Cultural Landscape Report

For

The Browning Ranch
Blanco County, Texas

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and the
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Historic Preservation Program
Cultural Landscape Class of Spring, 2003.

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Acknowledgements

The production of this report would not have been possible without the generous support of Elizabeth Barlow Rogers. Research conducted by students in the Cultural Landscapes class, Spring, 2003, forms the core of this report. These students include Katherine Bash, Sarah Benson, Elizabeth Butman, Adrienne Campbell, Kara Dotter, Sylvia Guerrero, Anna Ingwersen, Sophie Roark, Terri Ruiz, Aparna Surte, and Bob Yard. Laura Knott, who is a licensed landscape architect, as well as a student in the graduate program in Historic Preservation at the University of Texas, was both a student in the course and the Research Assistant responsible for assembling and editing the material for this report, as well as conducting additional research. All of us benefited from the participation of a number of supportive professionals, including Jill Nokes, landscape designer; Patrick Sparks, structural engineer; and Dan Leary, University of Texas architecture professor. However, none of this would have been possible without the ongoing encouragement, hospitality, enthusiasm, skill, and knowledge of Scott Gardner, the manager of the C. L. Browning Ranch.

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Introduction

The cultural landscape of the C. L. Browning Ranch represents an important span of time in the history of ranching in Blanco County, Texas, from the early land grants of the first American and European settlers to modern recreational ranching. These cultural landscapes are becoming increasingly rare as traditional ranch spreads are changing and adapting to fit contemporary needs; therefore, documentation of their historic features and way of life is becoming ever more important.

Conceptualized here as a "landscape of transformation," the Browning Ranch tells a story shared by many small ranches all over the Hill Country, about adaptation and the human drive for survival in an often-inhospitable region. Like many other ranches in the area, the Browning Ranch will also continue to change and evolve, but, because this study was commissioned, these changes will now be informed by a deeper understanding of the value of the historic features of this cultural landscape and an eye towards the preservation of the material record of ongoing strategies of survival.

This report is based on work done by the students of the University of Texas Cultural Landscapes class of Spring, 2003, who spent four months gathering and compiling the information presented here. Much of the research was conducted at the Blanco County Courthouse, the Center for American History at the University of Texas, the Austin History Center, and, the internet. However, the bulk of the work was conducted in the field at the ranch, including the use of a GPS system for locating character-defining features in the field; photography, ranging from 35 mm and digital cameras to a 4x5 camera used for documenting historic buildings; and detailed measurements of buildings and other features, resulting in the many maps and measured drawings that are a part of this report.

Chapter I, Prehistory and History, begins with a discussion of the period prior to American and European settlement of the Hill Country region in which the Browning Ranch is located. That is followed by a description of the Texas land grant process that began in the mid 1800's, and finally by a history of the ownership of the acreage which make up the ranch as it exists today. Chapter II, Conditions Assessment, discusses in detail and analyzes the many features that make up the cultural landscape of the ranch, and includes such subjects as the underlying geology and soils; streams, seeps, and creeks; fields, fences, and historic buildings. The final chapter makes treatment recommendations to inform future changes and development projects, which may include the rehabilitation and preservation of the historic character of the site. This is followed by a set of Appendices, which includes an ownership timeline, measured drawings, inventories, and other related information. All chapters are fully referenced with endnotes, which appear at the end of each chapter and which are attributed in the Bibliography.

While only a little under 1000 acres, the C. L. Browning Ranch has natural and historical significance, exemplified by its many springs that feed beautiful Hunnicutt Creek and the stone fences, wooden barns, and other built structures from over 100 years of habitation. We were fortunate to spend time getting to know this place and we are especially pleased that the current owners seek to understand and protect the wonderful qualities that make the Ranch so special, from its heron rookeries to its archaeological resources, while planning a vibrant new future for the property. It is our hope that this report will assist in that important mission.

--The Authors

Chapter I:
Prehistory and History

Introduction

The history of the Browning Ranch is, in many ways, also that of the Texas Hill Country and relates a story probably common to many other similar spreads in that region, a story about stubborn human adaptation to an often-harsh environment and continuing perseverance in the face of failure and hardship. This chapter follows the story from the days of the early native hunters and gatherers, to the original Texas land grants, and then on to today's recreational ranching. One hopes that the presentation of this story of a particular place might inspire further investigation into the history of other ranches in the area, and, hence, enrich our understanding of the history of ranching and agriculture in general in Blanco County, Texas.

Methodology

The prehistory section of this chapter was developed primarily out of investigations of the subject on the internet. Much of the section about Texas land grants was researched at the Barker Center for American History, but the bulk of the work, the chain of ownership, was accomplished through careful perusal of deed records available only at the Blanco County Courthouse, since these records are not accessible on-line. The State of Texas Archives and the Austin History Center also provided useful information.

The body of this chapter is arranged under three sub-headings, Prehistory, Texas Land Grants, and The Browning Ranch. Prehistory describes primarily the aboriginal occupation of the Edwards Plateau and the Hill Country; the section on land grants is also regional information. However, the last section, about the Browning Ranch in particular, presents more detailed information about the families who have lived and worked on the ranch since Anglo-American settlement in the mid-19th century.

Prehistory

Large-scale geological events are responsible for the unique landscape of the Browning Ranch, which is located in the eastern portion of the Edwards Plateau in Central Texas (Figure 1). On the southern edge of the Great Western Plains, the Edwards Plateau rises approximately 300 feet above the Blackland Prairie to the east, pushed upwards by faulting actions along the Balcones Escarpment. This fault line also marks a distinct difference in geographical characteristics, with deep and fertile loams changing to shallow, rocky "hardscrabble," rainfall becoming scarcer and more unpredictable, and vegetation becoming more xeric. Soil types, vegetation, and climate have always affected human habitation. Because of the arid climate, the population of the Edwards Plateau before the mid 19th century consisted primarily of nomadic Native American tribes who adapted to the area by living a hunter-gatherer existence.

Archaeologists have found human artifacts dating as early at 9,200 B.C. in the Balcones Escarpment area on the edge of the Edwards Plateau. The type of remains found, consisting primarily of projectile points, indicate that these early Native Americans lived a highly mobile lifestyle.

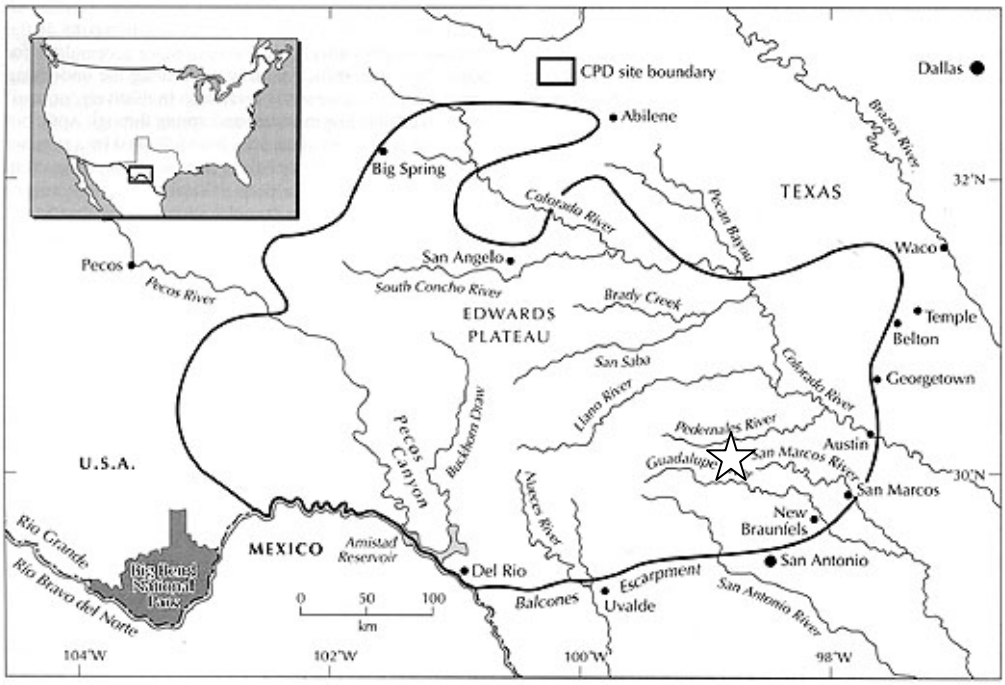


Figure 1. Edwards Plateau Region[1] (star indicates location of Browning Ranch).

However, from around 6,000 B.C. until circa 800 A.D., archaeological remains of these hunter-gatherer societies suggest a stronger tie to locality, including evidence of the use of regional food resources, bison hunting and established cemetery sites as well as delineation of territory and development of sophisticated trade routes.[2]

The Lipan Apache, an Athapascan group, was the first known tribe who lived in the Edwards Plateau region. From the late prehistoric period, around 800 A.D., until the advent of European exploration in the 16th century, these ancestors of the later groups of Apaches began to rely increasingly on bison hunting as a life way. This group had migrated south from the northern plains to follow the bison and roamed the West Texas area in hunter-gatherer groups.[3] Archeological evidence suggests their transitory camping habitation in the Blanco County area as late as 1150 A.D.

The ancient Athapascan group was followed in their migration across the Alaskan land bridge by ancestors of the Shoshones. From the Shoshone group descended the fierce Comanches, or "Nermerhuh"—meaning, "the people"—who eventually claimed a large area of the southern plains that included north, central, and west Texas, and ranged down into northern Blanco County, where the Browning Ranch is located.

Originating in the Midwestern Plains, the Comanches were able to claim more area than other tribes because of the introduction of the horse into the area by the Europeans. After acquiring the horse in the 17th century, the Comanches became superior equestrians, warriors, and traders. By the 18th century, the group had begun to push southward in search of warmer climates, and eventually ran the Apaches out of the region.

Figure 2. Comancheria, 1750-1840 (star indicates location of the Browning Ranch) (source of map unknown)

In their quest to dominate the large area of West Texas and the Panhandle known as "Comancheria" (Figure 2), the Comanches also fiercely repelled Colonial Spanish attempts to establish a mission system in the area; hence the name "Comanche," which is a Spanish corruption of a Ute Indian word for "enemy." Detailed maps show that the Spanish were very familiar with the area, yet had no permanent settlements. Also owing to the Comanche threat, few Anglo settlers ventured west of the Balcones Escarpment until the early 19th century.

The nomadic Comanches hunted buffalo and typically traveled in small, democratically organized groups or bands. Much of their culture revolved around the horse, which made possible their domination and success. On horseback, the Comanches roamed this large territory following sophisticated trade routes that stretched from the Pueblo Indian villages in New Mexico to the agricultural Indian settlements in east Texas. Shrewd traders, the Comanches acquired firearms from the French and were able to rebuff ever-increasing attacks from Texas militia, especially following Texas' independence from Mexico in 1836. The Comanches were able to so completely dominate the region that a non-Commanche trade route from San Antonio to Santa Fe required a southern branch down into Saltillo, Mexico, and then north again to El Paso to avoid Comancheria.

Throughout the 19th century, Comanches continued to defend their territory from encroaching Anglo settlement and were successful in limited peace efforts with the various governments which attempted to control the area. Although they experienced many hostile military encounters with the Texans who were attempting to encroach on their territory, the Commanches still had cordial relationships with representatives of the United States government, who had greater involvement in the area after Texas joined the union in 1846. German settlers enjoyed the most peaceful relationship with the Comanches who, for the most part, honored treaties with these settlers in the west-central Hill Country.[4]

Greed overcame fear of the Comanches when the gold rush began in 1849. Huge parties of westward travelers violated every territorial agreement west of the Mississippi in their rush to the Pacific. New trails west from San Antonio to El Paso passed directly through Comancheria and

provided a corridor for an epidemic of foreign diseases such as cholera and smallpox. New illnesses, combined with greater pressure from westward settlement and rapidly declining buffalo populations, began to weaken the Comanche position—this formidable warrior society began to decline.

After the U.S. Civil War, the federal government committed military resources to the Comancheria with the goal of forcing the Comanches onto reservation land. This large-scale effort effectively ended the Comanches' two-century domination of the Edwards Plateau region and opened the area for agriculture and ranching settlement.

While only a brief tenure in the larger approximately 8,000 years of human habitation in the Blanco County area, the Comanches were the first cohesive group with a firm claim to the territory. Usurping other, competing, nomadic tribes, the Comanches patrolled the area and used their trade skills to acquire what they could not get from the land. Their long tradition of transitory habitation was reinforced by the land's physical features. Although they were familiar with agricultural tribal traditions to the east, dependable crops were a challenge in this arid land, so the Comanche culture continued to rely heavily on a nomadic hunting tradition.

Since the mid-19th century defeat of the Comanches, there has been a drastic change in lifestyle, culture, and land use in Blanco County. The current mix of Anglo-American, European, and Hispanic land use patterns of agriculture and ranching are a recent and very new force with an as-yet unknown environmental outcome. The limited physical impact from approximately 8,000 years of nomadic Native American use is in sharp contrast to the extensive impact of agriculture and ranching on the physical landscape in the last 125 years.

Texas Land Grants

The Browning Ranch is located in central Blanco County, just east of Johnson City (Figure 3). Anglo-American settlement began in this area as early as 1821, but it was not until 1826 that Benjamin R. Milam was allowed by the Spanish to issue the first land grants to 300 families between the Colorado and Guadalupe rivers, where the county is situated. The "Scribe" of Blanco County, John W. Speer, described the area in the days prior to 1854 as "the undisputed domain of the buffalo, mustang, black bear, panther, Mexican lion and all kinds of small game. And these fertile valleys, limpid streams and picturesque mountains were seldom seen by white men".[5]

When Comanche raids started to decline in Blanco County in the 1870's, white settlers became more interested in establishing homesteads in the area. These immigrants came predominately from the Upper South, most being from Tennessee and Alabama, although a few Germans settled in the southern end of the county, around Blanco.[6] The Germans were fleeing an overpopulated land and crop failure from diseases[7], but the Southerners were just fleeing "the eroded, gullied, worn-out, used-up land of the Old South… ."[8] To them, the Hill Country seemed like the Promised Land:

> "The tall grass of the Hill Country stretched as far as the eye could see, covering valleys and hillsides alike. It was so high that a man couldn't see the roots or the bottoms of the big oaks; their dark trunks seemed to be rising out of a rippling, pale green sea. There was almost no brush, and few small trees—only the big oaks and the grass, as if the Hill Country were a landscaped park. But a park wasn't what these men thought of when they saw the grass of the Hill Country. To these men the grass was proof that their dreams would come

true. In country where grass grew like that, cotton would surely grow tall, and cattle fat—and men rich. In country where grass grew like that, they thought, *anything* would grow."[9]

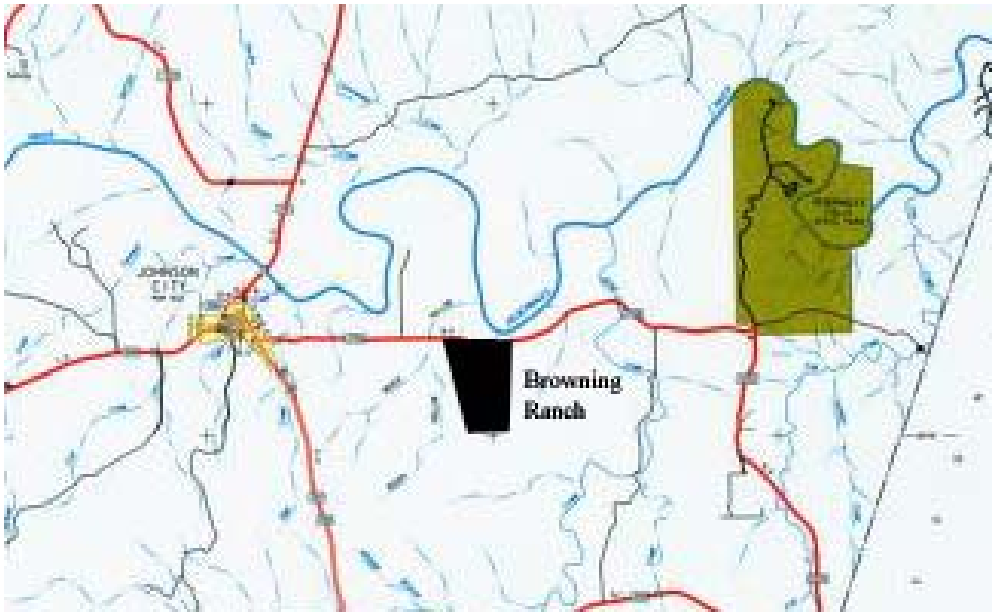


Figure 3. Browning Ranch, east of Johnson City, west of Pedernales State Park.[10]

The settlers were eager to obtain land grants, which were issued under the law of public domain. A certificate would entitle the grantee, or land purchaser, to buy the land; it would not delineate lots but instead gave a settler permission to claim a certain amount of acreage. Subsequent to selecting the land, it was the grantee's responsibility to have the land professionally surveyed, after which the certificate could be bought, sold or transferred. The name of the original landowner who commissioned the survey was retained as a way to identify land parceled from the original survey.

The basic unit of survey measurement was the Spanish vara, equal to 33 1/3 inches (36 varas = 100 feet). This was the basis of measurement for a league, which was equal to 4428.4 acres and a labor, which was equal to 177.1 acres. The amount of acreage a settler could receive was based on when they applied for a land certificate. Land privileges were broken into three classes of headrights; immigrants to Texas, before the signing of the Texas Declaration of Independence on March 2, 1836, were granted first-class headrights. A family with first-class headrights received one league and one labor of land, a total of 4605.5 acres of land. Single men could receive 1/3 of a league, or 1476.1 acres.

Second-class headrights were granted to families who arrived between March 2, 1836 and October 1, 1837. Second-class headrights gave 1280 acres to heads of families and 640 acres to single men. Third class headrights were issued to families arriving between October 1, 1837 and January 1, 1840, and under this rule, single men could receive 320 acres, while heads of families could receive 640 acres. Fourth-class headrights were the final class of land grants and were granted to those arriving between January 1, 1840 and January 1, 1842. The acreage granted was the same as the

acreage in third-class headrights, with the added requirement that the occupants cultivate ten acres of their land.[11]

Settlers were able to reach their newly granted land along three main trails between Austin and Fredericksburg. The trail that ran approximately in the same path as State Highway 290, through Johnson City, opened up this area to settlers, who, with certificates in hand, were further encouraged by the luxurious prairie grasses. Settlement quickly increased in Blanco County as a direct result of the accessibility provided by these roads.

The Browning Ranch

The Browning Ranch is comprised of two of these surveyed land grants, the Roland "Honeycut" Survey and the Peter Jackson Survey, but because the largest portion by far of the ranch lies within the Roland "Honeycut" Survey (Figure 4)[12], this chapter will only cover land transactions in this area.[i] Prior to the current ownership, the most influential families involved with the "Honeycut" Survey portion of the land called the Browning Ranch are the Hunnicutts, the Moursunds, the Barnwells, and the Hardins. It appears that Roland Hunnicutt's name was misspelled as "Honeycut" when the survey was produced, but, except for the survey, all other legal records and even names of natural features show the "Hunnicutt" spelling, so this report will follow their lead.

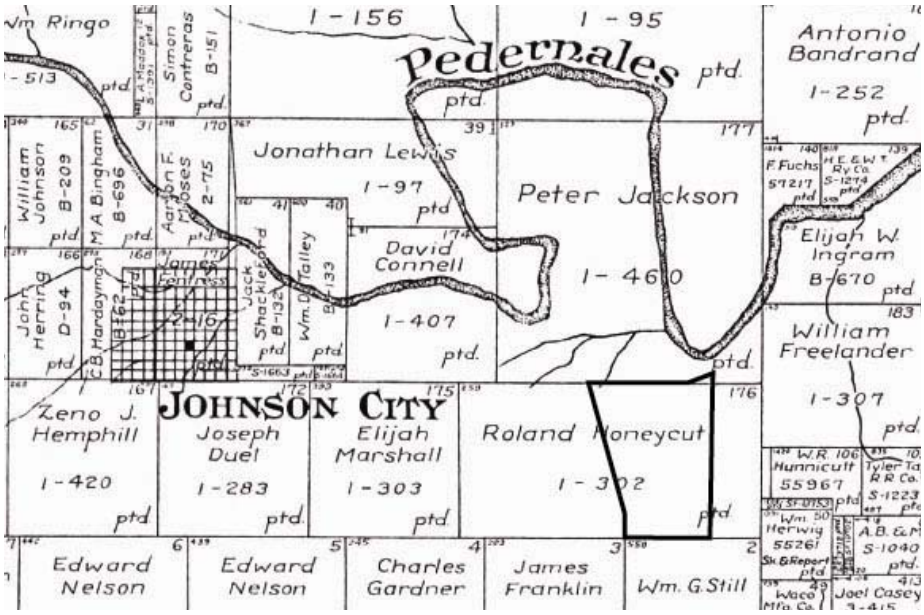


Figure 4. Blanco County Land Grant Map, 1865, showing property boundary of Browning Ranch.[13]

James Roland Hunnicutt first came to Texas from Benton, Alabama with his wife, Lavina, and his son, James Buchanan. In 1836, the family was granted what appear to be first-class headrights to the land which would become the "Honeycut" Survey, but they did not patent the land for another twenty years, probably due to fear of the Comanches. After purchasing additional acreage in Burnet, Blanco and Coleman Counties, they returned to Alabama, only to immigrate later to Texas and settle in Halletsville, Lavaca County. James Roland Hunnicutt died before he could claim his league and labor (4605.5 acres) in Blanco County, so his widow applied for the certificate and the Roland

[i] For complete timeline, including the Peter Jackson Survey, refer to Appendix A.

"Honeycut" Survey was created after that certificate was granted in 1856. For unknown reasons, Mrs. Hunnicutt did not patent the entire grant, claiming only 2/3 of a league, which was around 2,953 acres. It appears that the Hunnicutt family never actually lived on the property, but it is possible that they may have leased it to other families, because there is a stone fence complex close to Hunnicutt Spring that appears to have been related to a homestead and was most likely constructed before 1880.

In 1909, Albert Wadel Moursund, II and his wife, Francis Stribling, settled in Blanco County, and soon after, purchased 1677 acres of the ranch land that was a part of the original Roland "Honeycut" and Peter Jackson Surveys (Figure 5).[14] Moursund was the fourth son of the Norwegian immigrant, Albert Wadel Moursund, Sr., who came to Texas in 1869, hoping that the mild climate would cure his health problems. Apparently, it did, because he continued to live and work in the Blanco area for at least twenty more years, serving as district representative in the Texas Legislature in the late 1880's.[15]

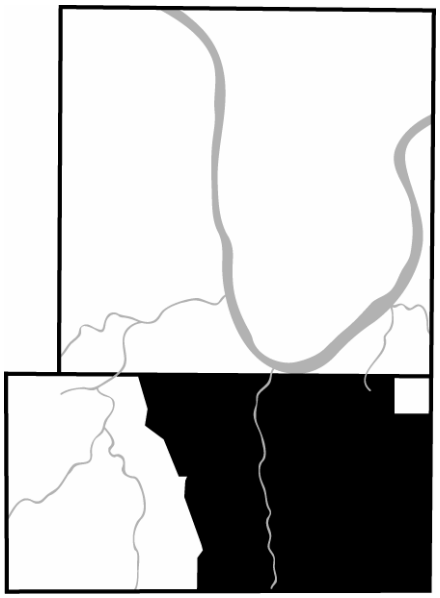


Figure 5. Portion of "Honeycut" land grant sold to Moursund by Hunnicutt (compiled by A.E. Butman).

A. W. Moursund, II, was a community leader in his own right. Educated at Texas A&M and the University of Texas in law, he returned to the Hill Country to start his own practice after losing an arm in a railroad accident in Austin. He served as County and District Clerk in Blanco County from 1918 to 1924. During this time, due to his empathy for the trials and challenges of farmers and ranchers in the area, he became influential in creating better roads and highways to help them more easily move products to market. He also strongly advocated a more diversified program of agriculture in the area.[16]

When Moursund and his small family first came to the Johnson City area, they resided at Hunnicutt Spring (on the "Honeycut" Survey and now on the Browning Ranch), but the old house there was in such poor condition that the family was forced to live in a tent as a temporary residence. After some time there, they moved to the "old Wilson place" which was said to be several miles southwest of the Hunnicutt Spring but the location is unknown today. In 1915, after the birth of their second son, Moursund constructed a new house out of locally quarried native limestone on the newly purchased "Honeycut" Survey land. It was said to be located on a hillside about half a mile west of the Hunnicutt spring, which places it approximately where the stone building known as the Barnwell House is located on the property today. This new house was described as "presenting a very good view of the country eastward and northward toward the Pedernales River".[17]

1916, the year of the birth of the Moursund's third child, a daughter, marked the beginning of a two year drought in the area. As descendent John Stribling Moursund recalled, "there was very little grass during the winter of 1916-1917. Albert W. Moursund, II, resorted to burning prickly pear to keep the livestock alive. Neither the cattle or the sheep and goats did well during this period but it began to rain in 1918 and then general conditions on the ranch began to improve."[18]

In 1921, the Moursund family moved temporarily to Johnson City so that their son could more easily attend school. But less than two years later, disaster struck: on May 23, 1923, the stone house on

their ranch was almost completely destroyed by a fire started by lightening during an electrical storm. With the exception of the rock walls, the house was all but completely destroyed, including all the furniture and household goods that the family had stored there. Moursund was already having a difficult time ranching on the property and the fire was the final blow. In 1926, he transferred the tract to Dr. James Franklin Barnwell, including the remains of the stone house (Figure 6).[19]

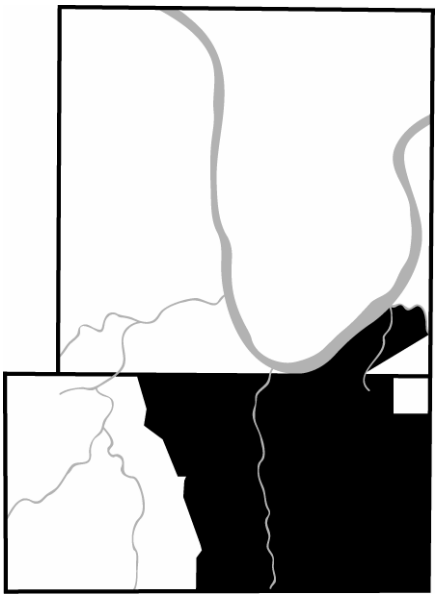


Figure 6. Portion of "Honeycut" and Jackson land grants sold to Barnwell by Moursund (compiled by A.E. Butman).

J. F. Barnwell was a respected member of the community--he performed the first successful Cesarean section in this part of the country and started a hospital in Johnson City in 1914.[20] He was married first to Agnes Wall, who died in January, 1918 but was married again, this time to Alma Irene Lewis in February, 1919. She assisted Barnwell in the famed Cesarean section, and played other important roles in his medical practice. It appears that it was Barnwell who reconstructed the ruins of the original two-story stone house into a one-story bungalow style cottage, which was very much in vogue in the 1920's.

When James Barnwell passed away, his daughter and son-in-law, the Hardins, inherited the land and the house and ranched the land for many years thereafter. They were known for their work with Hereford stockers and were best known for their breeding of the county's registered Holstein dairy cattle. In the late 1930's, the Hardins also operated Johnson City's Highway Inn Restaurant. In addition, Lonnie Hardin served as Blanco County Sheriff for nine years. In 1941, the family sold 977.7 acres of their land to C. L. Browning of San Antonio and it became known as the Browning Ranch (Figure 7).

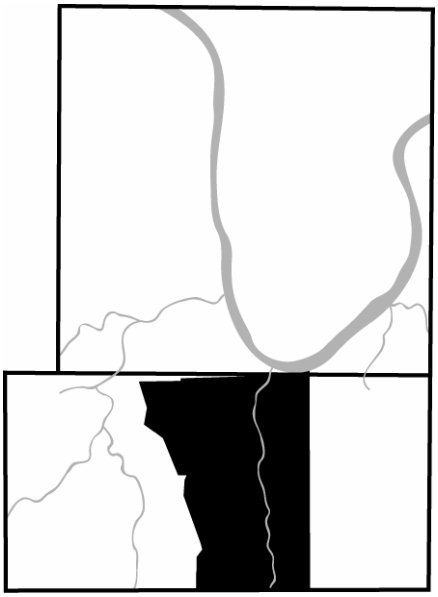


Figure 7. Portion of "Honeycut" and Jackson land grants sold to Browning by Barnwell (compiled by A.E. Butman).

Caleb Leonidas ("C.L.") Browning, Jr. was born in Venita, Oklahoma to Caleb Leonidas Browning, Sr., a Methodist minister, and his wife. The family moved around frequently during C.L.'s early years, living mostly in East Texas, but eventually ending up in San Antonio. There, he married Elizabeth Ewing in the early 1930's and, with her encouragement, quit his job as a math teacher to open a construction business with only $1,000 seed money. His wife had a degree in business administration and, initially, helped run the family business, which began by building houses. In 1936, their first child, Elizabeth, was born in one of the houses built by Browning Construction. The Brownings had three children in all: Elizabeth Barlow Rogers (now the current owner of the ranch), Robert Browning and James Craig Browning.

By the time C.L. Browning purchased the ranch in 1941, Browning Construction had become very successful in San Antonio, growing quickly through the receipt of government contracts on the three Air Force bases in San Antonio: Lackland,

Kelly, and Brooks. The company also built public hospitals and several motels, while continuing to construct houses. The purchase of the ranch property was Browning's reward to his family and employees as well as a symbol of his success. Workers from his company, Browning Construction, led by superintendent Charlie Jones,[21] built the ranch house in 1942, and, subsequently, the garage and apartment, as well as many other structures on the property, including the horse barn,[22] probably the sheep barn and sheep dip complex and, most likely the dams, cisterns, and watering troughs.

The ranch was primarily a gathering place for family recreation and business entertainment, but was also used for active cattle ranching for tax purposes. Not only were cattle raised for sale and sheep kept for shearing, but horses were also kept for both work and recreation. A desk diary from 1943 mentions a corn crop being raised on the property, and other sources have mentioned hay and oats.

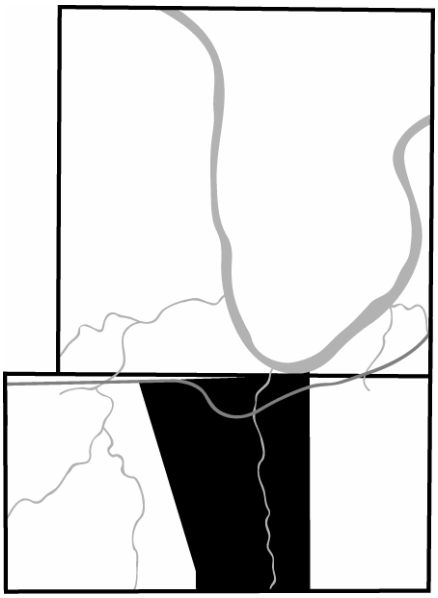
The day-to-day operation of the Browning Ranch was managed by Anton and Nell Nauman, who may have been employed on the ranch prior to its purchase by the Brownings. The Nauman family made their home in the Barnwell House and lived off the land in the 1940's and 1950's, raising their own meat, vegetables, and fruit, as well as produce for market. During their tenure, the Barnwell House was smaller and cooking was done over a wood stove, although the house did have indoor plumbing.

The Nauman family worked the ranch during the demanding times of World War II, when ranch hands were scarce, yet it was necessary for the ranch to be more self-supporting. The demand for beef was high, so cattle played more of a primary role in the operation of the ranch at the time. This may also explain the construction of the sheep dip operation, possibly built to supplement income during this period.

In August of 1942, C. L. Browning and his wife purchased more property, adding another 1352.5 acres to the original 977.7 of the ranch. This acquisition, known by the Brownings as the "Fuchs' Place" because it was purchased from the Fuchs family, expanded the property to the south and then to the east, creating an "L" shape and incorporating a portion of Miller Creek, which was the favorite "swimming hole" for the Browning children.[23] After a few years, the bottom arm of the "L" shape was expanded to the east again by another 928.5 acres--10 acres in 1959 and 918.5 in 1968, both properties purchased from the Hayes family and known to the Browning family as the "Hayes' Place."

In1959, an agreement was made with the owner of the property to the west of the original tract to straighten out the western property line to its current configuration (Figure 8). State Road 2766 was also realigned after the State of Texas acquired it from Blanco County--parts of the old road bed can be seen in the meadow just north of the ranch house. Unfortunately, there is not enough information available to accurately locate on maps either the old road or the later additions to the ranch.

In the 1960's, when the Browning children grew older and left home, Mrs. Browning lost interest in the ranch and it developed into a rustic lodge where C.L. would entertain business associates and friends by organizing hunting trips. The Barnwell house was remodeled and enlarged into its present state during this time and a new household, Bill Watson and his wife, Joy Lynn, moved in and managed the ranch until the year 2000. Joy Lynn was actually a daughter of Anton and Nell Nauman and had grown up in the Barnwell House. She had been a childhood friend of the current owner, Elizabeth Barlow Rogers.



C. L. Browning died in 1970, leaving the property to his wife, but Mrs. Browning spent little time at the ranch after her husband's death and the property was used mostly by her sons for hunting trips. However, the family still gathered there every Thanksgiving, as they continue to do today. When Mrs. Browning passed away in 1992, the ranch was about 3,258 acres in size but in 1996, the Browning siblings sold off slightly over 2,000 acres, parts of the Fuchs and Hays places. The current owner, Elizabeth (Betsy) Browning Rogers, purchased full interest in the remaining 977.7 acres from her brothers and currently manages the property as a bed and breakfast.

Figure 8. Current configuration of Browning Ranch. Compiled by A.E. Butman.

[1] Johnston.
[2] Palmer.
[3] Ogilvie.
[4] Fehrenbach p. 354.
[5] Speer, p. 1.
[6] Speer, p. 1.
[7] Jordan, p. 38.
[8] Caro, p. 9.
[9] Caro, pp. 10-11.
[10] Blanco County Map.
[11] Miller, page unknown.
[12] Ogilvie.
[13] Liles.
[14] Miller, page unknown.
[15] Moursund, p. 300.
[16] Moursund, p. 301.
[17] Moursund, p. 300.
[18] Moursund, p. 300.
[19] Moursund, p. 300.
[20] Moursund, page unknown.
[21] Ralph Morris, personal communication, 2003.
[22] Bill Watson, personal communication, 2003.
[23] Betsy Rogers, personal communication, 2003.

Chapter II:
Conditions Assessment

Introduction

The Browning Ranch is located about four miles east of Johnson City, Texas on State Road 2766 in the east central part of Blanco County, and about four miles west of the entrance to the Pedernales State Park, a popular camping and hiking site (Figure 1). The property consists of approximately 977

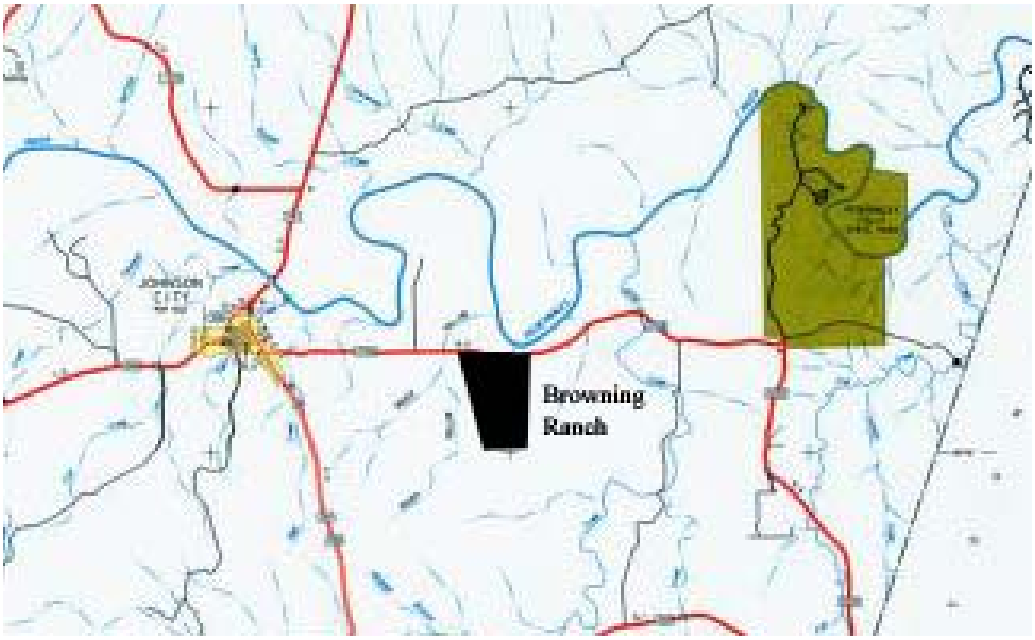


Figure 1. Location of Browning Ranch.[1] Not to Scale.

acres of land, its boundaries forming a rough rectangle or trapezoid (Figure 2). Contained within the boundaries of the site are numerous features which contribute to the historical and cultural character of the ranch, such as two dwellings, several agricultural buildings, a historic stone fence, and natural features such as Hunnicutt Creek, Hunnicutt Spring, and a Great Blue heron rookery.

As an ensemble, these features contribute to what can be called a vernacular type of cultural landscape, one which has been formed by humans in direct response to the demands of land and climate in their struggle to make a living and a life. This will become clearer as we examine its features one by one in this chapter and discuss how they contribute to the character of this cultural landscape.

Figure 2. Map of Browning Ranch. Produced by Sylvia Guerrero.

Methodology

This chapter will summarize a large quantity of data about the Browning Ranch and its environs gathered during the spring of 2003 by students in the Cultural Landscapes course at the University of Texas School of Architecture. This includes information about topography, geology and soils; spatial organization; structures, site furnishings, and objects; flora and fauna; circulation; and water--it is in this manner that the data will be arranged in this chapter.

This material will be presented and analyzed in light of how it forms the character-defining features of the landscape of the Browning Ranch. A character-defining feature can be described as a "prominent or distinctive aspect, quality or characteristic of a cultural landscape that contributes significantly to its physical character."[2] It is through an analysis of these features that a theme will develop which will provide guidance for future development of the site.

Several maps accompany this report and illustrate the topography and vegetation cover, as well as the location of roads, water features, buildings, and other structures. These maps were compiled by the students, with most of the locational information gathered using a Geographical Positioning System (GPS) device which is accurate to within one foot. The satellite image used as background for these maps was obtained from the Texas Natural Resources Information System and the contour lines from the United States Geological Service.[3]

These maps also show the state road which curves through the ranch on its northern end, creating a barrier between the larger section of the ranch (+/-90%) and the smaller section which is closer to the Pedernales River (+/-10%). The smaller section is rarely used by the owner and was not accessible to the research team by either road or trail, so it was not documented, with the exception of its geology and soil types. If the ranch property should ever extend to the banks of the Pedernales River, the smaller tract will gain greater importance to the overall property and should be documented in more detail.

The discussion of the buildings and structures of the larger tract is augmented, not only by the accompanying photographs, but by measured drawings produced by students under the guidance of Professor Jeffrey Chusid and provided in Appendix B. In addition, although the general history of the ranch and its region are covered in the Prehistory and History section of the report, descriptions of the character-defining features will also include supplemental historical background relevant to those particular features.

Although this report presents a great deal of information about the history and existing conditions of the cultural landscape of the Browning Ranch, much is still unknown about the site due to difficulties meeting with potential informants who have had long relationships with the ranch and its operation since the 1940's. It would be useful for further understanding of the property to continue seeking information from former ranch residents who are still alive, because they may be able to provide information such as the date of construction of important structures, as well as the day-to-day operation of the ranch over the last sixty years.

Topography, Geology and Soils

Topography

The Edwards Plateau spans central Texas from a point close to Big Bend, reaching almost to Waco (Figure 1, Chapter I). It is bordered along the eastern edge by a series of fault zones, called the Balcones Escarpment, representing the buried edge of the ancient North American continent. The surface geology of the Plateau is comprised mostly of carbonate rocks, such as limestone and dolomite, deposited between 66 and 146 million years ago during the Cretaceous period. During this time, the climate was tropical and a shallow inland sea covered much of central North America, depositing calcareous ooze along the sea floor (similar to the modern Bahamas). These layers of ooze lithified over time to form limestone and dolomite strata, which were gradually overlain by other sedimentary deposits and buried deep below the surface. Subsequent uplift of the region resulted in the erosion of younger sediments, tilting of the originally horizontal strata, and surface exposure of the Cretaceous carbonate rocks, eventually forming the Edwards Plateau province.

The topography of the Browning Ranch is typical of other parts of the Edwards Plateau where the raised highlands created by the uplift have been eroded by its many intermittent spring-fed creeks into a rough, hilly landscape of hard, dry upland plateaus dissected by stream canyons.[4] The activities of Hunnicutt Creek on the Browning Ranch have created a shallow valley, which bisects the property and from which rise limestone ridges on either side. The hillsides of the upland areas are characterized by a stair-step topography created by the qualities of the Glen Rose Limestone formation.

Geology

At the Browning Ranch, a significant portion of the rock exposed at the surface is composed of three of several rock formations which comprise the Cretaceous strata of central Texas. Towards the north of the property, the exposed rock strata increase in age through Pennsylvanian, Mississippian, and Devonian periods to a formation deposited during the Ordovician period, more than 441 million years ago. It is important to understand these different formations, because they are the sources of the different types of soil found on the ranch. Following is a description of the eight formations found at the surface of the Ranch property, from oldest to youngest, and based on samples collected from the northern portion of the Ranch (Figure 3)[i]

- **Ordovician** (441 million years and older) *Honeycut Formation*

Composed of limestone and dolomite strata, samples taken from Honeycut Creek in the northern part of the Ranch are microgranular to medium grained dolomite, medium gray to brownish gray in color with occasional cinnamon coloration along stylolites. The average bed thickness ranges from 2 to 10 inches. The formation was named after the Honeycut Bend of the Pedernales River where the thickest known outcrop sequence in the Llano region occurs.

[i] Descriptions given are a combination of personal observations and information found in Barnes (see bibliography). Preliminary field observations indicate the Barnes map itself is now out of date. For example, the Cow Creek Limestone exposed in Hunnicutt Creek extends south of the southern road crossing on the Ranch, a significant distance beyond that shown on the map. This is likely the most egregious difference since the outcrop is in a streambed and thus prone to more erosion, but the potential change between reality and the map should be kept in mind when doing geologic studies of the area.

- **Devonian** (353-409 million years old) *Stribling Formation*

Characterized by medium gray to pinkish and brownish gray microgranular limestone, weathering to medium gray, in very irregular beds. The base is a thin layer of sandy limestone, with chalcedonic to subchalcedonic chert found as irregular lenses and "false" joint filling. The type formation is located on the south bank of the Pedernales River near the tip of Honeycut Bend, three-quarters of a mile northeast of Honeycut Hollow. Please note that this description comes from the geologic map as no sample has been collected to date.

- **Mississippian and Devonian** (appr. 353 million years old) *Ives Breccia Member*

Distinguished by chert nodules and very angular chert fragments, locally derived and deposited in a bed typically less than 3 feet thick. The bed is believed to be a lag breccia that accumulated at or near the source on low spots of the sea floor as sea level rose. Samples from the Ranch, collected from a small outcrop near the fence line east of the creek and west of the first cedar-cleared area, exhibit abundant angular fractures in chert nodules as well as very angular chert fragments. The outcrops are characteristically coated by gray, frilly lichens.

- **Mississippian** (323-353 million years old) *Chappel Limestone*

Characterized by a massive, dark gray to olive gray limestone bed between 1 and 5 feet in thickness. Fossils include crinoid stems and fragments, along with conodonts, but macrofossils are rare. The formation in outcrop weathers to medium gray and is very difficult to break.

- **Pennsylvanian** (290-323 million years old) *Marble Falls Limestone*

Typified by a brownish gray crinoidal limestone interbedded with black shale. The base of the formation in the area consists of 1 to 2 feet of black shale and weathers to a medium to dark brown. The limestone in the lower section formed in biohermal masses with steeply flanking sides, whereas the limestone found in the upper 40 feet of section is a splintery, dark gray fissile spiculite. Two samples were taken from this formation, one at the base in the black shale and the second from the dark brownish gray limestone. The fissile spiculite section may be located just north of the third dam, upstream from the road crossing to the hay barn.

- **Cretaceous** (66-146 million years old)

*Cow Creek Limestone**:*** The oldest of Cretaceous strata exposed on the Ranch, this is a light, buff colored packed biomicrite, with small pores resulting from the dissolution of carbonate shells. The major spring on the property flows out of this formation within Honeycut Creek approximately 10 feet southwest of the sample location.

Hensell Sand Member: Has a reddish conglomerate at the base and fines upward to silty, clayey, and calcareous beds in various shades of gray. The sample from the Ranch is grayish buff coarse fossiliferous sandstone with carbonate cement. Abundant caliche was observed in the upper section. This formation comprises much of the low slopes leading down to Honeycut Creek, and is mostly range land according to the Bureau of Economic Geology.

Glen Rose Limestone Member: Composed of alternating beds of limestone, dolomite, clay, silt, and sand. The alternating beds have different resistances to erosion, thus resulting in the characteristic stairstep topography of this formation. Fossils are found in the limestone, including the echinoderm *Salenia texana* and the pelecypod *Corbula*, as well as gastropods and other pelecypods. In this area, the Glen Rose forms ridges and marks the highest parts of the property.

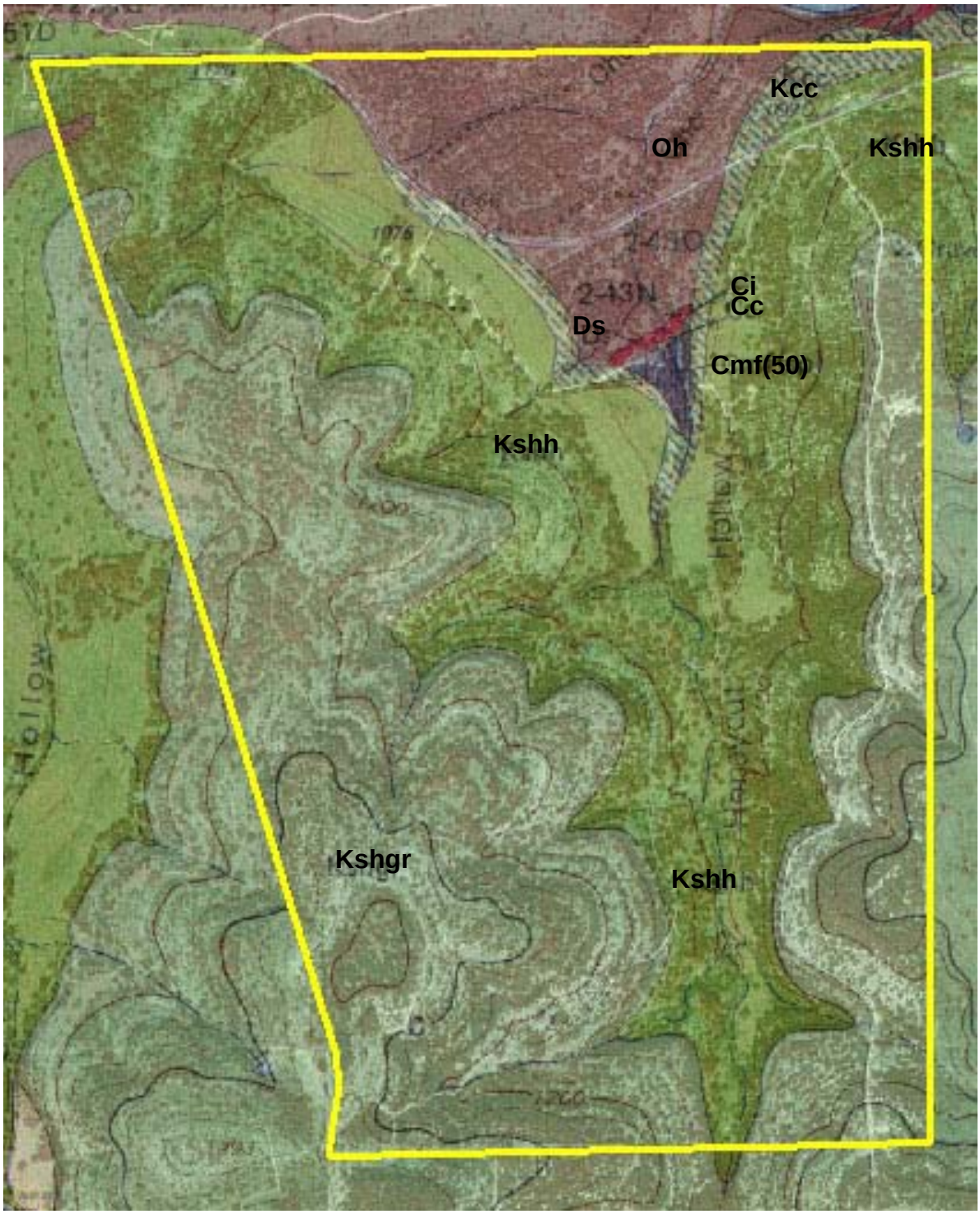


Figure 3. Geologic map with ortho photo. Compiled by Kara Dotter.

Kshgr = Glen Rose Limestone
Kshh = Hensell Sand Member
Kcc = Cow Creek Limestone
Cmf = Marble Falls Limestone
Cc = Chappel Limestone
Ci = Ives Breccia Member
Ds = Stribling Formation
Oh = Honeycut Formation

Soils

The soils found on the ranch are of five distinct types, numbered 7, 9, 25, 36, and 42 in the *Soil Survey of Blanco and Burnet Counties, Texas*. The soils are as follows, in order of decreasing abundance (Figure 4):[ii]

#7 Brackett-Real association, hilly

Capability subclass: VIIs

Range site: Steep Adobe

This grouping is composed of shallow, loamy soils on uplands with convex slopes between 10 and 30 percent. The slopes exhibit a stairstepped or benched appearance due to the underlying horizontal outcrops. The Brackett soils comprise 40 to 65 percent of mapped areas and are found on the sides of hills between the Real soils. Thickness averages 19 inches and the soils are typically underlain by weakly cemented limestone, soft chalky earth, and light brownish gray loam. These soils are well drained, with rapid runoff, moderately slow permeability, low available water capacity, and the erosion hazard is severe. The Real soils are approximately 25 to 45 percent of each mapped area and are located in long, narrow, roughly horizontal bands running perpendicular to the slope. Soil thickness averages 8 to 15 inches and the underlying material is marl and cemented limestone. After periods of high rainfall, seeps are common. These soils are well drained, with rapid runoff, moderately slow permeability, very low available water capacity, and the erosion hazard is severe. Although not suited to cultivated crops and tame pasture, the soils have a medium potential for native range plants and most recreational uses. The soils only provide low potential for wildlife habitat.

#25 Krum clay, 3 to 5 percent slopes

Capability subclass: IIIe

Range site: Clay Loam

Found on the concave foot slopes of limestone hills, this is a deep, gently sloping soil found in long, narrow areas that are commonly intersected by U-shaped, intermittent, spring-fed channels. The soil, reaching an average depth of 72 inches, has four distinct levels that tend to be very firm clay of brownish color and increase in calcium carbonate with depth. This soil is well drained, with medium runoff, moderately slow permeability, high available water capacity, and the erosion hazard is moderate. Although having high potential for cultivated crops, the fields require terracing and contour farming in most areas to prevent soil erosion. Native range plants are also a high potential for this soil, but wildlife habitat and recreational uses are of moderate potential.

[ii] Adapted from *Soil Survey of Blanco and Burnet Counties, Texas*. For a complete description of the soils, please refer to the above publication.

#42 Tarpley association, undulating

Capability subclass: VIs

Range site: Redland

Located on convex slopes of 1 to 8 percent on the uplands, the soils are comprised of shallow, stony, clayey matter underlain by limestone. Typical depth is 15 inches, but outcrops undulate between surface level and 30 inches above the surface. These soils are well drained, with medium runoff, slow permeability, very low available water capacity, and the erosion hazard is severe. Generally used for range with a medium potential for native range plants, the soils are not suited for cultivated crops or tame pasture. Wildlife habitat is of medium potential, but recreational uses are of low potential.

#9 Doss silty clay, 1 to 5 percent slopes

Capability subclass: IIIe

Range site: Shallow

Underlain by cemented caliche, the soil is shallow, gently sloping, and is located on uplands. Depth is approximately 17 inches and is underlain by a bed of pink cemented caliche. The soil is well drained, with medium runoff, moderately slow permeability, very low available water capacity, and the erosion hazard is moderate. Contour farming and terracing are needed to control water erosion. Medium potential exists for cultivated crop and tame pasture, native range plants, and wildlife habitat, but only has low potential for recreational uses. Note that this is the soil in the vicinity of the stone house. Estimated soil depth around the house foundation is 15 to 20 inches, but tests should be pursued to accurately determine true soil thickness before attempting to remedy the water problem in the basement of the house.

#35 Pedernales fine sandy loam, 1 to 3 percent slopes

Capability subclass: IIe

Range site: Tight Sandy Loam

This deep, gently sloping soil is found on convex slopes. Depth averages 80 inches. The soil is well drained, with medium runoff, moderately slow permeability, high available water capacity, and the erosion hazard is slight. Typically used for cultivated crops and range, the soil has medium potential for cultivated crops, tame pasture, and native range plants. However, the soil has high to medium potential for recreational uses and a high potential for wildlife habitat. Peaches grow well in this soil.

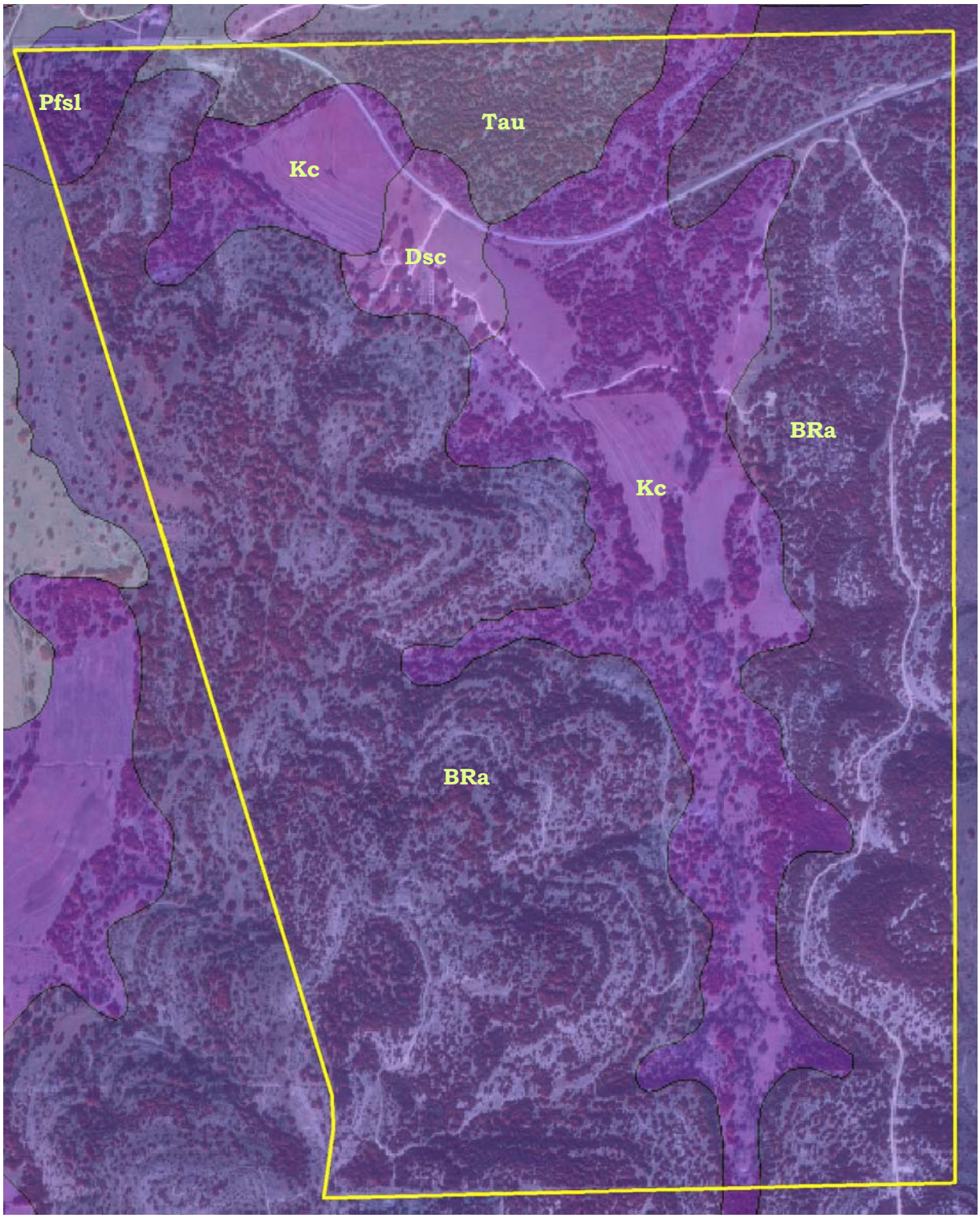


Figure 4. Soils map with ortho photo. Compiled by Kara Dotter.

BRa = Brackett Real association
Tau = Tarpley association, undulating
Pfsl = Pedernales Fine Sandy Loam
Kc = Krum Clay
Dsc = Doss Silty Clay

Comparison of Geology and Soils

In comparison, the similarities between the geology and soils maps for the Ranch, are striking. The soil boundaries closely parallel the geologic formation boundaries, and typically are located lower in elevation due to the effect of gravity (Figure 5). The types of soils are directly related to the underlying geologic formations from which they are mainly derived.

The predominant soil, the Brackett-Real association, is derived chiefly from limestone strata. Because calcium carbonate (limestone) tends to dissolve when exposed to rain, the rainwater carries away the chemical constituents instead of gradually breaking the rock down through mechanical weathering processes. Thus, the resulting soils tend to be thin and prone to erosion. In the case of the Brackett-Real association, the soils are described as exhibiting a characteristic stair-step appearance which is a key identifying feature of the underlying Glen Rose Formation. The Real soils tend to form in long, narrow, roughly horizontal bands which most likely coincide with the less resistant marl and clay layers of the Glen Rose Formation. The seeps resulting from high rainfall, another characteristic of the Real soils, are brought about by the percolation of rainwater through the more porous, easily eroded clays and marls to the less porous cemented limestone. This limestone layer acts as a barrier and causes the water to flow along the stratum until it reaches a point of release, in this case, the hillside. A similar soil is the undulating Tarpley association, found in the northern region of the Ranch. This soil is also derived from the underlying limestone, in this case, the Honeycut Formation, and exhibits similar characteristics as the Brackett Real soils. The significant differences are the absence of a stairstepped profile and any seeps in the Tarpley soils.

The second most abundant soil, the Krum Clay, correlates to the underlying Hensell Sand Member and is found along the gently sloping toes of the ridges. The soil is thicker and well suited to cultivation due mainly to the weathering of the sandstone. The mechanical weathering process acts on the quartz and rock fragments in the sandstone to gradually decrease grain size, eventually breaking down the grains into very fine clay particles like those found in the Krum Clay soil. This is in direct contrast to the chemical weathering process described above that dissolves limestone instead of breaking it down into smaller grains. The resulting thicker soil also allows for deeper penetration of rainwater. The property topography, as described previously, is essentially a U-shaped highland to the east, south, and west with decreasing elevation towards the central valley and to the north where the stream spills into the Pedernales River. This topographical assemblage causes rainfall to drain from the ridges into the central valley and flow north into the river, thus the property behaves as a single watershed. Some of the water draining towards the creek is absorbed by the ground, in this case the Krum Clay, and then flows towards the central valley through the subsurface. However, when the subsurface water encounters a less permeable layer it will flow along that boundary. In this area, the underlying Hensell Sand Member and, in the creek, the Chappel Limestone are the relatively impermeable barriers. As the water reaches this boundary, it flows topographically downward. The main spring on the property, located in the creek within the upper portion of the Chappel Limestone Formation, is most likely where a good portion of that water exits the subsurface to flow down the creek. Both the Doss Silty Clay and Pedernales Fine Sandy Loam soils are derived from the Hensell Sand Member as well, but they vary slightly in their composition. This is most likely due to two factors: localized differences in the underlying sandstone composition (perhaps ancient stream channels), and the different plant varieties that prefer those soils and then contribute to them through decomposition.

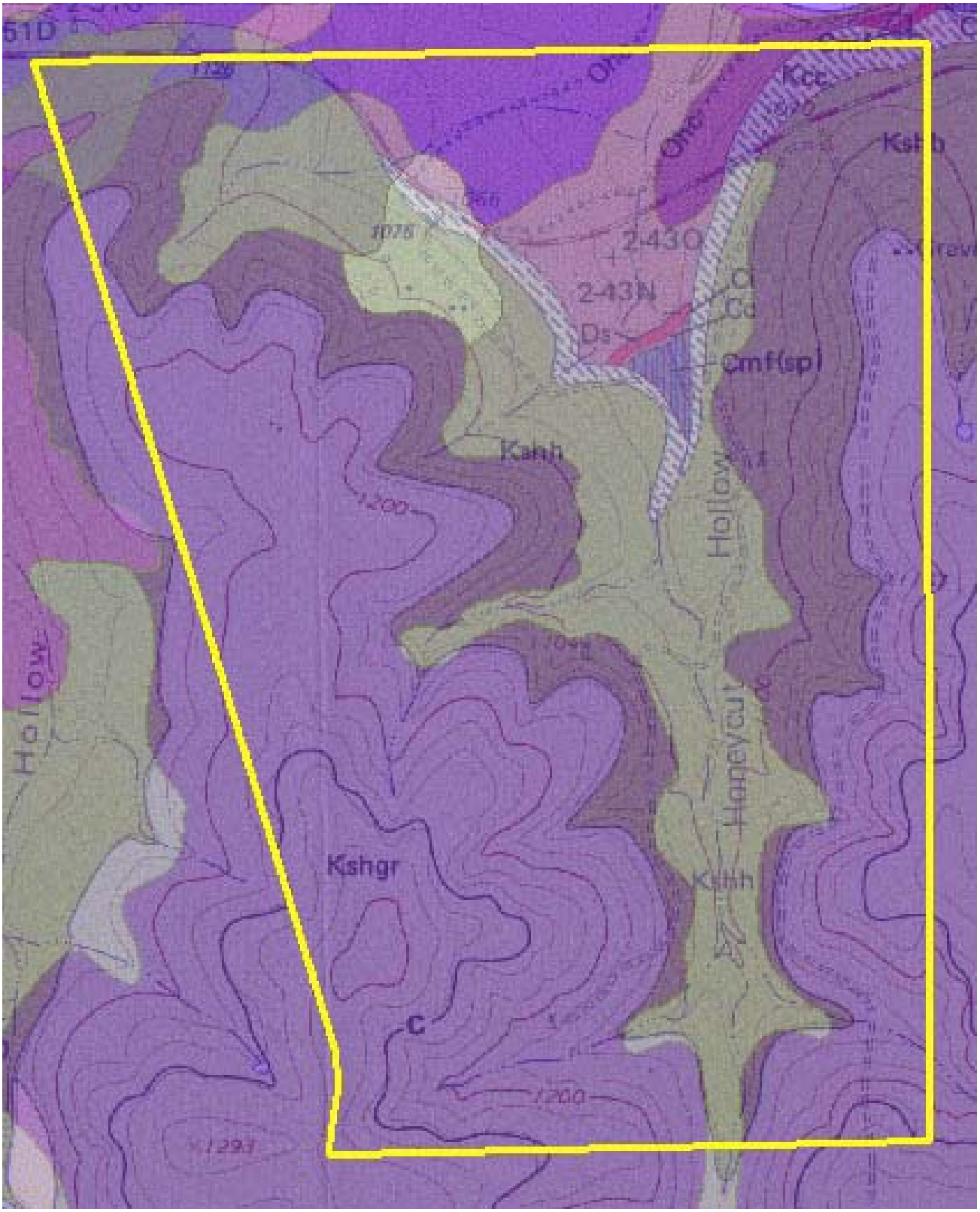


Figure 5. Comparision of geology and soils maps. Compiled by Kara Dotter.

Spatial Organization

The spatial organization of the Browning Ranch developed in response to the three topographic types that make up the landscape: the uplands, the lower slopes, and the riverine bottomlands. The steep limestone uplands that take up about two-thirds of the property are formed primarily out of the Glen Rose Limestone and the Bracket Real Association, as discussed in the soils section, but most of the inhabited area, as well as all five of the cultivated fields, are located on the deeper soils of the lower slopes (Krum Clay and Doss Silty Clay) formed by the erosion of the Glen Rose and the Hensell Sand. With the exception of the stone fence complex, most of the inhabited area is located high enough on the slopes to be out of any flood danger. The riverine bottomlands cut through all of the geological formations, telling a story about the processes that formed this landscape. The ranch is further organized by a pattern of open fields, cedar brakes, and riverine vegetation which are in turn located in response to the local geology, soils and the presence of Hunnicutt Creek.

The inhabited area of the Browning Ranch is divided up into five major complexes: the Barnwell House complex, the agricultural complex, the ranch house complex, the sheep barn complex, and the stone fence complex (Figure 6). While the first three are fairly close together on the lower slopes of the hills and on the western side of Hunnicutt Creek, the sheep barn and stone fence complexes are isolated on the lower slopes on the eastern side of the creek.

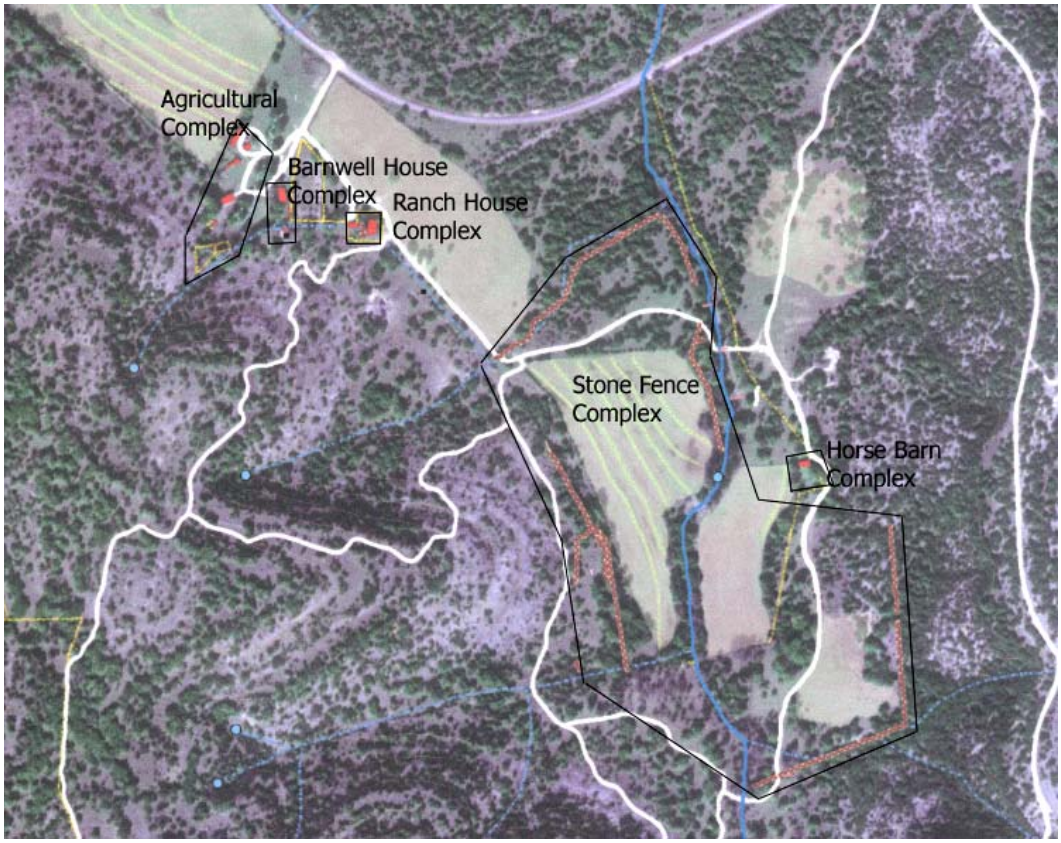


Figure 6. Map of the five complexes. Compiled by Sylvia Guererro and Laura Knott.

Together, the Barnwell House complex and the agricultural complex make up the first area one sees upon entering the property. This initial view is very important and the preservation of the spatial arrangement of these complexes will be very important in establishing the character of the site. The

Barnwell House complex consists of the Barnwell House itself, the smoke house, and its surrounding fence and landscape. The agricultural complex has an important spatial relationship to the Barnwell House because all its buildings were located to be approximately the same convenient walking distance from the house, improving efficiency for every day chores. Included in this complex are the horse barn, sheep dip facility, machine shed, maintenance shed, chicken coops, and various configurations of fenced pens.

The ranch house complex is reached by turning left off the main drive. Although this is not the first complex one sees when entering the property, it is contained in the initial view into the property that one has when approaching the site along the highway from the east and can be seen as an invitation onto the property. The complex consists of the ranch house and pipe fence, a shuffleboard court, and a garage structure which also contains a small apartment.

The sheep barn complex is remote from the other inhabited areas, being located approximately ½ mile from the ranch house and on the lower eastern slopes opposite Hunnicutt Creek. The complex contains the sheep barn and a maze of fenced ramps, chutes, and holding pens for both sheep and cattle. It cannot be seen from the other inhabited areas and has no impact on the initial entrance experience, but can be a later discovery for the visitor and an outpost for ranch activities.

The stone fence complex is also somewhat remotely located from the other four complexes, and is constructed on both sides of Hunnicutt Creek with Hunnicutt Spring at its center. This complex includes a northern and southern section, as well as a compound of what appear to be rooms or animal pens. This is most likely the oldest man-made feature on the ranch property and is valuable, not only for the historic and archaeological evidence that it may reveal, but it also lends an air of antiquity to the site, contributing a great deal to its historic character.

Structures, Furnishings, and Objects

Most of the structures, furnishings, and objects documented on the Browning Ranch were contained in or otherwise related to one of the five complexes and this section is organized to present them in this way. However, the fences, agricultural terraces, deer blinds, and artifacts found in many locations throughout the ranch property, did not necessarily fit into one of the complexes, so they will be discussed separately at the end of this section.

The Barnwell House Complex

The Barnwell House complex, located between the horse barn and the ranch house, consists of all three structures located within the chain link fence that surrounds the area: the Barnwell House, the smoke house, and the greenhouse. The Barnwell House (Figure 7 and Appendix B) is thought to have been originally constructed out of locally-quarried limestone in 1915 by Albert Moursund as a symmetrical two-story building. Its structure indicates that the front door was, most likely, at one time facing east and was located in the gap where one now enters the laundry room. The original house was hit by lightening during an electrical storm and the resulting fire destroyed practically the entire building except for the east, west, and north walls and a limestone staircase. The house was reconstructed as a one-story, bungalow-style house, most likely after 1926 when the Barnwell family purchased the property.[5]

During the 1940's and 1950's, the Barnwell House was occupied by the Nauman family, with Mr. Anton Nauman working as foreman of the ranch, tending the land and cultivating the orchard and vegetable garden. The house had few modern conveniences although it did have indoor plumbing.

The current owner recalls Mrs. Nauman washing clothes in a cauldron on the porch of the smoke house, scrubbing them on the washboard and hanging them on the clothesline.[6] In the 1960's, the wood stove and the screened in porch on the back were removed and the house modernized with a new kitchen, as well as a bedroom and bath extension where the porch had been.

Figure 7. Barnwell House. Photo by Laura Knott.

Today, the Barnwell House may be suffering from structural instability, most likely caused by water infiltration into the basement, which may be undermining the foundation. As a result there are many instances of cracking in the mortar joints and even individual stones, although this is not reflected in the interior of the house, which shows little evidence of shifting. The cracking may have occurred before the latest renovation and the foundation may have stabilized since then.

The oldest part of the building is supported by the walls of a full-depth basement below, which was used for storing canned foods from the garden. There is a chimney rising from the middle of the basement floor to which a stove or furnace may have been attached. The building appears to be constructed of wood frame resting on this foundation wall, with the limestone exterior acting only as a veneer and not as a supporting element. The exterior limestone shell is held in place with the frame structure by a concrete bond beam around the top of the wall. The addition on the rear of the building is a wood frame structure resting on a pier and beam system. The roof framing has been examined by a structural engineer and noted as being built out of 20th century planed lumber and in good condition.

The change wrought to the building after the fire resulted in a somewhat awkward renovation, most evident in a strange asymmetry on the north façade. The fire also may have cracked the original mortar, a soft, sand-based material, which was later repaired, and poorly, with a Portland cement. This cement, because if its impermeability, has exacerbated the cracking problem. Notable, also, is the pinkish discoloration around some of the window openings, which is the result of intense heat or fire in contact with this type of local limestone.

As mentioned before, the house is plagued by a continual leak into the basement, which is being currently dealt with by the use of a sump pump. The source of this leak is as yet unknown, but may be the result of a break in one of the water lines being fed by the cistern on the hillside above the house. It may also be fed by a seep, of which there are many on the property.

Although the Barnwell House was almost completely rebuilt in the 1920's, it is possible that the smoke house, located to the southeast of the Barnwell House and within the fence enclosure for that complex (Figure 8 and Appendix B), could have been constructed when the original house was built in 1915.[iii] A small, wood-framed and gabled, board-and-batten wooden building, the smoke house is about 12' tall at the peak and consists of two parts, the smoke room and the laundry porch, each of which measures around 8'x10'. The smoke room portion is small and narrow, with a narrow door on the west gable end and two screened and shuttered windows on the north and east sides. The laundry room is enclosed on three sides with the south side being open—the east wall features a sash window.

Figure 8. Smoke House. Photo by Laura Knott

The smoke room and the laundry porch appear to have been built at two different times because of the style of batten used between the wall-boards. The batten on the smoke room portion is smaller and more intricately formed than that of the laundry room, indicating that it may be older. The laundry room may have been added after 1942.

The smoke room still has hooks in the ceiling from which meat used to be hung. In the middle of the floor is a half-barrel full of ashes and what appear to be small chunks of cypress or cedar. It is possible that this was the source of smoke for the room, but it may have also been used to heat water on the laundry porch--the current owner recalls that Mrs. Nauman did laundry over a wood fire.[7] A large weighing scale and a sausage-stuffing mechanism were also found in the smoke house, which is not surprising because a former foreman recalled that the smoke house was in active use up until 1996.[8]

This building matches the description of a Pennsylvania German type of smokehouse.[9] Usually square or rectangular, they are typically 6'-8' on a side and 8'-12' tall--this one is slightly larger in plan, but does not exceed the typical height. These structures are also usually of frame construction with wooden siding and battens to cover the joints as well as gable end doors, as found in this building. Although the German smoke-houses do not typically have windows, this one does, but with stout shutters. The windows may have been added to replace the upper flue, which is typical but absent in this building.

There is another smaller building in the complex, which is reported to have been used as a wash room and a greenhouse. It is a small, narrow wood-frame structure, covered in translucent green

[iii] Bob Yard has described the boards used in construction as "clear," with no knots or deformities, well crafted and machined.

corrugated fiberglass siding. Currently, it holds a table and an assortment of items, such as plastic and terra cotta planting pots, old books, and trash. However, it was built under a tree and the green fiberglass is not the best material for providing light for plants, so its usefulness as a greenhouse is questionable.

The Barnwell House complex, as mentioned before, is bounded on two sides by a low chain link fence. Along the front side, the fence is mounted on a low concrete retaining wall, about 12" in height, which gives the yard a greater sense of separation, both physically and experientially, from the rougher, less domestic environment around it. On the south and east sides of the house, the yard is defined by a wire fence, which also functions to enclose the orchard to the east.

Agricultural Complex

The agricultural complex includes a grouping of functional buildings and structures related to the agricultural operation of the ranch: horse barn, sheep dip facility, machine shed, chicken coops, hog pen, and maintenance shed. The complex also includes driveways and gates accessing the maze of fenced pens, enclosed by wood, wire, and metal, as well as other objects related to the day to day agricultural activities.

Most of the buildings and structures in this complex are located about the same walking distance from the Barnwell House. The poultry operation requires intense management to protect against predators, for tending chicks, and for egg collection, requiring quick and easy access from the house. Sheep-raising operations also require periods of intense management during sheering, lambing and the sheep dipping procedure. Centralization of these activities provides efficient use of resources and manpower and easy access to the main road.

The Horse Barn

The horse barn is located within the agricultural complex at just a short distance from the Barnwell House (Figure 9 and Appendix B). Situated on a gentle slope at the base of a steeper hill, the building appears larger than it actually is when viewed from the main approach. This wood-framed building measures only 30'x50' and is 21' tall at the east end, but the fact that it is almost entirely clad in grey corrugated steel siding emphasizes its positive form. The northeast façades are broken only by five small windows on the north side, which are usually shuttered; a sliding door, which is usually closed; and the shutter-less hay loft opening, which lends a sense of mystery because it is always dark. The live oaks clustered around the west end hide the hill behind it and give the barn more presence, emphasizing its mass when viewed from the northeast. The exact construction date of this barn is not known, but a former foreman of the ranch recalls that it may have been built by the C.L. Browning Construction Company not too long after C.L. Browning purchased the ranch in 1942.[10]

A broad central driveway divides the interior of the barn into three main spaces with a bank of five storage rooms to the north and five horse stalls to the south. The wooden floors of the storage rooms are supported above the ground by 6x6 posts mounted on concrete footings. Being on the north side of the building, they provide additional protection to the animals during the winter. These rooms currently contain a variety of items, including farm chemicals and tools, saddles, chairs, and empty feed bags.

Figure 9. Horse barn, view from the northeast. Photo by Laura Knott.

The five stalls on the south side are enclosed on the interior by plank half-walls and doors (Figure 10). With the exception of the far west stall, they are enclosed on the south wall by a combination of open plank fences and metal gates, leaving the stalls fairly open to the heating qualities of the sun in the winter. The far west stall has a raised wooden floor but the others have earthen floors, which indicates that it was used to house sick or otherwise vulnerable animals, such as foaling mares. The stall side of the barn is supported by a combination of tall cedar posts and 4x4 posts attached to cedar stumps set into the ground. The stall doors feature charming hand-made latches that lock by sliding the tongue of the latch into a carved opening in the adjacent cedar post. Other interesting details include a variety of hinges throughout the structure (Appendix B), which may indicate different stages of construction as well as chalk markings on some of the doors, possibly calculations (Figure 11).

Figure 10. South side of horse barn. Photo by Laura Knott.

A hayloft above extends over the driveway space and storage rooms, opening up over the stalls to that hay can be thrown down to the feeder cribs below. The loft can be accessed by a ladder mounted on the storage room wall or by either loading door located on the gable ends of the barn.

Figure 11. Chalk numbers on storage room door. Photo by Laura Knott.

History

The horse barn is a fine example of a transverse-frame style barn, which differs from most other American vernacular barns in that its main entrances are located on the gable ends. Other features typical of transverse-frame barns are that they are longer than wide, with a central driveway with storage and stalls on both sides, and a hayloft above which can be loaded from the outside.[11]

Although the horse barn is a 20th century building, the transverse-frame is a traditional regional style that entered the Hill Country with the mid-19th century influx of Anglo-Americans who immigrated from the Upland South, particularly Tennessee.[12] Probably developing from the log-building techniques of the area, this practice is thought to have diffused down the Appalachian Mountains from the Swedish-Swiss-German settlements of southeastern Pennsylvania and the Delaware Valley.

This barn is only one of many transverse-frame barns found in the area, confirmed by a windshield survey along the back roads of Blanco County (Appendix F). Most of Blanco appears to have been settled primarily by Anglo-American immigrants. There was also an influx of German immigrants to the Hill Country around the same time--they also constructed this style of barn, but tended to build them out of stone,[13] rather than wood, and one can observe this change along the western edge of Blanco County, which is the eastern edge of the most heavily German-settled part of the Hill Country.

Sheep Dip Facility

The size and design of the large sheep dip facility on the Browning Ranch (Figure 12 and Appendix B) represents a significant capital investment. It is assumed, therefore, that this was a major agricultural operation and possible source of extra income for the ranch. The sheep dip operation was probably a facility shared by the surrounding ranching community. According to the current ranch manager, this particular facility was probably unique to this ranch and sheep dipping as a ranch community activity was not uncommon.[14] Sheep ranchers on surrounding properties may well have brought their sheep here and shared the expense of needed chemicals, materials and labor.

Figure 12. Sheep dip facility. Photo by Bob Yard.

The purpose of the structure was to treat sheep against various external parasites. The animals were gathered up into holding pens and then herded into a shoot, which leads to a long open concrete tank buried in the ground and sheltered by a metal roof. This tank was partially filled with a chemical solution as the treating agent, diluted in water. The animals were lead into and through the solution to an enclosed corral at the opposite end where they could, again, be collected in pens. Various gates allowed sorting of the animals as necessary. A later discussion will address the most common chemical used, Coopertox, its subsequent ban by the EPA in 1983 and suggest the potential need for chemical waste disposal and abatement.

Figure 13. Machine shed. Photo by Bob Yard.

The machine shed is an open metal-pole structure enclosed on three sides by corrugated sheet metal. It also contains one interior sheet-metal wall, dividing the space into two areas, one which currently houses a tractor and the other which is used to store other machinery (Figure 13, Appendix B).

Figure14. Electrified chicken coop. Photo by Bob Yard.

The chicken coop is a wood-framed structure with corrugated metal siding and it appears to have been electrified at one time (Figure 14, Appendix B). Since the building is completely enclosed, it probably provided some protection from predators and may have been used for laying hens. Three low shed structures which appear to be another type of chicken coop are located to the south and west of the horse barn and may have been used for stewing or frying chickens (Figure 15). Due to the number and size of the coops it may be that chickens were sold as part of the agricultural business.

Figure 15. Chicken coop. Photo by Bob Yard.

Figure 16. Workshop. Photo by Bob Yard.

The workshop is also a wood-framed building with corrugated metal siding (Figure 16 and Appendix B) and contains many hand and power tools, which are typically associated with building construction, maintenance, and repair and are commonly found associated with ranch or farm operations.

Southeast of the horse barn is a large, fenced-in area which contains the remains of the three chicken coops. The area also probably contained hogs because there are two feeding troughs in the pen which are typically used to feed them. There is also a great deal of soil erosion caused by compaction and churning of the soil typical of hogs.

Agricultural Equipment

The mid-19th century, agricultural practices were accomplished by hand labor using only a few simple implements and supplemented by animal power in the most rudimentary way for pulling carts and simple hand-wrought plows. Agricultural machinery as we know it today was introduced by the invention of the mower, the introduction of the reaper by Cyrus McCormick in 1831, and the development of the threshing machine. American farm mechanization was accelerated during the Civil War as a response a labor shortage and the concurrent rapid geographical expansion of homesteading.[15]

The beginning decade of the 20th century marks the introduction of gas powered agricultural practices. During the 1910's and 1920's, mechanization of agricultural completely eclipsed animal-powered farming and ranching. The various implements, machines and structures found on the

ranch today support the assumption that its operation was becoming gas-powered during the late 1920's and early 1930's. One old fuel pump located near the workshop can be dated to that time frame and another dated to the 1940's (Figure 17). All the agricultural implements found on the site during recent fieldwork and discussed below would have been pulled by a gas powered tractor and the majority are, or have been, used for soil cultivation and management.

Figure 17. Left to right: Above ground fuel tank, 1920's gas pump, and 1940's gas pump. Photo by Bob Yard.

Of the two fuel pumps were found in the agricultural complex, the older one is a Wayne Model 615, hand accentuated pump, which was manufactured from 1928 until 1941. The newer pump is called the Gas Boy Model 390, and, in its day, was intended for farm or fleet use. It can be used to pump gasoline, diesel or kerosene and operates off a ¼ hp electric motor. The above-ground, gravity-feed tank is probably associated with the 1920's pump and the underground tank in the same vicinity is probably associated with the 1940's pump.

According to a former foreman, a Ford tractor with implements was purchased in the 1953-54-time period,[16] but this tractor is no longer located on the property. During spring, 2003, a John Deere Model 2940 with a front loader and an enclosed cab was found stored in the machine shed (Figure 18). This diesel-powered tractor has a model number which indicates manufacture sometime between 1980 and 1982. It is in serviceable and operating condition.

Figure 18. John Deere tractor. Photo by Bob Yard.

One of the cultivation implements found on the ranch is a nine-shank tiller, which is used for initial plowing in a previous planted field and is usually pulled by a tractor with a three-point hitch connection (Figure 19). The shanks, or rippers, are spring loaded to allow them to release from stumps or rocks while operating. The manufacturer and date of manufacture is not known. It has surface oxidation but is still a useable piece of equipment.

Figure 19. Nine-shank tiller. Photo by Bob Yard.

The disc harrow, currently located to the east of the machine shed, is actually two pieces of equipment that are joined and pulled by a tractor using a draw bar (Figure 20). This device is used to further break up the soil following plowing and before planting. It is a Ferguson Sherman Model A-BO-20, and was manufactured sometime between 1940 and 1942.

Figure20. Disc harrow. Photo by Bob Yard.

A six-foot shredder or "brush hog" is also stored near the machine shed (Figure 21). This implement is used to cut rough pasture and low growing brush and is operated by a power take-off (PTO) unit. The front guard is missing on the left side of the machine and the operating condition of this machine is unknown. It is a Model 72 Serial # 004410, manufactured by the Servis Equipment Company after 1948.

Figure21. Brush hog. Photo by Bob Yard.

There is a post-hole digger located close to the shredder and is also operated by a PTO and mounted on the three-point hitch (Figure 22). The Danuser Equipment, Fulton, Missouri, was the manufacturer but the date of manufacture is unknown. It appears to still be a serviceable piece of equipment.

Figure22. Post-hole digger. Photo by Bob Yard.

A Dearborn 10-152 plow, sometimes called an economy plow, is located with the other equipment near the machine shed (Figure 23). It would have been pulled by a Ford tractor and is typically used on heavy clay soils or land which has been fallow for some time--that is, plowed but not replanted every season. It is rusty and appears to be missing the plow boards. Serviceability is unknown.

Figure23. Economy plow. Photo by Bob Yard.

A materials scoop, located close to the post-hole digger, may be either pushed or pulled by a small tractor, such as, 8N Ford tractor. The manufacturer and date of manufacture are not known. It is rusty, but probably still useable (Figure 24).

Figure 24. Materials scoop. Photo by Bob Yard.

A sprayer, also found close to the post-hole digger, would have been attached to a tractor with a portable tank to spray fields with insecticides, herbicides or fertilizers (Figure 25). The arms swing out to cover a large area with each pass along the field. It appears to be badly deteriorated and unserviceable and the manufacturer and date of manufacture are unknown.

Figure 25. Sprayer. Photo by Bob Yard.

A portable squeeze shoot located on the site was identified as the type that can be moved around by a truck or a tractor (Figure 26). It is used to hold sheep or calves for shots and tagging for identification, or any number of other procedures for which an animal would not stand still. Most of the wooden pieces are rotten as well as the tires but it could be made serviceable with some work. There are no equipment manufacturing tags or other types of identification on this piece of equipment, so the make, model, and age are unknown.

Figure26. Portable squeeze shoot. Photo by Bob Yard.

Also found on the site is a farm wagon that could be pulled by a truck or a tractor (Figure 27). It is manufactured by the Dearborn Farm Equipment Company, Dearborn, Michigan and is identified as a Model 21-2. The metal frame is intact but all the wood has rotted away as well as the tires but it could be made serviceable. It is interesting to note that the front wheels turn as the tongue is moved from side to side by a method very similar to a car.

Figure 27. Farm wagon. Photo by Bob Yard.

Two portable sprayer tanks with gas- powered pumps were also found on the site (Figure 28). It is possible they were used for treating the orchard trees and the vegetable garden. A heavy -duty portable air compressor with a jackhammer and bit was also found (Figure 29). Typically used for breaking up rock or concrete these are commonly found at construction sites. The operating condition of these machines is unknown.

Figure 28. A portable sprayer tank. Photo by Bob Yard.

Figure 29. Air compressor. Photo by Bob Yard.

Two orchard heaters or smudge pots were found in the machine shed (refer Orchard section). They typically burn kerosene or No. 2 diesel and are used to inhibit frost or freeze damage in the orchards. Known as Scheu HY-LO Orchard Heaters, they are still manufactured today. These items are probably still serviceable.

A Dain Pump Jack, typically used to automate hand-operated well pumps, was also located in the machine shed (Figure 30). It was probably belt-driven by a tractor or stationary motor. It would probably be serviceable with some repair.

Figure 30. Dain jack pump. Photo by Bob Yard

Agricultural Chemicals

Three different "families" of chemicals were found on the ranch: pesticides, fertilizers, and fuel. Unfortunately, not all products can be identified due to missing and/or deteriorated labels. The most common chemicals found and identified were pesticides, which may include insecticides, herbicides, fungicides, and rodenticides. Some of these chemical products are regulated for agricultural use and have been phased out for residential use. Others have been banned for all use or severely limited.

Cooper-Tox is a brand name for a chemical insecticide called toxaphene which at one time had a wide spread agricultural use throughout the United States and many other countries. It is also known as campheclor, chlorocamphene, and by several other brand and chemical names. Containing over 670 chemicals, it was one of the most heavily used insecticides in the United States until 1982-1983

and typically used on cotton, cereal grains, fruits, nuts, and vegetables. It was also used to control insects on livestock, such as in sheep dipping operations. Toxaphene was banned for use by the Environmental Protection Agency (EPA) in 1983 because it was found to be a possible human carcinogen based on laboratory animal test studies. According to the World Bank Group, this persistent organic pollutant can remain in soils for a long period of time. The EPA recommends that toxaphene should not exceed 0.005 ppm (0.005mg/l) in drinking water. Because the presence of empty Cooper-Tox bottles have been found in and around the sheep-dip operation, indicating its probable use there, soil testing in the area of the sheep dip vat may be indicated.

Dursban 25 is another common chemical pesticide for agricultural use. Its chemical name is chlorpyrifos and it is part of the family of chemicals known as organophosphates. This particular chemical is still a commonly used, but well-regulated, pesticide for agricultural use. It has been phased-out for indoor and outdoor residential use by the EPA due to possible neurological effects in exposed children.

Co-Ral is a brand name for an EPA registered chemical insecticide commonly used on cattle to control ticks, mites, and other arthropods but is not used on crops. Its chemical name is coumaphos and, like Dursban 25, is an organophosphate. When properly used and applied, Co-Ral does not pose a significant risk but it is not intended for residential use or application.

Banvel is an herbicide found on the ranch, commonly used for broad leaf weed control in grain crop fields. Its chemical name is dicamba or 3, 6-dichloro-o-anisic acid. When properly used, it does not appear to present a human or environmental threat.

The next group of chemicals identified on the ranch was motor fuels – diesel and gasoline. There is an above ground, gravity-feed tank, which is probably associated with the 1920's pump and an underground tank, probably associated with the 1940's pump. It should be determined what type of fuel is being stored underground and how much. Again, soil and water sampling and testing may be appropriate based on the age of the tanks. Ground and water contamination by motor fuels remains a major environmental concern.

Ranch House Complex

This complex includes the ranch house, its yard as demarcated by a pipe rail fence, the garage and apartment to the west, and a gravel parking area. The ranch house was built in 1942 by C.L. Browning for his San Antonio-based family to use as a weekend and summer residence (Figure 31 and Appendix B). Workers from the C. L. Browning construction company built not only the ranch house but other buildings and structures on the property. Photographic evidence shows that the garage and apartment which is part of this complex was constructed some time after the ranch house, but it is not know in which year this occurred.

The ranch was intended primarily for recreational use by the Browning family, part of a new wave of recreational ranchers in this region (mostly from San Antonio), who purchased Hill Country spreads as second homes. For the Brownings, the house was a place to escape the city, especially in the summer, and enjoy nature and outdoor activities. The children could explore, ride horses, help with chores, and just "fool around" in the fresh air, but the ranch was also a refuge from the polio scares of the 1940's. Mr. Browning loved being out in the country, riding horses and occasionally hunting; his wife, Elizabeth, was more of a city girl, but enjoyed the ranch life as well. The house was the

perfect gathering place for the extended family, including C.L. Browning's five sisters. The family enjoyed getting together to talk, as well as play

Figure 31. Ranch house. Photo by Sarah Benson.

ping-pong, cards, horseshoes, and shuffleboard. The Brownings shared the land with the Nauman family, who may have lived there before the Brownings purchased the property. The Naumans had four daughters, who were playmates for the Browning children.

The Ranch House

The house is situated on a low slope at the edge of the inhabited area among a grove of live oak trees, with a clear view over open fields to the east. The land rises more steeply behind the house and is more densely covered by trees. Thus the setting of the house takes advantage of both broad vistas across the valley and the shelter of the trees and the hill. The entrance to the property is also visible from the house, making it easy to watch for and welcome visitors.

A tubular steel fence, painted beige, demarcates a yard around the house (including the detached garage) and is interrupted at several points by metal gates. The fence, probably installed to keep cattle away from the house, also lends the immediate site a domestic scale, even though the ranch beyond is visible and readily accessible. It was installed in 1989[17] to replace what the present owner recalls was a wooden board fence.[18]

The house is a simple, essentially rectangular, one-story structure with a moderately pitched roof. The east end of the house and part of the southern end originally comprised a screened-in porch, which was enclosed in the 1960's. The pitch of the roof becomes generally shallower over the span of the original porch but overhangs the house about two feet on either long side. The building structure is wood frame on a pier and beam foundation and clad in asbestos shingles painted beige; the skirt of the building is faced by rusticated random ashlar stone masonry.

A broad stone chimney of random ashlar masonry in various grey and beige hues rises through the center of the house; its outside face is a prominent feature of the entry porch (Figure 32). The greyer limestone appears to have come from the site because there is an outcrop, called the Honeycut Formation which matches this stone and may have actually been taken from the northern section of the stone fence. The beige limestone appears to have been taken from the Glen Rose outcrop, also found on the site. It is unclear why these different types are arranged in such a pattern, except, possibly for the simple sake of convenience during construction. On its north side, this chimney bears a divot, which was made by an errant bullet from a loaded gun belonging to one of Mr. Browning's guests.[19] Another, much smaller, stone chimney rises out of the roof over the kitchen. A large antenna is mounted on a triangular metal tower about twice the height of the house, at its south end. Old photographs indicate that this tower was installed around the time the ranch house was constructed (Figure 33).

Figure 32. Random ashlar masonry chimney. Photo by Sarah Benson.

The original windows of the house are wood-framed and double-hung, but the windows on the porch addition are framed in metal. All windows are flanked on the exterior by wooden false shutters, which are, like the front porch posts, painted dark brown. These shutters were a later addition and do not appear in the early photograph. The window and door frames, as well as the wooden floor of the entry porch are painted the same beige as the house. Window placement and distribution is not particularly generous; neither the front bedroom nor the living room itself have windows, although the living room is open to the former porch, which does have medium-sized openings. The windows that were installed in the new exterior wall do provide sufficient natural light to the porch room, but little light to the living room. The kitchen has a small window over the sink and a window in its exterior door. The second original bedroom, situated in the south corner, has three large windows, and the original bathrooms each have one window. Before the enclosure of the porch, however, most rooms opened onto the porch, and had access to light and air.

Figure 33. Ranch house, probably just after construction, no date. Photographer unknown.

Originally, the house was roughly one room deep, its mass enclosing an entry porch on the west side and running parallel to the screened-in porch on the east side. The entry porch is still intact but the screened-in porch has been enclosed (Figure 34). A small bedroom forms the northwest corner of the house, accessible only from the porch. The screened-porch also partly wrapped around the south end of the house. The floor of the porch was wood, and canted very slightly. The living opened out onto the porch; there are now two large openings between the living room and the former porch. The kitchen was, and still is, accessible from the former porch via a "Dutch" door (Figure 35).

Figure 34. South end of ranch house showing enclosed porch. Photo by Sarah Benson.

Two doors were installed in the new exterior wall; one is on the east side, opening on to a set of concrete steps. The original interior rooms have a somewhat different character than the rooms that were created from the porch and have higher ceilings (about 11' in the living room) and wooden floors. The fixtures (doorknobs, window-frames, etc.) are, of course, older than the porch rooms, whose fixtures were installed with the enclosure. The porch rooms are now carpeted, and the windows there are outfitted with interior shutters.

Figure 35. Dutch door. Photo by Sarah Benson.

Mrs. Browning was responsible for most of the decoration during the early years; she had a creative flair and under her supervision the house was light and cheerful. She cultivated relationships with various painters and craftspeople from San Antonio, and commissioned them to create art works for her. One notable commission that remains is the large map of Texas, in oil on canvas, hanging over the fireplace (Cover and Figure 36). The map shows rivers and other landmarks and symbols, some important to Browning family history (the C and L brand, SMU, and C.L.'s father's church), and some state landmarks (the Chisholm Trail, agricultural products, and the Alamo). One detail depicts the elder Brownings driving down to Mexico. During this era, Mrs. Browning also commissioned decorative images and sayings to be painted on the walls; Elizabeth Barlow Rogers recalls "hunger is the best seasoning" painted over the stone, "deep in the heart of Texas" painted over a white upright piano (now gone), and "cleanliness is next to godliness" in the bathroom.

Eventually, as the children grew older, Mrs. Browning lost interest in the house, and the decoration changed. Mr. Browning used the house as a place to entertain friends and business associates and it acquired more of a hunting lodge character. The porch was enclosed and air-conditioning was installed, making the house cooler, of course, but also darker and probably quieter, since the windows would have to remain closed. Walls were repainted and papered and the whimsical sayings and decoration disappeared.

The living room is the heart of the house; it is at the physical center and could be seen as a pivot from which one may access all of the other areas of the house (sleeping, eating, playing). The massive and inviting fireplace (along with the flanking bookshelves and cabinets – perfect for storing games) and the personalized map of Texas mark the room as the center of leisurely family

Figure 36. Map of Texas painting. Photo by Sarah Benson.

gatherings. It would have been the perfect spot to gather after a long day of exploring, playing, or working on the ranch. It continues to be a natural gathering spot.

The enclosure of the porch marked a critical turning point in the physical history of the house and fundamentally changed the way the house works. The porch would have functioned as in important intermediate zone between the outdoors and indoors. It was a place to sit quietly, play, or rest. It was a vantage point from which one could see and hear and feel nature, while at the same time, be in the shade, protected from insects and close to the amenities of the house. Before the enclosure, the family spent a good deal of time out on the porch relaxing, talking, and playing cards. Meals were taken on the porch, and the door between the porch and the kitchen was a "Dutch" door (as it still is today), for easy visual and physical access.

At this time, there is great variety to the treatment of surfaces; each room is decorated differently. The wall paper in the kitchen is a dense and colorful large-scale paisley pattern. The trim and cabinetry are all dark stained wood, and the counter that runs the length of the north end is a light-colored wood (the cabinets are installed over this counter). The floors are wood, and wooden shutters cover the window over the sink (which is in the middle of the counter). The dark tones in this room lend the room a certain coolness.

The bedrooms and bathrooms have a more delicate wallpaper treatment (except for the half bathroom installed in the original porch space, which has a bold trompe l'oeil tile wallpaper). The walls of the porch that now contains the dining and sitting areas are covered with a brown burlap fabric. The walls of the living room are wood, installed like vertical clapboard. The carpet that now covers the floor of the enclosed porch is a low-pile large green plaid pattern. The original bathrooms have tile floors and wainscoting; one has yellow hexagonal tiles on the floor with white square tile

wainscoting and cheery yellow wallpaper. The other has a green tiled floor, white tiled wainscoting, and greenish floral wallpaper. Both have dark wooden interior shutters.

The Garage and Apartment

To the east of the ranch house is another building which functions as a garage for vehicles and which also contains a small apartment, as well as a storage room and a screened-in porch (Figure 37). This porch was originally used to hang deer carcasses for cleaning during the hunting season, to keep the flies away from the meat.[20] The apartment was used to house employees of the Browning family, usually their chauffeur, Ralph Morris, who worked for the family from 1962 until Mrs. Browning died in 1992. A photograph of the ranch house, taken probably not long after construction, does not show this building, so it appears that it was constructed somewhere between 1942 and 1962, probably not long after the ranch house was built.

Figure 37. Garage (right) and apartment (left). Photo by Laura Knott.

The Yard

The ranch house complex is defined by a pipe rail fence. The current owner recalls that it was originally a wood board fence, but was probably replaced with pipe, a more durable material, in the 1960's. Features inside the fenced area also include a large iron bell, once used to call the family in for dinner; a shuffleboard court, which is still in use; a horseshoe court just south of the house; and a wooden swing hung from a frame and located next to the shuffleboard court. There is a wooden pole structure behind the garage, built to support small wooden boxes that held bird seed. There is also a clothesline behind the apartment which had wooden supports.

<u>Sheep Barn Complex</u>

The sheep barn is the only major farm structure on the Browning Ranch not located within the agricultural complex (Figure 38 and Appendix B). It is, in fact, quite remote from the zone of the most intensive farming activity on the property, being around one-half mile, as the crow flies, and one full mile by roadway, from the Barnwell House.

Figure 38. Sheep barn, south elevation. Photo by Laura Knott.

The sheep barn is not as massive in appearance as the horse barn; although it is 50' in length, it is only 20' wide and is dwarfed by a large clump of live oaks nearby. Like the horse barn, the sheep barn is of wood-frame construction, as well as roofed and covered on three sides by corrugated steel siding, with a dirt floor. The main wall and center supports are tall cedar posts between 18' and 20' in height, set directly into the ground. The barn contains one main room with a hayloft above, which appears to have, at one time, spanned the entire length of the building. It also appears that the loft was completely enclosed on all sides, but that the lower half of the south side of the barn was open to the exercise yard. The lower one-to-three feet of the north and west sides of the barn are enclosed by a mortared rock wall--rough and unfinished in appearance on the inside, but more refined on the outside face (Figure 39). It is unclear why this wall was constructed, but it appears to be somewhat more recent than the barn itself.

Figure 39. Sheep barn, north elevation. Photo by Laura Knott.

The exercise yard enclosure appears to have at least two periods of construction, the first probably concurrent with the barn construction and consisting of a concrete ramp with a wood and wire enclosure, a long chute, and a holding area with four gates. The size of the ramp and the chutes indicate that perhaps this was intended to control sheep (Figure 40). A larger, more robust holding area and chute appears to have been built much later than the first and seems to be at the most ten years old (Figure 41). It is constructed of stout wooden posts, 12" in diameter, which support sturdy cedar paling fence panels. The design and strength of this section of enclosure indicates that it was probably used to control cattle, rather than sheep.

Figure 40. Sheep chute. Photo by Laura Knott.

Figure 41. Cattle chute. Photo by Laura Knott

History and Context

According to a former ranch foreman, the sheep barn was constructed in the early 1940's, right around the time the ranch was purchased by C.L. Browning. Research has shown that this building and the fence complex are typical for those constructed for sheep.[21] The barn is two stories with the ground floor for the animals and a gable roof that provides room for an upper hayloft. Typically for such a structure, it is open on the south side to an exercise yard, providing air circulation for the sheep, which tend to get overheated, even in the winter, in a completely enclosed structure.

Stone Fence Complex

Less than ¼ mile east of the ranch house lie the remains of dry-stack limestone fences which appear to have formed a compound of fields and possibly pens for livestock (Figure 42).[iv] These fences outline a rough rectangle of about 85 acres, at the center of which is Hunnicutt Spring. The historical record refers to the Moursund family having lived at Hunnicutt Spring when they first came to the Johnson City area, and mentions that the old house that was there was in such poor condition that they had to live in a tent as a temporary residence. This house may have been located in very close proximity to this fence complex; no remains of a wooden structure have been found in the area, but there is a small rectangle of dressed limestone in the wall compound section, possibly indicating the location of a hearth.

There appear to be three distinct sections to this fence complex, the northern section, the wall compound, and the southern section. The northern section lies completely to the west of Hunnicutt Creek and roughly outlines what must have been cleared pasture at the time, which has since grown up in cedar (Figure 43). Also included within the boundaries of this section is Field Two, one of the terraced fields which will be discussed in more detail below. Although this field was most likely terraced in the 1950's, one might assume that when the fences were built, it too, was cleared of stones for crops or pasture. The stone used to build these fences appears to be flatter and more angular than that used for the other two sections, which is consistent with the exposed limestone bedrock of the Hunnicutt Formation in the immediate vicinity. The remaining portions of these fences are only 18" tall at the most, but were probably much taller, having been pushed down by the flooding of Hunnicutt Creek from time to time.

The southern fence section was built on both sides of the creek and appears to have been constructed up to the creek banks at one time; however, several hundred feet of fence are missing where some of the stone was removed for sale.[22] The stone used to construct these fences appears to be thinner and more varied in size than that used for the north fence and appears to have come from the Glen Rose Formation. Remaining sections of this fence are as tall as four feet in some areas (Figure 44). Much of this fence appears to follow an intermittent stream, which may have been diverted and the fence possibly used as a retaining device. The stream has since broken through the fence but it appears that it may have originally been stopped by a roughly constructed spring box structure (Figure 45).

Whereas the north and south sections appear to have been built to contain pasture, the wall compound is distinctly different; it appears to have been constructed as a series of pens, some of those walls also functioning as retaining walls built into the side of the hill (Figure 46 and 47). The stones used to construct the compound appear to be rounder and more varied in size that those used for either of the other sections. Where most of the stone in the complex was used in its natural form, in the compound it appears that in one area, some stones were deliberately formed to create possibly a hearth. There is also evidence of a gate close to the compound where the walls were built up to the trunks of two live oaks, creating a picturesque entrance to the compound (Figure 48).

[iv] Though these fences structures have the appearance of walls, they most likely functioned to contain livestock and, hence, will be called fences for the purposes of this report. We kept the label, "wall," when describing the wall compound because it is possible that these structures in the compound actually functions as walls—part of a building rather than simple containment of animals.

Figure 42. Map of fence complex. Compiled by Sylvia Guerrero.

Figure 43. Stone fence in northern section. Photo by Kara Dotter.

Figure 44. Stone fence in southern section. Photo by Adrienne Campbell.

Figure 45. Possible spring box structure. Photo by Adrienne Campbell

Figure 46. Possible structure in wall compound. Photo by Adrienne Campbell.

Figure 47. Structure in wall compound also acting as retaining wall. Photo by Adrienne Campbell.

Figure 48. Gate in wall compound. Photo by Adrienne Campbell.

In general, the fences and walls of the complex vary in width from around 16” to 24” and are consistently two courses wide when courses could be distinguished. Heights also vary, but one must take into account displacement as a result of natural and human forces over time. Eighty percent of the fence in the northern part of the ranch measures two feet tall or less, but the relatively short height is attributed to flooding from Hunnicutt Creek. In the stone complex area, portions of the wall are as tall as six feet, while other segments are less than one foot and have no logical termini, this attributed to the removal of stone from this area in the 1960’s. Because the fields contained within the stone fence boundaries have been cleared of stones, one can assume that the fences were constructed of this local material during the process of clearing.

History

Stone fences in the Texas Hill Country have been attributed primarily to the immigrant German population that settled the area and most were probably constructed sometime between 1860 and 1880, before the introduction of the barbed wire fence.[23] When they first arrived in the Hill Country, the Germans copied the American style wood "zig-zag" or "worm" fences, but around 1859, they began to construct fences out of the flat limestone found in the area:

> "In the Hill Country, where the open range and cattle roundups persisted into the 1870's, the stone fences were used to enclose not only fields, gardens, and corrals, but also pastures. Across the flat stream valleys, up the steep hillsides, and over the divides the Germans built them, accomplishing what no other ranchers in the entire West were willing or able to do—fencing the open range before barbed wire."[24]

The presence of a stone fence, however, does not necessarily indicate a German builder. Dr. Terry Jordan, geographer, recalled a woman speaking up at one of his lectures, disagreeing with his assertion that all stone fences were German, and informing him that her grandfather had built the first stone fence in Mason County and that his name was Smith. [25]

This is not surprising, since no prototype for these types of fences has been found in Germany.[26] However, these types of dry-stacked, pyramidal stone fences are found all over the highland areas of the British Isles and the construction method most likely came to the United States with earlier immigrants from England, Scotland, and Wales and then moved across into Texas with immigrants from the Upland South. Tennessee is especially rich in these types of fences and the state is also one of the main sources of Upland South immigration to Texas.

Most of the Anglo-Americans who came to Texas, however, did not bother to build many walls once they reached Texas. Although stone fence-building was fairly common in the Upland South, these southern farmers tended to view the newly-acquired land as a temporary investment, one that they would use to the fullest, giving little back, and then move on once the land was used up. Land was cheap and new land was continually opening up as the United States increased its territory throughout the 19th century:

> "At any time, a large part of the [Anglo-American] population was on the move, and it was not uncommon for families to migrate more than once in a single generation. The roots which held them to any particular piece of land were shallow, and the result was a lack of appreciation for lasting improvements and conservational care of the land. The very appearance of their farmsteads suggested impermanence."[27]

Although stone fences did not originate in Germany, the Germans in Texas took to them enthusiastically, because, as Dr. Jordan quipped, "they satisfied a Teutonic need for permanence."[28] The immigrant Germans came to Texas with fresh memories of their farmsteads in Europe, where families lived on the same land for generations:

> "Whether tenant or owner, the peasant commonly occupied land that his ancestors had tilled for centuries, and he expected that his descendants would continue to live in the same place and enjoy the benefits of whatever improvements he made. This locational stability of the population encouraged a striving for permanence, which manifested itself best, perhaps, in the solid, enduring farmstead structures."[29]

Most of the data available today about stone fences is from surveys of the areas of the Hill Country populated primarily by immigrant Germans. However, although concentrated around Fredericksburg, stone fences have also been found outside the known range of German settlement, northeast of Johnson City and east of Blanco, areas which were both settled primarily by Anglos from the Upper South.[v] Therefore, the presence of the stone fence complex at the Browning Ranch may indicate the one-time homestead of a wayward German family, or it may have been constructed by an Anglo rancher with a stronger commitment to the land.

It has been suggested that the stone fence was constructed by Dr. Barnwell during his tenure in the 1920's and 1930's. This is unlikely, because since the introduction of barbed wire, no rancher would spend the money and time that it takes to build that length of stone fence. Nor was it likely constructed by Albert Moursund, because by the time he acquired the land in 1917, few ranchers or farmers were building stone fences. Research published by the U.S. Department of Agriculture in 1916 favored wire fencing, noting that "[a]t the present time the labor cost of building a stone fence is so great that its construction is impracticable."[30]

Because the history of the settlement of the land by the Moursund family indicates that they first settled into an old house close to Hunnicutt Spring, it would not be too far a leap to suggest that the fence complex was also there at the time. In addition, since the Hunnicutt family never actually moved onto the granted land after they had it surveyed, one might assume that the fence complex was constructed sometime between 1870 (post-Commanche) and 1880 (before the introduction of barbed wire) by either a tenant or possibly a squatter.

<u>Other Structures, Objects, and Artifacts</u>

Agricultural Field Terraces

The most notable change made to the natural topography on the ranch can be seen in the terracing of three of the agricultural fields. There are currently five fields on the Browning Ranch, all cleared and developed prior to 1950 (Figure 49). They are numbered from northwest to southeast and are located on the Krum Clay soil type. Field Two is relatively flat with common vegetation such as King Ranch bluestem, prairie coneflower, prickly pear cactus, cedar, cat-claw mimosa, and agarita. Field Five is the only field not thoroughly cleared of rocks and contains an abundance of agarita, prickly pear cactus, cat-claw mimosa, prairie coneflower, and other species.

Fields One, Three, and Four are of special interest in that they are contour farmed and diversion terraced (Figure 50). Contour farming was promoted in the mid-20th century as a labor-saving tool and as a way to retain soil. The technique of diversion terracing is utilized to decrease soil loss but not retain water, instead, funneling water off the field to some outlet such as a stream. [31]

The terraces on the Browning Ranch, however, were a failed experiment; not only do they not strategically retain water in the field, but the they are too high, causing trapped water to rush laterally downhill and thus washing soils away into Hunnicutt Creek. The terraced fields typically have grasses such as King Ranch bluestem and red threeawn on the drier down-slope terrace side, but prairie coneflower and other weeds tend to dominate the wetter up-slope side of the terrace and the swales. By early May, the two zones were visually distinctive in that the grassier slopes were brown and the weedier slopes were green.

[v] Windshield survey of Blanco County roads, June, 2003.

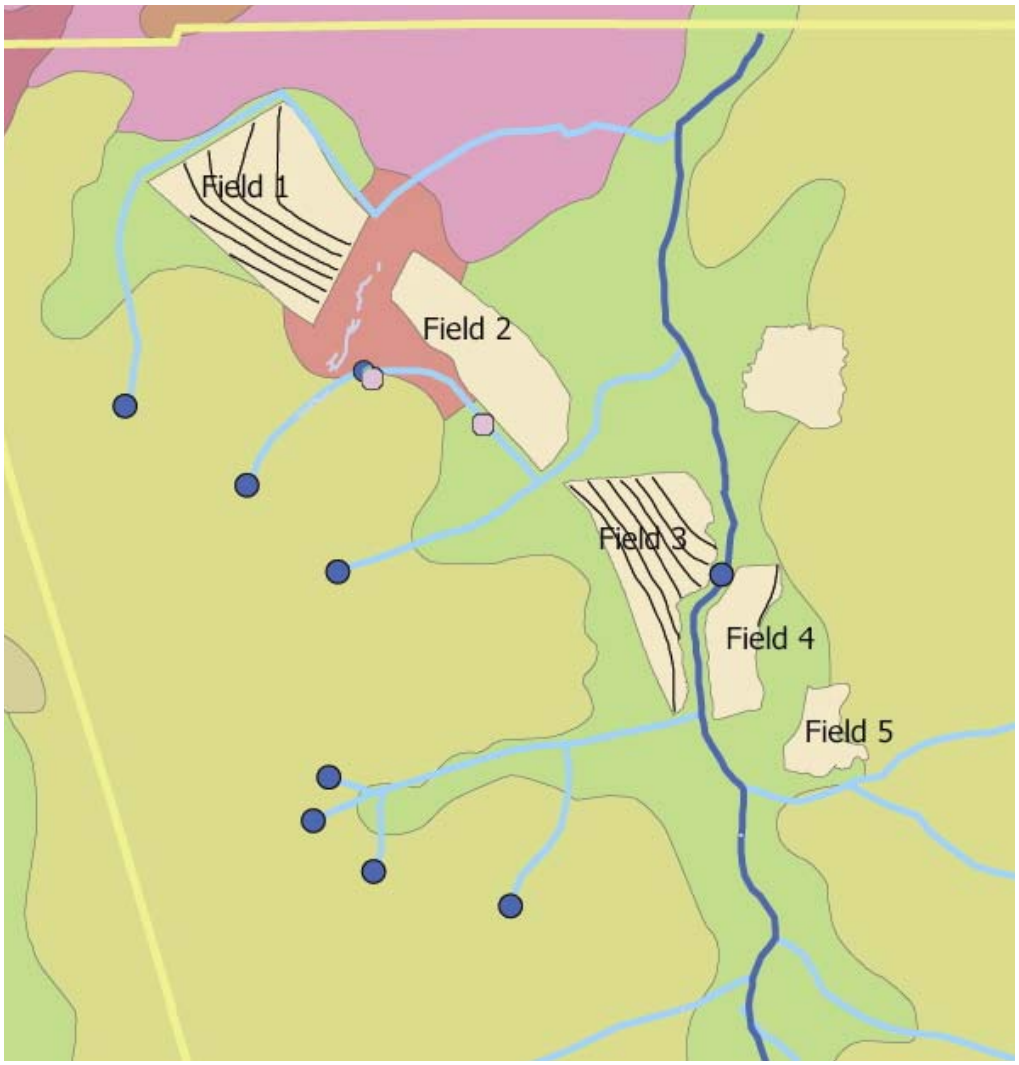


Figure 49. Map of fields. Compiled by Sylvia Guerrero.

Figure 50. Terraced field with graphic showing location of terraces. Compiled by Kara Dotter.

The three terraced fields were originally thought to be a project of the Soil Conservation Service (SCS) during the Great Depression. The Dust Bowl of the early 1930's helped convince farmers of the importance of soil conservation if they and their crops were to thrive. Hugh Bennett, the first head of the SCS, strove for soil conservation education throughout his long career and, at his urging, soil conservation demonstrations were performed by the SCS during 1934-1938 in the worst affected regions like Colorado and the Texas Panhandle. The SCS, with the support of President Franklin D. Roosevelt, then expanded its services by promoting the adoption of state conservation programs in late 1930's to mid 1940's. In 1939, Texas passed the Soil Conservation Districts Act, after which the Soil Conservation District (SCD) in Blanco County, Texas, was formed. During the 1950's, the SCD actively promoted terracing in the county and the terraces on Fields 1, 3, and 4 at the Browning Ranch are a result of that effort.

Information found in the technician notes located in the Johnson City field office of the U.S.D.A. Natural Resource Conservation Service (NRCS), formerly the SCS, indicates that a Mr. C. L. Browning became a Soil Conservation District Incorporator in 1950 and that he was very active in soil district program throughout the late 1960's and well into the 1970's. Technician notes from 1950 maintain that the new diversion terraces on the Browning Ranch held up well, and the foreman of the ranch remarked that the terraces were fine. The notes also state that on July 25, 1950, Anton Naumann (ranch foreman) picked up the Browning Ranch Conservation Plan from the field office. Further information may be found upon detailed perusal of the technician notes, pending written approval for release of the aforementioned notes from Mrs. Betsy Rogers to Mr. C. A. Cowsert of the Johnson City field office.[32]

Other Fences

The Browning Ranch is criss-crossed by a complex of fences (Figure 51), made primarily of metal. All of the barbed wire found at the ranch is double-stranded and modern; the only difference noted among the samples is that the newer sections are galvanized. Most stretches of fencing are made of sheep wire, cattle wire, hog paneling, or rabbit wire and most are topped by at least two courses of the double-stranded barbed wire. Fence posts are made of either un-milled cedar or steel.

Field One is contained by a patchwork fence consisting of a largely collapsed double-strand barbed wire fence strung between five- to six-foot cedar posts on the northern edge of the field. Towards the north-west corner of the field, rabbit wire is strung at the base of the fence. The western fence line is composed of sheep wire (Figure 52, typical), with two courses of double-strand barbed wire along the top. Fence posts of the northern fence line are almost entirely of steel, but a few are of cedar ranging between four and five feet tall. The southern fence line runs along a tall berm in the southwest corner of the field and consists of barbed wire strung between cedar posts (4-5' tall) and is mostly collapsed; in the southeast corner the fencing been cut and rolled up to open a path. The eastern fence is the more complex of the four being made up of several fence types. In the southeast corner it shares a 5 ½' tall wooden corral fence associated with the dipping vat. From that point to the north, the fence is a hodgepodge of metal and cedar posts with barbed wire, different sizes of hog paneling (4x5", 5x5", 4x4"), rabbit wire (topped with two-strand barbed wire), and sheep wire (topped with two-strand barbed wire). The metal posts are consistent in size and height but the cedar posts vary from 1 ½" to 5" in diameter and range from 4' to 5 ½' in height.

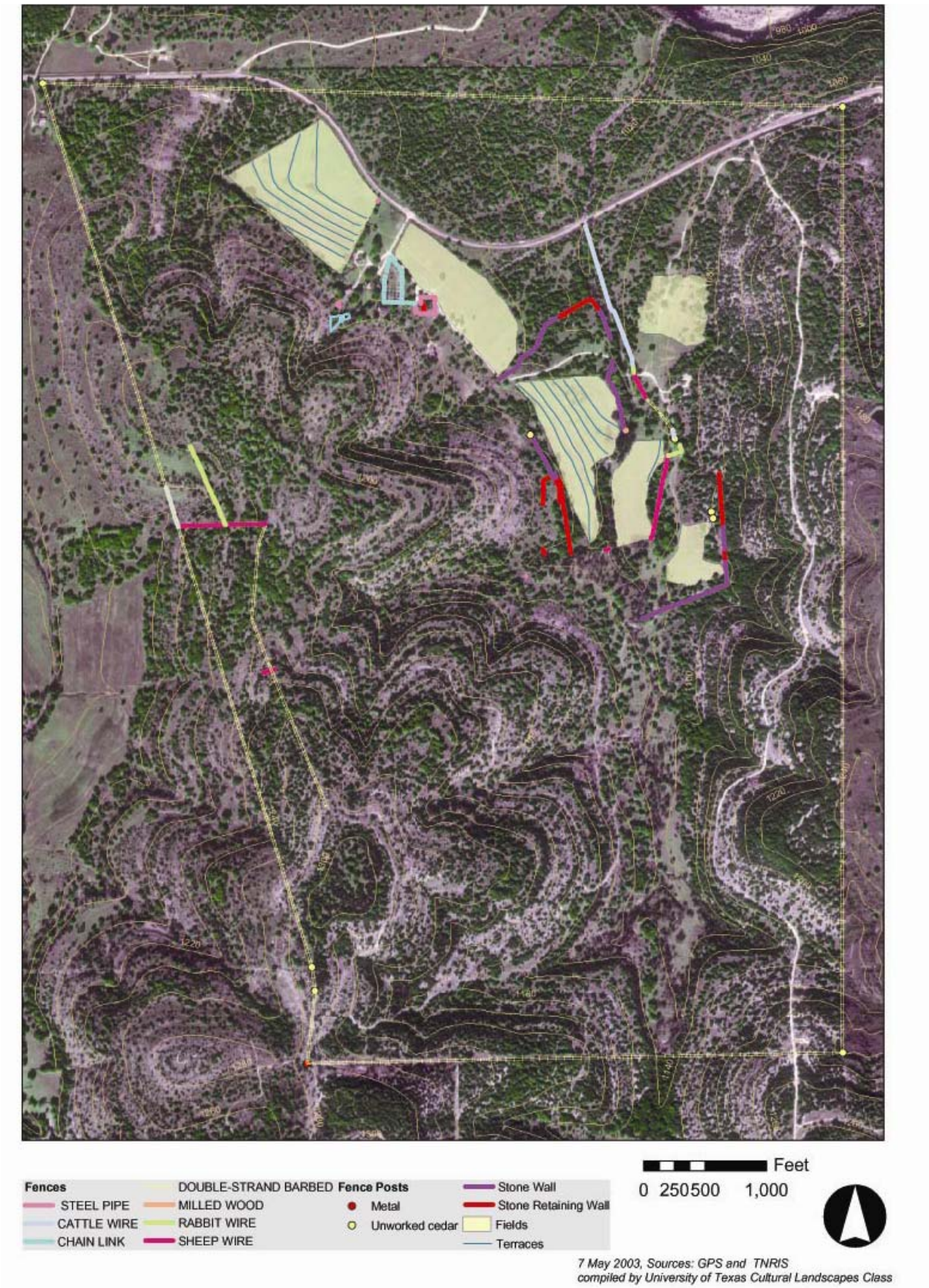


Figure 51. Map of fencing. Compiled by Sylvia Guerrero.

Figure 52. Sheep wire fencing. Photo by Laura Knott.

Field Two is bounded on the north and west sides by two-strand barbed wire fencing approximately four feet in height and strung between metal posts. This field is bounded on the south and east sides by trees and has no fencing defining its edge.

Field Three is contained by a sheep wire fence, topped with two-strand barbed wire and is strung between cedar and steel posts from four to five feet in height. The cedar posts vary from 5”-6” in diameter and appear to have some remnants of red paint. On the western side, there are two segments where either the sheep wire is doubled or has a thicker support wire. On the eastern and northern fences, the two-strand barbed wire is galvanized.

Field Four is bounded on the west side by Hunnicutt Creek. Its southern boundary consists of galvanized two-strand barbed wire, strung between steel posts four feet in height. Along its north and east boundaries, the field is marked by the cedar post remnants of a fence, but the fencing has been removed.

Field Five is defined only by the tree line; it is important to note that this field does not appear to have been cleared of field stones, which indicates that it has not been used to cultivate crops, but was probably cleared for pasture only.

It is quite likely that the cedar posts found on the Browning Ranch have some relation to the “cedar choppers” of the Texas Hill Country.[33] Cedar choppers began as transient squatters who cut down cedar trees to sell to saw mills before many Anglo and German settlers had moved into the Hill Country to homestead. The cedar mills of the time processed the cedar into firewood and fence posts. Once the land became legally titled, some farmers and ranchers allowed the cedar choppers to camp on their land in exchange for clearing fields of cedar.

A completely barbed-wire fence marks the entire current boundary of the ranch and sections can also be found along the western edge, which mark the old property line before it was straightened out. Most of the fields are bounded by either barbed wire, hog wire, or smooth wire fences.

Special note should be made about the various gates found on the ranch, some of which contribute a great deal to the historic character of the ranch. Of particular interest is the old wooden gate which is encountered on the creek side path (Figure 53). Another interesting detail is the piece of machinery used as a weight to close the metal gate next to the garage (Figure 54). The gate to the orchard is distinctive in its simplicity (Figure 55). Finally, leaning on the north side of the sheep barn are what one might assume are the two original gates for that compound (Figure 56). This same construction can be seen on one of the pasture gates close to the western-most field.

Figure 53. Old wooden gate on creek path. Photo by Laura Knott.

Figure 54. Metal gate with weight. Photo by Laura Knott.

Figure 55. Metal gate at orchard. Photo by Laura Knott.

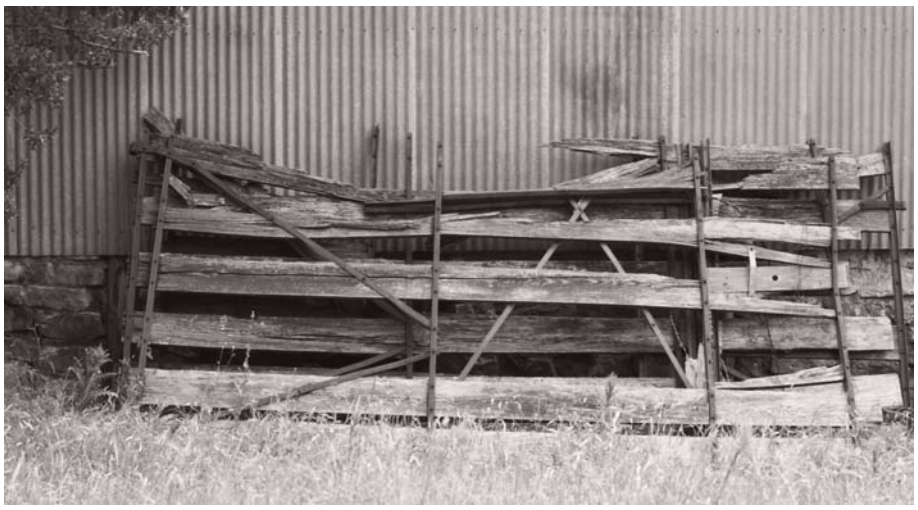


Figure 56. Old sheep barn complex gates. Photo by Laura Knott.

Deer Blinds

Several deer blinds had been constructed on the property since its purchase by C.L. Browning in 1942. Although some have since been removed or relocated, there were at least five from 1962 to 1992 and each had a different name: "The Casey Blind," which was located close to the Fuchs' property; "The Windmill Blind," which was, naturally, located close to the windmill; "The Charlie Blind," possibly named after Charlie Jones and located on top of the hill; "The Blackjack Blind," probably located close to the blackjack and post oak grove above Hunnicutt Creek; and "The Fenceline Blind," also known as "The Double-Wide," because it held two people.[34]

Artifacts

Most historic artifacts identified and mapped during field research at the Browning Ranch were located in and around areas of high human activity, for example, around the ranch house complex

(Figure 57). A seasonal wash in the northeast quadrant of the ranch also contributed quite a few artifacts, including a bottle capper, a metal sprinkler, a small animal trap, metal sheeting, a clear glass bottle with the date marked, "1903-1906," and a metal rake head. Anecdotal evidence has it that the site was probably used as a dump for the houses and farm structures.[35] However, the location of the artifacts in this wash suggests that they may have been re-deposited by flooding and that the trash dump in question was probably further upstream. This was not, however, confirmed in the field. Other items were found close to the Barnwell House and include a wagon made out of a oblong washtub (Figure 58), another washtub, and various metal parts that are probably related to the cistern and pump operation on top of the hill behind the house.

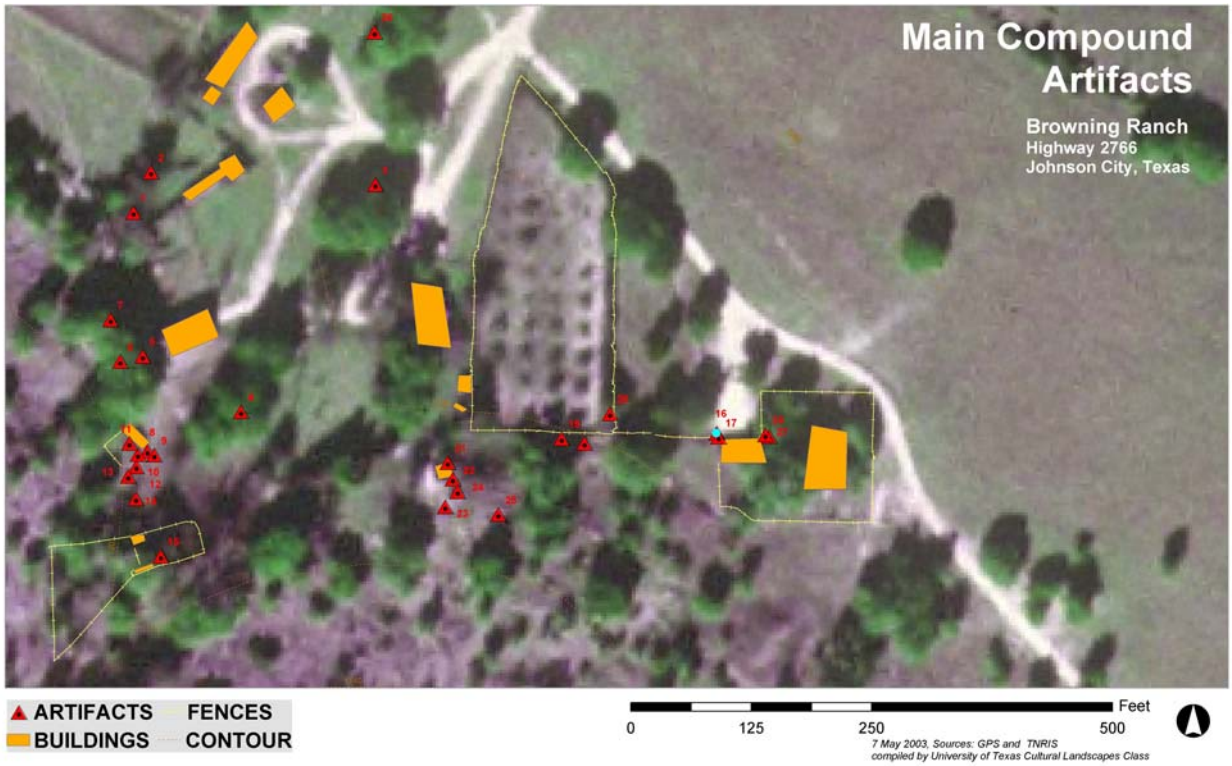


Figure 57. Map of artifacts. Compiled by Sylvia Guererro.

Figure 58. Washtub wagon. Photo by Laura Knott.

Flora and Fauna

Native Plant Communities

The Browning Ranch has been described as not unlike many other Hill Country ranches: overgrazed and, as a result, dominated by shrubby woody species, and in particular the Ashe juniper, usually referred to as "cedar."[36] With the exception of the riparian zone around Hunnicutt Creek, the soil of the ranch is generally dry and rocky, supporting very few species of healthy native grasses but too many cedars and other brush species.

When occupied by Native American tribes, the Edwards Plateau ecological region was managed as a grassland savannah by both the grazing of bison, antelope, and white-tailed deer and frequent natural and man-induced fires. The primary plant community was a rich assortment of forbs and grasses because incidents of fire restricted cedar and most other woody species to areas along rivers and streams and in canyons.

However, after the mid-19th century, settlement by immigrants from the Upland South and Germany brought fences and livestock and the accompanying control of fire. By around 1900, the land had been transformed from a grassland prairie to a brushland and by the 1940's most of the more desirable brush had been grazed out as well. This left the poorer quality brush plants, forbs, and grasses and especially the cedar, which has become a dominant plant species in the area.[37]

The climax vegetation of this area is the prairie, or, open savannah, which typically supports several species of bluestem, grama, Indian grass, wildrye, curly mesquite, and buffalo grass. Since the cessation of fire and from overgrazing, however, the grassland has been invaded by a type of tree and shrub group called the "hill and bluff timber," which prospers in areas of the greatest erosion in the part of the Edwards Plateau dominated by limestone-born soils. The main species found in this group are the cedar (Juniperus ashei), evergreen sumac (Rhus virens), and Spanish oak (Quecus texana). In areas where the soil is deep and black, there is a mixture of live oak (Quercus virginiana), Spanish oak, cedar elm (Ulmus crassifolia), hackberry (Celtis laevigata and C. reticulata), and fragrant sumac (Rhus aromatica). Mountain laurel (Sophora secundiflora), redbud (Cercis canadensis), madrone (Arbutus xalapensis var. texana), yucca (Yucca rupicola), prickly pear cactus (Opuntia sp.), Mexican buckeye (Ungnadia speciosa), and hop tree (Ptelea trifoliate) are also found.[38] Field investigations at the Browning Ranch identified the following out of this group: cedar, evergreen sumac, live oak, cedar elm, hackberry, yucca, and prickly pear.

In the "hardscrabble" uplands of the Edwards Plateau, where there is loose, eroded and shallow limestone, woody species are restricted to cedar and escarpment live oaks, as well as small shrubby plants such as sumac species (Rhus sp.) and salvias (Salvia sp.). Occasionally in the hardscrabble one will find "shinneries," which contain dwarf shin oak (Quercus fusiformis or Q. grisea), live oak, hackberry, black haw (Crategus sp.), Mexican plum (Prunus mexicana), sumac, cat briar (Smilax bona-nox), yaupons (Ilex vomitoria and I. deciduas) and Mexican persimmon (Diospyros texana), and mustang grape (Vitis candicans).[39] On the Browning Ranch, live oak, hackberry, Mexican plum, sumac, cat briar, Mexican persimmon, and mustang grape have been identified out of this group.

The creek bottoms and canyons of the Edwards Plateau typically nurture a very different and more diverse palate of plant species. Because of their protected status, one will find along streams and canyons a remnant collection of species which are also found along the Gulf Coast Plains or in the Southeastern states. In particular, the canyons might nurture plants such as the bald cypress

(Taxodium disticum), bur oak, (Quercus macrocarpa), chinquapin oak (Q. muhlengergia), wild cherry (Prunus serotina or P. mexicana), witchhazel (Lindera benzoin), buckeye (Aesculus pavia), Mexican buckeye (Ungnadia speciosa), sugar maple (Acer saccharinum), Carolina buckthorn (Rhamnis caroliniana), deciduous holly (Ilex deciduas), American beautyberry (Callicarpa Americana), and red haw (Crategus sp.). One might also find various ferns, columbines, scarlet sage, shrubby eupatorium, and buddlias. Wider and sunnier creek or riverbottom areas might also support cottonwood (Populus deltoids), sycamore (Platanus occidentalis), New-Deal weed, (Baccharis neglecta), black walnut (Juglans nigra), soapberry (Sapindus sapinaria), black willow (Salix nigra), pecan (Carya illinoensis), button-bush (Cephalanthus occindentalis), and Texas ash (Fraxinus texana). Out of this list, we identified bur oak, buttonbush, wild cherry, Carolina buckthorn, deciduous holly, cottonwood, sycamore, pecan, and New-Deal weed on the Browning Ranch, a collection that is somewhat lower in overall diversity than would be ideal.

In late March, 2003, other native and naturalized plants that were identified on the Browning Ranch include Texas sage, mountain laurel, evergreen sumac, mimosa, flameleaf sumac, redbud, horehound, agarita, ligustrum, skunkbush, Western soapberry, Mexican persimmon, elbow bush, hackberry, prickly pear, cat claw mimosa, willow Baccharis, kidneywood, buttonbush, gum bumelia, Quercus fusiformus, tasajillo (turkey cactus), Drummond's phlox, rushes, meadow sedge, Berkeley sedge, cottonwood, dewberry, mustang grape, frog fruit, blackfoot daisy, liatrus, and maidenhair fern.

Soil Types and Potential for Native Plants

The five soil types found on the ranch support or have the potential to support a variety of species of grasses and woody plants (refer Topography, Geology, and Soils section for maps). The Brackett-Real Association (hilly), also called "steep adobe range site" typically supports little bluestem, sideoats grams, tall grama, tall dropseed, seep muhly, canyon muhly, and purple threeawn. On a site visit in early March, 2003, researchers identified tall grama, old field three awn, tall dropseed, silver bluestem, texas wintergrass, and lindheimer muhly at one steep adobe range site on the ranch.

Krum Clay (3%-5%) is another soil type found on the ranch and is typically located on foot slopes of limestone hills and intersected by spring drainage channels or creeks. Tall grass prairie is the typical landscape found on this soil and typically includes little bluestem, indiangrass, big bluestem, sideoats grama, Texas wintergrass, Texas cupgrass, can bluestem, pinhole bluestem, vine mesquite and tall dropseed. This soil also supports elms and hackberries along streams as well as single live oaks or live oak motts spaced widely through the prairie areas.

In certain upland areas of the ranch, Doss Silty Clay (1-5%) was located. The typical plant association found in this soil is open grassland with little bluestem, sideoats grama, pinhole bluestem, buffalograss, and scattered live oak motts.

The Pedernales Fine Sand Loam (1-3%) was found in small amounts on the ranch and is unusual in the area in that it is a fine sandy loam instead of a sticky or stony clay. This soil can typically support sideoats grams, little bluestem, hooded windmillgrass, Texas wintergrass, and switchgrass, as well as live oaks, post oaks, elms, and hackberries.

Finally, the last soil type found on the ranch is the Tarpley Association (undulating), which is a shallow, stoney, and clayey soil with a shallow root zone potential. It can typically support mid and tall grasses such as little bluestem, indiangrass, big bluestem, Canada wildrye, Virginia wildrye,

sideoats grams, Texas wintergrass, vine-mesquite, tall dropseed, feathery bluestem, plains lovegrass, Texas cupgrass, and buffalograss. Live oaks, post oaks, blackjack oaks, and Texas oaks are also supported on this soil.

Shade Trees

All five major complexes at the ranch are blessed with an abundance of shade trees (Figures 59 and 60). The major species are live oak and cedar elm, but there are a few specimens of pecan, hackberry, cottonwood, and sycamore on the site. Especially around the inhabited areas, many trees have been infested with ball moss, more so in some cases than in others. The live oaks in the hog pen area are the worst case and have such a high degree of infestation as to possibly affect their health.

Ball moss is an epiphyte, related to Spanish moss, which lives on the tree branch, taking nutrients from the air, but not the tree. This plant appears to be attracted to trees close to human habitation, which may also be stressed for some reason. It does not adversely affect tree health unless there is so much present that it inhibits bud development. Treatments alternatives range from mechanical removal to pruning to chemical sprays.[40] Whichever solution is chosen, it is important in general that the large shade trees on the ranch be well-maintained, as well as monitored for disease and surrounding soil compaction.

Oak wilt is a serious problem in the Hill Country and the Browning Ranch is not immune. The current site manager has reported seeing an oak wilt problem on the ranch along the power line, possible brought in by clearing equipment used by the utility. If cutting tools are not properly cleaned between cuts and especially between trees, oak wilt can be easily spread between motts. In addition, if wood from an affected tree is burned, the spores of the fungus can also be carried to other areas with the smoke.

Agricultural Plants

The Peach Orchard

The peach orchard (Figures 61 and 62) is located on an acre of land to the east of the Barnwell House. It is enclosed with a gated six-foot-high, hog wire fence, topped with barbed wire and covered in mustang grape vines in many places. The entrance gate on the west fence line provides easy access from the backyard at the Barnwell House, another to the driveway for vehicle access, and the gate on the southeast corner offers access to the ranch house.

The Nauman family, who lived at and managed the ranch during the Browning family tenure, raised fresh fruits and vegetables year-round, maintaining both the orchard and a vegetable garden. It is not known when the orchard was first planted, but because the Nauman family were the primary users, it is possible that it was some time after they moved onto the ranch, which may have been around 1942. It is safe to say the orchard was planted at least after the original house was built in 1915, and more likely around the time the Brownings purchased the land. The present owner revealed childhood memories of “ladies working [in the garden and orchard] and jarring vegetables and fruits,” indicating that the orchard (and garden) were in full use sometime after 1942.[41]

Figure 59. Locations of trees in the inhabited area. Compiled by Sylvia Guererro.

Figure 60. Live oaks in agricultural complex. Photo by Laura Knott.

According to local peach expert, Jim Kamas, of the Texas Agricultural Extension Office in Gillespie County, an orchard that is over 50 years old is rare, but possible. In this case, the orchard may indeed be that unique. According to Kamas, "peach orchards are not usually replanted on the same site because replanted trees usually don't live very long. When a tree dies and is pulled up, lots of soil-borne fungi which normally are not pathogenic build up in the soil as they colonize the dead tissue. When a new tree is replanted in the same spot, those same fungi become problematic because of their shear numbers." For older orchards, or in this case, Kamas stated that the trees might have been replaced as they died until the site was more or less abandoned.[42]

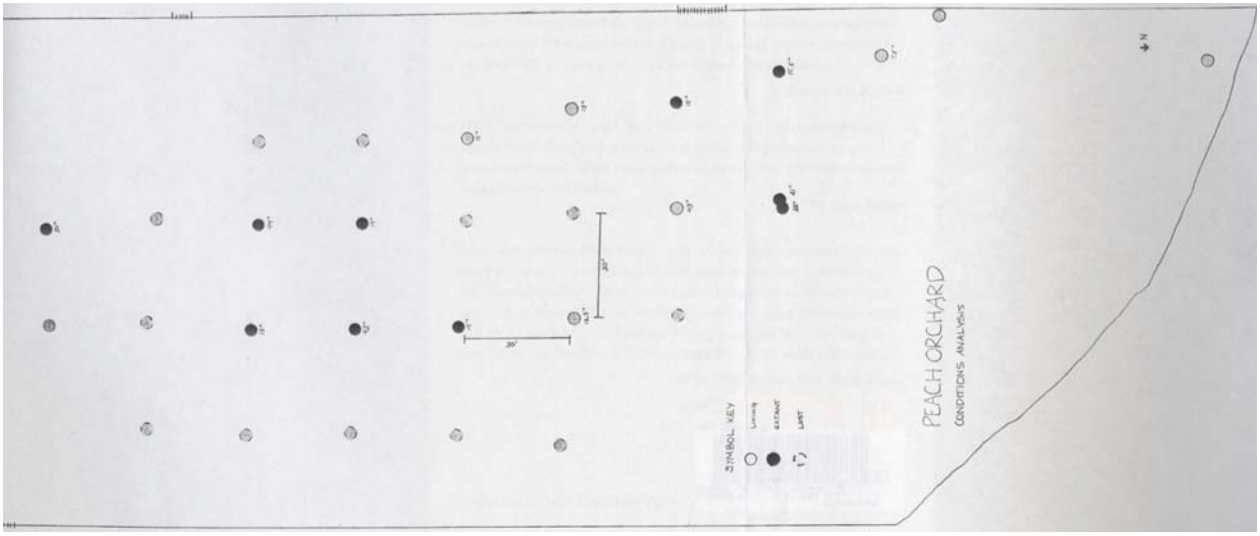


Figure 61. Plan of Peach Orchard. Drawn by Terri Ruiz.

Figure 62. Peach Orchard. Photo by Terri Ruiz.

The Pedernales fine sandy loam found in this region is ideal for growing peaches and in fact, the hill country has become famous for its peaches over the years. The *Descriptive Catalogue of Fruit Trees, Ornamental Trees, Grape Vines, Roses, etc.*, published by Lipscomb Nurseries in Montgomery, Texas in 1872-73, stated the price of a peach tree as 30 cents[43]. According to a report from the Texas Department of Agriculture, in 1926 the number of peach trees reported in Blanco County was 10,427 and the number of bushels harvested was 661.[44] This was the second biggest fruit or nut crop in Blanco County and was surpassed only by the pecan tree. Today, approximately one-third of the estimated 4,000 acres of commercial peach production in Texas comes from Gillespie County, just west of Blanco County.

Most of the produce from the Nauman orchard and garden was used for home consumption by the family, but some of the produce may have been driven to markets in San Antonio.[45] Regardless of whether the Naumans were able to sell any of their peaches at market, the establishment and harvesting of an orchard even of this size was a substantial and time-consuming undertaking. After planting—which was in and of itself a labor-intensive task—constant maintenance was required; this included weed control, pruning, fertilizing, irrigation, fruit thinning, spraying, and harvesting.

Peaches also have to be protected from spring frost, which is most easily done by placing the orchard on a site higher than the surrounding area so that cold air can flow out of the orchard. This orchard was located on the lower slopes of the ranch, which allowed a flow of colder air towards the river to the north. However, for extra assurance, orchard heaters may have been used--two Scheu Orchard Heaters were found in a storage shed not far from the orchard (Figure 63).

According to Kamas, the variety of peach grown in an orchard can be difficult but not impossible to determine, and should be done so with the ripe fruit of the tree. There could have been a few different varieties grown in the orchard since each one ripens at different times, thus the right combination of peaches could generate a ripening sequence for continuous production.[46]

Figure 63. Orchard heater. Photo by Terri Ruiz.

The orchard still contains a number of living peach trees although several of the extant trees are dead. It appears that there were originally a total of about 40 peach trees, planted in four rows running east to west, and nine or ten rows running north to south. The trees are spaced on average at 30 feet apart, which is standard spacing for an orchard.

A report from the Texas Department of Agriculture entitled, *Orcharding in Texas and Nursery Inspection*, published in 1922, listed three types of sprays used for peaches:[47]

- insecticides for chewing and biting insects, including arsenicals, such as Paris Green, white arsenic, arsenate of lead, arsenate of lime, and sodium arsenate, all of which kill insects, like caterpillars and leaf-eating beetles, by poisoning them;
- insecticides for sucking insects in contact sprays, such as soap and oil emulsions, caustic solutions, nicotine sprays, and lime-sulphur washes that kill plant lice, stink bugs and others that suck sap out of the trees; and
- fumigants or gases that kill insects that cannot be reached by arsenicals or contact sprays such as sulphur dioxide, carbon bisulphide, hydrocyanic acid gas, and nicotine and sulphur fumes.

Sulfur was commonly used to control brown rot. In addition, Kamas stated that in the late 1940's, DDT was the most commonly used insecticide and before that, lead arsenate was very common. It is possible to test the soil for lead arsenate because it stays in the ground for a long time, which could be helpful in estimating the original date of the orchard.

The current ranch manager conducted prescribed burning at the orchard on February 7, 2003. Since the burn, weeds and other invaders which have come up in the orchard include Johnson grass, cedar trees, cat briar, and wild garlic. In addition to the peach trees there are also several pear trees and a couple of small black cherries in the southwest corner of the orchard, as well as a large live oak on the north fence line.

Vegetable Garden

The vegetable garden is located to the west of the Barnwell House on a small plot of land about half an acre in size (Figure 64). It is unknown when the vegetable garden was first planted, but like the peach orchard, it was also used by the Naumans and so was probably planted by them around the same time as the orchard.

The former ranch manager at the Browning Ranch reported that, "[t]he garden and orchard provided fresh fruit and vegetables during the growing season, with an abundance of produce for canning. There were peaches, mustang grapes, tomatoes, corn, beans, beets and about any other vegetables in the seed catalogue."[48]

The Fannie Farmer Cookbook, 1918 edition, written by Fannie Merritt Farmer, was a popular cookbook used in the South. In addition to the vegetables mentioned above, it listed the following vegetables in its contents: artichokes, asparagus, Brussels sprouts, cabbage, carrots, cauliflower, celery, cucumbers, egg-plant, kohl-rabi, lettuce, okra, onions, parsnips, peas, potatoes, spinach, squash, and turnips.[49] It is possible that these vegetables may have also been grown in the garden.

Figure 64. Vegetable Garden. Photo by Terri Ruiz.

The area where the vegetable garden once grew is now overgrown with weeds. The majority of the original, 3' 11"-high, barbed wire and steel fence is still standing, and the gate is still operational. The gate is placed on the southeast corner of the garden to allow access from the backyard of the original house.

Ornamental Plants

The inhabited zone close to the Barnwell House is one of much more intense cultivation than the rest of the ranch, especially of horticultural and garden plants. In addition to the peach orchard and the vegetable garden the house is surrounded by a cultivated area that we will call the "yard," which is demarcated by a low chain link fence (Figure 65). The fence is not high enough to be deer-proof, but should have provided some protection to the garden from any roaming cattle or dogs. Within this space, one finds remnants of what may have been a larger and more diverse flower garden. The species found today include a yellow bearded iris (Iris germanica) (Figure 66), oxalis (Oxalis sp.), bridal wreath spirea (Syringa vulgaris), dwarf pomegranate (Punica granatum nana), a small red rose (Rosa sp.), nandina (Nandina domestica), Japanese honeysuckle (Lonicera japonica), and three culinary figs (Ficus carica). All of these species are considered classic southern "heirloom" garden plants, traditional species which were typically carried to Texas from the Southeast with immigrants in the late 19th century.[50] These plants are also typically tough and long-lived and may have survived as a group since the Barnwell House was originally constructed.

The area around the Barnwell House has the highest concentration of flowering species, but the ranch house landscape was supplemented after construction with an elegant specimen of mountain laurel, planted just in front of the front porch. Japanese honeysuckle twines around the steel pipe fence in places. Some smaller live oaks were also planted around the house after it was constructed; eleaegnus (Eleaegnus pungens), ligustrum, and viburnum has been planted in various spots around the house and garage/apartment to function as a foundation plant.

Figure 65. Chain link fence around Barnwell House.

Figure 66. Irises in yard of Barnwell House.

Animals

For the last six or seven years, the Browning Ranch has been home to a large Great Blue heron rookery which was constructed by the birds in a large sycamore by Hunnicutt Creek. When viewed with binoculars, the rookery is a spectacular site and could be a strong tourism draw for the ranch, but humans are discouraged from moving about close to the rookery during the spring nesting season in order to avoid disturbing the birds. These birds can be sighted not only on the nest, but in flight, following the creek valley down to the Pedernales River in order to fish.

Other birds which have been sighted on the property include red-tailed hawks, bluebirds, bobwhites, painted buntings, cardinals, roadrunners, chickadees, cowbirds, cuckoos, doves, finches, flycatchers, grackles, grosbeaks, hummingbirds, juncos, kinglets, woodpeckers, purple martins, mockingbirds,

phoebes, ravens, robins, cranes, jays, shrikes, sparrows, starlings, barn swallows, titmice, towhwees, turkeys, vireos, turkey vultures, warblers, and wrens (refer Appendix F for full list). In the coming years, as the grasslands of the ranch are restored to native species and environmental diversity is increased, there will almost certainly be a parallel increase in the diversity of birds and other animals, which will become an important draw to human visitors in the area.

The ranch is also home to many other creatures, both warm and cold-blooded. Deer frequently graze in the fields at dusk and evidence has been found on site of coyotes, armadillos, and skunks. Jackrabbits, possums, wild turkeys, field mice, and one ring-tailed cat have also been spotted from time to time on the property. A pride of mountain lions is rumored to roam the Pedernales River valley to the north, but this has not been confirmed.

At least one rattlesnake has been identified on the property, as has one Texas spiny lizard. A survey of the amphibians and reptiles found on the ranch would be very useful, since these creatures, especially frogs and salamanders, are particularly sensitive to environmental degradation and their diversity and health may be indicators of the overall environmental health of the property. At least one study of the amphibians and reptiles of Blanco County has been done and indicates the local presence of a variety of salamanders, frogs, toads, turtles, lizards, and snakes.[51]

Although there is only one domesticated animal living on the ranch today (Tio, or, *Canis familiaris*), the property has been home to numbers of horses, cattle, sheep, goats, hogs, and chickens for over one-hundred years. The land could support a variety of domestic animals again, but a study should be made to evaluate the holding capacity of the land for livestock, especially horses, cattle, sheep, and goats.

Circulation

Most of the circulation routes on the Browning Ranch are dirt roads, in varying condition, which offer access to most sections of the property (Figure 67). The entrance to the ranch is marked by a recently constructed dry-stack stone wall and is directly on axis with the Barnwell House. To the right are two access drives to the agricultural complex and to the left, one must pass through a cattle guard to access the parking area for the ranch house.

The main road through the property continues on past the ranch house and fields beyond, through a cedar brake and down to Hunnicutt Creek. There is a low water crossing formed by a concrete dam--past that point the road continues on up to the sheep barn complex. Past the sheep barn, the road is rutted and difficult to access without a four-wheel drive vehicle, but it continues south, parallel to the creek and then splits to go north and south--all roads from those points continue on up into the highland areas above.

David Bamberger, in his earlier report, has noted that all of the roads on the ranch need repair. He also recommended that some be relocated because of their proximity to seeps or other washed out areas and that some roads be added to increase access to all parts of the ranch for convenience and safety.[52] Especially convenient would be a smoother access road to one of the higher points of the ranch from which visitors might gather to watch the sunset over the hills.

Other than the established roads, there are only three obvious walking or hiking paths on the ranch. There is a short dirt path along Hunnicutt Creek, starting at the lower dam and reaching almost to the Hunnicutt Spring and another from the corner of the garage to the rear of the Barnwell complex

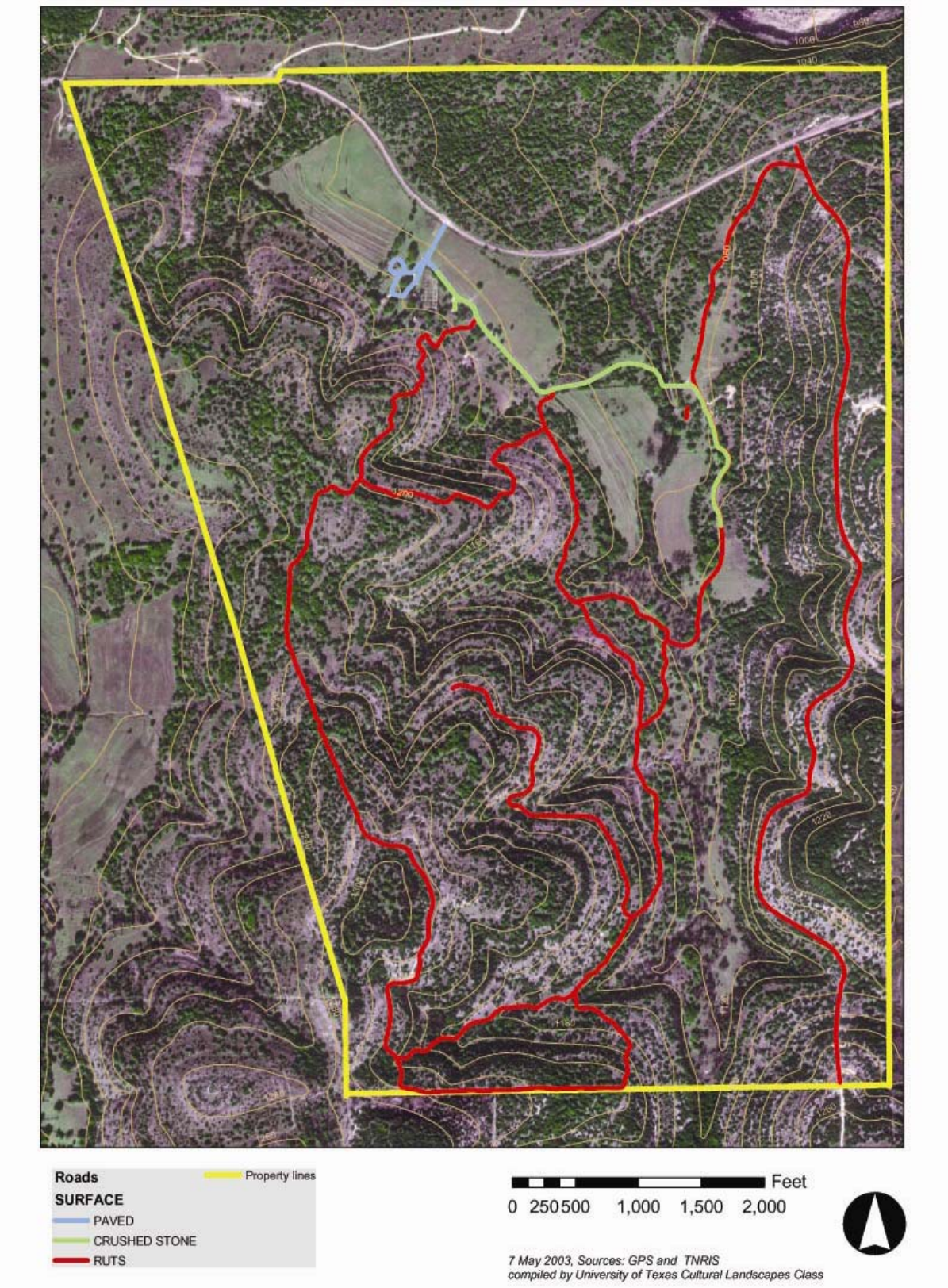


Figure 67. Circulation map. Compiled by Sylvia Guerrero.

fence. In addition, there is a formed and poured concrete sidewalk which starts to the west of the ranch house parking area and curves around to meet the cattle guard that marks the beginning of the ranch road. The presence of the sidewalk was a mystery to the researchers until it was explained that it was added so that the Browning children could roller skate while at the ranch.[53]

Water Features

The major water feature on the Browning Ranch is Hunnicutt Creek (Figure 68), which, with its north-south orientation, divides the property into two unequal sections. The creek is intermittent, going dry above Hunnicutt Spring in the late spring until the rains begin again in the fall. During the fall, winter, and early spring, the creek is fed by all eleven of the springs and innumerable seeps found on the property which are active in the rainy season (Figure 69).

On its lower reaches, the banks of Hunnicutt Creek have been heavily silted in by soils coming off of the surrounding pastures, made worse by erosion from the field terraces. In these areas, the creek does not display the typical Hill Country creek appearance, that is, usually clear water to bedrock and lined with limestone boulders and gravel. The silt, as well as compaction and trampling by cattle allowed access to the water, may be one of the causes of the lack of diversity of riparian vegetation in the area.

Figure 68. Hunnicutt Creek. Photo by Kara Dotter.

The creek is controlled by three dams, which were formed out of concrete during the early 1940's (Figure 70).[54] The northernmost dam also serves as a low water crossing and has formed a wider pool of water above it, but the other two dams are not wide enough to cross by vehicle. The middle dam has a continuous water flow, supplied by Hunnicutt Spring, but the southernmost dam is dry in the summer. Improvements might be made on the middle dam and the creek bed to the south in order to create a swimming hole, supplied by the spring.

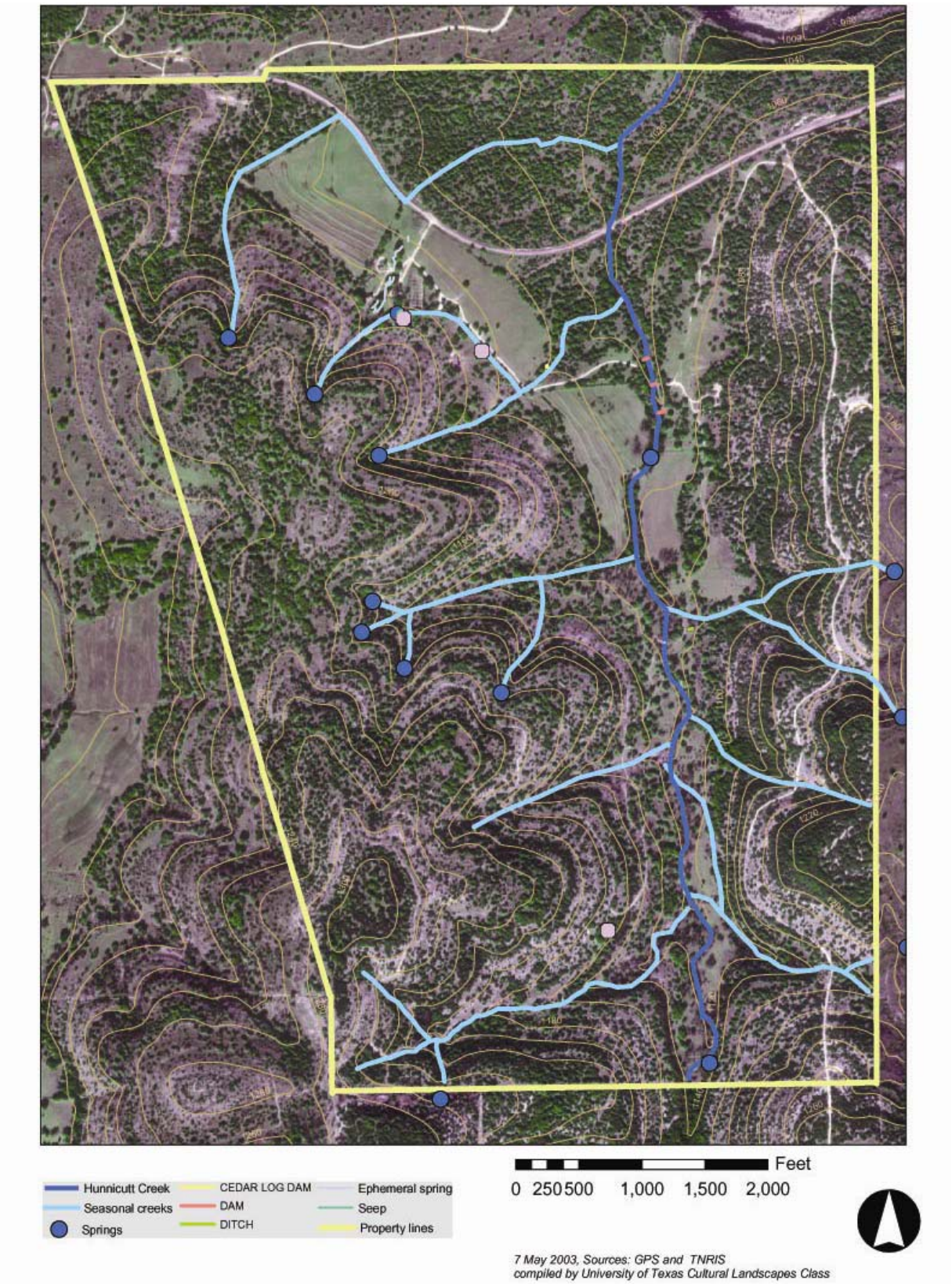


Figure 69. Location of Hunnicutt Creek and springs. Compiled by Kara Dotter and Sylvia Guererro.

Figure 70. Concrete dam on Hunnicutt Creek. Photo by Laura Knott.

The largest of the eleven springs on the Browning Ranch is the Hunnicutt Spring (Figure 71). Although the other ten will usually disappear every year as the summer wears on, the Hunnicutt Spring has never been known to run dry, even in the worst years. Also, note that although the other ten springs on the property are in the Glen Rose Limestone formation, Hunnicutt Spring is much lower, in the Chappell Limestone. It is thought that the spring is fed by rainwater which falls on more permeable upper layers on the ranch and into the groundwater supply. When that groundwater then encounters a less permeable layer, then it flows downward until it meets the opening of the spring. Therefore, this particular spring is fed by the entire watershed of Hunnicutt Creek above its outlet, an area of around two-thirds the total acreage of the ranch.

Hunnicutt Spring is the heart of the property and human beings have been drawn to it at least since the early history of the ranch. The historic stone fence complex was constructed around the spring, which was probably the only source of water until wells were drilled many years later. The spring was always a magical place for the Browning children; the current owner remembers that it was often her daily destination during summers on the ranch and she would catch tadpoles and drink the cold water.[55]

There are three pumping systems on the ranch, two electric pumps and a windmill system, located in the southern upland area of the ranch (Figure 72). A functioning electric pump, located on the lower slopes close to the ranch house, supplies all the drinking water to the ranch today. Another electric pump which, when it was operable, filled a cistern located above the Barnwell House and the water was gravity-fed to supply water needs around that building. The current owner recalls that catfish were often stored in this cistern. Although there is water in the cistern, it does not appear that this pump is still in working condition. The third system is a windmill, which, when in full operation,

fills its adjoining cistern and an animal watering trough. This system appears to still be in fair operating condition.

Figure 71. Hunnicutt Spring. Photo by Kara Dotter.

Other water features include concrete animal drinking troughs, hose bibs, and a feed line that once ran from a spring to supplement the creek flow in the summer for recreational purposes. The concrete drinking troughs were carefully designed with a float system that, when low enough, would automatically turn on the water supply to keep them filled. They were also designed with a low step on one side so that the trough could be accessed not only by cattle, but by smaller animals such as deer and other wild species (Figure 73).

Figure 72. Windmill. Photo by Laura Knott.

Figure 73. Animal watering trough. Photo by Laura Knott.

[1] Blanco County Map.
[2] Birnbaum, p. 4.
[3] Texas Natural Resources Information Service.
[4] Wermund.
[5] Moursund, page unknown.
[6] Betsy Rogers, personal communication, 2003.
[7] Betsy Rogers, personal communication, 2003.
[8] Bill Watson, personal communication, 2003.
[9] Nobel, p. 89.
[10] Bill Watson, personal communication, 2003.
[11] Noble, p. 11.
[12] Nobel, p. 63.
[13] Wilhelm, pp. 22-23.
[14] Scott Gardner, personal communication, 2003.
[15] Norse, p. 114
[16] Bill Watson, personal communication, 2003.
[17] Bill Watson, personal communication, 2003.
[18] Betsy Rogers, personal communication, 2003.
[19] Ralph Morris, personal communication, 2003.
[20] Ralph Morris, personal communication, 2003.
[21] Noble, pp. 116-117.
[22] Bill Watson, personal communication, 2003.
[23] Jordan, pp. 164-165.
[24] Jordan, p. 165.
[25] Terry Jordan, personal communication, 2003.
[26] Terry Jordan, personal communication, 2003.
[27] Jordan, pp. 18-19.
[28] Terry Jordan, personal communication, 2003.
[29] Jordan, pp. 37-38.
[30] Humphrey, p. 11

[31] Helms.
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[33] Jonathan Jarvis, personal communication, 2003.
[34] Ralph Morris, personal communication, 2003.
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[49] Farmer.
[50] Welch.
[51] http://wfscnet.tamu.edu/tcwc/checklist/blanc016.htm
[52] Bamberger.
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[54] Bill Watson, personal communication, 2003.
[55] Betsy Rogers, personal communication, 2003.

Chapter III: Recommendations

Introduction

Change and adaptation has been a prevailing theme throughout the history of the Browning Ranch—this property has and will continue to be a "landscape of transformation." Over the last 150 years, the character of the land itself has gone from a lush tall grass prairie to a rocky "hardscrabble" and has been host to homesteaders who left little but the remnants of a stone fence, small farmers and ranchers who tried to scratch a living out of what remained of the prairie soils, and, finally, three generations of a modern family who still make the pilgrimage to the ranch for rest, play, and spiritual renewal.

The land will keep changing as ecological restoration efforts bring back the native grasses and year-round springs. As this happens, visitors will see the return of a greater diversity of plants and animals, and particularly the birds and smaller animals which respond so quickly to environmental change. Historic buildings will be repaired and adapted to new uses and new structures, roads, and paths will be built as needed.

Not only will the physical body of the land be transformed, but the Browning Ranch will offer opportunities for visitors themselves to experience personal transformation. Future plans, including retreats for ecological study, bird watching outings, and hunting education, provide opportunities for learning stewardship in an environment where the ranch becomes a laboratory for experimentation. The cultural resources found on the land, such as the old stone fence, the barns, and the historic stone house, offer opportunities for the study of the history and culture of the Texas Hill Country and might inspire archaeological field schools, historic preservation labs, and studies in agricultural geography, cultural landscapes and vernacular architecture.

The bed and breakfast operation currently in place also offers an opportunity for transformation through personal retreat for individuals and small groups who just need to relax, swim in the creek and admire the wildflowers. The ranch could be a home base for explorations into the area, such as Johnson City or Fredericksburg or enjoy horseback riding, hiking, or cycling in the area.

The theme of a "landscape of transformation" offers direction for future development of the site. Unlike the Johnson Settlement managed by the National Park Service nearby in Johnson City, the Browning Ranch is not a landscape frozen in time, but an evolving environment that will change and adapt, restoring its environmental fabric, while recognizing and protecting its cultural and historical resources for future generations of Texans.

After a section in which we talk about methodology, including our recommendation for a treatment method, this chapter will go on to discuss character-defining features found on the ranch and described in the previous chapter, making recommendations for treatment based on the significance of each feature, keeping in mind the transforming nature of the site itself.

What this report does not include are any design studies for the ranch. This important next step will raise, and resolve, many new issues and opportunities. Our recommendations are intended to help that process, providing some measure of guidance and direction.

Significance and Integrity

Previous chapters have described the Browning Ranch, its history, significance, and the general condition of its natural and cultural resources and their integrity. Significance and integrity are the key elements considered when assessing the historical and ecological value of a property and ask, "is the property is important to society and does it have integrity through the presence of sufficient quantities of authentic historic fabric?"

The ranch today is an attractive and interesting spread of land, with its large trees and dramatic topography as well as its many historic resources, but it is not unique in the Hill Country—there are several other ranches in the vicinity still in operation and many retain at least some of their historic features. On the other hand, the owner's interest in appropriate stewardship, combined with the rapid changes occurring in Central Texas, suggest that in a few short years the property is likely to be quite rare and valuable. As the local economy struggles to meet new financial challenges, these other properties may lose their historic resources through a combination of a lack of understanding of their value and a need for their replacement by new facilities.

Not only is the Browning Ranch important to society, especially as such resources become more rare, it is also important because of its high level of integrity. Integrity is defined as "the authenticity of a property's history identity, evinced by the survival of physical characteristics that existed during the property's historic or prehistoric period."[1] The Browning Ranch is rich in the number of historic cultural features still remaining on the site, and, with the exception of the old house which was reportedly once located close to Hunnicutt Spring and the deer blinds, there is no evidence or knowledge that any features added during its history have since been actively destroyed or moved.

Because of the presence of so many original character-defining historical features, the ranch will eventually become a cultural resource of regional significance, telling a story about the ever-evolving approaches to living and thriving in the often-harsh environment of the Texas Hill Country as well as the transmission of agricultural forms and techniques between cultures, adapted to fit both physical and cultural needs. Through a description of these character-defining features in this report, we have determined that this site has value and has maintained its sense of place over the years—now we can look to the future.

The future of the ranch depends on the treatment method chosen--the methodologies section below discusses how this is done for a cultural landscape and then examines several factors considered when selecting a treatment for the Browning Ranch. The rest of the chapter is organized in the same manner as the one preceding and presents specific recommendations for each character-defining feature with the objective of stabilizing and rehabilitating these features while protecting their integrity. The recommendations made here are meant as suggestions and guidance and should be considered the starting point for discussions regarding future design decisions and economic studies.

This is only the first step in the overall preservation process of a cultural landscape and should be followed by such activities as historic building reports to analyze significant buildings in detail, road improvement plans, and investigations into soil toxicity. The following written recommendations will touch briefly on ecological restoration, but since this is the provenance of other professionals and has been addressed recently in the Bamberger report, we will concentrate our efforts on the best ways to protect and utilize the cultural and historic built resources which exist currently on the site.

Another important step in sharing the story of a cultural landscape is an interpretive plan, an assembly of the narrative of the site into a form that is accessible to the public. This plan will guide many of the design decisions for the site that relate to public access and communication. For example, if the story of early ranching in the area is to be interpreted, access to the historic stone fence and materials describing its significance must be made available. We recommend that an interpretive plan be developed over the next few years, as intentions for the ranch become clearer.

The greatest percentage of work on this property, however, will be in long term maintenance, so this report should also be followed by a management plan. This plan guides the care of important cultural and natural resources and includes everything needed to ensure a successful and long, healthy life for the site, such as visitor capacity, security, irrigation, building repair, and wildlife management. Of course, some sense of the appropriate levels of management to be expected also guide development of the rehabilitation plan itself.

Methodology of Landscape Preservation

Treatment recommendations for the cultural landscape of the Browning Ranch are guided by *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. The most important factors to be considered when selecting a treatment for a cultural landscape include issues around change and continuity on the site; its relative significance in history; the integrity and existing physical condition of features on the site; its geographical context; historic, current, and proposed uses; protection of archaeological resources and natural systems; and available maintenance and management resources.

On the Browning Ranch, we see relatively uninterrupted use of the site for livestock ranching and the continued existence of the same group of buildings and structures on the site, with few changes since the early 1950's. We can note the most dramatic change in additions to the Barnwell House and the ranch house, but otherwise little alteration but the aging of buildings and structures as well as the deterioration of the historic stone fence around Hunnicutt Creek. As for the natural features, ongoing erosion on the site has adversely affected the riverine environment around Hunnicutt Creek, and cedar and brush infestation is an ongoing problem in the fields and meadows.

These problems, however, have not affected the historical significance of the Browning Ranch. Its importance lies in the story it tells about the changing nature of the interaction of culture and environment in the evolution of this Hill Country historic vernacular landscape over the last 150 years. With the exception of the Johnson Settlement in Johnson City, there are no other designated and preserved historic vernacular landscapes in the county, and possibly the entire Hill Country region. This landscape is quite different, however, from the Johnson Settlement in that it has been and will continue to be an evolving landscape, and one that changes with an eye towards maintaining its historic character. As ranching becomes less of an economically viable strategy in this area, the Browning Ranch can also become a model on which other Hill Country ranches can base their strategies for change to a different economic base.

Another quality that makes the Browning Ranch valuable is that it contains within its boundaries a number of distinctive features, most of which, individually, have a high level of integrity. With the exception of the original house close to Hunnicutt Spring, most character-defining features which have been constructed on the site still remain, ranging from the oldest, the stone fence, to the most recent, probably the 1942 ranch house. However, when we consider the existing physical condition of these features, much work is to be done and will be discussed below.

The structures on the site, especially the barns and the stone fence, reflect its geographical context, being located in the area of Blanco County which was heavily settled by Anglo-American immigrants from the Upper South. There are other ranches in the general area which have similar structures; hence the Browning Ranch could be considered part of a larger cultural landscape of Anglo-American farms and ranches typical for Blanco County. This should be taken into consideration when developing an interpretive plan which could include a driving route from which these other ranch complexes could be viewed.

One must also note historical, current and proposed uses when selecting a treatment. We know that historically, the site has been used primarily for ranching and farming, although in the last sixty years it was also used for family recreation and recreational hunting. The current operation of a bed-and-breakfast could be expanded to include bird-watching, hiking, swimming, environmental education revolving around ecological restoration, horseback riding, and other activities. A study should be implemented to develop these ideas with the understanding that there is a load limit past which the environment cannot support more activity.

This use load will affect the protection of archaeological and natural resources, especially the stone fence complex, the water quality of the creek and springs, as well as erosion control and protection of the heron rookery. Horseback riding, for example, should be limited because of the impact that the animals would have on the environment and the overall number of people on the site at one time and over time should be limited to protect resources.

Finally, available resources in management and maintenance should be considered. The Browning Ranch is fortunate to have an excellent on-site manager who is already well-versed in techniques of environmental restoration and management. However, consideration of such additions as a swimming pool, or a horseback riding facility for example, should take into account additional staffing requirements necessary for its upkeep.

Available management resources will also affect the type and level of interpretation on the site, whether or not there are guided tours available, or a visitor center, for example. An interpretive plan would take these resources into consideration, as well as complement the treatment selected for the preservation and management of the character-defining features of this historic landscape.

Other factors which should be taken into consideration when planning for new programs at the ranch are requirements for universal accessibility; health and safety laws, such as fire protection and utility upgrades for heavier use; local, state, and federal environmental protection requirements; and sustainability and energy efficiency concerns, especially when rehabilitating historic buildings.

Treatment of Character-Defining Features

Four different approaches can be taken when considering a treatment method for a cultural landscape: preservation, rehabilitation, restoration, and reconstruction. Preservation involves keeping everything that is on a site as it was found, stabilizing the property through repair of historic materials and ongoing maintenance, and excluding new construction with the exception of code-required upgrades. This is not an appropriate treatment for the Browning Ranch because it excludes the possibility of change and growth.

Restoration involves taking the property back to its appearance at a particular period of time, including removing some later features and reconstructing missing items. However, it does not

include the addition of new structures or new uses to the site. Nor does reconstruction, which involves the complete new construction of a non-surviving feature in order to duplicate its appearance at a specific time period.

In this report, we recommend rehabilitation as the preferred treatment method for this site. "Rehabilitation," as defined by the *Secretary of the Interior's Standards,* is "the act of process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions of features which convey its historical, cultural, or architectural values."[2] The Browning Ranch can be understood as a "landscape of transformation," so the other treatments, preservation, restoration, and reconstruction are not appropriate, because they exclude any process that allows change and growth. Rehabilitation allows for those changes to occur within a framework of stewardship of a landscape's historical resources.

The following "Standards for Rehabilitation" list from the *Secretary of the Interior's Standards*, used to develop recommendations, is offered as a guide for future decision-making at the Browning Ranch:

1) A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2) The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3) Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4) Changes to a property that have acquired historic significance in their own right shall be retained and preserved.
5) Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6) Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration required replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7) Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8) Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9) New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10) New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.[3]

In the following sections, recommendations based on these standards will be offered for the character-defining features of the Browning Ranch. Each section will begin with an overview to summarize the condition of the feature, followed by the recommendations.

Topography, Geology and Soils

The Browning Ranch is visually dominated by the dramatic highland and valley topography that is typical of the Hill Country landscape. With the exception of the terracing of three fields, the topography, at least on a grand scale, has remained relatively unchanged on the ranch since early settlement. The soils on the ranch, however, have been greatly affected by ranching and other agricultural uses since 1856 and are generally shallow in depth and not able to support a thriving and diverse native vegetation.

Recommendations

Every effort should be made to retain the natural topography of the ranch in order to preserve this example of a cultural adaptation to a typical Hill Country landscape. Major activities resulting in significant modifications to the topography, such as quarrying for gravel or damming the stream to create a private lake, should be avoided. However, smaller activities like creating picnic areas and building modest structures are appropriate to the site if concerted efforts are made to preserve the topography and water ways. Given the sensitivity of the region to drought, care should also be taken to not overtax the wells

In order to restore the fields to encourage native grasses, the terraces on three fields may need to be altered to reduce, if not eliminate, the soil erosion hazard. There are two ways to accomplish this: slight infilling of the swales with the same soil type or lowering of the terrace ridges and redistributing the resulting excess soil. A slight infilling of the swales with compatible soil, effectively decreasing the ridge height without modifying the terrace topography itself, would be the preferred alternative. The infilling would result in a unique, identifiable soil horizon that would remain to indicate to future researchers both the terrace topography at the time of infill and the history of changes to the terraces. However, infilling with the same Krum Clay soil would be expensive as well as labor intensive. An acceptable alternative would be to shear off the tops of the ridges and use the resulting soil to partially infill the swales, thus creating a gentler terrace topography. If this option is selected, it is recommended that a portion of at least one terraced field be preserved to retain the historical condition and to demonstrate the continuing effects of previous attempts at erosion controls. Reseeding the fields with historically and ecologically appropriate varieties shortly after completing the work is recommended to prevent severe soil erosion and the possible formation of gullies.

Spatial Organization

The five complexes contained within the Browning Ranch can be understood as spatial and historical phenomena, each with its own particular significance, which can be used as a strategy to establish preservation and management priorities when new projects are proposed. New development projects proposed on the site should take into account and preserve the integrity of the spatial arrangement of these groupings.

Recommendations

It is of high importance that the spatial arrangement and physical integrity of the stone fence complex be preserved because of its value in transmitting historical information and its contribution as a character-defining feature of the ranch. Any improvements in that area should be done in such a

way that they do not touch, damage or otherwise impact the wall nor interfere with important views or vistas of the wall within the property.

Although the Barnwell House structure itself is in only fair condition, the relative arrangement of the features in this complex should be preserved, with the possible exception of the 1960's addition, the chain-link fence, and the greenhouse, which are recent additions, none of which contribute to the historical character of the complex. If it is necessary to add other structures to the complex, this should be done so that the most important view of the house and the smokehouse, from the north driveway entrance, is not changed.

The agricultural complex is the center of the traditional routine of work on the ranch--it is important to preserve the arrangement of buildings in that area because they appear to be originally placed to be of equal distance from the Barnwell House as a matter of efficiency and convenience. Other buildings could be introduced into the complex, keeping in mind, however, the original concept of the arrangement.

The sheep barn complex is fairly remote from the Barnwell House and the ranch house and may not be visited as often, so this area may be more amenable to changes necessary for ongoing management of the ranch, including new uses that may be introduced, such as horse stables.

Finally, the ranch house complex, although important in its arrangement, is also the center of a guest operation and there may be a need to add elements for the pleasure and convenience of the guests. However, features such as a swimming pool or BBQ area, should be placed with sensitivity towards the original arrangement of buildings. For example, new structures or large elements should not be added to the sides visible from the county road and from the entrance drive.

Structures, Furnishings, and Objects

The structures, furnishings, and objects found on the Browning Ranch vary widely in condition, ranging from excellent to poor. Most of these items are important as character-defining features of the ranch and should be repaired and maintained as such. Referring back to the "Standards for Rehabilitation," deteriorated historical features should be repaired, rather than replaced, but if replacement is the only option, the replaced item should match the original.

However, keeping in mind the theme of transformation, there should be an allowance for sensitive additions and changes that do not alter the essential historic character of these items. Again, referring to the "Standards," new work should appear very different from the old, yet be compatible with the historic character. It would be appropriate, for example, to do an addition to a historic building that shared the scale and fenestration patterns of the historic building, yet was constructed out of clearly contemporary materials.

Recommendations: The Barnwell House Complex

Barnwell House: This building is centrally important in the history of the Browning Ranch, being the home to several families occupying the property from the early 20th century. However, it is beset with issues, ranging from maintenance problems, such as water in the basement, to an inappropriate addition and kitchen remodel constructed in the 1960's.

The source of the water in the basement is as yet unknown, but is suspected to be coming from a broken pipe fed by the cistern on the hill above the house. This is being investigated currently and

may soon cease to be an issue. If it turns out to be instead a seep or spring below the ground surface, a recommendation has been made to install a French drain around the rear side of the house, which would daylight in the drainage ditch to the east. If this is the case, great care should be taken to avoid cutting the roots of the large live oaks that grow on the southeast corner of the house—trenching should, for example, go under larger roots rather than through them. If this does not address the problem, perhaps the basement could be filled in and the problem stabilized.

Other maintenance issues include repairing the cracks in the exterior stone masonry, the cause of which is unclear, as well as poorly executed mortar repairs done with Portland cement. They should be replaced with a more porous mortar that matches the original. There are certain to be other repairs needed, therefore, a historic structures report should be commissioned, for which the building can be examined in detail and a set of particular recommendations be made.

It has been determined at this time that it may be too costly to remodel the Barnwell House as a residence. However, with some changes, it might make an excellent visitors center for the ranch. The 1960's addition should be removed, and the 1960's era kitchen remodeled. The front room could be used as a combination meeting room and gallery displaying photographs, measured drawings and other information about the ranch. The bedroom could be used as an office and the kitchen, if remodeled, could be used for catering events and meetings. The basement, if dried out, could provide storage of visitor-related materials.

Smoke house: This is an important structure which, although somewhat hidden, lends a great deal to the historic character of the ranch. There is quite a bit of water accumulating around the base of the building which appears to come from the same source affecting the Barnwell House. This source should be located and addressed, whether contained or moved off site. Then the smokehouse building should be stabilized, insect nests removed, and infestations dealt with to prevent further damage. The east side of the laundry room portion has suffered the most damage and the sash window on that side has deteriorated severely. This window should be repaired, as should the board and batten siding on the west side of the building. It is possible that this building might be used again for smoking meats and should be maintained in good condition.

Fortunately, some of the original equipment and materials for handling smoked meat is still sitting on the shelves in the smokehouse. There is a large, commercial meat scale and a sausage stuffing machine, as well as other related items. Since the smokehouse was in use up until 1996, it is probably still in useful condition, so it is possible that a small smoked meat business could be started there. One of the ideas has been to produce smoked venison sausage, which could be sold as a specialty food and produce a small income to help support the ranch.[4]

Greenhouse: Although this structure has been identified as a greenhouse by a former ranch manager, it is covered in a material more opaque than translucent and was placed under some shade trees, so its usefulness for growing plants is questionable. The date of construction of this structure is not known, but appears to be fairly recent, that is, within the last thirty to forty years. It does not contribute in any positive way to the historic character of the complex and should be removed. If desired, it could be replaced by a structure in a different location, which more successfully functions as a greenhouse in which to raising seedlings for the vegetable garden.

Recommendations: The Agricultural Complex

Horse Barn: This building appears to be in good condition. Items needing repair or re-working include gate attachments, which are missing or inoperable in some cases, as well as the eastern driveway door, which is difficult to open and close and should be repaired. One feed crib is missing, but would not be difficult to duplicate and replace. Most of the wooden steps that access the storage rooms have broken or fallen away from the wall and should be repaired. The floor of the hay loft is generally solid except for the boards just under the eastern loft door, which have rotted away from water damage and should be replaced. That door is missing and should be replaced to protect the loft. The storage sheds should be cleared of any hazardous chemicals and machinery or locked to prevent accidents. Although the barn is at the base of a hillside, it does not appear to suffer from any water damage, but this should be checked on occasion. There may be other issues with this building that could be determined by a historic building report.

Once the repair and maintenance issues are addressed, the barn could be used again to shelter horses. Visitors could bring their own horses to the ranch in order to have a place to relax, ride, and spend quality, as well as quantity time with their horses. Riding trails could be developed on the ranch, but again, a study should be made to determine the holding capacity of the land for horses.

Sheep Dip Facility: This structure is in poor condition. The chutes and pens are falling apart and the vat itself is cracked in places. Nonetheless, the vat still holds water and because the surrounding fencing is broken, it presents a danger to both people and animals.

Because of the specific nature of this structure, it could probably not be used for any other function, but will be more of an artifact for display. The sheep dip facility, however, contributes a great deal to the historic character of the ranch and tells a story about agricultural practices in the area. Therefore, a historic building report should be done and a repair plan put into place. In addition, the soil surrounding the sheep dip facility should be sampled, examined for evidence of chemical contamination, and a treatment plan instigated, if necessary.

Machine Shed: This building should be stabilized and all associated tools and machinery examined for usefulness. It should continue to be used to hold equipment necessary for the operation and restoration of the ranch. The large refrigerator at one end could be repaired, if necessary, and used to support the sausage-making venture. If hunting becomes a part of the ranch program, it can also be used to store the meat.

Electrified Chicken Coop: This building should be stabilized. If desired, it could be repaired to a usable state, if chickens might be raised on the ranch again. If not, it should remain for interpretive purposes.

Chicken Coop: This structure should be stabilized and maintained, if only for display.

Maintenance Shed: This structure should be stabilized and maintained. There is a wealth of tools and parts contained inside and could continue to be used to manage the ranch.

Agricultural Equipment: There is a variety of agricultural equipment found in various places on the ranch. The Conditions Assessment chapter lists all of the major pieces and speculates on their usability. However, much of it was noted to be beyond repair and should just be well-documented and either removed or appropriately secured and displayed so that it is not a danger to visitors.

Recommendations: The Ranch House Complex

Ranch House: This building is in excellent condition. There have been discussions about whether or not to take it back to its original configuration by removing the porch addition and recreating the screened-in porch. Other ideas include the addition of a wooden deck to the eastern side. The outside entrance area on the west side can be muddy during wet periods and some drainage and landscaping improvements could be made to improve conditions and to cut down on mud tracked into the house. The apartment and carport seem to also be in excellent condition. The pipe fence could use some paint and there has also been discussion about replacing it with a wooden fence, which was the original fencing material when the house was first constructed. Either solution would be appropriate.[i]

There has been discussion about redecorating the interior, and particularly about revealing the original paintings commissioned by Mrs. Browning in the 1940's. The professionals who do this sort of work start by testing the surface to determine the color layering, then they document the layers before removing them to uncover the artwork. They examine the art to see if it is salvageable and then make recommendations about whether to restore or replicate it. Whether or not this is done depends on what is decided about restoring the house, if the porch is reclaimed and if the interior is to be redecorated or left as it is. However, while not required, it would seem to be a valuable investigation to undertake and could restore a charming feature of the house before its existence is forgotten or age makes the restoration more difficult.

Additional amenities might be considered for the area around the ranch house, including a permanent BBQ pit and possibly a small swimming pool close to the house and outdoor shower. There is already an informal fire circle area just south of the house and this might be improved by constructing a fire pit and stone seating for night-time gatherings.

The ranch house is currently serving the owner well as a bed-and-breakfast and an occasional family retreat, so no other use is suggested. However, if an addition is considered in the future, it should be done with sensitive consideration of the current massing and appearance of the building, as well as its relationship with the grove of live oaks into which it was carefully nestled.

The combination apartment and garage also seems to be functioning well as it is, but because it is oriented east to west, there is a better opportunity for expansion of the building to the south—an addition would not change its massing and size when viewed from the road.

Recommendations: The Sheep Barn Complex

Sheep Barn:

This building is somewhat remote from the rest of the inhabited areas, yet it contributes greatly to the historic character of the ranch in the story it may tell about the change from a sheep-based to a cattle-based ranching economy. If the property is no longer used for cattle ranching, perhaps this structure could be used for recreational activities, such as group meetings, or structured games. It could also be remodeled and used for a more remote horse stable. This location, under a spectacular group of live oaks, is conducive for relaxed activity and it is just up the hill from Hunnicutt Spring and not too far from the stone fence complex.

[i] Rehabilitation as a treatment does not require the replacement of missing features.

The structure itself appears in good condition, although some of the boards and about half the original loft was removed at some point. Some bottles of Cooper-Tox were found inside the barn, so the floor should be tested in places to be sure that there are no toxic chemicals still in the ground.

The newer sections of the fence complex to the west of the sheep barn are in excellent condition, but the older chute complex is falling apart. Because this was once an important and useful part of the complex, it should be repaired and stabilized so that the story it tells can be preserved. The concrete ramp portion of this chute complex sports a prickly pear cactus, which should be left in place for its picturesque qualities.

Recommendations: The Stone Fence Complex
This is the oldest structure on the site and contributes a great deal to the historic character of the Browning Ranch. The greatest threat to this structure has been its slow deterioration, primarily from flooding and animal activity, but partially from removal by man for sale. Because there is no photographic documentation of the fence from any time period, there is no basis for a restoration, so the best treatment for this feature is stabilization and preservation of its existing form. Visitors should be able to view the fence in different areas, but there should be no paths cutting through established lengths. Vigilant efforts should be made to prevent visitors from climbing or otherwise disturbing the structure.

Part of the general maintenance program at the ranch should be occasional inspection of the stone fence and repair of sections which have been documented by photograph during this research period. Tree seedlings found among the rocks of the fence should be carefully removed and no new construction should be initiated close to footings.

This complex offers a rich opportunity for an archaeological investigation of the area and might be an excellent site for a field school. Written records suggest that there was a house close by and indeed there is an area of dressed stones suggestive of a hearth structure in the wall compound section. It is possible that further investigation can locate this structure and contribute significantly to what we know so far about the complex and to what we know in general about the early Anglo-American settlements of Blanco County.

Recommendations: Agricultural Field Terraces
Refer to recommendations under the Topography, Geology and Soils section.

Recommendations: Other Fences
There is a large variety of metal and wood fencing found on the ranch, much of which is in poor repair and not particularly useful anymore. David Bamberger has recommended the removal of all the old interior fencing, suggesting that instead, three of the fields be complete fenced in order to get native grasses established and to control grazing, that is, if cattle is still kept on the ranch. He also recommended fencing the riparian zone, as discussed above. Before any of this is implemented, however, the existing fencing should be well-recorded, by maps and photographs.

On the other hand, the old fences are historic artifacts--more discussion should be initiated about the necessity of the removal of all of them. The older fencing close to the east boundary line, marks the location of the old property line before it was straightened by C.L. Browning in the 1950's. Other stretches may also be significant in the history of the property, so the wisdom of their removal should be carefully considered.

In the inhabited areas in the north part of the ranch, fencing should be repaired and maintained as needed and barbed wire slowly replaced with smooth wire if cattle is not kept on the land. Some of this fencing will not be needed at all if this is the case. If the orchard is revived, the surrounding fence should remain and kept in repair to keep out deer. The chain link fence around the Barnwell House is not an attractive feature and a replacement could be considered, depending on the eventual use of the building. And, as mentioned above, one might consider replacing the pipe fence around the ranch house with a wooden board fence.

Recommendations: Deer Blinds
No recommendations at this time. Use of these structures is still under discussion.

Recommendations: Artifacts
All artifacts should be carefully documented as to location, orientation, and condition before removal, and kept on site.

Flora and Fauna

The most dramatic change to the vegetation of the Browning Ranch occurred during early European settlement of Blanco County with the accompanying destruction of the prairie landscape and the control of fire, resulting in cedar infestation, the erosion of soil, and changes in species types over time. Since then, fields have been created and planted, first with crops and later with hay. An orchard and a vegetable garden were added by the 1940's, if not earlier, and ornamental plants grown for their foliage and flowers were maintained around the Barnwell House and the ranch house.

Recommendations
Native Plant Communities:
David Bamberger, in his earlier report, has made recommendations for restoring the five fields on the property which involves plowing the fields and reseeding with native grasses. Once restored, these fields will have a greater potential for feeding livestock and increasing wildlife diversity. He also recommended chemical treatments for the removal of nightshades and thistles, as well as prairie coneflower and two-leaf senna, which compete with the native grasses. In order to reduce the prickly pear on the ranch, which tends to spread on abused land, he recommends either chemical treatment or mechanical removal.

Bamberger also recommends the creation of a riparian zone around Hunnicutt Creek, which would be delineated by fencing to exclude cattle and vehicles from the area. The larger cedar trees should not be removed from this area because they are habitat for the Golden-cheeked Warbler in this area. The vegetation in the riparian zone should be supplemented by more understory plants, wildflowers, and trees to increase its diversity.

Shade Trees:
The greatest threat to the survival of the larger shade trees is compaction of their root zones. Ball moss, although not usually dangerous for trees, is also becoming a problem in a few of the large trees in the agricultural complex area. This plant appears to be attracted to trees close to human habitation, which may also be stressed for one reason or another. Treatment alternatives range from mechanical removal to pruning to chemical sprays.[5] Whichever solution is chosen, it is important that the large shade trees on the ranch be well-maintained and monitored for disease and surrounding

soil compaction. If soil compaction is found (possibly as a result of penned animals in the area), the soil should be aerated, well-watered, and a heavy mulch layer, of about 4-6" should be placed out to the extent of the drip line of the trees. This mulch could be made by shredding cedar trees that have been cut down in the cedar removal effort. If there is an important tree found to be in decline, a new tree of the same species should be planted in the vicinity for continuity of canopy and spatial integrity.

Oak wilt is a serious problem in the Hill Country and the Browning Ranch is not immune. The current site manager has reported seeing an oak wilt problem on the ranch along the power line, possible brought in by clearing equipment used by the utility. The agricultural extension agent for Blanco County should be contacted and their recommendations for treatment followed. The utilities should also be notified and asked to alter their practices in the area.

Peach Orchard:
The orchard is a significant aspect of the historic character of the ranch, dating as far back as 1942 or earlier; treatment choices should reflect its contribution. Although experts have warned that peach orchards are rarely replanted in the same location because of the persistence of soil-based fungi, more research should be done to find out if there is a treatment that could be used to overcome this problem. Because the orchard was such an important part of life at the ranch, it is important to the maintenance of its historic character to replant the orchard in the same location if at all possible. More research is necessary in this area, as well as research into possible species that may have been grown on the site or that could be used as substitutes to communicate the same character.

Vegetable Garden:
Like the peach orchard, the vegetable garden was at one time very important to the quality of life at the Browning Ranch. Although a vegetable garden of that size requires a significant investment of time and labor, if the space was used again to grow food, it would be provide a good example of the way Texans lived off of the land in the mid-1900s and could become an important part of activities at the ranch once more. The garden could also be leased to an organic farmer or revitalized for feeding guests at the bed and breakfast operation and for visitor demonstrations.

Ornamental Plants:
The ornamental plants, most of which are growing in the Barnwell House complex yard, are suffering from increased shade, trampling by animals and people, and general neglect. However, because there is no record of what has historically been planted in the yard, the original planting scheme cannot be restored. We do not recommend the development of a period garden here because this would be inauthentic and misleading. However, if a planting scheme could be developed that is clearly contemporary, this area could be an ideal spot for an ornamental garden because it is completely fenced and protected from most grazing animals, except deer. Either way, the existing plants would benefit from more care and protection from trampling.

Of particular interest in this area are the three culinary figs which are growing along the western fence line behind the Barnwell House. Dead wood should be removed from these trees and surrounding trees should be pruned judiciously in order to provide more light for the figs. They most likely do not produce fruit anymore because the surrounding trees are shading out light necessary for the production of fruit. Much of that shade, however, is produced by a live oak, a tree that should be protected for its contribution to the character of the site and to climate moderation. A

decision will have to be made about which plant is more important to the overall preservation scheme. The county extension agent should be consulted for more detailed treatment information.

Animals

Botanically diverse areas also attract a relative increase in the number of species of fauna. In the case of the Browning Ranch, the diversity of its animal population will increase as a result of ecological restoration, especially its bird population. On the other hand, the deer population on the ranch is approaching the maximum carrying capacity of the land.

Recommendations

As mentioned above, the current site manager is already working on plans for ecological restoration of the ranch property, following the recommendations by David Bamberger. He is also working to protect the heron rookery from disturbance by humans by discouraging groups from coming near the rookery tree during the nesting season. In addition, in order to protect the Golden-cheeked warbler, David Bamberger has recommended that old-growth cedar trees should not be removed as part of the cedar control project.

A plan to deal with the overpopulation of deer is also being considered, which involves organized hunting events, seasonal deer leases and other activities to help maintain a healthy herd on and around the ranch property.

Circulation

In his recent report, David Bamberger emphasized that the lack of a quality road system on the Browning Ranch will be an impediment to working on and enjoying the larger part of the property. As it is today, only one piece of road, between the main gate and the creek, is accessible to passenger vehicles. For the most part, the remainder of the roads on the site are accessible by a four-wheel drive truck with a high undercarriage, but several stretches are so eroded or steep that they cannot driven safely at all.

There are only two walking trails on the ranch: one is the riparian path down by Hunnicutt Creek, but does not go very far and the other, which leads from the carport to the vegetable garden, is eroded and not a comfortable walk. There is also a concrete sidewalk which goes from the carport to the first cattle guard, but it was built for roller skating and does not really lead anywhere. There are no established paths for accessing the highland area or Hunnicutt Spring, which are both important features of the ranch.

Recommendations

The Bamberger report has recommended improvements that include relocating roads for safety and accessibility as well adding some stretches to access more remote areas. The road close to the heron rookery should be relocated as well to protect the birds during nesting season. Whether repaired, moved, or added, Bamberger recommended that they be built up higher than the surrounding area to that water cannot create erosion gullies. Culverts should be added in crucial locations so that this water can be moved under the road and towards a drainage area.

The riparian path is not well developed and does not lead to any interesting features except for the old wooden gate--it should be developed to extend to Hunnicutt Spring. The path leading from the carport to the vegetable garden might be improved if the garden is re-established as a feature. Other paths should be added so that visitors might access some of the upland areas that offer good, flat

sites for picnics and sunset viewing, as well as visit such features as the windmill, the stone fence complex, and the heron rookery. A viewing area might be developed to which visitors could hike to view the heron rookery without disturbing the birds.

Water Features

Hunnicutt Spring is the cultural and spiritual center of the Browning Ranch and should be of the highest priority when considering any new development on the site. During the fall, winter, and early spring, the creek is fed by all eleven of the springs and innumerable seeps found on the property which are active in the rainy season. For this reason, these other springs and seeps should also be protected and any construction or cattle grazing around them avoided.

Other water related features to consider are the windmill and its cistern, the pump and cistern above the Barnwell House, and the well which currently supplies all the drinking water to the ranch house and the Barnwell House. There are also a number of hose bibs related to the agricultural complex which are fed by the cistern above the Barnwell House. These were not operational until this cistern was recently cleaned out and repaired and all the associated water lines cleaned out as well.

Recommendations

Because Hunnicutt Spring is fed by run-off from almost two-thirds of the ranch property, efforts should be made to avoid using chemical fertilizers or herbicides in its watershed and the grazing of cattle in this area should be limited. Other seeps and springs on the site should be similarly protected.

On its lower reaches, the banks of Hunnicutt Creek have been heavily silted in by continuous eroded soils coming off of the surrounding pastures and made worse by erosion from the field terraces. In these areas, the creek does not display the typical Hill Country creek appearance, that is, usually clear water to bedrock, lined with limestone boulders and gravel. The silt, as well as compaction and trampling by cattle allowed access to the water, may be one of the causes of the lack of diversity of riparian vegetation in the area. Studies should be made regarding the removal of this silt layer and the restoration of the banks of the creek to a more natural state.

David Bamberger has recommended the creation of a riparian zone, a corridor 400 feet wide, around the creek for its entire length on the property. This zone would be fenced to exclude cattle and vehicles except at designated crossing locations. Within this area, there could be a hiking trail and possibly a gathering area with picnicking facilities. Silt could be removed from some areas to form swimming holes.[6]

One place that might be ideal for developing a swimming hole would be the area just above the concrete dam just north of Hunnicutt Spring. The creek above the spring dries up in the summer months, but because the spring runs all year round, a swimming area there would be easy to maintain. This would also be a feature to draw foot traffic away from the spring itself and downhill to the dam area, which could be accessed by foot path. Silt was cleared out of this area several years ago, but the material was not moved very far and quickly ended up back in the creek. Bamberger recommends that the material be hauled to higher ground—perhaps to contribute fill to the terrace restoration project.

Another location for a swimming hole, as recommended by Bamberger, is just above the low water crossing, which is the northernmost dam on the property. This area is somewhat closer to the ranch

house and easily accessible by vehicle, which makes it available to persons who cannot hike a great distance. This could also be the location for a picnic area.

Bamberger has also identified three sites which may be ideal for the construction of a pond for fishing or swimming. One location, on the east side of the property, would be good for a stock pond, if cattle are kept on the ranch. Another pond has been recommended close to the horse barn, where it might be fed by the permanent spring close to the Barnwell House. This pond would be within an easy walking distance from the ranch house. The third pond is recommended on the west side of the property and could be fed by a number of seeps found in that area. He has advised that all of these locations be tested for the soil's ability to hold water.

The windmill and cistern in the upland area should be examined to see if they might be repaired and made operational again. This would be of great benefit in continuing to supply water to wildlife, as well as for people hiking up in the hills. The float mechanism and general design of the animal troughs would be interesting for visitors to see and should be examined for any repairs that might be necessary to get them into working order. This cistern could be cleaned out like the other one and waterproofed against leakage. It will be necessary to continue this type of maintenance and use of occasional algaecides to keep both cisterns clean and usable.

Summary

As mentioned before, these recommendations are just a starting point from which many more discussions and studies will emerge. Already underway are planning efforts for environmental restoration, beginning with the removal of much of the cedar on the site[ii] and the site manager is working to develop further plans, using the Bamberger report as a guideline.

In addition, historic structure reports should be instigated, at minimum for the Barnwell House and the horse barn, but the other buildings should be examined closely as well for structural and other possible maintenance problems. Studies should be done in order to establish a holding capacity for different types of livestock on the ranch so that decisions might be made about whether or not to have cows on the property and if so, when; as well as horses, sheep, or goats. The stone fence complex should be investigated and documented by archaeologists.

New buildings can be added to this landscape, such as a new manager's house, which is currently planned to be built in the north east corner of the property and additional cabins for visitors could be located on the hill close to the cistern above the Barnwell House. Design for these buildings should be inspired by the local vernacular yet be contemporary in character. Locations of new buildings should also be evaluated for their impact on circulation and for ecological concerns.

These are all important studies because they establish a base line from which this "landscape of transformation" can continue to change and grow to meet the evolving needs of its users. Hopefully this report has been just the beginning of a give and take relationship between research and planning which will be the core of change at the Browning Ranch.

[ii] This is an effort partially funded by the Texas State Soil and Water Conservation Board to control invasive brush species on native rangeland in order to increase the amount of water in the Pedernales River, which provides water to the city of Austin. Refer to web site at:
http://www.twdb.state.tx.us/publications/press_releases/2002%20Press%20Releases/08_21_02Environmental.htm

[1] Birnbaum, p. 5.
[2] Birnbaum, p. 48.
[3] Birnbaum, p. 49.
[4] Scott Gardner, personal communication, 2003.
[5] Jill Nokes, personal communication, 2003.
[6] Bamberger.

Appendices

Appendix A:
Ownership Timeline

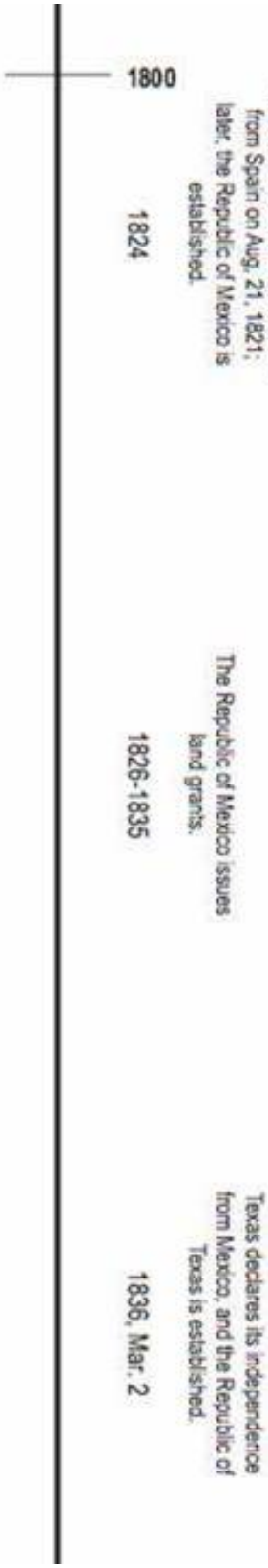
Blanco River is named by San Miguel de Aguayo, evidence of exploration in Blanco County area.

1721

The C.L. Browning Ranch contains land from two Republic of Texas land grants, the Roland Hunnicutt Survey #176 and the Peter Jackson Survey #177. This timeline traces the ownership of the land that comprises the present-day ranch and places it within the context of major events in Blanco County and Texas history.

C.L. Browning Ranch: Timeline of Ownership

Information compiled by A. Elizabeth Butman and Anna Ingwersen
Spring 2003


1800
1824
Mexico declares its independence from Spain on Aug. 21, 1821; later, the Republic of Mexico is established.
1826-1835
The Republic of Mexico issues land grants.
1836, Mar. 2
Texas declares its independence from Mexico, and the Republic of Texas is established.

The Republic of Texas issues land grants.

1836-1845

Comanches claim all land in the Blanco County area; Apaches and Captain James Callahan fight the Comanches.

1836

The United States annexes Texas as the 28th state in the Union.

1845, Dec. 29

1838, Jan. 16

In Washington County, heirs of Roland Honeycut receive a certificate for first class headrights.

One league and one labor
4605 acres

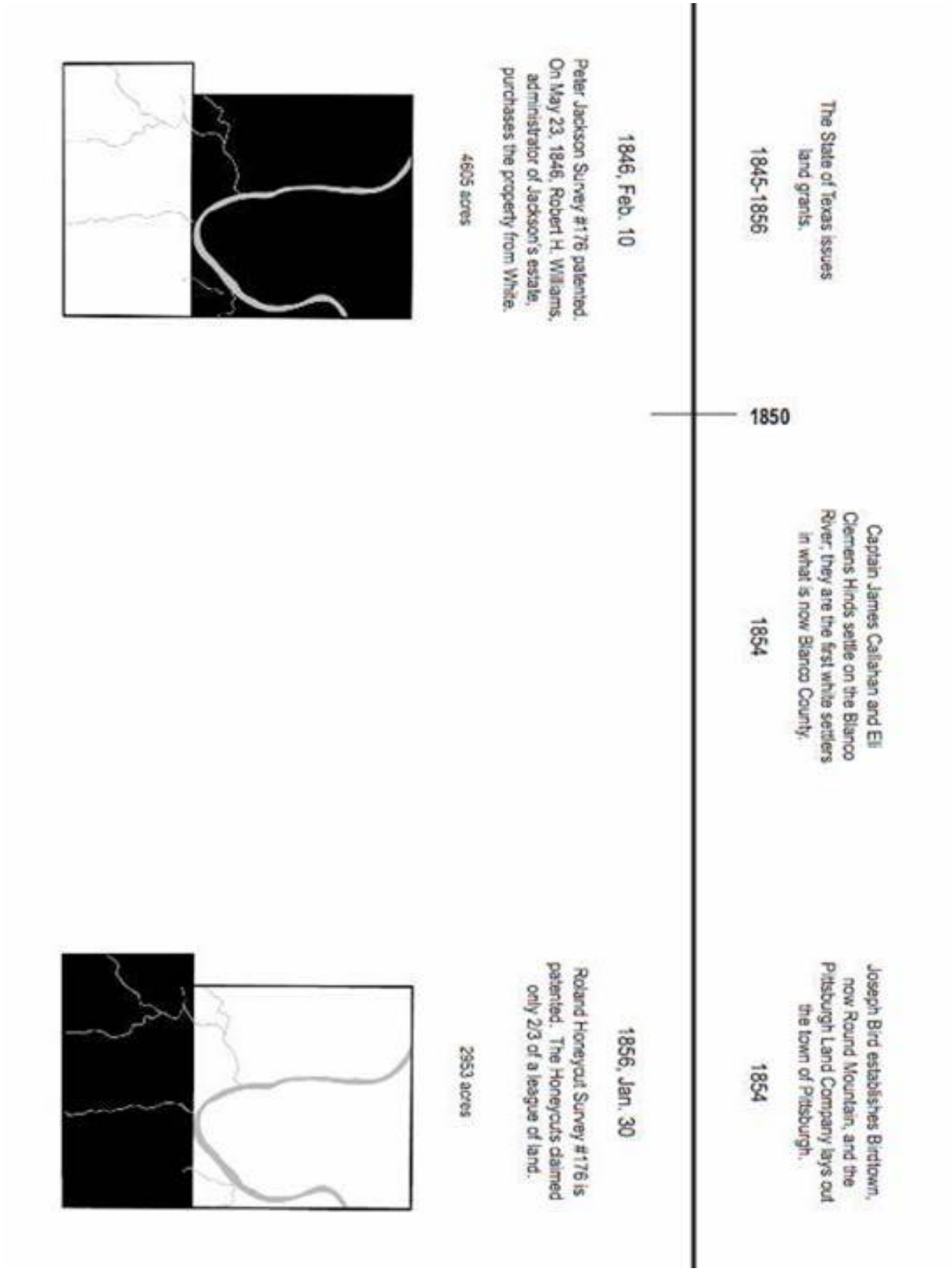
1838, Jan. 18

In Matagorda County, heirs of Peter Jackson receive a certificate for first class headrights.

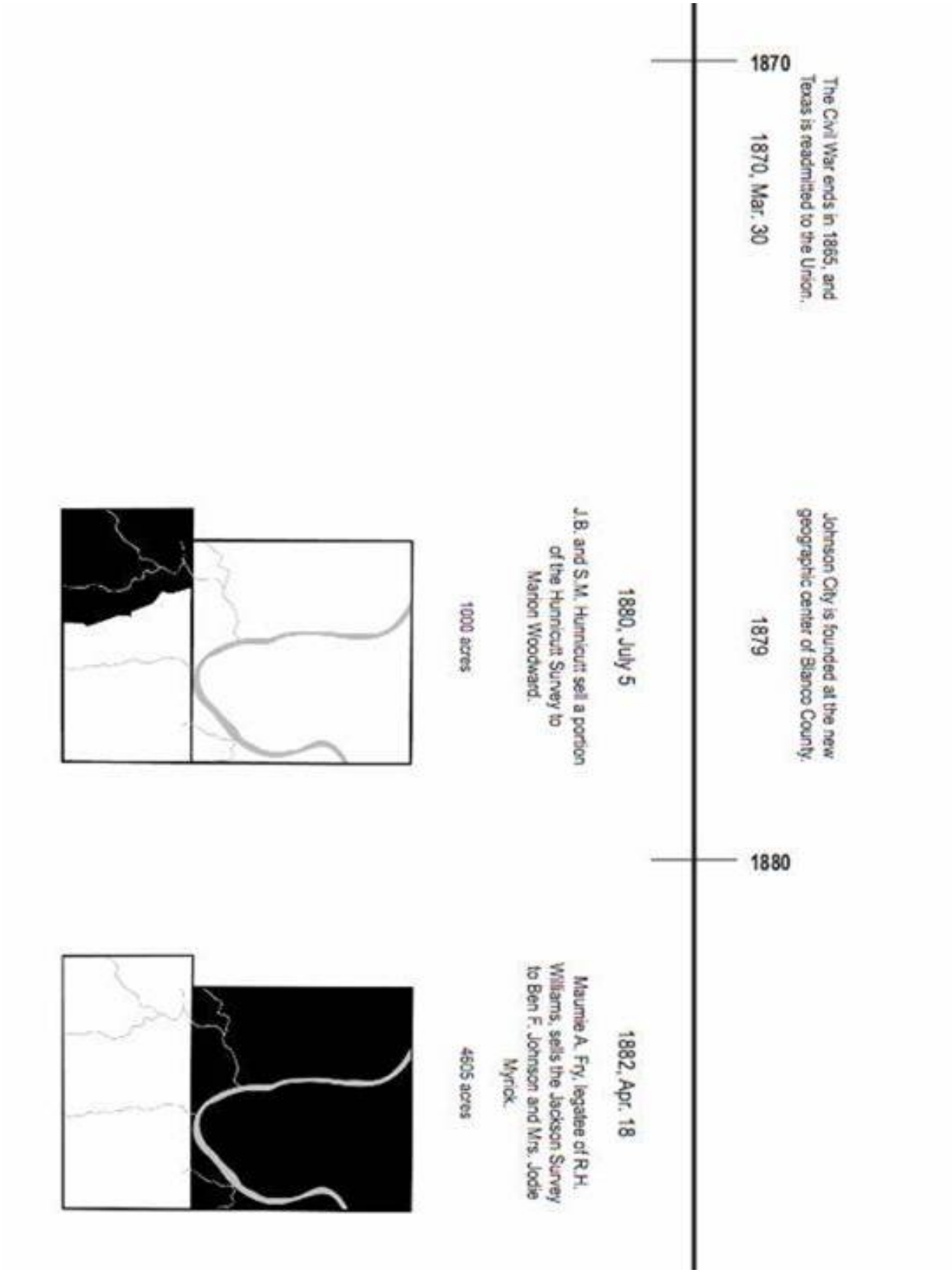
One league and one labor
4605 acres

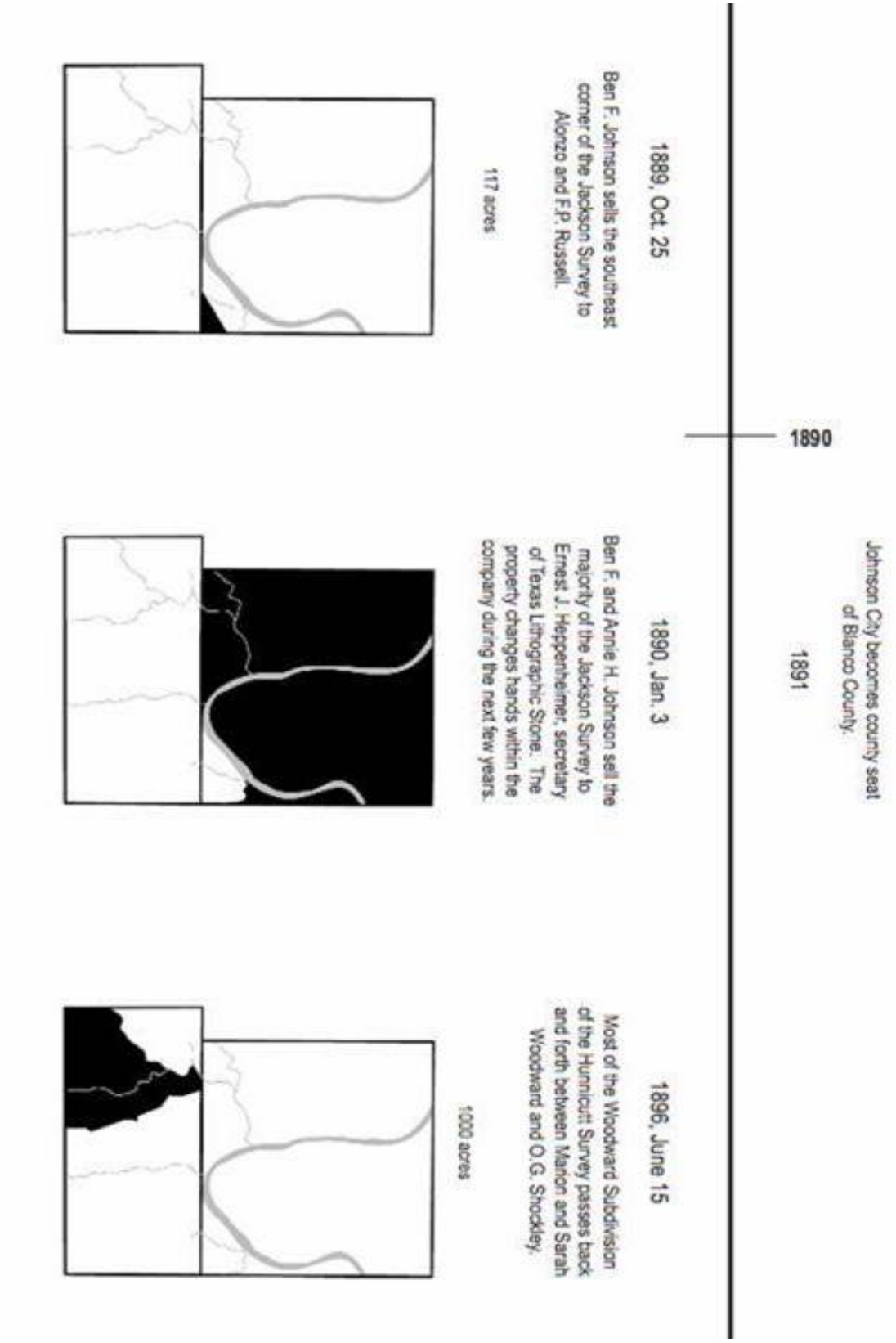
1839, June 4

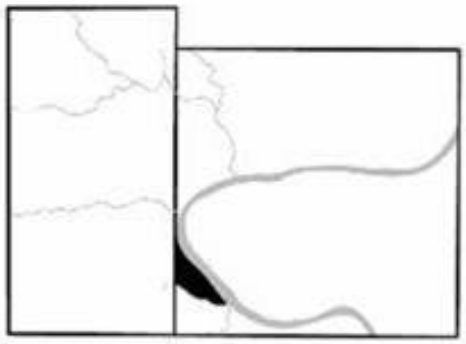
Benjamin I. White purchases the Jackson certificate for one league and one labor of land at auction.


The State of Texas issues land grants.
1845-1856
1846, Feb. 10
Peter Jackson Survey #176 patented. On May 23, 1846, Robert H. Williams, administrator of Jackson's estate, purchases the property from White.
4605 acres
1850
Captain James Callahan and Eli Clemens Hinds settle on the Blanco River; they are the first white settlers in what is now Blanco County.
1854
Joseph Bird establishes Birdtown, now Round Mountain, and the Pittsburgh Land Company lays out the town of Pittsburgh.
1854
1856, Jan. 30
Roland Honeycutt Survey #176 is patented. The Honeycutts claimed only 2/3 of a league of land.
2953 acres


Blanco County is formed from parts of Comal, Hays, Burnet, and Gillespie Counties, and Blanco is established as county seat. The County is 1043 sq. miles.
1858, Feb. 12
1860
Texas secedes from the Union. In Blanco County, secession is voted down by a vote of 170 to 86.
1861, Feb. 1
Kendall County is established and land taken from southwestern Blanco County, which gains portions of Hays and Burnet Counties. Blanco County is now 714 sq. miles.
1862

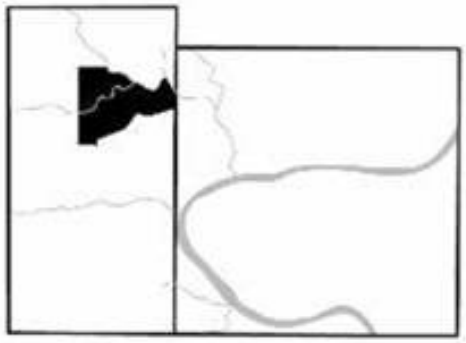

1870
The Civil War ends in 1865, and Texas is readmitted to the Union.
1870, Mar. 30
1880
Johnson City is founded at the new geographic center of Blanco County.
1879
1880, July 5
J.B. and S.M. Hunnicutt sell a portion of the Hunnicutt Survey to Marion Woodward.
1000 acres
1882, Apr. 18
Maumie A. Fry, legatee of R.H. Williams, sells the Jackson Survey to Ben F. Johnson and Mrs. Jodie Myrick.
4505 acres


1890
Johnson City becomes county seat of Blanco County.
1891
1889, Oct. 25
Ben F. Johnson sells the southeast corner of the Jackson Survey to Alonzo and F.P. Russell.
117 acres
1890, Jan. 3
Ben F. and Annie H. Johnson sell the majority of the Jackson Survey to Ernest J. Heppenheimer, secretary of Texas Lithographic Stone. The property changes hands within the company during the next few years.
1896, June 15
Most of the Woodward Subdivision of the Hunnicutt Survey passes back and forth between Marion and Sarah Woodward and O.G. Shockley.
1000 acres



1897, Dec. 21

John F. and Sarah Stanford sell a portion of the Jackson Survey to W.M. Waldon.

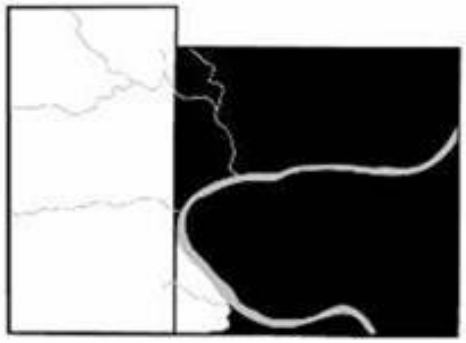


200 acres

1897, Dec. 22

Sarah Woodward sells part of the Woodward Subdivision to A.M. and F.E. Bushnell.

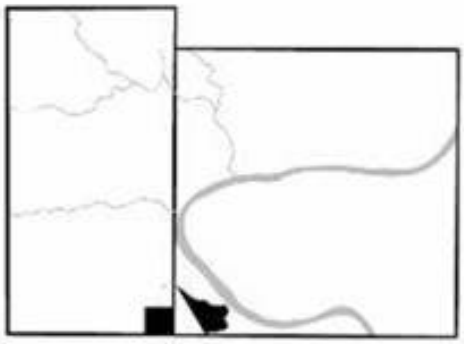
1900



4488 acres

1900, Jan. 29

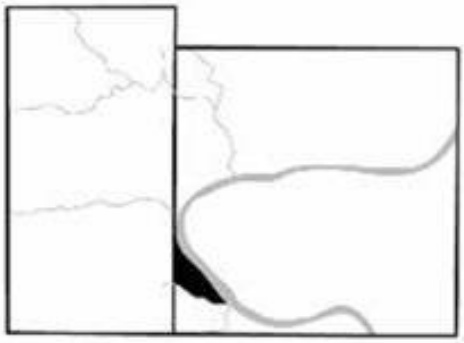
Ernest J. Heppenheimer of Texas Lithographic Stone sells his property to T.M. and J.R. Yett.



1900, Mar. 2

John Raulis sells his land in the Hunnicutt and Jackson Surveys to W.R. Hunnicutt.

Roughly 30 acres of Jackson
46 acres of Hunnicutt



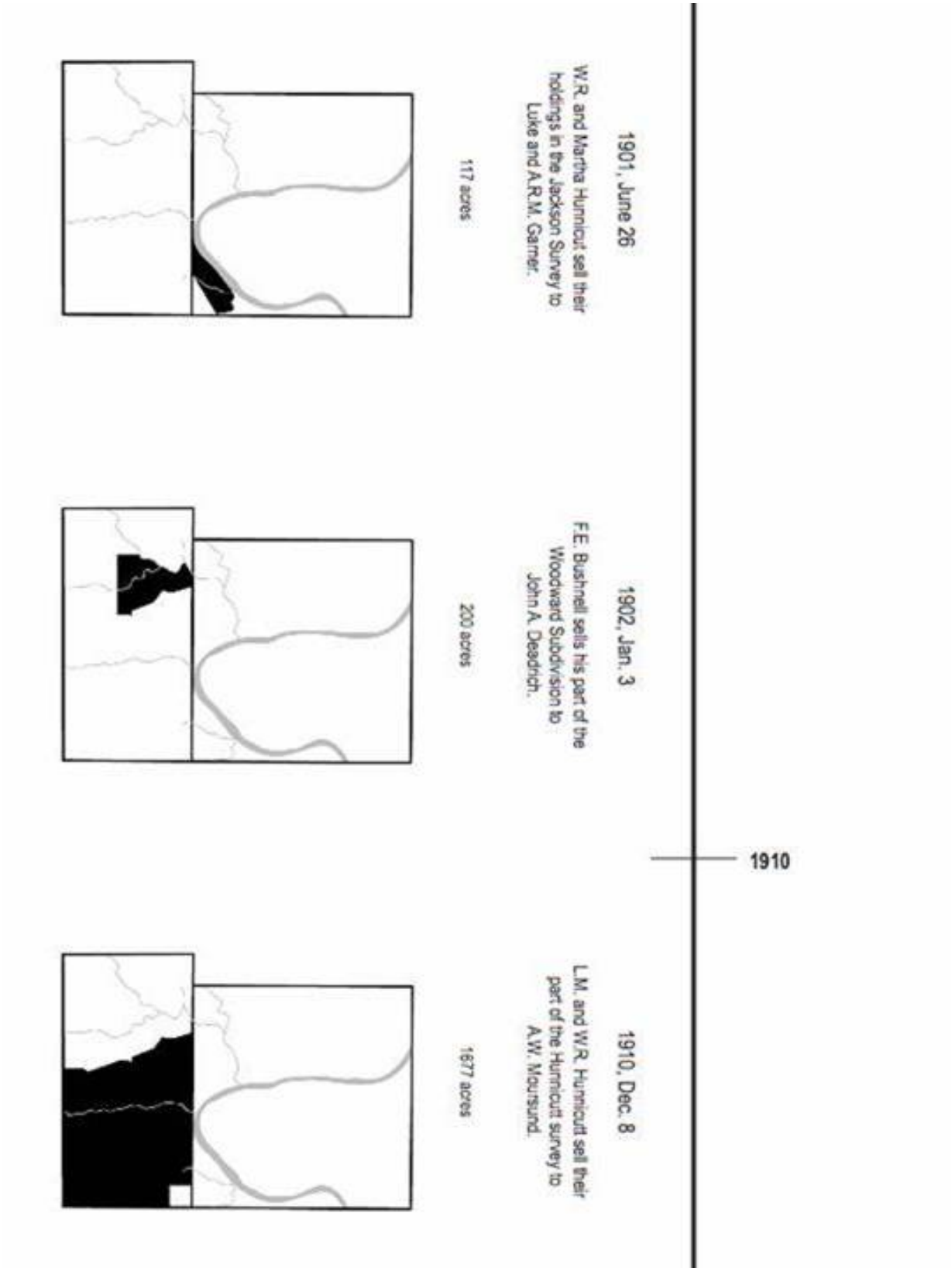
1900, May 1

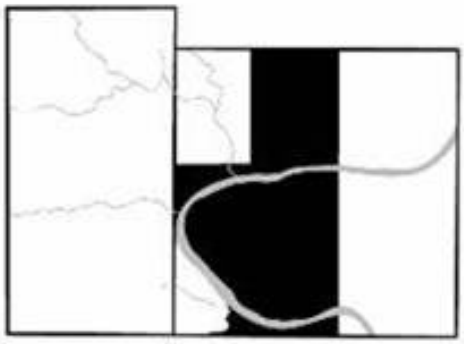
W.M. and P.P. Waldon sell their property to W.R. Hunnicutt.

1900, Nov. 15

O.G. Shockley sells part of the Woodward Subdivision to John A. Deadrich.

300 acres


1901, June 26
W.R. and Martha Hunnicutt sell their holdings in the Jackson Survey to Luke and A.R.M. Garner.
117 acres
1902, Jan. 3
F.E. Bushnell sells his part of the Woodward Subdivision to John A. Deadrich.
200 acres
1910
1910, Dec. 8
L.M. and W.R. Hunnicutt sell their part of the Hunnicutt survey to A.W. Mounsund.
1677 acres



1911, Aug. 3

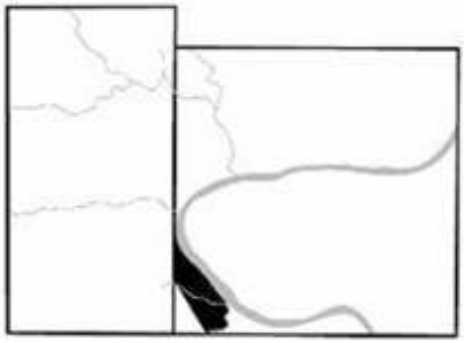
T.M. and Eloise Yett and J.R. and Ollie Yett sell part of the Jackson Survey to Louis Danz.

2056 acres

1911, Aug. 4

Louis and Ottilie Danz in turn sell a portion of their newly acquired land to Albert Moursund.

672 acres



1911, Sept. 15

Luke Garner sells the southeast corner of the Jackson Survey to A.W. Moursund, Jr.

117 acres

1912, Aug. 1

John Deadrich sells his half of the Woodward Subdivision to Emil Beckmann.

500 acres

1915, Dec. 6

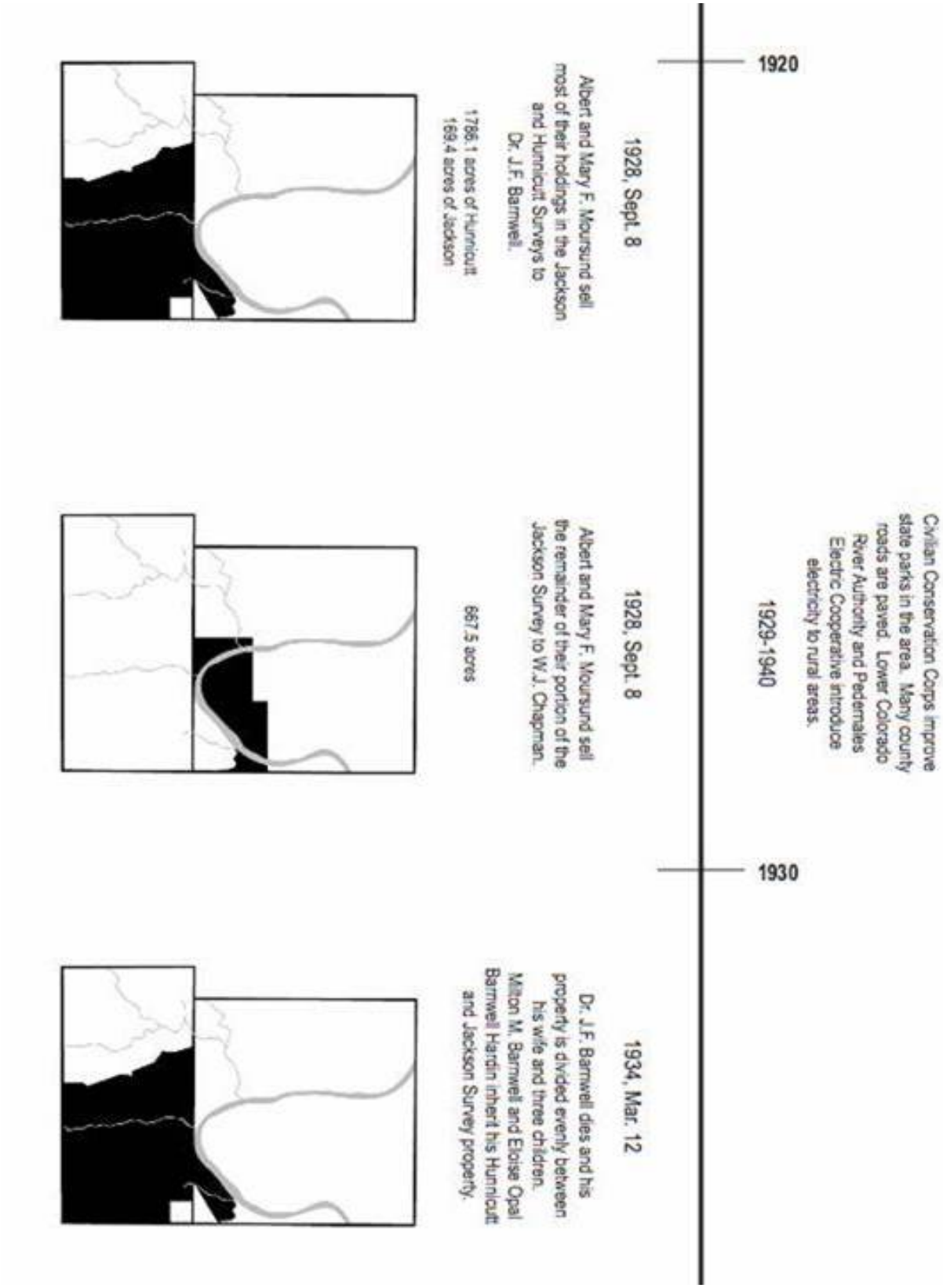
Emil and Emma Beckmann then sell their land to Dr. J.F. Barnwell.

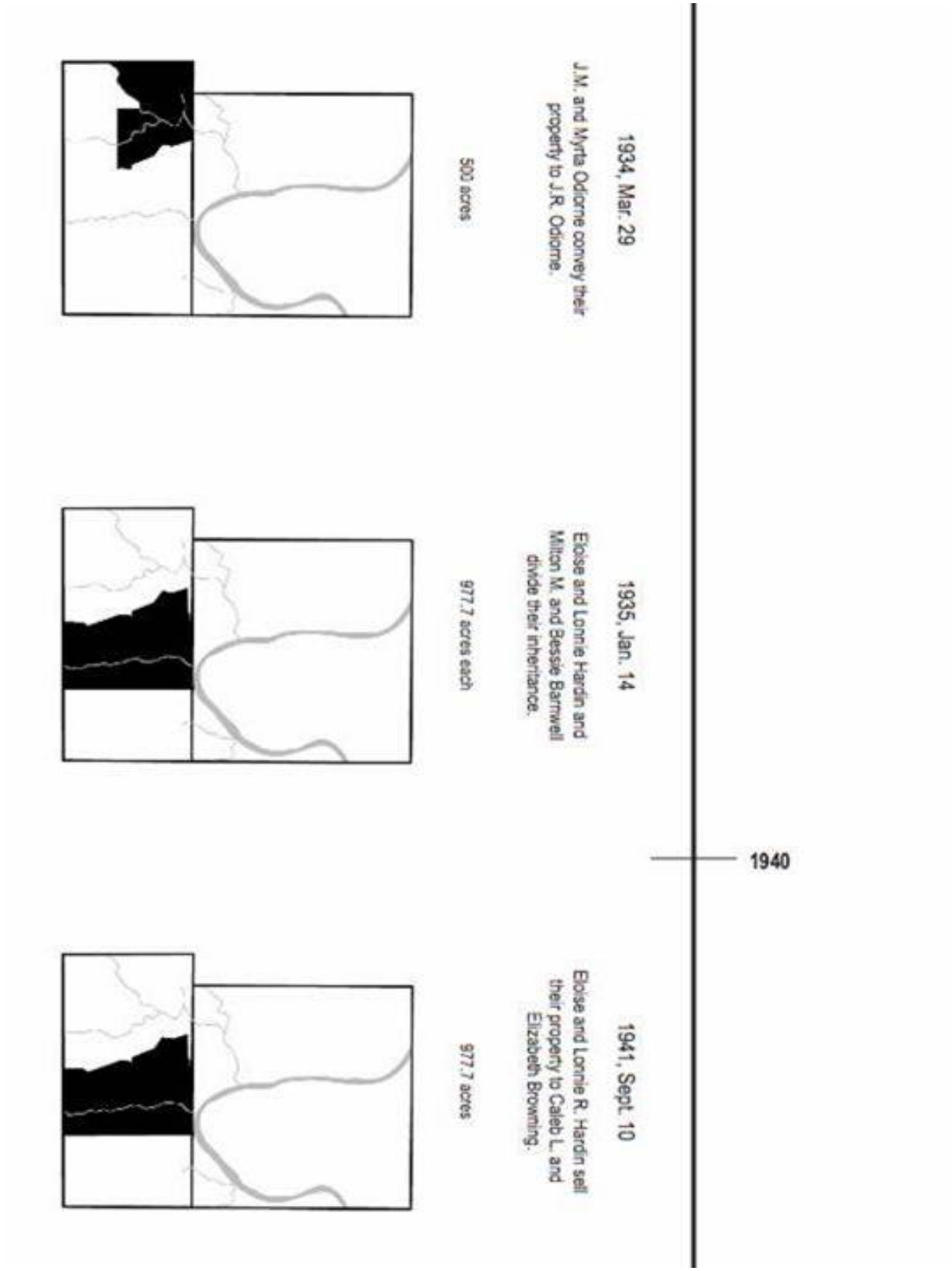
500 acres

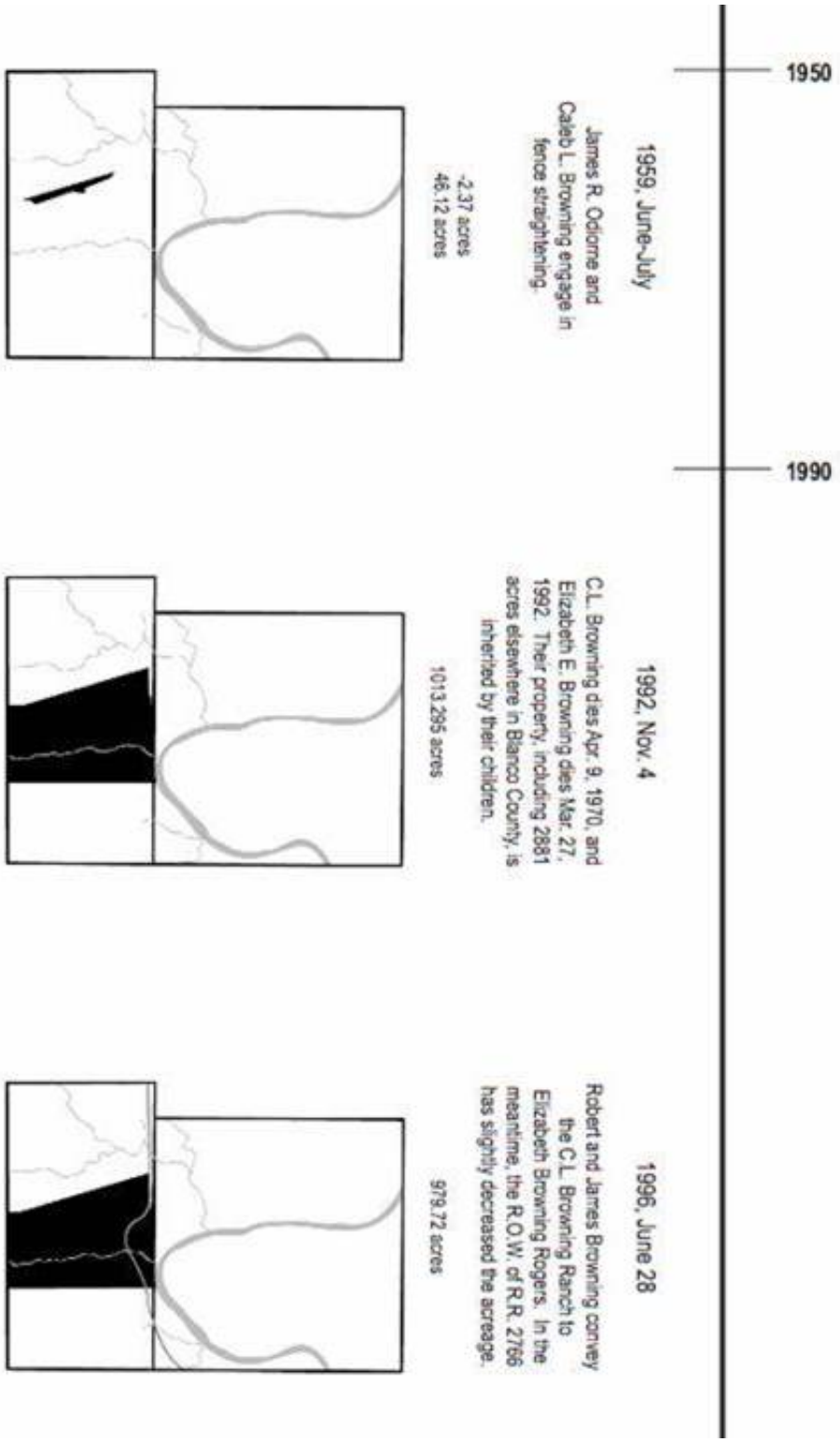
1919, Oct. 28

Dr. J.F. and Irene Barnwell sell their part of the Woodward Subdivision to J.M. Odlorne.

500 acres

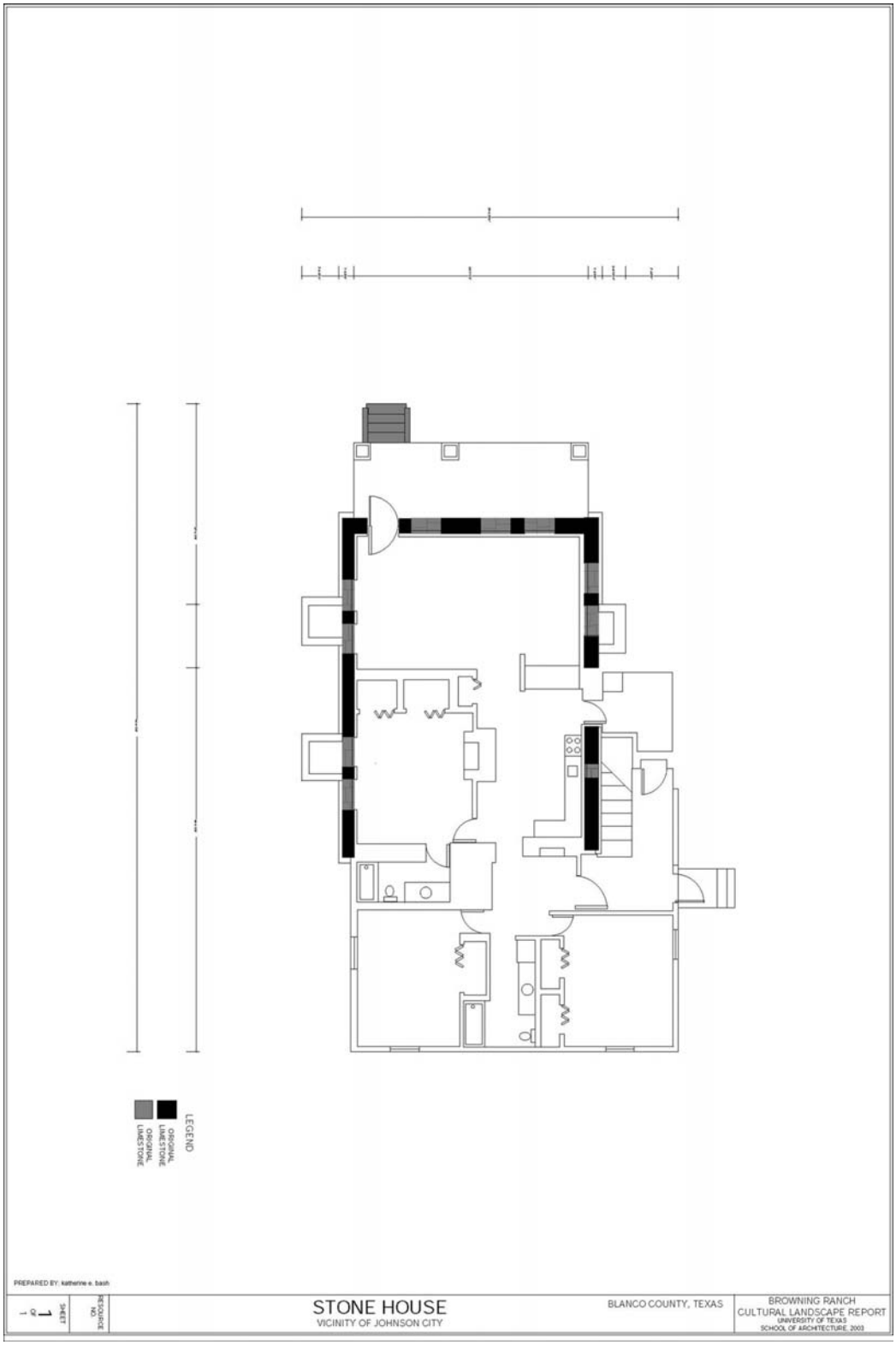

1920
1928, Sept. 8
Albert and Mary F. Moursund sell most of their holdings in the Jackson and Hunnicutt Surveys to Dr. J.F. Barnwell.
1786.1 acres of Hunnicutt
169.4 acres of Jackson
1928, Sept. 8
Albert and Mary F. Moursund sell the remainder of their portion of the Jackson Survey to W.J. Chapman.
667.5 acres
1929-1940
Civilian Conservation Corps improve state parks in the area. Many county roads are paved. Lower Colorado River Authority and Pedernales Electric Cooperative introduce electricity to rural areas.
1930
1934, Mar. 12
Dr. J.F. Barnwell dies and his property is divided evenly between his wife and three children. Milton M. Barnwell and Eloise Opal Barnwell Hardin inherit his Hunnicutt and Jackson Survey property.


1934, Mar. 29
J.M. and Myrta Odiorne convey their property to J.R. Odiorne.
500 acres
1935, Jan. 14
Eloise and Lonnie Hardin and Milton M. and Bessie Barnwell divide their inheritance.
977.7 acres each
1940
1941, Sept. 10
Eloise and Lonnie R. Hardin sell their property to Caleb L. and Elizabeth Browning.
977.7 acres

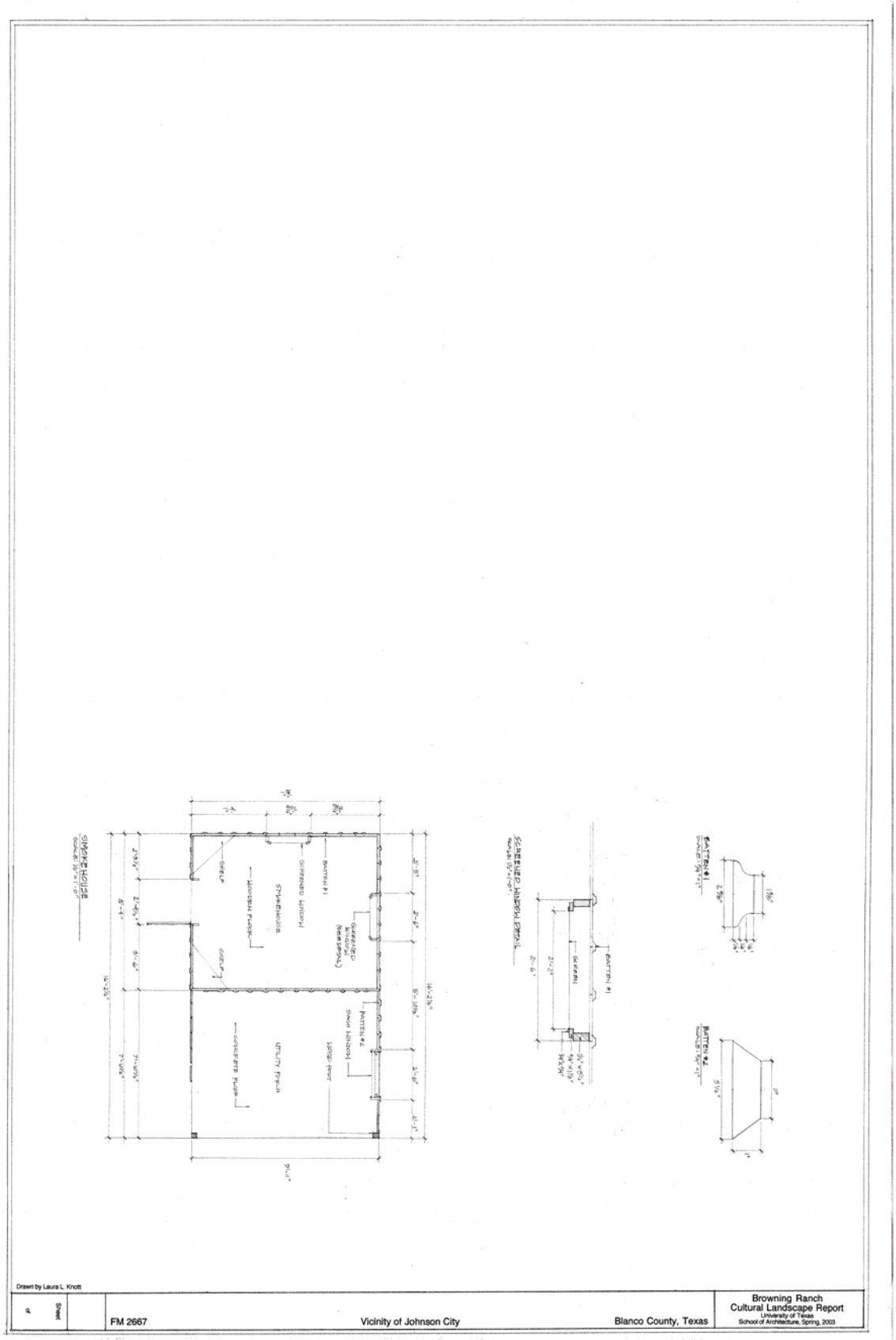


Compiled from Blanco County deed records and the *Handbook of Texas Online* article on Blanco County, http://www.tsha.utexas.edu/handbook/online/articles/view/BB/hc8.html (Accessed April-May, 2003).

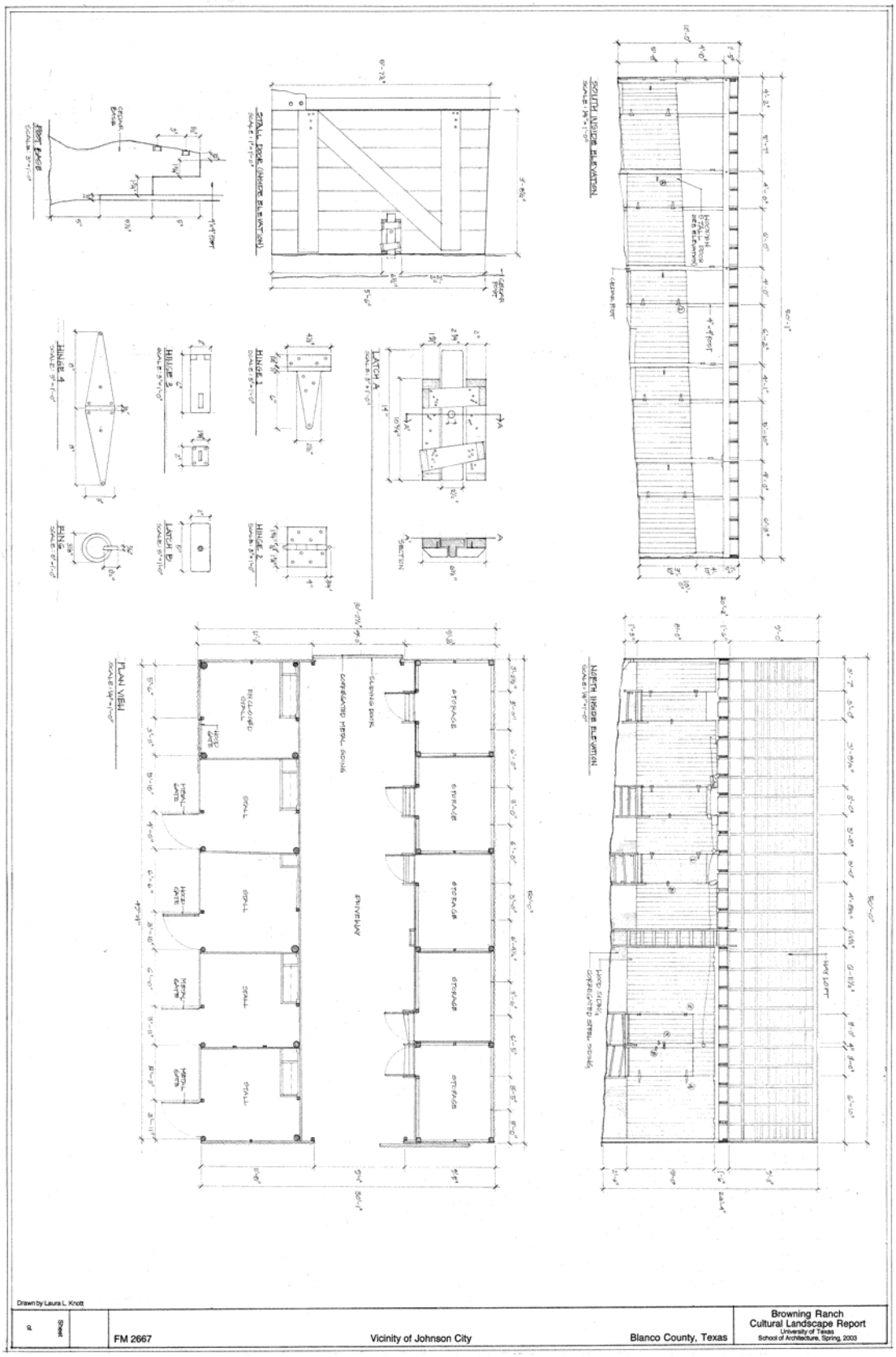
Appendix B: Measured Drawings



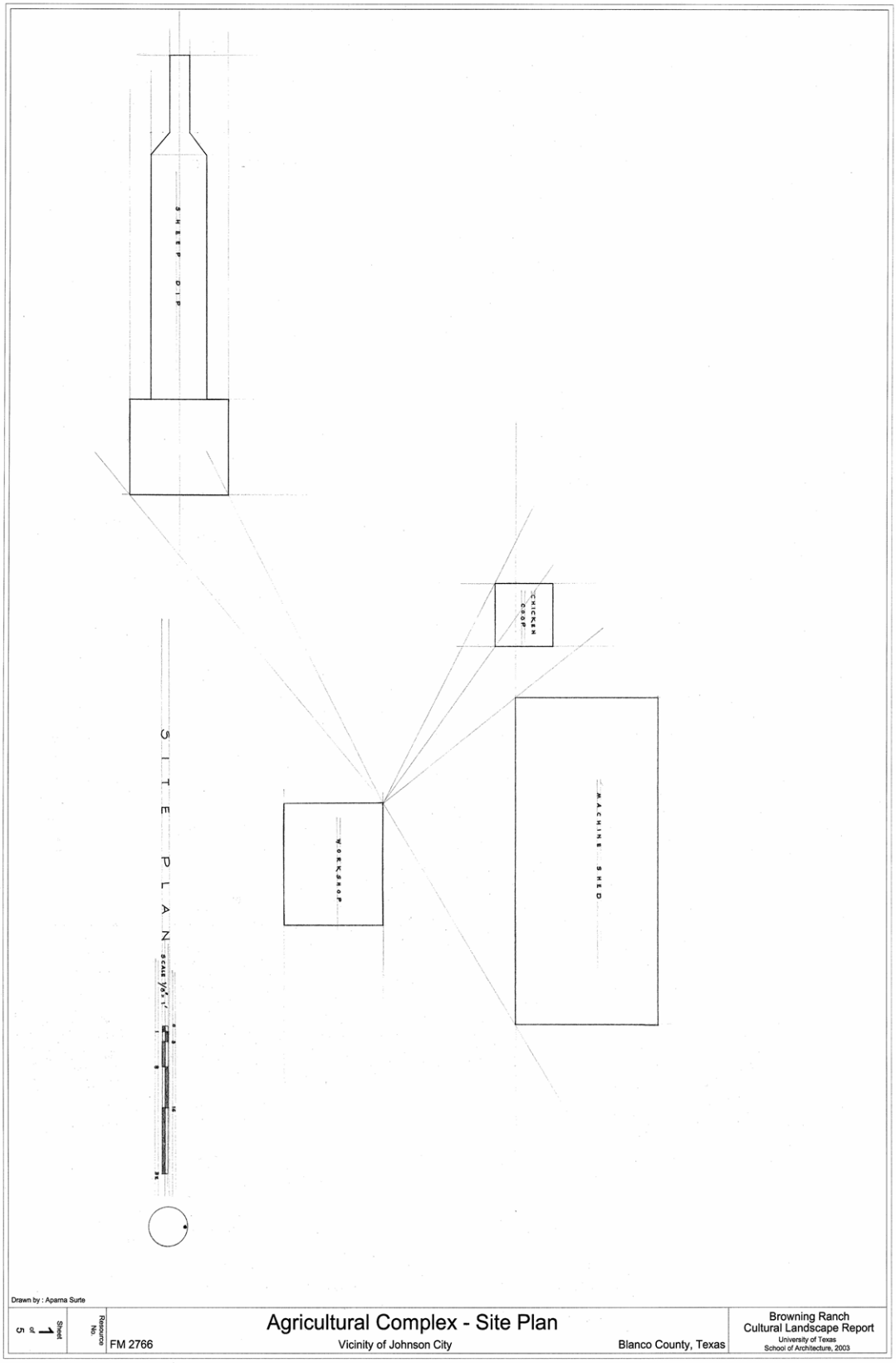
Barnwell House. Drawn by Katherine Bash. Not to scale.



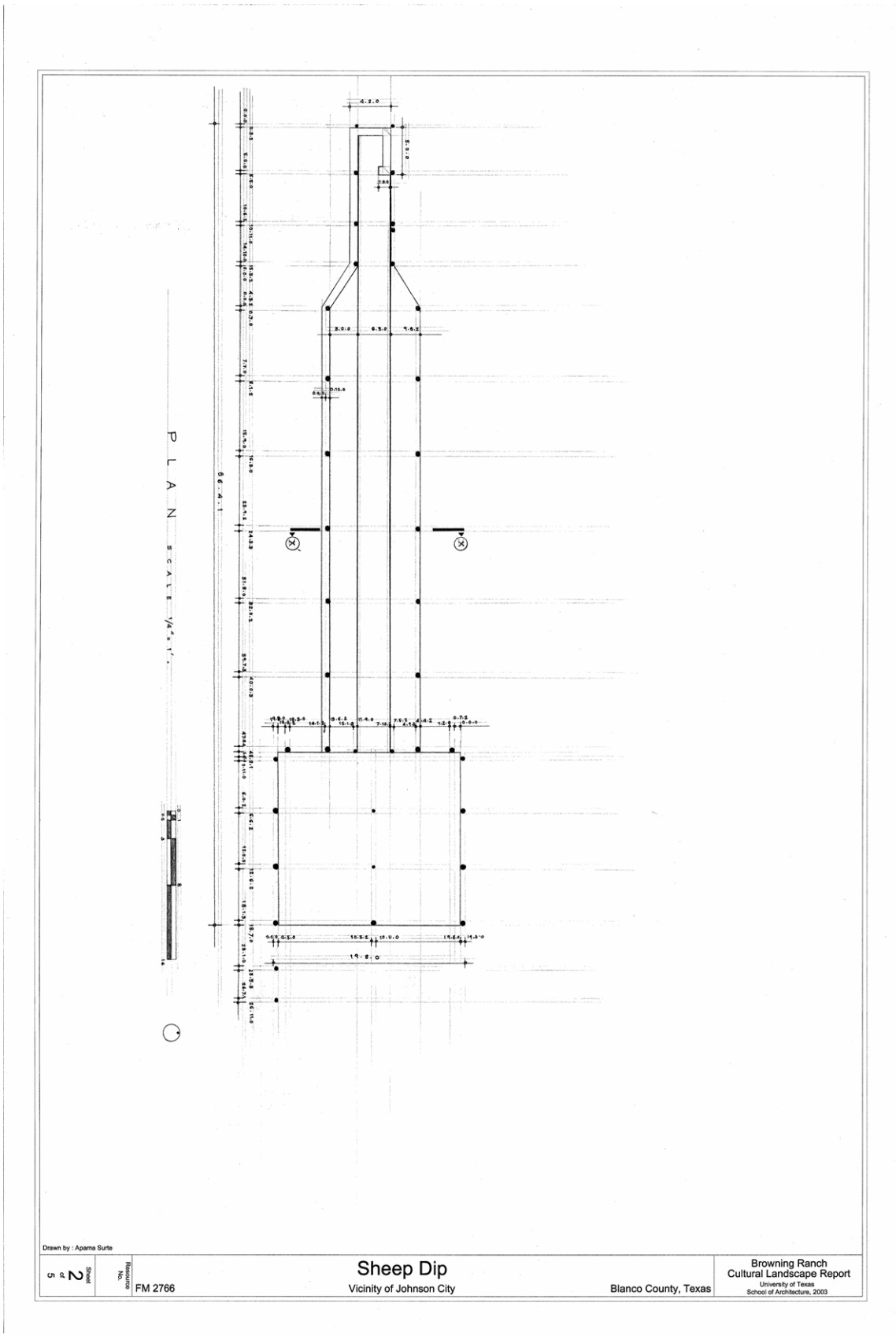
Smoke House. Drawn by Laura Knott. Not to scale.



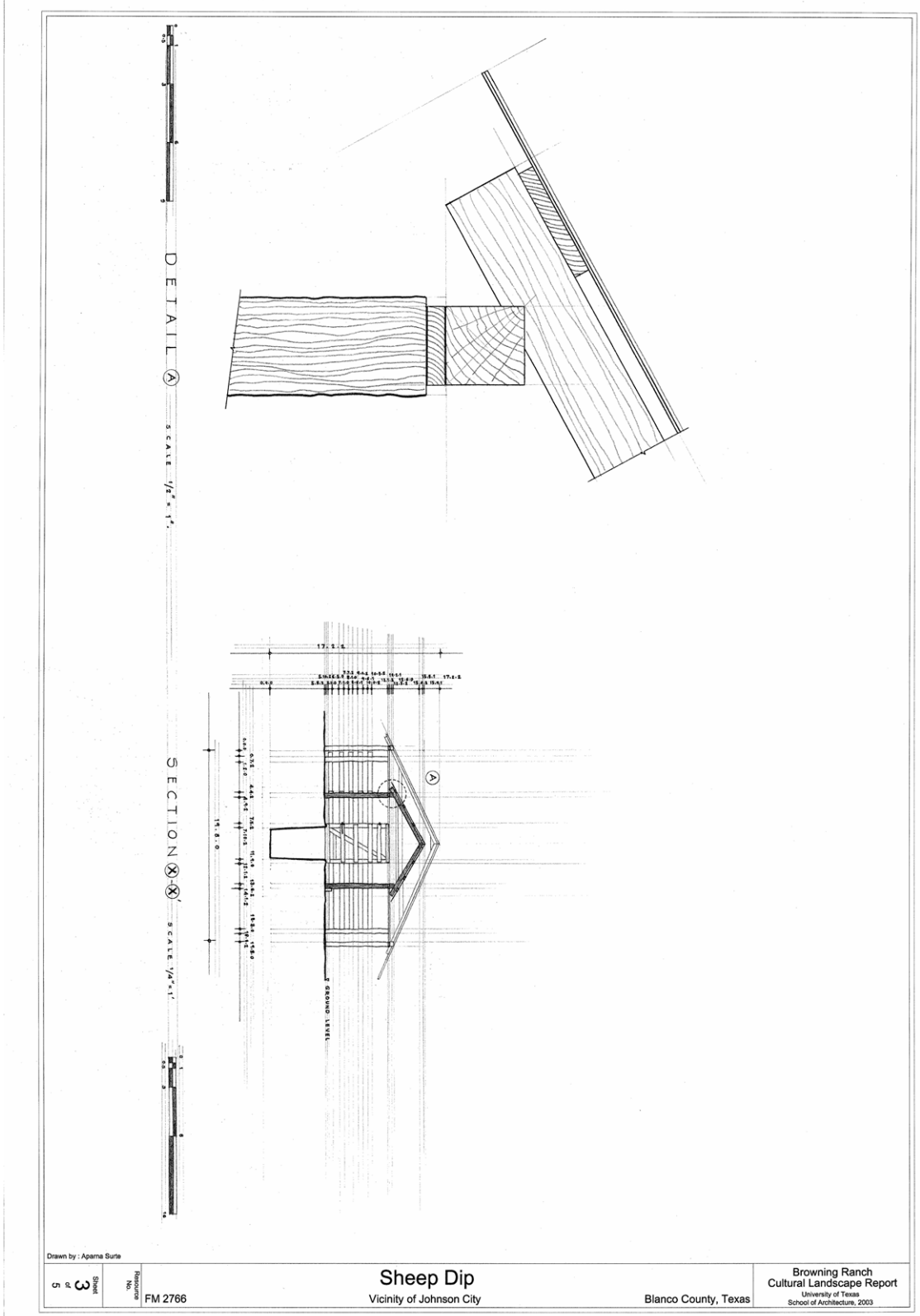
Horse Barn. Drawn by Laura Knott. Not to scale.



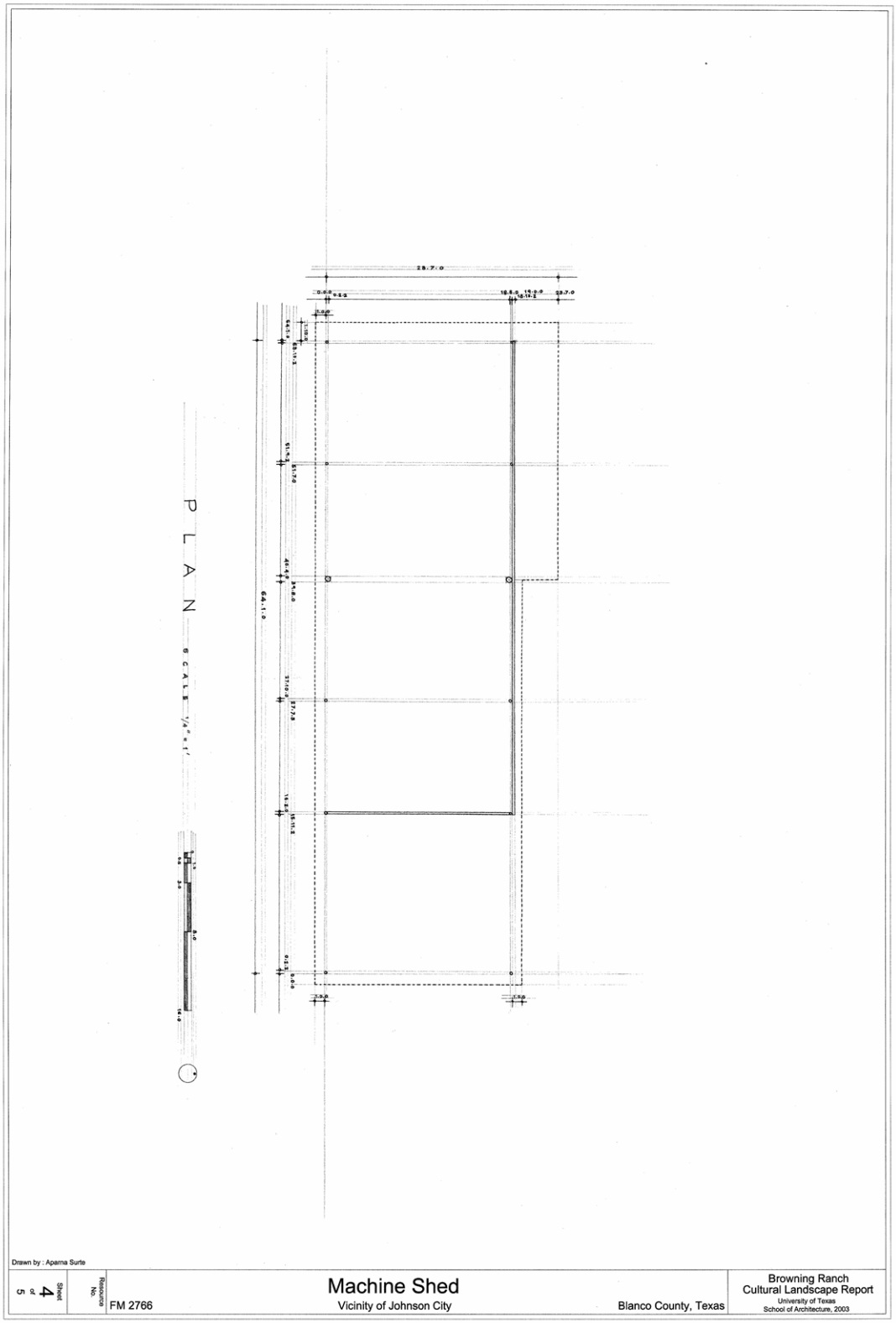
Agricultural Complex. Drawn by Aparna Surte. Not to scale.



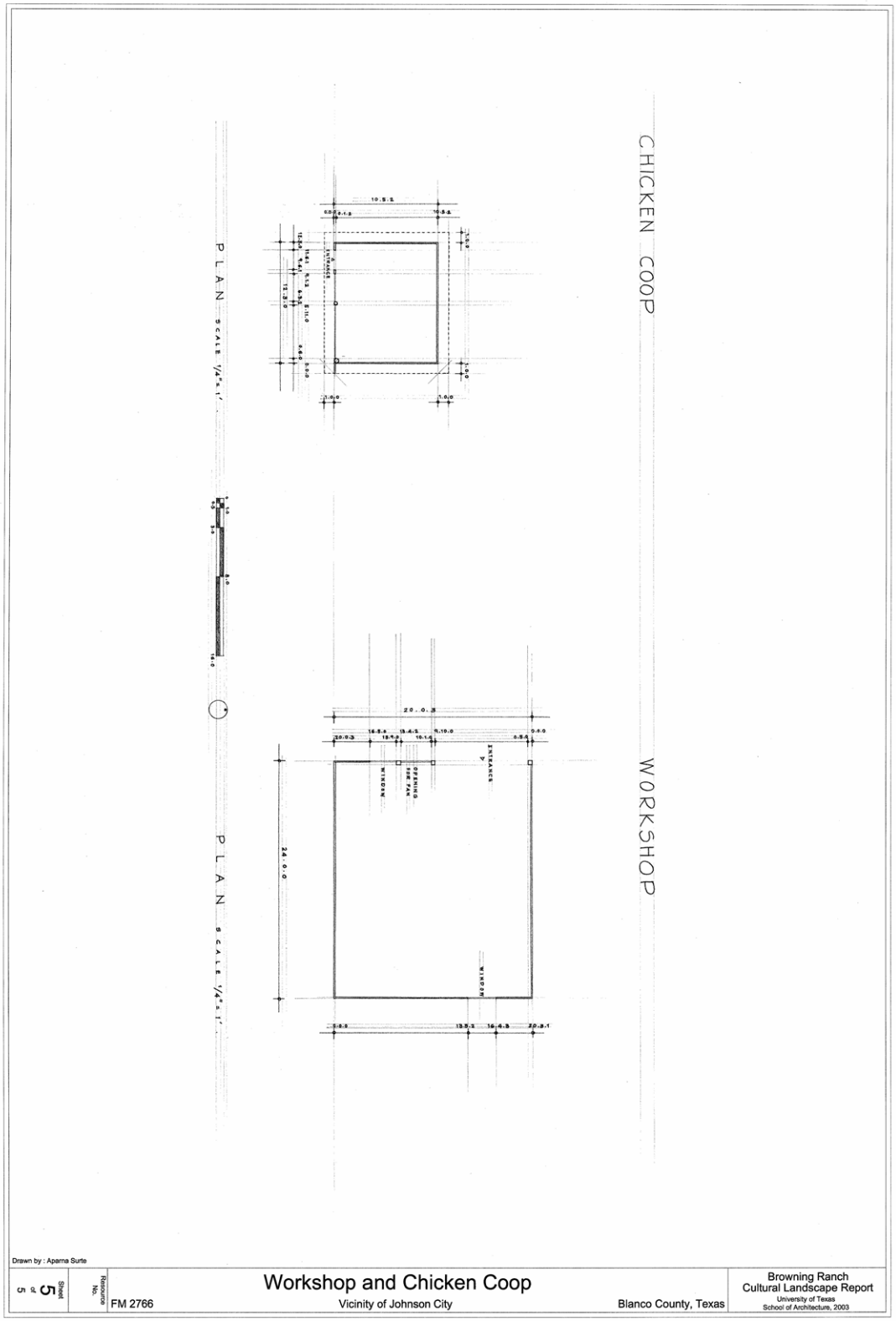
Plan of Sheep Dip Facility. Drawn by Aparna Surte. Not to scale.



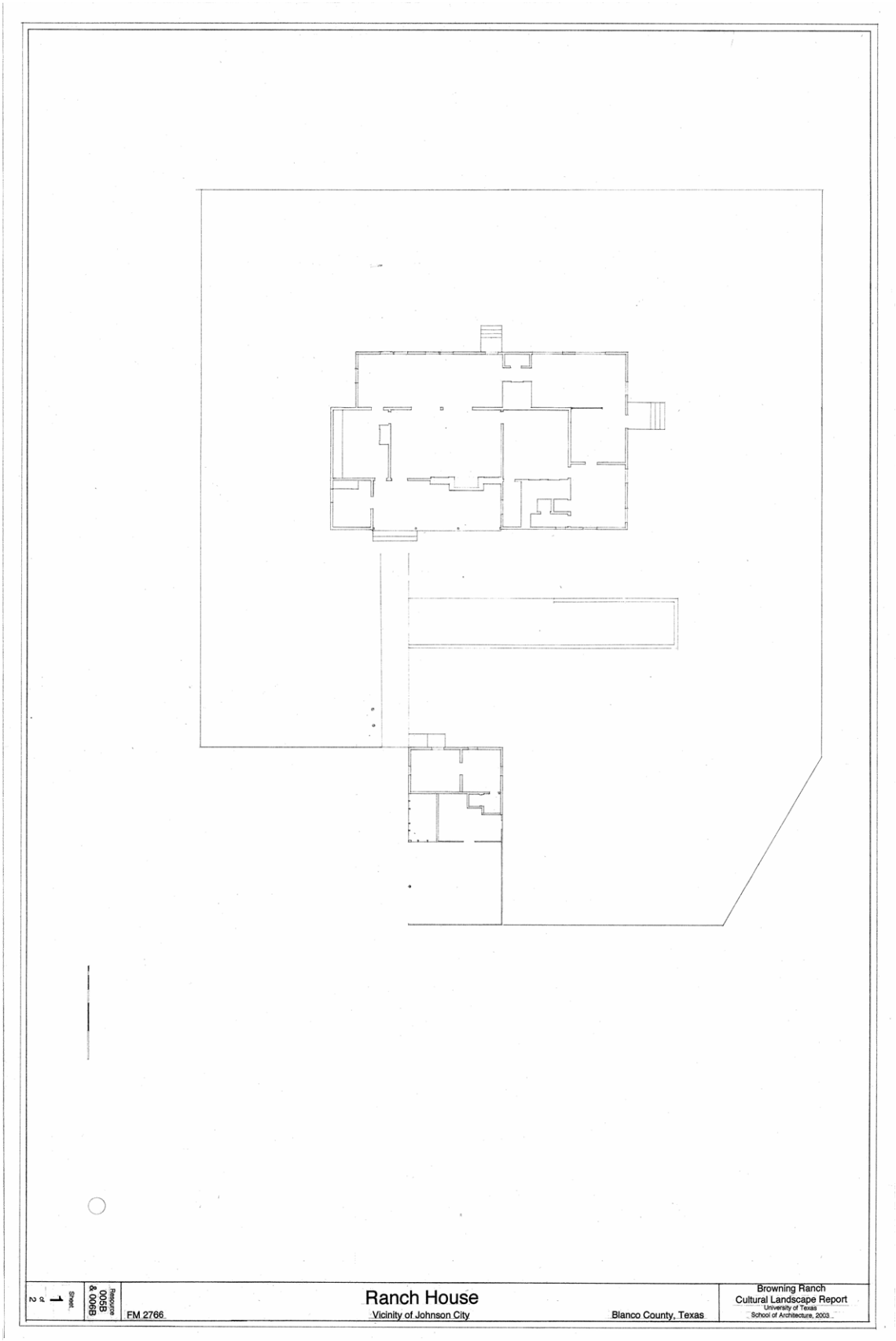
Detail and Section of Sheep Dip Facility. Drawn by Aparna Surte. Not to scale.



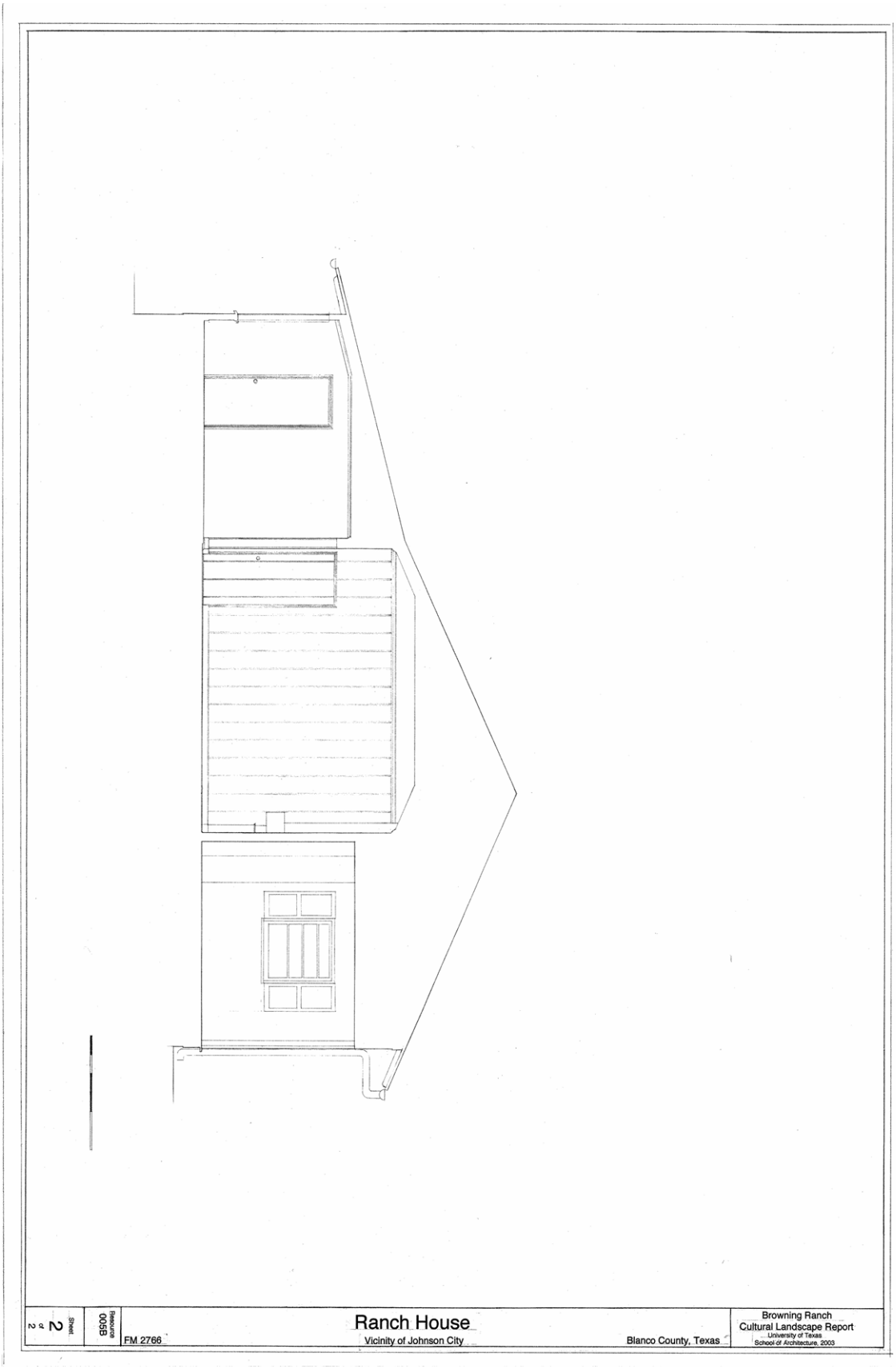
Plan of Machine Shed. Drawn by Aparna Surte. Not to scale.



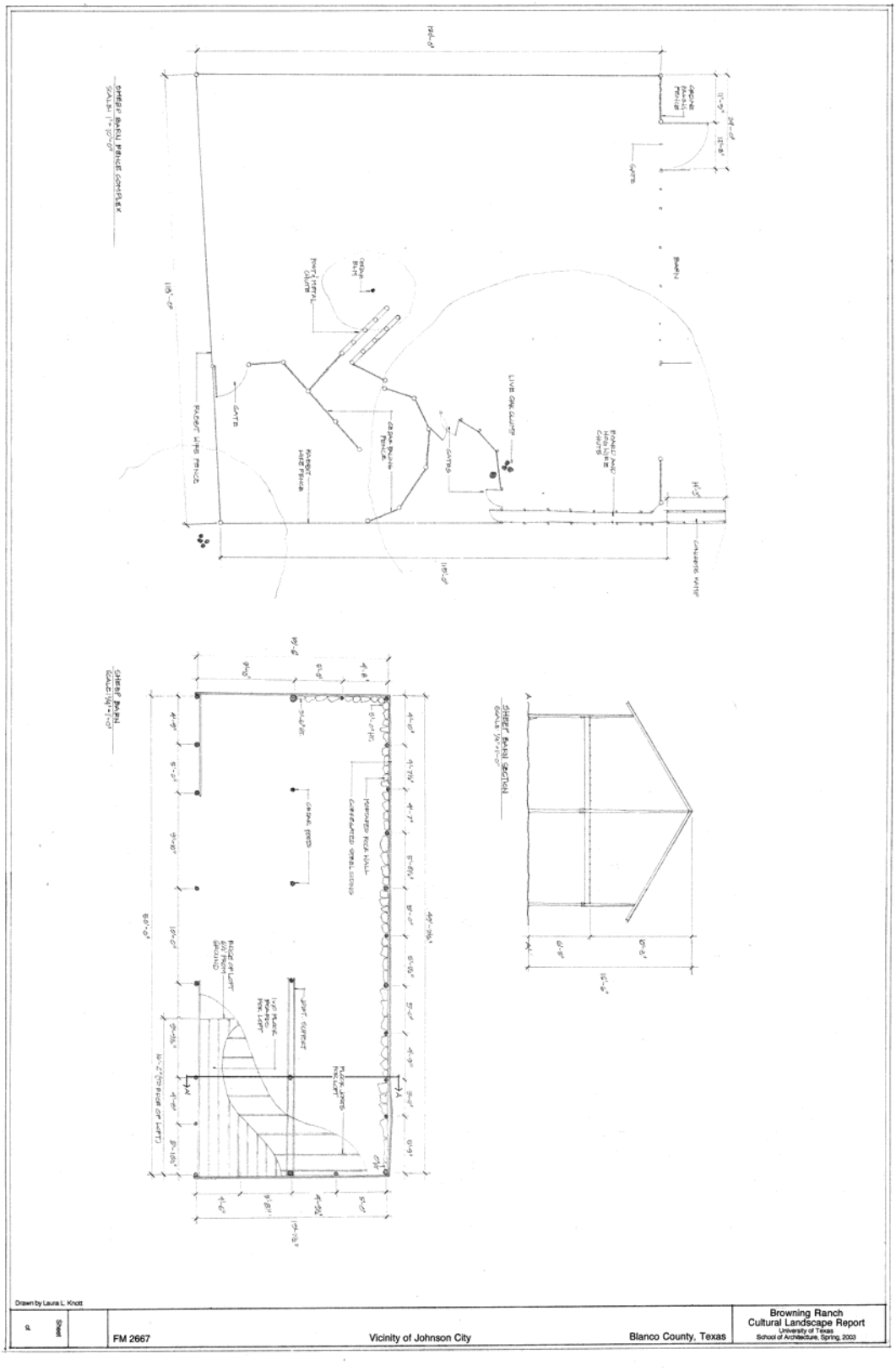
Plans of chicken coop and workshop. Drawn by Aparna Surte. Not to scale.



Plan of ranch house complex. Drawn by Sarah Benson. Not to scale.



Section elevation of ranch house. Drawn by Sarah Benson. Not to scale.



Plans and elevation of sheep barn and complex. Drawn by Laura Knott. Not to scale.

Appendix C:

Inventory of Resources C. L. Browning Ranch

Resource #	*Resource Type*	*Resource Name*	*Condition*	*Construction Date*	*Material*
001B	Building	Rock House	Good	c. 1915	
002B	Building	Smokehouse	Poor	unknown	
003B	Building	Washshed	Fair	unknown	
004B	Building	Main Barn	Good	unknown	
001S	Structure/Agriculture	Chicken Coop 1	Poor	unknown	
003S	Structure/Agriculture	Trough 2	Poor	unknown	metal
002S	Structure/Agriculture	Trough 2	Poor	unknown	metal
004S	Structure/Agriculture	Chicken Coop 2	Poor	unknown	wood
005S	Structure/Agriculture	Chicken Coop 3	Poor	unknown	wood
001W	Water System	Storage Tank/Feeder	Fair	c. 1942	concrete
002W	Water System	Pump	Poor	circa 1942	concrete
005B	Building	Ranch House	Good	1942	wood
001I	Infrastructure/Improve	Shuffle Board Court	Good	circa 1942	concrete
002I	Infrastructure/Improve	Swing	Good	circa 1942	wood
003I	Infrastructure/Improve	Bell	Good	circa 1942	metal
006B	Building	Office/Garage/Apartme	Good	circa 1942	wood
004I	Infrastructure/Improve	Sidewalk	Good	circa 1942	concrete
006S	Structure/Agriculture	Sheep Dip	Poor	unknown	wood
007S	Structure/Agriculture	Workshop	Fair	unknown	corrugated metal
008S	Structure/Agriculture	lLivestock Shelter	Fair	unknown	wood
005E	Equipment	Circular Hay Stand	Good	unknown	metal
004E	Equipment	Gas Stoage Tank	Fair	unknown	metal
003E	Equipment	Gas Pump 2	Poor	circa 1930	metal
002E	Equipment	Gas Pump 1	Fair	unknown	metal
001E	Equipment	Freezer	Poor	unknown	porcelain enamel
009S	Structure/Agriculture	Equipment Shed/Garag	Fair	unknown	corrugated metal
010S	Structure/Agriculture	Chemical Storage Shec	Fair	unknown	corrugated metal


001B.jpg


001E.jpg


001I.jpg


001S.jpg


001W.jpg


002B.jpg


002E.jpg


002I.jpg


002S.jpg


002W.jpg


003B.jpg


003E.jpg


003I.jpg


003S.jpg


004B.jpg


004E.jpg


004I.jpg


004S.jpg


005B.jpg


005E.jpg


005S.jpg


006B.jpg


006S.jpg


007S.jpg


008S.jpg


009S.jpg


010S.jpg

Appendix D:
Barns of Blanco County

Figure 1. Barn on Arnold Ranch, Hays County Road 189, south of Hwy. 290.

Figure 2. Barn on Hays County Road 244, south of Hwy. 290.

Figure 3. Barn on Miller Ranch, Middle Creek Road, Blanco County Road 410, south of Hwy. 290.

Figure 4. Barn on McCall Road, Blanco County Road 411, south of Hwy 290.

Figure 5. Barn on Blanco County Road 301, north of Browning Ranch.

Figure 6. Barn on Blanco County Road 301, north of Browning Ranch.

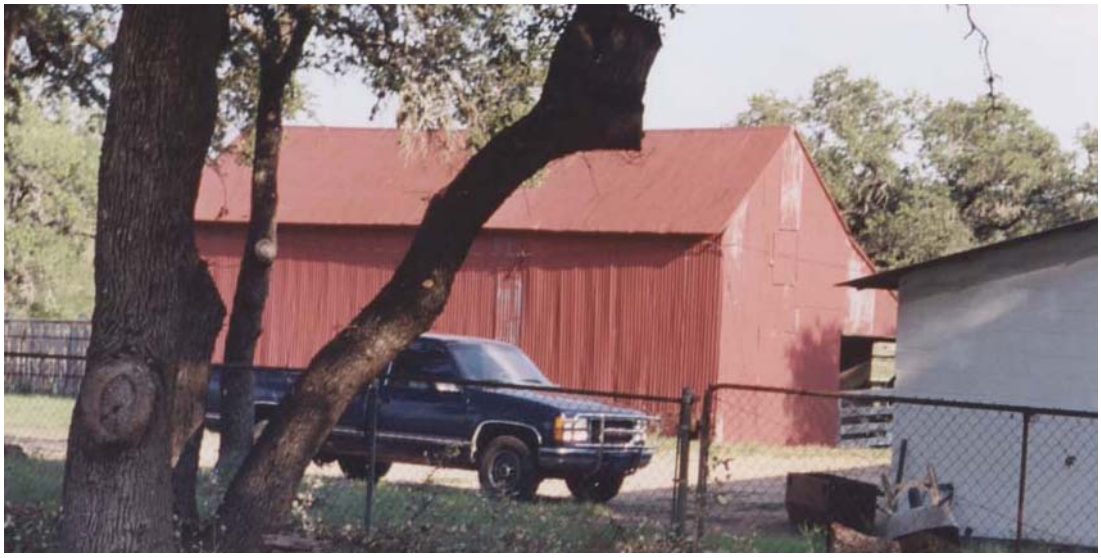


Figure 7. Barn on Blanco County Road 301, north of Browning Ranch.

Figure 8. Barn on Blanco County Road 301, north of Browning Ranch.

Figure 9. Barn on Hays County Road 190, south of Hwy. 290.

Figure 10. Barn on Hays County Road 190, south of Hwy. 290.

Figure 11. Barn on Hays County Road 165, just east of Blanco County.

Figure 12. Barn on Hays County Road 18, just east of Blanco County.

Figure 13. Barn on Hays County Road 18, just east of Blanco County.

Figure 14. Barn on Blanco County Road 407, just west of Hays County.

Figure 15. Barn on Blanco County Road 406, east of Blanco.

Figure 16. Barn on Blanco County Road 406, east of Blanco.

Figure 17. Barn on Yeager Creek Road, Blanco County Road 202, just southeast of Browning Ranch.

Appendix E: Vegetation Inventory

Browning Ranch Significant Tree Inventory

Inhabited Areas

Tree Ref. #	Type	Diameter (inches)
Stone House		
1	Live Oak	19.50
2	Cedar	0.00
3a	Live Oak	23.02
3b	Live Oak	26.92
4	Fig group	0.00
5	Live Oak	9.75
6	Live Oak	30.61
7	Pecan	17.25
Horse Barn Lane		
8	Live Oak	5.75
9	Live Oak	8.19
10	Live Oak	9.13
11	Live Oak	8.31
12	Live Oak	5.69
13	Live Oak	8.19
Front Grove		
14	Live Oak	30.82
15	Live Oak	23.16
16	Live Oak	23.08
17	Live Oak	23.13
18	Live Oak	19.39
Horse Barn Lane		
19	Live Oak	30.57
20	Live Oak	26.95
Entrance Cluster		
21	Live Oak	27.02
22	Live Oak	8.75
23	Live Oak	26.76
24a	Live Oak	26.87
24b	Live Oak	22.92
25	Live Oak	26.87
26a	Live Oak	34.50
26b	Live Oak	23.12
27	Live Oak	15.33
Hog/Cattle Pen		
28a	Live Oak	22.98
28b	Live Oak	15.52
29a	Live Oak	23.05
29b	Live Oak	23.01
29c	Live Oak	22.94
30a	Live Oak	15.57
30b	Live Oak	19.26
31a	Live Oak	19.10
31b	Live Oak	23.02
Behind Horse Barn		
31c	Live Oak	7.84
32a	Live Oak	7.85
32b	Live Oak	11.54
32c	Live Oak	15.58
33	Live Oak	22.97
34	Live Oak	15.41
35a	Live Oak	26.76
35b	Live Oak	15.44
35c	Live Oak	15.45
Ag. Equipment Depot		
36		15.42
37		11.67
38		15.33
39		34.67
40	Live Oak	7.73
41	Live Oak	7.88
42	Live Oak	26.75
43	Live Oak	19.31
44	Live Oak	22.92
45	Live Oak	15.48
46	Live Oak	15.49
Ranch House		
47	Live Oak	23.10
48a	Live Oak	8.50
48b	Live Oak	11.50
48c	Live Oak	12.25
48d	Live Oak	11.38
48e	Live Oak	9.50
48f	Live Oak	9.06
48g	Live Oak	11.75
49a	Live Oak	16.00
49b	Live Oak	17.38
50	Live Oak	8.75
51	Live Oak	13.63
52	Live Oak	14.75
53	Live Oak	17.00
54	Live Oak	11.63
55	Live Oak	15.50
56	Live Oak	16.75
57	Live Oak	9.00
58	Live Oak	16.50
59	Live Oak	8.88
60	Live Oak	14.00
61	Live Oak	10.50

1, 9, 8

Tree Ref. #	Type	Diameter (inches)
1	Live Oak	19.50
8	Live Oak	5.75
9	Live Oak	8.19
10	Live Oak	9.13
11	Live Oak	8.31

Browning Ranch, *Highway 2766, Johnson City, Texas*

Stone House
Trees
Front

1

1

9, 8, 11

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3

3a, 3b

3

Browning Ranch, Highway 2766, Johnson City, Texas

Stone House Trees

Back

4, 6

4, 6

Tree Ref. #	Type	Diameter (inches)
3a	Live Oak	23.02
3b	Live Oak	26.92
4	Fig group	NA
5	Live Oak	9.75
6	Live Oak	30.61

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Browning Ranch, *Highway 2766, Johnson City, Texas*

Stone House Trees

Back

3a, 3b

Once used for a swing

4, 5, 6

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Browning Ranch, *Highway 2766, Johnson City, Texas*

10, 9, 11, 8, 12, 13

8, 12, 2, 10, 13, 3

Horse Barn Lane

Tree Ref. #	*Type*	*Diameter (inches)*
3a	Live Oak	23.02
3b	Live Oak	26.92
8	Live Oak	5.75
9	Live Oak	8.19
10	Live Oak	9.13
11	Live Oak	8.31
12	Live Oak	5.69
13	Live Oak	8.19

13, 12, 8, 11, 9, 10, 2

8, 12, 11, 9, 13

12, 8, 13, 9, 10

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Browning Ranch, *Highway 2766, Johnson City, Texas*

Horse Barn Lane

Tree Ref. #	*Type*	*Diameter (inches)*
14	Live Oak	30.82
17a	Live Oak	7.86
17b	Live Oak	23.13
19	Live Oak	30.57
20	Live Oak	26.95

19

19, 17, 14

19, 20

20, 19

19, 20

Browning Ranch, *Highway 2766, Johnson City, Texas*

Front Grove

14, 15

17, 18

Tree Ref. #	Type	Diameter (inches)
14	Live Oak	30.82
15	Live Oak	23.16
16	Live Oak	23.08
17	Live Oak	23.13
18	Live Oak	19.39
19	Live Oak	30.57

18, 17, 14, 15, 16

16, 15, 14, 17, 18

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Browning Ranch, *Highway 2766, Johnson City, Texas*

Front Grove

Spring 2003, University of Texas of Austin Cultural Landscapes Class

Browning Ranch Significant Tree Inventory
Inhabited Areas

Ranch Flora	
Trees	*Shrubs*
Live Oak	Agarita
Post Oak	Cat-claw mimosa
Bur Oak	Prickly-pear Cactus
Blackjack Oak	Willow Baccharis
Texas Oak	Kidneywood
Cedar Elm	Elbowbush
Ashe Juniper (Cedar)	Flameleaf Sumac
Peach	Buttonbush
Pear	Dewberry
Mexican Persimmon	gum bumelia
Hackberry	Ligustrum
Red Mulberry	Tx Mountain Laurel
Carolina Buckthorn	Skunkbush
Black Walnut	Western Soapberry
Pecan	
Mesquite	
Cottonwood	
Redbud	
Sycamore	
Possum-haw Holly	
Escarpment Black Cherry	

Stone House Horticultural Plants
oxallis
German iris
dwarf pomegranate
fig trees
antique rose
honeysuckle
nandina
old plants not developed in the last 50-60 years

Appendix F:
Browning Ranch Bird Survey Form

This survey form has been compiled by John Kelly at the Travis Audubon Society, which plans to do a semi-annual bird count at the Browning Ranch.

Date: _____ **Observer:** _____
Station: _____ **Recorder:** _____
Start Time: _____ **End Time:** _____

	< 50m	50+ m	Fly-by	Notes:
Bluebird, Eastern				
Bobwhite, Northern				
Bunting, Painted				
Cardinal, Northern				
Chapparal				
Chickadee, Carolina				
Cowbird, Brown-headed				
Cuckoo, Yellow-billed				
Dove, Mourning				
Finch, House				
Finch, Lesser gold				
Flycatcher, Ash-throated				
Flycatcher, Scissor-tailed				
Grackle, Common				
Grosbeak, Blue				
Hawk, Red-tailed				
Heron, Great Blue				
Hummingbird, Black-chinned				
Junco				
Kinglet, Ruby-crowned				
Ladderback Woodpecker				
Martin, Purple				
Mockingbird, Northern				
Phobe, Eastern				
Raven, Common				
Roadrunner				
Robin, American				
Sandhill Cranes				
Scrub Jay				
Shrike, Lagerhead				
Sparrow, Chipping				
Sparrow, Field				
Sparrow, Lark				
Sparrow, Rufous-crowned				
Sparrow, Vesper				
Starling				
Swallow, Barn				
Titmouse, Black-crested				
Towhwee, Canyon				
Turkey, Rio Grande				

Vireo, Red-eye				
Vulture, Turkey				
Warbler, Golden-cheeked				
Warbler, Orange-crowned				
Wren, Bewick's				
Wren, Carolina				

Appendix G:
Barnwell House Recommendation by Katherine Bash

"In considering the possible recommendations for the treatment of the house, many options are available. It has been suggested that the annex might be removed. Following this procedure, please note the addendum which includes recommendations filtered through Scott Gardener which takes into account estimates and recommendations of historic preservationists. Those are the recommendations of the others. Having worked on this project personally, I have a particular vision as to what might become of it.

The house has a very particular spirit. Aesthetically, it feels insensitive and as a place which communicates sadness and hardship. It is a material hodge-podge and the multiple revisions seem short sighted. The intangible feeling of the house can be communicated from subjective point of view. A general sense of sadness pervades the interior of the house and I am left with a general negative aura upon leaving. I recommend that the structure not be structurally restored.

If restoration would take place and depending upon potential uses, in addition to stabilizing the basement, I would recommend to actually remove all of the existing interior. Following this treatment, a particular type of restoration could occur. Otherwise, it could also be an option to fill in the basement, stabilize the limestone walls as they stand, and build a garden which would be either in communication with or in addition to the orchard and vegetable garden. It could be a place, for example, which could use the remaining structure as historical setting and reference, but the site could actually be made to give a feeling of growth and energy rather than the rot and decay that it currently beholds. It could commune more healthily with the land upon which it sits and its supporting structures such as the smokehouse which is a beautiful building. "

—Katherine Bash

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