THE CULTURE OF ARCHITECTURE IN THE SANTA FE TRAIL REGION OF SOUTHEASTERN COLORADO

by

LINDSAY JEAN JOYNER

(Under the Direction of Mark Reinberger)

ABSTRACT

The Santa Fe Trail region of southeastern Colorado holds a unique history; the vast plains and concealed canyons reveal the stories of cross cultures, Hispanic and Anglo-American, both in search of a place to call home along largely uncharted land. Unfortunately, the trials of drought and dust left the region vacant and neglected, with abandoned farms and homesteads as the only remnants of the bygone pioneer lifestyle.

This work considers the last 150 years of vernacular architecture from the region, looking at fifteen surveyed case studies from the Santa Fe Trail region, studying the rich history of architecture in the region and revealing how the selected survey sites contribute to the cultural landscape as a whole. This thesis will explore the distinct cultures of architecture, and blending of traditions, thereby considering how the architectural ruins of this lonesome, yet intriguing, region contribute to our understanding of the cultural landscape.

INDEX WORDS: Southeastern Colorado, Santa Fe Trail, Vernacular architecture, New Mexican architecture, Homesteading, Survey, Cultural landscape

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DEDICATION

This thesis is dedicated to my grandfather, Thomas Bolton, for always encouraging the pursuit of knowledge and education. May my research and writing be a compliment to the man who furthered my passion for history and historic preservation. This thesis, and master's degree, would never be possible without you, Grandpa.

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INTRODUCTION

The dusty plains, hidden canyons and distant mesas of southeastern Colorado define a well forgotten landscape, often overlooked by much of the state. Yet, along the expansive prairies and tucked into valleys remain a cultural history largely undiscovered, withered by the trials of the 1930's Dust Bowl. Although abandoned, the remaining ruins, including homesteads, sheep camps, and boom-town communities of the late 19th and early 20th centuries, exist as examples of a unique combination of cultures, New Mexican and Anglo-American, as reflected through architecture. Now concealed by large ranching operations, the history of southeastern Colorado is found among the deserted ruins and artifacts of bygone settlements. Vacant, neglected, and in need of preservation, the architectural remnants of southeastern Colorado reveal a fragile story of fortune, failure and faith in a pioneer spirit that brought thousands of settlers to the open lands of today.

The objective of this study is to consider how the resources of the Santa Fe Trail region represent cultural groups and the process of assimilation and thereby define the region's cultural landscape. The purpose is to research, analyze and identify the cultural blending that characterized the settlers and pioneers in the Santa Fe Trail region of southeastern Colorado and how this ethnographic history contributes to the cultural landscape as a whole (Figure 1). Reviewed in this work are fifteen historic sites surveyed by Colorado Preservation,

Inc. (with landowner permission) with the intent to study a combination of New Mexican, Anglo-American, and hybrid architectural styles. By exploring the cultural differences in architecture across the region, this study will describe and analyze the rich architectural history of the Santa Fe Trail region and contribute to a better understanding of how the surveyed sites contribute to the landscape as a whole. Documentation and analysis of findings are imperative, especially to a region in which architectural ruins are melting, quite literally, under the sun and rain. Hence, the thesis of this study argues that the New Mexican and Anglo-American features of architecture and adaptation contribute to the creation of a larger cultural landscape, a broad resource in need of identification, documentation and protection.

Research questions consider the dominant architectural forms of the region and how certain features are representative of geography and culture. In conjunction, how does the architecture of the Santa Fe Trail region contribute to the larger cultural landscape? With regard to survey of vernacular rural resources, how can rural survey recordings be revised to better reflect less stylized architecture, addressing features more common to vernacular architecture? Furthermore, how should landscape features be recorded? These research questions consider both the evolution of the cultural landscape and the process of identification and documentation of the resources associated with the cultural landscape.

The methodology to answer the aforementioned research questions is as follows: consider how the survey was initiated and conducted, present case

studies to detail the recorded cultural architecture, and analyze how the survey recordings can best represent the broad cultural landscape as defined by the fifteen case studies.

This thesis will help foster an understanding of the unique history and cultural diversity of the Santa Fe Trail region. Furthermore this study may become a valuable resource in helping the local and statewide historic preservation agencies of Colorado in the creation of public materials, including podcasts, driving tours, and heritage tourism information. As more awareness is provided of the region, there is hope that the identified cultural landscape will be acknowledged, appreciated and better protected.

CHAPTER 1

THE SANTA FE TRAIL REGION OF SOUTHEASTERN COLORADO

Location and Topography

Unlike the distinct plains and mountains that divide the state of Colorado into east and west, the Santa Fe Trail region in the southeastern corner of the state intertwines the grassy flatlands of eastern Colorado with the rocky foothills of the western regions. The Santa Fe Trail region is bordered by the tall mesas of New Mexico to the south and the Sangre de Cristo Mountains to the west. The Purgatoire River runs through the heart of the region. The character and use of the landscape also defines the Santa Fe Trail area; the vast ranch lands of the region today are distinctly separate from the mining industries to the west and irrigated farming to the north. Eastern Las Animas County and southern Otero County form the region (Figure 1), with similar topography, industry and cultural ties.

The region's sandy clay soil is stabilized by pockets of brush, largely various types of cactus, yucca, and small trees, including juniper and piñon. The deep canyons are home to larger trees, ponderosa and cottonwood in particular, both of which were coveted by settlers for construction material. Canyon walls are lined of solid red rock, a type of sandstone, with occasional outcroppings of limestone as well. The climate is semi-arid, although rainy seasons are not unheard of. However, water sources in the region are few and far between; the

Purgatoire River is the region's largest, and most consistent, water supply and connected offshoots and diversions attempt to flow water across dry land. Natural springs also provide water to the area, although the persistent brush weakens the availability of spring water to surface; vegetation such as cacti and small trees absorb the valued subsurface water, forcing many ranchers to uproot and remove brush to converse water sources below ground. The search for water and claim of water rights has a long history of dispute throughout the region. The countryside of the Santa Fe Region is as scenic as it is open; the impressive vistas lead one to truly appreciate the natural beauty of the region (Figure 2).

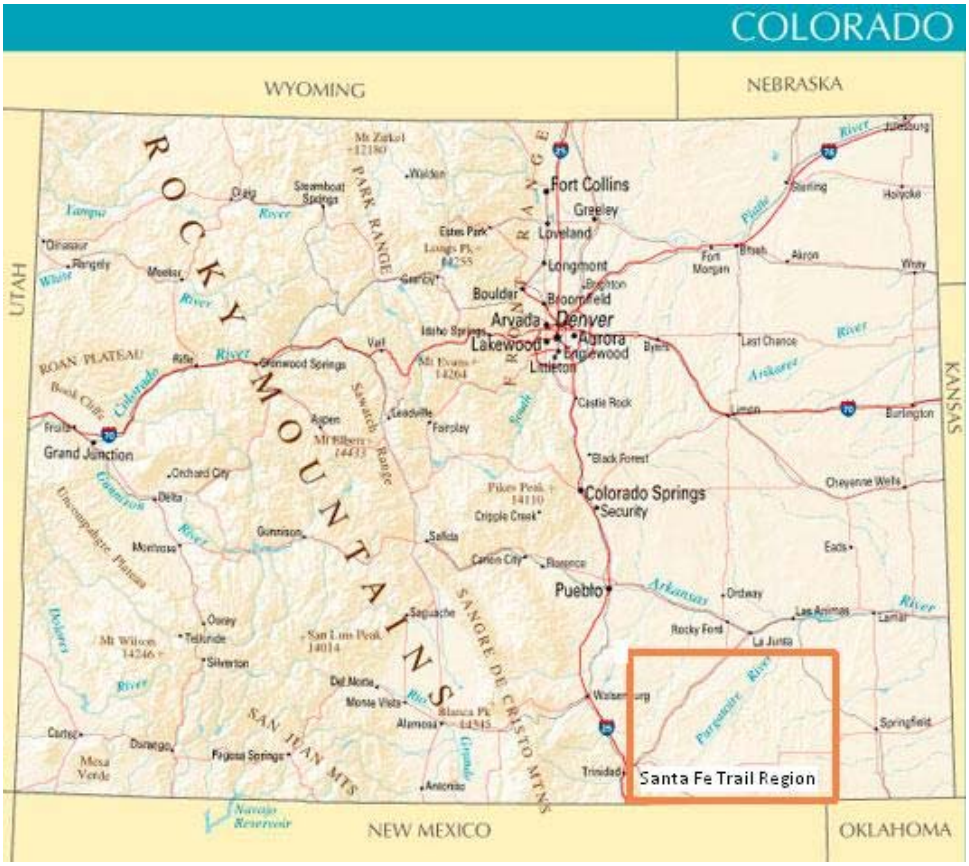

Figure 1: *Location of the Santa Fe Trail Region in Colorado*

IMAGE A: The Flatlands

IMAGE B: The Canyons

Figure 2: *Images of the Santa Fe Trail Region*

The Santa Fe Trail

The history of southeastern Colorado's landscape cannot be understood without knowledge of the Santa Fe Trail; the Mountain Branch of the Santa Fe Trail to New Mexico passes through the region, once leading pioneers headed westward to Santa Fe across the plains and arroyos of southeastern Colorado (Figure 3). The Santa Fe Trail was first traveled in 1821, as twenty men, led by Missouri merchant William Becknell, pioneered across the Raton Pass into New Mexico.[1] Becknell returned to Missouri the following year with bags of silver, spreading news of trade with Mexico. Americans became intrigued by this promise of wealth in Mexico, and the Santa Fe Trail became a well traveled route to the western frontier, starting in Independence, Missouri and ending in Santa Fe, part of Mexican territory.[2] The Mountain Branch of the Santa Fe Trail became an alternate route, starting just east of the town of La Junta on the Arkansas River, continuing 188 miles along the Timpas Creek, paralleling the western banks of the Purgatoire River, crossing the Raton Pass, and rejoining the Cimarron Cutoff at the Mora River (Figure 4); this route formed Colorado's section of the Santa Fe Trail and was an often welcomed alternative to crossing the Cimarron Desert through Kansas.[3]

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[1] Carl Ubbelohde and others. *A Colorado History, Eighth Edition.* (Boulder, CO: Pruett Publishing Co, 2001), 30.
[2] Ibid., 31.
[3] Carrillo, Richard, "Chapter XVIII: Historic Overview" in *An Introduction of the Archaeology of Pinon Canyon, Southeastern Colorado, Volume III, Ethnohistory and History*, ed. William Andrefsky Jr. (Fort Collins, CO: Larson-Tibesar Associates, Inc. and Centennial Archaeology, Inc., 1990), 15.

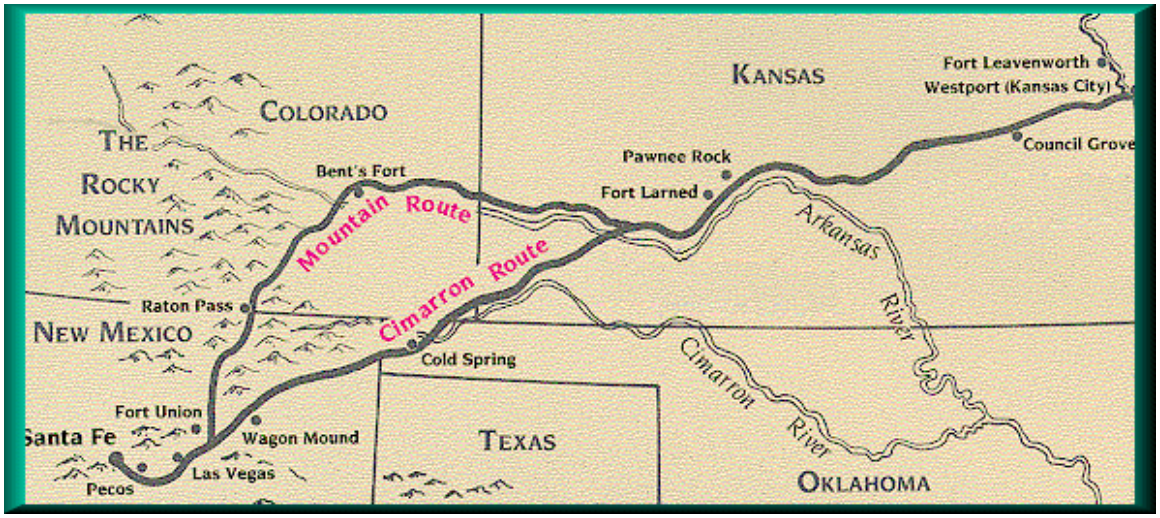

Figure 3: *Map of the Santa Fe Trail* [4]

Figure 4: *The Mountain Route of the Santa Fe Trail* [5]

[4] Santa Fe Trail Scenic & Historic Byway - Mountain Branch Organization. "The Santa Fe Trail Scenic and Historic Byway Auto Tour Route"; available from http://www.santafetrailscenicandhistoricbyway.org/autotour.html; Internet; accessed 7 September 2009.
[5] Ibid.

Although often romanticized, the journey across the entire 900 mile Santa Fe Trail was nothing short of brutal. Harsh weather across the plains and attacks from Comanche and Kiowa Indian tribes made travel extremely difficult, with wagon men able to anticipate only fifteen miles a day, at best.[6] However, desired were the lucrative trade opportunities with Mexican territory; hardware and dry goods from the United States were traded for fur, gold and silver.[7] The fur trade prospered throughout the mid-nineteenth century and such profits were used to prepare for the next season for travel across the Santa Fe Trail. Although unpredictable and quite dangerous, the pioneering wagon men of the early Santa Fe Trail braved the first route across the southwestern United States in search of wealth and adventure.

Furthermore, the success of trade, especially furs, with the northern Mexican frontier contributed to the construction of Bent's Fort in the early 1830's.[8] The region's buffalo robe trade was dominated by the Bent brothers, partnering with Ceran St. Vrain, and the company of fur traders constructed Bent's Fort, just east of La Junta, as a post for robe hunters and fur trappers.[9] The fort, constructed of thick adobe with walls measuring fifteen feet high and two corner towers, was utilized by the Bents fur company throughout the mid-nineteenth century, therefore controlling the fur trade of the southeastern Colorado region. In addition, the fort became a welcomed stop for travelers along the Mountain Branch of the Santa Fe Trail, providing protection from the nearby Arapahoe and

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[6] Ubbelohde, *A Colorado History, Eighth Edition,* 30.
[7] Ibid., 32.
[8] Carrillo, "Chapter XVIII: Historic Overview," 15.
[9] Ubbelohde, *A Colorado History, Eighth Edition*, 37.

Cheyenne Indians.[10] However, prior to Stephen's Watts Kearney's Army of the West invasion of northern Mexico, the Mountain Branch of the Santa Fe Trail was used less extensively, as difficulties were encountered in attempting to cross the Raton Pass; the 1846 army invasion greatly improved trail conditions, establishing the Mountain Branch as a regular route.[11] Colorado had become a land of pioneer travel.

By the 1860's, settlements along the Purgatoire River were beginning to flourish as new towns were established by the "[l]arge numbers of freighting wagons pass[ing] through [the region] every year over the Mountain Branch of the Santa Fe Trail."[12] The United States annexed the Southwest, present day New Mexico, Texas, Arizona, and California at the end of the Mexican War in 1848 with the Treaty of Guadalupe-Hidalgo, leading to the removal of Native American populations across the region and the establishment of stage lines.[13] In 1866, the Barlow and Sanderson Stage line was conducting tri-weekly runs from Kansas City to Santa Fe, bringing increased numbers of settlers to the region, many arriving from New Mexico.[14] With the frontier open and accessible, the years following 1848 along the Santa Fe Trail brought newcomers across the region of southeastern Colorado and often inspired settlements in a region otherwise home to few. No longer a route solely used for fur trading, the Santa Fe Trail had become the pathway to the West for pioneers and families alike.

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[10] Ibid.
[11] Carrillo, "Chapter XVIII: Historic Overview," 15.
[12] Morris F. Taylor. *Pioneers of the Picketwire*. (Pueblo, CO: O'Brien Printing and Stationary Co., 1964), 9.
[13] Carrillo, "Chapter XVIII: Historic Overview," 22.
[14] Ibid.

Many of the trail beds of the Santa Fe Trail are still visible, faded reminders of the track that guided many pioneers on their adventures westward. The Purgatoire Valley and surrounding countryside became a land of discovery during the days of travel by the Santa Fe Trail, with the first boom towns and business developing as a result of the increased migration across the middle United States.

Figure 5: *Mountain Branch of the Santa Fe Trail, remaining trail bed*[15]

[15] Photograph by Abbey Christman, July 8, 2008.

A History of Settlement

The ethnographic history of southeastern Colorado is divided into two stages: the Aboriginal Occupation period (1750 – 1867) and the Settlement Period (1867 – 1930).[16] The Aboriginal Occupation period originated with the establishment of regular trade between Europeans and the Arkansas Valley aboriginal groups. Throughout the eighteenth century, the Comanche and Ute tribes ruled the region of southeastern Colorado as bison hunters and raiders, with territorial disputes breaking the allies by 1750.[17] In addition to aboriginal occupation, Europeans led military expeditions across the region for exploration purposes and to protect the territory from Native American attacks.[18] The influx of Europeans to the region contributed to the great cultural and population changes within aboriginal tribes, eventually leading to "disease, displacement, and death."[19]

In August of 1821, a revolution in Mexico led to the overthrow of the Spanish government, leading to the creation of the Republic of Mexico, including the southern region of the present Colorado (Table 1). Trade routes from United States territories, through Missouri and Kansas territories, were established to engage in trade with New Mexico.[20] Trappers and traders ventured to the western frontier, traveling from St. Louis to Santa Fe and Taos, New Mexico. Furthermore,

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[16] Christopher Lintz and Jane L. Anderson, eds. "Temporal Assessment of Diagnostic Materials from the Pinon Canyon Maneuver Site," *Memoirs of the Colorado Archaeological Society,* no.4 (1989): 34.
[17] Donald L. Hardesty and others. "Data Recovery Report of Lockwood Stage Station at the Pinon Canyon Maneuver Site, Las Animas County, Colorado, Volume 1," (Boulder, CO: Western Cultural Resources Management, Inc., 1995) 63-64.
[18] Lintz & Anderson, eds. "Temporal Assessment of Diagnostic Materials from the PCMS," 34.
[19] Hardesty, "Data Recovery Report of Lockwood Stage Station," 62.
[20] Lintz & Anderson, eds., "Temporal Assessment of Diagnostic Materials from the PCMS," 34.

as Americans traveled west, Mexicans, after the revolution, began to move north, east and west in order to participate in trade across the Santa Fe Trail.[21] With the new economic changes in New Mexico occurring from American trade, New Mexicans expanded the northern Hispanic frontier into the eventual state of Colorado, with the Mexican government encouraging northern migration by providing large tracts of lands to settlers.[22]

By the early 1850's, the upper and lower Purgatoire Valleys in the Santa Fe Trail region of southeastern Colorado had been occupied by New Mexican settlers.[23] The few settlements in the area were comprised of sheep farmers, consisting of about one hundred families; these early communities were based upon the model of the Spanish plaza, constructing homes around a central square with nearby fields divided and operated by the entire community.[24] Mexican control over southern Colorado ended with the Mexican War and the signing of the Treaty of Guadalupe Hidalgo in 1848. However, the New Mexican culture of settlement in the area continued through the end of the nineteenth century, settling in prime locations throughout the region, in search of water, shelter, and land for subsistence farming.[25] Early settlers in southeastern Colorado between 1867 and 1886, although during the period of American control, were primarily young Hispanics, establishing plaza-type homesteads with one principal land owner, the patron and source of credit.[26]

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[21] Hardesty, "Data Recovery Report of Lockwood Stage Station," 72.
[22] Ibid., 73.
[23] Ibid., 74.
[24] Ibid.
[25] Lintz & Anderson, eds, "Temporal Assessment of Diagnostic Materials from the PCMS," 39.
[26] Ibid.

Table 1: *Southern Colorado Historical Chronology* [27]

Date, A.D.	Period	Sub-Period	Major Events
1990	American		
1970	American	VIII	World War II to present (1946 +)
1950	American	VII	World War II Era (1941 - 1946)
1930	American	VI	Great Depression (1930 - 1940)
	American	V	World War I (1916 - 1918) Stock Raising Act (1916)
1910	American	IV	Enlarged Homestead Act (1908)
1890	American	III	Silver Crash (1892) Colorado statehood (1876)
1860	American	II	Homestead Act (1862) Civil War (1861 – 1865) Colorado Territory (1861)
1850	American	I	Colorado Gold Rush (1859) Gadsden Purchase (1854) San Luis est. (1851)
1840	**Mexican**		**Mexican War (1846 – 1848)** **Bent's Fort (1830s)**
1820	**Mexican**		**Santa Fe Trail (1821)** **Mexican Independence (1821)**
1800	Spanish		Adams-Onis Treaty (1819)
1780	Spanish		Comanche Treaty (1786)
1760	Spanish		de Anza defeats Cuerno Verde (1779)
1740	Spanish		
1720	Spanish		
1700	Spanish		
1680	Spanish		Pueblo Revolt (1680)
1660	Spanish		
1640	Spanish		
1620	Spanish		
1600	Spanish		San Gabriel, NM founded (1598)

The Santa Fe Trail region of southeastern Colorado also saw the rise of Anglo-American settlement during the 1860's; the first American settlers tended to be cattle ranchers, establishing single family households within canyons, therefore

[27] Richard F. Carrillo and Bonnie J. Clark. "The San Juan Art Center and Environs: Historical Archaeology at the Spiritual Source of an 1870's Hispanic New Mexican Community known as *Carnero*, in the Upper San Luis Valley, Present Day La Garita, Saguache County, Colorado." (Prepared for the San Juan Art Center, January 1995),16.

accessible to much needed water sources.[28] Anglo-American homesteaders were encouraged to pioneer westward in order to claim land authorized by the Homestead Act of 1862, signed into law by President Lincoln on May 20, 1862. The first provision by the United States to allocate the newly acquired semi-arid western lands, the Homestead Act of 1862 provided 160 acres of unsettled land to any citizen heading a family, requiring them to build a home, live at this location, and use the land for at least five years. Following these obligations, the complete ownership of the land was deeded to the homesteader. With the eastern and middle lands of the United States becoming more and more crowded, promoted were the territories west of Kansas, including southern Colorado. In addition, the 1870's saw good rain years for agriculture, leading many to believe that southeastern Colorado lands were ideal for agriculture. The new United States territory of Colorado was advertised as holding potential for new markets, emerging prosperous railroad towns and the excellent climate of southern Colorado; Anglo-Americans, hoping for a new livelihood, ventured to the Santa Fe Trail region of southeastern Colorado under the expectations of agricultural prosperity.

Although Anglo-American settlers set forth to establish homes along the western frontier during the late nineteenth century, harsh weather during the 1880's, including blizzards and droughts, and a national depression during the 1890's forced many of the initial settlers out of the region.[29] The settlers who stayed turned from subsistence farming to livestock raising along the open

[28] Lintz & Anderson, eds, "Temporal Assessment of Diagnostic Materials from the PCMS," 39.
[29] Lintz & Anderson, eds, "Temporal Assessment of Diagnostic Materials from the PCMS," 39.

range.[30] Tweaking the original homestead law to suit their own needs and desires, ranchers began to interpret homesteading through their own objectives, as more land was required to graze cattle than provided through the Homestead Act of 1862. Houses, as required, were not always built, and as land was acquired, ranchers would hire young men to file homestead claims for an agreed upon sum.[31] These methods of ranchers continued into the early 20th century, leaving southeastern Colorado at the turn of the century with a few old homesteaders along water sources and ranchers scattered throughout.

In 1909, the Homestead Act was altered to grant 320 acres per family, 40 of which had to be plowed and planted. The greater allowance of land encouraged further Anglo-American migration west, picking up from the 1860's homestead movement. However, as no land was left by water sources, techniques of irrigated farming had to be brought through canals.[32] While also emphasizing the advantage of the southeastern Colorado location as close to railways, having an ideal climate, and available lands, a publication from the Chamber of Commerce of the city of Trinidad and county of Las Animas stressed the value of irrigated land in the region:

> "Irrigated land in Las Animas County will attain at no distant day a value of from $100 to $300 per acre. This land can now be secured cheaply and the farmer seeking land a low value, where his original investment will greatly multiply in value in the next few years, cannot do better than invest his money in Las Animas County land."[33]

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[30] Ibid.
[31] Frances Bollacker Keck. *Conquistadors to the 21st Century: A History of Otero and Crowley Counties Colorado.*(La Junta, CO: Otero Press, 2001), 92.
[32] Ibid., 94.
[33] Chamber of Commerce of the City of Trinidad and County of Las Animas. *Las Animas County, Colorado: its development and possibilities.* Chamber of Commence: Trinidad, CO, c.1910, 24.

The 1909 Enlarged Homestead Act spurred a settlement boom across the Santa Fe Trail region, halting the open range ranching operations of the previous decades. By 1916, the Homestead Act underwent changes again to allow 640 acres for each homestead, with the intention of expanding stock-ranching opportunities; although an improvement, this amount of land was still not enough to stock a ranch. However, the revised homesteading acts of 1909 and 1916 brought the largest settlement boom to the region (Table 2), further stimulated by a few years of good rainfall, acceptance of dry-land farming techniques, and rising agricultural prices.[34] World War I helped the practice of dry-land farming, as the United States became a supplier of wheat and corn to European nations.[35] Southeastern Colorado experienced a rush of boom-town settlement throughout the 1910's and into the 1920's, as Anglo-Americans, largely arriving from the neighboring states of Kansas, Oklahoma, Texas and Missouri, claimed the land and planted crops across the western frontier.

The fortunes of homesteading quickly vanished with the Dust Bowl and Great Depression of the 1930's. The years of drought in the mid 1920's led swift winds across the prairies to lift the plowed land of dry-land farming. Homesteaders abandoned the region, leaving large ranching operations to buy up the failing homestead lands.[36] As natural disasters and failing economies of the 1920's and 1930's halted agriculture throughout the region, the federal government stepped in to take control of land management; realizing the failures of farming, the government promoted ranching as the best land use on the semi-arid lands of

[34] Lintz & Anderson, eds, "Temporal Assessment of Diagnostic Materials from the PCMS," 39.
[35] Carrillo, "Chapter XVIII: Historic Overview," 35.
[36] Lintz & Anderson, eds, "Temporal Assessment of Diagnostic Materials from the PCMS," 39.

southeastern Colorado, creating grazing districts on federal lands and applying strict rules of regulations to limit overgrazing. In order to acquire the large land parcels required for ranching, the federal government purchased the small farms and homesteads located on marginal lands. In return, owners were offered assistance in purchasing land elsewhere.

Table 2: *Population Data for Las Animas and Otero Counties, 1870 - 2000*

	Las Animas County	Otero County
1870	4,276	NA
1880	8,903	NA
1890	17,208	4,192
1900	21,842	11,522
1910	33,643	20, 201
1920	38,975	22,623
1930	36, 008	24,390
1940	32,369	23,571
1950	25,902	25,275
1960	19,983	24,128
1970	15,722	23,523
1980	14,897	22,567
1990	13,765	20,185
2000	15,207	20,311

The settlement period of the Santa Fe Trail region, initiated in the 1860's by Hispanic subsistence farmers and continued by mass immigration of homesteaders of the twentieth century, was no more; the optimism of the 1910's had turned to despair, leaving the region deserted, with only the large-scale ranching operations left to persist.

The Current Status of the Santa Fe Trail Region

Since the post-1860 settlement era boom and the bust of the 1930's, the Santa Fe Trail region is a landscape dominated by large cattle ranches. Following the 1920's, the populations of Las Animas County and southern Otero County has declined by more than half, with ranch headquarters, rather than family homesteads, spread thinly across the region. The boom towns of Model, Earl, Tyrone, Thatcher, Delhi, and Timpas, brought to life after the construction of the 1878 railroad along the old Santa Fe Trail route, are now abandoned areas of deteriorating commercial buildings and forgotten homes. Having once served both ranchers and homesteaders alike, these former small communities stand now as ghost towns, reminders of the history of settlement the region once experienced.[37]

While the natural landscape of the southeastern region remains much the same, with red rock canyons interrupting the vast grassy plains, the built environment fades away. The homesteads of early New Mexican and later Anglo-American populations now waste under the sun, known only to the ranchers who travel the region.

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[37] Carrillo, "Chapter XVIII: Historic Overview," 35.

The Santa Fe Trail region has also been affected by the purchase of land by the Pinon Canyon Maneuver Site (PCMS) of the United States Army. Buying and consolidating twelve ranches in 1983, the PCMS now controls much of the surrounding land.[38] Hence, local ranchers are inclined to support private property rights, leaving the homestead architecture of the previous century secluded and unfortunately often neglected. However, the region's hidden cultural resources are threatened once again; the Pinon Canyon Maneuver Site is said to have plans to expand the base to 2.5 million acres, the entire southeastern region of Colorado. Realizing the proposed danger to the region's cultural fabric, Colorado Preservation, Inc. listed the Southeast Heritage Region on *Colorado's Most Endangered Places List* in 2007 and the National Trust for Historic Preservation listed the region on its 2007 *11 Most Endangered Places List*.

The rich history of settlement throughout the region, although not forgotten, further erodes with the loss of the cultures of architecture of the early New Mexicans and following Anglo-Americans. Without increased awareness to identify, document, and preserve the withering built environment of the Santa Fe Trail region, the ruins and artifacts of the former western frontier may be lost, swept away with the dust of the 1930's.

[38] Ibid., 39.

CHAPTER 2

PRESENTATION OF SURVEY RESEARCH

Overview of the Survey

Colorado Preservation, Inc.'s survey team was organized in 2003 and has become the leader in cultural resource surveys throughout eastern Colorado; of the survey projects led by CPI, including a survey of New Deal architecture and countywide rural resource surveys, the survey of the Santa Fe Trail region has been the most unique and sometimes challenging, with the necessity to survey very remote sites on private land. Committed to the documentation and preservation of Colorado's rural resources, CPI's survey team acknowledges the benefits of survey and outlines the reasons *why* survey is important:

Why Survey? [39]

- To gain an understanding of the history of an area through its historic resources
- To increase public awareness of an area's historic resources
- To include resources in the database of historic sites maintained by the Colorado Historical Society
- To collect information to be incorporated into heritage tourism programs
- To identify historic resources eligible for historic designation at the local, state, or national level
- To identify historical resources of a distinctive type, or associated with a historical period or movement
- To create a foundation for preservation planning and advocacy
- To identity resources that are endangered, vacant, and/or in need of rehabilitation/repair

[39] Colorado Preservation, Inc., "Cultural Resource Surveys"; available from http://coloradopreservation.org/crsurvey/index.html; Internet; accessed 12 September 2009.

In an effort to document the remaining built environment of the Santa Fe Trail region, Colorado Preservation, Inc. embarked upon a survey project in the spring of 2008 to record features of historic architecture and historical archaeology. To determine the boundaries of the project, the survey team considered the topographic, cultural and economic similarities within the region, focusing on the lands south of the town of La Junta, north of the New Mexico state line, and bordered by highways to the west and east (Figure 5). Located at the center of the region, shaded in light gray in Figure 6, is the United States Army's Pinon Canyon Maneuver Site; this section of federally managed land was not surveyed by Colorado Preservation, Inc. With funding from Preserve America, the Colorado Department of Local Affairs, and Colorado Historical Society's State Historical Fund, the survey team trekked across plains and canyons throughout the summer of 2008 in search of the unknown. The region's properties, often comprised of upwards of forty thousand acres, had never been surveyed by architectural historians. Surprisingly, the initial reconnaissance survey recorded over 450 sites, including dwellings, outbuildings, churches, schools, post offices, stage stops, and waterworks construction, including many dams. However, the most common site type surveyed was the homestead, usually a single dwelling with agricultural outbuildings, such as barns and loafing sheds, a corral system and outhouses. Having recorded over 150 homesteads out of the 450 surveyed sites, the project became entitled "A Home of the Range: Homesteading in Southeastern Colorado," with the stated purpose "to interpret the history of

homesteading in southeast Colorado through its vernacular architecture, material culture and cultural landscape."[40]

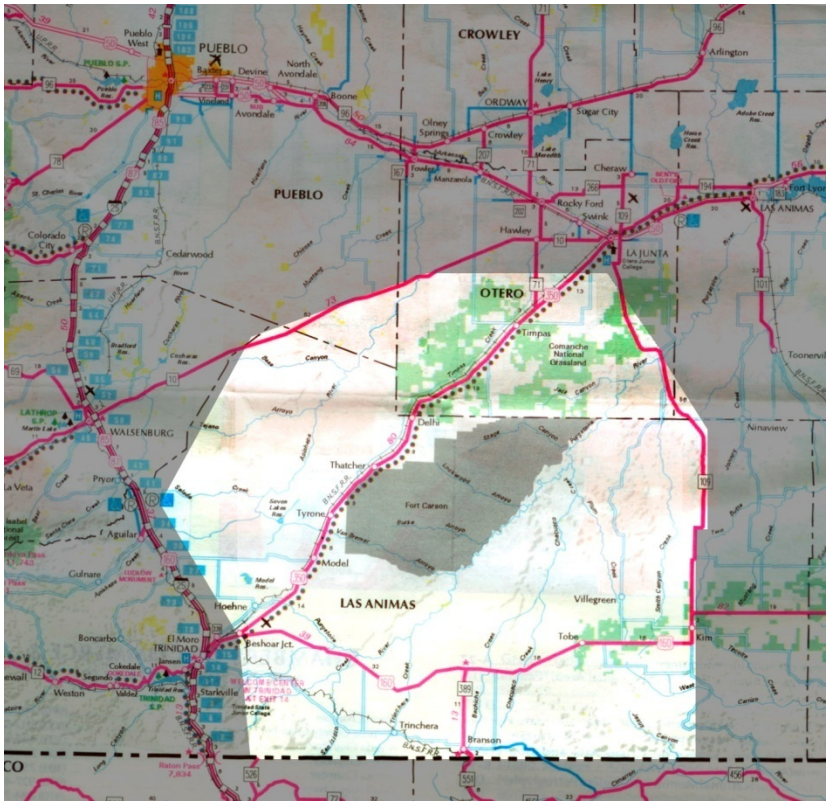


Figure 6: *Map of Survey Area (shaded in white)*

The project was divided into two levels of field survey, the reconnaissance level and the intensive level, the latter beginning in the spring of 2009. Each level of survey included written survey forms, completed by the survey team's architectural historians and archaeologists and filed at the Colorado Historical Society, Office of Archaeology and Historic Preservation (see Appendix A for survey form examples). While the reconnaissance level documented all historic

[40] Abbey Christman. "*A Home on the Range: Homesteading in Southeastern Colorado*," (Grant application to National Endowment for the Humanities. August 25, 2009).

sites, including photographing, identifying the features and ranking the site in priority and integrity, the intensive level focused on the most impressive and significant reconnaissance sites, further photographing, creating site maps, taking measurements and drawing elevations of the each associated feature. Furthermore, the survey team conducted historical background research on the intensive level sites, and these sites were considered for eligibility on the National Register of Historic Places.

The conclusion of this thesis will consider how survey recordings can better describe and evaluate vernacular architecture in a rural historic landscape. Survey reports are often specific to high style architecture, rather than vernacular homestead complexes. Furthermore, many of the features identified through survey of the area align more closely to rural historic landscape categories, thereby considering the setting, site plan, incorporation of the natural landscape into architecture and the adaptation to the surrounding topography. Therefore, the final analysis will provide a sample survey form tailored to the needs of vernacular architecture in a rural landscape. Furthermore, the larger theme considered through this study is the process of *how* to survey rural historic landscapes, vast lands comprised of many architectural features yet related through cultural adaptation and integration to the regional landscape.

The case studies included in the following chapters of this thesis are pulled from the fifty sites of the intensive level survey, focusing on fifteen of the most unique and culturally distinct homestead sites, as chosen by the author.

Introduction to Case Studies

Although many of the surveyed sites were remarkable, the fifteen case studies chosen for this thesis were generally selected in terms of cultural applicability, that is, whether or not the homestead site could be understood as a cultural landscape relating to either New Mexican or Anglo-American settlement. A few of the case studies reflect a mix of architecture, combining New Mexican elements with Anglo-American features and vice versa. In deciding how to choose the case studies to be considered for this thesis, a variety of factors were considered:

- Is the site considered a homestead, place of settlement?
- Does the architecture of the site reflect New Mexican or Anglo-American cultures of architecture?
- Although often in ruins, is the site capable of revealing information regarding construction methods and materials, homestead layout and material culture?
- Are land patent and census information available for the site location?
- Is the site located within the Santa Fe Trail region?
- Does the site contribute to the larger understanding of settlement patterns in the Santa Fe Trail region?

By answering the aforementioned questions in site selection for the case studies, the analysis will benefit from sites that vary in regard to culture, location and structural condition. The following chapters detail each case study, further

considering the culture of architecture on the site and how the built environment interpret the history of settlement in the Santa Fe Trail region. Each site was surveyed first-hand by the author, and the findings and analysis reflect the author's discoveries through combined survey and research (Figure 7).

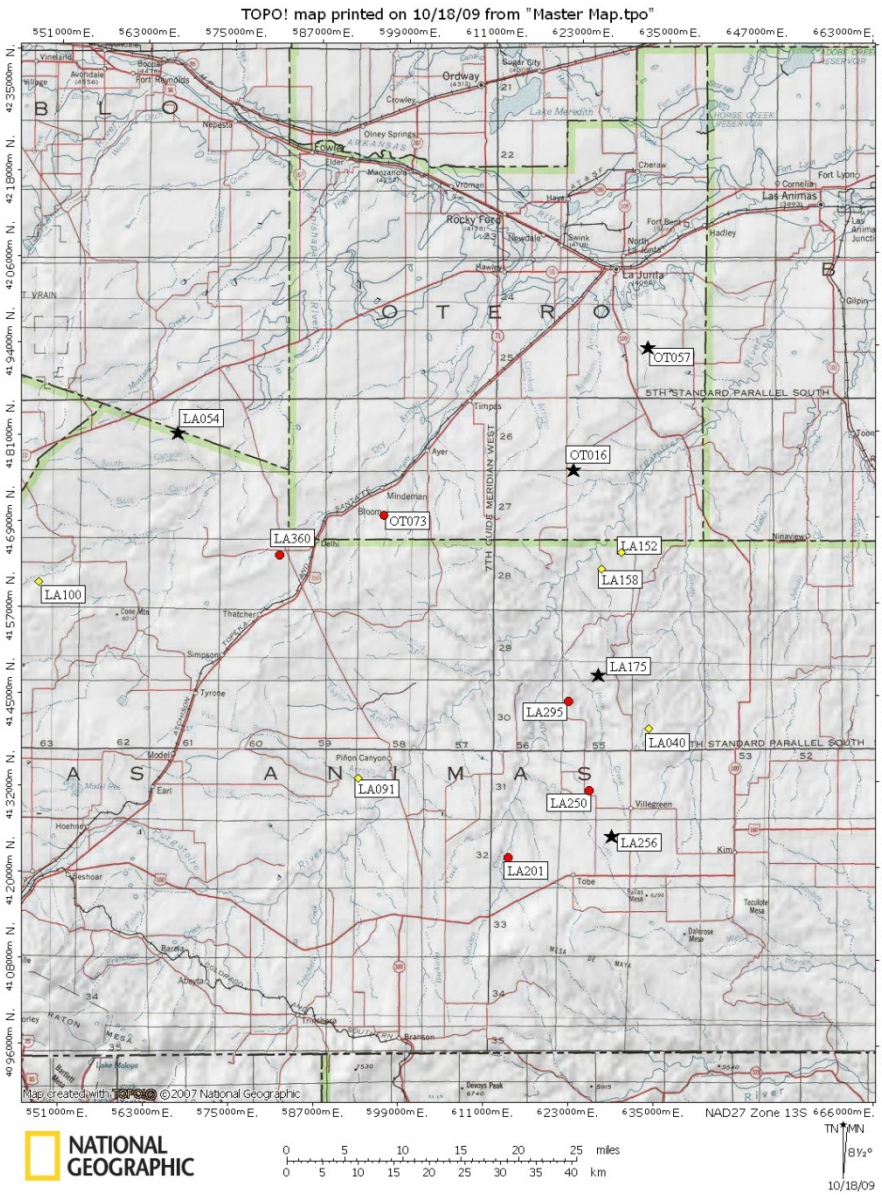


Figure 7: *Map of Surveyed Sites*

Key: *Diamond = New Mexican Sites; Circle = Anglo Sites; Star = Mixed Sites*

The fifteen case studies are organized according to their hypothesized culture of architecture, as identified through field survey and research of land patents and census data (Table 3). During the intensive survey phase, the sites revealed patterns of culture and settlement; for example, sites along the high plains, rather than near ideal water sources in canyons, often had remaining dugout depressions, thereby showing patterns of Anglo-American settlement, as dugouts were commonly the first type of dwelling constructed by Santa Fe Trail pioneers due to time constraints and limited building materials (for a reference guide of regional architecture, please consult Appendix B). Furthermore, a homestead complex near water sources, often boxed in by canyon walls, may reveal characteristics of New Mexican settlement, with corrals for sheep, rather than cattle, fence lines of wood posts tied together with wire (in contrast to later barbed wire enclosures), and a dwelling of adobe blocks, corner fireplace, and large hewn roof beams covered by smaller horizontal timbers. Such variations on architecture provide architectural with clues about the peoples who inhabited the now abandoned landscape.

In addition to field survey and analysis of a site's architectural components, each case study is supplemented by land patent and census records to confirm or shed further light upon the ethnographic history of the region. The Bureau of Land Management's online database of land patents provides an excellent resource for determining homesteader's names and date of land patent registration. Furthermore, census reports from heritage websites can be used in conjunction

with land patent information to further research settlers' origin and related information.

Table 3: *Case Studies, Organized by Culture of Architecture*

Site #	Description	Culture?	Land Patent Info
LA201	2 story stone structure, part of homestead	Anglo	Dawson McDaniel, 1923
LA250	Leaning frame house	Anglo	Clarence Collier, 1922
LA295	Dugout with log superstructure	Anglo	Converse Dorsey, 1923
LA360	Turkey farm remains w/ partial dugouts	Anglo	Frank Hils, 1923
OT073	Ranch headquarters complex	Anglo	John Mollet, 1915
LA040	1920's homestead complex near spring	Hispanic	Juan F Martinez, 1921
LA091	1885 complex with sheep pens in canyon	Hispanic	Nicolas Rivera, 1885
LA100	Complex with stone corral, dugouts & foundations	Hispanic	Jose Ygnacio, 1905
LA152	1900's homestead w/ chicken coop in outcrop	Hispanic	Frances & Manuel Zamora, 1916
LA158	1900's homestead w/ stone buildings & corral	Hispanic	Juan E Tafolla, 1910
LA054	Cottonwood Canyon Homestead	Mixed	No patentee information
LA175	Homestead with concrete dam	Mixed	Clarence Briggs, 1920
LA256	Homestead with central & corner fireplaces	Mixed	Carl White, 1923
OT016	Hispanic homestead turned to ranch headquarters	Mixed	Filomeno Martinez, 1904
OT057	Stone house with corner fireplace, dugout	Mixed	William Allison, 1924

Here is how the process of finding census information was conducted: Each surveyed site includes a GPS point which is then located on a topographic map. From there, the survey team identified the township, range, section number, and section quarters, and with this information researchers went to the Bureau of

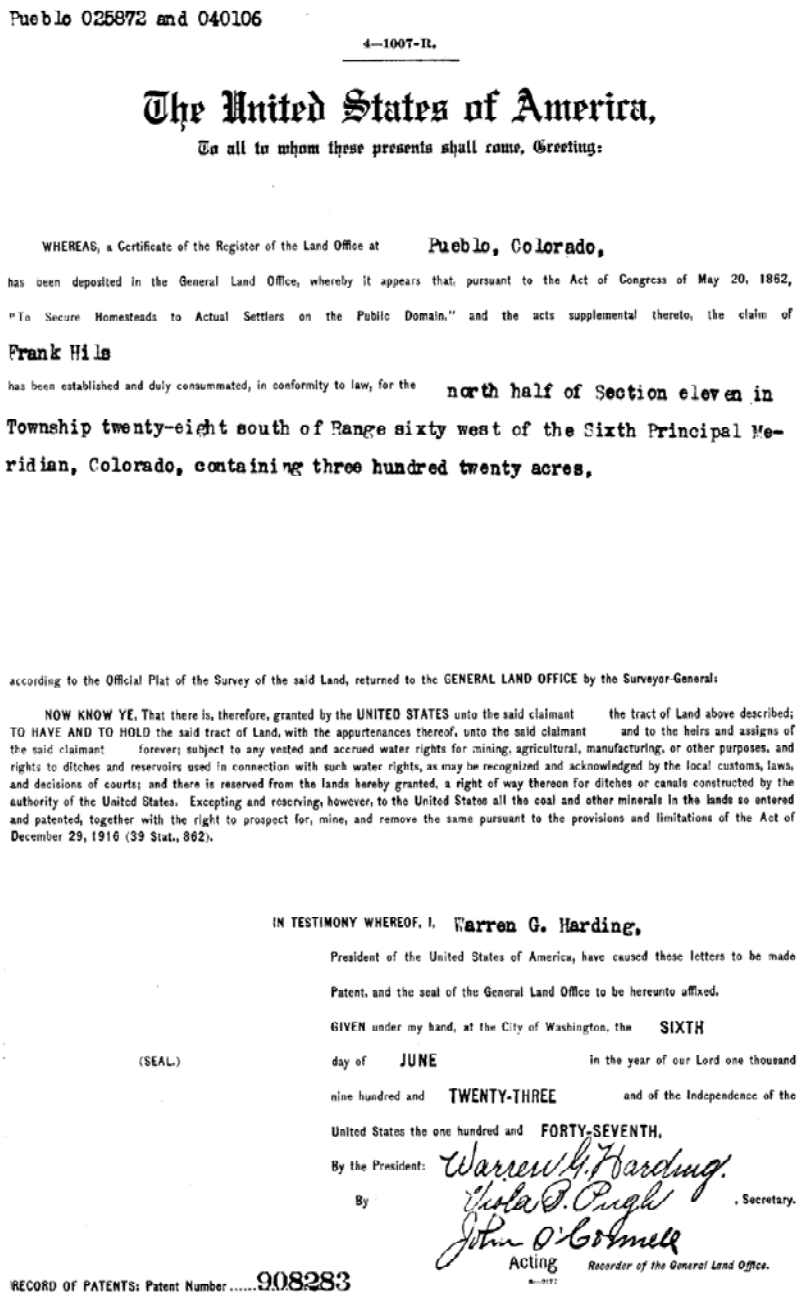
Land Management website (http://www.glorecords.blm.gov/) and searched for the earliest land patent for the queried site. The digital BLM patents included the patentee, date of patent, patent office, and often a PDF of the original patent (Figure 8).

The patentee information acquired through the Bureau of Land Management website was then used to search census records. Websites such as Ancestry.com gather census information, including the United States and State of Colorado censuses, and provide substantial information, including date of birth, birthplace, parent's birthplace, family members, occupations, and age at the time of census. This collection of data was compiled into a spreadsheet for all of the survey sites used in the following case studies, enabling the survey team to compare the architectural remains with actual census information.

Remaining artifacts and ruins can provide a glimpse of culture and lifestyle, but with further land patents and census information, the survey team was better able to comprehend the relationship of the architectural skeletons and foundations to the determined settlement patterns of the region.

The following chapters on New Mexican, Anglo-American, and mixed architecture each include several related case studies, as previously organized by cultural identity. The case studies will be fleshed out, including information regarding the location, architectural features, appropriate census data, and photographs of the site; an analysis will conclude each case study, elaborating on how the site best fits the ethnographic history and landscape. The case studies will then contribute to the overall findings of each chapter, detailing what

architectural features are common to a certain culture of settlement and how such case studies of similar cultural history relate to one another as a whole. The concluding analysis will respond to the aforementioned theory of various cultures of architecture within the Santa Fe Trail region.



Pueblo 025872 and 040106

4—1007-R.

The United States of America,

To all to whom these presents shall come, Greeting:

WHEREAS, a Certificate of the Register of the Land Office at Pueblo, Colorado,

has been deposited in the General Land Office, whereby it appears that, pursuant to the Act of Congress of May 20, 1862, "To Secure Homesteads to Actual Settlers on the Public Domain," and the acts supplemental thereto, the claim of

Frank Hils

has been established and duly consummated, in conformity to law, for the north half of Section eleven in Township twenty-eight south of Range sixty west of the Sixth Principal Meridian, Colorado, containing three hundred twenty acres,

according to the Official Plat of the Survey of the said Land, returned to the GENERAL LAND OFFICE by the Surveyor-General:

NOW KNOW YE, That there is, therefore, granted by the UNITED STATES unto the said claimant the tract of Land above described; TO HAVE AND TO HOLD the said tract of Land, with the appurtenances thereof, unto the said claimant and to the heirs and assigns of the said claimant forever; subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts; and there is reserved from the lands hereby granted, a right of way thereon for ditches or canals constructed by the authority of the United States. Excepting and reserving, however, to the United States all the coal and other minerals in the lands so entered and patented, together with the right to prospect for, mine, and remove the same pursuant to the provisions and limitations of the Act of December 29, 1916 (39 Stat., 862).

IN TESTIMONY WHEREOF, I, Warren G. Harding,

President of the United States of America, have caused these letters to be made Patent, and the seal of the General Land Office to be hereunto affixed.

GIVEN under my hand, at the City of Washington, the SIXTH

(SEAL.) day of JUNE in the year of our Lord one thousand

nine hundred and TWENTY-THREE and of the Independence of the

United States the one hundred and FORTY-SEVENTH.

By the President: Warren G. Harding.

By Lola B. Pugh, Secretary.

John O'Connell

Acting Recorder of the General Land Office.

RECORD OF PATENTS: Patent Number 908283

Figure 8: *Land Patent for Frank Hils (Survey Site: LA360)*

CHAPTER 3

NEW MEXICAN ARCHITECTURE IN THE SANTA FE TRAIL REGION

Overview of New Mexican Settlement

After the Mexican Revolution of 1821, all of the lands formerly under Spanish control were ceded to Mexico, including the Santa Fe Trail region of southeastern Colorado. Trade between New Mexicans and Americans increased, with the Mountain Route of the Santa Fe Trail (crossing the Raton Pass through Colorado) traveled more frequently, as pioneers sought to exchange goods, and horses for Mexican silver.[41] As the Anglo-American adventurers traveled westward across the plains and arroyos of southeastern Colorado in search of wealth, their counterparts, the Hispanic *pobladores*, frontiersmen, engaged in a similar process of trade within the new economy.[42] Although much is known and documented regarding the Anglo-American pioneers to the New Mexico frontier during the mid-twentieth century, as historical archaeologist Richard Carrillo suggests, much less has been uncovered to tell the story of the New Mexican *pobladores* and the 1820's expanding population of Hispanics in the Santa Fe Trail region.[43]

The population and demographic changes in the northern New Mexican frontier were a result of the changing economy, which also necessitated the

[41] Lintz & Anderson, eds, "Temporal Assessment of Diagnostic Materials from the PCMS," 34.
[42] Carrillo, "Chapter XVIII: Historic Overview," 2.
[43] Ibid.,

expansion of agricultural resources. Hence, the northern frontier of present day southern Colorado became a prime location for agricultural pursuits, with the San Luis Valley, west of the Santa Fe Trail region, settled in the late 1840's and early 1850's.[44] Furthermore, many events of the 1850's encouraged the settlement of the Purgatoire Valley, in the heart of the Santa Fe Trail region: the silver rush of 1858- 1859, the removal of Indians from the area, the operating stagecoach line along the Mountain Branch of the Santa Fe Trail, the entry of railways to the region and emerging ranching industry on open range all became factors in the expanding the New Mexican population north into southeastern Colorado.[45] By the 1860's, the upper and lower regions of the Purgatoire Valley were becoming more densely settled, as Hispanic pioneers traveled to the region and established plazas and ranches, using the land as open range for raising livestock. [46] The largest migration to the Purgatoire Valley of the nineteenth century occurred during the 1860's, as New Mexican frontiersmen and their families headed north in search of available land; the land of the Santa Fe Trail region, largely concentrated along the valley of the Purgatoire River, was becoming scattered with family communities, known as plazas, with often one male leader, *patron*, directing village life.[47]

The plazas of the Purgatoire Valley were large complexes, organized in a square to ward off Indian attacks, with adobe houses and a more substantial adobe house for the head *patron* (Refer to Case Study 2: LA100 for a site map of

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[44] Ibid., 3.
[45] Paul D. Friedman, *Valley of Lost Souls: A History of the Pinon Canyon Region of Southeastern Colorado*, (Denver, CO: State Historical Society of Colorado, 1988), 24.
[46] Ibid.
[47] Ibid, 28.

a plaza complex).[48] A local historian claimed that there were upwards of twenty-seven plazas in the Purgatoire Valley region during the 1860's, and a visitor to the region in 1867 described the region as:

> "settled by Mexicans; and there is scarcely a mile along the stream in which you do not find a ranche or two. Each farmer irrigates as much land as he is able to look after, and finds a ready market for the produce here."[49]

Throughout the regions of southern Colorado and northern New Mexico remain thousands of small adobe structures; the Spanish-Pueblo style of adobe architecture is distinct in plan and purpose (consult Appendix B for a Glossary of Regional Architecture).[50] Considered folk or vernacular architecture, houses were often constructed of adobe, a mixture of clay, sand and water, with straw or small twigs serving as keys, molded into blocks and dried under the sun (Figure 9, Image A). Sandstone was also a common material used in the construction of dwellings and outbuildings; the sandstone was often gathered from a local quarry and double-laid for durability, then filled with adobe mortar and small stone chinking. Sandstone was also used as the foundation for adobe houses. The New Mexican houses were designed as a self-sufficient room, a single area convenient for all household functions except food storage.[51] The house plan was largely rectangular, with 13' to 15' room widths (Figure 9, Image B).[52] The linear design of dwellings was predominant throughout the Spanish/Mexican period between 1840

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[48] Ibid.
[49] Ibid., 29.
[50] Chris Wilson, "When a Room is a Hall: The Houses of West Las Vegas, New Mexico," in *Images of an American Land: Vernacular Architecture in the Western United States*, ed. Thomas Carter, 113 – 128. (Albuquerque, NM: University of New Mexico Press, 1997), 113.
[51] Ibid., 118.
[52] Ibid.

and 1900, following an unwritten tradition of site plan.[53] If additions were constructed, they were placed at the sides or rear of the existing building. Additions were often constructed as *jacals*, a Native American form of architecture adopted by New Mexicans consisting of a wall of closely spaced wood posts tied together, with adobe filling any spaces; small timbers (often piñon) were placed into the earth and tied with wire (Figure 9, Image C). Flat roofs were most typical of New Mexican design, with large, equally spaced, vertical logs (*vigas*) covered by smaller horizontal timbers (*latillas*). The *vigas,* typically hand-hewn ponderosa or cottonwood, usually extend beyond the structural walls, with the horizontally laid *latillas* forming the surface of the roof, covered with mud and stone (Figure 9, Image D).

IMAGE A: Adobe Bricks

Figure 9: *Images of New Mexican Construction*

[53] Wilson, “When a Room is the Hall: The Houses of West Las Vegas, New Mexico,” 118.

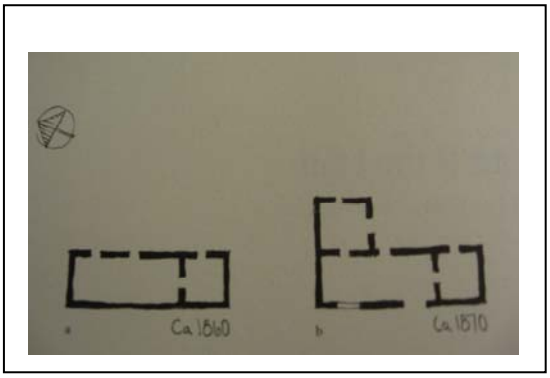

IMAGE B: New Mexican Building Plans of 1860 & 1870 [54]

IMAGE C: *Jacal* Structure

IMAGE D: Flat Roof of *Vigas* and *Latillas*

Figure 9: *Images of New Mexican Construction [continued from previous page]*

[54] Wilson, "When a Room is the Hall: The Houses of West Las Vegas, New Mexico," 114.

The memoirs of Elfido Lopez, born in Las Animas County in 1869, reiterate the New Mexican settlement patterns along the Purgatoire Valley. Elfido's father was New Mexican, of Spanish decent, and traveled north of New Mexico to the city of Trinidad, in present day southern Colorado, in 1866 or 1867.[55] In 1871 Elfido's father traveled to "Red Rock" with eleven other men to claim homesteads, and began farming the land, raising wheat, melons, corn, beans, pumpkins, sorghum, chile, garbanzos and a variety of other crops.[56] "Red Rock," often known as the plural Red Rocks, was located at the mouth of Minnie Canyon, a northern tributary of the Purgatoire River.[57] In addition to a few acres of wheat, goats, sheep and "plenty of children" roamed the site. The family lived on the sale of wheat in the fall, as the men would travel to Trinidad by wagon to sell the season's crop.

Elfido remembers the family's site along the mouth of Minnie Canyon; the only timber was cottonwood, box elder and willows, and the house was situated within the canyon, near a river with many timbers surrounding and wildlife abundant.[58] The fences surrounding the house were constructed of box elders, and, with no wire available, cut to make four rails to comprise a fence to identify property.[59] A chicken coop was located on the property. The location of the Lopez complex in the canyon, near a river, is attributed to this early 1870's settlement of the Purgatoire Valley, as New Mexican settlers were able to claim the prime

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[55] Richard Louden, editor and annotator, "Some Memories of My Life, as Written by Elfido Lopez, Sr." in *Hispano History and Life in Colorado*, ed. Vincent C. de Baca, (Denver, CO: Colorado Historical Society, 1998), 24.
[56] Ibid., 27.
[57] Ibid., 40.
[58] Ibid., 29.
[59] Ibid.

locations, shielded from harsh natural elements and with convenient water sources. Furthermore, the plaza system, the construction of wood fences, agricultural outbuildings, plowed wheat fields and the sheep industry are topics to be further explored in the case studies of this chapter. Elfido Lopez's memoirs start to highlight themes of New Mexican settlement in the area.

Many of the first New Mexican settlers to the Santa Fe Trail region were sheep herders, with Lorenzo Abeyta owning 1,000 sheep in 1860, Juan Cordova owning 4,000 sheep in 1878, and Juan P. Baca owning 3,000 sheep, plus horses, mules and goats, in 1878, all of which were permanently settled in the Santa Fe Trail region.[60] The New Mexican sheepherders began to encounter conflicts with Anglo-American cattle ranchers during the 1880's, as 4,000 sheep owned by Jesus Maria Peres in Las Animas County were said to be killed by nearby cattle ranchers; the mixing of New Mexican sheepherders and Anglo-American cattle ranchers in the region is a topic to be further explored in the following chapters.[61] However, what can be identified is the predominance of sheepherding by New Mexicans in the Santa Fe Trail region of southeastern Colorado. Sheepherding required fencing and outbuildings, in addition to the plaza dwellings; appropriate period architecture and ruins revealing sheep herding operations can be largely attributed to the New Mexicans settlers of the 1860's and late nineteenth century.

The movement north by New Mexican settlers is also reflected in population data: in the 1870's, the Red Rocks area, where Elfido Lopez's family

[60] Friedman, *Valley of Lost Souls*, 49.
[61] Ibid., 57.

settled, included over 400 residents.[62] The 1880's census records that 66 percent of the inhabitants of Pinon Canyon (within the Santa Fe Trail region) had Spanish surnames, and of this population, 37 percent of the Hispanic men were married.[63] During the 1870's and 1880's, New Mexican settlement in the Santa Fe Trail region involved establishing family-oriented plazas, plowing wheat and raising sheep for profit. However, the demographics began to change toward the end of the 1880's and into the 1890's; the drought and blizzards of 1886 and 1887 forced many settlers out of the region, compounded by the rising numbers of Anglo-American ranchers buying out their Hispanic neighbors' properties to supply the need of open range for cattle.[64] Although the census of 1900 shows 58 percent of the residents of the region to be Hispanic, these were not the same New Mexican families of the 1860's and 1870's; rather, the changing ethnicity of the area, combined with a new ranching economy, left Hispanic males as migrant workers within large Anglo-owned ranches.[65] Changing economies, Anglo-American dominance in the region and natural disasters contributed to the steep decline in New Mexican settlement in the Santa Fe Trail region. For example, a large plaza, known as the Cordova Plaza, in the Red Rocks vicinity was vacated in 1900, with many of the residents following the *patron* Juan Cordova to the nearby boom town of Hoehne and the plaza land officially sold in 1910.[66] Symbolizing the fall of New Mexican settlement throughout the region, plazas and the associated sheep

[62] Ibid., 58.
[63] Ibid.
[64] Ibid.
[65] Ibid., 60.
[66] Ibid., 62.

herding industry succumbed to the encroaching Anglo-American cattle ranchers and the incoming homesteaders of the twentieth century.

Presentation of Case Studies

The five case studies presented in the following pages are considered representations of New Mexican architecture, as identified by architectural remains and associated material culture. Considered when examining each case study are the location of the site, the number, condition and architectural styling of the remaining built environment, and how the recorded census and land patent information correlates to the architectural history of the site. The findings of the case studies will be further analyzed at the conclusion of this chapter, further reflecting on how these case studies relate to New Mexican settlement in the Santa Fe Trail region during the late nineteenth century.

Case Study 1: Survey Site LA091

Site Type: Homestead Complex with Sheep Pens

Location: Jack Canyon vicinity

Patentee: Nicolas Rivera, 1885

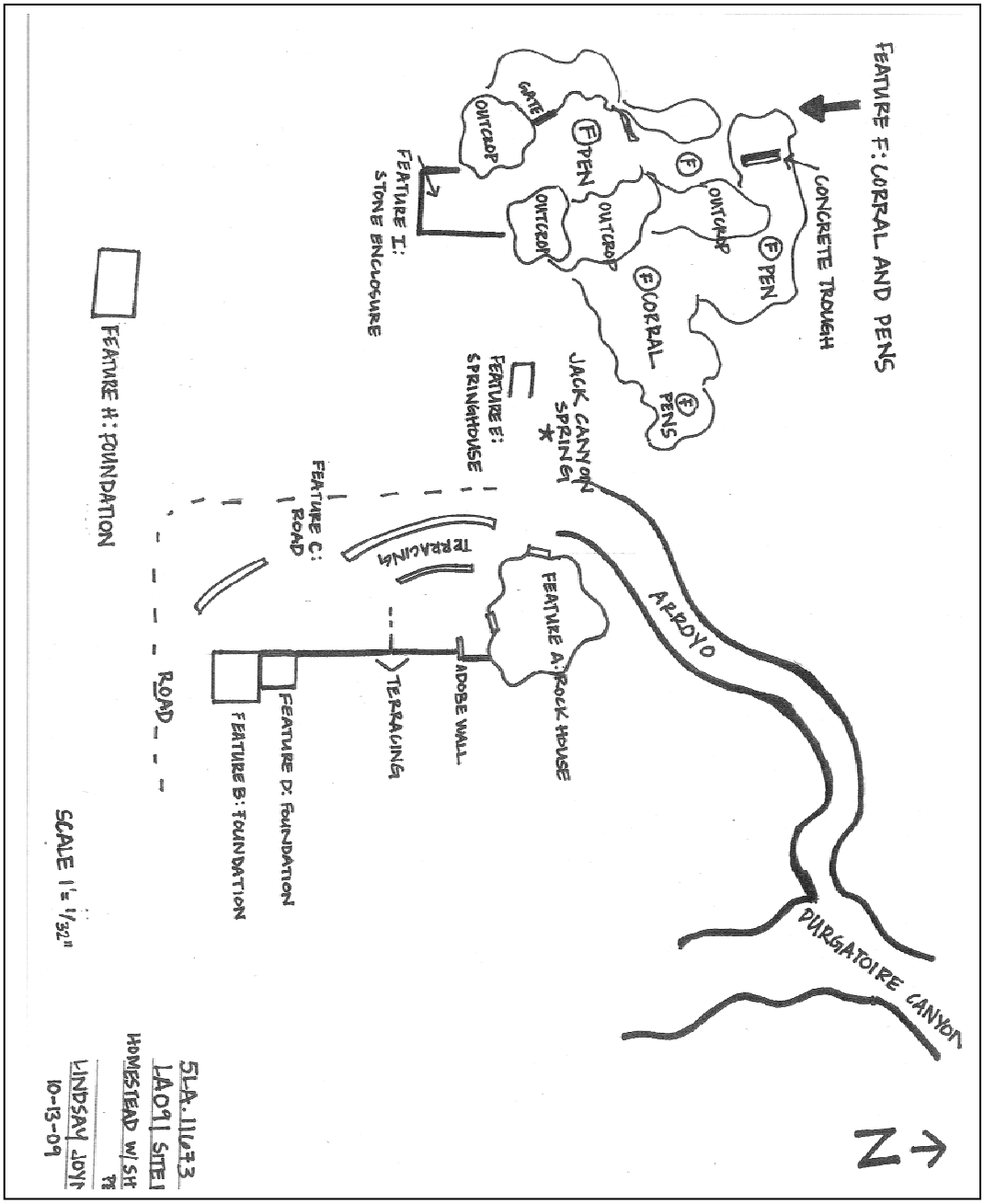

Figure 10: Site Map of LA091

Located west of the upper Purgatoire River and directly south of the Pinon Canyon region, site LA091 is an interesting case study because the landscape was a major component of the architecture. The site is nestled between two box canyons, Jack Canyon and Arroya Canyon, with the surrounding canyon walls incorporated as structural components in settlers' dwellings and outbuildings. Jack Canyon Spring is located on the site, providing the settlers with a nearby water source. The location of the site, deep within the canyon and including a spring, suggests earlier settlement, as such landscapes were often coveted by settlers; box canyons provided protection against harsh seasonal weather patterns, and because water was scarce, a location near a spring was quite ideal (Figure 10, Site Map). Furthermore, this close relationship to the landscape was indicative of New Mexican settlement throughout the Santa Fe Trail region and noted was the "practical reliance on natural materials" New Mexican communities tended to reflect.[67]

The main dwelling of site LA091, Feature A, is located within a rock shelter; a large boulder was used to construct a house around, with the front door facing the south side and the rear door to the west (Figure 11, Image A). The rock shelter converted into a dwelling is two stories high, with interior stairs leading from the main story at the south end to the bottom floor, allowing for exit through the rear door at the west end. The doors are constructed with frame materials, cut

[67] Robin A. S. Haynes and Beverly E. Bastian. *Historical Architectural Evaluation of 49 Sites in the Pinon Canyon Maneuver Site (PCMS) for National Register of Historic Places Eligibility, Las Animas County, Colorado*. (Gilbert/Commonwealth Inc. Prepared for the United States Department of the Interior, National Park Service, Rocky Mountain Regional Office, Denver, Colorado, 1987), Chapter 3, Page 4.

nails and metal hinges, with rough sandstone and adobe (mud) mortar used as infill between the frame doors and boulder walls. The main door at the south wall measures about 2.6 feet across, with 3.5 feet of sandstone and adobe infill to the west and 6.5 feet of sandstone and adobe infill to the east of the door frame. A front addition and patio area are evident to the south of the front entrance, with remnants of an adobe wall, adobe blocks, measuring 10 inches by 5 inches, and adobe mortar, dividing the addition area from the patio. A large hewn log rests atop the south edge of the boulder, stretching to the adobe wall, acting as a roof beam for the now fallen roof of milled lumber and earth.

Two square foundations are located directly south of the main dwelling, Features B and D, each of sandstone with bits of remaining adobe mortar (Figure 11, Image B). Only the fallen walls of these structures remain, with the earth roof, timbers covered by packed mud, having eroded and melted with the natural elements. The foundations are arranged facing west, with the front entrance located on the western wall. The smaller foundation, immediately north of the second foundation, measures 18 feet by 12.8 feet; the larger foundation measures 20.10 feet by 16.10 feet, and each has a square plan with no evident additions. Being that these were relatively simple structures with no evident window frames or room divisions, these foundations were most likely outbuildings at one time, used for storage or agricultural needs.

Stone terracing remains to the west of the main dwelling, separating the house within the boulder from the stone sheep pens to the further west (Figure 11, Image C). Three terrace walls are located to the southwest of the dwelling; each

wall is of dry-laid sandstone, measuring about 2.5 feet in height. Terracing reveals a further emphasis on the connection of New Mexican settlers to their natural environment, often using the terraced areas for subsistence gardening.

To the western edge of the property are the numerous sheep pens and corral areas (Figure 11, Image D). The spring is also located on the western edge of the property, with a fallen frame springhouse facing east. At least six pena and corrals were identified when surveyed, with dry-laid stone wall enclosures surrounding many of the irregular planned pens; large boulders and outcrops contribute to the pen enclosures, saving time and labor in fence construction. A concrete trough (a twentieth century feature) rests on the western side of a large boulder, with hewn vertical wood posts nearby to serve as corrals. The natural outcrop contributes tremendously to this homestead, as the pens and corrals are built into the canyon walls, thereby showing a resourceful use of the existing environment in an area with limited manufactured building supplies.

Evident from the six small pen enclosures, corral area and outbuilding foundations are a former livestock operation, most likely raising sheep. The adobe wall, large *viga* roof beam, garden terracing, and overall use of the natural landscape are features of the built environment most closely attributed to New Mexican settlers. Although not a plaza system, homestead site LA091 includes many features of New Mexican architecture and indicates a former sheep operation, a common New Mexican way of life in the late nineteenth century Santa Fe Trail region. Furthermore, the land patent information confirms the New Mexican analysis, as the land was patented on January 15, 1885 by Nicolas

Rivera; although there is no census information available for Rivera, a lack of information was not uncommon, as census information prior to the Homesteading Acts and Anglo-American entry into the region was seldom recorded. However, case study LA091 shows the close relationship of settlers to the landscape, the use of natural materials in construction and a livestock industry, all of which are most closely identified with the New Mexican settlements of the region during the 1870's and 1880's.

IMAGE A: South Entrance and Adobe Wall

IMAGE B: Outbuilding Foundations

Figure 11: *Images of Survey Site LA091*[68]

[68] All case study images courtesy of Abbey Christman, Survey Coordinator, Colorado Preservation, Inc.

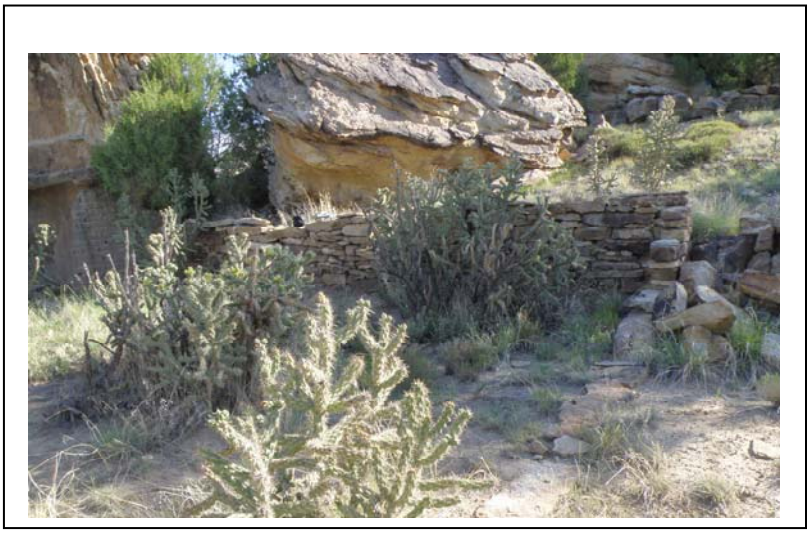

IMAGE C: Garden Terracing

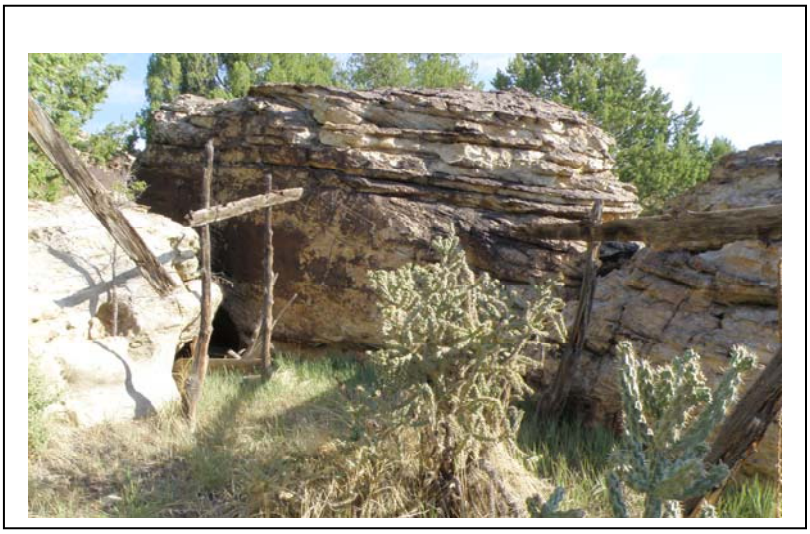

IMAGE D: Pen enclosures

Figure 11: *Images of Survey Site LA091 [continued from previous page]*

Case Study 2: Survey Site LA100

Site Type: Plaza Complex

Location: Smith Hollow Hills vicinity

Patentee: Jose Ygnacio Heirs of Trujillo, 1905

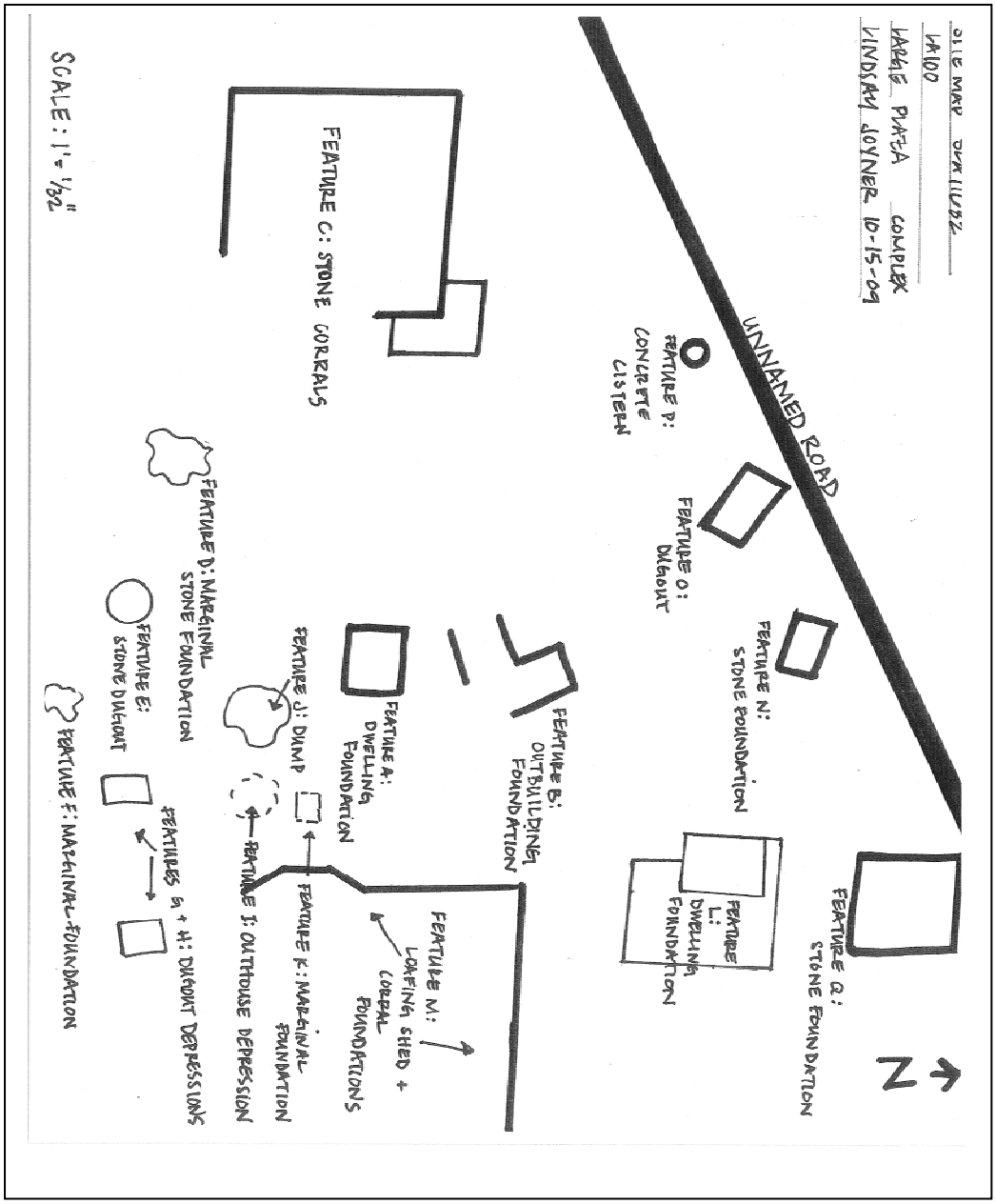

Figure 12: *Site Map of Survey Site LA100*

West of the Purgatoire River, along the mesas of western Las Animas County, are the remains of the site LA100, a plaza complex of over fifteen architectural features, all reflecting the New Mexican culture of architecture. Although not hidden deep within the walls of a canyon like the previous case study, site LA100 sits on the flats above two small box canyons, with the Box Canyon Spring located nearby. The complex includes ruins of dwellings, outbuildings, dugouts, corrals, and cisterns, as well as connected material culture. The clustered plaza of Hispanic tradition is well reflected in site LA100, emphasizing the patriarchal family structure with central dwellings and using the surrounding lands for the raising of sheep (Figure 12, Site Map).

Two large structures with standing walls are still evident among the ruins along the plains of Smith Hollow Hills (Figure 13, Image A). Located in the center of the site, the remaining structures were constructed of rough sandstone and adobe mortar, with the sandstone blocks measuring about 14 inches in width, 10 inches in length, and 8 inches in height. Feature A, most closely resembling a main dwelling, is square plan, measuring 17 feet by 20 feet, with a central entry, constructed of stone, on the south wall, window openings on the west and east walls, and a central stone fireplace on the north wall. The rough cut stone is double laid in fairly regular rows, and the window jams include cut nails. In front of the south wall entry is a stone foundation, the ruins of an adobe addition to the south of the dwelling. Hewn logs have fallen from the west wall, lying across the floor of the remaining structure; these logs were once used as large roof beams, *vigas*, to support a flat roof of small timbers and earth.

Just to the north of Feature A is the second remaining structure with wall portions; however, this structure appears to be an associated outbuilding, rather than a dwelling. Also constructed of sandstone and adobe mortar, with the design for a flat roof, Feature B has no window openings on the remaining north and south walls. The walls, although double laid, are not laid in courses, nor are they of regularly sized stones; wood posts mark the ends of the north and south walls, and a rectangular stone foundation lies north of Feature B. Hence, due to the irregularity and unfinished nature of the stonework, combined with the lack of windows on either remaining wall, Feature B was most likely an outbuilding associated with the sheep industry of the plaza.

An additional central dwelling is evident just north of the aforementioned structures; however, unlike the other central structures, this dwelling, marked as Feature L, has no remaining walls, only the outline of the stone foundation (Figure 13, Image B). The foundation tells the story of many additions and alterations to the original dwelling. A rectangular plan, measuring 26.6 feet by 16 feet, is evident, and this is thought to be the original structure. Surrounding this section, at a distance of 22 feet on all sides is another faint stone foundation, signaling an extension to the original square-plan dwelling. The entire structure appears to have been adobe, as mounds of earth now lie beside the stone foundation without any remains of stone wall construction. Within the original square plan are both fallen milled and hand-hewn timbers, cut and wire nails, and several large log beams; the lumber could have been used for window and door construction, with the wire nails attributed to the alterations, and the large beams as roof support,

like the *viga* construction of other roof systems in the plaza. Although parts of the foundation are now marginal, Feature L appears to have been a large dwelling, with numerous additions, also centrally located in the tradition of plaza design.

To the west of the central stone structures are stone corrals, identified as Feature C (Figure 13, Image C). The rough cut sandstone was rubble laid in an L-plan, with wood posts in the center and the remains of a tack room to the north of the corral system. The L-plan of the stone corral measures 62 feet by 68 feet, with wings on either side measuring 53 feet and 20 feet. The associated tack room foundation off the corner of the north wall and east wall of the corral is a rectangular plan, measuring 38 feet by 14 feet. Because few fallen stones remain, the tack room was most likely constructed of adobe with the remaining stone foundation still evident. The interior log posts were connected as part of a corral system for sheep.

A loafing shed foundation, Feature M, is located on the eastern edge of the site, opposite from the corral location (Figure 13, Image D). A place to store hay, the loafing shed is identified by its remaining three wall foundation. The shed was constructed of rough sandstone and three sided, in a U-shape plan facing east. Corrals extended eastward from the east wall of the shed and were also constructed of rubble-laid stone, almost 100 feet in length. Only the stone remains of the shed and corrals are still evident, with no other fencing, roof structure or outbuildings connected to the structure. However, found near the loafing shed during survey were sheep shears (Figure 11, Image E), furthering the idea that

this complex was primarily involved in sheep raising, as were many New Mexican plazas.

Several other building foundations are located on the site; three square stone foundations are north of the central dwellings, two small dugouts are located to the south edge of the site, and several small marginal stone foundations are scattered throughout. A later addition of a concrete cistern is also located on the northern site boundary. However, understood through the over fifteen features of architectural ruins is the pattern of the New Mexican plaza system, with central dwellings and corrals and outbuildings on the west and east peripheries of the site (Figure 12, Site Map). The structures with remaining walls show signs of early construction, with rough, irregular sandstone and cut nails. Mounds of adobe beside stone foundations, signifying fallen adobe structures, are also typical of New Mexican construction.

Furthermore, the patentee of this site, Jose Ygnacio Heirs of Trujilo, leads architectural historians to view the site as New Mexican, although no census data is available for the patentee. The patentee name most likely means the property was patented by the heirs of Jose Ygnacio, who arrived in southeastern Colorado from Trujillo, New Mexico. The only diverging factor is that the land was patented in 1905, which is not in accordance with the cut nails or historic glass, such as amber broken glass dating to the late 1800’s, found on the site. Most likely, the land was not patented until well after the plaza had been established, as New Mexican settlers were less inclined to register land patents with the United States government until many years after the initial settlement. The case study of LA100

reveals the layout of a late nineteenth century plaza establishment, with a New Mexican community plan and architectural design features.

IMAGE A: Central Structures with Remaining Walls

IMAGE B: Central Dwelling with Stone Foundation, No Remaining Walls

Figure 13: *Images of Survey Site LA100*

IMAGE C: Stone Corrals

IMAGE D: Loafing Shed and Stone Corral

Figure 13: *Images of Survey Site LA100 [continued from previous pages]*

IMAGE E: Sheep Shears

Figure 13: *Images of Survey Site LA100 [continued from previous pages]*

Case Study 3: LA158

Site Type: Early 1900's Homestead Complex

Location: South Purgatoire Canyon

Patentee: Juan E. Tafolla, 1910

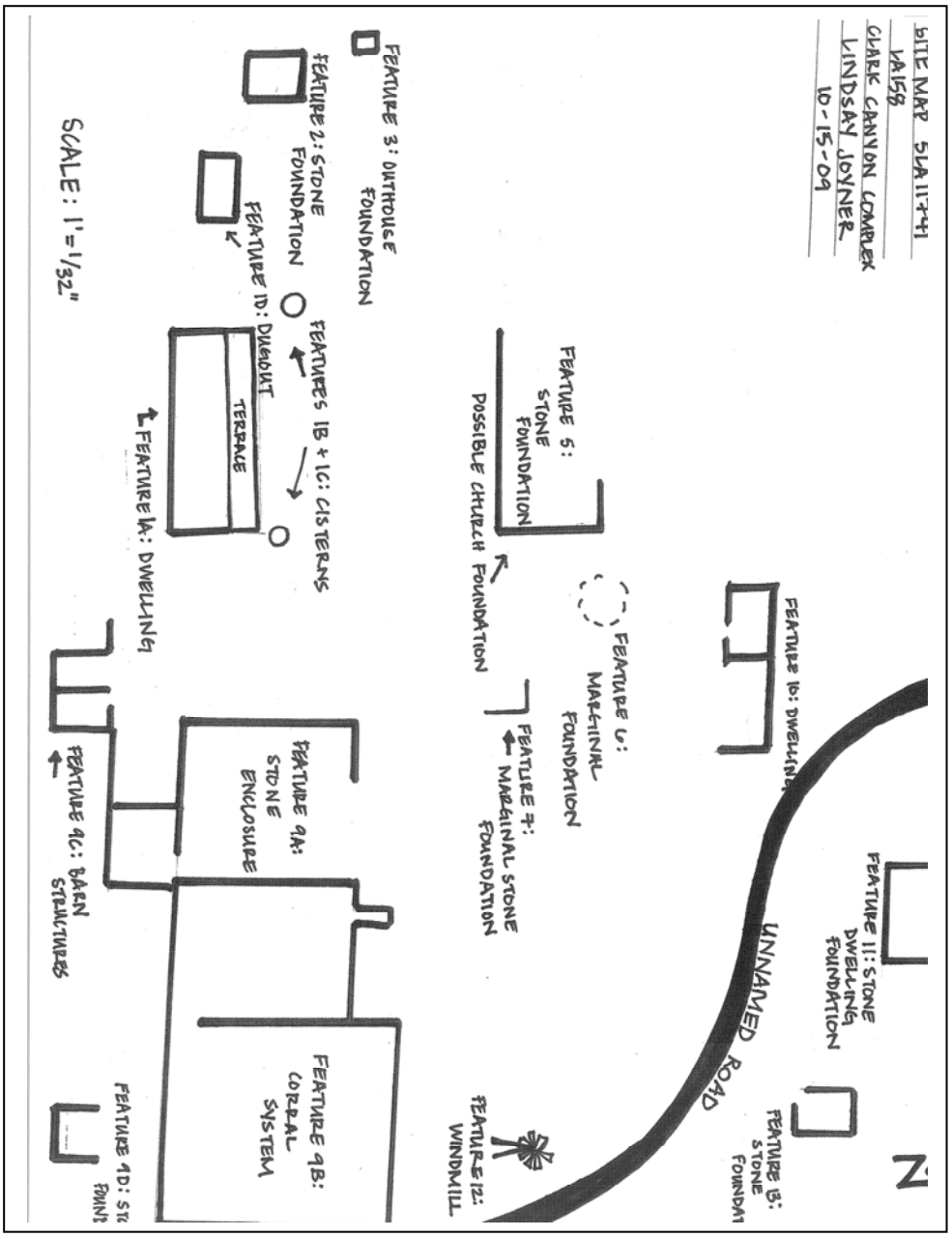

Figure 14: *Site Map of Survey Site LA158*

Along the lower Purgatoire region, surrounded by mesas of red rock, are the architectural ruins of the Tafolla homestead site, a large complex of several dwellings, numerous outbuildings and a large corral area. Nestled between three canyon walls, site LA158 was an ideal location, well protected and near the Purgatoire River. Although likely constructed as a plaza, the site map reveals less of a centralized homestead plan than shown in the previous case study (Figure 14, Site Map). Most of the dwelling remains are located to the south edge of the site, rather than centrally located with surrounded outbuildings. Site LA158 is organized so that the dwellings are parallel to the large corral area, both on the southern end of the property; marginal foundations and outbuilding remains, along with a couple dwelling structures, are to the north of this southern line of dwellings and the corral.

The main dwelling, Feature 1A, has a rectangular plan, with all four stone walls standing, although largely in ruins, oriented north to south, with the entrance facing north (Figure 15, Image A). The dwelling plan measures approximately 53 feet by 16 ½ feet. The foundation and walls are of double-laid sandstone with adobe mortar, with some concrete patching at the south corner. Multiple entries, separated by windows, are located on the north wall, although no interior divisions are evident; the south wall likely included windows, although the south walls ruins make this hard to determine. A fireplace, also constructed of sandstone, is located at the corner of the south and west walls. Hewn log *vigas* stretch across the north and south walls, exposing the roof structure skeleton, as the smaller timbers and earth-based roof covering are no longer evident. A rectangular foundation of an

addition is attached to the north wall, evidence of an adobe superstructure having melted and leaving only the stone foundation remains. Two concrete cisterns remain at the northwest and northeast corners of the dwelling. Furthermore, a dugout is located to the west of the main structure, Feature 1D, possibly having served as the primary dwelling prior to the construction of the more substantial structure (Figure 15, Image B). The remaining dugout is lined with sandstone, with a stepped entry on the east side and *vigas* stretching across the west to east walls, forming the roof support. The dugout, cisterns, and an adobe addition surround the largest, and most complex, dwelling on the site, leading architectural historians to view this plot on the site as the primary living space.

A corral system, Feature 9, is located on the southeastern edge of the site, with stone buildings standing to the south of the corral structure, most likely related as outbuildings (Figure 15, Image C). Wood corrals were constructed of unfinished vertical logs and posts, placed close together and attached by horizontal timbers and wire. Framed milled lumber exists at the gates and chute area. A stone wall enclosure is located to the west of the wood corrals. Stone outbuildings are located to the south of the corral systems; one stone outbuilding appears to have been a tack room or bunkhouse, as it is enclosed and has an attached shed to the west. The surrounding outbuildings are of double-laid sandstone, adobe mortar, and built into the natural slope, a design typical of New Mexican architecture.

The site also includes a large central rectangular foundation, Feature 5, identified by a historical archaeologist as possible remains of a church (Figure 15,

Image D). Regional churches would often be located within plazas, with traveling priests visiting the place of worship once every season. The remaining stone walls measure 54 ½ feet by 27 feet and are of sandstone. The large size of the foundation leads one to believe it could have been the site of a church; such large structures, unless remains of corral systems, are fairly uncommon in a region dependent on the labor of settlers and nearby construction materials. A community church would often be located in the center of the plaza, where this particular foundation is situated. Features of historical archaeology surround the site. Evidence of ornate broken glass, rather than kitchen supplies like crockery or earthenware, may reveal the use of the former structure as a religious space rather than domestic. However, with only a stone foundation remaining, no definite determination regarding the architecture and use of the former structure can be provided.

In addition to the main dwelling with associated dugout, corral system and possible church, site LA158 includes several other structural ruins, many determined as outbuildings, as they lack windows and interior room divisions. However, two other dwellings are located on the northern edge of the property, both square plans and constructed of sandstone and adobe mortar, and including nearby pen areas. A windmill is also evident on the eastern edge of the property. A large complex indeed, site LA158 reveals another New Mexican plaza design, with a possible central church rather than the central dwellings of the previous plaza case study.

The patentee of LA158 was Juan E. Tafolla, registered in 1910, although material culture finds this plaza to have been settled about ten years earlier, a possible result of a delayed patent for a site occupied years before. According to the 1900 United States Census, Juan E. Tafolla was born in 1887 in Colorado; Tafolla's parents are listed as from New Mexico and Colorado, with Louis Tafolla, his father, as the head of the household. Juan Tafolla also spoke English. Seeing that his family heritage was New Mexican, it seems no wonder that the architecture of the Tafolla homestead in the lower Purgatoire Canyon consists of New Mexican architectural elements, including *viga* roof construction, adobe walls, a corner fireplace, and cut wood post corral construction. Interestingly, while the Tafolla homestead presents another plaza, the site has features not found in the previously examined plaza case study of LA100; the possible central church was substituted for the plan of central dwellings in site LA158, thereby revealing variations on the typical New Mexican community design.

IMAGE A: Main Dwelling Remains

Figure 15: *Images of Survey Site LA158*

IMAGE B: Dugout Remains with *Vigas*

IMAGE C: Corral System

Figure 15: *Images of Survey Site LA158 [continued from previous page]*

IMAGE D: Foundation of Possible Church

Figure 15: *Images of Survey Site LA158 [continued from previous page]*

Case Study 4: Survey Site LA040

Site Type: 1920's Homestead Site Near Spring

Location: Pinon Canyon, southeast of Purgatoire River

Patentee: Juan F. Martinez, 1921

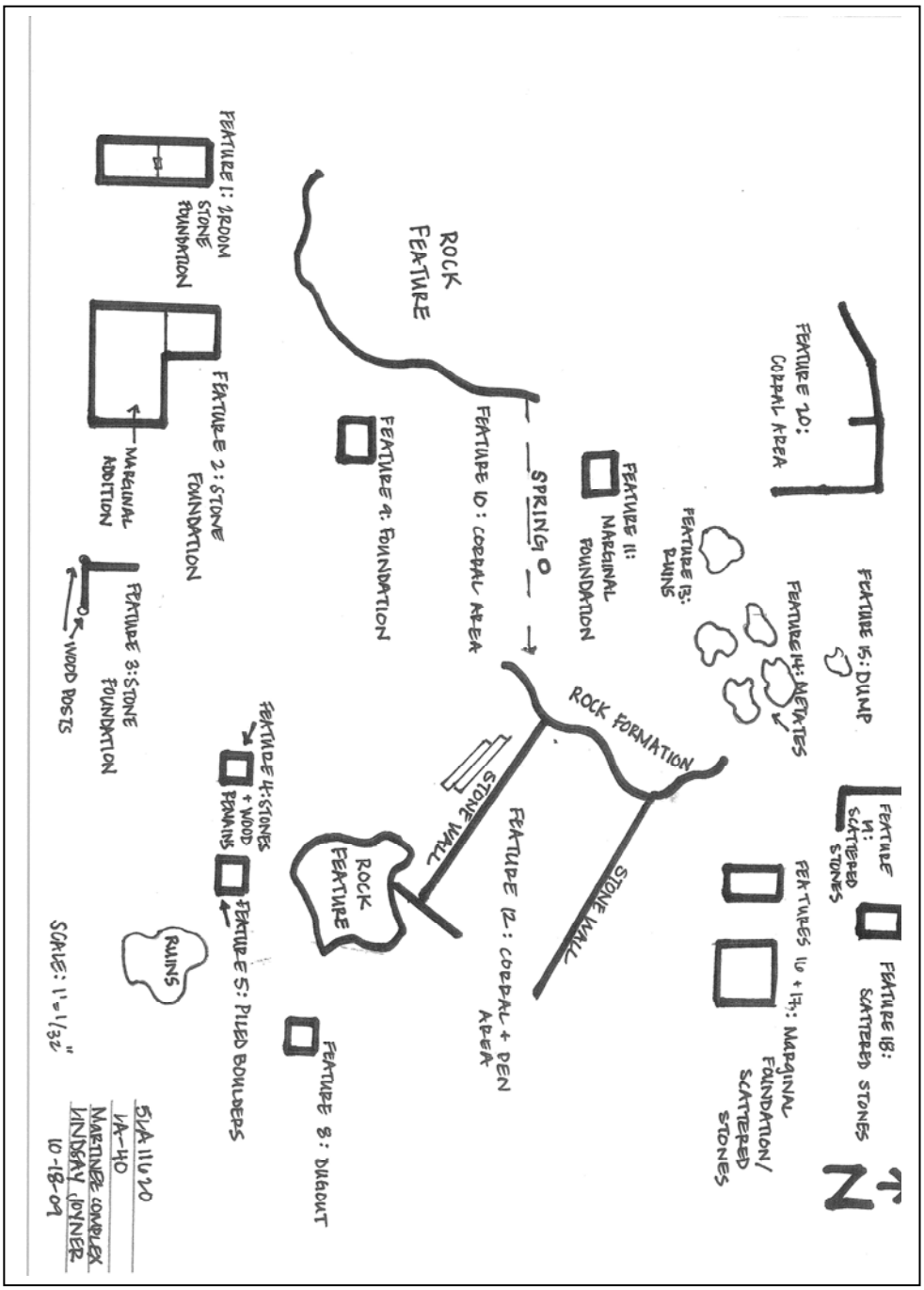

Figure 16: *Site Map of Survey Site 040*

Atop the southern ledge of Pinon Canyon, survey site LA040 exists as an example of a later homestead site, circa 1920's. Unlike the plaza design of the previous case studies, LA040 reveals the more typical homestead complex design of the twentieth century, with twenty remaining structures, dwellings and outbuildings. Rather than serve a community of people, LA 040 looks to have been the homestead of a single, although extended, family. The altered Homestead Laws of 1910 and 1916 authorized only single homestead plots, not plaza communities, contributing to the abandonment of the traditional plaza design. Furthermore, the 1910's and 1920's brought a flood of Anglo-American homesteaders from middle America to the lands of the Santa Fe Trail region, and no longer were New Mexicans or New Mexican culture dominant throughout southeastern Colorado. Having encountered harsh weather, ranching demands for an open range, and the early twentieth century bombardment of homesteaders, New Mexicans in the Santa Fe Trail region were a declining population.

However, LA040, although later, still shows signs of the New Mexican culture of architecture, only in another site plan, differing from the plaza system (Figure 16, Site Map). Located beside a spring, the Martinez homestead was another ideal plot of land, on the edge of the canyons and near a water source; compared to many of the Anglo-American sites along the plains, homestead plots that included proximity to both springs and canyons were exceptional and coveted. Of the remaining structures on the site, three dwellings are evident: two of dry-laid sandstone and one earthen dugout. The stone dwellings are located

along the southern edge of the plan, contrasting the central dwellings of plaza system of decades prior. The larger of the two stone dwellings, Feature 2, has a rectangular plan with a stone fireplace and wood lintel, constructed of milled lumber (Figure 17, Image A); the remaining stone foundation shows a division of two rooms, although the interior walls are no longer standing. The second stone dwelling, Feature B, includes interior and exterior walls, all of rough dry-laid sandstone, and has remains of windows, all framed with milled lumber and wire nails (Figure 17, Image B). *Vigas*, hewn logs, stretch the north and south walls of the second dwelling, a reminder of the New Mexican flat roof construction shown in the previous case studies as well. These stone dwellings are similar to those of the previous case studies, constructed of rough sandstone and, now eroded, adobe mortar. The milled lumber, wire nails and central fireplace of the dwellings, as well as the standing interior room divisions, however, suggest a later homestead.

The site includes other stone foundations, largely rectangular, and considered to be the remains of outbuildings of a farming operation. Small pens are located on the peripheries of the site and blend with the natural landscape, incorporating outcropping and slopes to create burro and goat pens (Figure 17, Image C). The stone corrals, Feature 12, are typical of earlier New Mexican construction, as wire was previously unavailable. Milling slicks (Feature 14), rock faces used to grind grain with stones, are evident on rocks surrounding the site (Figure 17, Image D), adding to the understanding of this homestead as related to

New Mexican homesteading and farming practices. Milling slicks were often used by New Mexicans through adoption of the practice from Native Americans.

Hence, site LA040 seems to be an unusual site. Although less centralized than the previous plaza case studies, the homestead reveals several traditional New Mexican elements, including rough sandstone construction, pens within the natural landscape, and milling slicks. However, the single homestead site, combined with the patentee information, reflects a homestead of the 1920's. The patentee, Juan F. Martinez, placed a land patent on LA040 in 1921; according to the United States census of 1920, Martinez was born in New Mexico in 1884, and all of the patentee's family originated in New Mexico. In 1920, he was married, the head of the household, illiterate and listed as of "White (Mexican)" race, speaking primarily Spanish. The family included seven children, possibly the reason for two dwelling structures, beside one another, with room divisions evident. Indeed, the Martinez homestead shows many New Mexican elements of architecture, although from a later period of occupation. However, given the above patentee and census information, there is reason to believe that the Martinez homestead reflects New Mexican culture because of the family history of New Mexicans. Although altering the plaza design to adapt to a smaller homestead plot, the Martinez homestead of case study LA040 holds true to the New Mexican culture of architecture.

IMAGE A: Stone Dwelling with Central Fireplace

IMAGE B: Stone Dwelling with Interior Walls

Figure 17: *Images of Survey Site LA040*

IMAGE C: Stone Pens

IMAGE D: Milling Slick

Figure 17: *Images of Survey Site LA040 [continued from previous page]*

Case Study 5: Survey Site LA152

Site Type: Single Homestead with Chicken Coops

Location: Miller Canyon, East of Purgatoire Canyon

Patentee: Frances and Manuel Zamora, 1916

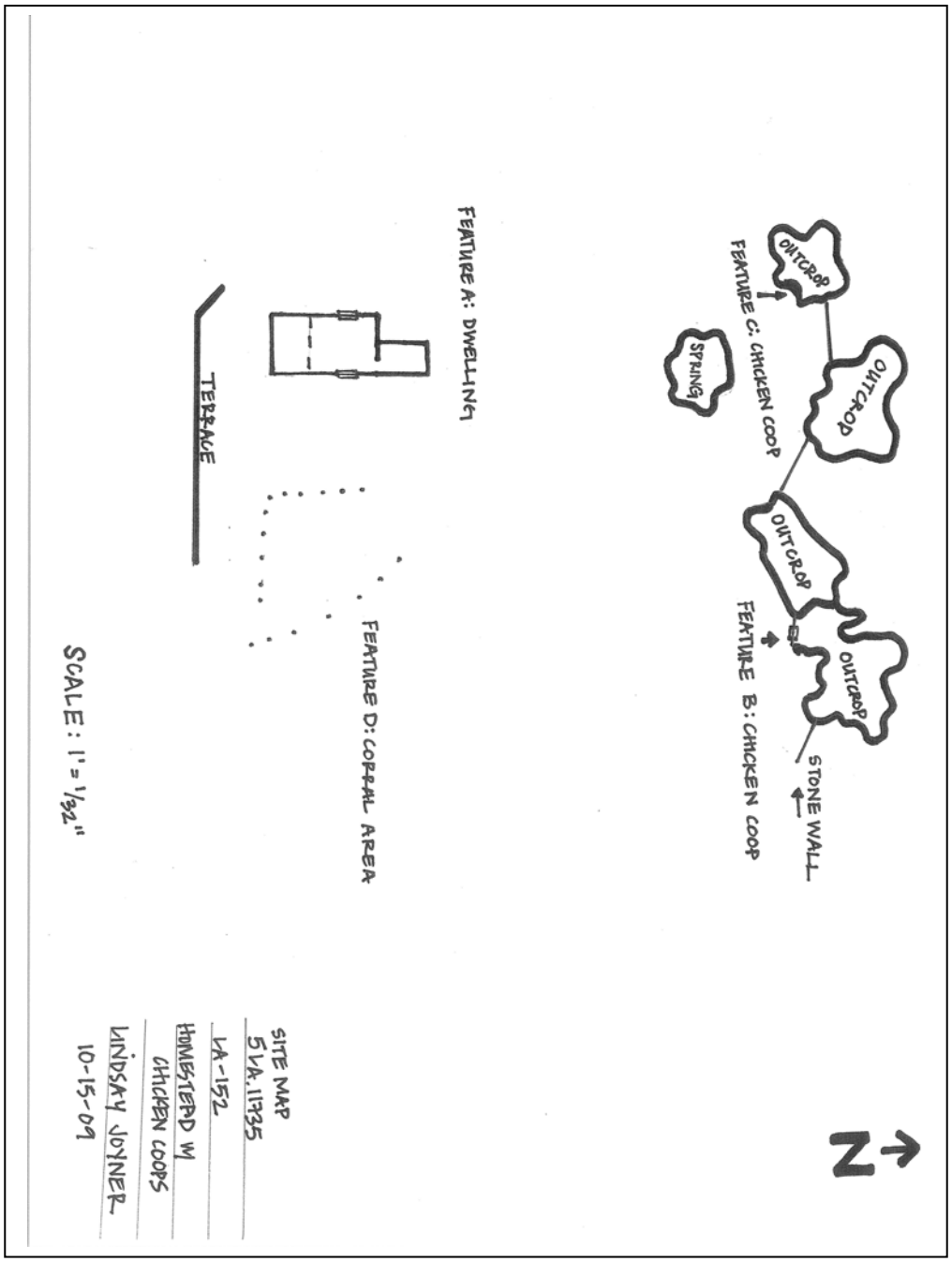

Figure 18: *Site Map of Survey Site LA152*

Nestled beneath the Miller Canyon wall, concealed by the surrounding mesas, are the remains of case study site LA152, a single homestead from the early twentieth century. Following the pattern set by the previous case studies, site LA152 includes a nearby spring, directly north of the homestead structures (Figure 18, Site Map). The spring flows down the canyon wall, conveniently providing running water to the dwelling below. Pipelines were discovered during survey, revealing a former system of pumping water throughout the homestead site. The homesteaders of site LA152 were truly ingenious in their use of the natural landscape.

The one dwelling structure has a nearly square plan, measuring 17 feet by 15 feet, oriented north to south, with a stone-lined dugout attached to the north wall; long and thin, unfinished and rough quarried sandstone rocks were used in the construction of the dwelling, with adobe holding as mortar (Figure 19, Image A). Two large roof beams, *vigas*, remain intact, stretching across the west and east walls of the dwelling. Hewn logs were also used atop door openings. The rear dugout measures 9 ½ feet by 16 feet and includes an opening through the north wall of the stone structure for access (Figure 19, Image B). The dugout could have been the original dwelling, replaced by the more substantial stone dwelling in later years. The remains of an adobe addition to the south wall are identified only by the marginal stone foundation.

Although the single homestead dwelling of site LA152 is interesting to consider, the most intriguing elements of this case study are the chicken coops hidden along the canyon wall to the north of the homestead. Placed within the

natural stone outcroppings, the two chicken coops are placed within natural stone outcroppings, with sandstone and adobe mortar infill and a small frame door (Figure 19, Images C & D). Incorporating the natural landscape into outbuildings saved time on construction and lessened the need for construction materials. Stone walls divide the chicken coops from the spring below, and remains of wood posts for corrals lie on the east boundary of the site. Stone terracing is evident to the south of the front entry. As shown, many elements on site LA152 reveal the molding of the natural terrain and slope to form a landscape suitable for a homestead and farming operations.

A smaller site than any of the previous case studies, LA152 reveals a single homestead with many New Mexican elements, including a flat roof, adobe addition, terracing, ideal location and the incorporation of the natural landscape in the construction of outbuildings. This site, although differing from the plaza plan, shows the New Mexican culture of architecture through construction and setting. Furthermore, similar to the previous Martinez homestead case study (LA040), this site appears to be later, with dugout construction, wire nails, and a land patent from 1916. The site was patented by Frances and Manuel Zamora in 1916, but unfortunately no census information is available on the couple. However, the first names and surnames of the patentees speak to a New Mexican/Hispanic origin. Although much smaller and less complex than the large plaza communities, the Zamora homestead at site LA040 tells the story of a New Mexican homestead well incorporated and settled into the natural surroundings.

IMAGE A: Single Stone Dwelling

IMAGE B: Dugout Remains

Figure 19: *Images of Survey Site LA152*

IMAGE C: Chicken Coop in Outcropping

IMAGE D: Chicken Coop in Outcropping

Figure 19: *Images of Survey Site LA152 [continued from previous page]*

Analysis of New Mexican Case Studies

The five case studies introduce themes of New Mexican settlement types, architecture and the evolution of New Mexican homesteads into the early twentieth century. Although no one site was the same as another, all share similarities, in terms of location, architectural style or site plan. It remains to consider how all five case studies relate to one another and how they contribute to the understanding of New Mexican settlement in the Santa Fe Trail region of southeastern Colorado.

Architectural historians have determined that New Mexican architecture followed the Spanish Colonial (1600 – 1850, local to 1900) model, with common features of a low pitched or flat roof, one story, small windows, and thick walls of adobe or stone; this style of architecture was prevalent throughout 19th century Spanish territory, including the southeastern region of the state of Colorado.[69] Unlike Anglo-American counterparts, modest households of the Spanish Colonial style had but a single room, and additions were constructed by adding entire rooms to form an L or U-shaped plan.[70] The masonry construction of these dwellings made them incredibly durable, able to withstand harsh natural elements and survive longer than construction by wood frame. The Santa Fe Trail region holds the ruins of many New Mexican homes that followed the Spanish Colonial architectural style.

All five case studies include architectural features identified as Spanish Colonial. Each site used masonry in construction, adopting the local sandstone as

[69] Virginia and Lee McAlester, *A Field Guide to American Houses*. (New York: Alfred A. Knopf, Inc., 2006), pp. 129 – 131.
[70] Ibid.

a building material, with thick, double laid walls bonded by adobe mortar. Furthermore, four of the five sites had remnants of adobe walls, often as additions to the more substantial stone dwellings, a construction technique attributed to Spanish Colonial design. In addition to the more broad elements of a defined architectural style, the case studies also exemplify regional style variations. For instance, flat roofs were economical and practical for the one story dwellings often constructed throughout the region; however, the case studies, in particular, show flat roof construction and the use of *vigas* and *latillas*, vertical beams layered by horizontal timbers, with ponderosa or cottonwood beams and smaller piñon or juniper timbers. The use of hewn ponderosa or cottonwood logs is evident in every case study, thereby revealing a flat roof construction technique of the larger Spanish Colonial style made regional with the use of local timber. Jacal construction, as shown on the corral system of Case Study 3 (LA158), may also be considered a regional technique of placing timbers vertically and deeply embedded into the ground, often together with earth and brush; this method of small vertical timber construction was first adopted from the Pueblo Indians by the Spanish and retained by New Mexican settlers in southeastern Colorado as a way to construct small pens and corrals.[71] The architecture of New Mexican culture followed the broad stylistic features of the Spanish Colonial period, while adopting a vernacular approach to construction, with little ornamentation or detailing; mid to late 19th century architecture along the Santa Fe Trail tended to be relatively

[71] Bainbridge Bunting, *Early Architecture in New Mexico*. (Albuquerque: University of New Mexico Press, 1976), 13.

simple, as modern manufactured materials were seldom available.[72] In addition, the case studies show a regional variation on New Mexican architecture, incorporating local sandstone, hewn ponderosa and cottonwood logs, and jacal structures within homestead architecture.

Table 4: *Chart of New Mexican Architectural Features by Case Study*

	Adobe Ruins	Canyon Location	Corner Fireplace	Incorporates Natural Landscape	Plaza System	Sandstone Masonry	Sheep Pens	Vigas & Latillas
Case Study 1	X	X		X		X	X	X
Case Study 2	X	X			X	X	X	X
Case Study 3	X		X		X	X	X	X
Case Study 4	X	X		X		X	X	X
Case Study 5	X	X		X		X	X	X

The use of the natural landscape, incorporated into dwellings, outbuildings, and corral systems, is the one of the most distinctive elements evident within the New Mexican settlements of the Santa Fe Trail region. The reliance on natural

[72] Bunting, *Early Architecture in New Mexico*, 88.

materials and conforming to the landscape became trademarks of New Mexican settlements throughout the region, and as Anglo-American homesteaders arrived to the area, they often adopted these techniques regarding the use of local materials and topography, although failing to recognize or attribute these ideas to the prior New Mexican settlers.[73] In contrast to the features of architectural style, less is known about New Mexican reliance on the natural terrain; however, considering the remoteness and isolation of the New Mexican settlements considered in the case studies (especially the earlier sites constructed prior to the entry of railways) homesteads were forced to adapt to the local landscape, as little other options for survival were provided. Hence, the use of local materials and incorporation of landscape features may be attributed to the history of New Mexican settlement in the region, with New Mexican homesteaders having developed an understanding of the natural environment in regard to human settlement.

This leads to another common feature of each case study: the chosen location of each homestead. Although not located along identical topography, each New Mexican case study has the benefit of a preferred location within the region of focus. Case study 1 (LA091), Case Study 3 (LA159) and Case Study 4 (LA152) are nestled within canyon walls, well protected and near water sources. In fact, each case study is located close to water, an almost unheard of setting for the semi-arid landscape of southern Colorado. The locations of the New Mexican case studies are confirmed by accounts from New Mexican settlers in the region,

[73] Haynes and Bastain, *Historical Architectural Evaluation of49 Sites in the PCMS*, Chapter 3, Page 5.

stating their desires to be near timber, water sources, like the Purgatoire River, and vegetation, such as grass for grazing and fruit trees.[74] The locations of the case studies show both a close relationship and knowledge of the land and the arrival and settlement of the region by New Mexicans prior to the homesteading boom of the Westward Expansion era of the twentieth century.

Of the five case studies, two were identified as having plaza site plans, with either central dwellings or a central church, an arrangement of living spaces common to Spanish Colonial and Early Territorial (1848 – 1865) design. Along the New Mexican frontier such fortified arrangements were important to provide defense from Indian attacks.[75] As the threat of Indian attacks was lessened by the 1880's, the traditional plaza plan was abandoned; however, as noted in Case Studies 3 and 4, the plaza plan was not completely undone, as smaller, later homesteads continued to construct central buildings surrounded by outbuildings and corrals. Furthermore, each site, whether complex or relatively small, had remains of pens and outbuildings, mostly relating to the sheep industry, although chicken coops were also identified. Sheep were among the first domestic livestock to be brought to the region, as flocks were driven north by New Mexican immigrants to the Purgatoire Valley region.[76] Whether including extensive sheep pens and corrals, as shown in Case Study 1 (LA091) and Case Study 3 (LA159), or including only a few stone pens, as with Case Study 4 (LA152) and Case Study 5 (LA040), each site, nonetheless, revealed ruins of structures used in the raising of sheep. Rather than the large fences and open ranges needed to raise cattle,

[74] Taylor, *Pioneers of the Picketwire*, 22.
[75] Bunting, *Early Architecture in New Mexico*, 63.
[76] Friedman, *Valley of Lost Souls*, 48.

the sheep industry of New Mexicans required smaller pens, with associated outbuildings for the production of wool. The sheep industry was directly tied to the site plan and architecture of each site.

The New Mexican case studies relate to one another by both their similarities and differences. The earliest land patent, Case Study 1, reveals itself as the most primitive, very dependent upon the landscape in the construction of dwellings and outbuildings. Case Studies 2 and 3, also nineteenth century sites, are less isolated, compared to Case Study 1; therefore, these settlements were constructed in plaza formations, providing protection and community. As the architecture remains the largely the same, the site plans of the case studies evolve with the emergence of the era of homesteading during the twentieth century; Case Studies 4 and 5 show the need for smaller, less complex, homesteads, rather than fortified plazas. The breakaway from the large plaza formation in favor of smaller homestead plots can be attributed to a lessened threat of Indian attacks and the land-grab of Anglo-American homesteaders during the early 20th century. The architecture is consistent within all the case studies; sandstone masonry dominates, adobe remains are evident, and flat roofs, corrals and sheep pens are features of each homestead.

CHAPTER 4

ANGLO-AMERICAN ARCHITECTURE IN THE SANTA FE TRAIL REGION

Overview of Settlement

The Homestead Act of 1862 was the first provision by the United States to allocate the lands west of the Mississippi River, providing 160 acres of unsettled land to any citizen; homesteaders, in return, were required to be the head of a family, build a home, live at the location and use the land for at least five years. Initially, the homestead movement remained east of Colorado; however, as Middle America experienced increased settlement, free land had to be sought elsewhere, bringing homesteaders further west, to the plains and canyons of southeastern Colorado.

By the end of the 19th century, with the Santa Fe Trail and the entry of stage coaches into southeastern Colorado, the region saw greater Anglo-American settlement, thereby encroaching upon the previous settlements of New Mexicans described in the previous chapter. A Missouri woman, traveling across the Buffalo Route of the Santa Fe Trail along the Purgatoire River during the 1860's, noted that by 1862, as opposed to previous years, the trail had changed, as plowed land, Indians and increased numbers of settlers were evident

throughout the region.[77] The 1860's saw a scattering of settlers throughout the region, Anglo-Americans largely involved in the fur and trapping industries and trade along the Santa Fe Trail. With the establishment and protection of Bent's Old Fort, completed in 1832, settlers from the eastern and middle United States began to trickle into the region and became further intrigued with the promise of free land through the Homestead Act of 1862. A few Anglo-Americans were interested in establishing farms in southeastern Colorado, largely along the lands of the lower Purgatoire Valley; Uriel Higbee, after whom the Anglo-American settlement of Higbee Valley is named, led a small group of farmers to the region in 1866, settling along the Nine Mile Bottom of the Purgatoire Valley.[78] Higbee began ranching operations throughout the region, leading a herd of horses and continuing to live on and use the land through the 1870's. Anglo-American pioneers and entrepreneurs claimed settlements along the lower Purgatoire of the Santa Fe Trail region of southeastern Colorado during the 1870's and 1880's; the declining threat of Plains Indians and the developing farm-ranching community increased the Anglo-American presence in the region, contributing to the homestead rush of the following decades.[79]

At the turn of the century, prior to the homestead boom of the 1910's, the region was dominated by large-scale ranching operations, including the Prairie Cattle Company, Bloom Cattle Company, and S.T. Brown and Company, each controlling up to 2,500 acres in the region; however, despite these livestock

[77] Marian S. Russell, "Land of Enchantment: Memoirs of Marian Russell Along the Santa Fe Trail," *Colorado Magazine* 20, no. 6 (1944): 228.
[78] Taylor, *Pioneers of the Picketwire*, 11.
[79] Ibid.,17.

outfits, lands of southeastern Colorado remained largely unoccupied, and the fast arrival of Anglo-American homesteaders in 1909 contributed to the end of the open range industry.[80] Encouraged by the altered Homestead Acts of 1909 and 1916, providing a larger land allotment for each homestead, settlers arrived to the region from the nearby states of Kansas, Missouri, Nebraska and Oklahoma. The largest population growth throughout the region of southeastern Colorado was during the 1910's and 1920's, as the homestead boom, further supported by years of good rain and propaganda from railroad companies, gained momentum, leading thousands of Anglo-American families westward to claim land and new lives. While the settler of the 1870's and 1880's tended to be a "Hispanic from New Mexico who claimed 160 acres in the canyons and river bottoms and mixed small-scale stock raising with limited irrigated garden plots," the 1910 homesteader was more likely to be an Anglo-American, arriving from neighboring plains states and connected to dryland farming on 320 or 640 acre plots of land, as provided through the revised Homestead Acts.[81]

New communities began to emerge throughout the region, with towns such as Model, Thatcher, Delhi, and Earle established to accommodate the rush of homesteaders to the region during the 1910's and 1920's. The Model Land Irrigation Company established the town of Model, financed by local and Denver capital, to incorporate an irrigated agricultural community in the area; the name "Model" was chosen to reflect the founding of a community that was to be the ideal town of the homestead region, showing the success of irrigated land in a

[80] Friedman, *Valley of Lost Souls*, 65 & 69.
[81] Ibid., 64.

semi-arid climate.[82] The Model community was platted in 1913, as the dream of an irrigated farming landscape throughout the Santa Fe Trail region was beginning to become a reality for many.[83] By 1920, Model, like many of the emerging homestead boom communities, included a post office, church, blacksmith shop, billiard hall, hotel, telephone exchange, and justice of peace.[84]

The architecture of the Anglo-American settlements throughout the Santa Fe Trail region represents both the stylistic features of the Plains tradition of Middle America and the functionality of structures tied to farming and ranching. Anglo-American homesteaders traveling to the promised land of Colorado in search of a new livelihood and fortune needed dwelling spaces fast, as the Homestead Acts required the construction of a home, and no other options for housing were readily available along the previously unsettled open plains. Thus, the Plains tradition is typical of these flatlands east of the Mississippi, thereby developing new building techniques to suit the treeless landscape.[85]

As wood was scarce and fuel required to fire bricks was rarely distributed, regional stone or sod became primary building materials.[86] In southeastern Colorado, dirt and sod were commonly used in the construction of dugouts, buildings sunken a few feet below earth with packed dirt walls and dirt floors (Figure 15, Image A). Dugouts were usually rectangular in plan, with roofs supported by log beams and covered with smaller timbers. More elaborate dugouts would be lined with sandstone or include superstructures of stone or log.

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[82] Friedman, *Valley of Lost Souls*, 73.
[83] Ibid.
[84] Ibid., 74.
[85] McAlester, *A Field Guide to American Houses*, 86.
[86] Ibid.

Homesteaders recalled the construction of dugouts as the first dwelling structure, stating “of course we made a dugout,” an appreciated home after having spent a winter living in a tent; for one family, the dugout was a long building, a hole in the ground with a dirt roof, two windows at the south wall, and leaky earth walls.[87] Within two years, the same family constructed an eight-room, two story adobe house on the same homestead plot, an improvement to the initial small dugout.[88] Sandstone continued to be used in building construction with Anglo-American homesteaders as it had with New Mexican settlers; the local stone would be gathered nearby or roughly quarried and stacked to build structures of crude masonry (Figure 15, Image B).[89] Earthen dugouts and sandstone construction were often the first structures built on the homestead, quickly and easily constructed from nearby materials.

The late nineteenth century also brought the railroad, furthering the availability of manufactured materials for homesteads. Anglo-American houses began to follow a national model, incorporating light framing techniques into regional architecture. The smaller rectangular plan was extended to double-pen, square one-story hipped roof dwellings, and even two-story square plans, as homesteaders knowledgeable of National building styles and able to purchase framing materials through railroad supply (Figure 15, Image C).[90] Milled lumber was commonly used in roof construction, thereby replacing the earth and sod

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[87] Julie Jones-Eddy, *Homesteading Women: An Oral History of Colorado, 1890 – 1950.* (New York: Twayne Publishers, 1992), 17.
[88] Ibid.
[89] McAlester, *A Field Guide to American Houses*, 86.
[90] Haynes and Bastain, *Historical Architectural Evaluation of49 Sites in the PCMS*, Chapter 3, Page 7.

roofs of previous decades. Double-pile proportions and hipped roofs became more prominent features during the Homestead Era, as the boom period of the 1910's and 1920's encouraged settlement and construction of more elaborate homes, in contrast to the more primitive dwellings of the prior New Mexican communities. Homesteaders arriving to southeastern Colorado in the early twentieth century benefited from the use of manufactured materials, such as milled lumber, wire nails, and wood and asphalt shingles, brought to Western boom-towns by the railroad.

Regional Anglo-American architecture also followed the needs of farming and ranching operations, with buildings often tied to function.[91] The parts of a farm worked as a whole, each structure tied to the working farming or ranching landscape.[92] Dwellings, outbuildings, and corrals were "connected to one another physically and through work patterns and routes." [93] After the Dust Bowl, homesteads were often converted into ranch headquarters and planned linearly, thereby easily connected and fluid. Anglo-American ranch architecture often responded to environmental concerns, constructing dwellings with thick walls and outbuildings dug into the landscape to help heat and cool structures in the unforgiving climate (Figure 15, Image D).[94] Anglo-American architecture incorporated both national style brought by railroad and vernacular elements of functionality, including primitive dugout dwellings and working farms and ranches.

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[91] Blanton Owen, "Dry Creek: Central Nevada's Damele Ranch," in *Images of an American Land: Vernacular Architecture in the Western United States*, ed. Thomas Carter, 91 - 110. (Albuquerque, NM: University of New Mexico Press, 1997), 108.
[92] Ibid.
[93] Ibid.
[94] Ibid., 109

IMAGE A: Dugout Construction

IMAGE B: Sandstone Masonry

Figure 20: *Images of Anglo-American Construction*

IMAGE C: Massed-Plan Side-Gabled Anglo-American Dwelling

IMAGE D: Thick-Walled Dwelling at Ranch Headquarters

Figure 20: *Images of Anglo-American Construction [continued from previous page]*

The prosperity of the Homestead Era in southeastern Colorado was devastated by the Great Depression and subsequent Dust Bowl of the 1930's. Ranchers began to increase their holdings during the Depression, buying up the abandoned homesteads. The Dust Bowl, a result of the plowed lands requested by the Homestead Acts, left the landscape exhausted and unable to be farmed. Settlers were forced to move, deserting the homesteads and communities of the 1910's and 1920's. These early 20th century homes, farms and boom-towns are survived today largely by ruins, as the Depression and Dust Bowl of the 1930's left the once thriving Anglo-American settlements of the Santa Fe Trail region abandoned, neglected and forgotten.

The following case studies document and analyze the homesteads of Anglo-Americans during the early twentieth century: the dugouts, stone dwellings and frame houses that held the hopes and dreams of prosperity for pioneers looking for promise through irrigated farming. Standing as skeletons, with wagons, stoves, clothing and dinnerware left behind, these remaining homesteads contribute to the further understanding of life along the high plains for Anglo-American families. The architectural ruins, material culture, census records and land patents collectively paint a picture of settlement, and the following case studies have been determined as representative of the lost Anglo-American settlement in the Santa Fe Trail region of southeastern Colorado.

Presentation of Case Studies

The following five case studies are representative of Anglo-American architecture of the Homestead Era in southeastern Colorado. The architectural remains, material culture, and census information of each case study has led architectural historians and archaeologists to consider the site as connected to Anglo-American settlement in the region. Each site will be analyzed in terms of location, site plan, and architecture, including the number and type of evident structures. In addition, the land patent and census information will contribute to the further understanding of the case study's cultural background. The findings will be analyzed in the conclusion of this chapter, thereby reflecting on how these case studies contribute to the larger history of Anglo-American settlement in the region during the early twentieth century.

Case Study 1: Survey Site OT073

Site Type: Ranch Headquarter Complex

Location: Merker Hills vicinity

Patentee: John Mollett, 1915

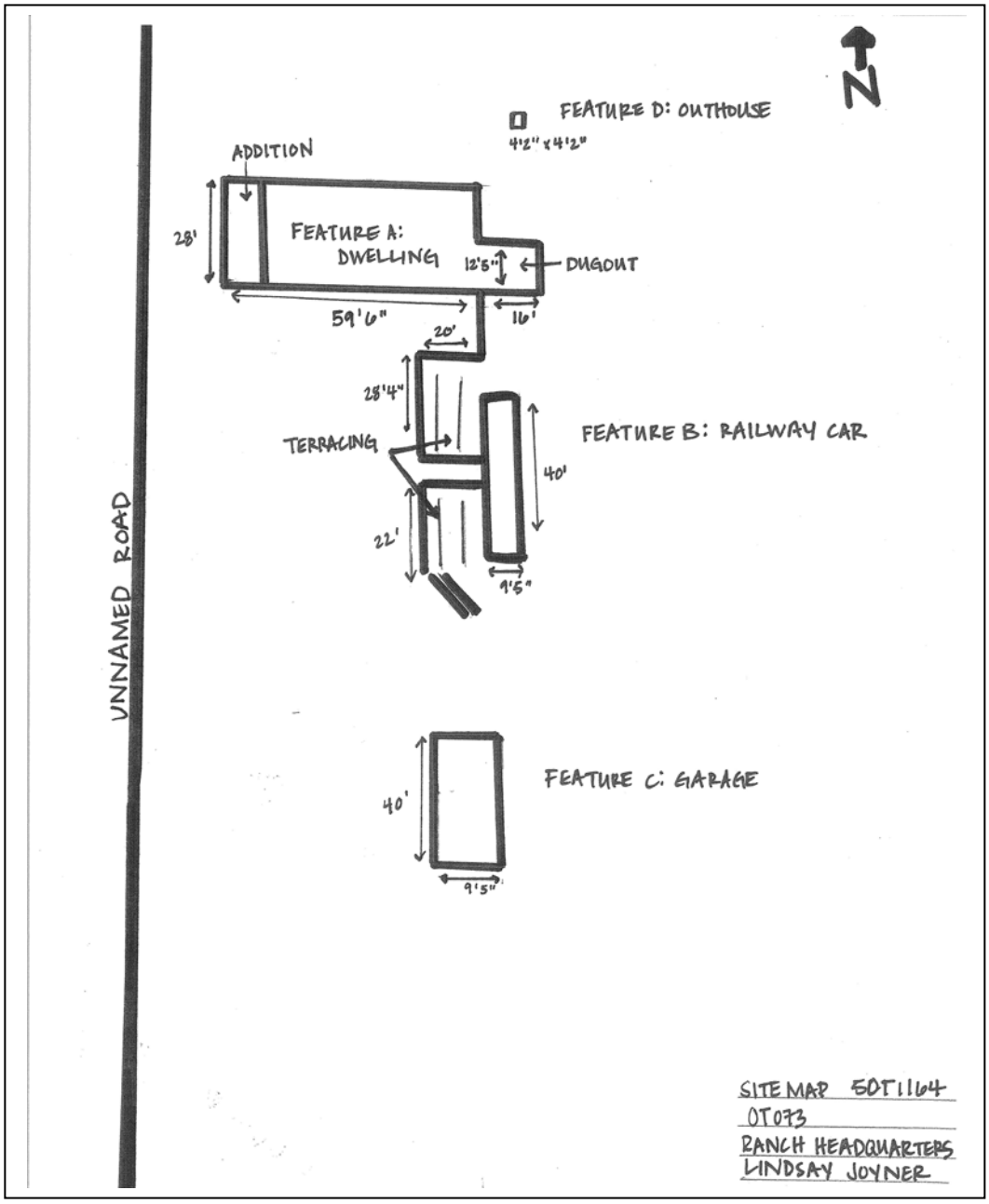

Figure 21: *Site Map of Survey Site OT073*

Northwest of the Purgatoire River, along the plains of southern Otero County are the remains of John Mollett's homesteading complex, a collection of 1920's homestead architecture (Figure 21, Site Map). Near the boom-towns of Delhi and Bloom, and only two miles south of the Santa Fe Trail, site OT073, unlike the previous New Mexican case studies, rests on the flats, below the Merker Hills to the west and Iron Springs Hills to the northeast. Not guarded by canyon walls and removed from access to the Purgatoire River, the Mollett Homestead was located over a mile from the nearest spring, the only source of water for a homestead along the high plains. However, although the site location, in terms of water and shelter, may have been less than desired, the Mollett Homestead had the advantage of being near two boom-towns and the Santa Fe Trail, thereby close to the heart of the region's commerce and trade.

The site plan for OT073 initially appears complex, as the many additions and alterations have concealed the original dugout dwelling; hence, the homestead now appears scattered and unreadable. However, a closer look at the rear of the main dwelling reveals a small dugout structure, measuring 16 feet in length and 12 ½ feet in width (Figure 22, Image A). The dugout is built into the slope and constructed of sandstone blocks with concrete mortar. The roof structure of the dugout is constructed with concrete, creating a flat roof covered by dirt and stones. This original dugout dwelling is oriented west to east, a rectangular plan, with the entry on the west elevation. Stone terracing parallels the western edge of the dugout, leading to the outhouse just north of the dugout and to a scavenged box railroad car located further south. The terracing reflects the

integration of the natural landscape into the site design, an interesting component to an Anglo-American homestead site (Figure 22, Image B).

The largest dwelling on the site is connected to the west wall of the aforementioned dugout; also oriented west to east, the main house, Feature A, is constructed of adobe block, covered by stucco, with the main entrance along the south wall, 8 feet from the west wall of the original dugout (Figure 22, Image C). Also following a rectangular plan, the main house measures about 60 feet in length and 28 feet in width, with a 15 foot in length frame extension to the west wall with a concrete foundation. A metal roof covers the structure which is side gabled and had brick chimneys at the west and east ends. Revealing the later period of homesteading, a variety of windows are evident, including sash windows with four over one lights and three light casement windows. All of the windows and doors are frame, constructed of milled lumber. A frame outhouse is located to the northeast of the dwelling, about 20 feet from the rear of the building. Although the adobe walls and stucco covering of the main dwelling may seem unusual for an Anglo-American homestead, the original stone-lined dugout, side gabled roof line, and use of manufactured materials are in the Plains tradition, merging natural and readily available materials like earth, sod and mud with modern materials brought to the region by train.

Indeed, site OT073 made the most of available materials, as evidenced on the two most interesting features of the homestead; an embanked boxcar and shed constructed of railroad ties and adobe mortar are representative of the need for construction materials leading to adaptive reuse. The boxcar, oriented north to

south with the entry on the west side, is surrounded by railroad tie terracing and a three foot stone wall along the bottom terrace (Figure 22, Image D). Located just south of the dugout, connected by terracing, the boxcar was converted into a shelter, dug into the slope with the metal roof covered by dirt. Metal doors guard the entry of the make-shift dwelling. The extensive terracing leads one to believe that the railway car was intended to be a permanent dwelling on the homestead site.

The shed (Feature C), located on the southern boundary of the site, was constructed of railroad ties atop a stone foundation (Figure 22, Image E). Adobe mortar and stone chinking remain between the railroad ties, forming the walls of the shed. A low pitch gable roof covers the shed, supported by large milled lumber roof beams. Garage doors along the west elevation serve as the main entries to the shed. The railroad ties are notched, resembling a log house. The railway car home and shed of reused railroad ties show the inventive and creative use of materials in homesteads along the high plains. Although modern materials were more available than in previous decades, Anglo-American homesteaders, like Mollett, saved time and money by reusing materials found nearby, creating a linear site, oriented north to south with a collection of dwellings and outbuildings.

The land patent and census information regarding survey site OT073 confirms the Anglo-American homesteading origins. The site was patented by John Mollett in 1915; Mollett, as recorded by the United States census of 1900, was born in Missouri in December 1877 to parents from Kentucky and Missouri. Mollett was listed as white, English-speaking and literate in 1900. Although

recorded as single in 1900, it is reasonable to believe that Mollett homesteaded this plot on the flats with a family by the year 1915.

The site is currently inhabited, with a modern dwelling just north of the original Mollett site. The railroad tie shed is for storage. The original dwelling and boxcar have been converted into bunkhouses for the ranch. Oral history, as told by the current owner, contends that the site was once a way stop for travelers along the Santa Fe Trail. The patentee and census information does not refer to this, but the site's proximity to the trail and available buildings could be evidence of the site's history as a way stop.

Shown through Mollett's homestead is the evolution of the homestead site; as settlers needed immediate housing, simple dugouts were often the first option, with larger dwellings constructed later. The linear site and numerous additions shows the development and continuation of the homestead site through the years of occupation. Furthermore, site OT073 also reflects the methods of adaptive reuse, thereby creating homes and outbuildings with found objects and materials. The linear site plan and architecture, including gabled roofs, frame windows and doors, an outhouse, and the use of railroad ties in construction, combined with the census information, seem to confirm the Mollett site as an example of early twentieth century Anglo-American homestead design.

IMAGE A: Original Dugout Dwelling

IMAGE B: Stone Terracing

Figure 22: *Images of Survey Site OT073*

IMAGE C: Main Dwelling

IMAGE D: Embanked Railway Car

Figure 22: *Images of Survey Site OT073 [continued from previous page]*

IMAGE E: Shed Constructed of Railroad Ties

Figure 22: *Images of Survey Site OT073 [continued from previous page]*

Case Study 2: Survey Site LA250

Site Type: Frame House on Homestead

Location: Villegreen vicinity

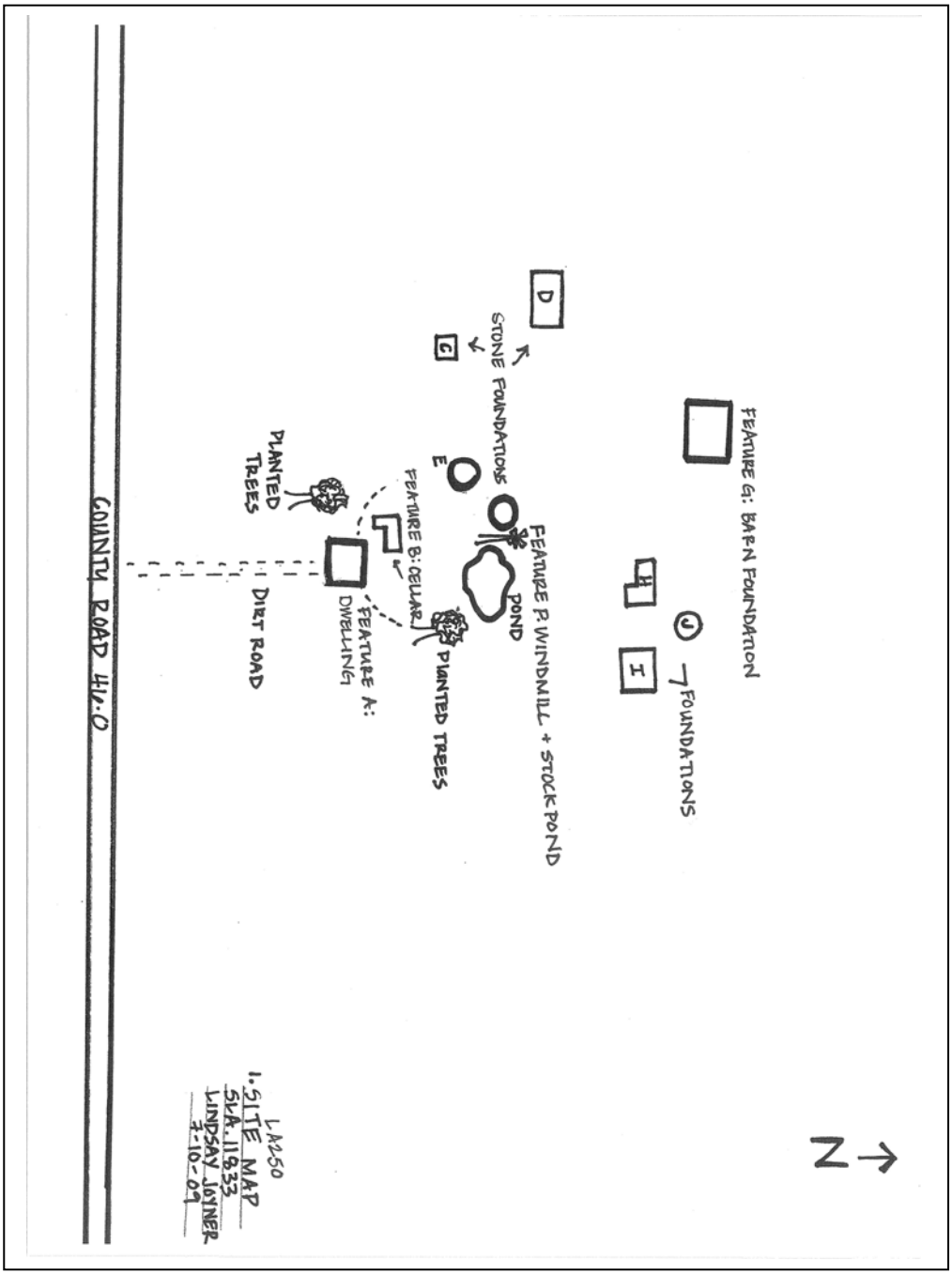

Figure 23: *Site Map of Survey Site LA250*

Four miles west of the town of Villegreen are the remains of the Collier Homestead, affectionately known to the local residents as the “leaning frame house.” Just east of the southern mouth of Chacuaco Canyon, the Collier Homestead rests on the flats above the canyon walls, opened to the plains of eastern Las Animas County (Figure 23, Site Map). A spring is located 2.25 miles south of the homestead, with several other springs surrounding the area; the nearest permanent water is found along Plum Creek, about five miles northeast of the homestead site. Although the location offers little in regard to protection from natural elements, as evidenced by the wind damage caused to the central frame dwelling, the site is conveniently located near the boom-town of Villegreen, visible from County Road 46. An ideal location for markets and commerce, the Collier Homestead iterates the Anglo-American settlement patterns along the flats, with the highest importance being the proximity to towns and railways to engage in trade.

The Collier Homestead is largely identified by the central frame dwelling, Feature A, with the south elevation facing County Road 46 (Figure 24, Image A). The frame house is the focal point of the homestead, with outbuilding foundations and a windmill surrounding the dwelling, all located to the north of the site. With a rectangular plan, measuring 25 ft by 36 ft and oriented west to east, the house is constructed on a concrete foundation, with frame walls and a side gabled frame roof covered by wood shingles. The main entry on the south elevation is at the center of the wall, flanked by two double frame sash windows on each side. The interior of the house reveals more modern elements, with wood paneling on

interior walls and wires for electricity; six interior rooms are evident as well. The frame house of site LA250 reflects Anglo-American architecture with an entirely frame house with wire nails, a side-gabled roof, sash windows, and interior rooms; the availability of milled lumber and proximity to the town of Villegreen may have enabled the construction of a modern frame house, rather than the adobe or stone dwellings of previous case studies.

All of the associated outbuildings and remaining structures are located to the north of the frame dwelling, further distanced from the county road. The remains of an L-plan stone and concrete lined cellar, Feature B, are located directly north of the house, measuring 17 feet by 8 feet (Figure 24, Image B). Used for storage, most likely the storing of food, the cellar was in close proximity to the main dwelling, therefore convenient for storage and retrieval. The use of concrete in construction seems to have been particularly popular during the 1920's, as this case study reveals many buildings with concrete foundations or coping. Of the eight remaining outbuilding foundations, four are constructed completely of concrete. Two stone paths lead northwest and northeast from the main dwelling to the outbuilding remains. A marginal stone outhouse foundation remains north of the site. The complex appears to have been quite large, with a rectangular foundation, Feature G, constructed of concrete, to the northern most boundary of the site (Figure 24, Image C); the size of the remaining foundation, 37 feet by 33 feet, suggests the possibility of a barn structure, with the smaller surrounding structures as associated agricultural outbuildings.

In addition to the many foundations, site LA250 also includes a windmill and stock tank, Feature F, both metal and barely functional (Figure 24, Image D). The windmill and tank contribute to the understanding of the homestead as a large site, tied to farming and ranching. Local accounts confirm that the site was quite expansive and that a gambrel roof barn was once located here, a possibility for the large aforementioned concrete foundation. The landscape of this homestead is particularly interesting; rather than incorporating the natural landscape, later homesteaders molded the landscape to suit their needs. For example, at this site, trees were planted west and east of the dwelling, providing shade and protection from wind. Settling along the high plains, away from permanent sources of water, Anglo-American homesteaders were forced to construct a livable site, thereby altering the natural terrain. Unlike the smaller farms and sheep camps of the previous case studies, site LA250 exemplifies the modern homestead, with modern equipment such as the windmill and stock tank, and the use of manufactured materials, as shown with the frame house.

The patentee, Clarence Collier, is confirmed by local residents stating that a man with the last name of Collier arrived in the region in 1916 and lived on the plot until the 1940's. According to the United States census of 1920, Clarence Collier was born in 1875 in Texas to parents from Georgia. Clarence was white, illiterate, and the head of a large household, including a wife and four children. The Collier family seems to fit the mold of the twentieth century Anglo-Americans in the Santa Fe Trail region; they arrived in the area from a neighboring state, Texas, patented a homestead in 1922, and constructed a dwelling and

outbuildings more familiar to the Midwestern regions of the United States. Indeed, site LA250 differs from the more typical regional architecture of stone and adobe previously identified; rather, this case study reveals the entry of Anglo-American settlement into the region. An entirely frame house, concrete barn foundation, metal windmill and stock tank, and boom-town location along the high plains are features representative of Anglo-American homesteaders in southeastern Colorado.

IMAGE A: Frame Dwelling

Figure 24: *Images of Survey Site LA250*

IMAGE B: Cellar

IMAGE C: Concrete Foundation of Possible Barn

Figure 24: *Images of Survey Site LA250 [continued from previous page]*

IMAGE D: Windmill and Stock Tank

Figure 24: *Images of Survey Site LA250 [continued from previous page]*

Case Study 3: Survey Site LA295

Site Type: Homestead with Log Dugout

Location: Seven D Pocket

Patentee: Converse Dorsey, 1923

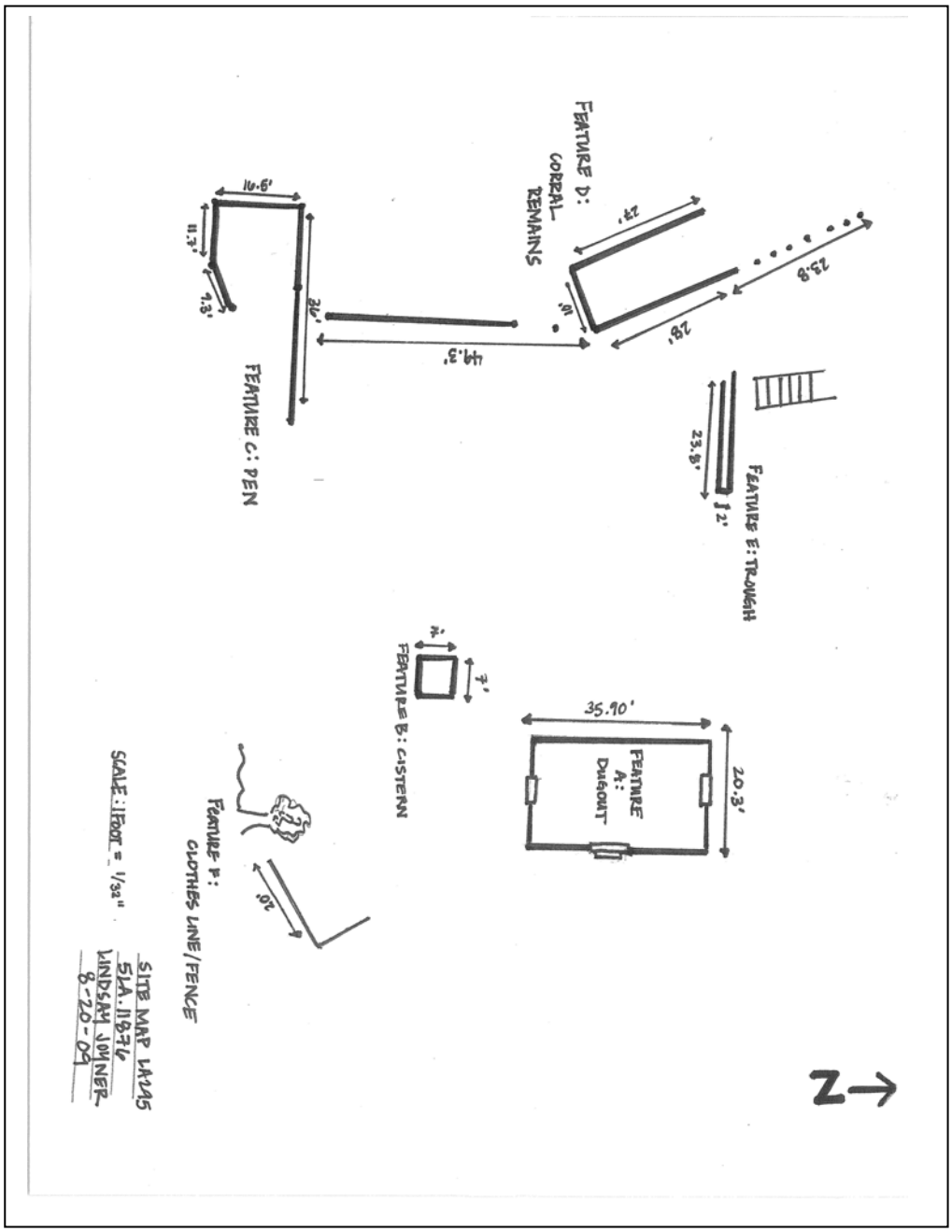

Figure 25: *Site Map of Survey Site 295*

To the east of the upper Purgatoire River, along the Seven D Pocket, are the remains of the Dorsey homestead, a small farm along the plains of northeastern Las Animas County. Canyons and arroyos surround the site, creating a ‘pocket’ of flatlands crisscrossed by valleys. Plum Creek is located 2.15 miles to the east of site LA295, providing the settlers with a permanent source of water. Less protected and a couple miles from water, the Dorsey homestead remained well secluded, removed from county roads and towns.

Site LA295 reveals unique and unusual features of vernacular architecture, such as the main dugout, Feature A, lined with stone with a three foot log high superstructure above. This main dwelling is oriented north to south, with the only entry on the east wall (Figure 26, Image A). The dugout structure measures 36 feet by 20 feet, with the logs of the superstructure having a radius of about 7 inches. Large hewn logs comprise the superstructure, atop the dugout’s stone foundation. The logs are notched, stacked atop one another, and fastened with wire nails. The dugout’s roof is flat with horizontal timbers spanning the width of the log superstructure (Figure 26, Image B). Earth, dirt and rubble lay on top of the timbers, enclosing the roof structure. Large double frame windows remain centered on the north and south elevations. The dugout combines the necessity of a dugout, constructed quickly with the need for few materials, with the Midwestern architecture of log construction. Prior to Anglo-American settlement in southeastern Colorado, log buildings were extremely rare, as adobe and stone were the primary building materials. However, the eastern influences of Dorsey,

combined with the trees in the surrounding canyons, may have been factors in the construction of an unusual log dwelling.

Located just southwest of the dugout dwelling, is a square cistern, Feature B, with all four concrete walls remaining of the substructure (Figure 26, Image C). The cisterns show the importance of on-site water, as the nearest permanent source of water was two miles away. Homesteads along the plains had to rely on wells and cisterns to provide and hold water. Other features, including pens, corrals, troughs and clothes lines, all connected to the homestead site, are located west of the main dwelling (Figure 26, Image D). The fences were constructed of vertical wood posts and barbed wire, with U-shaped enclosures. No outbuilding foundations remain, and the site seems to be a smaller homestead site, with only one main dwelling, a cistern, and a few animal pens (Figure 25, Site Map). Less extensive than other Anglo-American homestead sites of the same years, the Dorsey homestead nonetheless contributes a unique culture of architecture along the high plains of southeastern Colorado.

The Dorsey Homestead reflects the Anglo-American settlement patterns and construction methods, with the remains of a log superstructure combined dugout dwelling and small homestead site, including animal pens and fencing with barbed wire. According to the United States Census of 1920, Converse J. Dorsey was born about 1884 in Missouri; in 1920, he was the head of the household, married, had a son and daughter, spoke English and was white. This site was patented in 1924, amidst the homestead boom of the 1920's. The architecture reflects Anglo-American, rather than New Mexican, construction techniques; prior

to the homestead movement, few dwellings were constructed of log, as such architectural design was largely confined to the neighboring plains and Midwestern states. However, settlers such as Dorsey brought with them the Anglo-American, plains region, culture of design. The use of a dugout dwelling reflects the requirement for immediate housing, the lack of construction materials, and the need for a dwelling before the harsh winter set in. The combination of a log superstructure and dugout is a vernacular architectural design tied to the social history of the Homestead Era in southeastern Colorado and the entry of Anglo-Americans to a region previously settled by New Mexicans.

IMAGE A: Dugout with Log Superstructure

Figure 26: *Images of Survey Site LA295*

IMAGE B: Dugout Roof

IMAGE C: Concrete Cistern

Figure 26: *Images of Survey Site 295 [continued from previous page]*

IMAGE D: Fencing and Enclosures

Figure 26: *Images of Survey Site 295 [continued from previous page]*

Case Study 4: Survey Site LA201

Site Type: Homestead with Two-Story Stone Dwelling

Location: Chacuaco Canyon

Patentee: Dawson McDaniel, 1923

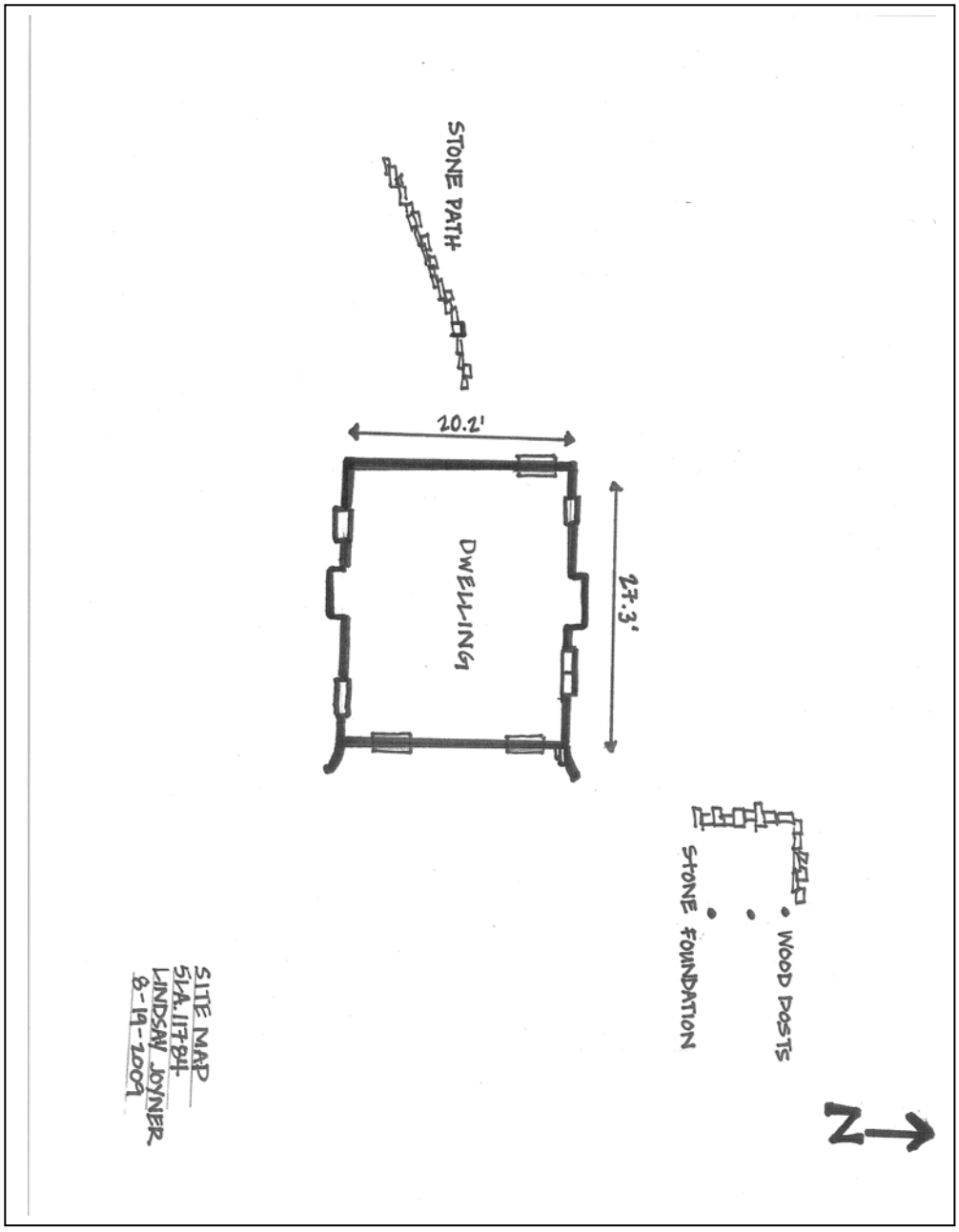

Figure 27: *Site Map of Survey Site LA201*

Along the edge of the Chacuaco Canyon, to the west of Tobe Canyon, sits a landmark in ruins – the McDaniel Homestead, a small place with a large, impressive two-story stone dwelling. Although placed on the flatlands, rather than at the base of the canyon, survey site LA201 is near arroyos and less than two miles from a spring. Hence, water, although not on site, was not inaccessible. The McDaniel Homestead was also convenient to town centers, just 5 miles west of Tobe and ten miles southwest of Villegreen. Indeed, survey site 201 seems to follow patterns of post-1909 Anglo-American settlement in the Santa Fe Trail region: located along the plains, with a small plot of land for dry-land farming, and proximate to a boom-town and thereby able to access local markets and railways.

Unlike the regionally common dugouts or simple small houses (typically one story with one rectangular room) the main dwelling of the McDaniel Homestead is two-story, constructed of finished, regular laid sandstone, the work of an experienced mason (Figure 28, Image A). The four remaining stone walls are sloped at the corners, evidence of a former gable roof. Concrete with large aggregate forms the building foundation. The dwelling is oriented east to west, with two main entrances on the east wall. The first floor is sunken of dirt, with no remains of flooring. The south wall includes a double fireplace on each story, with built in wood shelving to the west of the fireplaces. (Figure 28, Image B). A wood mantel is over the first story fireplace. The north wall also includes a chimney, once connected to a stove on the first floor. The frame windows on all walls are sunken into the wall 16 inches. A large wood beam tops the interior walls, forming lintels over the interior doors and windows. A wood plank lintel is on the second

story. Concrete plaster lines some of the interior walls. Large, hewn wood floor beams constitute the skeleton of the former second story (Figure 28, Image C). Thus the McDaniel Homestead reveals relatively sophisticated architectural treatment, as shown by its two-stories, its finely laid and finished stone, double chimneys and built-in shelving; all of these features indicate a finer residence than we have yet seen.

The homestead site appears to have been quite small, with few other foundations evident (Figure 27, Site Map). In fact, only one obvious foundation remains: a small square stone foundation directly northeast of the dwelling. A few wood posts surround the stone foundation, indicating a pen of some sort. A small stone path remains to the west of the dwelling, although where it led is unknown; an outhouse may have been located to the west of the dwelling, however no foundation is evident. Barrel hoops litter the ground around the building, showing the need to carry water from other areas to the homestead site. Many Anglo-American sites of this era include remains of material culture that reflect the need to carry water long distances; barrel hoops are the most obvious representation of this necessity.

The McDaniel Homestead represents the homestead architecture of Anglo-Americans during the 1920's with an unusual two-story structure in a region dominated by one story buildings and dugouts. As such, the McDaniel homestead reflects Eastern American forms of architecture, adapted for the southern Colorado landscape. Finished stone, stacked in regular rows, multiple stories, built-in shelving and detailed fireplaces were uncommon throughout a region

where homesteads had to be built quickly, as no other forms of housing were available. Furthermore, land patent information and census information add to the understanding of the McDaniel Homestead as settled by Anglo-Americans. According to the 1930 United States Census, Dawson McDaniel was born in 1899 in Texas to parents from North Carolina and Virginia. McDaniel was married, white, spoke English and was the head of the household. He patented this plot of land in 1923, according to the land patent. Hence, as suggested, the McDaniel Homestead survives as ruins of a former Anglo-American settlement situated along the southeastern plains and canyons of southeastern Colorado.

IMAGE A: Stone Dwelling

Figure 28: *Images of Survey Site LA201*

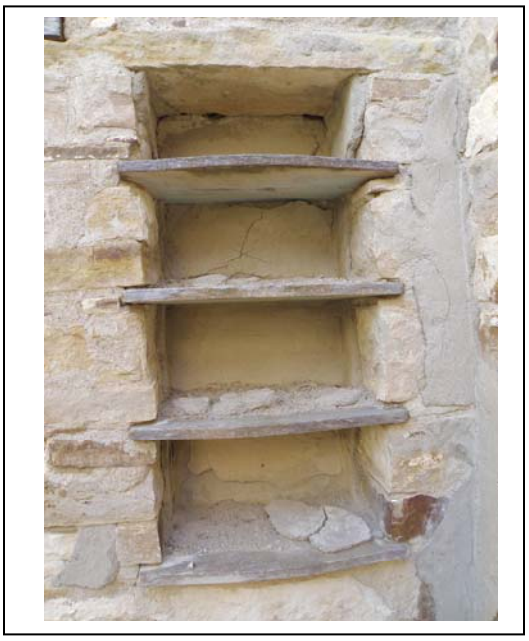

IMAGE B: Built-in Shelving on South Wall

IMAGE C: Second Story Floor Beams

Figure 28: *Images of Survey Site LA201 [continued from previous page]*

Case Study 5: Survey Site LA360

Site Type: German Immigrant Homestead and Turkey Farm

Location: Flats of Northern Las Animas County

Patentee: Frank Hils, 1923

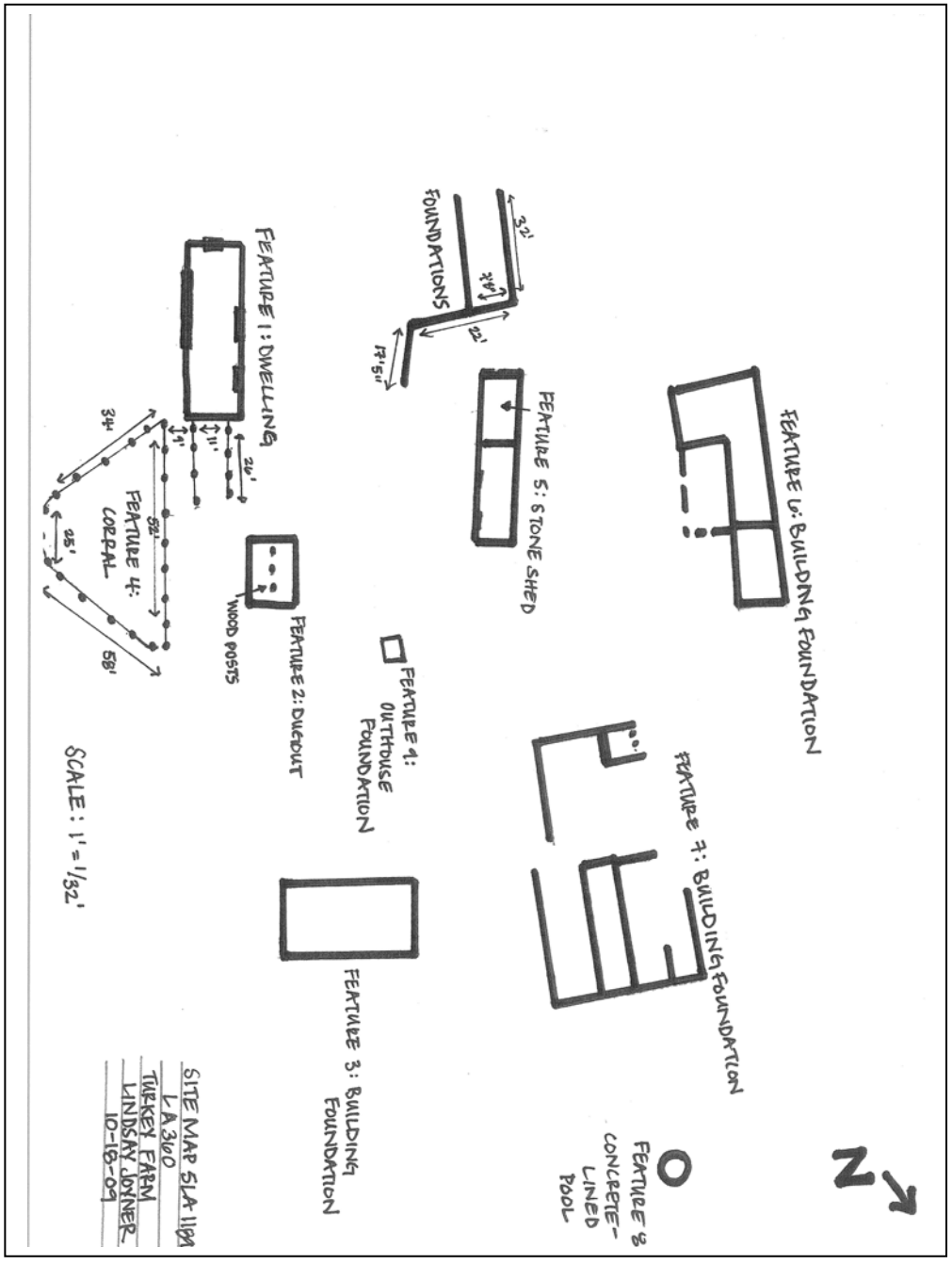

Figure 29: *Site Map of Survey Site LA360*

Away from the canyons and arroyos of southern Las Animas County, survey site LA360 is located in the plains of the northern half of the county, less than two miles north of the Santa Fe Trail. Five miles north of the town of Thatcher and two miles south of Delhi, the Hils Homestead rests on the wide open landscape, with the nearest canyons over three miles away in any direction. Poitrey Arroyo, the closest source of water other than small springs, is over a mile west. Nestled on a small hill, with views of the flats surrounding, the Hils Homestead may not be the most ideal location in terms of water or protection; however, it was convenient to towns, the railroad and Santa Fe Trail. Further from the Purgatoire River and the mesas of the southland, the Hils Homestead reflects the use of natural materials in it vicinity, incorporating the local limestone, rather than sandstone, into many of the features on site.

Locals recall survey site LA360 as the homestead of German immigrants, using the land to farm turkeys. Indeed, the complex is quite large, with nine features still evident (Figure 29, Site Map). The largest dwelling, Feature 1, is a rectangular dugout measuring 17 feet by 50 feet and lined with stone, located at the center of the site. The dugout is constructed of double-laid limestone with adobe mortar and a hewn log gabled roof (Figure 30, Image A). The stones are laid in regular rows and are of various sizes, averaging 1 ½ feet in length and 3 inches in height. The low pitch front gable, with one large log roof beam with smaller timbers overlapping, has begun to fall, revealing only the skeleton of the remaining roof beams. The dugout dwelling is oriented west to east, with the south elevation including the main entry and the north elevation built into the

slope. The dugout interior is divided into two rooms by an interior stone wall. The north, west, and south elevations include frame windows, with a larger frame window sill on the south wall, measuring 15 1/5 feet in length. The use of long, flat limestone and shale and gabled log roof are architectural elements not found in other case studies; the entire site of the Hils Homestead reveals atypical designs and construction techniques, largely attributed to the German origin of the settlers.

A smaller dugout, Feature 2, is located east of the main dwelling, (Figure 30, Image B) measuring 18 feet by 15 feet (a more square plan) and incorporates the same limestone and earth mortar for the dugout walls. A front-gabled log roof remains, with hand-hewn logs, central supports, and a rise over run of 3 over 7. Pieces of milled lumber are evident in the roof construction, although piñon and juniper dominate as log construction materials.

Many of the other foundations reveal themselves as outbuildings, likely used in conjunction with the turkey industry. The largest remaining foundation, Feature 7, sits at the north boundary of the site, a stone foundation with interior divisions evident, including a possible terrace area. This foundation combines the use of many materials, including railroad ties, limestone, and milled lumber. With at least four interior divisions evident, it may have been used for animal pens. Other remaining features include a square-plan shed (Feature 5) of milled lumber, limestone and a flat frame roof, concrete lined round cistern, rectangular foundation (Feature 6) of wood posts and railroad ties, and a marginal (deflated and barely visible) outhouse foundation (Feature 9) (Figure 30, Image C). A corral of wood posts, Feature 4, remains to the east of the main dugout dwelling (Figure

30, Image D). The site plan appears to have no conceptualized order, with building foundations scattered about along the small hill (Figure 29, Site Map).

The Hil Homestead incorporates log construction much more than other case studies; every feature and foundation seems to use hewn logs, railroad ties, or both, for assembly of the walls or roof. Furthermore, the homestead architecture is largely constructed of the nearby limestone, rather than quarried sandstone, as shown in every other case study with stonework. The Hils looked to the natural environment for stone, although brittle limestone in many cases, and for logs, using both piñon and juniper; however, the German homesteaders also adaptively reused railroad ties for outbuilding architecture.

The patent and census information confirms the local memory of German homesteaders. Frank Hils homesteaded the location in 1923. According to the United States Census of 1930, Hils was born in Germany in 1875 to parents both from Germany. In 1930, Hils was single, white, literate, spoke English and German, and was considered a ‘hired hand’ rather than the head of a household. Hils immigrated with his girlfriend, Christina Doll, who also lived at the homestead site and is listed as the head of the household. The couple immigrated to the United States in 1910. Neighbors recall Hil and Doll living on the homestead until the late 1930’s, farming the flats and raising turkeys.

The Hils Homestead exhibits the Anglo-American culture of architecture in the region through the use of log construction, gabled roofs, and dugout dwellings. The heavy use of log construction, however, may be attributed to the German origin of the settlers. Survey site LA360 reveals a large farm complex and

interesting architecture, incorporating both the natural environment, with limestone as a primary construction material, and the adaptive reuse of railroad ties for structural support.

IMAGE A: Main Dugout Dwelling

IMAGE B: Dugout, east of Main Dwelling

Figure 30: *Images of Survey Site LA360*

IMAGE C: Small Shed

IMAGE D: Corral Area, East of Main Dugout Dwelling

Figure 30: *Images of Survey Site LA360 [continued from previous page]*

Analysis of Anglo-American Case Studies

The five case studies represent Anglo-American architecture found in the Santa Fe Trail region, although in varying ways. While some exhibit very vernacular forms of architecture, such as the dugout with log superstructure of Case Study 3 (LA295), other sites show more refined, even ornate, design features, like the modern frame house of Case Study 2 (LA201) and the two-story finished stone dwelling of Case Study 4 (LA201). Each site reveals Anglo-American forms of architecture, either through the use of milled lumber, v-notched hewn logs, gabled roof construction, or earthen or stone-lined dugouts. Furthermore, many of the case studies seem to use a combination of construction materials, including the adaptive reuse of railroad ties, railway cars, and natural landscape features. The mix of architecture features and materials in all the Anglo-American case study shows the availability of manufactured pieces combined with the need for low cost, immediate and durable materials.

Many of the post-1909 Homestead Era dwellings of Anglo-Americans in southeastern Colorado followed the Plains tradition, using wood-frame and log construction traditions.[95] Large logs were found in nearby canyons, while smaller timbers of juniper and piñon could be found along the flats. Walls entirely made of framed wood were uncommon, however, as railroads had to ship manufactured products to the region, thereby making them costly and unavailable to many.[96] Hence, the frame dwelling of Case Study 2 (LA201) shows many modern

[95] McAlester, *A Field Guide to American Houses*, 86.
[96] Ibid.

elements, including wiring for electricity and proximity to a boom-town, indicating that the family was better off than surrounding homesteaders.

Often the architecture of homesteads started with an initial structure, usually a dugout or small, single room building. Earth walls, recalling the sod tradition of Plains architecture, were dug to construct a dugout, creating an inexpensive, fast and fire-proof dwelling for the first few homesteading years. As the growth of towns and availability of other supplies increased through railroad transportation, these simple vernacular forms were sometimes modified to reflect national trends, such as double-pen and hall and parlor plans and two-story buildings, as evidenced by the two-story stone dwelling in Case Study 4 (LA201).[97] Side gabled and hipped roofs became more common, as national designs became increasingly popular and tried across the Plains. Hence, although very vernacular, many of the case studies reveal features of more stylish appearance, thereby altering regional flat roofs and masonry construction to follow larger architectural trends.

The landscape of Anglo-American homesteaders of the early twentieth century is also culturally defined; differing from the plaza formations of the New Mexican settlers, Anglo-Americans took up 640-acre tracts of land and lived on individual ranches with their immediate families, rather than within fortified communities.[98] The Anglo-American homesteaders farmed, usually dry-land, and sometimes raised animals, such as cattle and turkeys. They were not defined by the sheep industry of the New Mexican settlers. Rather, the Anglo-Americans of

[97] Hayne and Bastian, *Historical Architectural Evaluation of 49 Sites in the PCMS*, Chapter 3, page 7.
[98] Friedman, *Valley of Lost Souls*, 72.

southeastern Colorado farmed the land hard, arriving in the region with little more than a few necessities and building up from there.[99] Furthermore, as shown in all the case studies of this chapter, homestead plots of the twentieth century were along the flats, not sheltered within canyons. Therefore, later settlers were forced to gather water, often over two miles away, and the construction of wells, concrete cisterns and remains of barrel hoops on many of the sites serve as reminders of the burden of water for homesteaders. Locations near boom-towns tended to be most ideal in the twentieth century, as the proximity to markets was of importance to all farmers alike. As such, the Anglo-American homestead culture reveals itself largely along the plains, open to the elements, yet in proximity to trade and commerce.

The most interesting elements identified through the Anglo-American case studies are the adaptive reuse of materials and objects, such as railroad ties and railway cars. This combination of the natural landscape, manufactured materials, and found items is evident in all of the case studies, showing both the desire for modern materials and the practicality and cost effectiveness of adaptable items, such as railroad ties. Table 5 charts how each case study incorporates traditionally Anglo-American architectural features; although no case study is identical to any other, each contributes to the larger understanding of Anglo-American, and Plains, architecture in the region.

[99] Ibid.

Table 5: *Chart of Anglo-American Architectural Features by Case Study*

	Cistern	Dugout	Gabled Roof	Located on the Flats	Log Construction	Milled Lumber	Railroad Ties
Case Study 1		X	X	X		X	X
Case Study 2	X		X	X		X	
Case Study 3		X	X	X	X	X	
Case Study 4			X	X		X	
Case Study 5	X	X	X	X	X	X	X

The Anglo-American case studies relate to one another through landscape and architecture. Both Case Study 3 (LA295) and Case Study 4 (LA201) reveal smaller homesteaders, with few pens and outbuilding foundations, while the other three case studies show more complex homesteads, with several corral systems and building remains. However, no matter the size of the site, each homestead presented through the case studies is located along the flatlands, farming the surrounding plains. Furthermore, some of the sites exhibit more refined features, such as the frame dwelling of Case Study 2 (LA250) and the two-story stone dwelling of Case Study 4 (LA201); however, even the more vernacular sites show modern features, although not as extensive, like the gabled roofs atop dugouts of Case Study 5 (LA360) and the frame windows and barbed wire of Case Study 3 (LA295). Hence, the Anglo-American homesteads, located on the highlands, further from sources of water, all exhibited modern elements, combined with the plains tradition of architecture. Unlike the canyon sites, adobe walls, flat roofs and

jacal fences of the New Mexican culture of architecture, the Anglo-American settlers of southeastern Colorado focused on individual homesteads with culturally familiar forms of architecture, constructed with manufactured materials, natural features, and found reusable resources.

CHAPTER 5

COMBINED CULTURES OF ARCHITECTURE IN THE SANTA FE TRAIL REGION

Presentation of 'Combined Culture' Case Studies

Although the ten previous case studies have been attributed to either New Mexican or Anglo-American settlement, some of the surveyed sites do not fall neatly into one culture and are thereby considered sites displaying mixed architectural features. Five sites are presented in this chapter that display characteristics indefinable as only New Mexican or Anglo-American. The frontier of southeastern Colorado, along the Mountain Branch of the Santa Fe Trail, became a region of mixed settlement; although the New Mexican pioneers arrived in the late nineteenth century, and the Anglo-Americans in the early twentieth century, architectural styles were adopted according to regional design, and construction techniques and adaptive reuse of homesteads tended to reflect the blending of cultures. This chapter considers what elements of each case study can be attributed to a culture and how the site became a mixture of architecture. Interestingly, local residents of the region believe that the Anglo-American homesteaders of the twentieth century "imitated the Hispanic construction

techniques they observed upon arrival"; this theory of adaptation of regional architecture is one to be further explored.[100]

Case Study 1: Survey Site LA175

Site Type: Small Homestead with Concrete Dam

Location: Plum Canyon

Patentee: Clarence F. Briggs, 1920

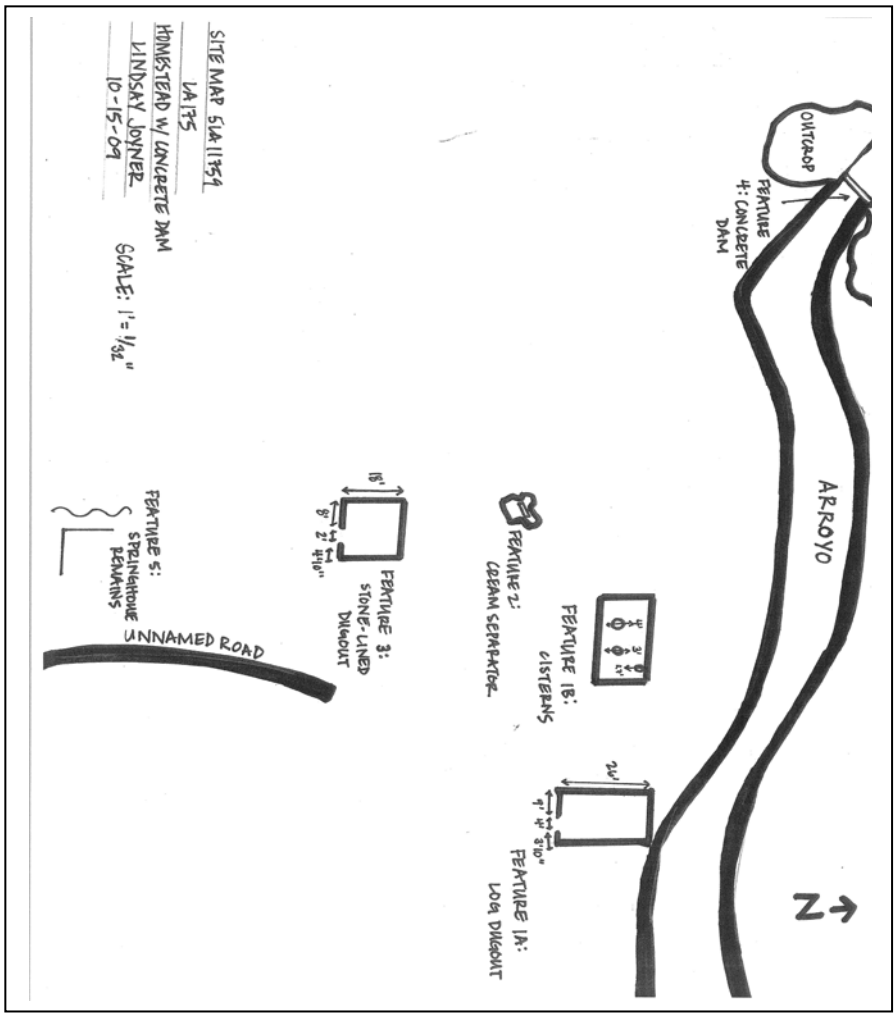

Figure 31: *Site Map of Survey Site LA175*

[100] Haynes & Bastain, *Historical Architectural Evaluation of 49 Sites in the PCMS*, Chapter 3, page 4.

Hidden deep within Plum Canyon is the small homestead of Clarence Briggs, isolated and secluded just north of the Briggs Canyon offshoot of Plum Canyon. Although remote, the site reveals the ingenuity of settlers in regard in homestead locations. A spring is located about half a mile south of the homestead site, where a springhouse remains. However, the most impressive use of the natural landscape is the small concrete dam created at the northwest boundary of the homestead, about .75 miles from the dwelling, with metal piping leading from the dam base along the arroyo to the family's living space (Figure 32, Image A). Tucked away between canyon walls, the dam collected water to be used by the homesteaders, a resourceful way to use the natural landscape to serve water needs.

Survey site LA175's homestead location between canyons and arroyos, and the inventive use of the natural landscape in site design, is reminiscent of New Mexican Case Study 1 (LA091), as both homesteads include convenient springhouses and incorporate the natural landscape in architecture. Survey site LA091, patented by New Mexicans settlers in 1885, includes many architectural components located deep within canyon walls, rather than along the flats. Furthermore, the comparable New Mexican site of LA091 featured the use of a rock outcropping to provide shelter, divert and collect water and create animal enclosures. Although the dwellings and outbuildings of survey site LA175 are constructed independently from canyon walls and outcroppings, the isolated

location and reliance on the natural landscape in site construction are features of homestead design most closely attributed to New Mexican settlements.

The architecture of the site largely follows Anglo-American vernacular architecture tradition, with dugouts, concrete cisterns and remains of frame buildings (Figure 31, Site Map). However, although the types of the dwellings (dugouts rather than stone or adobe houses) are Anglo-American in design, the roof construction of the site's dugout resembles a more New Mexican construction technique. For instance, the main dwelling, of the site, a two-room rectangular dugout with no stone lining (only earthen walls) appears to have had a flat roof with *vigas* and *latillas* (Figure 32, Image B). This dugout structure, Feature 1A, is quite large, measuring 25 ½ feet by 17 feet, oriented west to east with the entry on the east wall. The size of the dugout, and the use of hewn logs, is comparable to Anglo-American Case Study 3 (LA295); however, although similar in size, shape and construction materials, Anglo-American site LA295 includes a larger, 3 feet high, log superstructure, rather smaller (one or two log high) superstructure, and earthen walls of this case study, LA175. The logs of LA175 serve as sills, allowing the roof to rest upon the top log. Hence, the dugout dwelling seems to be a combination of the Anglo-American dugout architecture with a New Mexican roof system, with three main *vigas* spanning north to south and *latillas* covering the *vigas*. The *vigas* are constructed of hewn cottonwood and ponderosa, with the *latillas* of juniper. This combination of Anglo-American forms of architecture, such as the large dugout with log sills, with a New Mexican roof-type further

reveals the complexity of the site, unable to be categorized as representative of only one culture.

A smaller, 18 feet by 15 feet, stone-lined dugout, Feature 3, is located at the southern end of the site, near the former springhouse (Figure 32, Image C). Stone lines the top section of the dugout, to prevent collapsing. Flat slabs of sandstone, rough and unfinished, form the stone lining. Juniper and piñon are used in the construction of another flat roof, although missing the large central *vigas* of the larger dugout structure. This dugout, with sandstone lining, suggests a more Anglo-American form of architecture, aligned with the Plains tradition of the twentieth century.

Concrete cisterns, just west of the main dugout, further reveal homesteader's attempts at acquiring the necessary water (Figure 32, Image D). Each cistern measures about 4 feet in diameter, constructed of concrete with sandstone aggregate. Pieces of glass are placed in the concrete surrounding the cisterns, as decoration. A small concrete filter, including a metal pipe to transfer the water, is located beside the cistern, measuring 1.7 feet in diameter. The use of concrete, and the need for cisterns, is largely unseen among the New Mexican case studies, as many of the New Mexican plaza settlements tended to be close enough to water sources that cisterns were not essential.

More confusing, the site LA175 has an Anglo-American patentee; Clarence F. Briggs, born in Colorado in 1892 to parents from Canada and Colorado, patented the property in 1920. Briggs was white, literate, spoke English and was the head of the household with a wife and two small children. The Briggs site

overall takes on an Anglo-American appearance, with a small homestead plot, serving an individual family, dugout dwellings and concrete cisterns (Figure 31, Site Map). However, the site cannot be claimed as entirely Anglo-American in design due to the landscape elements, incorporation of the natural surroundings, canyon site location, and flat roof, hewn log, construction techniques. Indeed, the Briggs homestead reveals a combination of vernacular architecture, regionally appropriate yet unidentifiable as aligned to one culture of architecture.

IMAGE A: Concrete Dam

IMAGE B: Main Dugout Dwelling

Figure 32: *Images of Survey Site LA175*

IMAGE C: Stone-Lined Dugout

IMAGE D: Concrete Cisterns and Filter

Figure 32: *Images of Survey Site LA175 [continued from previous page]*

Case Study 2: Survey Site OT057

Site Type: Homestead Site on the Flatlands

Location: Southern Otero County, southeast of King Arroyo

Patentee: William Allison, 1924

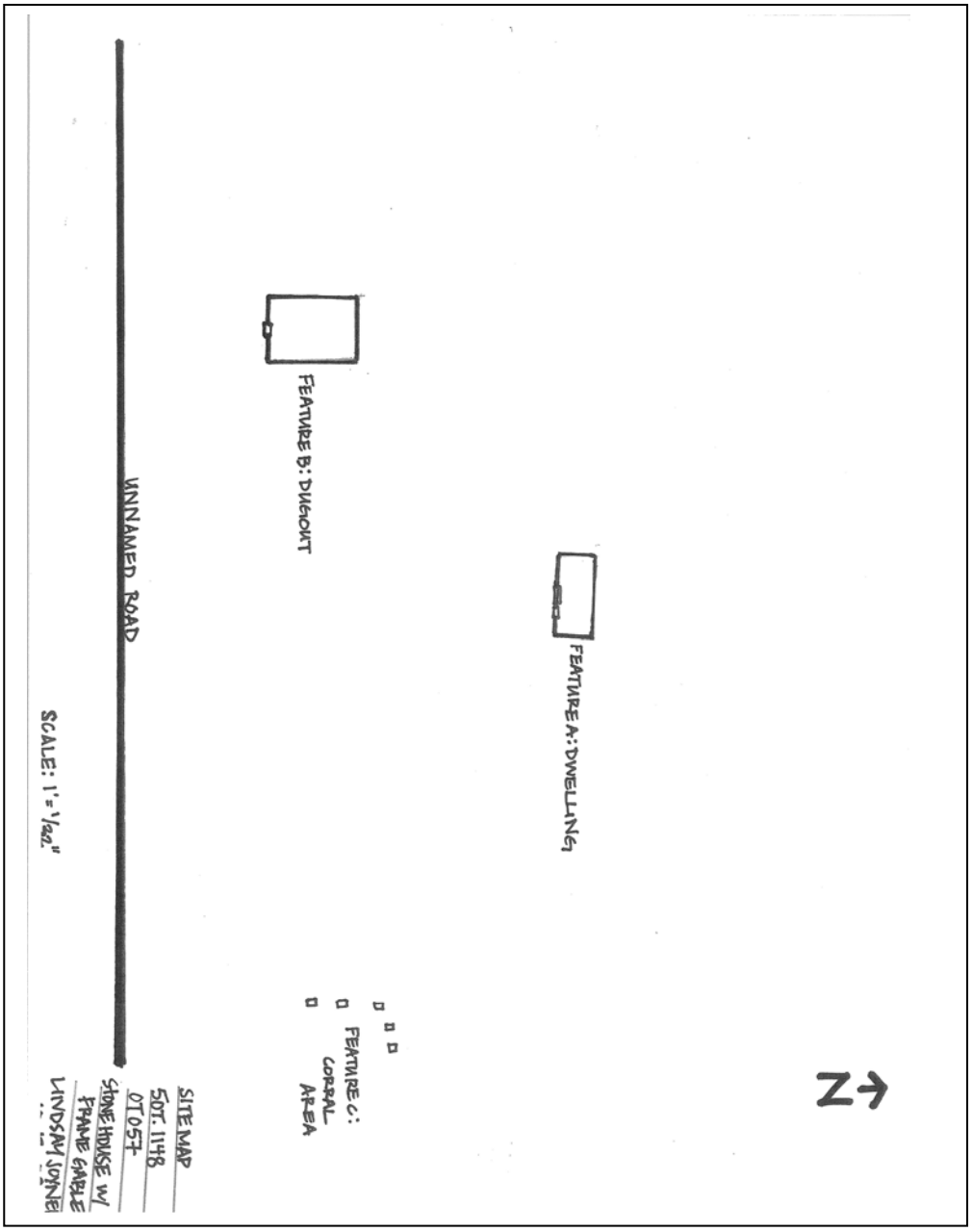

Figure 33: *Site Map of Survey Site OT057*

Along the prairie of southern Otero County, southeast of King Arroyo, sits the remains of the Allison Homestead, a small site including a stone dwelling, dugout, and corral remains. The site is located along the flats, east of Comanche National Grasslands, with few water sources nearby. The flatlands of the Santa Fe Trail region offered little in terms of accessibility to water. A spring is located about one mile south of the homestead plot, and the Purgatoire River, the closest permanent water source, is over seven miles east of the site. Unlike the previous case study, the Allison Homestead remains unprotected by canyons, open to natural elements, visible from miles away along the open plains. The landscape of the Allison Homestead is similar to that of Anglo-American Case Study 2 (LA250), the leaning frame house. Both sites remain on the flats, distant from the canyons and arroyos of the region evident in the landscape of other case studies. A less than ideal homestead plot, the survey site OT057 appears to be Anglo-American in landscape, being an individual homestead on the flatlands removed from water and protection; however, architectural elements suggests New Mexican influence, making this site another of ‘combined cultures’ (Figure 33, Site Map).

The main dwelling, Feature A, on site OT057 is a stone house, located at the center of the homestead plot (Figure 34, Image A). The dwelling is rectangular in plan and oriented west to east, with the main entrance on the south wall. The walls are constructed of shale and adobe mortar. Adobe plaster is evident on remaining interior walls. The only remains of windows and an entry are located on the south elevation, with milled lumber framing surrounding the remains of the double window. Most interesting regarding the main dwelling are the corner

fireplace and frame roof, two elements not usually combined within one structure. The corner fireplace, constructed of concrete blocks, is in the southwest interior corner of the interior, measuring 3 ft (length) by 2 ½ ft (width) at the foundation (Figure 34, Image B). Corner fireplaces are most typical of New Mexican architecture, as shown in New Mexican Case Study 3 (LA158). However, the dwelling also includes a frame roof structure, side-gabled and constructed of milled lumber and wire nails (Figure 34, Image C). The gable and construction material of milled lumber is attributed to the Anglo-American culture of architecture, with a gable roof shown in all five of the previously presented Anglo-American case studies. Hence, the Allison Homestead shows juxtaposition between cultures, not clearly defined as either New Mexican or Anglo-American.

The site also includes a dugout dwelling, Feature B, to the west of the stone house (Figure 34, Image D). The dugout has a rectangular in plan, oriented north to south, with the entry on the south wall. All walls are of concrete, and the dugout is sunken one story below the surface of earth. Only the concrete walls remain, lining the interior. The dugout resembles more Anglo-American forms of architecture, with the use of concrete combined with a sub-surface dwelling, a quick and inexpensive form of shelter for a homestead exposed along the plains of southeastern Colorado. Corral posts are also evident at the eastern boundary of the site. A smaller homestead site, with only three evident features, the Allison Homestead follows the plan of the individual Anglo-American homestead site while also incorporating New Mexican architectural features, as shown with the main stone dwelling.

Although the census records cannot narrow down William Allison, the name suggests an Anglo-American patentee, settling the homestead plot in 1924, during the region's Homestead Era. The combination of cultures evident within the Allison Homestead site does not lead to one determined answer. While the site plan, frame roof structure, concrete-lined dugout, and patentee suggest Anglo-American tradition, the corner fireplace and masonry construction of the main dwelling are more typical of New Mexican design. Hence, the Allison Homestead, is considered a site with a combination of cultures, with vernacular architecture not attributable to only one culture of construction and design.

IMAGE A: Main Dwelling

Figure 34: *Images of Survey Site OT057*

IMAGE B: Corner Fireplace of Main Dwelling

IMAGE C: Frame Roof on Main Dwelling

Figure 34: *Images of Survey Site OT057 [continued from previous page]*

IMAGE D: Concrete-Lined Dugout

Figure 34: *Images of Survey Site OT057 [continued from previous page]*

Case Study 3: Survey Site LA-256

Site Type: Homestead Dwelling with Corner and Central Fireplaces

Location: West of Plum Creek, Southern Las Animas County

Patentee: Carl G. White, 1923

Along the flatlands of southern Las Animas County stand the remains of the White Homestead, a single dwelling constructed of stone and adobe mortar. A small plot, the White Homestead is three miles southeast of the town of Villegreen, 1.25 miles west of Plum Creek and two miles east of Poitrey Creek. A central location, thereby relatively near commerce and sources of water, the homestead remains exposed on the plains of southeastern Colorado. The flat, open landscape follows that of previous Anglo-American case studies (LA250, in particular). Furthermore, the proximity to town and available flat farmland are characteristics of settlement more closely defined as Anglo-American. However, the location of LA256 alone does not identify the site as Anglo-American; the architecture of the site must be considered, and many elements of the homestead design suggest New Mexican influence. Hence, the White Homestead presents another combination of cultures.

The dwelling of site LA256 remains as a ruin, with only partial walls of sandstone and adobe mortar standing (Figure 35, Image A). The sandstone blocks are large and irregularly laid. The building appears to have had a rectangular plan, with a rectangular addition to the south of the original structure. The addition is constructed of rough fieldstone and adobe mortar, reflecting a rubble style of masonry construction (Figure 35, Image B). A flat roof was likely to

have overlaid the stone walls; however no evidence of a roof structure remains. The use of sandstone and adobe mortar, without a gable roof or milled lumber, suggests New Mexican culture, as all of the New Mexican case studies presented in Chapter 3 included dwellings of sandstone masonry and adobe mortar.

The White Homestead is unique, however, in the location of fireplaces; the original dwelling includes a central fireplace, while the addition was constructed with a corner fireplace, a New Mexican design feature. The central fireplace has larger stones, placed in more regular rows (Figure 35, Image C). In contrast, the addition's corner fireplace includes rough fieldstone not as well laid as the central fireplace. The combination of fireplaces in one dwelling reflects the merging of cultures, as central fireplaces were more common to Anglo-American tradition and corner fireplaces are attributed to New Mexican patterns of architecture.

Clarifying matters is the patentee information that suggests an Anglo-American settlement: Carl G. White patented the plot on June 13, 1923, and according to the United States Census of 1920, White was a Caucasian born in 1898 in Oklahoma to parents from Georgia. White spoke English, was literate, and is listed as a farm laborer. As of 1920, White was single. These records may better explain the small homestead plot, as an extended family was not cared for. However, still in question are how the New Mexican architectural elements of the stone dwelling and corner fireplace came to be constructed on an Anglo-American homestead. While the location, size of the homestead, and patentee may reveal Anglo-American tendencies, the architecture of the main dwelling seems New Mexican, more closely related to the New Mexican case studies previously

presented. Hence, LA256 leaves architectural historians unclear on how the elements of vernacular architecture on the site connect with the overall landscape and setting of the homestead. Indeed, the White Homestead offers no definite answer on how New Mexican architecture relates to the open prairie site and individual homestead of Anglo-American settlement.

IMAGE A: Main Dwelling

IMAGE B: Addition to Main Dwelling

Figure 35: *Images of Survey Site LA256*

IMAGE C: Central Fireplace

Figure 35: *Images of Survey Site LA256 [continued from previous page]*

Case Study 4: Survey Site LA054

Site Type: Homestead Complex in Canyon

Location: Woods Canyon

Patentee: Not Available

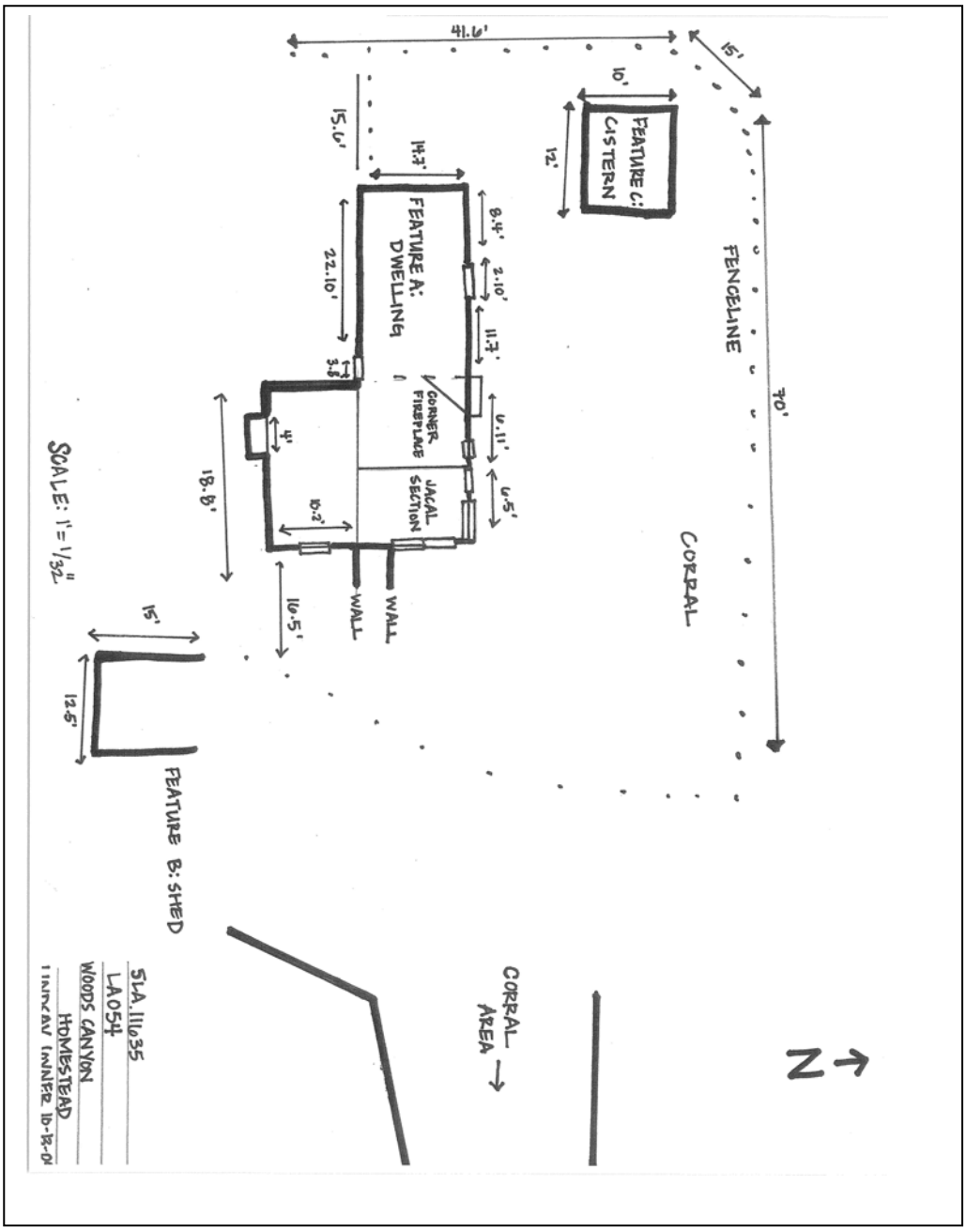

Figure 36: *Site Map of Survey Site LA054*

Survey site LA054 can be found deep within Woods Canyon, at the border of northern Las Animas County with Pueblo County. Just north of South Canyon, the unidentifiable homestead complex remains secluded by canyon walls and protected from view. An ideal location, the homestead is located less than a quarter of a mile from Lily Pond Spring. The site is approximately sixteen miles northwest of the town of Thatcher and the Santa Fe Trail. Although further from boom-towns and commerce, survey site LA256 is nicely situated within Woods Canyon, near water and sheltered from harsh winds and winter weather. The site location is reminiscent of New Mexican case studies; like New Mexican Case Study 1 (LA091), this site is surrounded by canyon walls, boxed in by high ledges and difficult to access. The land surrounding the homestead is not the flat prairie preferred by Anglo-American dry-land farmers. Rather, survey site LA054 terrain is rocky and uneven, thereby less suitable for farming practices.

A large dwelling, L- plan, measuring 43 feet by 25 feet, with many additions, is located at the center of the site; the house, Feature A, is constructed of many materials, including a jacal section at the northeast corner, sandstone masonry with adobe mortar on the northeast, west and south walls, a brick chimney and a roof of milled lumber (Figure 37, Image A). The masonry sections are well finished with high quality stone, double-laid, and stacked in somewhat regular rows with concrete pointing. The jacal section looks to be a later addition, adaptively reusing railroad ties as vertical members on the east side and horizontal members on the north side, covered with chicken wire and stucco. Concrete stucco lines the exposed interior walls of the dwelling. The roof of the

dwelling included a central log with milled lumber planks laid across it, nailed with wire nails, and covered with dirt. The southern section of the dwelling is built into the slope, thereby incorporating the natural landscape with architecture. One of the most interesting features of the homestead is the angled fireplace at the center of the northwest section; the fireplace appears to have once been a corner fireplace and when the west wall was removed to create an addition, the fireplace remained angled to the east (Figure 37, Image B). Many elements of this homestead suggest New Mexican settlement: the fine masonry, flat roof, incorporation of the natural landscape, and corner fireplace are features typical of New Mexican design. However, the use of railroad ties, milled lumber, wire nails, and bricks not only reveal a later settlement date, they are more commonly attributed to Anglo-American settlement. Hence, the central dwelling of LA054 is an amalgamation of architectural traditions, a hodge-podge of New Mexican masonry with Anglo-American frame construction and the use of modern, non-regional, materials.

The complex includes surrounding features as well (Figure 36, Site Map). A shed area, Feature B, is also built into the slope and located to the east of the dwelling (Figure 37, Image C). The shed is constructed of large vertical logs packed with mortar. The large logs seem more typical of Anglo-American design, but the use of the natural slope was a feature found throughout the New Mexican case studies. A large cistern, Feature C, sits just northwest of the main dwelling and is constructed of high quality stone with beaded mortar joints of concrete (Figure 37, Image D). The cistern probably held water from the nearby spring,

although the size of the structure, 12 feet by 10 feet, is larger than previously surveyed cisterns. Cisterns, found on three of the five Anglo-American case study sites, are typical of Anglo-American settlement. However, sandstone construction and the use of the natural slope are designs typical of New Mexican architecture. Once again, the homestead of site LA054 seems to follow no coherent culture of design.

Corrals surround the structures, with wood posts forming an enclosure around the dwelling, most likely used to keep animals out, and further corral and pen posts to the east of the site. The further corral area includes an embanked southern wall. All of the corral posts are wood with barbed wire used for fencing. The extensive corral areas suggest the raising of livestock, probably cattle. Locals recall the site being part of the Reynolds Ranch in the 1910's, a cattle operation, and the barbed wire confirms the site being occupied during the twentieth century, rather than earlier. Although no patentee information is available on this site due to the property not being sectioned within township and ranges, the local memory is of an Anglo-American settlement, part of a larger ranching operation.

The combination of cultures on site LA054 is reflected through the use of the landscape, masonry construction, framing techniques, need for a cistern and corral system; all of these details, although concealed and confused by additions and alterations, lead architectural historians to consider the site as a blend of Anglo-American and New Mexican traditions of architecture. The site cannot be read as solely Anglo-American, although it may have operated as part of an Anglo-American cattle ranching company, due to the numerous elements of New

Mexican design and construction techniques the dwelling and surrounding features display.

IMAGE A: Main Dwelling

IMAGE B: Fireplace of Main Dwelling

Figure 37: *Images of Survey Site LA054*

IMAGE C: Shed

IMAGE D: Cistern

Figure 37: *Images of Survey Site LA054 [continued from previous page]*

Case Study 5: Survey Site OT-16

Site Type: Ranch Headquarter Complex

Location: Jack Canyon Vicinity

Patentee: Filomeno Martinez, 1904

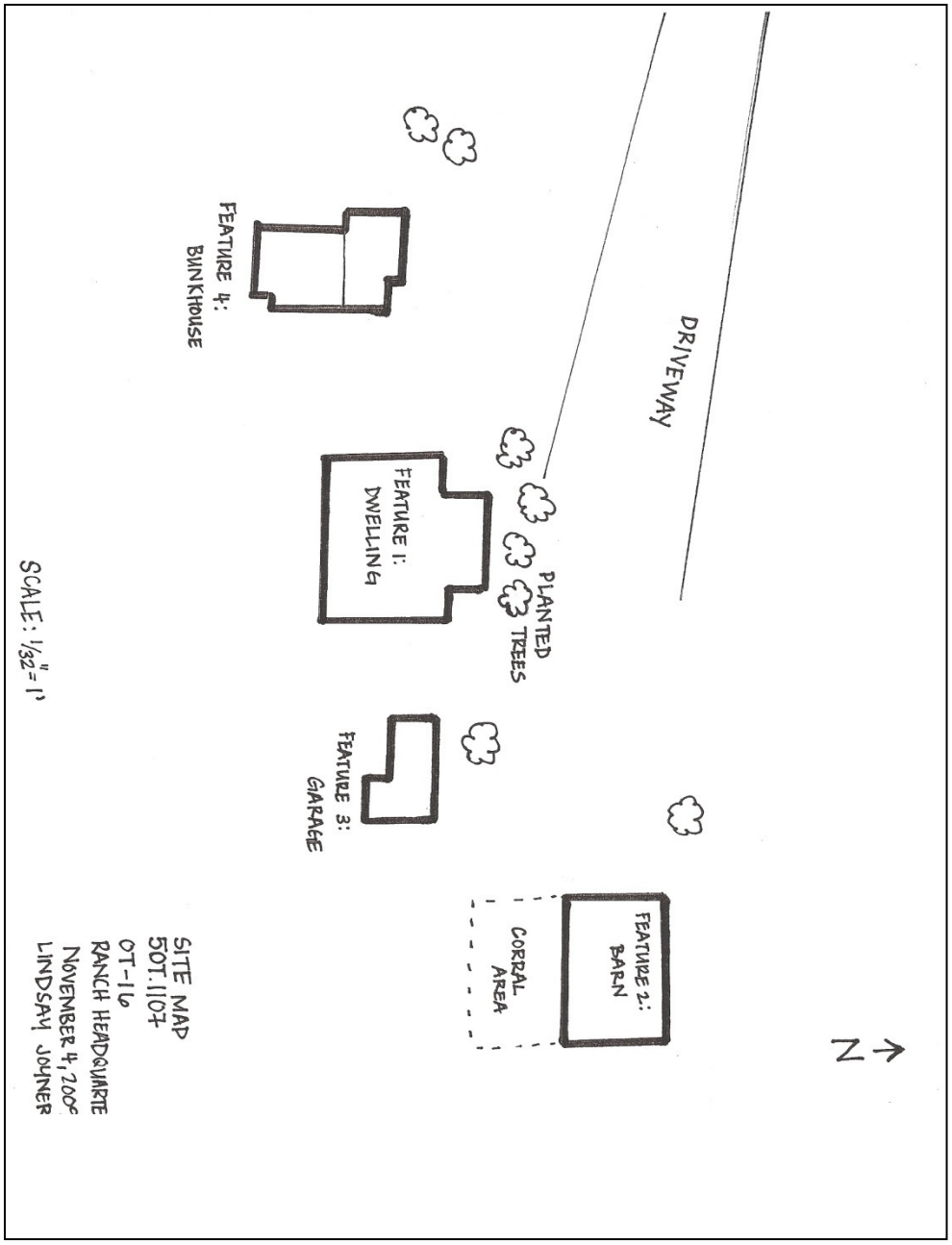

Figure 38: *Site Map of Survey Site OT016*

A homestead converted into a modern ranch headquarters, survey site OT016 remains in use, not vacated like many of the previous case studies. Located on the flats of southern Otero County, just west of the North Fork of Jack Canyon and about 12 miles southeast of the town of Timpas, the site is fairly secluded and near the springs found within Jack Canyon. The remodeled site is now home to the headquarters of a cattle ranching operations headquarters, although traces of the New Mexican settlement are visible through the architecture of the structures on the site. Although altered, evident are the cultures of architecture, blended together in an evolved site, one of the few not abandoned during the Dust Bowl of the 1930's.

The main dwelling, a Craftsman-style yellow house, is the focal point of the site (Figure 39, Image A). The dwelling is deceiving; the Craftsman-style four-over-one windows, framed gable ends, side-gabled roof structure, and porch additions lead one to consider the dwelling a mid-century or later structure, not connected with regional New Mexican architecture of the turn of the century. However, a closer look reveals the thick adobe walls covered by stucco, original rectangular plan and roof *vigas* of a flat roof visible on interior ceiling (Figure 39, Image B). The multiple gables and additions, including the porches, are additions, Anglo-American in style, constructed in 1919 during a remodeling. The original dwelling, a simple adobe home with a flat roof, remains underneath these alterations, suggesting prior New Mexican settlement. Indeed, this site is not so much a mystery of how this combination of cultures occurred; rather, evident through site OT016 is the merging of New Mexican and Anglo-American

architecture through multiple generations of occupation, because the house was originally built by a New Mexican and later inhabited and modified by an Anglo-American family.

Other buildings on the site confirm the later Anglo-American settlement. A bunkhouse, framed and with a hipped metal roof, is located behind the house, also constructed with Craftsman styling (Figure 39, Image C). The largest structure on the site is a gambrel roofed two-story barn (Figure 39, Image D). The barn has hollow-tile walls on the main level and a frame loft overhead. Stone surrounds the rear of the barn. The barn, Anglo-American in design, has an excellent roof truss system in place (Figure 39, Image E). Unlike the flat roof of the original dwelling on the site, constructed of hewn *vigas*, the roof of the barn shows knowledge of construction techniques from the eastern United States, mimicking the barns shown in catalogs.

However, despite the current Anglo-American setting of survey site OT016, the homestead began as a New Mexican homestead, patented by Filomeno Martinez on May 5, 1904. Filomeno, according to the United States Census of 1910, was born in 1862 in New Mexico, to parents also from New Mexico. Filomeno was the head of a large household, illiterate, spoke English and Spanish, and was listed as an odd-job laborer. The hidden flat roof and adobe walls are reminders of the initial homesteaders of the plot, a New Mexican family.

The ranch headquarters site of OT016 reflects the reuse of a site and the occupation by more than one family, thereby showing the blending of architectural traditions of peoples from different cultural backgrounds. Seeing as the site is still

in use, the evolution of the dwelling and surrounding structures is easier to identify, as the current residents recall the history of the site. Abandoned and neglected homesteads, as the majority of the case studies have been, are more difficult to unmask, since the history of construction and occupation are not as well known. As readable as site OT016 may be, the homestead reveals a combination of cultures through adaptive reuse, merging the two cultures of the Santa Fe Trail region: New Mexican and Anglo-American.

IMAGE A: Main Dwelling

IMAGE B: *Viga* Roof Structure

Figure 39: *Images of Survey Site OT016*

IMAGE C: Bunkhouse

IMAGE D: Barn

Figure 39: *Images of Survey Site OT016 [continued from previous page]*

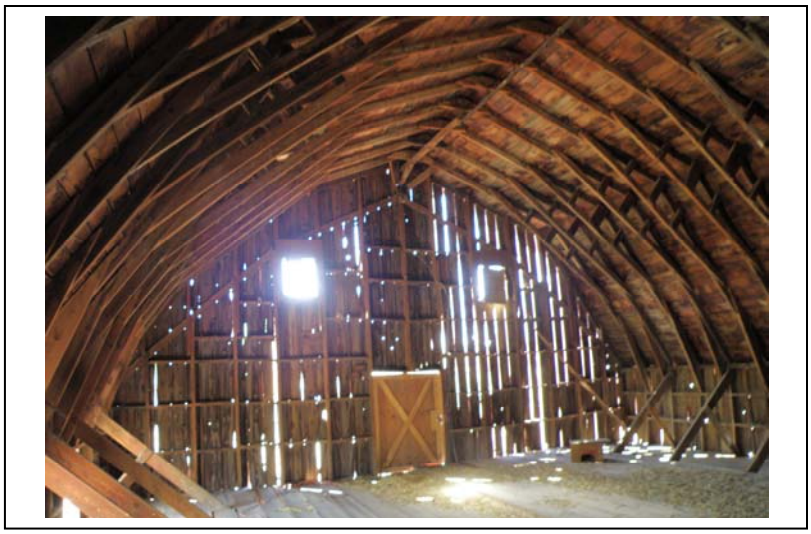

IMAGE E: Roof Truss System

Figure 39: *Images of Survey Site OT016 [continued from previous page]*

Analysis of Sites with Combined Cultures of Architecture

Although many of the resources of the Santa Fe Trail region are easily identified as representing specific cultural groups, either New Mexican or Anglo-American, the five case studies of this chapter show the difficulty in assigning one tradition of architecture to *every* site. Vernacular architecture often reveals variation of design, whether due to lack of materials, need for quick construction, adaptive reuse or the expense of manufactured items. Indeed, vernacular architecture is distinct because of its deviation or alteration from high-style design. However, just as every nineteenth century house in the southern United States does not strictly follow the Tidewater South tradition of architecture, the dwellings of the Santa Fe Trail region of Colorado cannot always be strictly categorized as of the Hispanic Southwest tradition or the Plains tradition, as many sites fall in between, a melding of cultures. However, how the blending of traditions resulted is a question still to be determined.

One explanation for the combination of architectural features on homestead sites of the twentieth century is the shift in the population of southeastern Colorado. Whereas the nineteenth century was dominated by New Mexicans settling along the canyons and arroyos of the region, the turn of the century, prior to the Homestead boom, brought large ranching operations, using the open range to raise cattle and sheep. In 1900, people with Spanish surnames accounted for 58 percent of the population; however, of this 58 percent, 82 percent were men, and 75 percent of Spanish men were single.[101] No longer

[101] Friedman, *Valley of Lost Souls*, 60.

belonging to plaza communities, these Hispanic men were migrant workers, employed on large Anglo-American ranches.[102] Hired as sheepherders, Hispanic men were often considered foreman, used around the ranch for laboring tasks. Large landowners, like the Rourke Ranch and the Gunter Ranch, employed Hispanics to serve a ranch hands and builders.[103] Local memory recalls that "little specific instruction or design detail would have been given for planned construction," and, as such, hybrid structures were created, a result of the landowner's unclear commands and the laborers' own skill and familiarity with construction.[104] Case Study 4 (LA054) reflects the use of migrant labor; associated with a large scale ranching industry, the site, well located between canyon walls, includes jacal construction, a corner fireplace and sandstone with adobe mortar, elements of New Mexican design in an overall Anglo-American site. Being tied to the ranching industry, it is likely that the architecture on site LA054 was built by New Mexican foreman, working for the larger ranching operation. Thereby, the site shows a mix of Anglo-American design with inserted elements of New Mexican architecture. Thus the turn of the century changes in population created an increase in Hispanic migrant laborers and led to a blending of vernacular architecture.

Adaptive reuse may also arise an as answer for how combination culture sites came to be. During the years between 1891 and 1915, many Hispanics left their homesteads due to droughts and blizzards, a national depression, and rising

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[102] Ibid.
[103] Haynes and Bastain, *Historical Architectural Evaluation of 49 Sites in the PCMS*, Chapter 3, Page 8.
[104] Ibid.

conflicts with open-range ranchers. Although some became wage-laborers for Anglo-American ranchers, others abandoned the region completely, leaving few artifacts behind.[105] It was during these years that large scale ranching operations began to consolidate land holdings, using New Mexican hired hands to file homestead claims and then purchasing the new claims to expand range land.[106] Anglo-American ranchers, dominating southeastern Colorado from 1890 to 1909, made claims to several former New Mexican homesteads. The result was the adaptation of former New Mexican architecture to Anglo-American design. Case Study 5 (OT016) is an example of a former New Mexican homestead, patented in1904 by a New Mexican family and then altered by 1919 to fit the needs of an Anglo-American ranch headquarters. The simple adobe home with a *viga* roof structure was remodeled as a Craftsman-style bungalow; however, underneath the gable roof and stucco walls are the remains of the New Mexican origins. Prior to the homestead boom of 1909 until the mid-1920's (encouraged by the Enlarged Homestead Act of 1909 and the Stock Raising Homestead Act of 1916), ranching operations ruled the open range of southeastern Colorado, operated by Anglo-Americans eager to take up former New Mexican homesteads to increase land holdings. The smaller individual, dry-land farming homesteads of the Anglo-American homesteaders starting in 1909 are identifiably separate from ranch headquarter sites, shown to alter former New Mexican settlements and improve and construct additional outbuildings and corrals for the raising of cattle.

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[105] Carrillo, Richard, "Chapter XXIII: Historic Settlement and Use of the Pinon Canyon Maneuver Site" in *An Introduction of the Archaeology of Pinon Canyon, Southeastern Colorado, Volume III, Ethnohistory and History*, ed. William Andrefsky Jr. (Fort Collins, CO: Larson-Tibesar Associates, Inc. and Centennial Archaeology, Inc., 1990), 15.
[106] Lintz & Anderson, eds. "Temporal Assessment of Diagnostic Materials from the PCMS," 39.

Not traceable to migrant labor or adaptive reuse, some examples of cultural mixing in architecture can be attributed simply to the exchange of ideas and integration of both Anglo-Americans and New Mexicans in the region.[107] Features of design may have been adopted as the best use of the landscape. Both Case Study 1 (LA175) and Case Study 2 (OT057) are representative of this amalgamation of architecture, the spreading of ideas and architectural tradition. These are Anglo-American sites, with Anglo-American patentees, using the building techniques of earlier New Mexican settlers. LA175, sited deep within a canyon, made use of the natural landscape and local materials. Patented by an Anglo-American, site LA175 nonetheless adopted the New Mexican tradition of incorporating the landscape into the site plan. Furthermore, the homesteaders of LA175 used surrounding materials in construction, including hewn logs as roof beams and sandstone to line dugout walls. Hence, site LA175 reflects the necessity of working with the landscape due to isolation and the adoption of New Mexican architecture to best suit the terrain. OT057 exhibits New Mexican features through masonry construction and a corner fireplace. However, the frame gable roof and concrete-lined dugout are certainly Anglo-American in design. Likely, the homesteader borrowed the masonry detailing and fireplace from New Mexicans due to cost and convenience, as the site was located along the flats, far from the large logs found within canyons, and milled lumber was costly and hard to access. Case Study 1 (LA175) and Case Study 2 (OT057) are products of cross-cultural integration; the patentees of both homesteads incorporated New

[107] Haynes and Bastain, *Historical Architectural Evaluation of 49 Sites in the PCMS*, Chapter 3, Page 8.

Mexican features into their homesteads whether due to location, need for materials, or cost effectiveness.

What has been shown through this chapter are how many of the sites surveyed within the Santa Fe Trail region cannot be classified as belonging to one ethnic group. Rather, the sites show assimilation of architectural traditions thereby creating a blended cultural landscape. While some sites may be clearly definable as Anglo-American or New Mexican, others are unable to be categorized. Whether attributed to migrant labor, adaptive reuse or the adoption of new ideas regarding the built environment, these mixed sites show beauty in the unordinary and the many pieces of vernacular architecture that identify the Santa Fe Trail region of southeastern Colorado.

CHAPTER 6

CONCLUDING ANALYSIS

Analysis of the Survey Findings

The case studies of the previous chapters, by exhibiting New Mexican and Anglo-American forms of architecture, and the amalgamation of the two, answer the question of whether the survey sites of the Santa Fe Trail region show ethnicity and culture through features and design. The case studies also reveal the combination of cultures, and why and how integration of architecture may have occurred. The survey sites of the Santa Fe Trail region indeed demonstrate cultural variations in architecture; distinct design features, methods of construction, site location, and patentee information contribute to the identification of the survey sites as once belonging to an ethnic group, whether New Mexican or Anglo-American.

All fifteen of the sites had never been surveyed prior to the current survey and the anticipated results were unknown, as the architectural history of the area is largely unexplored. The thesis sought to identify how the architecture of the Santa Fe Trail region revealed cultural variation and to what extent architectural features of culture could be determined. The case studies confirmed that a culture of architecture does exist within the region, identifiable as New Mexican, Anglo-

American and a combination of the two. However, also found was the rarity of a 'pure' cultural site, one without deviation from cultural norms. As such, what must be considered in addition to the evident traditions of architecture by cultural groups within the region is the remoteness and necessity of adaptation, using the landscape and found materials to survive along the frontier. The case studies show not only cultural variation but resourcefulness, whether through the use of rock shelters, quick construction of dugout structures, reuse of found materials such as railroad cars and railroad ties, or the modification of earlier homesteads to meet the needs of later settlers. Hence, two themes arise: the predominance of New Mexican and Anglo-American cultures of architecture and the formation of a regional cultural landscape, understood through vernacular architecture and the adaptation of the natural terrain.

The first theme, the evident features of New Mexican and Anglo-American traditions, is identified through architectural survey research, confirmed by patentee and census records. The Hispanic Southwest tradition is most prevalent at the New Mexican sites. Adobe wall construction, sandstone masonry, and flat roofs with *vigas* and *latillas* are the common structural components of New Mexican architecture. Corner fireplaces (*fogon)*, *jacal* fences and room additions are contributing features of this architectural tradition. A linear site plan, following the Spanish-plaza design, is typical of many of the communities and homestead plots of the late-nineteenth century throughout the region of southeastern Colorado.[108] Terracing and the use of the rock shelters (adaptations of the natural

[108] Haynes and Bastain, *Historical Architectural Evaluation of 49 Sites in the PCMS*, Chapter 3, Page 4.

landscape) can be attributed to Native American design adopted by the New Mexican settlers to maximize the use of the canyon terrain. All of these features of architecture and design were considered in the chapter on New Mexican case studies, finding that the survey sites followed many, if not all, of these elements of architecture, location and site plan. Although no New Mexican sites were identical, each hallmarked the tradition of New Mexican design.

The Anglo-American sites follow the Plains tradition, incorporating the architecture of earth-lined dugouts, multi-room houses, gabled roofs, and milled lumber construction along the high plains of the Santa Fe Trail region. The dugouts of Anglo-American homesteads reflect the Plains tradition of sod construction, rectangular structures, no more than one story tall, with wet earth walls packed up to three feet thick.[109] Steep pitched frame roofs were also common, as milled lumber was more available through railroads, and Anglo-American settlers brought the roof-type construction with them from the mid-west and eastern United States. Central fireplaces, barbed wire fencing, and cisterns are also features associated with Anglo-American architecture. Furthermore, the site plan reflects a small homestead of a nuclear family, not a large plaza complex. Hence, through the evidence of previously non-regional architecture, high plains locations and simple homestead plots, the Anglo-American culture of architecture in the Santa Fe Trail region of southeastern Colorado is revealed. Chapter 4, the presentation of Anglo-American case studies, substantiates the contribution of homestead architecture within the region, thereby showing the presence of Anglo-American culture throughout the Santa Fe Trail area.

[109] Ibid., Chapter 3, page 6.

The second theme brought forth through the case studies is the creation of an overall cultural landscape, one that combines and integrates architecture and design due to changing demographics, remoteness and adaption to the landscape and the interchange of ideas. The Combination of Cultures case studies presented in Chapter 5 best illustrate this theme; however, almost every survey site throughout the three chapters on case studies highlights it, as no case study was without association to the cultural landscape that defines the Santa Fe Trail region. For instance, Anglo-American Case Study 3 (LA295) includes many Anglo-American architectural features (such as a dugout, concrete cistern, and cattle troughs) and an individual site plan along the plains; although seemingly entirely Anglo-American of the Plains tradition, the site also exposes elements of the overall cultural landscape, including construction with hewn cedar logs, a flat roof of small piñon timbers, and a fence of timbers and wire. Such features show an adaptation to the natural landscape, incorporating regional materials into an Anglo-American style of design. Furthermore, other case studies adaptively reuse railroad materials, such as boxcars and railroad ties. Also shown through Combination of Cultures Case Study 5 (OT016) is the reuse of a New Mexican homestead into cattle ranching headquarters for an Anglo-American family. The integration of ideas and cultures is also evident through the use of New Mexican migrant labor, as the twentieth century brought demographic changes to the region, thereby leading to a majority of New Mexican men involved in migrant labor. As such, the laborers constructed buildings on Anglo-American properties according to their own knowledge of architecture, largely based in New Mexican

tradition. Therefore, Anglo-American settlers who hired migrant labor for construction ended up with buildings and outbuildings with New Mexican features rather than of the familiar Plains tradition.

The use of local materials, adaption to the natural landscape, reuse of objects and even previous homesteads, and the integration of cultural architecture through demographic changes are all components of the larger cultural landscape. This theme of the creation of the cultural landscape may best be summed up by one word: necessity. Necessity dictated the use of local materials and landscape, adaptive reuse, and the hiring of migrant labor. The remoteness of the frontier along the Santa Fe Trail region made manufactured materials hard to access, and regional weather patterns of drought, winds and blizzards meant dwellings had to be constructed cheaply and quickly, therefore making use of local materials, the landscape, convenient labor, and whatever supplies could be found.

The people that settled in southeastern Colorado were pioneers, willing to undergo long travel, harsh weather and exhausting farm labor for a chance at the American dream: a plot of land and a place to call home. The cultural landscape of southeastern Colorado, as defined by the case studies presented, is a mixture of New Mexican and Anglo-American forms of architecture, vernacular structures constructed through whatever means possible, whether using local materials, adaptive reuse of found supplies or with the help of migrant labor. No site along the canyons or prairies of the Santa Fe Trail region is ‘purely’ New Mexican or Anglo-American. Each site represents elements of New Mexican or Anglo-

American design, or both, and the theme of necessity, constructing homes with the pioneer spirit to make the most of what was available.

The Recordation of Vernacular Survey Findings

Vernacular architecture is rarely given the same level of importance and consideration as high-style architecture. Furthermore, the context of vernacular architecture in a rural historic landscape is often lost among generalities and the unfit architectural descriptions and terminology more commonly associated with high style architectural survey recordation. The following pages analyze the Colorado's State Office of Archaeology and Historic Preservation form 1403, the architectural inventory form and how it fits with the survey of the resources within the Santa Fe Trail region of southeastern Colorado.

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number:
3. County:
4. City:
5. Historic building name:
6. Current building name:
7. Building address:
8. Owner name and address:

Homestead locations are rarely accessible, often without an address.

II. GEOGRAPHIC INFORMATION

9. P.M. _____ Township _____ Range _____

_____ ¼ of _____ ¼ of _____ ¼ of _____ ¼ of section _____

10. UTM reference

Zone ___ ___; ___ ___ ___ ___ ___ ___mE ___ ___ ___ ___ ___ ___ ___mN

11. USGS quad name:_____

Year:___ Map scale: 7.5'___ 15'___ Attach photo copy of appropriate map section.

12. Lot(s): _____ Block: _____

Addition: _____Year of Addition: _____

13. Boundary Description and Justification:

III. Architectural Description

14. Building plan (footprint, shape):
15. Dimensions in feet: Length__x Width _____
16. Number of stories:
17. Primary external wall material(s):
18. Roof configuration:
19. Primary external roof material:
20. Special features:

Architectural Description components are all applicable, but for how many features? On a plaza site or homestead plot, there are many features, and each one should be detailed . . .

21. General architectural description:

22. Architectural style/building type:

23. Landscaping or special setting features:

Style is often not applicable to vernacular architecture

24. Associated buildings, features, or objects:

IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate:_____ Actual: _____

Source of information:

26. Architect:

Source of information:

27. Builder/Contractor:

Source of information:

28. Original owner:

Source of information:

This section is largely inapplicable, as the surveyed sites cannot be determined by date of construction, builder/contractor, original owner, or construction history. Records are not kept, and therefore this information is hard to come by for vernacular sites.

29. Construction history

(include description and dates of major additions, alterations, or demolitions):

30. Original location ____ Moved ____ Date of move(s):

V. HISTORICAL ASSOCIATIONS

31. Original use(s):

32. Intermediate use(s):

33. Current use(s):

34. Site type(s):

35. Historical background:

36. Sources of information:

VI. SIGNIFICANCE

37. Local landmark designation: Yes ____ No ____ Date of designation:

Designating authority:

38. Applicable National Register Criteria:

____ A. Associated with events that have made a significant contribution to the broad pattern of our history;

____ B. Associated with the lives of persons significant in our past;

____ C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or

____ D. Has yielded, or may be likely to yield, information important in history or prehistory.

____ Qualifies under Criteria Considerations A through G (see Manual)

____ Does not meet any of the above National Register criteria

39. Area(s) of significance:

40. Period of significance:

41. Level of significance: National ____ State ____ Local

42. Statement of significance:

43. Assessment of historic physical integrity related to significance:

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

Can National Register criteria be applied? Many of the homesteads remain in ruins.

44. National Register eligibility field assessment:

Eligible ____ Not Eligible ____ Need Data __

45. Is there National Register district potential? Yes ___ No ___

If there is National Register district potential, is this building:

Contributing ___ Noncontributing _____

46. If the building is in existing National Register district, is it:

Contributing ___ Noncontributing _____

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

Colorado Historical Society - Office of Archaeology & Historic Preservation
1300 Broadway, Denver, CO 80203 (303) 866-3395

As noted on the sample intensive level architectural form (Form 1403), many problems exist when recording vernacular survey sites, especially homesteads with several architectural features. The form is applicable for a single architectural feature, rather than many, not allowing space for the recording of multiple architectural features on one site. Furthermore, the architectural form asks for information inapplicable to vernacular sites, such as architectural style, construction date, builder and architect and construction history. For the surveyed sites of the Santa Fe Trail region, more useful information would regard the construction methods, whether the architecture was representative of an ethnic group, and Bureau of Land Management information.

One of the main components of the survey findings was the connection to the overall cultural landscape. The recordation form should include whether or not the site uses regional materials, the site plan and location, and whether the site is an example of adaptive reuse. The terrain and natural features are important factors in the creation of the cultural landscape, a point that should be highlighted in the 1403 form.

Another consideration is the applicability of National Register criteria with rural vernacular sites, especially ruins. Since many of the surveyed sites face deterioration by neglect, the threat of becoming ruins means the integrity is lost, therefore making the sites ineligible for the National Register. The National Register Coordinator at the Colorado Office of Archaeology and Historic Preservation suggested that a way to resolve this claim of inapplicability as ruins is to nominate many of the sites according to landscape features rather than

solely architecture or archaeology.[110] Rural landscapes should be understood in many contexts, concerning both the natural and cultural components.[111] According to the National Park Service, characteristics of a rural landscape include: land use, response to the natural environment, cultural traditions, and clusters (including farmsteads and ranching complexes).[112] Furthermore, the Historic American Landscape Survey defines historic landscapes as "touchstones of national, regional and local identity . . . [fostering] a sense of community and place."[113] The sites of the Santa Fe Trail Region share many of the aforementioned characteristics, with architecture incorporated into the natural landscape, site plans and construction methods attributed to cultural tradition and the formation of plaza and homestead complexes. Furthermore, exploration and settlement, architecture and landscape architecture are provided as qualifying areas of significance for eligibility on the National Register.[114]

When evaluating rural historic landscapes, the area of significance should be considered: is the landscape significant for its connection to social history (Criterion A), associated with lives of persons significant in our past (Criterion B), significant in terms of architecture, construction or design (Criterion C), or likely to yield information regarding history or prehistory (Criterion D)? The cultural landscape of the Santa Fe Trail Region is largely applicable under Criterion A,

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[110] Advised through a meeting with the National Register Coordinator at the Colorado Office of Archaeology and Historic Preservation on September 11, 2009.
[111] Linda Flint McClelland, "Guidelines for Evaluating and Documenting Rural Historic Landscapes," *National Register Bulletin* 30 (1998): 15.
[112] Ibid., 15 – 16.
[113] National Park Service, Department of the Interior, "Historic American Landscape Survey (HALS)," available from http://www.nps.gov/history/hdp/hals/index.htm; Internet; accessed 27 November, 2009.
[114] McClelland, 24.

being significant for its connection to the broader theme of settlement, with sites of New Mexican history also significant under the theme of Ethnic History. Sites with remaining intact structures may be eligible under Criterion C for architecture, if the structures stand in good condition. Therefore, the rural historic landscape of the Santa Fe Trail region should be determined significant under categories of social history (settlement) and/or cultural architecture.

Qualities of location, design, setting, materials, feeling, and association are applicable in determining the integrity of a rural landscape in special ways; however, abandonment and deterioration of historic buildings on the site may serve as a threat to the overall historical integrity.[115] When determining the integrity of the rural historic landscapes, the following elements should be considered: spatial organization, evidence of historic period of development, cultural traditions, and response to the natural environment.[116] Buildings on rural landscapes should be listed as contributing or noncontributing features based on the integrity of the structures. Historic character, historic significance and reflection of the historic period are determining factors for identifying contributing structures within a rural landscape.[117]

Therefore, rather than nominate the sites of the Santa Fe Trail region as historic architecture, the resources may be best recognized as historic rural landscapes. In terms of site characteristics, significance and integrity, the surveyed sites fall into categories of rural historic landscapes. As historic architectural nominations judge deteriorated structures to compromise site

[115] Ibid.
[116] Ibid.
[117] Ibid., 26.

integrity, a rural historic landscape nomination considers the entirety of the site, including the natural and cultural elements as well as setting and location, thereby focusing less on architectural deterioration and more the landscape as a whole.

Below is an edited version of a sample architectural form, as applied to vernacular sites.

SAMPLE FORM BY LINDSAY JOYNER

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

I. IDENTIFICATION

1. Resource number:
2. Temporary resource number:
3. County:
4. City:
5. Historic Building or Site Name:
6. Current Building or Site Name:
7. List of Associated Features: (A – Z):
8. Owner name and address:

Building OR Site Name, referencing multiple features

II. GEOGRAPHIC INFORMATION

9. P.M. _____ Township _____ Range _____

_____ ¼ of _____ ¼ of _____ ¼ of _____ ¼ of section _____

10. UTM reference

Zone ___ ___; ___ ___ ___ ___ ___ ___mE ___ ___ ___ ___ ___ ___ ___mN

11. USGS quad name:_____

Year:___ Map scale: 7.5'____ 15'____ Attach photo copy of appropriate map section.

12. Lot(s): _____ Block:_____

Addition: _____Year of Addition: _____

13. Boundary Description and Justification:

III. Architectural Description for all Features:

14. Building plan (footprint, shape):

    Feature A:

    Feature B:

    Feature C:

15. Dimensions in feet:

    Feature A: Length_____x Width _____

    Feature B: Length_____x Width _____

    Feature C: Length_____x Width _____

16. Number of stories:

    Feature A:

    Feature B:

    Feature C:

17. Primary external wall material(s):

    Feature A:

    Feature B:

    Feature C:

18. Roof configuration:

    Feature A:

    Feature B:

    Feature C:

19. Primary external roof material:

    Feature A:
    Feature B:
    Feature C:

20. Special features:

    Feature A:

    Feature B:

    Feature C:

21. General architectural description: (All Features)

The descriptions include room to describe each feature separately, as homestead complex, although only one site, include many buildings and structures, each needing to be described.

IV. LANDSCAPE

22. Does the site incorporate the natural landscape? Yes____ No _____

If Yes, Describe How and in what Features:

New section: Landscape component. This section should be used to determine the integrity of the historic landscape.

23. Does the site retain the general feeling and feeling of the historic period? How?

24. Does the site use local materials? Check all that apply:

____ Adobe ____ Cottonwood ____ Juniper ____ Limestone

_____ Piñon _____Ponderosa _____ Rock Shelters

_____ Sandstone

25. Site location:

State the relationship to landforms and topography:

26. Describe spatial organization (attach a drawing of site plan)

How are the features arranged?

V. HISTORICAL ASSOCIATIONS

27. Original use(s):

28 Intermediate use(s):

29. Current use(s):

30. Site type(s):

31. Historical and Cultural Background:

32. Bureau of Land Management Patentee Information:

33. Sources of information:

VI. SIGNIFICANCE

34. Local landmark designation: Yes ___ No ___ Date of designation:

Designating authority:

35. Applicable as a *Rural Landscape*? Why?

Landscape eligibility considered

36. Applicable National Register Criteria:

___ A. Associated with events that have made a significant contribution to the broad pattern of our history;

___ B. Associated with the lives of persons significant in our past;

___ C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic

___ D. Has yielded, or may be likely to yield, information important in history or prehistory.

___ Qualifies under Criteria Considerations A through G (see Manual)

___ Does not meet any of the above National Register criteria

37. Area(s) of significance:

38. Period of significance:

39. Level of significance: National ___ State ___ Local

40. Statement of significance:

41. Assessment of historic physical integrity of the site related to significance:

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

42. National Register eligibility field assessment:

Eligible ___ Not Eligible ___ Need Data _____

43. Is there National Register district potential? Yes ___ No ___

If there is National Register district potential, is this building:

Contributing ___ Noncontributing _____

44. If the building is in existing National Register district, is it:

Contributing ___ Noncontributing _____

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource

Conclusion

The thesis of this study argued that the cultural architecture of the Santa Fe Trail Region exhibits diversity and contributes to the creation of a larger cultural landscape. Indeed, the fifteen case studies show the predominance of New Mexican and Anglo-American architecture and the integration of the two. However, the case studies also revealed a distinct cultural landscape formed by features of vernacular architecture and the use of the natural landscape. Detailed throughout the preceding chapters was how the surveyed sites are incorporated into a larger cultural landscape and how survey recording can best identify, document and protect the discovered rural historic landscape.

Vernacular architecture can be difficult to classify, as the features rarely fall neatly into categories of specific style. The sample survey form of the previous pages addressed the need for a form that asked questions appropriate for rural historic landscape with features of vernacular architecture. The survey has proven that vernacular architecture, and particularly complex homesteads, does not align with the survey forms provided by state agencies. As such, the sample survey form may be considered for future survey of vernacular architecture in southern Colorado.

While the study confirmed the thesis regarding the ability of the resources of the Santa Fe Trail region to display culture through architecture, it also provided insight to the region's cultural landscape. Although the architecture of the Santa Fe Trail region has elements of both New Mexican and Anglo-American design, the uncovered cultural landscape displays the necessity of adaptation, whether

through the use of local materials, incorporation of the natural terrain, adaptive reuse of found objects, hiring of local labor or the reclamation of a previously inhabited homestead site. While some sites can be more closely defined as exhibiting features of architecture that represent either the New Mexican or Anglo-American cultures, *all* of the case studies display features of vernacular architecture that can be attributed to the Santa Fe Trail region of southeastern Colorado. The remoteness of the open frontier demanded adaptation, and settlers formed a cultural landscape incorporating both architectural traditions of cultural groups and the alteration of the natural terrain and local materials to create a home in uncharted territory.

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APPENDIX A

SAMPLE SURVEY FORM

The form included in this Appendix is from the Colorado Historical Society, Office of Archaeology and Historic Preservation. The reconnaissance form prototype was chosen with guidance from the OAHP as the most appropriate for the surveyed resources. Being that the Homesteading Survey of Southeastern Colorado included both historic archaeology and architecture, the survey forms had to reflect both the material culture and architectural remains. Hence, a combination of forms was used for the reconnaissance and intensive level, as provided in the following pages.

Colorado Cultural Resource Survey

Reconnaissance Survey Form

I. Identification

1. Resource number: 5OT.1148
2. Temporary resource number: OT-057
3. County: Otero
4. Resource name(s): Stone dwelling
5. Resource address: Higbee Valley
6. Owner name and address: John Doe, 1234 La Junta Ave., La Junta, CO 80000

II. Geographic Information

7. P.M. 6th Township 25S Range 54W
NE ¼ of NW ¼ of SE ¼ of SW ¼ of section 8

8. UTM reference (NAD27)
Zone 13; 633306 mE 4193833 mN

9. USGS quad name: Thompson Arroyo, CO
Year: 1996 Map scale: 7.5' x 15'
Attach photo copy of appropriate map section.

III. Site Description

Site is Significant for: Historic Archaeology and Architectural History

List of Site Components:

Type	Material(s)
1. House, corner fireplace	stone, adobe mortar, long, thin stones used, rock-faced, rougher stone used at bottom, more finished above, gable wood roof
2. Dugout	concrete-lined
3. Dugout-later site	concrete, gable roof rather than vigas

Priority for additional survey is: High

IV. Recording Information

Date of survey: 12/29/2008
Recorder: Abbey Christman, Richard Carrillo
Organization: Colorado Preservation, Inc.
Address: 333 W. Colfax Ave. Ste. 300, Denver, CO 80204
Phone number(s): (303) 803-4260

Colorado Cultural Resource Survey

Continuation Form (1 of 1)

Resource number: 5OT.1148
Temporary resource number: OT-057

Notes:
Corner fireplace-very interesting
Not many artifacts on site

BLM Information:

Accession/Serial #: 949086
Patentee: William E. Allison
Date: 12/3/1924
Authority: December 29, 1916: Homestead Entry-Stock Raising

Artifacts:

Wire nails, milled lumber, white glazed earthenware, barrel hoops

Additional Photos

APPENDIX B:

GLOSSARY OF SOUTHEASTERN COLORADO

VERNACULAR ARCHITECTURE

Adobe: A primary construction material in southeastern Colorado, adobe consists of clay, sand and water, often with other natural material (often straw or twigs) mixed in to serve as a key. Either used as mortar for stone buildings, applied as stucco, or shaped into blocks and dried under the sun, adobe is one of the most prominent construction material types throughout the region. The availability, durability and warmth of adobe structures made adobe a likely choice for settlers. If poorly maintained or neglected, adobe will melt and deteriorate, leaving many entirely adobe dwellings as only mounds of dirt.

Adobe Bricks

Adobe Mortar

Concrete: A construction material comprised of cement and aggregate, concrete gained popularity in the twentieth century, substituting for southeastern Colorado's traditional use of sandstone and adobe as primary building materials. As the availability of cement increased with new railroad and town infrastructure throughout the region, settlers found concrete to be a welcomed alternative to the slower drying adobe. The homesteaders of early twentieth century combined sandstone construction with concrete mortar and concrete foundations for durability and longevity; the appeal of concrete led some settlers to build entire structures from the material, including cisterns, outbuildings and even houses.

Scored concrete mortar

Concrete house

Dugout: A type of dwelling sunken into the earth, usually a few feet deep, with earth walls and a dirt floor. Interior walls were dampened with water and packed hard to help prevent the dirt from flaking. More elaborate dugouts were lined with stone walls and might have superstructures of stone or log. Roofs were often also earthen, with log beams supporting packed dirt and smaller branches. Dugouts were usually the first structures constructed by homesteaders venturing to the region of southeast Colorado; after a year or two, more substantial dwellings would be constructed, either in addition or separate from the original dugout.

Jacal: A Native American form of architecture adopted by New Mexicans and Anglo-Americans in southern Colorado, consisting of a wall of closely spaced wood posts tied together with adobe with adobe filling any spaces. Slender posts (often piñon) were placed into the earth and tied with wire are common of the jacal construction among the homesteads of southeastern Colorado. Simple to construct, jacals were often the first structures built on a homestead. Jacals are found in combination with stone and adobe architecture, either as the original structure or as an easy addition.

Sandstone: A local sedimentary rock to southeastern Colorado, sandstone was the masonry material most commonly used in architecture across the region. Sandstone could vary in size, with some dwellings using narrow, rectilinear stones while others incorporated larger square stones with small stone chinking in between irregular coursing. Sandstone was typically double-laid, with a layer of adobe and chinking in between the exterior and interior layers of the wall. Sandstone was incorporated into almost every settlement across southeastern Colorado due to its availability, practicality, and durability.

Vigas and Latillas: The New Mexican style of architecture included a flat roof composed of vigas and latillas; large, equally spaced, vertical logs (vigas) were covered by smaller horizontal timbers (latillas). The vigas, typically hand-hewn ponderosa or cottonwood, usually extend beyond the structural walls. The horizontally laid latillas form the surface of the roof and were commonly covered with mud and stone. The relatively simple construction, as compared to gable roof types, made this New Mexican roof type a common feature among southeastern Colorado architecture.

Wood: A construction material incorporated in much of the architecture across southeastern Colorado, wood served many uses, when available. Common throughout the region were hand-hewn timbers and logs. Large timbers, usually ponderosa or cottonwood, could only be found within canyons, and these large members were frequently constructed as roof beams. However, the scarcity of large timbers made entire log buildings rare to this region, and when large timbers were unavailable, settlers also adaptively reused railroad ties, even constructing entire homes and outbuildings with railroad ties. Smaller timbers, often piñon, were used for corrals and fencing, jacal-designs, and horizontal roof surfaces (latillas). With the railroads, milled lumber was easier to obtain. Milled lumber became widely used for door and window frames, flooring and roof construction. As milled lumber increased in availability and popularity, frame houses also offered appeal to homesteaders; although lacking the warmth and resiliency of native masonry, frame houses could serve as a status symbol, comparable to the modern houses of the eastern United States.

Frame House

Railroad ties

Hand-hewn red cedar logs