss, J. L., to J. E. Haley. 1935. TMs of interview at Colorado City, Texas. 15 June. J. Evetts Haley Collection. Nita Stewart Haley Memorial Library. Midland, Texas.

Doughty, R. W. 1983. *Wildlife and man in Texas: Environmental change and conservation*. College Station, TX: Texas A&M University Press.

Evans, J. F. 1931. Buffalo in Texas. TMs in Evans (J. F.) Papers. Center for American History. The University of Texas—Austin. Austin, Texas. January.

- Flores, D. 2001. Bison ecology and bison diplomacy redux. Chapter in *The natural west: Environmental history in the Great Plains and Rocky Mountains*. Norman, OK: University of Oklahoma Press. Pp. 50-70.
- Foster, M. W. 1991. *Being Comanche: A social history of an American Indian community*. Tucson, AZ: University of Arizona Press.
- Frison, G. C. 2004. *Survival by hunting: Prehistoric human predators and animal prey*. Berkeley, CA: University of California Press.
- Gelo, D. J. 2000. "Comanche land and ever has been": A native geography of the nineteenth-century Comanchería. *Southwestern Historical Quarterly* 10(3): 272-307. January.
- Gelo, D. J., and W. J. Pate. 2003. *Texas Indian trails*. Dallas, TX: Republic of Texas Press.
- Gerlach Brothers to L. F. Sheffy. 1929. TMs of Interview. 29 December. Lestor B. Wood Collection. Haley Memorial Library and History Center. Midland, Texas.
- Gilbert, M., L. Remiger, and S. Cunningham, Comp. 2003. *Encyclopedia of Buffalo Hunters and Skinners*. Vol. 1: A-D. Union City, TN: Pioneer Press.
- Haley, J. E. 1935. The Comanchero Trade. *Southwestern Historical Quarterly* 38(January): 157-176.
- . 1936. *Charles Goodnight: Cowman and Plainsman*. Illust. by Harold D. Bugbee. Norman, OK: University of Oklahoma Press.
- . (ed.). 1948. The Rath Trail. In *Some southwestern trails*. Corporate author: Shamrock Oil and Gas Corporation. El Paso, TX: Carl Hertzog.
- . 1952. *Fort Concho and the Texas frontier*. Illust. By Harold D. Bugbee. San Angelo, TX: San Angelo Standard-Times.
- Hall, E. R., and K. R. Kelson. 1959. *Mammals of North America*. 2 vols. New York, NY: Ronald Press.
- Hansford County Historical Commission. 1980. *Hansford County Texas: covering the lives of its citizens, their hopes, dreams, failures and successes*. [Dallas, TX]: Taylor Publishing Co.
- Hathaway, S. 1931. The adventures of a buffalo hunter. In *Frontier times* 9(3): December. Pp. 105-112, 129-135.
- Haywood. 1986. *Trails south: The wagon road economy in the Dodge City-Panhandle Region*. Norman, OK: University of Oklahoma Press.

Hickerson, N. P. 1994. *The Jumanos: Hunters and traders of the South Plains*. Austin, TX: University of Texas Press.

Hill, H. M., to J. E. Haley. 1931. TMs of Interview at Midland, Texas. 9 September. J. Evetts Haley Collection. Nita Stewart Haley Memorial Library. Midland, Texas.

Holden, W. C. 1930. *Alkali trails, or, Social and economic movements of the Texas frontier, 1846-1900*. Reprinted 1988 with Foreword by Lawrence L. Graves. Lubbock, TX: Texas Tech University Press.

Holden, W. C. 1932. *Rollie Burns; or an account of the ranching industry on the South Plains*. Reprinted from 1986 with an introduction by D. J. Murrah. Series: A Southwest Landmark, no. 4. College Station, TX: Texas A & M University Press.

Holt, C. B., to J. E. Haley. 1927. TMs of Interview at Midland, Texas. 3 January. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Hornaday, William Temple. 2002. *The Extermination of the American Bison*. Reprinted from 1889 with an Introduction by H. R. Shell. Foreword by J. M. Faragher. Washington, DC: Smithsonian Institution Press.

Huebner, J. A. 1991. Late prehistoric bison populations in central and southern Texas. *Plains Anthropologist* 36(137): 343-358.

Ingerton, H., to J. Evetts Haley. 1937. TMs of Interview at Amarillo, Texas. 19 June. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Irwin, J. C. 1934. *Frontier life of John Chadbourne Irwin*. As related to J. R. Webb. Earl Vandale Collection. The Center for American History. The University of Texas at Austin. Austin, Texas.

Jackson, Kenneth T. (ed.). 1978. *Atlas of American History*. Rev. ed. J. T. Adams, Editor in Chief. New York, NY: Charles Scribner's Sons.

Jones, C. E., to J. E. Haley. 1934. ALS attached to Haley's TLS to Jones. 28 August. In Buffalo Notes. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Jones, D. C. 1966. *The Treaty of Medicine Lodge: The story of the great treaty council as told by eyewitnesses*. Norman, OK: University of Oklahoma Press.

- Jordan, T. G. 1993. *North American cattle ranching frontiers: Origins, diffusion, and differentiation*. Series: Histories of the American Frontier. Ray Allen Billington, Gen. ed. Albuquerque, NM: University of New Mexico Press.
- Kansas Heritage Center. 1951. *America and the Buffalo*. (Map). Dodge City, KS.
- Kelley, W. S., to J. E. Haley. 1931. TMs of Interview at San Angelo, Texas. 13 September. Vertical file: "Buffalo Scrapbook". Center for American History. The University of Texas at Austin. Austin, Texas.
- Lewis, C., and P. H. Carlson. 2003. Rath City. In *The Cyclone* 10 (2): 1. August 15. Online: <http://swco.ttu.edu/WestTexas/indexes/CycloneAugust%2003.pdf>. Accessed 24 February 2007. (newsletter of the West Texas Historical Association)
- Lloyd, F., to J. E. Haley. 1935. Interview at Tularosa, New Mexico. 12-13 June. Earl Vandale Collection. The Center for American History. The University of Texas at Austin. Austin, Texas.
- Lowie, R. H. 1954. Reprint 1982. *Indians of the Plains*. Preface by Raymond J. DeMallie. Lincoln, NE: University of Nebraska Press.
- Lynott, M. J. 1979. Prehistoric bison populations in North Central Texas. *Bulletin of the Texas Archeological Society* 50: 89-101.
- McCarty, J. L. 1946. *Maverick town: The story of old Tascosa*. With chapter deocations by H. D. Bugbee. Norman, OK: University of Oklahoma Press.
- McCollough, M. 2004. *Three nations, one place: A comparative ethnohistory of social change among the Comanches and Hasinai during Spain's colonial era, 1689-1821*. Series: Native Americans Interdisciplinary Perspectives. Ed. by J. R. Wunder and C. W. Esqueda. New York, NY: Routledge.
- McCombs, J. S. 1935. (Contributed by Ben O. Grant and J. R. Webb.) On the cattle trail and buffalo range, Joe. S. McCombs. West Texas Historical Association Year Book 11: 93-101.
- McDonald, J. N. 1981. *North American bison: Their classification and evolution*. Berkeley, CA: University of California Press.
- McHugh, T. 1972. *The time of the buffalo*. Reprinted 1979. Lincoln, NE: University of Nebraska Press.

Merry, S. P., to J. E. Haley. 1926. TMs of Interview at Amarillo, Texas. 21 August. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Mooar, J. W. 1930. The first buffalo hunting in the Panhandle. In *West Texas Historical Association year book*. V. 6 (June). Pp. 109-111.

Morris, J. M. 1997. *El Llano Estacado: Exploration and imagination on the High Plains of Texas and New Mexico, 1536-1860*. Austin, TX: Texas State Historical Association.

Nix, S. J. 2007. Buffalo Gap, Texas. In *Handbook of Texas Online*, s.v. <http://www.tsha.utexas.edu/handbook/online/articles/BB/hlb60.html> (accessed February 19).

Noyes, S. 1999. *Comanches in the new West, 1895-1908: Historic photographs*. With assistance of D. J. Gelo. Foreword by L. McMurtry. Photos by A. Snearly and L. Kelley. Series: Jack and Doris Smothers Series in Texas History, Life, and Culture, no. 1. Austin, TX: University of Texas Press.

Nye, W. S. 1942. *Carbine & lance: The story of old Fort Sill*. Norman, OK: University of Oklahoma Press.

Philips, S. 1945. *Big Spring: The casual biography of a prairie town*. Drawings by J. Bywaters. New York, NY: Prentice-Hall, Inc.

Pool, W. C. 1975. *A Historical Atlas of Texas*. Maps by E. Triggs and L. Wren. Austin, TX: Encino Press.

Pope, B. N. 1956. *The freighter and railroader in the economic pattern of panhandle history*. M. A. Thesis. West Texas State College. Canyon, Texas.

Potts, M. 2001. Tee Pee City, Texas. In *The handbook of Texas online*. <http://www.tsha.utexas.edu/handbook/online/articles/TT/hvt12.html> (accessed 29 March 2007).

Ramos, M. G., ed. 1999. *2000-2001 Texas Almanac*. Dallas, TX: Dallas Morning News.

Rath, I. E. 1961. *The Rath Trail*. Wichita, KS: McCormick-Armstrong Co., Inc.

Rathjen, F. J. 1998. *The Texas Panhandle frontier*. Rev. ed. With an Introduction by Elmer Kelton. Lubbock, TX: Texas Tech University Press.

Reynolds, P. W. 2000. The frontier life of Phin W. Reynolds. An interview by J. R. Webb. Reprinted in *Tracks along the Clear Fork: Stories from Shackelford*

and Throckmorton Counties. Ed. By L. Clayton and J. H. Farmer. Abilene, TX: McWhiney Foundation Press. Pp. 226-262.

Riebsame, W. E. 1997. *Atlas of the New West*. With H. Gosnell and D. Theobald. J. J. Robb, Dir. Of Cartography. With P. Breeding, C. Hanson, and K. Rokoske. Essays by P. N. Limerick and C. Wilkinson. Photographs by P. Goin. New York: W. W. Norton & Co.

Rieck, R. L. 1993. Geography of the California trails—part I: the raveled routes—elevation, plains and mountains. *Overland Journal* 11(4): 12-22.
———. 1994. Geography of the California trails—part II: the Salt Lake options—“short cuts,” elevation, and the desert. *Overland Journal* 12(1): 27-32.
———. 1995. Geography of the California trails—part III: the Sierra Nevada—frontal assault or end run? *Overland Journal* 13(3): 25-32.

Rister, C. C. 1948. *No man's land*. Norman, OK: University of Oklahoma Press.

———. 1956. *Fort Griffin on the Texas frontier*. Norman, OK: University of Oklahoma Press.

Roe, F. G. 1951. *The North American buffalo: A critical study of the species in its wild state*. Toronto, Canada: University of Toronto Press.

Shaw, J. H., and M. Lee. 1997. Relative abundance of bison, elk, and pronghorn on the southern plains, 1806-1857. *Plains Anthropologist* 42(159): 163-172.

Simpson, G., to J. E. Haley. 1926. TMs of Interview at Canadian, Texas. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Simpson, G. A., to L. F. Sheffy. 1929. TMs of Interview at Canadian, Texas. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas. 30 November.

Smith, B. 1935. *Memoirs of Brooke Smith of Brownwood, Texas*. TMs. Earl Vandale Collection. The Center for American History. The University of Texas at Austin. Austin, Texas.

Socolofsky, H. E., and H. Self. 1988. *Historical Atlas of Kansas*. 2nd ed. Norman: U of Oklahoma Press.

Soldier mound. 2001. *Handbook of Texas Online*.
<http://www.tsha.utexas.edu/handbook/online/articles/SS/rjs45.html> (accessed March 26, 2007).

Spikes, N. W., and T. A. Ellis. 1952. *Through the years: A history of Crosby County, Texas*. San Antonio, TX: Naylor Company.

Stephens, A. R., and W. M. Holmes. 1989. *Historical Atlas of Texas*. Norman, OK: University of Oklahoma Press.

Students of Henrietta High School. 1936. Clay County history: written by students of Henrietta High School. TMs. Earl Vandale Collection. The Center for American History. University of Texas at Austin. Austin, Texas. (archive copy is 1945)

Traweek, E. M. 1973. *Of such as these: A history of Motley County and its families*. With ill. By C. Martin. Wichita Falls, TX: Nortex Publications.

USGS. 2007. Layer: Shaded Relief Land - Gray - North America 1 Kilometer Resolution. Layer: Streams and Waterbodies. Layer: <http://www.nationalatlas.gov/maplayers.html>. Accessed 24 February.

Walker, R. J. 1972. *Historic map of Scurry County, Texas, and surrounding area, with the cities and highways of today, overlaying some of the old trails and incidents of the period prior to 1880*. Snyder, TX: Scurry County Museum Association.

Wallace, E. 1964. *Ranald S. Mackenzie on the Texas Frontier*. Reprinted 1994 with Forward by David J. Murrah. College Station, TX: Texas A&M University Press.

West, E. 1995. *The way to the West: Essays on the Central Plains*. Series: Calvin P. Horn Lectures in Western History and Culture. Albuquerque, NM: University of New Mexico Press.

Whitlock, V. H. 1962. Llano Estacado. In *Frontier times* 36(4), New Series No. 20 (Fall): 10-11, 60-61.

Whitlock, V. H. 1970. *Cowboy Life on the Llano Estacado*. Norman, OK: University of Oklahoma Press.

Williams, O. W., to G. F. Grant. 1930. TLS from Fort Stockton, Texas. Earl Vandale Collection. The Center for American History. The University of Texas at Austin. Austin, Texas. 30 June.

Wishart, D. J. 1979. *The Fur Trade of the American West, 1807-1840: A Geographical Synthesis*. Lincoln, NE: University of Nebraska Press.

Woody, J. W., to J. E. Haley. 1926. TMs of Interview at Snyder, Texas. 19 October. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

Woody, J. W., to J. E. Haley. 1928. TMs of Interview at Snyder, Texas. 11 February. J. Evetts Haley Collection. Haley Memorial Library and History Center. Midland, Texas.

APPENDIX A

ARCHIVAL COLLECTIONS SEARCHED

Collections Searched at The Center for American History:

Bedford (Hilford) Papers
Bedford (H. G.) Memoirs
Big Bend National Park
Bison, American – Vertical File
Buffalo – Vertical File
Buffalo Scrapbook
Buffalo Springs, Texas – Vertical File
Collinson, Frank – Vertical File
Dobie (J. F.) Papers
Doughty (Robin) Papers
Earle (J. P.) Narrative
East (James H.) Papers
East Texas Old West Photographs
Evans (J. F.) Narrative
Ferguson Photographic Collection
Goodnight (Charles) Papers
Goodnight -- Vertical File
Haley (James Evetts) Papers
Hamner (Laura V.) Papers
Mitchell County Scrapbook
Mooar Brothers Papers
Newcomb (Samuael P.)
Panhandle Stock Association Papers
Poe (John W.) Poe
Potter County Scrapbook
Sheaver (Earnest Charles)
Snyder Texas Scrapbook
Southwest History
Vandale (Earl) Papers
Vandale (Earl) Photos
White (James L.) Letters

Collections Searched at the Texas State Library—Archives

Tales of the Texas Border Manuscript, 1871-1878
Diary of H. H. Raymond
Mitchell (Col. Harvey) Literary Efforts
Oliphant's Texas Stereoscopic Views
Texas Almanac Collection
Texas Game, Fish, and Oyster Commission Collection

Collections Searched at the Nita Stewart Haley Memorial Library and Museum:

Bob Beverly Binder (Reference Notebook)
Buffalo Notes (Reference Notebook)
Chesley, Hervey Edgar, Collection and Photographs
Charles Goodnight Letters
Haley, J. Evetts, Collection
Interviews sought where the interviewee cited these names:
Aten, Ira
Baldwin, Sam
Biggers, Don
Bussell, Dick
Cartright, ...
Cator (Brothers)
Causey, George
Collinson, Frank
Conrad, F. E.
Cummings, H. E.
Dixon, Billy
Dixon, Olive K.
Dobie, J. F.
Doss, J. L.
Frazier, Steele
Hanrahan, James
Harvey, Jim
Hastings, Jim
Hoyt, E. E.
Jacobs, John C.
Lloyd, Frank
Lobenstein, W. C.
Martin, Jim
McCamey, Bill
McCombs, Joe
Merfelder, Nick
Myers, Charlie
Newell, George
Oden, Bill
Poe, John

Rath, Charles
Snyder, Pete
Webb, John
Whalen (Brothers)
White, Jim
Wilkerson
Williams, O. W.
Wright, R. M.

Nita Stewart Haley Memorial Library Book Collection

Dan L. Thrapp Collection

Vertical Files (Biographical and Topical)

Aten, Ira
Baldwin, Sam
Biggers, Don
Brown, Hoodoo
Bussell, Dick
Cator (Brothers)
Collinson, Frank
Dixon, Olive K.
Doan's Old Store
Dobie, J. F.
Doss, J. L.
Jacobs, John C.
Knowles, Joe
Lloyd, Frank
Merfelder, Nick
Mobeetie
Oden, Bill
Poe, John
Rath, Charles
Simpson, George
Webb, John
Williams, O. W.
Woody, J. W.

Lestor B. Wood Collection, Photographs

Clayton Wheat Williams Collection (Papers and Photographs)

APPENDIX B

THE DIE-OFF CHARLES GOODNIGHT OBSERVED

Those which passed through the Callahan Divide to the south might return or might not. When J. Evetts Haley sat with Charles Goodnight for interviews toward the making of Goodnight's biography, Goodnight described to Haley the scene along the cattle trail as Loving and Goodnight rode the trail named after them. Haley wrote:

When they crossed the divide between the Concho and Colorado [Rivers], they came into country where buffaloes had wintered in great numbers. The annual spring migration started with the growth of grass, but in 1867 rains did not come until June, and the herds had gathered here in such numbers that they had eaten the country clean. For some strange reason they had not mounted the mesa and crossed the divide to the west, to the Concho side, where there was still good grass.

'But here,' to let Goodnight continue the story, 'they had remained until the grass was gone, and had died from starvation by thousands. The dead buffaloes, which extended for a hundred miles or more, were so thick they resembled a pumpkin field, and their carcasses had hatched millions and billions of what is known as screw flies. . . .

I presume the buffaloes had died the full width of the herd in the same proportion as they had along the trail. From our observation the herd would average twenty-five miles wide, which meant that several million head had perished that spring for lack of food alone. (Haley 1936: 161)

Obviously, the spring movements did not start with the growth of grass, or the bison would have left. Goodnight said the bison were still there, but the grass had started. One issue with Goodnight's wording of this event is that if billions of screw flies had taken over the area, then Goodnight might have appeared on the scene too late to really know what condition caused the die-off.

A second reason is the apparent self-contradiction when Goodnight states bison were on the Colorado side, and he expected they would have moved to the Concho side, where he reported grass to be good. That would mean he expected a movement southward rather than northward for the spring, and this pattern contradicts the usual story of spring migrations being north. Goodnight said the movement would have been more to the west, however, and so this issue might have at most a minor role in analyzing this event.

A third reason Goodnight could have misunderstood the die-off he observed was that cattle drivers of the 1860s did not generally know about cattle diseases. Recently, Flores (2001: 66) attempted to attribute this bison die-off to a disease or a parasite, likely bovine tuberculosis. If this were true, it could have started from cattle which became feral and joined up with bison. An unusually good source for a county history, the Crosby County history (Spikes and Ellis 1952: 23) reported ". . . in those days one would frequently find a bunch of cattle, five or six years old, unmarked and unbranded and wilder than antelope or deer, having drifted into the country with herds of buffalo." More authoritatively, hunters reported this mixing. One hunter observed that wild longhorns were

migrating with bison as if one of them. George Simpson told historian L. F.

Sheffy:

. . . From some high point in 1876 one could see trails of dust which were being raised by the buffalo in their grazing and drifting for miles and miles in every direction. They would drift back south in September and October. They went as far south as Devil's River.

. . . There were just a few long horns that drifted along with the herds of buffalo as they drifted north in the '70's. I have seen as many as three or four in one bunch. These long horns, however, could be driven and handled when they were cut out. I am sure they came from South Texas when the buffalo would drift south. (Simpson to Sheffy 1929: 2) (underline added)

One of the most interesting county histories among all those for West Texas, that of Campbell's for Motley County, gives indication that this could have been a much more devastating die-off than Goodnight alone observed. Bison hunters knew of a die-off that has a similar tone but extended far beyond the bison population. The cause of the die-off was something the bison hunters called *lengua prieta*, or black tongue. Campbell (1958: 36) stated:

Collinson recalled that Coggin told him of one year when buffalo, deer, antelope and cattle in the area were hit and killed by a disease called black tongue, or "lengua prieta" in Spanish. Coggin said the entire countryside near the junction of the Colorado and Concho Rivers was black with dead buffalo. (Campbell 1958: 36)

Consequently, the cause of the die-off is controversial. Anyone who disagrees with Goodnight is taking a bad chance, but the odds appear to be in favor of water if the issue were any natural resource. Without giving considerable space here for detailing the parasitic and disease potential, the likelihood appears that Campbell's (1958: 36) account has the most weight in local information generally despite his information being second-hand. Since bison apparently allowed cattle to intermingle and live among them if the cattle

were willing and hearty enough, then the disease could have come through cattle which had escaped their owners.

VITA

Jeffrey Howard Liles

Candidate for the Degree of

Master of Science

Thesis: A HISTORICAL GEOGRAPHICAL ASSESSMENT OF BISON
HUNTING ON THE SOUTHERN GREAT PLAINS IN THE 1870s

Major Field: Geography

Biographical:

Education:

Associate of Applied Science, Texas State Technical College, 1989

Bachelor of Science in Occupational Education, Wayland Baptist
University, 1993

Master of Education, Wayland Baptist University, 1995

Master of Library and Information Science, The University of Southern
Mississippi, 1997

Master of Science, Oklahoma State University, May, 2008

Name: Jeff Liles

Date of Degree: May, 2008

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: A HISTORICAL GEOGRAPHICAL ASSESSMENT OF BISON
HUNTING ON THE SOUTHERN GREAT PLAINS IN THE 1870s

Pages in Study: 142

Candidate for the Degree of Master of Science

Major Field: Geography

Scope and Method of Study: historical geography and historical ecology of bison
hide hunting on the Southern Great Plains using textual discovery,
including primary documents, and cartographic techniques

Findings and Conclusions: The trading posts serve as a general proxy for
hunting activities during the bison hide hunt on the Southern Great Plains
in the 1870s. The trading posts offer more stability than hunters' camps
for broad conclusions about the hide hunt, in particular for identifying the
areas of the range utilized during the commercial hide hunt. The
approach is an improvised blending of eyewitness accounts and multiple
digital map layers. The result is a network of information about bison
hunting and trading that identifies two clusters of human activity and which
implicates bison presence and movements. The sum of what this study
reveals in maps, plus what hunters observed first-hand and documented,
and what is known of the study area indicate that the movements of bison
fit a pattern of localized dispersion strategy rather than long distance
seasonal migration.

ADVISER'S APPROVAL: Carlos E. Cordova, Ph.D.
