
Thematic Survey of Historic Barns in Northwestern Oklahoma

Alfalfa, Beaver, Cimarron, Ellis, Garfield, Grant, Harper, Kay, Major, Noble, Texas, Woods,
and Woodward Counties

Prepared for:



OKLAHOMA HISTORICAL SOCIETY
State Historic Preservation Office
Oklahoma History Center
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105-7914

Prepared by:



Brad A. Bays, Ph.D.
Department of Geography
337 Murray Hall
Oklahoma State University
Stillwater, Oklahoma 74078-4073

Acknowledgment of Support

The activity that is the subject of [type of publication] has been financed [in part/entirely] with Federal funds from the National Park Service, U.S. Department of the Interior. However, the contents and opinions do not necessarily reflect the views or policies of the Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Department of the Interior.

(Note that only relevant portions of the required statement need to be applied and should be used as appropriate depending on the content of the publications; e.g., if there are no commercial products, then that part of the statement can be omitted.)

Nondiscrimination Statement

This program receives Federal financial assistance for identification and protection of historic properties. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, as amended, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, disability, or age in its federally assisted programs. If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to:

Office of Equal Opportunity
National Park Service
1849 C Street, N.W.
Washington, D.C. 20240

TABLE OF CONTENTS

<u>Chapter</u>	
I.	ABSTRACT 3
II.	INTRODUCTION 4
III.	RESEARCH DESIGN 5
IV.	PROJECT OBJECTIVES 6
V.	AREA SURVEYED 7
VI.	METHODOLOGY 11
VII.	RESULTS 15
VIII.	ARCHITECTURAL REVIEW 42
IX.	KINDS OF HISTORIC PROPERTIES PRESENT 52
X.	SPECIFIC PROPERTIES IDENTIFIED 65
XI.	NATIONAL REGISTER ELIGIBLE PROPERTIES 82
XII.	HISTORIC CONTEXT 101
XIII.	RECOMMENDATIONS 124
XIV.	ANNOTATED BIBLIOGRAPHY 126
XV.	APPENDIX A: PROPERTY LOCATOR MAPS 138
XVI.	ENDNOTES TO HISTORIC CONTEXT 152

I. ABSTRACT

Under contract to the Oklahoma State Historic Preservation Office, Brad A. Bays of Oklahoma State University, Stillwater, conducted the Survey of Historic Barns in Northwestern Oklahoma (OK/SHPO Management Regions One and Two) during the fiscal year 2010-2011. That survey encompassed 13 counties and required the project director to log over 5,000 miles in 25 field trips. The goals of the survey were: (a) to develop an historic context of barns in the region; (b) to sample each county in the region to collect empirical data and report general (thematic-level) patterns of historic barn resources that will assist the preservation planning process; (c) to substantially increase the number of historic barns recorded in the Oklahoma Landmarks Inventory (OLI); and (d) to identify historic barns in the region that are eligible for National Register listing.

II. INTRODUCTION

This report represents the results of a thematic historic and architectural survey conducted by Brad A. Bays, Ph.D., Associate Professor of Geography, Oklahoma State University, for the Oklahoma State Historic Preservation Office under Project Number 10-402.

This study of barns represents the second phase of a statewide survey of barns in Oklahoma and a first approximation of the patterns of barn survival, condition, and forms in a 13-county area covering over 16,300 square miles in the northwest part of the state. Some 147 resources were recorded at a minimal level of documentation in about 25 days in the field between October 2010 and July 2011. Each county was surveyed over the course of at least one full day, which allowed a sizeable proportion of the study area to be sampled. Most field survey activity was scheduled for November to March—when deciduous trees are leafless.

Property-specific research was not a component of this survey, so only preliminary assessments of National Register eligibility were made. Historic property names were only recorded when it was possible to ascertain them from an informant who happened to be on site during documentation; usually these were residents of farm houses or ranchers tending cattle. Final determinations of eligibility will necessarily require additional fieldwork to find surviving informants, examine county records, and probe local archives pertinent to each resource. This barn survey met the specifications of the Secretary of the Interior's Standards and Guidelines for Historic Preservation. The project Principal Investigator, Brad Bays, meets the qualifications described in the Secretary of the Interior's Professional Qualifications Standards.

III. RESEARCH DESIGN

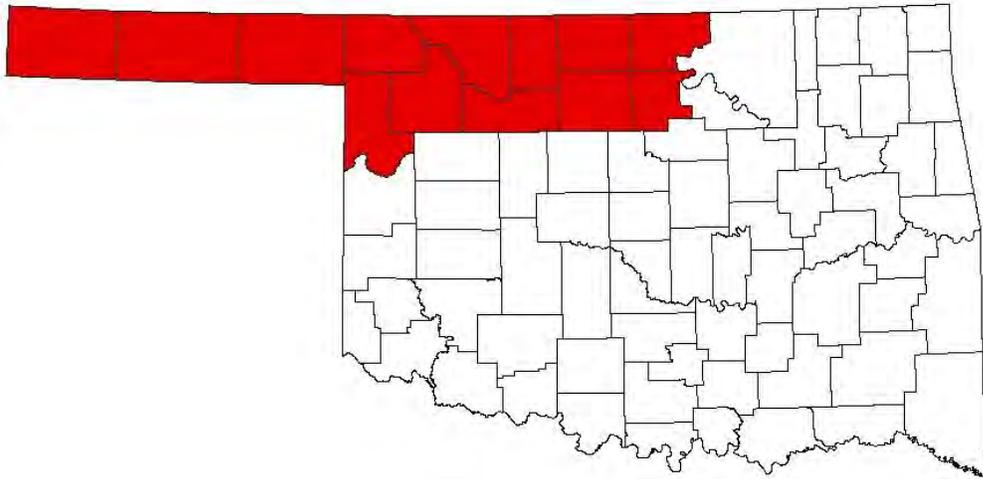
The research design of the project was rooted in the discipline of historical geography. It is a project guided by the scholarship of historical geographers such as Andrew H. Clark and Leslie Hewes, scholars who examined regional economic change over time using empirical data backed up by close field investigation. For a study of this type—sampling individual properties scattered across a study area of 16,300 square miles—few primary sources were helpful. Reports of county agricultural extension agents proved useful to get an idea of farming conditions and production. The surviving issues of *The Oklahoma Farmer-Stockman* also proved useful in developing an idea of issues farmers in the study area were dealing with from the 1910s to the 1940s. The digital archive service of *The Daily Oklahoman*, available in the Edmon Low Library at Oklahoma State University, was also used to learn about regional agricultural trends. Of great utility in developing the field research model were two websites: the *University of Virginia's Historical Census Browser* and USDA's *Historical Census Publications* site. Perhaps most important were the USDA individual county soil surveys, which revealed areas of optimum soil quality and implied higher settlement density. Secondary sources used in this study were primarily writings in local history, especially commercially-produced county histories, which provided information on ethnic settlement patterns. By far the most important secondary sources were scholarly books and journal articles on barns and regional culture, which described diffusion patterns and provided guidance in the identification and classification of barns and their architectural components.

IV. PROJECT OBJECTIVES

The basic objective of the Thematic Survey of Historic Barns in Northwestern Oklahoma was to identify through a reconnaissance-level survey those individual properties in the 13-county study area which, because of construction before 1960, design, and retention of integrity, warrant an intensive level survey to determine their eligibility for listing in the National Register of Historic Places and to substantiate such assessments. A second objective was to record and photograph those individual properties in the project area. Finally, to enable completion of National Register nominations of properties and districts identified in the study area, the project sought to provide an historical and architectural context for the barn theme and to annotate all reference material relevant to the topic.

V. AREA SURVEYED

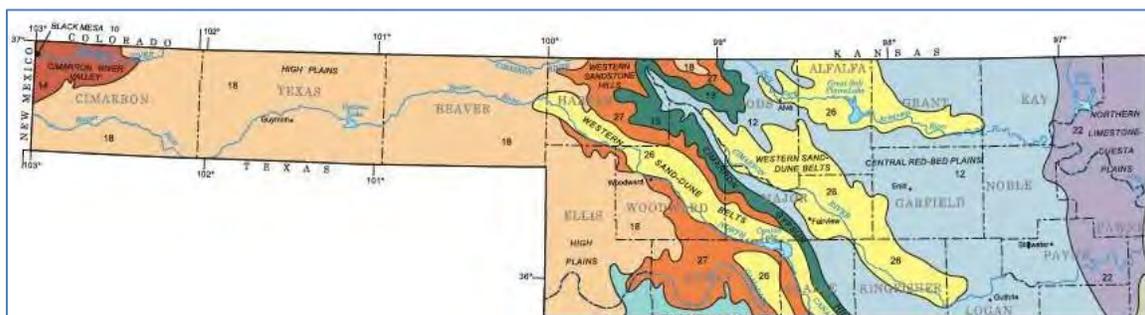
The Thematic Survey of Historic Barns in Northwestern Oklahoma encompassed Management Regions 1 and 2. Thirteen counties comprise the regions: Alfalfa, Beaver, Cimarron, Ellis, Garfield, Grant, Harper, Kay, Major, Noble, Texas, Woods, and Woodward. As the map below illustrates, this area comprises 23.3 percent of the total area of the State of Oklahoma.



Study Area: Management Regions 1 and 2 (Historic Component)

The physiographic qualities of Management Regions 1 and 2 are quite diverse. Elevation above sea level decreases from west to east. Black Mesa, located in the northwest corner of Cimarron County, is the state's highest point at 4,973 feet above sea level. The lowest elevation in the study area is 948 feet above sea level in the Arkansas valley at White Eagle, Kay County.

Management Regions 1 and 2 encompass some seven different geomorphic provinces. From the most expansive to smallest, these include the High Plains, the Central Red-Bed Plains, the Western Sand-Dune Belts, the Western Sandstone Hills, the Cimarron Gypsum Hills, the Cimarron River Valley, and the Northern Limestone Cuesta Plains (see map below).

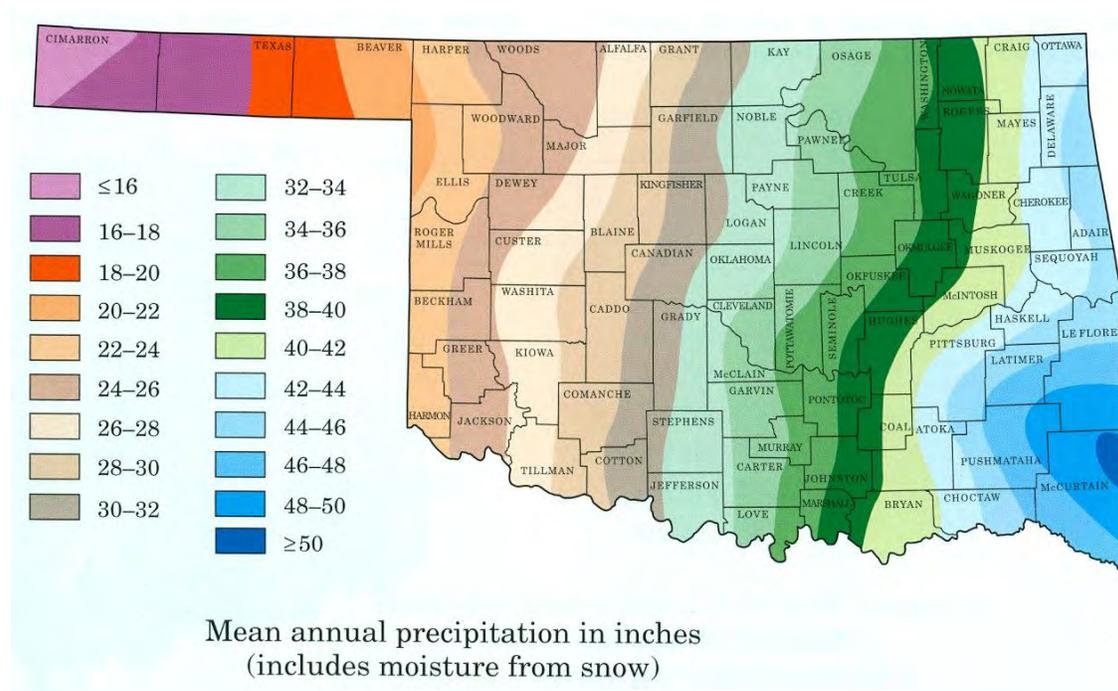


Source: Johnson, Kenneth S., “Geomorphic Provinces,” in Goins, Charles R. and Danney Goble, *Historical Atlas of Oklahoma*, Fourth Edition (Norman: University of Oklahoma Press, 2006), p. 5.

Terrain varies widely across the study area. Exceptionally flat plains are found in the Central Red-Bed Plains in the east and parts of the High Plains of the Panhandle, especially the undissected areas of central Texas County, but the land is gently to moderately rolling throughout most of the region. The Cimarron River Valley around Black Mesa and parts of the Western Sandstone Hills are the only areas of rugged terrain. Stabilized dune zones—avoided by farmers and thus poor-hunting country—takes up much of the study area along the Salt Fork, North Canadian, and Cimarron valleys in the central counties of the study area.

Management Regions 1 and 2 are located along the western boundary of the humid subtropical (Cfa) climate as it transitions to semiarid steppe climate (BSk). No other pair of the state’s management regions could present a greater variation in environmental conditions.

Annual precipitation in the study area ranges from a humid 34 inches in eastern Kay County to a semiarid low of 15 inches in western Cimarron County (see map below).



Source: Johnson, Howard L., "Precipitation," in Goins, Charles R. and Danney Goble, *Historical Atlas of Oklahoma*, Fourth Edition (Norman: University of Oklahoma Press, 2006), p. 19.

Annual precipitation largely determines natural vegetation patterns, so the study area contains striking difference from east to west. The difference is so striking that it is useful to think of the entire study area in three sets of counties. In the eastern counties (Kay, Noble, Grant, Garfield) is a large vegetation region called the Tallgrass Prairie. It mostly exists here in memory, though, since it has long been replaced by commercial grain farming and improved pasture.

In the central tier of counties (Alfalfa, Major, Woods, Woodward) drier conditions create a transition to shorter grasses dubbed the Mixedgrass Eroded Plains. The central

counties also contain a few smaller, soil-based vegetation zones associated with the river valleys that cross through. These include the olive drab Sandsage Grasslands, the sandy but fairly grassy Stabilized Dunes zone, the stunted blackjack oak woodlands of the westernmost Cross Timbers, and, in southern Ellis County, an area of odd, spidery, oak scrub known as the Shinnery-Oak Grasslands.

The vegetation of northern Ellis County and Harper County to its north, looks more like the Panhandle. In this western part of the study area the landscape is vast and rolling to flat and covered by short grasses occasionally divided by thin galleria woodlands along ephemeral streams. At the western extreme of the study area—and the better part of a mile higher than at the eastern end—is the most peculiar biome of all. This is the Piñon Pine-Juniper Mesa vegetation region, located in northwest Cimarron County, beyond the 16-inch rainfall line, an alien landscape of cholla and prickly pear cactus.

The distribution of fauna also reflects an enormous environmental transition between Kay County and Cimarron County. Cottontail rabbits, whitetail deer, bobcats, skunks, foxes, and bald eagles range in the central and eastern counties, while jackrabbits, mule deer, pronghorn antelope, bighorn sheep, mountain lions, badgers, porcupines, and golden eagles are found in the westernmost tier of counties. Coyotes are ubiquitous.

VI. METHODOLOGY

The methodology employed by the PI to locate, identify, and record historic resources followed professional research standards. Prior to beginning fieldwork the PI developed a bibliography on the subject of barns relative to the American Middle West, South, and Great Plains regions. Some of this research was conducted at the Oklahoma History Center in Oklahoma City, but the Edmon Low Library at Oklahoma State University in Stillwater proved to be an ideal location for researching Oklahoma's agricultural history and farm buildings.

After developing the bibliography, the PI read extensively in the secondary and primary sources. This allowed the bibliography to be annotated and provided essential knowledge regarding barns in the context of northwestern Oklahoma's agricultural history. This led to an understanding of the diagnostic traits of certain barn types, the architectural features of barns, their basic components and basic functions, and how barns became obsolete in the wake of technological innovations and agricultural change. On the basis of this information, the PI developed an essay examining the architectural significance and historical development of barns in Management Regions 1 and 2.

Time and financial limitations of the study required a sample, rather than a complete inventory, of barns within the 16,300 square miles of the study area. The project director was directed by OK/SHPO personnel to locate, identify, and record a sample of 10 properties in each county that met the 50-year age criteria.

Having no basic list of properties to seek in the field, the PI developed his own method for prospecting for barns. He began by examining high-resolution aerial photographs of the study area to locate potential barns. Each of the 13 counties was visually scanned,

mile section by mile section, for objects likely to be historic barns. Using a GIS, each such “target” was mapped. This produced several hundred targets per county, far more than could be surveyed. The best alternative was to direct field survey to clusters of targets in order to maximize the number of targets visited in the 2-3 days the survey crew could afford to spend in each county. This resulted in visits to approximately 600 target sites that led to the GPS recording and photo documentation of over 400 barns. While only a selection of 147 of these properties were actually recorded at a minimal level of documentation, the 400+ properties visited contributed greatly to the understanding of the field observations discussed in the results section below.

Examination of OK/SHPO records was conducted in October 2010. To date, only one barn is National Register listed within the study area. This is the Kimmell Barn (NR84003021, 1984) near Covington in Garfield County. The PI also went through the files of the Centennial Farm and Ranch Program and discovered that only a handful of barns were ever documented in that program. Other than a recent multi-county survey of central Oklahoma by an American Studies graduate student at the University of Oklahoma, no previous systematic survey of barns has been conducted in Oklahoma.

The sampling procedure began in October 2010 in Cimarron County. By the end of April spring blooming began to reduce the quality of some photographs. A GPS-GIS guidance system was developed to navigate to target sites and prevent backtracking on county roads by recording routes. Approximately 200 square miles can be covered this way during a single 7.5 hour winter field day when road conditions are dry. Quality elevation photography is limited in the winter due to low sun angle. At Oklahoma’s latitude, the best conditions occur between 9:00AM and 4:30PM during winter months. Over the course of 25

days in the field the survey crew completed a reconnaissance-level inspection of about 30 percent of the entire area of Management Regions 1 and 2.

The recommended sample of 10 properties was achieved in all counties of the study area, but there is a tremendous variation in the density of the distribution of barns from east to west. Barns are easy to find, abundant, diverse, and exceedingly interesting in the eastern tier of counties, but hard to come by and not very diverse in the Panhandle.

At each barn site the surveyor inspected around the building, measured exterior wall dimensions, took notes on primary features, and visited with property owners to learn about the history of the barn. He then took at least two elevation photographs and recorded the location using a GPS receiver.

After each field session photographs and GPS waypoints were uploaded to a GIS and overlaid on a high-resolution aerial photograph. Photo information and notes were transcribed into the office field notebook and used to complete the Historic Preservation Resource identification Forms. After verifying these on the aerial photo, resource location data (section, township, range) were derived from the GIS and inserted into an Excel spreadsheet. An OK/SHPO Access database entry was created for each property from the Excel spreadsheet. The recorded properties were then mapped in conjunction to other data layers for spatial analysis.

One complication of conducting a survey of rural properties in 13 counties was determining the historic resource name for properties. When property owners identified these, they were recorded on the form. However, it was more often the case that historic owners were unknown, so a "Resource ID" number was assigned, since identifying actual

historic resource names would require chains of title in 13 different courthouses. The Resource ID# is provided on the forms as the Property Name.

At the conclusion of field recording and data processing, photographs were labeled and filed. Photos were also uploaded to an internet file-sharing site that allowed the architectural consultant, Jana Phillips, to view them online. Her written assessment is included in Section 7, or “Results,” of this report.

VII. RESULTS

The Thematic Survey of Historic Barns in Northwestern Oklahoma was exceptionally successful in sampling the types of extant barns in the study area. Over 600 sites were visited, over 400 barns were examined in the field, and 147 resources were recorded at a minimal level of documentation for the Oklahoma Landmarks Inventory. Of the 147 recorded resources, all were determined to be constructed before 1960. Of the 147 properties recorded, 16 barns in seven counties were determined to be eligible for National Register listing.

National Register eligibility was determined using the National Register Criteria for Evaluation. Properties were evaluated to: (1) have been built before 1960; (2) represent an outstanding example of style or workmanship; and (3) have retained historical and architectural integrity. OK/SHPO survey forms and elevation photographs were prepared for all 147 resources. Survey form data were entered into the OK/SHPO Access database for uploading to the Oklahoma Landmarks Inventory.

The survey revealed a number of significant observations regarding barns in northwestern Oklahoma:

1. **The most important finding was that the vast majority of historic barns surveyed are in a state of neglect, abandonment, or ruin.** As the survey data (Historic Resource Identification Forms and accompanying photos) reveal, some of the most architecturally significant properties recorded are in a state of dereliction. Certainly many extant properties have the potential for rehabilitation, but unlike residential or commercial buildings, historic barns are functionally antiquated. Neither are they often visible to a wider public; they suffer the fate of obsolescence quietly, out-of-sight and out-of-mind in the

mostly depopulating, rural northwest Oklahoma landscape. The handful of properties which have been rehabilitated are exceptions representing significant private investment made out of affinity for the historic building. Nearly every property owner interviewed spoke of the disappearance of barns sadly and fatalistically.

2. Interviews revealed that despite the fact that historic barns are obsolete, they are the most-endearing components of the rural landscape. Many conversations the surveyor had with residents (on-site, by phone, and by email) indicate that **residents of Management Regions One and Two overwhelmingly consider historic barns to be the most significant components of the rural landscape and would like to preserve their integrity**. Many longtime residents have strong attachments to these local icons of their agricultural heritage, and many want to keep them even if they do not own them or have direct family connections to them. However, the surveyor encountered no one who had any idea of how historic barns might possibly be preserved.

3. **Field investigation revealed much about the human and natural processes that are leading to the rapid disappearance of historic barns.** Although most barns were covered with corrugated metal sheeting after 1945, the frequent stress of high winds eventually peels it away, sheet-by-sheet, opening the walls or roof to moisture. The penetration of moisture into the interior leads to rot and foundation stresses so that one wall will bow or even collapse, compromising the roof. Then, during a severe wind event or under the weight of a heavy snow, the roof or remaining walls eventually buckle. Tornadoes pose a tremendous threat to barns in the study area. Anecdotes about tornadoes invariably

spin their way into property owners' stories about old barns, and one wonders how many have actually been destroyed over the decades in "Tornado Alley." Another threat is fire. Since much cultivated land has been converted to cattle pasture, many abandoned barns are now surrounded by tall grasses that fuel wildfires. The threat is much less severe if a loafing shed has been attached to the barn or if ranchers feed cattle at the old barn location, since cattle tend to crop grasses low around the vicinity of the barn. But the days are numbered for abandoned barns where tall weeds and brush are allowed to build up near the foundation.



Landmark historic barn in ruins, Balko vicinity, Beaver County. This is the Blackwelder-Kinsey Barn, built in 1921. According to informants, it was constructed from the insurance settlement of an earlier barn lost to fire at the same location.

4. Plainly, there is a dearth of authoritative, classification-oriented secondary sources available to guide the study of barns west of the Mississippi River. The best available “field guide” was not very useful to the study area, as it was derived from fieldwork in the eastern third of the continent. Nevertheless, field inspection of over 400 barns suggests that interesting regional and local patterns do exist. A systematic, book-length study of barns west of the Mississippi is greatly warranted.

5. Field observation revealed that **spatial patterns of barn design are greatly affected by the idiosyncrasies of local builders**. This renders the literature on barns, which is written at the regional scale, fairly useless to this analysis of 13 Oklahoma counties. Many examples of identical, or nearly identical, barns were encountered within a few miles of one another. Barn builders left their marks on the local landscape.



Nearly identical barns, Salt Fork vicinity, Grant County. These barns are located on different farmsteads within a half mile of each other. They are nearly identical, and undoubtedly the work of the same builder. Many other examples of localized clustering of specific barn types were evident in this study.

6. Despite a pervasive affinity for barns, **most people, even longtime locals, rarely know much about isolated barns in their locales or their histories.** Often younger residents know very little about architecturally significant properties within a few miles of their residences. Data on barn construction and uses before 1960 may only survive in the memories of elderly farmers and ranchers living in Management Regions One and Two.

7. **Survey counties with the highest density of resources were Kay, Garfield, Grant, and Noble Counties.** These counties were the entry area of the winter wheat belt as it expanded south from Kansas in the 1890s and they had the highest population densities and the highest wheat production levels during the first decades of statehood. The Garfield County area, in particular, contains many country grain elevators that were generally not recorded. These counties also contain significant ethnic (Czech, German) building traditions and use of local limestone and sandstone. It also has, by far, the highest density of National Register-eligible resources. For these reasons, it is recommended that intensive-level surveys be conducted in these counties.

8. Large **Midwest Livestock Feeder barns** were the most common barn type recorded in the study area. Because the study area is the oldest and most intensive winter wheat-producing area of the state, this pattern was expected and confirmed in the field. Feeder barns represent substantial capital investments before agricultural mechanization. They contain large haymows, granaries, and livestock stalls, and are the stereotypical barn type. In the study area most of them were built after the railroads, so their substantial heights were enabled using light, modern prefabricated trusses; only a handful were recorded using

anything else (alternative supports consisted of railroad, stone, or poured concrete). Excellent examples surveyed included all major types of roofs. Floor plans, as best they could be surmised, sometimes emulated earlier eastern barn forms described in the academic literature, especially the so-called “Raised,” “Midwest Three-Portal” and “English Three-Bay” plans. Others seemed to appear identical to eastern plans labeled “Appalachian” and “Appalachian Meadow” and “Transverse Frame” barns. But given the scholarly disagreement on barn typologies and semantics, and particularly because the literature pertains to regions east of the Mississippi River, and because floor plans were not always evident at the minimal level of documentation (floor plans are the basis for most classifications) it seemed prudent to avoid splitting hairs and classify barns into only the most obvious types. Therefore, Midwest Livestock Feeder barns include those not classified as other identifiable types, such as a Transverse-crib barn or a clearly ethnic form such as a Grundscheier. Generally, they are large barns in which the majority of the volume of the interior is devoted to hay storage.



Godfrey Mack Barn, Salt Fork vicinity, Grant County. This relatively large, but otherwise typical barn was built in 1941 in the heart of the winter wheat belt of north central Oklahoma. Its floor plan conforms to that of the Midwest Three-Portal Barn described by Noble and Cleek, although it is classified here as a Midwest Livestock Feeder Barn.

9. **Transverse-crib barns** are found throughout the study area, but are less common than Midwest Livestock Feeder barns. Transverse-crib barns represent cultural diffusion from the Midland culture region (Upland South and Midwest) and are not as common in Midwesterner-settled northwest Oklahoma as they are in Southerner-settled southwest Oklahoma. They are proportionally more common in the western half of the study area, beyond the focus of earliest wheat production. The average Transverse-crib barn is smaller than the average Midwest feeder barn and the proportion of its volume devoted to hay storage is smaller. The secret of the transverse-crib barn's success is its simple, utilitarian

design and flexibility. In northwest Oklahoma, they tend to be used as granaries (with auger holes drilled into the gabled roof) and are often located alongside larger feeder barns. Some examples surveyed are still used for small-scale baled hay storage and loafing sheds for beef cattle. Transverse-crib barns usually have gabled roofs, but gambrel and monitor roofs are not uncommon.



Transverse-crib barn, Keyes vicinity, Cimarron County. This is the Landreth mule barn, ca. 1915. Probably due to their flexible design and adaptability, transverse-crib barns are the most common barn type in the western half of the Oklahoma Panhandle.

10. **The original walls and roofs of historic barns throughout the study area are often covered by a skin of corrugated sheet metal, and sometimes by newer aluminum or vinyl siding.** Covering wood shake roofs and weatherboard or vertical barn board walls with sheet metal has definitely increased the lifespan of the study area's historic barns. In

determining National Register eligibility, the integrity of a barn was not dramatically reduced by minimal application of sheet metal to the roof and walls, since the practice was usually done before 1960 to preserve the barn's functionality. The application of sheet metal did disqualify a property from eligibility if it was determined that it dramatically altered the original appearance. However, application of modern materials, namely aluminum or vinyl siding, did disqualify a property from eligibility. Unfortunately, this was the case with several very interesting resources, including a native sandstone barn (#568), an octagonal barn (#458), and two square barns (#526, #653).



Octagonal barn under new sheet metal, Balko vicinity, Beaver County. The Slocum Barn, one of only three known historic nonorthogonal-plan barns in the state, is still used for local hog auctions. The recent addition of modern sheet metal, which preserves its functionality, greatly reduces its integrity and potential for National Register listing. Lower photo shows interior framing, milking stanchions and feed grinder.

11. Barns in the northwest Oklahoma study area were in better condition than in the southwest Oklahoma study area and were less likely to have been altered by opening the ground-level interior of barns to roaming beef cattle or the appendage of an exterior, south-facing loafing shed. Fewer alterations may reflect less dramatic change in the regional agricultural economy. Perhaps pride in their agricultural heritage leads people in northwest Oklahoma to more often preserve their barns long after their basic function has ceased .



Transverse-crib barn, Blackwell vicinity, Kay County. This handsome granary remains in excellent condition and an obvious point of pride for the property owner.

12. Despite its spectacular wheat production in the 1920s, **Texas County seems to be deficient in barns built prior to 1950**. This is perhaps due to the area's earlier emphasis on mechanized, cash grain farming—much of the land was first broken by tractor after 1916,

rather than by draft horse in the 1890s. Another possibility could be that the expansion of agribusiness since 1990 has cleared derelict properties to reduce liability; old barns are magnets for amateur photographers and curious passersby.

13. Somewhat surprisingly, **bank barns are found in every part of the study area**, from the Arkansas River in the east to Cimarron County in the west. Many incorporated native stone in their construction, and not all were located on sloping ground. Most northwest Oklahoma bank barns are of the gable-end variety. Although barn scholars have vaguely noted this tendency west of the Mississippi River, no study has specifically examined gable-end bank barns.



Derelict Bank Barn, Fargo vicinity, Woodward County. Bank barns are uncommon but not exceptionally rare in northwest Oklahoma.

14. A few **Czech barns** were investigated in the study area around Perry in Noble County, an historic Bohemian settlement district. Czech barns are small, elongated, gabled barns with small windows high in the eave walls. They are known to incorporate both stone and wood construction in the same building. They generally have only a small haymow. The best example of this tradition is #563 in Noble County.



Possible Czech barn, Perry vicinity, Noble County. This gabled, native sandstone structure combines wood framing and stone with few windows, which are traits of Bohemian barn construction. It is located in a well-known Czech settlement district.

15. Many counties in the study area were the focus **Volga German settlement**. These religiously diverse people were unified by the German language, folk customs, and winter wheat farming. Like the Czechs, most arrived from Kansas and Nebraska and were

acculturated by a generation. Settled foci in the study area included Shattuck in Ellis County and Meno in Major County. Each of these areas were visited and sampled, but the presence of ethnic barns in these areas is sketchy at best. One deficiency in the literature is a good source on the varieties of Volga German barn construction. Small, gable-end bank barns may represent Volga Germans. Only one article examines this, but it focuses on the house-barn tradition of the Russian Mennonites in Canada. Based on observations in the field, the Germans from Russia did not leave a very remarkable ethnic mark on the Oklahoma landscape.

16. A significant region of northeastern Kay County—that part of which lies within the Northern Limestone Cuesta Plains, east of Newkirk—contains exceptionally interesting barns constructed of a local native limestone called **Silverdale Stone**. The outcrops are visible from aerial photographs. Silverdale Stone is an excellent building used in much of Newkirk's commercial and government buildings. East of town there are exceptional stone barns, a few of which are classified here as Grundsheiers (German ground barns). The Silverdale Stone area contains several National Register-eligible barns, and an intensive-level survey focused on the outcrop region would likely yield more properties.



Ruins of Silverdale Stone Bank Barn, ca. 1947, Chilocco vicinity, Kay County. Originally this bank barn (above, painting) was gabled and used as a dairy barn. It makes use of the local limestone and is located only feet from the Kansas line. Having been leveled by a tornado, only the stone portion remains.

17. Use of native sandstone, is not uncommon in the study area. **The largest concentration of native sandstone construction was found in Noble County.** Two National Register-eligible examples include the 1944 C. V. Field Barn (#554) and the 1941 Schultz/Neal Stone Barn (#819), which is reputedly the largest barn in Oklahoma.



Schultz/Neal Stone Barn, Red Rock vicinity, Noble County. This massive, National Register-eligible 1941 native sandstone barn is located on the western shore of Sooner Lake. It is reportedly the largest barn in the state. A number of smaller sandstone properties are located in the area. This one is the largest barn recorded in this survey, and probably the second-best known barn in the state after the Arcadia round barn.

18. **Few single-crib and double-crib barns were observed in the study area.** Perhaps because of their size, only a few single-crib barns were encountered even as secondary outbuildings, such as granaries. Double-crib, drive-in crib barns were occasionally found in use as granaries, but perhaps due to the larger scale of farm operations in northwest

Oklahoma, as well as the need for large amounts of winter fodder, few of these small barn types were observed. Single- and double-crib barns represent the older cultural influences of southern Anglo settlers, and northwest Oklahoma was overwhelmingly populated by Midwesterners.



Double-crib barns used as granaries, Keyes vicinity, Cimarron County. Midland farmers moving onto the High Plains adapted their traditional drive-in double-crib barn, historically a corn crib, into a wheat granary. After the introduction of self-threshing combines in the 1950s farmers converted these units by inserting roof port holes through which an auger (center right of photo) poured the harvest. These are especially common in the Panhandle.

19. **For some unknown reason, sheet-metal covered round-roof barns with flanking sheds were abundant in Major County.** These tend to have simple hay hoods and were probably constructed after 1940. Only one example was recorded at a minimal level of documentation.



Typical round roof barn with flanking sheds, Ames vicinity, Major County. Southeast Major County has an abundance of this model, though they are fairly common throughout northwest Oklahoma.

20. **Most northwest Oklahoma barns contain hay hoods and a small proportion of these are elaborate.** Hay hoods are the familiar triangular extensions at the top of a barn's gable which shields the block and tackle system of the ridgeline hay trestle. In addition to hay hoods of all sizes, hanging gable and boxed hay hoods were located. Some large barns contained especially large hay hoods. Younger barns usually contained simpler hay hoods.

The presence of hay hoods on barns was noticeably less common in the drier counties west of the 98th Meridian, perhaps because rain poses less of a hazard to the block and tackle. The survey located hay hoods on barns with gambrel roofs, gabled roofs, monitor roofs, broken gambrel roofs, Gothic-arched roofs, and saltbox roofs.



Large, boxed hay hood, Capron vicinity, Woods County. Larger barns designed to move larger amounts of hay sometimes have sophisticated hay hoods.

21. The survey identified a number of barns with interesting **“broken gable”** and **“broken gambrel”** roofs. These are created by adding lower-pitched flanking sheds to both sides of a central structure with a steeply-pitched gabled or gambrel roof. The result is an aesthetically interesting roof shape that is not well-documented in the literature.



Broken gambrel roof, Manchester vicinity, Grant County. The addition of two eave-side flanking sheds to the original rectangular gambrel roof structure is common and creates an aesthetically-pleasing silhouette.

22. **There appears to be no geographic or chronological pattern in the original use of horizontal versus vertical wood cladding on the historic barns in the study area.** Both older and newer resources utilize horizontal weatherboard, and some combined both vertical and horizontal boards.

23. **Barns were often found to predate farmhouses.** Informants in the field often related that they knew that the original homesteader had constructed a barn a year or two before constructing a permanent house. Settlers usually lived in dugouts, sod houses, or even tents during the first few years while the barn—the structure central to farm operations and

survival—was constructed. Until the means of making a living was constructed, there was little point in building a permanent abode.

24. **Almost no barns in the study area contain murals or painted designs.** The most common of ornamentation on barns was a painted or attached metal five-pointed star on a gable facing the road. Barn murals and motifs, which can be found in the eastern United States, are apparently rare in northwest Oklahoma.

25. **Most northwest Oklahoma barns were once painted red, some were painted white, but most are no longer painted at all.** Most barns that today appear unpainted were at one time painted red. The original color can usually be found in a sheltered area, such as underneath the eaves, through close inspection. Dairy barns tended to be painted white.



Typical paint and ornamentation, Alva vicinity, Woods County. Most barns in northwest Oklahoma were at one time painted red, though most historic barns have lost their paint. The second most popular color was white, especially for dairy barns. This example displays a five-pointed star on the gambrel end, which is unquestionably the most common form of decoration on barns in the region.

26. **Barns with ridge top cupolas and metal ventilators are less common, but not rare, in northwest Oklahoma.** Ridge top cupolas, which are built on-site by carpenters, as well as prefabricated metal ventilators, are used to provide ventilation and add to the aesthetic quality of barns. Their presence is indicative of higher style and craftsmanship. Ridge top cupolas and metal ventilators are much more common on barns in northwest Oklahoma than southwest Oklahoma. A few barns observed contained more than one cupola or metal ventilator. It is important to note that cupolas, also known as “pigeon houses,” differ from the vertical, and usually unventilated, towers of country grain elevators.



Ridgetop Cupolas, Ponca City vicinity, Kay County. Ridge top cupolas provide essential ventilation for livestock and reduce the risk of spontaneous combustion that can result from fresh hay composting. The twin hipped cupolas are on a horse barn (above), while the more common single gabled example ventilates a feeder barn. Cupolas in both examples reveal a barn much older than its corrugated sheet metal skin tends to advertise.

27. Areas of ethnic German settlement exhibit a **tendency for farmsteads to be located near the center point of sections** (junction of quarter-sections), a trait that has been observed in Missouri. In these areas, the PI had to walk a half-mile to record a resource. Some barns, with no apparent ethnic affiliation, were purposely located on the boundaries of two quarter-sections, and at least one recorded property was situated at the mid-point of the section. Informants suggested that this was a strategy for several related homesteaders to claim the same improvement on more than one 160-acre homestead.



The James Settle barn (1918), Balko vicinity, Beaver County. Settle, a West Virginian who homesteaded in 1904, situated the barn at the center of the section so that his family members could also claim the other three quarter-sections.

28. Most barns with a haymow, even if long abandoned, always provide excellent **nesting habitats for owls**. The surveyor typically encountered single or nesting pairs of Great Horned Owls and Barn Owls in barns.

29. In addition to barns, a number of wood-clad “country” grain elevators were observed. These are most abundant in Garfield County, the focal point of winter wheat shipping in the southern winter wheat belt. Country grain elevators contain on their roofs a characteristic tower, resembling a tall cupola. While only one example was recorded, many—some of which are National Register-eligible—survive throughout the eastern half of the study area. **Garfield County should be surveyed at the intensive level in order to inventory the best examples of surviving country grain elevators.** Country grain elevators and can be quite easily identified from aerial photos.



Simon Allenbach elevator, Burlington vicinity, Alfalfa County. This country grain elevator, a winter wheat storage facility, was constructed sometime before 1903. It is one of many like it in the historic winter wheat belt. This survey did not record country elevators.

30. **Northwest Oklahoma's barns represent the economic and cultural legacies of settlement from the central Great Plains and Middle West.** In addition to their Germanic ethnicity, their tolerant Methodist and Lutheran traditions, a noticeably vanilla English dialect, and their Republican politics, the people of northwest Oklahoma brought a larger scale of farming to the region. Their scale of farming required large, Midwestern-scale barns. Informants frequently mentioned that their barns were constructed by settlers from Kansas, Missouri, and Illinois.

VIII. ARCHITECTURAL REVIEW by Jana Phillips, AIA

Barns provide landscape evidence of changes in seasonal production patterns, long-term economic shifts, and even ethnic settlement patterns. Agrarian buildings—more than most other building types—follow Sullivan’s “form follows function” mantra of American architecture.

The styles and sizes of the barns recorded by this survey are much more regular compared to the varied sample surveyed in southwestern Oklahoma during 2009-10. The sample surveyed here makes it immediately apparent that large barns are much more common in northern half of the Oklahoma Great Plains than the southern half.

Trends apparent in this area reveal similarities in livelihoods led by original property owners. Barns are often the signature buildings of farms. More importantly they are the business buildings of the farm, whether the main activity is crop cultivation or ranching. Barns were often the first permanent farm buildings of a farmstead in this intensive grain production region. Homesteaders in northwest Oklahoma often lived in tents, sod houses, and dugouts until they developed the farm and built enough capital for a permanent house, and barns sufficed as required improvements on their land claims.

One of the first observations made of a barn is its size. The size of a barn is a reflection of many factors. Often the most significant factor affecting barn size is the size of the farm itself. Barn size is usually correlated to the size of the farm and scale of operation. Other factors affecting the size of a barn include how much land a farmer could cultivate and the level of specialization of the farm. Highly-specialized farms may require additional

specialized buildings. This is immediately apparent in the Garfield County area, with its abundance of grain elevators, as well as the Panhandle counties, where small Transverse-crib barns were built for the exclusive use as granaries.

This sample indicates that multipurpose barns, referred to in this survey as Midwest Livestock Feeder Barns, are much more abundant in the northern half of western Oklahoma than the southern half of western Oklahoma. In terms of form following function, this would seem to be attributed to the study area's harsher winters, which require greater hay storage capacity, as well as the region's longer reliance on specialized wheat production.

By locating as many tasks under one roof as possible, the farmer could make efficient use of his time and limit his exposure to the elements. Throughout the study period the most important facet of farm life was maximizing the number of acres in cultivation, so centralizing activities under one roof was an efficient practice.

The materials and style are common characteristics of the structures. A vast majority of the barns have a wood structural frame in common. Wood frames can only survive if protected from moisture. Moisture, whether from above or below, is the single most damaging decomposition agent of structures. Some of these have a composition of stone base/foundation that supports the wood frame. The various styles of pitched roofs aid in the longevity of these structures. The roof configurations are not of as much significance as the interior configuration of the barns in telling us about life on these farms. The configuration of the roof may or may not give clues as to the background of the builder, and the connection methods of which the builder was familiar.

The barns in the western part of the study area have predominately used sawn lumber, which was imported into the area by rail. Some of the barns in the extreme eastern part of the study area incorporate native stone in the foundations and, in several wonderful examples, the entire exterior wall system. The use of native stone in these specimens represents an enduring association between historical livelihoods of settlers, the local environment, and place.

Granaries provide an interesting study in preservation from the elements. By design, granaries protect their contents from rot from moisture and ruin by rodents. The wood frame granaries recorded show the value of the reinforced lateral support with their interior sheathing complementing exterior cladding. This structural system is a textbook example of effective dispersal and subsequent transfer of wind loads through the structure to the foundation and finally to the ground.

Masonry structures are typically built with hollow masonry units to provide dead air space, which creates a temperature and moisture barrier. A solid masonry wall, while an effective lateral bracing system, is not as efficient at protecting grain as a wood frame. Due to the nature of masonry units being made of clay, they conduct moisture.

Many of the granaries observed in this survey have been altered to accommodate modern mechanized farming equipment. They often have an aperture added to allow grain to be directly deposited from a portable auger. The Midwest Livestock Feeder barns have granaries housed within the larger structure. This aids in the feeding livestock during inclement weather.

The survey reveals that the use of masonry and stone, especially for dairy barns, allows them greater longevity. After 1945 these were designed to protect raw milk by incorporating impervious wall surfaces that met government standards for milk grading, so they typically received plastering. Plastered masonry and wood weathers the elements better than unprotected wood sheathing. Following the incorporation of government standards, modern milking equipment had to be segregated from the unhygienic activities of the all-purpose barn.

This thematic survey's sample of barns are mainly clad with wood siding or are wood siding-clad covered by corrugated galvanized steel sheet metal. A few examples are built of native stone. While field observations by the PI confirm that most barns had originally been painted red or white, many have not been painted in decades. Their weathered wood has an aged patina that adds character. Original roof materials were often composed of wood shakes and these were frequently covered with corrugated sheet metal or galvanized metal roof panels. Roof types included gabled, gambrel, round, and single-sloped sheds.

Few of the barns documented in northwest Oklahoma seem to have been adapted to reflect changes in farm production over the years. The condition of barns reflects how current owners view their utility. Today's highly-mechanized grain and beef operations do not require a single structure to shelter farm activities. Most of the barns sampled in this survey have long become obsolete and, if not completely abandoned, retain only peripheral utility to day-to-day farm activity. That is, they provide a place for long term property storage or occasional shelter for cattle. A good many appear to be kept up due to their iconic nature and simply because owners have a nostalgic attachment to them.

There are a handful of barns in Kay and Noble counties that boast native stone walls. These barns are significant in their uniqueness. One of these examples, the Schultz/Neal barn, located east of Red Rock in Noble County, is recognized as the largest free-standing barn in Oklahoma. All of the stone barns sampled by this survey obviously required enormous skill, labor, time, and money to construct. The barns in northeast Kay County, which are built of Silverdale limestone, reveal that skilled masons were involved. The barn east of Newkirk, which contains massive cut stone blocks, is evidence of serious effort at both cutting and transporting stone from a quarry somewhere in the area. One could surmise that the longevity of the structures were a priority over the speed of construction or labor required to complete them. They are capped with a variety of roof types. This fact lends itself to the assumption that different builders constructed these barns, but that they all held a common belief that the durable material from this specific location was worth the extra time and labor. It appears that is the case as these barns appear to be quite sound.

The survey revealed that bank barns are scattered throughout northwest Oklahoma, from the Osage Hills to Black Mesa. The examples surveyed did not include forebays or other diagnostic traits that would indicate a direct relation with the iconic and much-studied Pennsylvania barn varieties. Instead, most of the examples appear to be simple forms with banked entrances on the gable ends that allowed wagons to enter above subterranean livestock feeding areas. Their simplicity would seem to indicate a settler population with ephemeral knowledge of the Pennsylvania form. This makes sense, because most settlers came from the southern Midwest, the western periphery of the Pennsylvania barn's distribution. The strongest evidence of a connection to older eastern bank barn traditions is apparent in the more elaborate stone examples of Kay County. Bank barns in the western

half of the study area appear to be simpler and more utilitarian, which is itself a characteristic of Great Plains architecture.

The most common type of barn sampled in the study area is the Midwest Livestock Feeder Barn. Its popularity could be attributed to any number of circumstances including similarity of life from farm to farm, and/or a tight-knit community that gathered at times throughout the year, especially after planting and harvest. These quieter times of agrarian life allow neighbors to share experiences, discuss failures and compare solutions. It is possible that the large structures were built with the help of neighbors during these quiet times.

The clumping of styles and construction techniques are indicative of settlers bringing their techniques and skills from previous locations to Oklahoma. Settlers would migrate to the most recently opened virgin prairie land with their extended family and friends. They would help one another build the required improvements to support life on the farm. Some of the barns recorded appear to be constructed by experienced barn builders. They have economy of connections that are scaled for their respective sizes. Barns with vertical siding, or board and batten siding, represent the most economical use of materials in that they shed water in effective way. Barns with horizontal (clapboard) siding indicate construction by house builders. These tend to have the more “finished” appearance of a house, but utilize more materials. This configuration also takes more time and labor to complete.

By the time that Oklahoma was being settled, barn planning was becoming of great interest throughout the Midwest and Great Plain states. Heavy timber structures were considered outdated because they were not as accommodating to large hay wagons as were

barns built using balloon frame construction methods. The balloon frame method, which originated in Illinois, had become popular by the time of initial settlement of the study area in the 1890s. Balloon framing allowed wider and clearer spans, reduced construction time and labor, wasted less material, and was cheaper because lumber could be imported cheaply by rail. Balloon framing also lent itself to catalog order business in which an entire barn could be selected from a plan book, purchased by mail, and delivered by rail.

A significant factor in their survival is that many of the barns sampled by this survey retain local significance to rural culture. A select few have been well-maintained at a level comparable to their days of actual farm service, including preservation of original wood siding and paint. Most examples that received an outer skin of corrugated metal sheeting received it during their historical period of service, usually just after the Second World War, when it became available while the barn remained in service. In the cases where the barns have become antiquated and not adapted to a modern use, many of them exist due to the attachment that the current owner has to the ideal of the structure. These large barns remain as local landmarks and some have been well-maintained.

It is noteworthy that many of the barns in Northwest Oklahoma appear to have been maintained by keeping the wood siding in place rather than replacing the siding with metal wall panels. In the Panhandle counties this might simply reflect the drier climate. Roofs appear to have been replaced with metal equally across the study area. Use of metal covering, whether on the roof or walls, has significantly preserved buildings in the study area. Metal has proven its effectiveness so well that it is now used on public buildings of all types. Metal is most often applied to prefabricated frames that provide relatively large clear spans with minimal material. They are the most recent development in barn technology

incorporating modern methods. This building material, which has its beginnings firmly planted in an agrarian setting, has shaped suburban/urban landscapes as well. It is adaptable to almost any type of occupancy/activity and has quickly moved into communities across Oklahoma in the past 20-30 years. Some view this as a positive addition in that little maintenance is required. Others are not so willing to see this material, which is associated with rural vernacular, become a dominant fixture in non-rural settings. Cities have even enacted ordinances to prevent its use.

It is interesting to observe the barns that have glazing in their window apertures. Typically windows are to allow natural ventilation and light throughout the barns. The addition of glazing indicates that the occupants required the view out/daylight in independent of ventilation needs.

A large number of the properties surveyed have monitors for ventilation. This is an especially important feature in large barns storing large quantities of hay. The movement of air through the structure keeps the hay in good condition and to prevent composting. The hay must also be kept dry to maintain its source of nutrients for the livestock it is to feed.

Most of the large Midwest Livestock Feeder Barns contain hay hoods to protect the block and tackle used to help move loose hay into the large haymow. An interesting observation, noted by the project PI during his field observations, is that many barns in the Panhandle do not include hayhoods and that this is likely due to the lower annual precipitation of the High Plains.

The survey also indicates that fewer alterations to properties have been incorporated in northwest Oklahoma in comparison to southwestern Oklahoma. Fewer additions may

indicate greater farm profitability over time or less economic impact by changing farm practices. This observation would correlate with the fact that the study area has long been a beef and grain-producing region rather than shifting radically from cotton to grain and beef, as in southwest Oklahoma. Both the Transverse-crib barn and the Midwest Livestock Feeder Barn are adaptable forms, with the former apparently more adaptable to change.

Most barns surveyed lost part of their utility when tractors and tractor-powered implements replaced draft horses, but in Oklahoma this was significantly later than in other states. Although some farmers certainly had tractors earlier, it is safe to assume that a majority of Oklahoma farms did not become mechanized until after the Second World War. However, even when horses were no longer required, they were often kept for transportation, working cattle, and recreation, and the barn maintained some utility. Farmers sometimes altered their barns to accommodate tractors and valuable implements, but not very often. Perhaps the most significant blow to the utility of the barn was the adoption, especially during the 1980s, of "one-ton" rolled hay baling equipment technology. Large hay rolls are generally too large to store in traditional barns. Moreover, by the 1990s, rolled baling technology was so good that bales were essentially waterproof and could be stored in the open without any shelter.

There are indeed many interesting trends visible in this survey's sample of historic barns. The survey provides a wonderful study of form following function. The best explanation of their survival--and certainly many have not survived--is that they retain functional or nostalgic significance to property owners. Some properties even retain functionality for sheltering recreation livestock and feed; others provide sheltered spaces for repairs or crafts; many are used as long-term storage facilities. Just as old warehouses in

Oklahoma City's Bricktown provide a connection with the city's commercial history, surviving barns provide a strong sense of agricultural history in rural northwest Oklahoma.

Barns can also be excellent examples of sustainable design, and sustainable design is no new concept to farm life. Even with the latest technologies, much of farm life remains quite labor-intensive. Barns are quite adaptable to sustainable uses that conserve energy, labor, and materials. They are designed for natural ventilation by taking advantage of prevailing winds and providing large overhangs only along the southerly exposures. They are designed to use a minimum of energy to serve their daily purposes. All of these are concepts that architects incorporate into sustainable designs. Sustainable buildings also tend to be simple in design.

Barns demonstrate that adaptive uses can be found for existing structures. It is almost always more advantageous to remodel an existing structure by capitalizing on its kinetic energy, rather than removing and replacing it. Farm life is the epitome of sustainability and efficiency. Preservation and rehabilitation of these structures also preserves the history of a region. Barns can be indicators of what was successful in the past, as well as what activities became obsolete. Barns, by their sheer personality, typify the values of their communities. Farm communities value economy and stewardship of the natural resources of a region. Cultures thrive when they know and understand their history.

IX. KINDS OF HISTORIC PROPERTIES PRESENT IN THE SURVEYED AREA

A National Park Service Preservation Brief by Michael J. Auer, *The Preservation of Historic Barns*, is available on the Internet. This site offers descriptions of five barn types (Dutch, Bank, Crib, Round, and Prairie) found in the American landscape. Unfortunately, this site is inadequate for gaining much of an understanding of the breadth of extant barn types in the study area. Auer's site defines the "Prairie barn" as containing a "hay hood," yet such features are common on several barn types. Nowhere in the extensive literature on North American barns is there mention of a "Prairie" or "Western" style barn, although websites like Wikipedia have replicated this schema. In this survey I have chosen to not use the term. Round barns and Dutch barns, likewise, are intriguing forms, yet both are exceptionally rare. Round barns have always been idiosyncratic and are found mostly in Corn Belt states. Dutch barns are confined to a few Middle Atlantic states and are extremely rare. Crib barns are common in southern Oklahoma, but they come in an array of types. Where they are common, barns with subterranean basements or 'banks' can be classified into any number of varieties (English bank barns, Pennsylvania German barns).

Auer's limited classification is odd because there is an academic literature on North American barns. These works are mostly by a small group of folklorists and cultural geographers and almost all of it focuses on the eastern one-third of North America. The most significant scholarship on North American barns and farm outbuildings is found in several periodicals published by the Pioneer America Society. Geographers Fred B. Kniffen and folklorist Henry Glassie are regarded as having influenced second- and third-generation barn researchers. The most prolific barn scholars of recent decades include Allen G. Noble, Alvar

W. Carlson, Hubert G. H. Wilhelm, Keith R. Sculle, Robert Ensminger, Terry G. Jordan-Bychkov, John B. Rehder, Charles F. “Fritz” Gritzner, Malcolm L. Comeaux, John Morgan, Matti Kaups, Karl B. Raitz, John Fraser Hart, H. Wayne Price, Peter O. Wacker, James Shortridge, Richard V. Francaviglia, and Wilbur Zelinsky. Because they focus on Texas, the mountain West, and Kansas, the works of Jordan-Bychkov and Shortridge are most relevant to this study of Oklahoma. Their useful works are listed in the annotated bibliography of this report.

Most barn scholarship has focused on the eastern United States and researchers in western states have few guideposts in the way of typologies or terminology. In 1995 cultural geographers Allen G. Noble and Richard Cleek published a much-reprinted field guide to barns and outbuildings titled *The Old Barn Book*, which contains many good drawings and is helpful in understanding the basics of pre-1890 barns east of the Great Plains. While this work is not the best source for identifying barn types in the field in Oklahoma, it is very useful as a guide to barn components, and is analogous to *A Field Guide to American Houses* by McAlester and McAlester. The Noble and Cleek guide is used only minimally in this survey to suggest typologies; many properties do not conform in any way to those presented in *The Old Barn Book*.

A very helpful, though less-authoritative, work is John Michael Vlach’s simply-titled *Barns*, is quite useful because it is a regionally-organized collection of Depression-era barn photographs housed at the Library of Congress. Vlach downplays barn typology, arguing that, upon close inspection, barns are rarely identical, and by so doing he implies that barn classification is a complicated endeavor. He makes no distinction between the Midwest livestock feeder barn and the transverse-crib barn. Other accomplished barn scholars,

notably John Fraser Hart, Terry Jordan-Bychkov, and James Shortridge, generally concur that only the most basic typology of barns is useful. They are reluctant, due to their own years field experiences, to “split hairs” in classifying barns in the manner of Noble and Cleek.

For this survey I have attempted to arrive at a compromise between being too general and too specific regarding barn typologies. The following barn typology was developed after weighing Noble and Cleek’s field guide with my own field observations. What I hope to provide is a consistent, simple-to-use, first approximation of barn types of western Oklahoma.

Transverse-Crib Barns

The transverse-crib barn has been well-documented as an American barn type that originated around 1800 in the Great Valley of southwestern Virginia and Upper East Tennessee. It derives from the four-crib log barn with a gabled roof in which the ridgeline was perpendicular to the main entry (similar in form to a double-pen dogtrot house with a connecting passageway). Southern Appalachian farmers developed the transverse-crib barn by merely rotating the ridgeline 45 degrees so that the central aisle or “runway” ran parallel to the ridgeline. The eave sides of the resulting structure were enclosed to create six cribs, which allowed additional cribs to be added, as needed, to the gable ends. No other scholar has studied the transverse-crib barn more than cultural geographer Terry G. Jordan-Bychkov, who defines it as a barn containing:

- (a) gables facing front and rear;
- (b) a central runway beneath the roof ridge having wagon access at both ends;
- (c) four to ten cribs (typically six) on either side of the runway;
- (d) a loft positioned above the cribs;
- (e) multipurpose functions, with a minimum division of granaries, stalls, and hay storage.

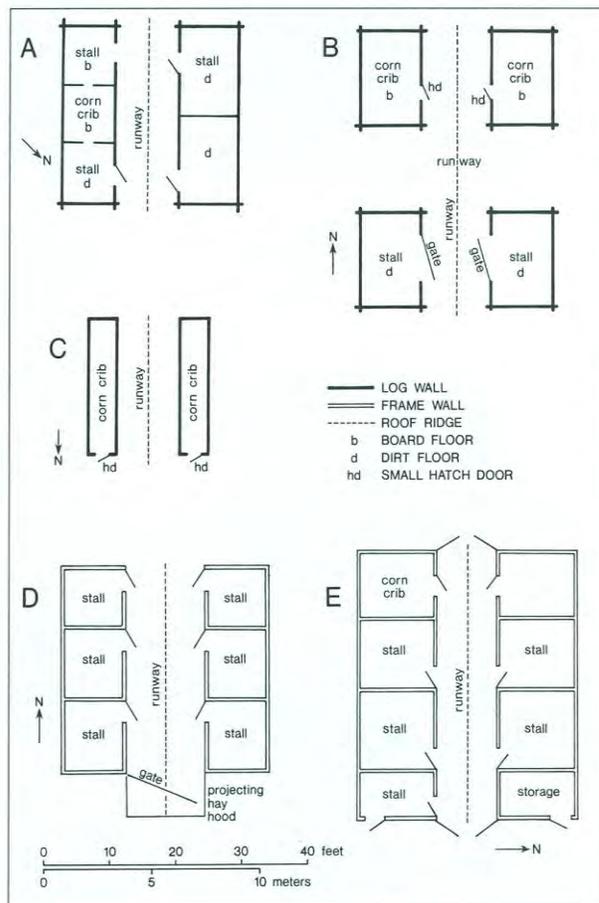
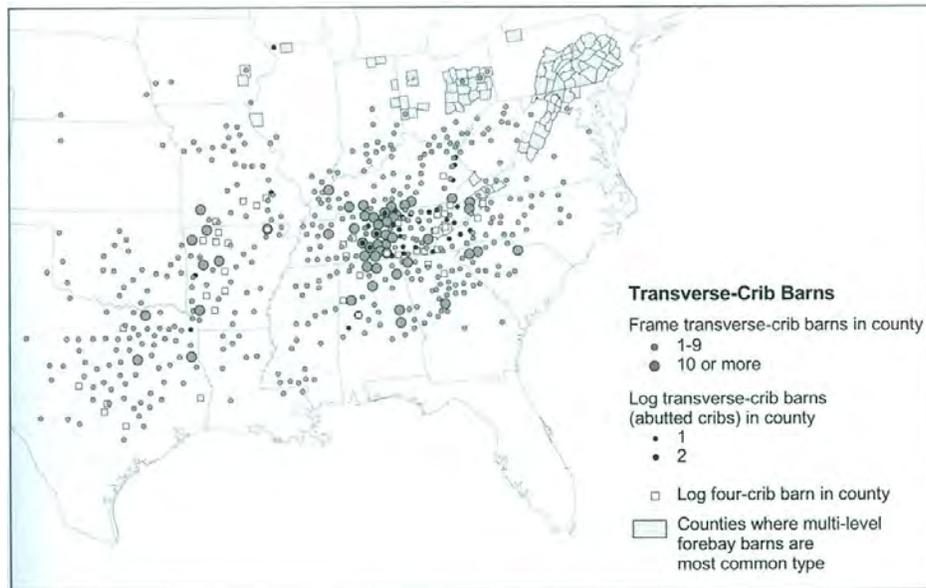


FIGURE 4.5 Plans of representative barns: A = transverse-crib near Paintsville, Johnson County, Kentucky, built of saddle-notched, round poplar logs; B = four-crib barn near Flower Mound, Denton County, Texas, ca. 1880, with elongated cribs made of saddle- and V-notched post oak logs; C = drive-in corn crib at Brattonsville, York County, South Carolina, consisting of heavy, half-dovetailed logs; D = frame transverse-crib, Hardin County, Illinois; and E = frame transverse-crib, ca. 1850, near Yates, Howard County, Missouri. All shed additions and frame additions to log barns have been deleted from the plans, to emphasize the basic barn. (Sources: Marshall 1981, 73; Sculle and Price 1993, 18; Jordan-Bychkov 1998, 8.)

Transverse-crib barn plan evolution. Source: Jordan-Bychkov, *The Upland South*, p. 47



Transverse-crib Observations. Source: Jordan-Bychkov, *The Upland South*, p. 55.



Transverse-crib barn, Shattuck vicinity, Ellis County. Note prominent center aisle.

Transverse crib barns became widespread in the Upland South by the latter 1800s and diffused widely to the southern section of the Middle West. Indeed, Jordan-Bychkov declared the transverse-crib barn to be a “diagnostic” trait of the Upland Southern landscape. After 1890 most transverse-crib barns were built with sawn lumber rather than logs. Presumably, the transverse-crib barn was taken wherever Upland Southerners and Midwesterners settled, including all of Oklahoma. The transverse-crib barn’s simple form allowed many practical alterations. One of the most common was the addition of flanking sheds to the eave sides.

A transverse-crib barn with flanking eave-side sheds creates a variety of ‘broken gable’ or ‘broken gambrel’ forms. Transverse-crib barns containing only one flanking shed have the appearance of a saltbox roof.

Transverse-crib barns are ubiquitous in the northwestern Oklahoma study area. They are the second most-common barn type after the Midwest livestock feeder barn. Barn scholars do not agree on how to distinguish a transverse-crib barn from the larger, more complex Midwest livestock feeder barn that retains the transverse-crib form. For this survey, then, I have opted to define a transverse-crib barn as any small to medium-size, multiuse (not complex), rectangular, end-entry barn originally containing granaries, stalls and a hay loft. Roof types, wall-cladding, color, and other consideration employed on the classification of domestic architecture are—following many statements in the literature—inconsequential; even door placement is not such an important factor for most barns constructed after 1890. Alternatively, the relatively large, (especially tall) barns that retain the general plan of the transverse-crib barn are classified in this survey as Midwest livestock feeder barns.

Midwest Livestock Feeder Barns

Cultural geographers tend to agree on the existence of a barn type known as the Midwest 'livestock feeder barn' that evolved from the transverse-crib barn in Kentucky and the Ohio Valley. By 1870 these large livestock feeder barns came to dominate the Corn Belt from Ohio to Nebraska. While no formal definition exists, feeder barns often follow the form of the subsistence-derived transverse-crib barn, but they are larger. They are larger because Midwest farms endured longer winters and were larger in scale than Appalachian farms. They required more interior space for housing work stock, milking cattle, and sheltering cows and calves; they required huge haymows for large amounts of winter hay and feed grains (oats, corn); and they were occasionally used to store cash grains (wheat). Barns also functioned to store expensive tack and provide sheltered workspace for the Corn Belt farmer. As such, the Midwest livestock feeder barn is the landscape expression of the highest level of non-mechanized farm productivity that ever existed in the United States. For this survey, a Midwest livestock feeder barn is defined as any large, tall barn with a relatively large hay capacity and a relatively complex interior design (if known) which is not dominated by diagnostic traits of other barn types. Roof type, wall-cladding, and color are inconsequential. Door placement on Midwest livestock feeder barns may resemble distinct types noted in the literature as "three-bay barns," "three-portal barns," "Appalachian barns," and these distinctions are noted on their individual historic property identification forms. Nevertheless, functionally they are regarded as feeder barns and are classified here as such.



Gabled Midwest Livestock Feeder Barn, east of Blackwell, Kay County. This large, gabled specimen combines elements of two types classified by Noble and Cleek. The concrete base makes it a “Foundation barn,” while the three gable-end entries make it a “Three-Portal barn.” Hart would simply refer to this as a “feeder” barn.

Single-Crib Barns

Single-crib barns are the oldest, smallest, and simplest form of American barn. Originally constructed of logs, these rectangular gabled buildings continued to be built of lumber well into the twentieth century. The only difference between a single-crib barn and a mere corncrib or granary is that the single-crib barn is always constructed of wood and has more uses than simply storing grain. It must also shelter livestock, store hay, or provide workspace for the farmer.



Single-Crib Barn, Keyes vicinity, Cimarron County. Like most single- and double-crib barns in northwest Oklahoma, this example was used exclusively as a granary. The flanking eave-side, lean-to sheds provided cover to the door through which “thrashed” grain was shoveled with a wheat scoop from a wagon. Note concrete piers used to elevate structure to keep out vermin.

Bank Barns

According to Noble and Cleek, the English bank barn is essentially a three-bay threshing barn with an excavated lower level. The upper level is used for feed storage and subterranean level is for housing livestock. Importantly, the main banked entry of this barn type is on the eave side, and the lower walls are constructed of stone or masonry. Some examples recorded in the study area conformed to this description, but others contained gable-end banks, and I have yet to find a source that examines gable-end bank barns. I am reluctant to refer to those surveyed as English bank barns, as they were located squarely in areas settled by Germans from Russia.



Gable-End Bank Barn, Catesby vicinity, Ellis County. Before the soil had so drastically eroded from this slope and the present owner removed the south doors (upper photo), hay was dropped through trap doors into the lower level, where cows were milked. This folk building has since been converted into a simple loafing shed for beef cattle. Remains of the earthen ramp can be seen on the opposite gable end (lower photo).

Square Barns

The square barn, for want of a better name, refers to two recorded resources in the study area and the only distinctive barn type for which I could find no reference. Using Internet searches, I was able to locate a few other square barns, including one in east Tennessee and another in northeastern Oregon that was nearly identical to one I recorded. While it is an orthogonal form, the rare and highly-unconventional square barn should be classified with round barns. Square barns may be one of two stories tall and contain have pyramidal roofs. A cupola or metal ventilator tops the apex of the roof. The square barn contains four bays and intersecting aisles, so the form likely evolved as a pyramidal-roof version of the four-crib barn.



Parval square barn (1900), Nash vicinity, Grant County. This two-level square barn is one of three known to exist in Oklahoma. Note the hipped ventilator at roof apex.

Wisconsin Dairy Barns

Noble and Cleek define the Wisconsin dairy barn as a large (36' by 100' or larger) barn with a gambrel, round, or Gothic-arched roof, gable-end doors, and a long row of windows along the eave side. These barns usually have metal ridge ventilators. They are common in the western Great Lakes dairy belt.



Wisconsin dairy barn, Newkirk vicinity, Kay County.

Raised Barns

Raised barns are similar to three-bay threshing barns and are characterized by lower walls constructed of stone or masonry. They are frequently used as dairy barns and are found on level terrain.

Czech Barns

The Czech barn is an elongated rectangular gabled barn containing wagon doors on the gable ends. Walls are typically plastered and whitewashed. Windows are usually small. They are found in areas of Czech settlement. The one example documented in the study area fits this description and was reported by the current (second) owner to have been constructed by an ethnic Czech as a poultry barn in the 1930s.

Country Grain Elevators

Most farmers did not start growing wheat in the study area until after statehood, when steam and tractor-powered threshers were readily available. However, as W. David Baird explains, high-capacity grain storage in the form of country and line elevators remained inadequate until the 1930s. Farmers in the study area thus had to create their own storage facilities between 1910-1930.

X. SPECIFIC PROPERTIES IDENTIFIED

During the course of the Thematic Survey of Historic Barns in Northwestern Oklahoma, some 147 resources over the age of fifty years were identified and recorded at the minimal level of documentation. Each property is listed and illustrated below by county according to its ID number and legal description.

COUNTY: ALFALFA		
NO.	PROPERTY	PHOTO
690	690 (CA. 1930) SW4 SECTION 22-T29N-R9W BURLINGTON	
692	692 (CA. 1920) NW4 SECTION 21-T29N-R10W BURLINGTON	
693	693 (CA. 1920) SW4 SECTION 28-T29N-R10W BURLINGTON	
699	699 (CA. 1925) NE4 SECTION 9-T24N-R10W HELENA	
700	JOHN KEIFFER BARN (CA. 1900) SE4 SECTION 10-T24N-R10W HELENA	
416	416 (CA. 1900) SW4 SECTION 14-T23N-R10W HELENA	
424	424 (1938) NW4 SECTION 10-T26N-R11W CHEROKEE	
425	425 (CA. 1920) NE4 SECTION 4-T26N-R11W CHEROKEE	
428	428 (CA. 1910) SE4 SECTION 7-T28N-R9W AMORITA	
430	TRIGG JET BARN (1915) SE4 SECTION 35-T26N-R9W JET	

COUNTY: BEAVER		
NO.	PROPERTY	PHOTO
438	A. NELSON SPRAGUE BARN (1910) SE4 SECTION 3-T2N-R25E CM BALKO	
439	LONCOR BARN (CA. 1910) NE4 SECTION 8-T2N-R24E CM BALKO	
440	440 (CA. 1920) SW4 SECTION 6-T2N-R23E CM BALKO	
442	BARRY LAWSON DAIRY BARN (CA. 1920) NE4 SECTION 23-T2N-R22E CM BALKO	
443	BARRY LAWSON BANK BARN (CA. 1915) NE4 SECTION 23-T2N-R22E CM BALKO	
448	448 (CA. 1920) NW4 SECTION 26-T2N-R21E CM BALKO	
451	451 (CA. 1920) SW4 SECTION 24-T2N-R21E CM BALKO	
454	KARBER DAIRY BARN (1924) NE4 SECTION 2-T2N-R21E CM BALKO	
456	JAMES SETTLE BARN (1918) SE4 SECTION 33-T3N-R22E CM BALKO	
458	SLOCUM OCTAGONAL BARN (CA. 1920) NE4 SECTION 19-T2N-R23E CM BALKO	

COUNTY: CIMARRON		
NO.	PROPERTY	PHOTO
401	LANDRETH FEEDER BARN (1917) NW4 SECTION 11-T5N-R9E CM KEYES	
408	408 (CA. 1915) NW4 SECTION 27-T4N-R7E CM KEYES	
413	FRED AND NELL TUCKER STONE BARN (CA. 1910) NW4 SECTION 17-T6N-R1E CM KENTON	
415	HENLEY BARN (CA. 1910) SW4 SECTION 8-T5N-R1E CM KENTON	
476	CARL MILEY BARN (1934) SE4 SECTION 32-T3N-R6E CM BOISE CITY	
477	477 (CA. 1915) SE4 SECTION 27-T3N-R5E CM BOISE CITY	
478	W. W. CLIFTON BARN (1920) SE4 SEC. 33-T3N-R5E CM BOISE CITY	
479	479 (CA. 1920) SW4 SECTION 35-T3N-R4E CM BOISE CITY	
480	480 (CA. 1920) NW4 SECTION 30-T3N-R5E CM BOISE CITY	
484	484 (CA. 1920) SE4 SECTION 10-T3N-R7E CM KEYES	

COUNTY: ELLIS		
NO.	PROPERTY	PHOTO
706	706 (CA. 1910) NE4 SECTION 12-T21N-R26W SHATTUCK	
707	707 (CA. 1915) NE4 SECTION 32-T21N-R25W SHATTUCK	
709	OLIVER G. GIBBS BARN (1918) SE4 SECTION 19-T21N-R25W SHATTUCK	
719	719 (CA. 1925) SW4 SECTION 21-T19N-R25W ARNETT	
720	720 (CA. 1900) SW4 SECTION 35-T20N-R25W ARNETT	
723	723 (CA. 1915) SW4 SECTION 16-T19N-R24W ARNETT	
730	730 (CA. 1910) NE4 SECTION 31-T20N-R25W SHATTUCK	
732	JOHN NORMAN BARN (1918) SE4 SECTION 12-T21N-R23W FARGO	
431	431 (CA. 1915) SW4 SECTION 9-T23N-R25W SHATTUCK	
432	432 (CA. 1915) SW4 SECTION 5-T23N-R25W SHATTUCK	

COUNTY: GARFIELD		
NO.	PROPERTY	PHOTO
634	634 (CA. 1915) NW4 SECTION 26-T21N-R4W COVINGTON	
637	637 (CA. 1910) SE4 SECTION 13-T21N-R4W COVINGTON	
639	639 (CA. 1910) SW4 SECTION 9-T21N-R3W COVINGTON	
640	640 (CA. 1910) SW4 SECTION 8-T21N-R3W COVINGTON	
663	663 (CA. 1900) NE4 SECTION 23-T22N-R4W GARBER	
664	MILTON ATHERTON BARN (CA. 1910) SE4 SECTION 26-T21N-R7W WAUKOMIS	
669	CECIL NOLAN BARN (1900) SW4 SECTION 4-T20N-R7W WAUKOMIS	
673	POINDEXTER BARN (CA. 1910) NW4 SECTION 6-T20N-R8W AMES	
675	HILL BARN (CA. 1900) NE4 SECTION 34-T21N-R8W DRUMMOND	
677	677 (CA. 1925) SE4 SECTION 21-T20N-R7W HENNESSEY	

COUNTY: GRANT		
NO.	PROPERTY	PHOTO
621	621 (CA. 1900) SW4 SECTION 9-T25N-R3W LAMONT	
624	624 (CA. 1920) NE4 SECTION 23-T25N-R4W LAMONT	
627	627 (CA. 1910) SW4 SECTION 34-T26N-R5W POND CREEK	
641	641 (CA. 1910) SE4 SECTION 35-T27N-R7W WAKITA	
648	648 (CA. 1895) SW4 SECTION 27-T25N-R8W NASH	
652	652 (CA. 1920) NE4 SECTION 25-T25N-R8W HILLSDALE	
653	PARVAL BARN (1900) SW4 SECTION 15-T25N-R8W NASH	
654	654 (CA. 1900) SW4 SECTION 27-T25N-R8W NASH	
733	AL MAEMOORE BARN (CA. 1895) NW4 SECTION 32-T26N-R3W LAMONT	
734	734 (CA. 1895) SW4 SECTION 30-T26N-R3W LAMONT	
736	736 (CA. 1910) NE4 SECTION 6-T25N-R3W LAMONT	

COUNTY: HARPER		
NO.	PROPERTY	PHOTO
803	803 (CA. 1920) SE4 SECTION 7-T26N-R25W LAVERNE	
804	RADFORD BARN (CA. 1920) SE4 SECTION 18-T27N-R25W ROSTON	
807	807 (CA. 1900) SW4 SECTION 5-T28N-R25W ROSTON	
811	811 (CA. 1920) NW4 SECTION 29-T29N-R24W ROSTON	
812	JOHN GERMAN BARN (1928) NW4 SECTION 26-T29N-R22W BUFFALO	
813	813 (CA. 1925) SE4 SECTION 29-T29N-R21W BUFFALO	
814	814 (CA. 1920) SW4 SECTION 17-T28N-R21W BUFFALO	
815	815 (CA. 1900) SW4 SECTION 22-T26N-R22W BUFFALO	
801	801 (CA. 1900) NW4 SECTION 27-T25N-R26W LAVERNE	
802	801 (CA. 1920) NW4 SECTION 27-T25N-R25W LAVERNE	

COUNTY: KAY		
NO.	PROPERTY	PHOTO
505	J. P. "JEPHTHA" TIPTON WEST BARN (CA. 1910) SE4 SECTION 21-T28N-R3E (5400 RIVER ROAD) NEWKIRK	
506	J. P. "JEPHTHA" TIPTON EAST BARN (1937) SE4 SECTION 21-T28N-R3E (5400 RIVER ROAD) NEWKIRK	
510	BENNIE AUPPERLE DAIRY BARN (1936) NW4 SECTION 7-T28N-R3E NEWKIRK	
522	522 (CA. 1920) NW4 SECTION 29-T27N-R1E BLACKWELL	
526	526 (CA. 1900) SW4 SECTION 14-T27N-R1E KILDARE	
529	GEORGE TARPENNING BARN (CA. 1920) NW4 SECTION 24-T27N-R1W (1130 SOUTH "O" STREET) BLACKWELL	
511	101 RANCH BARN (CA. 1910) SE4 SECTION 25-T25N-R1E PONCA CITY	
534	534 (CA. 1915) SW4 SECTION 35-T28N-R2E NEWKIRK	
530	530 (CA. 1920) SW4 SECTION 13-T27N-R1W BLACKWELL	
540	540 (CA. 1920) SW4 SECTION 32-T29N-R2E NEWKIRK	
541	541 (CA. 1910) SE4 SECTION 9-T28N-R3E NEWKIRK	

542	542 (CA. 1910) NE4 SECTION 10-T28N-R3E NEWKIRK		
544	MOLLETT BARN (1907) NW4 SECTION 4-T28N-R3E NEWKIRK		
546	THERESA GRAY BANK BARN (CA. 1910) SW4 SECTION 22-T29N-R3E NEWKIRK		
767	767 (-----) NE4 SECTION 18-T25N-R1W TONKAWA		
769	769 (CA. 1915) SW4 SECTION 7-T25N-R1W TONKAWA		
682	682 (CA. 1900) NE4 SECTION 12-T28N-R2W BRAMAN		

COUNTY: MAJOR		
NO.	PROPERTY	PHOTO
585	GERALD HOBSON BARN (CA. 1900) NE4 SECTION 26-T22N-R9W MENO	
586	586 (CA. 1920) NW4 SECTION 28-T22N-R9W MENO	
596	HENRY ECK BARN (1917) SW4 SECTION 17-T21N-R12W FAIRVIEW	
599	M. & L. DAY BARN (CA. 1930) SW4 SECTION 36-T20N-R9W (RR1, BOX 47A) AMES	
600	600 (CA. 1935) NE4 SECTION 25-T20N-R9W AMES	
601	BUD STURGEON BARN (1915) NE4 SECTION 16-T20N-R9W AMES	
613	613 (CA. 1925) SE4 SECTION 8-T20N-R10W OKEENE	
615	HENRY LIPPS BARN (1919) SW4 SECTION 19-T20N-R10W OKEENE	
616	HENRY AND HILDA LORENZ BARN (CA. 1900) NW4 SECTION 19-T20N-R10W OKEENE	
772	772 (CA. 1910) SE4 SECTION 9-T20N-R15W SEILING	

COUNTY: NOBLE		
NO.	PROPERTY	PHOTO
554	C. V. FIELD BARN (1944) NW4 SECTION 11-T21N-R3E MORRISON	
556	556 (CA. 1910) SW4 SECTION 6-T21N-R3E MORRISON	
560	560 (CA. 1910) SW4 SECTION 16-T23N-R1W (9101 VALLEY ROAD) RED ROCK	
562	JAMES HENRY PAYNE BARN (1916) SE4 SECTION 35-T20N-R1E STILLWATER	
563	563 (CA. 1900) NW4 SECTION 21-T20N-R1W PERRY	
565	HAYES BARN (CA. 1900) NE4 SECTION 7-T20N-R2W PERRY	
567	567 (CA. 1920) SE4 SECTION 33-T21N-R2W PERRY	
568	568 (1908) NW4 SECTION 35-T21N-R2W PERRY	
569	569 (CA. 1900) NW4 SECTION 17-T21N-R2W PERRY	
571	571 (1898) NE4 SECTION 20-T22N-R2W PERRY	

573	573 (CA. 1900) SE4 SECTION 14-T22N-R2W PERRY	
576	576 (CA. 1910) NE4 SECTION 25-T22N-R2W PERRY	
577	577 (CA. 1895) NE4 SECTION 7-T21N-R1W PERRY	
581	GEORGE WARREN BARN (CA. 1920) SE4 SECTION 24-T21N-R1W PERRY	
633	633 (CA. 1920) SW4 SECTION 28-T20N-R2W ORLANDO	

COUNTY: TEXAS		
NO.	PROPERTY	PHOTO
788	ROGER SCHROEDER BARN (1925) SE4 SECTION 35-T4N-R18E CM ADAMS	
791	ELMER BAKER BARN (CA. 1900) NW4 SECTION 36-T5N-R17E CM HOOKER	
792	JAMES HILL BARN (CA. 1920) NW4 SECTION 1-T5N-R17E CM HOOKER	
794	794 (CA. 1915) SW4 SECTION 22-T6N-R18E CM TYRONE	
795	795 (CA. 1900) SE4 SECTION 23-T6N-R18E CM TYRONE	
796	796 (CA. 1900) NE4 SECTION 27-T6N-R19E CM TYRONE	
797	797 (CA. 1910) NE4 SECTION 14-T5N-R19E CM TYRONE	
798	798 (CA. 1900) SW4 SECTION 23-T5N-R19E CM TYRONE	
799	799 (CA. 1900) SE4 SECTION 13-T4N-R16E CM OPTIMA	
800	800 (CA. 1910) SE4 SECTION 30-T4N-R17E CM OPTIMA	
493	493 (CA. 1925) SW4 SECTION 31-T4N-R12E CM GUYMON	

496	JOHN GLODEN BARN (CA. 1925) SW4 SECTION 25-T5N-R13E CM (RR 1, BOX 146) GUYMON	
501	(CA. 1915) NE4 SECTION 24-T4N-R14E CM GUYMON	

COUNTY: WOODS			
NO.	PROPERTY		PHOTO
742	HAROLD DUBBEN BARN (CA. 1930) NW4 SECTION 6-T26N-R13W (24952 CR 450) ALVA		
744	744 (CA. 1915) SW4 SECTION 4-T26N-R13W (24238 CR 470) ALVA		
747	HENRY SCHICK BARN (1910) SE4 SECTION 21-T27N-R13W ALVA		
749	749 (CA. 1940) NW4 SECTION 30-T27N-R14W ALVA		
750	750 (CA. 1920) NW4 SECTION 23-T28N-R14W CAPRON		
751	751 (CA. 1900) NW4 SECTION 31-T29N-R13W CAPRON		
756	756 (CA. 1930) SE4 SECTION 30-T28N-R13W CAPRON		
759	759 (CA. 1900) SW4 SECTION 10-T23N-R14W WAYNOKA		
761	BUREN EASTERLING BARN (CA. 1910) SW4 SECTION 22-T23N-R13W CLEO SPRINGS		
763	763 (CA. 1910) SW4 SECTION 8-T24N-R13W CARMEN		

COUNTY: WOODWARD		
NO.	PROPERTY	PHOTO
773	773 (CA. 1910) SW4 SECTION 35-T20N-R17W SEILING	
775	JOHNSON BARN (CA. 1900) SE4 SECTION 24-T20N-R18W (790 E0570) MUTUAL	
777	A. J. LADD BARN (1907) SW4 SECTION 34-T20N-R18W MUTUAL	
778	SPENCER MANNING BARN (CA. 1895) NW4 SECTION 28-T20N-R19W MUTUAL	
780	GRUNEWALD FEEDER BARN (1908) SW4 SECTION 11-T20N-R19W MUTUAL	
781	GRUNEWALD GRANARY (1915) SW4 SECTION 11-T20N-R19W MUTUAL	
782	GERALD COOPER BARN (CA. 1900) SE4 SECTION 5-T20N-R18W MUTUAL	
783	783 (CA. 1900) NW4 SECTION 8-T20N-R18W MUTUAL	
785	785 (CA. 1900) SE4 SECTION 16-T20N-R18W MUTUAL	
787	787 (1916) NE4 SECTION 36-T22N-R20W WOODWARD	

XI. NATIONAL REGISTER ELIGIBLE PROPERTIES

During the course of the Thematic Survey of Historic Barns in Northwestern Oklahoma, some 16 properties were identified as eligible for listing in the National Register of Historic Places. For a resource to be National Register eligible, it had to meet both of the following criteria:

1. The resource must be at least 50 years of age;
2. The resource must retain its historical and architectural integrity, meaning that it must not have been relocated or significantly altered from its original form.

Resources that retained their integrity were classified as National Register eligible, since they met at least one of the following Criteria for Evaluation:

- A. Association with events that have made a significant contribution to the broad patterns of our history;
- B. Association with the lives of significant persons in or past;
- C. Embodiment of distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
- D. Have yielded or may be likely to yield, information important in history or prehistory.

All resources classified as National Register Eligible were determined as such under Criterion A. They retained their integrity and were intricately associated with the historically and architecturally significant events described in the Historical Context section of this report since they were part of the agricultural history of the southern Great Plains. Resources that did not retain their integrity, and were therefore ineligible for individual listing, were classified as “warranting further study” for possible inclusion as contributing resources to potential historic districts.

Historic barn properties in Northwestern Oklahoma that are eligible for listing in the National Register of Historic Places are set out below.



#454 Karber Dairy Barn (1924)

Beaver County, Balko vicinity

40' X 30' GOTHIC-ARCHED ROOF, HORIZONTAL WOOD-CLAD DAIRY BARN
BUILT BY GERMAN MENNONITES FROM KANSAS



#720 (ca. 1900)

Ellis County, Arnett vicinity

LARGE (50' X 30') GABLE ROOF, HORIZONTAL BOARD-CLAD BARN WITH NO KNOWN PROTOTYPE



#640

Garfield County, Covington vicinity

LARGE (65' X 55') BROKEN GABLE ROOF, VERTICAL BOARD-CLAD FEEDER
BARN



#733 Al Mae Moore Barn (ca. 1895)

Grant County, Lamont vicinity

40' X 70' GAMBREL ROOF, WEATHERBOARD-CLAD FEEDER BARN
FOLLOWING TRANSVERSE-CRIB BARN FLOORPLAN WITH ADDITIONAL
SHED ROOF TRANSVERSE-CRIB BARN ADDITION; HAS SLIDING HAYMOW
DOOR AND RARE SILO



#505 J. P. "Jeptha" Tipton West Barn (ca. 1910)

Kay County, Newkirk vicinity

40' X 36' LIMESTONE BARN WITH A GAMBREL ROOF AND HAY HOOD; HAS
HUGE LIMESTONE "SILVERDALE STONE" BLOCKS QUARRIED LOCALLY



#510 Bennie Aupperle Dairy Barn (1936)

Kay County, Newkirk vicinity

45' X 32' GAMBREL ROOF, HORIZONTAL WOOD-CLAD DAIRY BARN



#529 George Tarpenning Barn (ca. 1920)

Kay County, Blackwell vicinity

40' X 70' GABLE ROOF, HORIZONTAL WOOD-CLAD BARN WITH FLANKING SHEDS



#541 (ca. 1910)

Kay County, Newkirk vicinity

40' X 30' GABLE ROOF, LIMESTONE (SILVERDALE STONE)-CLAD BARN



#542 (ca. 1910)

Kay County, Newkirk vicinity

45' X 35' GABLE ROOF, VERTICAL WOOD-CLAD, GABLE-END BANK BARN



#543 Mollett Barn (1907)

Kay County, Newkirk vicinity

40' X 20' GABLE ROOF, LIMESTONE (SILVERDALE STONE)-CLAD BARN WITH
A THREE-BAY BARN FLOOR PLAN



#682 (ca. 1900)

Kay County, Braman vicinity

50' X 35' GAMBREL ROOF, WEATHERBOARD-CLAD BARN CONFORMING TO "APPALACHIAN" PLAN; HAS UNIQUE CUPOLA VENT AND HAYMOW DOORS



#554 C. V. Field Barn (1944)

Noble County, Morrison vicinity

50' X 40' GAMBREL ROOF, NATIVE SANDSTONE-CLAD HAY BARN WITH MILKING STANCHIONS ON WEST EAVE WALL AND EAST FLANKING SHED; RAILROAD TIES USED IN INTERIOR



#571 Max Schaefer Barn (1898)

Noble County, Perry vicinity

60' X 30' GABLE ROOF, NATIVE SANDSTONE AND HORIZONTAL BOARD-CLAD GRUNDSHEIER BUILT BY MENNONITES FROM CENTRAL KANSAS FOLLOWING THE 1893 LAND RUN



#819 Schultz/Neal Stone Barn (1941)

Noble County, Red Rock vicinity

160' X 98' GOTHIC-ARCHED ROOF, NATIVE SANDSTONE-CLAD BARN WITH
CENTRAL AISLE AND NO HAY MOW



#791 Elmer Baker Barn (ca. 1900)

Texas County, Hooker vicinity

TALL 40' X 35' GAMBREL ROOF, WEATHERBOARD-CLAD FEEDER BARN
CONFORMING TO A TRANSVERSE-CRIB BARN FLOORPLAN



#792 James Hill Barn (ca. 1920)

Texas County, Hooker vicinity

50' X 30' GAMBREL ROOF, WEATHERBOARD-CLAD, METAL-COVERED
FEEDER BARN CONFORMING TO A TRANSVERSE-CRIB BARN FLOORPLAN



#787 (1916)

Woodward County, Woodward vicinity

60' X 35' THREE-LEVEL, GAMBREL ROOF, VERTICAL BOARD- AND CLAY
BLOCK-CLAD BANK BARN WITH A GABLE-END SHED AND GABLED
CUPOLA VENTILATOR

XII. HISTORIC CONTEXT

Abstract

The oldest barns in the study area were built after 1895 and are generally simple gable and gambrel roof barns of early settlers who engaged in mixed farming. The heyday of large feeder barn construction in Management Regions One and Two occurred later, between 1905 and 1930. The larger feeder barns were built mostly after statehood as winter wheat and dairy production intensified. Wheat farmers built barns that could shelter valuable work stock, fodder, feed, and cash grain. Tractors became available in 1925 and replaced work animals within about a decade. Depression, drought, and mechanization during the 1930s led to a substantial outmigration and decline in barn construction. After 1940 modernization and a transition to beef production had outmoded traditional barns that sheltered horses, hay, feed, and cash grain under the same roof. Modernization encouraged construction of specialized buildings such as machine sheds, pole barns for baled hay, granaries for feed, and sanitary milking parlors. Whenever possible, traditional pre-1940 barns were converted to provide storage of equipment and baled hay. The widespread adoption of using large round bales during the 1980s ended the usefulness of many barns that could not be converted for hay storage. In 2011 few pre-1940 barns in the study area were being used for more than storage or cattle loafing sheds, and many were completely abandoned. Having lost almost all of their functions, the historic barns of Management Regions One and Two tend to languish in disrepair, dereliction, and ruin.

This historic context surveys historical trends and changes relevant to barns in the two OK/SHPO historical component management regions that compose northwestern Oklahoma. These are Management Region 1, which includes the three counties of the Oklahoma Panhandle (Beaver, Cimarron, and Texas), and Management Region 2, which includes the 10 counties of the former Cherokee Outlet (Alfalfa, Ellis, Garfield, Grant, Harper, Kay, Major, Noble, Woods, and Woodward). This area is roughly bounded on the east by the 97th Meridian, on the south by the historic 36° 30" parallel, on the north by the 37th Parallel and on the west by the 103rd Meridian. The size of the study area is 16,300 square miles and composes the northwestern quarter of the State of Oklahoma.

At the local scale there is wide variation in the topography in the study area, which spans seven different geomorphic provinces. These are the High Plains, the Central Red-Bed Plains, the Western Sand-Dune Belts, the Western Sandstone Hills, the Cimarron Gypsum Hills, the Cimarron River Valley, and the Northern Limestone Cuesta Plains. The most level areas of land are found in parts of the Central Red-Bed Plains in the east and the High Plains, especially in Texas County. This flat terrain attracted intensive farm settlement, especially after mechanization commenced. A majority of the land in the study area is part of the Central Red-Bed Plains and the High Plains, which are flat to moderately rolling and very well-suited to cultivation. The geomorphic provinces that tend to be somewhat hilly include the Western Sand-Dune Belts, the Cimarron Gypsum Hills, and the Northern Limestone Cuesta Plains, and cultivation is less intensive in the sandy zones of these areas. The Cimarron River Valley around Black Mesa and parts of the Western Sandstone Hills are the only areas of rugged terrain and very little cultivation. Stabilized dune zones—avoided by

farmers—takes up much of the study area along the Salt Fork, North Canadian, and Cimarron valleys in the central counties of the study area.¹

In terms of climate, the study area is located along the western boundary of the humid subtropical (Cfa) climate where it transitions to the semiarid steppe climate (BSk). Annual precipitation in the study area ranges from a humid 34 inches in eastern Kay County to a semiarid low of 15 inches in western Cimarron County. Natural vegetation ranges from tall grass prairie, Cross Timbers woodland, and riparian forests in the east, to semi-arid short grass prairie and xerophytic plant associations in the west. The longest average growing season, 210 days is found in Noble County in the east, while the shortest growing season, 175 days, is found in Cimarron County in the western Panhandle. The difference in the average dates of the first and last freezes of each season is about 2-3 weeks between Noble County and Cimarron County. Generally, the farther west a location in the Panhandle, the greater the extremes of climate. Winters are colder and snowier, and summers are drier.²

Except for the zones where sand dominates, most of the study area contains very good soil quality. Mollisols, Alfisols, and Inceptisols are the most common soil orders. Mollisols and Alfisols are most abundant in the Panhandle. The Panhandle also contains some less-developed, light-colored Aridisols.³

Water resources are varied in the study area. Tributaries of the Arkansas River drain the region. Black Bear Creek drains Noble and Garfield Counties. The Salt Fork of the Arkansas drains Alfalfa, Grant, and Kay Counties. The Cimarron River drains parts of Cimarron, Harper, Woods, Woodward, and Major Counties. The Panhandle is generally drained by the North Canadian River, which is locally referred to as the Beaver River or Beaver Creek. Subsurface salts combined with a subhumid climate make for surface waters

that have a high salt content and are mostly unsuitable for irrigation. In the eastern half of Management Region 2, therefore, dryland farming predominates. Cattle ranching is the primary land use in a sandier zone extending from central Alfalfa County to Beaver County. While surface water resources are deficient in the Panhandle, Management Region 1 contains an abundance of ground water in the Ogallala Aquifer, which has been utilized since the early 1960s and today completely dominates agriculture in Texas County.⁴

The political geography of the entire study area (Management Regions 1 and 2) took shape mostly during the nineteenth century. In 1800 the Treaty of San Ildefonso transferred Louisiana—including what would become Oklahoma—from Spain to France. It became a part of the United States after Jefferson's purchase of Louisiana 1803.

The political geography of Management Region 1, the Oklahoma Panhandle, is international and complicated. The area returned to Spain in 1819 when the Adams-Onís Treaty defined international boundaries. After the 1821 Mexican Revolution, the area became part of Mexican Texas. Texans won their independence in 1836, and so it was part of the Texas Republic until Texas was annexed by the United States in 1845.⁵

The Compromise of 1850, which defined the boundaries of surrounding slave states, required Texas to relinquish Management Region 1 to the United States public domain. Since the southern boundaries of Kansas and Colorado were set at 37°N, the 103rd Meridian became the boundary between Texas and New Mexico Territory. Thus by 1850 Management Region 1 was surrounded by states but not located within any one state. During the 1870s the region began appearing on maps as the "Public Land Strip" and "No Man's Land," since homesteaders could not claim land in the land office of any state.⁶

In 1885, settlers in the Public Land Strip organized with the idea of getting their land claims recognized by the federal government. They named delegates and proposed Congress to recognize the region as “Cimarron Territory,” but the idea was never supported in Washington. In 1890, the Oklahoma Organic Act appended the Public Land Strip to Oklahoma Territory as Beaver County. This at last allowed homesteaders to file formal claims to the land they occupied. The land office was designated at Beaver City, which was designated as the county seat during the territorial era.⁷

The political geography of Management Region 2, the Cherokee Outlet region, is intertwined with the story of Indian Territory. The 1835 Treaty of New Echota defined the Cherokee Outlet as a permanent hunting ground for the Cherokees. In fact this strip reached to the international boundary to guarantee to the Cherokees that they would not be engulfed by the United States. The Cherokees never settled the Outlet, and after the Civil War they lost control over it as reparations for cooperating with the Confederacy.⁸

The 1866 Cherokee reconstruction treaty further required the tribe to allow the United States to resettle Indian tribes on reservations west of the 96th Meridian. Between 1870 and 1881 the government established six reservations there, four of which are located in what would become Kay and Noble Counties.⁹

The government established the Kansa Reservation east of the Arkansas River in the northeast corner of Kay County in 1872. To the southwest it created three contiguous reservations: the Nez Perce (1878), the Oto and Missouri (1881), and the Ponca (1881). The Nez Perce were eventually freed and returned to their Pacific Northwest homeland in 1885 before the government replaced them with some Texas Tonkawas a few months later. Of the four reservations, three (Kaw, Oto-Missouri, and Ponca) continued as such until they were

allotted 1904-1906. This is significant, as these three reservations were held out of settlement into the statehood era. The Tonkawa Reservation, however, was allotted in 1891. The remaining “surplus lands” not allotted to individual Indians was opened to non-Indians later that year. As such, white settlement in the Tonkawa area got a two-year head start on the rest of Management Region 2.¹⁰

Geography made the Cherokee Outlet a major cattle country from 1866 to 1888. Cattle drives between Texas and the Kansas brought hundreds of cattlemen to the area. By the early 1880s Kansas cattlemen were leasing ranches from the tribe, and this culminated in the creation in 1883 of a ranching syndicate, the Cherokee Strip Livestock Association, which leased the entire area for five years. The arrangement provided ranchers cheap land, the tribe needed money, and it blocked the Boomer movement legally. But by 1888 the Boomers got the political upper hand and convinced President Harrison to stop a second lease, and the government evicted the ranchers.¹¹

To the south, events culminated to open the Unassigned Lands by a land run on April 22, 1889, but this did not satisfy the demand for the Outlet lands near Kansas. Farmers consistently pressured for their opening, and Congress passed the Oklahoma Organic Act on May 2, 1890. The Organic Act, which created Oklahoma Territory, laid out a plan for settlement. The general public would retain two sections in each township to be leased for public schools, and it defined public rights-of-way between sections for county roads.¹²

In late 1891 the Jerome Commission finalized the purchase of the Cherokee Outlet and began the process of allotting the Tonkawa reservation. In what would be the largest and most chaotic land opening in U.S. history, Congress opened the Cherokee Outlet to 115,000 homesteaders on September 16, 1893. Farm settlement began that day, but recession and

drought confounded permanent settlement for several years. After the Outlet run, the territorial legislature began the task of organizing the area into six counties (county seats in parentheses): Kay (Newkirk), Noble (Perry), Grant (Pond Creek), Garfield (Enid), Woods (Alva), and Woodward (Woodward).¹³

The history of the political development of the study area concluded in 1906 with the Oklahoma Constitutional Convention. Eighteen of the 55 Oklahoma Territorial delegates came from Management Regions 1 and 2. That year Congress passed the Oklahoma Enabling Act to allow Indian Territory and Oklahoma Territory to enter the union as a single state the following year.¹⁴

The new state legislature set out to make counties more efficient and subdivided the larger ones. These included “Old Beaver County” (Management Region #1), which was cut into the three counties along township lines near the 101st and 102nd Meridians: Beaver, Texas, and Cimarron. In the former Cherokee Outlet (Management Region #2), the two large counties of Woods and Woodward were partitioned. Woodward County was divided into Woodward and Harper Counties and parts were moved to western Woods and northern Ellis Counties. Woods County was partitioned into Alfalfa, Woods, and western Major Counties. In the extreme northeastern corner of the Outlet, the Kaw Reservation and the northern half of the Ponca Reservation were appended to Kay County. The southern half of the Ponca Reservation and all of the Oto-Missouri reservation were appended to Noble County.¹⁵

Perhaps the Panhandle region was both the earliest and last section of Oklahoma to be settled by Europeans. During its period under Spanish and Mexican authority, the westernmost part, Cimarron County, was occupied by a small number of Hispano

sheepherders, but they apparently withdrew from the area by midcentury. The next period of settlement was much more pronounced and from came from the east.¹⁶

The 1885 ruling by the United States Supreme Court that the Cherokee Outlet did not extend beyond the 100th Meridian initiated farm settlement of the Oklahoma Panhandle by Anglo-Americans. Settlers, mostly from Kansas, began to arrive that year. Even though the area had not been surveyed, many congregated just west of the 100th Meridian where the Jones and Plummer cattle trail forded the Beaver River at Beaver City. By 1888 some 15,000 settlers occupied the Panhandle, mostly in what is today the eastern half of Beaver County. Such squatting was not unusual on the Great Plains or earlier frontiers; U.S. public land law had for much of the century recognized to some degree the claims of preemptive settlers. They are reputed to have surveyed the area themselves as best as possible. Individual claims were riparian, oriented so that each claim had access to one of the surprisingly high-quality tributaries that feed the Beaver River.¹⁷

Despite the fact that many of Panhandle towns trace their founding to this period, these settlements were incredibly far-flung outposts, with no transport connections and few services. Settlers arriving to the Panhandle in 1885 had only one decent year to produce a subsistence crop of corn before the region entered a severe drought. After the drought and heat of 1887 followed the infamous winter of 1887-88, which decimated cattle herds across the Great Plains. A lack of timber kept most settlers holed up in cold, dank sod houses or earthen dugouts. When word arrived that the federal government planned to open the Unassigned Lands, more than three-quarters of the population abandoned their claims and headed east. Relinquishments were heartily taken up by the 3,000 or so who remained into the 1890s.¹⁸

The region was finally surveyed in 1890 when it became Beaver County, Oklahoma Territory, but this time no one rushed in. Distance, more than anything, hindered farming in this huge, brutal country. The Panhandle's only railroad access between 1890 and 1901 was to the north at Liberal, Kansas. There was a station at Englewood, northeast of present Gate, but farm settlement was completely inhibited there because of the Cimarron. The predominance of ranching was made apparent when the Rock Island built a stock loading facility at Tyrone, just across the boundary from Liberal. The preemptors who stayed in the Panhandle after 1889 received up to three years' credit toward their quarter sections and got title after only two years of residency. Most who filed claims after 1890 were ranchers and the their cowhands. Significant farm settlement had to wait for rail access.¹⁹

In 1901 the Rock Island Railroad proceeded southwestward from Liberal, across present-day central Texas County. Settlers immediately leapfrogged the rougher country between the 100th and 101st Meridians to claim tracts along a 20-mile-wide swath of the pancake-flat tablelands through which the railroad crossed. Businesses clustered at regularly-spaced stations at Tyrone, Hooker, Guymon, Goodwell, and Texhoma within weeks. Farmers arrived, mostly from Kansas. The rest of the story of railroad development is continued in a separate section below.²⁰

The history of railroad construction in the study area is very important to any understanding of the pattern of farm settlement, and subsequently the pattern of barns on those farms. Without railroad access, farms were necessarily self-sufficient and unspecialized. The earliest settlers were, as a rule, non-specialists whose success depended on their tenacity and flexibility. Farmers settling more than 10 miles from a railroad wagered

that a line would eventually build through and provide cheap access to markets and the opportunity to specialization and realize economies of scale.²¹

Before the availability of trucks, large grain elevators, and good roads in the 1920s, specialization in cash grain production was railway-dependent. Profitability required farms to be located near a loading station; the profitability of farms producing bulky grain crops declined rapidly beyond this critical distance. The result was an uneven pattern of development, with profitable farms near railroad lines and isolated farms remaining unspecialized and self-sufficient.²²

Market accessibility promoted capitalization and innovation. Enid, in Garfield County, found itself particularly favored by the railroads, and by 1904 it had rail connections far superior to any other town in the study area. Within two decades, large farms specializing in winter wheat production had concentrated within a fifty-mile radius of Enid. Eventually, the superabundance of wheat produced in the Enid area attracted entrepreneurs who established the region's largest grain storage operations. But before Enid's landmark concrete elevator complexes were built, grain had to be stored locally in country grain elevators. Dozens of what must have been hundreds of these survive in the Garfield County area, and they supported a thriving flour milling and baking industry during the first half of the twentieth century, long before the establishment of the area's other industries. An intensive level survey of Garfield County's country grain elevators is needed to document the significant surviving examples of country grain elevators.²³

Railroad construction in the study area took place in three distinct periods. These include the brief period of mainline construction (1887-1890), a six-year period in which the

regional rail network was essentially completed (1899-1905), and a long, post-automobile period (1912-1937) of ephemeral construction of unsuccessful railroads.²⁴

The first period of rail construction lasted only from 1887-1890 and involved only three mainline railroads through the Cherokee Outlet. These mainline railroads crossed through the yet-unopened Cherokee Outlet to connect the Unassigned Lands to the national rail system. When the Outlet opened in 1893, these lines attracted settlers like magnets. All the major towns (Ponca City, Perry, Medford, Enid, Alva, Waynoka, Woodward, and Shattuck) got started astride one of these early mainlines.²⁵

The period immediately following the run were desperate years in the Outlet, and many who made the run did not stay long. The Panic of 1893 and the four-year recession that followed slowed development. The pain was compounded by a severe drought that parked itself on the central and southern Great Plains for the better part of the decade. Railroad construction halted as farmers abandoned their claims for greener regions. Eventually, in 1898 the rains returned and the economy rebounded, but progress in northern Oklahoma Territory had taken a half-decade hiatus and settlement mostly clung to zones around the mainline towns.²⁶

This probability of finding the oldest barn specimens in the study area is greatest within a 20-mile swath along the early mainlines, and especially within the hinterlands of their towns. The oldest barns are to be found surrounding the largest towns, such as Ponca City, Perry, Medford, Enid, Alva, Waynoka, Woodward, and Shattuck, but also the dozens of smaller centers located along the mainline railways. The probability of locating pre-statehood barns is higher eastward of the 98th Meridian, where annual precipitation and population densities are higher.²⁷

The second period of railroad construction (1899-1905) followed during the moist, halcyon years following the turn of the century. Most of the railroad system in Management Region #2 (Cherokee Outlet) was completed during this time as smaller railways expanded into the new wheat lands of Oklahoma Territory. They were in the business of investing huge amounts of capital to haul freight over the long term, so establishing successful farming regions was their top priority.²⁸

As John C. Hudson has documented, to hedge their success the railroad companies spent much to plat towns, get town lots into the hands of merchants, and even recruit and assist the migration of farm families from Europe and Russia. While there was never much of a need in Oklahoma Territory to recruit foreigners, plenty came by their own volition from earlier destinations in Kansas and Nebraska. In terms of the study area's developing railroad system, the first decade of the twentieth century was one of in-filling and maturation, when most of the towns were established. Indeed, Oklahoma Territory was one of the few places on the Great Plains where settlers sometimes arrived to the frontier by passenger rail.²⁹

Certainly not every town survived, but those that did survive did in part because the farm settlement surrounding them intensified. Census figures demonstrate that, for most counties in the study area, populations reached their maximum by 1910 or shortly afterward.³⁰

The earliest railroad to cross through Management Region #1 (Panhandle) arrived during this period (1902) and directed settlement to Guymon and Hooker in Texas County. Building out of Liberal, Kansas, the Chicago, Rock Island and Pacific Railway made a beeline southwest toward Texas. Hooker, Guymon, and Goodwell were all platted in 1904

shortly after continuous service began. No other part of Management Region #1 would become connected by rail during the period.³¹

A long but rather insignificant period of rail construction lasted from 1912 to 1937. Railroad development during this period was ephemeral and ultimately unsustainable. The only construction during 1912 involved the Wichita Falls and Northwestern Railway, which connected north Texas with western Oklahoma and the eastern half of Beaver County in the Panhandle. Laverne, Buffalo, Boise City, and a host of smaller locales would be created or boosted by these projects. Many more would never gain enough settlers to incorporate.³²

The only other lines built came after 1924. Almost all of these were projects located west of the 99th Meridian, and all would eventually fail. Railroad construction ended once farmers began to rely more on their automobiles and trucks during the 1920s and roads were improved during the 1930s. After 1930, the internal combustion engine—for transportation as well as farm power—initiated a trend of directing rural farm populations to towns and cities.³³

Cultural geographers have shown that the people who settled northwest Oklahoma brought a Midwestern cultural distinctiveness to their quarter of the state. Northwestern Oklahoma has consistently differed from the rest of the state in terms of race and ethnicity, linguistics, religion, and political party affiliation and voting patterns. The Midwesterners who settled the region also had much experience with intensive, commercial agriculture that included a rich tradition of building barns.³⁴

Racially, northwest Oklahoma is the most Euro-American region of the state. Other than parts of Kay and Noble Counties, most of the Outlet was not a region of Native American settlement and the Panhandle was never part of Indian Territory. Settlement of the

Cherokee Outlet took place astride the idea that Indian title had been extinguished by executive order, so very little of the area was allotted to individual Indians, restricted, and thus withheld from the market economy. In 1893 the three small clusters of American Indians found themselves quickly surrounded by white farm families from the Middle West. Throughout most of the twentieth century, northwest Oklahoma remained overwhelmingly the whitest region of the state.³⁵

Management Region #1 and Management Region #2 were not settled at the same time, but the sources of their populations were very similar. Most settlers arrived from Kansas or the states bordering Kansas. Racially, northwest Oklahoma has always been the state's least-diverse region, since few minorities participated in the 1885 rush into No Man's Land or the 1893 run into the Cherokee Outlet.³⁶

In 2000, the region's total Native American population was 7,029. Of this total, 81% lived in Garfield, Kay, and Noble Counties. Most of the study area's Native American population is urban or living in the former reservation areas in Kay and Noble Counties.³⁷

Very few African Americans have ever lived in the study area. Most migrated to urban centers later in the century, especially Enid and Ponca City, for industrial employment. In 2000, the region's total African American population was 3,799 or 1.9 percent of the total population. Of these, 2,745 (72%) lived in Garfield and Kay Counties where Enid's Vance Air Force Base is located and most of the study area's milling and petroleum refining was concentrated. In 2000, the census recorded only four African Americans in Grant County, two in Ellis County, and one in Harper County.³⁸

The legacy of Hispanic influence on barns in the study area is very limited, but possible. Historic Spanish (Hispano) contributions are limited to the Panhandle, and

essentially Cimarron County, where a handful of New Mexican shepherders settled during the early 1800s along the Santa Fe Trail's Cimarron Cutoff route. One material connection to this group is the large stone barn at Kenton. Although the barn was built around 1900, it is located on a much earlier (1826) New Mexican homestead. The large Hispanic population in the study area today is the result of a modern migration stream that began around 1990. This largely Mexican migration stream focused on Texas County and neighboring food processing districts. In terms of size, it is a significant population—over half the population of Guymon was Hispanic by 2010—but not one that is relevant to historic barns in the area.³⁹

Whites may make up large majorities in most every community of Northwest Oklahoma, but not all are Anglo-Americans. An important regional characteristic is the large proportion of the total population who trace their ancestry to western and central Europe, from where barn construction may have diffused to Oklahoma.⁴⁰

Culturally, the people of northwest and north-central Oklahoma differ from the rest of the state. This is a region where the Southern dialect fades into the plain speech of the West. People in northwestern Oklahoma have higher church membership rates than any other part of the state and the diversity of denominations is high. Mainline Protestant denominations are more common in north-central and northwestern Oklahoma than anywhere else in the state. In fact, the region contains the only three counties in the state—Grant, Alfalfa, and Woods Counties—in which Mainline Protestants outnumber Evangelical Protestants. But perhaps the greatest and most enduring cultural trait of the descendants of the settlers of the Panhandle and Cherokee Outlet is their conservative political orientation. The region has been, since territorial days, affiliated with the Republican Party. Republican Party affiliation

is somewhat weaker in the Panhandle than in the former Outlet; it is strongest in Major County.⁴¹

According to the 1910 census, the largest foreign-born group in Oklahoma were Germans, Germans from Russia, and Germans from Bohemia in what is today the Czech Republic. Significantly, the most common ethnic identity in northwest Oklahoma remains ethnic German. Researchers have documented that the majority of Oklahoma settlers of German ethnic heritage were either seasoned immigrants who had arrived to other Midwestern states years earlier or they were the children of earlier immigrants. Most of these Germans, Germans from Russia, and Bohemians came from Kansas and Nebraska, although some of the Volga Germans in the Shattuck vicinity did arrive late from Russia. All German groups were reputed to be good wheat farmers, especially the Germans from Russia, who are credited with introducing hard Turkey Red winter wheat to Kansas during the 1870s. The presence of these German groups begs the question of their likelihood to have introduced various European ethnic barn traditions to the study area, but several factors specific to Oklahoma's settlement make this unlikely.⁴²

First is the fact that most ethnic groups arrived after years, perhaps even decades, of life in the Anglo-American-dominated Middle West and Great Plains. Older ethnic building traditions, even if they were retained in the minds of immigrants, may not have survived the increasingly commercialized grain farming economy, where adoption of the latest technologies took precedence over cultural sentimentality.⁴³

Second, by the time the study area was settled, modern balloon-frame construction techniques were standard practice. Balloon-frame techniques greatly increased barn size and functionality while lowering construction costs. By the time the study area was settled,

agricultural colleges throughout the Middle West were distributing modern barn plans and manufacturers like Sears in Chicago were selling barn construction kits that could be delivered by rail.⁴⁴

Third, access to rail transport generally preceded settlement in the study area, which promoted the use of commercially-produced lumber and outmoded the use of local materials. An exception to this rule is the local use, where it was available, of high-quality stone. The many barns utilizing Silverdale limestone in northeastern Kay County provide the best examples of this exception; the use of native sandstone within the Czech area of Noble County might result from the availability of the resource and an ethnic tendency.⁴⁵

A fourth important factor that discouraged the survival of ethnic building traditions in the study area relates to the way in which settlement occurred. Elsewhere in the Middle West and Great Plains, rural ethnic islands emerged in two ways. Ethnic islands sometimes developed gradually through the process of chain migration in which families immigrated to new communities over several years. The other process, which was less common, involved migrations of existing ethnic communities en masse to a new location. The Outlet land run, however, inhibited these processes in 1893. The run shuffled settlers of all backgrounds and origins across the landscape so that no one group could dominate in any location. The few groups with known settlement clusters—the Volga Germans of Shattuck, the Mennonites of eastern Major County, and the Czechs in Noble County—all arrived well after the 1893 run. These groups arrived to areas as secondary settlers among existing native-born Americans, and their need to conform and succeed to local tried and tested patterns of doing things likely extinguished most of their proclivities to retain older cultural habits.⁴⁶

In terms of contemporary agricultural land use, Management Regions One and Two occupy a transition zone between a mix of hay meadow, cattle ranching, and dry farming in Kay and Noble Counties in the east, to a region of ranching and center-pivot irrigation-dependent farming in the Panhandle. The eastern one-third of the study area is the most intensively farmed part of the study area. Historically, the eastern one-third of the study area is the oldest and most productive wheat farming section of the state. While the middle one-third of the study area (Harper, Ellis, Woodward, Woods, and western Major Counties) also has a legacy of producing small grains, it was put into cultivation much later than the eastern third, mostly after the onset of agricultural mechanization (and after the most important period of barn construction). Cimarron County, in the western one-third of the panhandle, remains today almost entirely ranch country, and contains very few barns. The pattern and timing of land use within the study area greatly affect the type of barns that exist and survive today. The following is a chronological description of the period most significant to the construction of barns.⁴⁷

The earliest attempts at commercial agriculture in the study area took place on the Ponca, Oto-Missouri, and Kaw reservations before the 1893 Outlet land run. It was U.S. Indian Office policy to hire experienced farmers to live and manage demonstration farms on the reservations. The demonstration farms were intended to tutor Native American men in the agricultural arts, provide a source of employment for Native people, and to assist production of the reservation food supply. Some Native people took European-style farming to heart, but distance to market kept their small parcels uneconomic. Native men were more interested in stock raising and a few worked as freighters between the reservation farms and the railhead at Arkansas City, Kansas.⁴⁸

Following the 1883 eviction of ranchers from the Cherokee Outlet, a few ranchers moved their operations to the hardscrabble lands of the Kaw reservation. After the 1893 Outlet opening the Kaw tract remained closed to fee-simple white settlement until around the time of statehood. Since allotted land could not be sold, the reservation remained, like many Indian reservations, undeveloped for many years.⁴⁹

The excellent prairie lands of the Ponca and Oto-Missouri reservations remained sparsely settled for a different reason. When ranchers were expelled from the Cherokee Outlet in the early 1880s, George Washington Miller, a rancher from Kentucky, moved his lease to the Ponca reservation. Miller named his 5,000-acre spread the 101 Ranch, although he immediately began to invest in farming as much as ranching. Miller was a successful capitalist and agricultural innovator, and he is credited—along with the railroads—with introducing Turkey red winter wheat into north central Oklahoma sometime after the 1893 run. The new strain undoubtedly led to Kay County's spectacular 1897 wheat crop, which was the largest that year of any county in the United States. While the 101 Ranch is better known for its wild west show, it was a good example of a bonanza farm that experimented with large-scale farming technologies, particularly those involving large machines. Miller died in 1903, but his sons continued expanding the operation into the 1920s. After statehood the farm employed over 200 men and had over 300 workhorses, including many barns. The 101 Ranch expanded to hold much of the area of Kay and Noble Counties out of settlement into the 1930s, before it was subdivided and leased. This survey was able to locate only one barn near 101 Ranch headquarters.⁵⁰

Outside the Indian lands, the excellent prairies of the eastern Cherokee Outlet attracted many settlers well before the rail system had matured. The earliest farms were

unspecialized “general farming” operations that produced wheat, corn, sorghum, oats, alfalfa hay, and broomcorn. Farmers usually kept a few dairy cattle and hogs, skimming cream for butter, a cash crop, and feeding the skim milk to the hogs, which provided most the meat for the farm family. Farmers also kept chickens for eggs and meat and supplemented their diets with vegetables and fruit from house gardens and orchards. Some farmers raised broomcorn as an additional cash crop.⁵¹

Commercial agriculture took hold in the Cherokee Outlet during the later 1890s, after the drought ended and commodity prices recovered. This was the time when the winter wheat belt, which had already emerged in Nebraska and Kansas, began to expand south into Oklahoma. The main railroads crossing through the region—the Santa Fe and Rock Island systems—played an important role in establishing the winter wheat system by loaning seed wheat to farmers along their lines. By 1898 the rains had returned and the price of wheat had recovered, setting off an agricultural boom period in the Outlet.⁵²

The rapid expansion of the winter wheat system into north-central Oklahoma brought the primary wave of barn construction to the study area. Farming in the study area was completely dependent upon animal power at this time. Like the tractor would become later, draft horses were among the farmer’s largest investment after land and buildings. Barns served the purpose of sheltering valuable horses, as well as expensive tack, feed grain, and fodder. Barns were often the first construction project of a farmer, preceding even a substantial house.⁵³

Farming had taken off in areas that the railroads had made accessible, but the potential for growth was much larger than actual production until after statehood and after

the railroad network was mature. Of course, it was not statehood that accelerated farm settlement in northwest Oklahoma; it was the global economy.⁵⁴

The study area's great boom in wheat production and barn construction took place between roughly 1905 and 1925. The first part of this boom was the result of settlement maturation, increasing population, and rising scale of farm development. The second half of the boom resulted from skyrocketing commodity prices in response to shortages associated with World War I. The per bushel average price of wheat in 1914 was \$0.83, but by the time the United States entered the war in 1917, the price had risen to \$2.07. Tens of thousands of acres of new lands in the study area were opened in 1916 in response to the federal government's instituting of commodity price controls, which included wheat.⁵⁵

The surge in commodity prices and cultivated land openings between 1915 and 1920 required farmers in the study area to increase their scale of operations, and this often resulted in the construction of larger barns to shelter more horses and more hay. Although tractors had become available by this time, few were built during the war years, and only a tiny proportion of Oklahoma farmers used tractors by 1920. In fact, it has been documented that most farmers were not able to mechanize until after the Second World War.⁵⁶

Population growth came rapidly to the study area before 1930. Settlers came from many source areas in the Middle West, Upland South, and Northeast and quickly populated the new land, bringing new attitudes and cultural tendencies to northern Oklahoma Territory. Agricultural mechanization commenced faster in this part of Oklahoma than any other, and innovators like the Miller Brothers of Kay County experimented with new ideas and aided the expansion of the winter wheat belt into Oklahoma. Eventually, the populations of Kay,

Garfield and Noble Counties, due to their manufacturing bases, rose above the other ten study area counties. Of these ten, eight recorded their maximum populations in 1910.⁵⁷

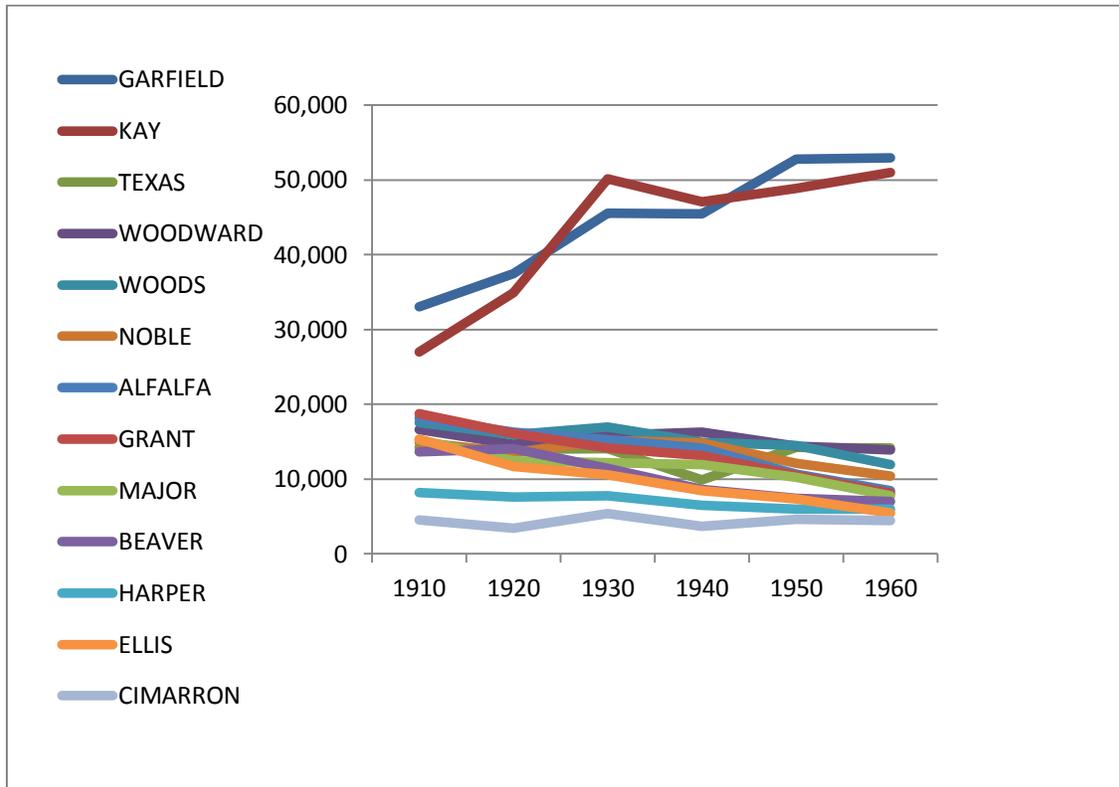


Figure 1. County Population Change in Management Regions 1 and 2, 1910-1960.
Source: U.S. Census, Historical Census Browser, University of Virginia.

This indicates that settlement had been achieved during the first decade of the century, during the second round of railroad construction. The only other counties to record their maximum settlement after 1920 were Beaver and Cimarron Counties in the Panhandle. Beaver reached its peak population during the 1910s and settlement was completed in Cimarron County by 1930. The delay of settlement in the Panhandle is logical, given the semiarid climate and the late arrival of access to transport. Beaver County's short-lived railroads were built in 1912, 1915, and 1925. Cimarron County's rail connections came later than anywhere else in

Oklahoma in 1925, 1931, and 1937. Indeed, it might be more accurate to say that Cimarron County, like other isolated parts of the American West, were settled during the automobile era. All but Kay and Garfield Counties lost population after peaking early in the century.⁵⁸

	<u>1930</u>	<u>1940</u>	<u>1950</u>
CIMARRON	1,204	1,536	1,788
TEXAS	570	820	994
HARPER	494	640	770
BEAVER	511	651	769
ELLIS	448	488	658
WOODWARD	405	492	633
WOODS	364	431	530
MAJOR	268	264	346
GRANT	242	274	310
ALFALFA	223	252	303
NOBLE	226	257	296
GARFIELD	204	223	258
KAY	213	211	243

Figure 2. Average Farm Size by County, 1930-1950. Data ranked by 1950 figures. Ever-enlarging economies of scale associated with mechanization worked to increase the average size of farms over time. The prevalence of cattle ranching over grain farming in the westernmost counties accounts for their relatively large farm size.

XIII. RECOMMENDATIONS

1. A large number of native limestone barns were found in Kay County. Locally this limestone is referred to as Silverdale Stone and is used extensively in Newkirk and Winfield, Kansas to the north. Seven of the 16 National Register-eligible properties recorded are located in Kay County . **An intensive-level survey of barns and other rural properties in Kay County is highly warranted.**

2. **An intensive-level survey of Garfield County’s country grain elevators is warranted.** Such a survey would locate dozens of threatened properties and likely find several eligible for National Register listing.

3. Despite the fact that historic barns are obsolete and survive only by chance on modern farms and ranches, it became quite evident through numerous conversations with residents of the study area that most people *overwhelmingly* consider historic barns to be the most significant components of the rural landscape and would like to preserve their integrity. Many people have strong emotional attachments to these icons of place of heritage, even if they do not own them. However, the surveyor encountered no one who had any idea of how historic barns might be preserved. **Information about incentives and procedures for barn preservation should be better communicated with property owners and preservation groups in the study area.**

4. Despite a pervasive affinity for barns, most people know very little about locations of isolated barns or the individual histories of landmark barns. Younger residents particularly tend to know little about properties near their residences. Data on barn construction and uses before 1960 may only survive in the memories of elderly farmers and ranchers living in the study area. **It is recommended that communication between the OK/SHPO and preservation-minded residents be improved by developing a preservation education outreach program.** Future surveyors should make public presentations in communities to explain the purpose of OK/SHPO data collection, National Register listing procedures, the existence of the OLI, and especially financial incentives for preservation. A “road-ready” PowerPoint presentation with this information could be authored and provided to survey subcontractors and OK/SHPO staff for public presentations in communities where surveys are being conducted.
5. There is no adequate publication that provides a guide to barns and other farm outbuildings and structures relevant to Oklahoma or, for that matter, the Great Plains. **The Oklahoma Historical Society should commission a published field guide to Oklahoma barns for researchers and others interested in barn preservation.** Photographs and OLI data should be utilized to develop the field guide.

XIV. ANNOTATED BIBLIOGRAPHY

Auer, Michael J. "The Preservation of Historic Barns," Preservation Brief #20, National Park Service. < <http://www.nps.gov/history/hps/tps/briefs/brief20.htm> > Last accessed 24 November 2010.

This older website could be updated considerable to reflect better classifications of barns.

Brown, Margaret E. "Homesteading in Roger Mills County: The Wilcox Family." *Chronicles of Oklahoma* 73, no. 2 (1995).

This article describes the dangers of homesteading in the early 1900s. It examines the George Wilcox family, who settled the Snakey Bend area of the South Canadian River in western Roger Mills County. The family lived frugally and relied on unspecialized farming.

Calkins, Charles F. *The Barn as an Element of the Cultural Landscape of North America*. Monticello, IL: Vance Bibliographies, 1979.

This bibliography contains over 100 scholarly sources (articles, monographs and books) written primarily by cultural geographers and folklorists. It is valuable because it lists sources from local and state-scale journals as well as obscure publishers.

Calkins, Charles F., and Martin Perkins. "The Three-Bay Threshing Barn." In *Barns of the Midwest*, edited by Allen G. Noble and Hubert G. H. Wilhelm, 40-61. Athens: Ohio University Press, 1995.

This chapter in the Noble and Wilhelm anthology is the premier source on the three-bay English threshing barn. It describes the basic diagnostic traits and the diffusion of the form into the Great Lakes plains and the Midwest as the wheat belt expanded from New England.

Carlson, Alvar W. "Bibliography on Barns in the United States and Canada." *Pioneer America* 10, no. 1 (1978): 65-71.

This brief bibliography compiled by a cultural geographer was instrumental in encouraging scholars to pursue barn research in the 1980s.

Dieffenbach, Victor C. "Building a Pennsylvania Barn." *Pennsylvania Folklife* 12, (1961): 20-24.

This article chronicles the construction process of a Pennsylvania barn with a bank and a characteristic forebay.

Dornbush, Charles E. *Pennsylvania German Barns*. Allentown, Penn.: German Folklore Society, 1956.

This is a very early attempt to examine the forms and functionality of the many Pennsylvania barn forms.

Durand, Loyal. "Dairy Barns of Southeastern Wisconsin." *Economic Geography* 19, no. 1 (1943): 37-44.

This is an important early work by an historical geographer who spent a career investigating dairy production in the U.S. In this article Durand systematically examines the function of barns as they relate to local production type.

Endersby, Eric, Alexander Greenwood, and David Larkin. *Barn: Preservation & Adaptation*. New York: Universe Publishing, 2003.

This coffee table book examines the barn as an architectural element of romantic, intrinsic interest. Regional variations are discussed, but most of the book examines conversion of barns to contemporary non-farm use.

Endersby, Eric, Alexander Greenwood, David Larkin, and Paul Rocheleau. *Barn: The Art of a Working Building*. Boston, Mass.: Houghton Mifflin, 1992.

Ensminger, Robert F. *The Pennsylvania Barn: Its Origin, Evolution, and Distribution in North America*. Second ed. Baltimore: John Hopkins University Press, 1992.

This revised source is the most important and reliable source on Pennsylvania (forebay) barns to date. Ensminger, a cultural geographer, has spent a career examining the Pennsylvania barn in its numerous varieties. The book details construction characteristics and is chock-full of original maps.

Everheart, Marjorie Bennett. "A History of Blaine County." University of Oklahoma, 1929.

This early thesis provides a glimpse into the pre-Depression settlement patterns in one of the more ethnically-complex counties in the study area.

Foley, Mary Mix. "The American Barn." *Architectural Forum* 95, (1951): 170-77, 214-20.

An early essay and vernacular examination of the barn by the well-known author of *The American House*.

Francaviglia, Richard V. "Western American Barns: Architectural Form and Climatic Considerations." *Yearbook of the Association of Pacific Coast Geographers* 34, (1972): 153-60.

This is an analytical article investigating questions relating to diffusion and the cultural ecology of barn forms in the mountain West. It is one of only a few scholarly studies to examine barns west of the Great Plains.

Glass, Joseph W. *The Pennsylvania Culture Region: A View from the Barn*. Ann Arbor: UMI Research Press, 1986.

This study is both an examination of barn types and an examination of a formal culture region. The author utilizes the Pennsylvania forebay barn type as a diagnostic cultural trait to map and interpret the extent of the greater Pennsylvania folk culture region. His sample size is 530 barns extending from Pennsylvania to Virginia.

Glassie, Henry. "The Old Barns of Appalachia." *Mountain Life & Work* 40, (1965): 21-30.

Glassie was an eclectic, pioneering scholar in the area of landscape interpretation. This article inspired a generation of cultural geographers to classify barn forms emanating from the Upland South. The Transverse-Crib barn type, which is so common in the study area, originated here.

———. *Pattern in the Material Folk Culture of the Eastern United States*. Philadelphia: University of Pennsylvania Press, 1968.

This classic book is Glassie's seminal work on American folklife. In it he examines early American material culture and using examples to show how folk cultural patterns evolve. Among the most important chapters is the one on barns.

———. "The Variations of Concepts within Tradition: Barn Building in Otsego County, New York." *Geoscience and Man* 5, (1974): 177-235.

By far Glassie's most theoretically sophisticated examination of barns, this micro-scale study demonstrates many of the problems inherent in developing classifications of barn types based solely on visual exterior elements such as roof types.

Green, Donald E. "Beginnings of Wheat Culture in Oklahoma." In *Rural Oklahoma*, edited by Donald E. Green, 56-73. Oklahoma City: Oklahoma Historical Society, 1977.

This chapter provides a thorough and accessible summary of the development and expansion of wheat production in Oklahoma, including the role of the barn. The study area overlaps a portion of the historic winter wheat-producing area.

Greiner, Alyson L. "Barns." *Encyclopedia of Oklahoma History & Culture*, <http://digital.library.okstate.edu/encyclopedia/entries/B/BA022.html>.

This brief online article recognizes the fact that Oklahoma is located in the Midland culture region and correctly identifies the state as a destination for migrants from the Midland culture region.

Halberstadt, April. *Farm Memories: An Illustrated History of Rural Life*. Osceola, Wisc.: Motorbooks International Publishers & Wholesalers, 1996.

This trade book is actually very useful for its straightforward descriptions of farm activities (including activities centered on the barn) as well as historic photographs.

Hall, Charles L. "Stone Barns of the Flint Hills." *Kansas Country Living* (A Publication of the Kansas Electric Cooperatives, Inc.) 17, no. 9 (1972): 12-A, 12-D.

An early popular account of the native stone barns of eastern Kansas.

Hanou, John T. *A Round Indiana: Round Barns in the Hoosier State*. West Lafayette: Purdue U. Press, 1993.

This book is devoted to the non-orthogonal barn type. Round barns are perhaps the most visually striking and interesting of barns, yet their actual significance in terms of numbers and functionality is miniscule.

Hart, Arthur A. *Barns of the West: A Vanishing Legacy*. Boise, Idaho: Historic Idaho, Inc., 1996.

This coffee table book contains over 200 photos of from Alaska, Washington, Idaho, Montana, Oregon and California and touches on barn construction, regional features, and addresses why barns are endangered tod

Hart, John Fraser. "Types of Barns in the Eastern United States." *Focus* 43, no. 1 (1993): 8-17.

———. "On the Classification of Barns." *Material Culture* 26, no. 3 (1994): 37-46.

———. *The American Farm: How Farming Shaped the Landscape of America*. New York: Barnes & Noble, 1998.

———. *The Rural Landscape*. Baltimore: Johns Hopkins University Press, 1998.

Professor Hart is a longtime student of barn form throughout the United States. He has conducted fieldwork in the U.S. Southeast, Midwest, and Northeast. He is particularly knowledgeable about barn forms of the Corn Belt. His philosophy on barn classification, which reflects the realism and pragmatism of the American farmer, is to lump them together based on function, not subdivide them into myriad

types based on external characteristics. His works are also respectful of the changing economic conditions of American farming.

Haystead, Ladd, and Gilbert C. Fite. *The Agricultural Regions of the United States*. Norman: University of Oklahoma Press, 1955.

Although now somewhat dated, this is an outstanding regional examination of agricultural economic geography of the United States.

Horsburgh, Patrick. "Barns in Central Illinois." *Landscape* 8, no. Spring (1959): 12-13.

This is an empirical study of Midland barn types in J. B. Jackson's premier journal.

Hromas, Irene. *The Barn Book, Including Pioneer Barns and Other Pioneer Structures*. Enid, Okla.: The Dougherty Press, nd.

This is a locally-published gem and one of the few books on Oklahoma.

Hudson, John C. *Plains Country Towns*. Minneapolis: University of Minnesota Press, 1985.

This intensive historical study of wheat farming in late-nineteenth century North Dakota provides an enormous amount of geographical insight into the interplay of railroads, settlement, and wheat farming.

Isern, Thomas D. *Bull Threshers and Bindlestiffs: Harvesting and Threshing on the North American Plains*. Lawrence: University Press of Kansas, 1990.

This book is a history of wheat harvesting in the North American wheat belt. Isern is a Kansan who grew up in the wheat belt.

Jordan, Terry G. *Texas Log Buildings: A Folk Architecture*. Austin, Texas: University of Texas Press, 1978.

———. *American Log Buildings: An Old World Heritage*. Chapel Hill, N.C.: University of North Carolina Press, 1985.

Jordan-Bychkov, Terry G. "Transverse-Crib Barns, the Upland South, and Pennsylvania Extended." *Material Culture* 30, no. Summer (1998): 5-31.

———. *The Upland South: The Making of An American Folk Region and Landscape*. Santa Fe, N.M.: Center for American Places, 2003.

Professor Jordan-Bychkov probably knew more than any single scholar about European origins, overseas diffusion, and ecological adaptation to the new environment of most types of American vernacular buildings, including barns. Heavily influenced by Fred Kniffen and Henry Glassie, Jordan-Bychkov's major

contribution to barn scholarship is his work on the Transverse-Crib form that developed in the Upland South.

Keitham, Mary. *Michigan's Heritage Barns*. East Lansing: Michigan State University Press, 1999.

This wonderful coffee table book of barn photos was developed during the 1990s and includes good field notes. Non-scholarly, commercially-produced books like these turned out to be some of the very best sources for studying barns in Oklahoma.

Kiefer, Wayne E. "An Agricultural Settlement Complex in Indiana." *Annals of the Association of American Geographers* 62, (1972): 487-506.

This innovative study inventoried farm buildings in a small Midwest study area in order to document the process of agricultural change from general farming to specialized cash grain production. Similar processes took place in the western Oklahoma study area.

Klamkin, Charles. *Barns, Their History, Preservation, and Restoration*. New York: Hawthorne Books, Inc., 1973.

One of the first attempts to examine the American barn and encourage adaptive reuse in the early days of the preservation movement.

Kniffen, Fred B. "Folk Housing: Key to Diffusion." *Annals of the Association of American Geographers* 55, no. 4 (1965): 549-77.

This groundbreaking article is among the most influential works in American cultural geography. It lays out the analytical framework for using empirical data from the built environment to understand regional migration and settlement patterns. It is one of the most-cited articles in the discipline.

Kroeker, Marvin E. "'Die Stillen Im Lande:' Mennonites in the Oklahoma Land Rushes." *Chronicles of Oklahoma* 67, no. 1 (1989).

This excellent article examines Mennonite settlement and homesteading experiences in the study area. It is particularly useful for understanding settlement in Blaine, Washita, and Custer Counties.

Larkin, David. *Farm: The Vernacular Tradition of Working Buildings*. New York: Monacelli Press, 1995.

This photographic work examines European and American cultural traditions, building forms, and ethnic influences that may be seen in agricultural settlements.

Marshall, Howard W. *Folk Architecture in Little Dixie: A Regional Culture in Missouri* 1991.

Using a sample of about 100 folk buildings, this author attempts to define the boundaries of a small vernacular region in southeastern Missouri.

Moffett, Marian, and Lawrence Wodehouse. *East Tennessee Cantilever Barn*. Knoxville: University of Tennessee Press, 1993.

This is a beautifully-done and fascinating book developed from a survey of 316 specimens of a rare type of barn found only in a few parts of southern Appalachia. It is filled with excellent photographs.

Montandon, Carlos Morrison. "A History of Jefferson County." University of Oklahoma, 1939.

This early thesis provides a glimpse into the pre-World War II settlement patterns in one of the most southern of study counties. Photos are included.

Montgomery, Vester. "A History of Washita County." University of Oklahoma, 1929.

This early thesis provides a glimpse into the pre-Depression settlement patterns in one of the more ethnically-complex counties in the study area.

Mook, Maurice A., and John A. Hostettler. "The Amish and Their Land." *Landscape* 6, no. Spring (1957): 21-19.

This is a wonderfully insightful article on Amish and Mennonite agricultural landscapes and settlement tendencies that is relevant to several locales in the study area.

Nall, Gary L. "King Cotton in Oklahoma, 1825-1939." In *Rural Oklahoma*, edited by Donald E. Green, 37-55. Oklahoma City: Oklahoma Historical Society, 1977.

This article is exceptionally useful for understanding the agricultural history of cotton production in southwestern Oklahoma. Cotton was the staple crop for a brief period, yet it had profound impacts on the land and settlement patterns. Areas where cotton dominated tended not to contain many barns other than single-crib types.

Noble, Allen G. "Barns and Square Silos in Northeast Ohio." *Pioneer America* 6, no. July (1974): 12-21.

———. *Wood, Brick, and Stone: The North American Settlement Landscape, Vol. 2: Barns and Farm Structures*. Amherst, Mass.: University of Massachusetts Press, 1984.

Noble, Allen G., and Richard K. Cheek. *The Old Barn Book: A Field Guide to North American Barns and Other Farm Structures*. New Brunswick: Rutgers U. Press, 1995.

This work is intended as a rough field guide to North American barns, but it is most useful for barns constructed east of the Mississippi River. Its utility is not ideal for barns constructed after 1890 and it is minimally useful for the Great Plains. Nevertheless, it is a useful guide to barn elements, such as door placement, hayhood types, and roofs.

Noble, Allen G., and Richard K. Cleek. "Sorting out the Nomenclature of English Barns." *Material Culture* 26, no. 1 (1994): 49-63.

This article provides a detailed, albeit perhaps not that useful, classification of barns related to the Three-Bay Threshing barn variety.

Noble, Allen G., and Victoria Hosler. "A Method for Estimating Distribution of Barn Styles: Indiana as a Case Study." *Geographical Survey* 6, no. July (1977): 14-31.

This is an excellent article outlining an approach that preservationists might use to plan efficient field surveys.

Noble, Allen G., and Gayle A. Seymour. "Distribution of Barn Types in the Northeastern United States." *The Geographical Review* 72, (1982): 155-70.

This academic article lays a foundation for understanding the major barn types found in the New England and Middle Atlantic regions. The region was a secondary source of barn types that diffused to the study area by way of Anglo-American settlers from the Midwest.

Noble, Allen G., and Hubert G.H. Wilhelm, eds. *Barns of the Midwest*. Athens: Ohio U. Press, 1995.

Professor Allen G. Noble has published more works on barns in the United States than any other scholar. A cultural geographer, his works are most useful in studying the eastern United States. Less of his work is relevant to states west of the Mississippi. The Old Barn Book, one of his collaborations with Richard K. Cheek, is a noble attempt to provide a useful field guide for the novice barn hunter, but it contains much overlap and is in places confusing regarding typologies. Noble and his collaborators have been accused of unnecessarily splitting hairs by John Fraser Hart.

Perrin, Richard W. E. "Circle and Polygon in Wisconsin: Early Structures of Unconventional Design." *Wisconsin Magazine of History* 47, no. Autumn (1963): 50-58.

This early popular account examines round and non-orthogonal barn designs. Round barns are idiosyncratic freaks that attract much more attention than they deserve.

According to John Fraser Hart, round barns never became popular with farmers because they rarely functioned as well as conventional barns.

Rader, J. L. "Oklahoma County Histories." *Chronicles of Oklahoma* 20, no. 2 (1942): 1.

Rader provides an early listing of county histories, many of which can only be found in special collections today.

Ragland, Hobart D. "Some History of Grady County and Parr Post Office." *Chronicles of Oklahoma* 27, no. 4 (1949): 2.

This is a short note on early events in Grady County.

Ramsey, Lynda. "End of the Trail: The Barn." *Oklahoma Today*, Sept./Oct. 2009, 34-41.

This well-illustrated essay examines the history and preservation efforts of a selection of barns examined by the author in her Master's thesis.

Ramsey, Lynda L. "Barns of the South Central Red-Bed Plains, 1889-1940." Thesis (MA), University of Oklahoma, 2008.

This thesis examined a selection of barns in a multicounty area focusing on the Central Red Beds Plains of central Oklahoma. Part of the author's study area included Management Region 7. The thesis examines the architecture and history of each barn in great detail.

Ridlen, Suzanne S. "Bank Barns in Cass County, Indiana." *Pioneer America* 4, no. July (1972): 25-43.

This report examines bank barns in a single county resulting from a historic preservation survey. It links architectural form to ethnic diffusion.

Roberts, Warren E. *Log Buildings of Southern Indiana*. Bloomington: Trickster Press, 1996.

This monograph examines folk building traditions and ethnic settlement history of southern Indiana using a database of over 400 log buildings observed over decades of field observation in the region.

Sager, Meta C. "Early Grady County History." *Chronicles of Oklahoma* 17, no. 2 (1939): 5.

This is an early account of Grady County.

Schlebecker, John T. *Whereby We Thrive: A History of American Farming, 1607-1972*. Ames, Iowa: The Iowa State University Press, 1975.

This is a highly valuable, chronologically and regionally-organized source of information regarding agricultural change in the United States. It explains the technological and political reasons for the largest changes in farming for the study period.

Schultz, LeRoy G. *Barns, Stables and Outbuildings: A World Bibliography in English, 1700-1983*. Jefferson, NC: McFarland and Co., 1986.

This is the largest and most extensive bibliography available for barns. It has international breadth, but a huge section includes U.S. sources in historical periodicals. It is an invaluable source for locating popular writings in the late nineteenth and early twentieth century.

Shoemaker, Alfred L., and Don Yoder. *The Pennsylvania Barn*. Lancaster: PA Dutch Folklore Center, 1955.

The Pennsylvania forebay barn has been written about more than any other barn type, and this is the earliest attempt to provide a comprehensive overview of it.

Shortridge, James R. "Kansas Barns in Time and Place." *Kansas History* 22, no. 1 (1999): 2-25.

Shortridge is a cultural geographer who produced this article after a statewide survey of barns for the Kansas SHPO. This account devotes much discussion to the diffusion of Midland forms and especially to construction innovations of the early twentieth century, such as the introduction of prefabricated trusses.

Sloane, Eric. *An Age of Barns*. New York: Funk and Wagnalls, 1967.

Sloane provides an earthy, folklore-filled discussion of barn use and construction in this coffee table publication. It contains black and white illustrations of many North American types.

Smith, Willard Preston. "The Agricultural Development of Kiowa County." Oklahoma State University (OAMC), 1939.

This standard early agricultural history identifies some important patterns in the area northwest of the Wichita Mountains.

Soike, Lowell J. *Without Right Angles: The Round Barns of Iowa*. Iowa City: Penfield Press, 1983.

This is the standard book-length work on round barns in one of the states where they are most common.

———. "Affordable Barns for the Midwest: Beginnings." In *Barns of the Midwest*, edited by Allen G. Noble and Hubert G. H. Wilhelm, 80-98. Athens, Ohio: Ohio University Press, 1995.

This chapter in the Noble and Wilhelm anthology examines the introduction of commercially-manufactured components and the transformation of the barn from a folk building to various standardized designs.

Southward, Claude. "A History of Comanche County." University of Oklahoma, 1929.

This standard early history identifies some important agricultural patterns in the area around Lawton and Fort Sill.

Thollander, Earl. *Barns of California*. San Francisco: California Historical Society, 1974.

———. "California Barns." *California Historical Quarterly* 53, no. Spring (1974): 41-51.

This monograph provides a first approximation of barn types in the Golden State.

Trewartha, Glenn T. "Some Regional Characteristics of American Farmsteads." *Annals of the Association of American Geographers* 38, (1948): 169-225.

This article sampled farmsteads to develop a model of farm building layout and related characteristics for regions of the United States.

Van Ravenswaay, Charles. *The Art & Architecture of German Settlements in Missouri: A Survey of a Vanishing Culture*. Columbia: University of Missouri Press, 1977.

This is a regional monograph of the folk culture and building traditions of the Germans in Missouri.

Visser, Thomas Durant. *A Field Guide to New England Barns and Farm Buildings*. Hanover: University Press of New England, 1997.

Although it does not pertain to the study area, this little field guide is an excellent source of information on barn form, components, and construction. It is filled with excellent photos.

Vlach, John Michael. *Barns*. New York: W. W. Norton & Company, 2003.

This source looks like a coffee table book, but it is probably the best single source on barns in the United States. It is a collection of HABS/HAER photos, organized regionally, which does not over-classify barn types. Excellent!

Warkentin, John. "Mennonite Agricultural Settlements of Southern Manitoba." *The Geographical Review* 49, no. 49 (1959): 342-68.

Welsh, Roger L. "The Nebraska Round Barn." *Journal of Popular Culture* 1, no. Spring (1968): 403-09.

———. "Nebraska's Round Barns." *Nebraska History* 51, no. Spring (1970): 49-92.

Nebraska's best-known folklorist examines the state's collection of round barns.

Whitney, Stephen T. "Round Barns." *Vermont Life* 25, no. Summer (1971): 8-15.

This is one of the earliest sources on round barns. Round barns are the rarest type of barn. They are not as functional as the academics who invented them thought.

Whyte, Bertha Kitchell. "Octagonal Houses and Barns." *Wisconsin Magazine of History* 34, no. Autumn (1950): 42-46.

Some non-orthogonal barns were frequently intended to be used for milking. Many are hexagonal or octagonal in shape. Wisconsin has many because of its important dairy industry.

Wilhelm, Hubert G. H. "The Pennsylvania-Dutch Barn in Southeastern Ohio." *Geoscience and Man* 5, (1974): 155-62.

———. "Amish-Mennonite Barns in Madison County, Ohio: The Persistence of Traditional Form Elements." *Ohio Geographers* 4, no. 1-8 (1976).

———. "Midwestern Barns and Their Germanic Connections." In *Barns of the Midwest*, edited by Allen G. Noble and Hubert G. H. Wilhelm, 62-79. Athens: Ohio University Press, 1995.

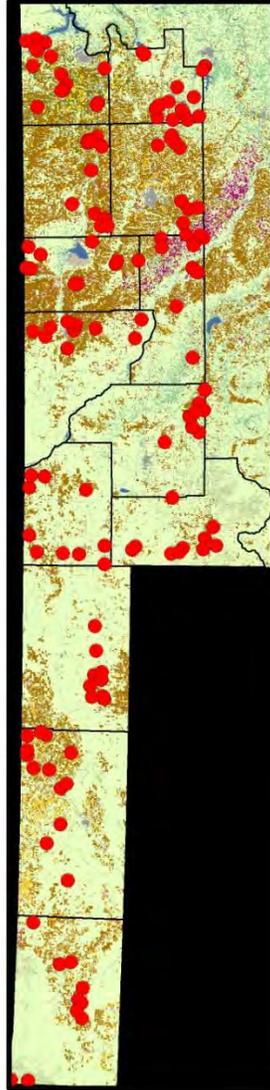
Hubert Wilhelm wrote extensively about German barns in his home State of Ohio. He was a professor of geography at Ohio University, from where he conducted fieldwork throughout the state.

Zelinsky, Wilbur. "The New England Connecting Barn." *The Geographical Review* 48, (1958): 540-53.

Wilbur Zelinsky, a well-known cultural geographer examined barns in New England. His study was among the first geographical analyses of barns.

XV. APPENDIX A: PROPERTY LOCATOR MAPS

Properties Recorded at a Minimal Level of Documentation

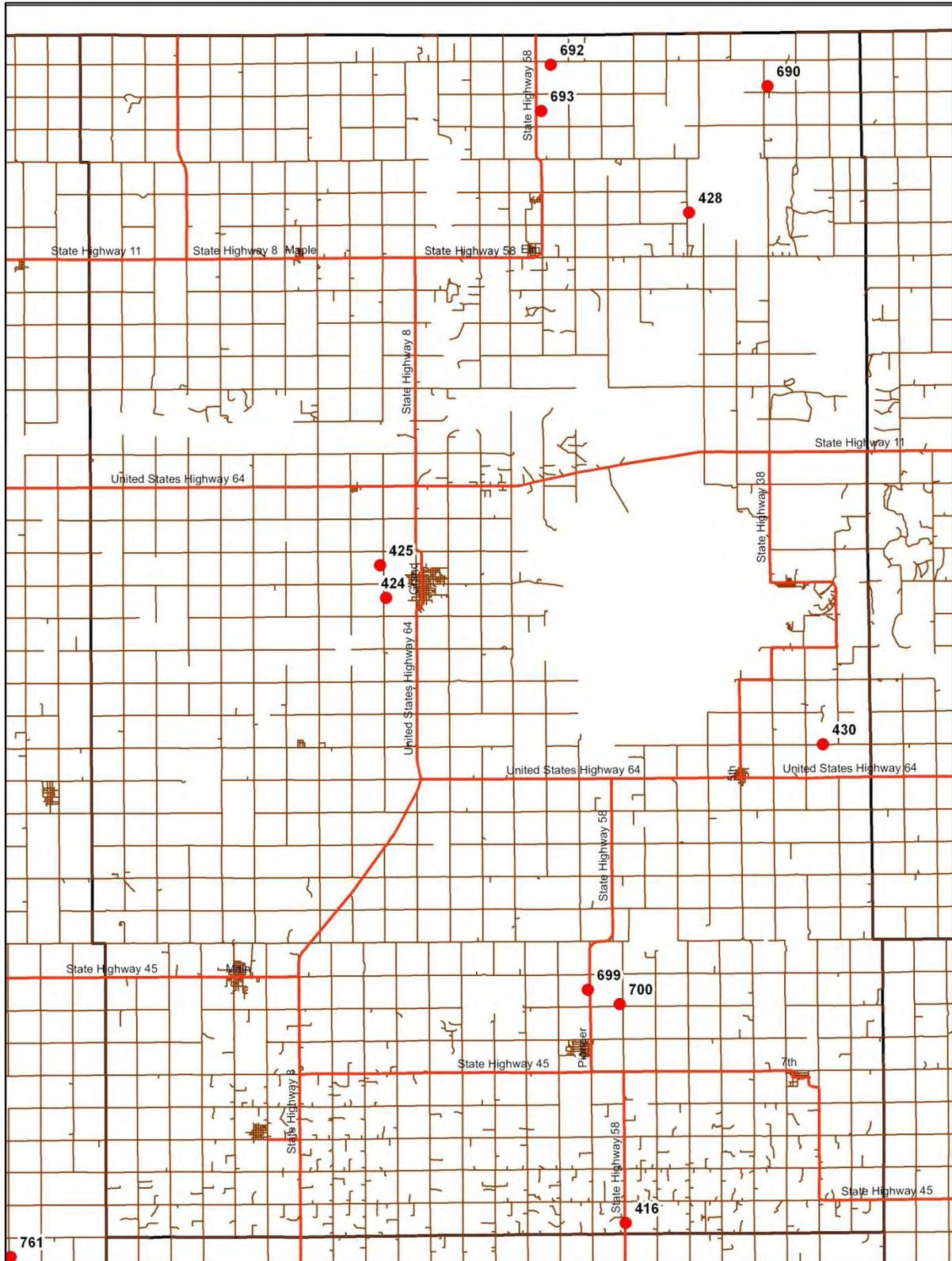


Colors Indicate land cover (2008):

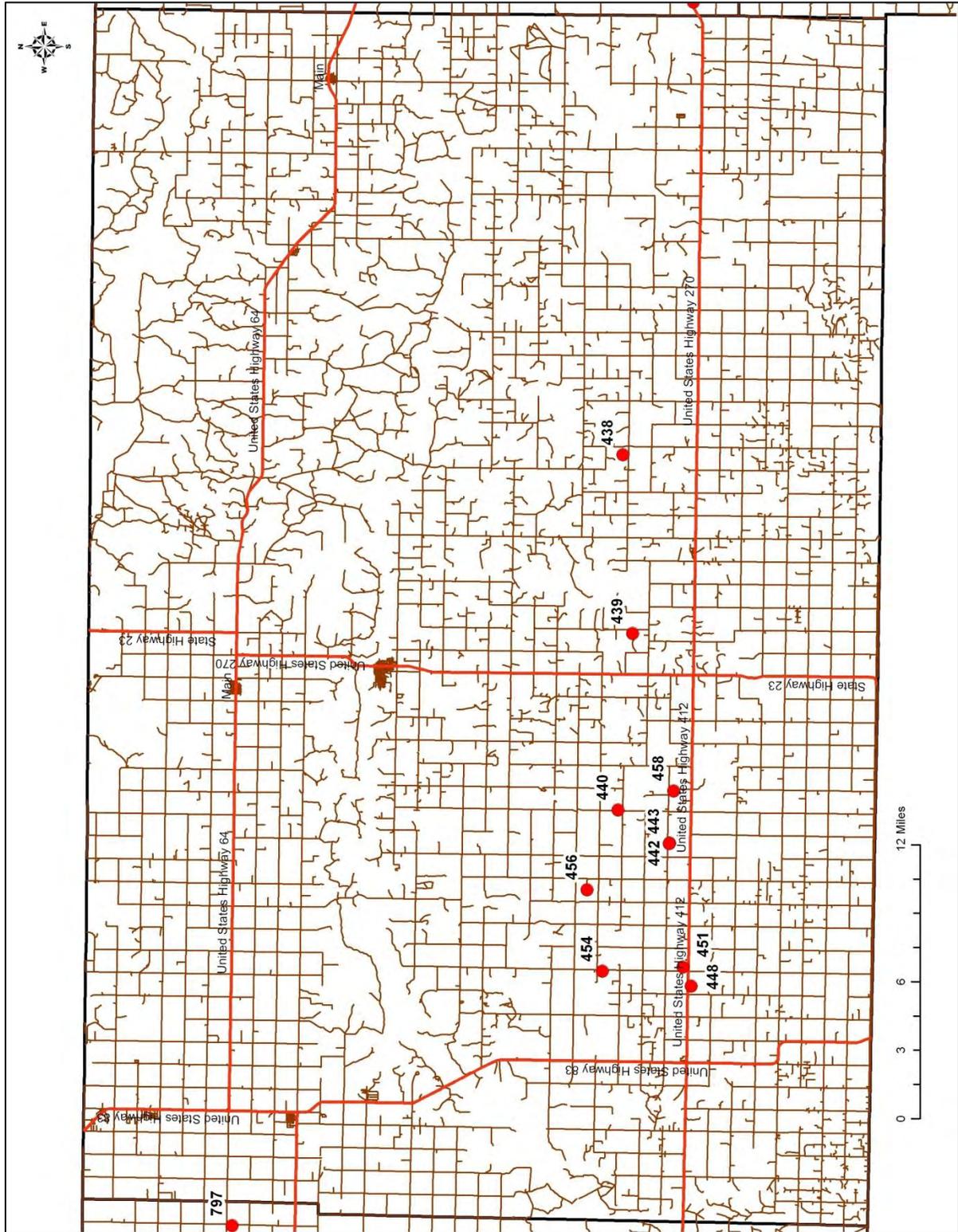
- Light Green = range grass
- Dark Green = woodland
- Brown = winter wheat
- Yellow = corn
- Magenta = rye



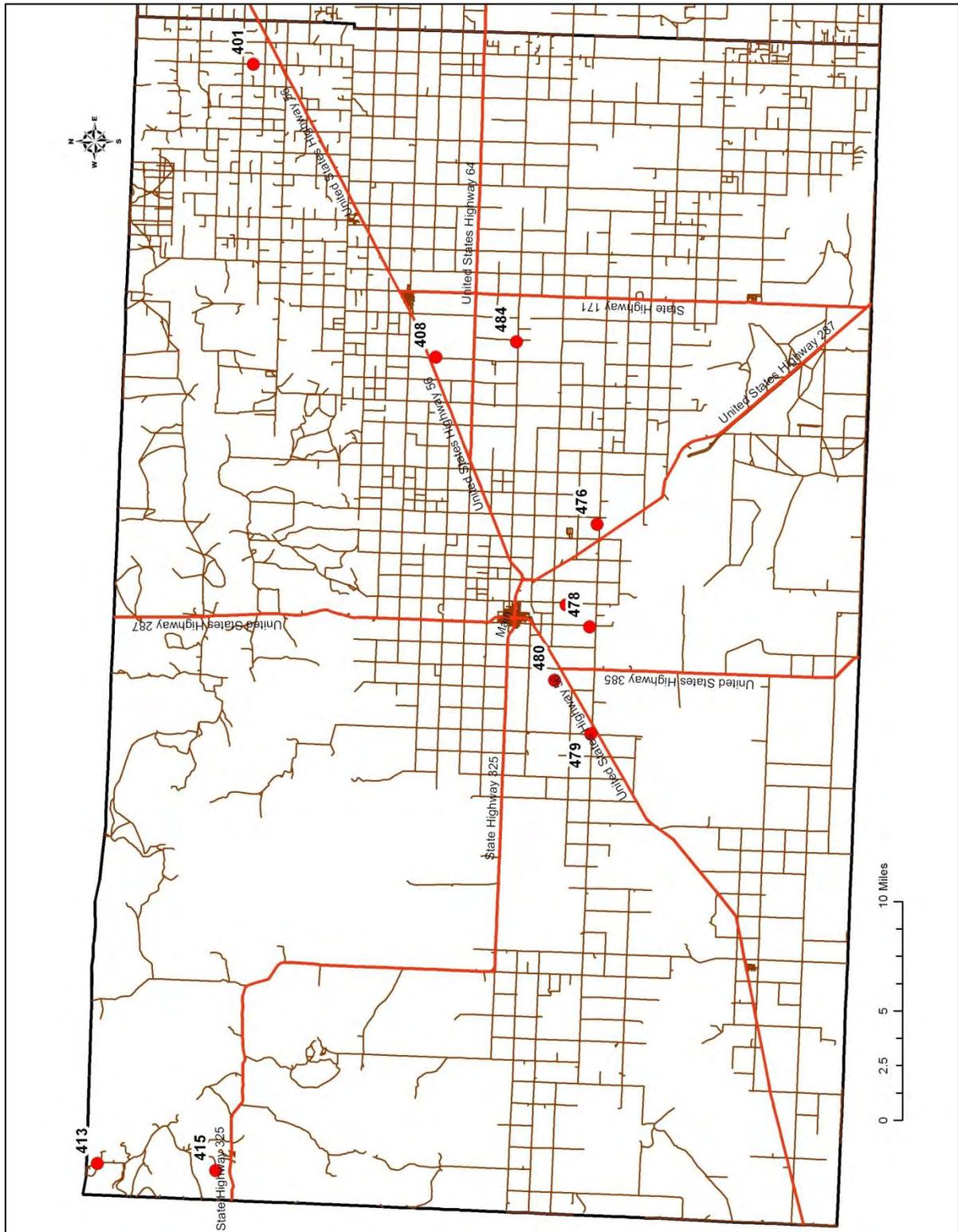
XV. APPENDIX A: PROPERTY LOCATOR MAPS – ALFALFA COUNTY



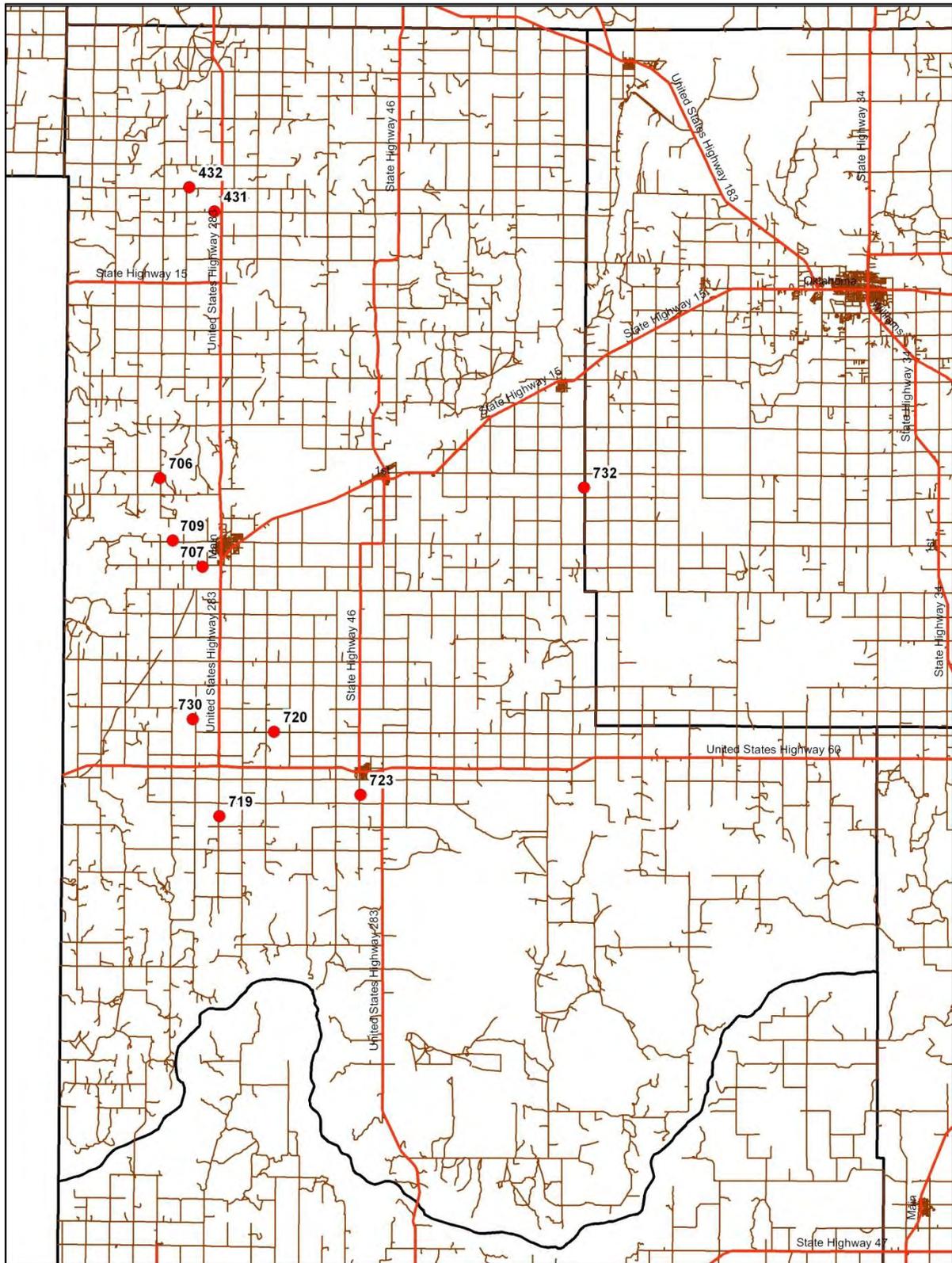
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- BEAVER COUNTY



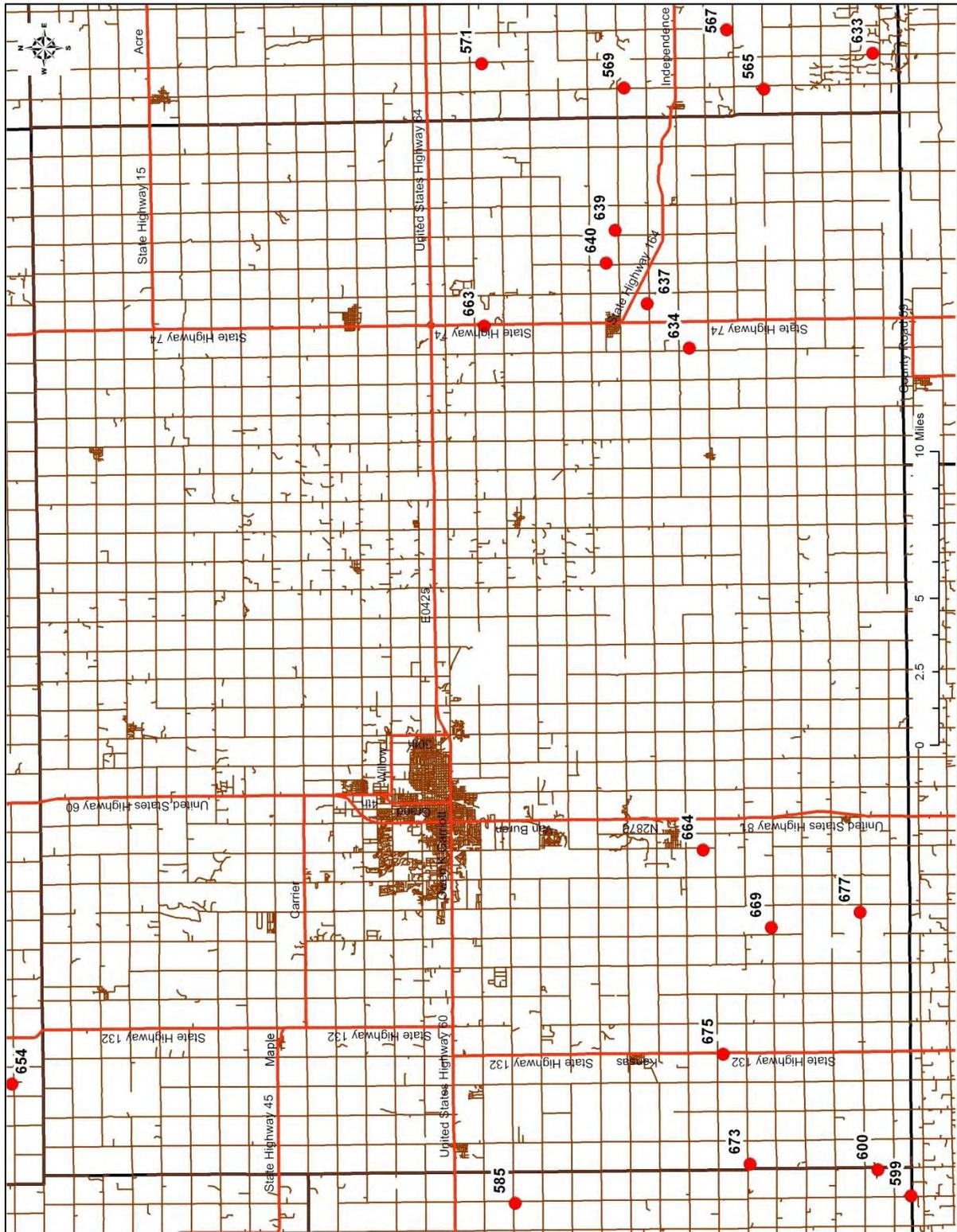
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- CIMARRON COUNTY



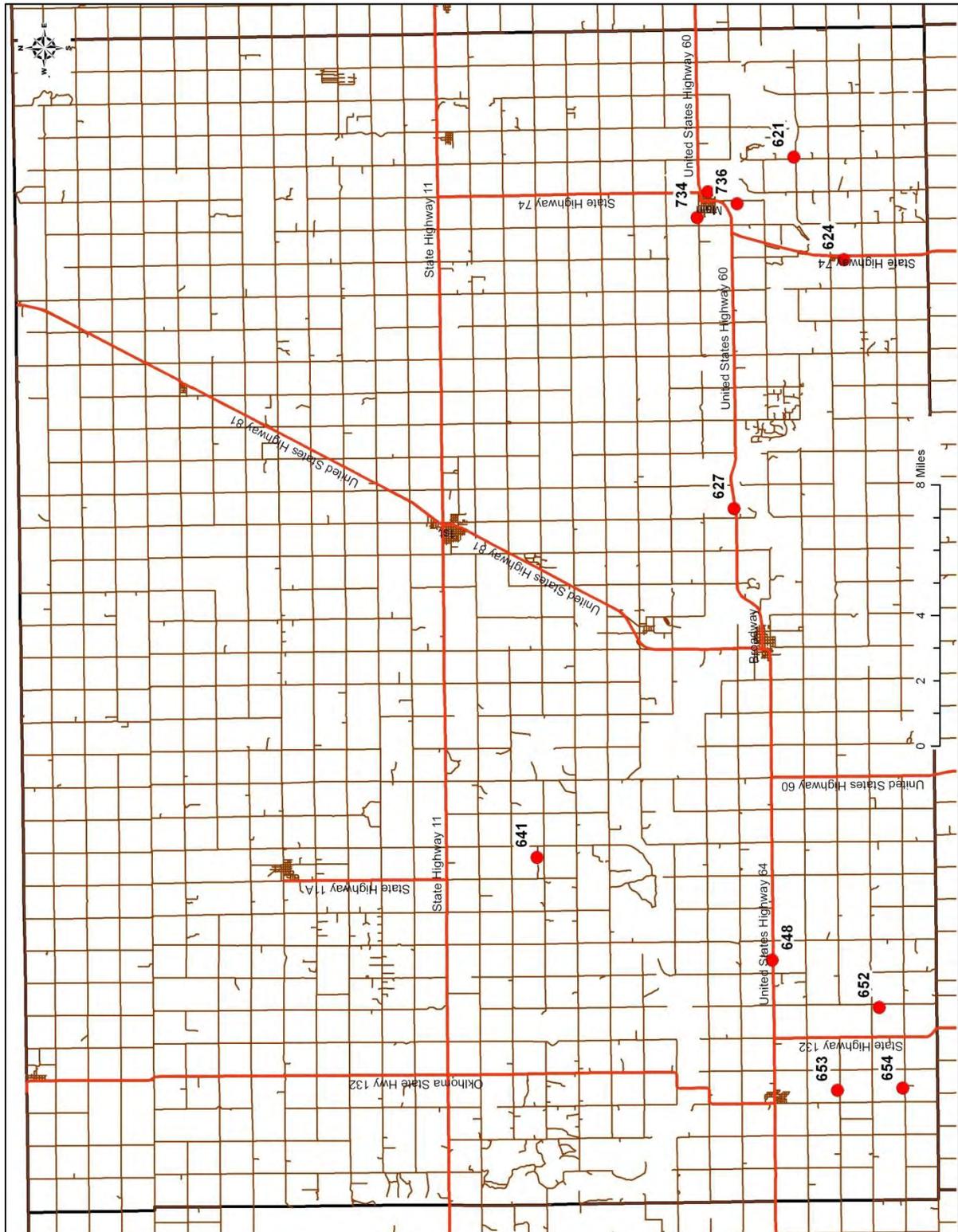
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- ELLIS COUNTY



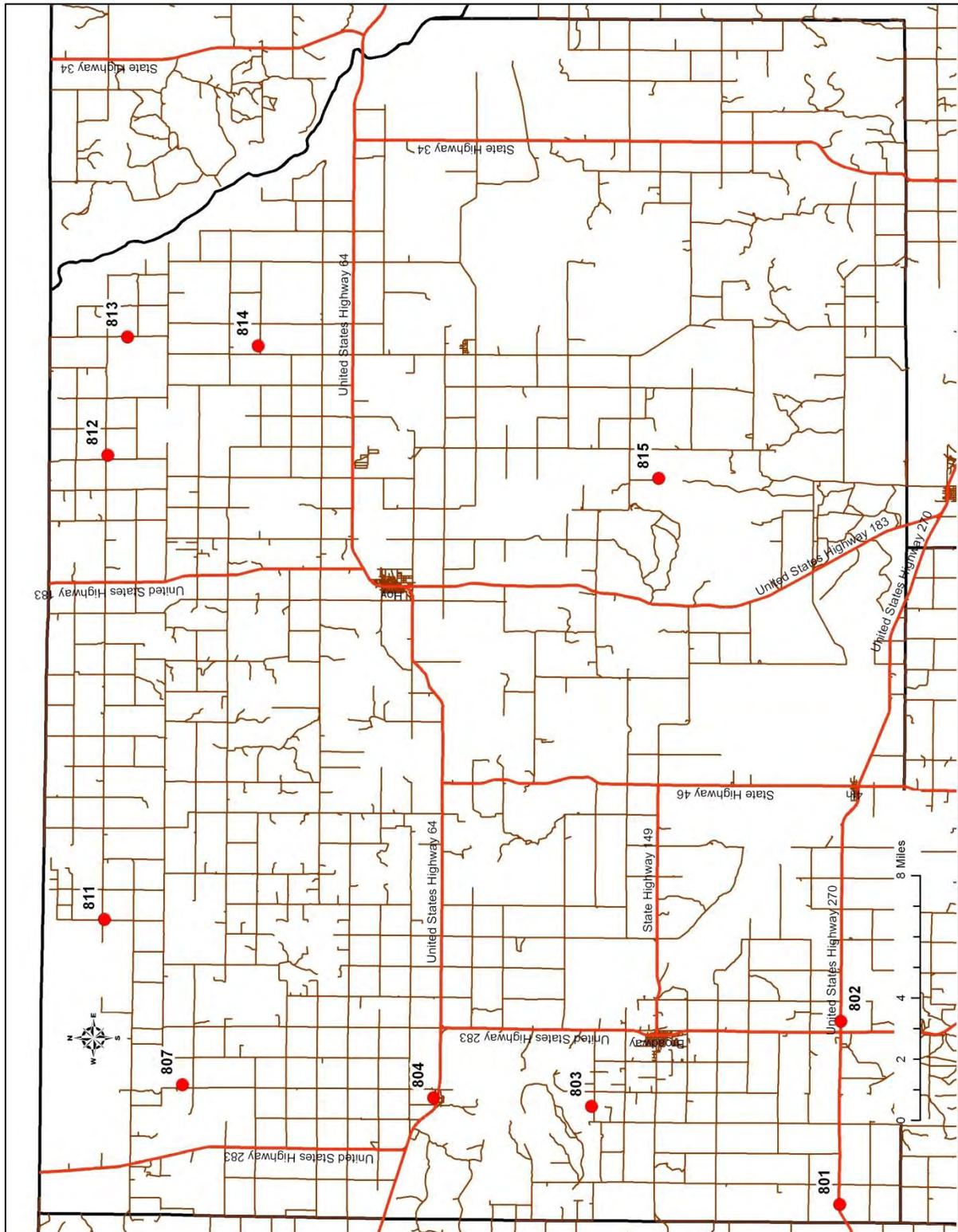
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- GARFIELD COUNTY



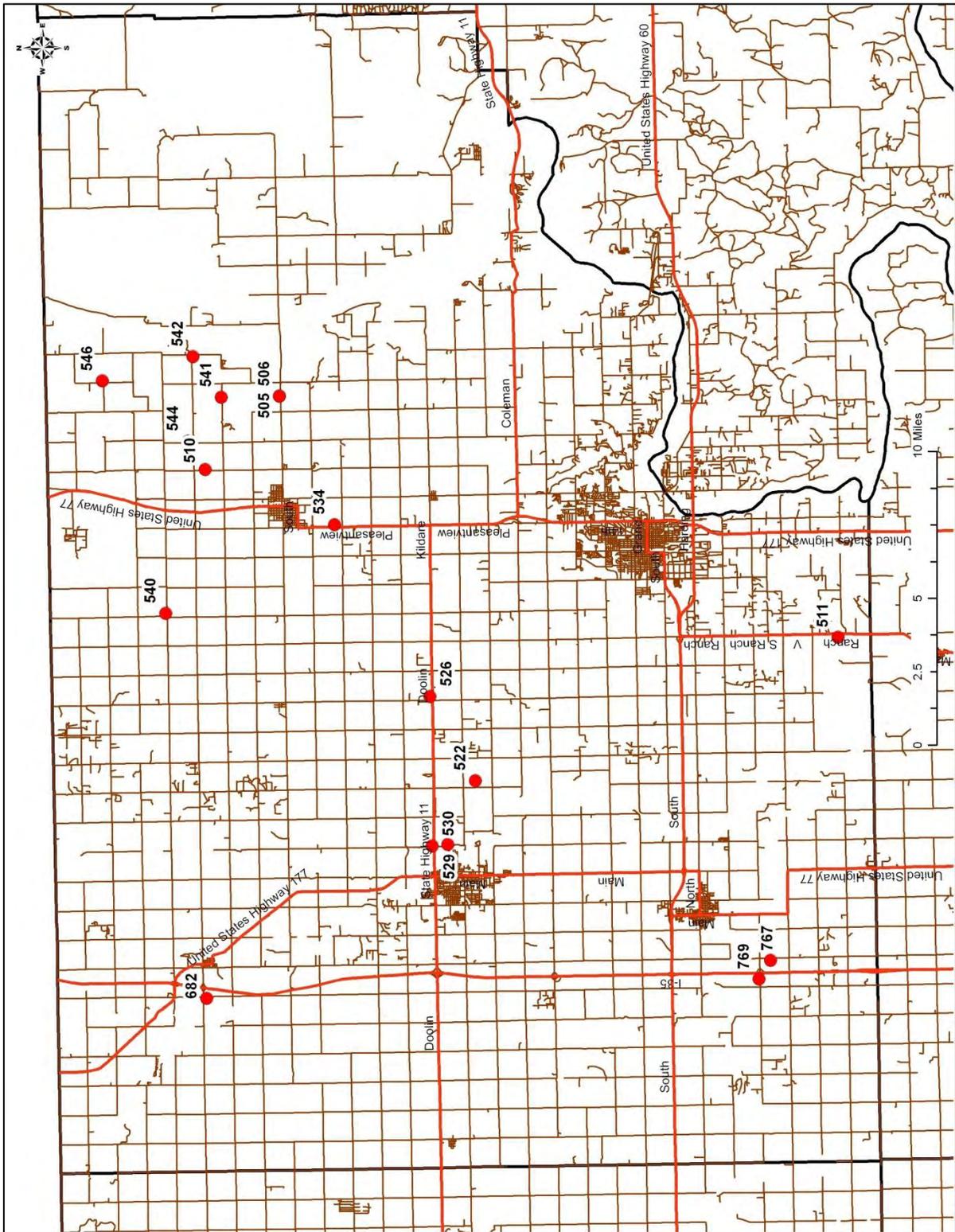
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- GRANT COUNTY



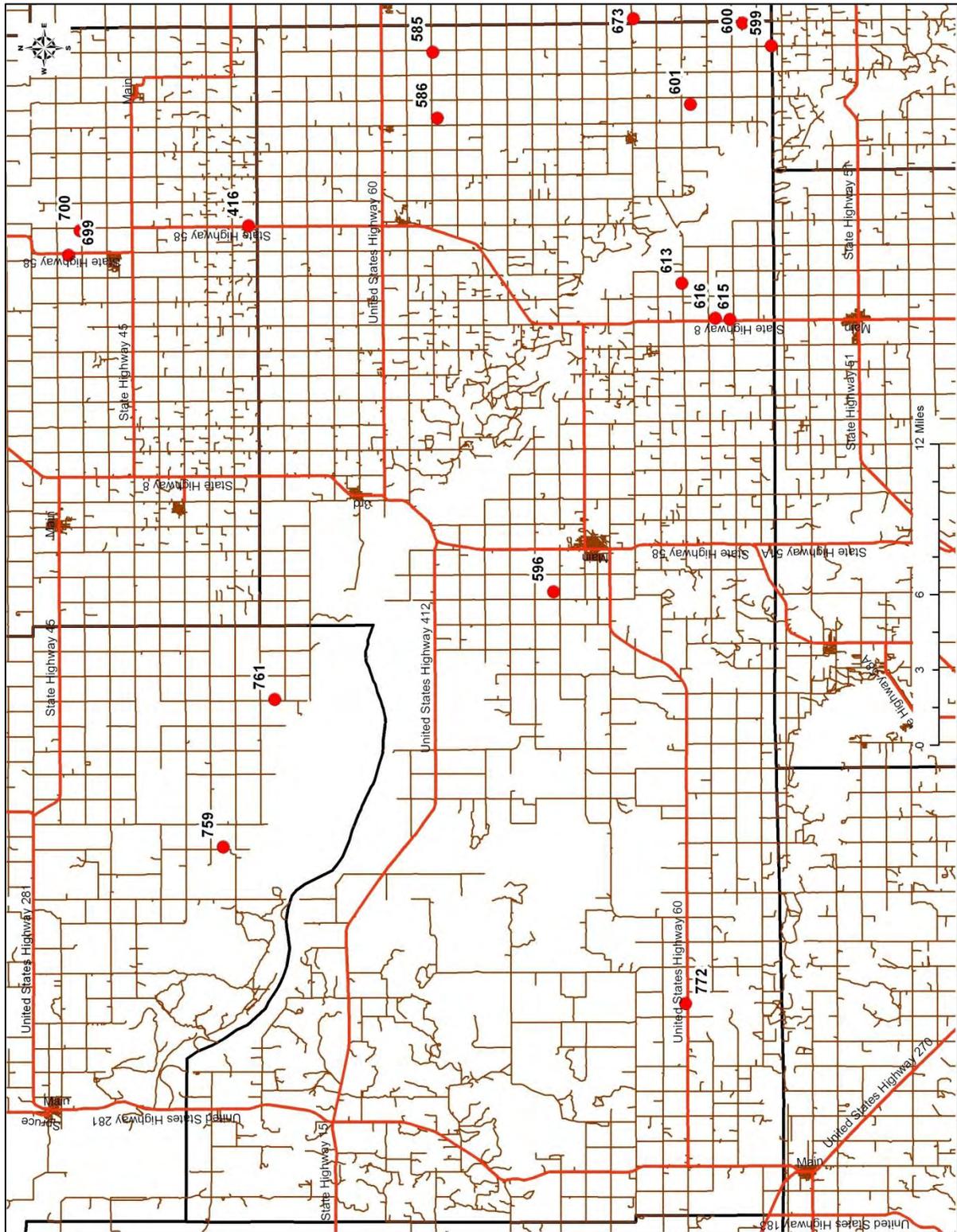
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- HARPER COUNTY



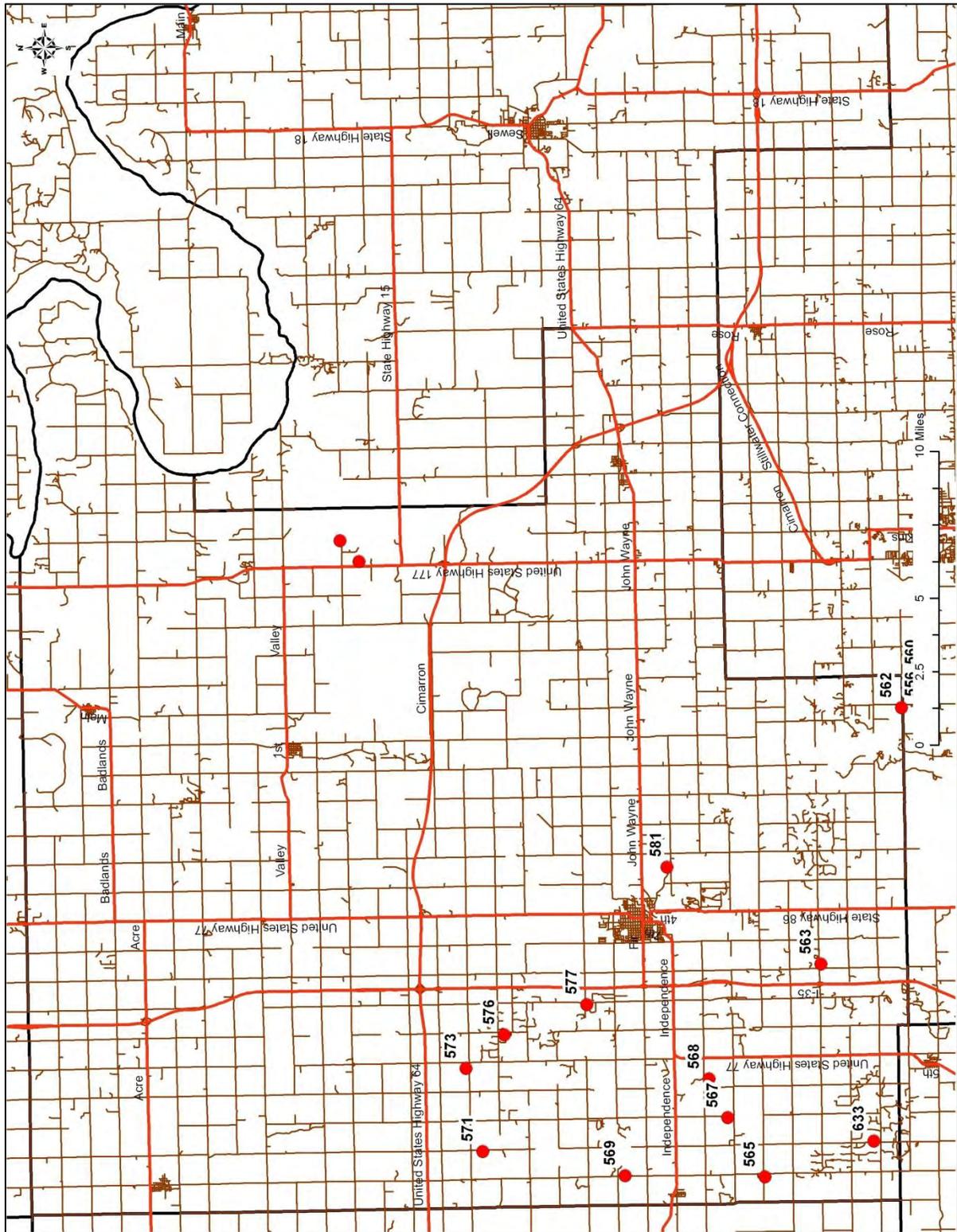
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- KAY COUNTY



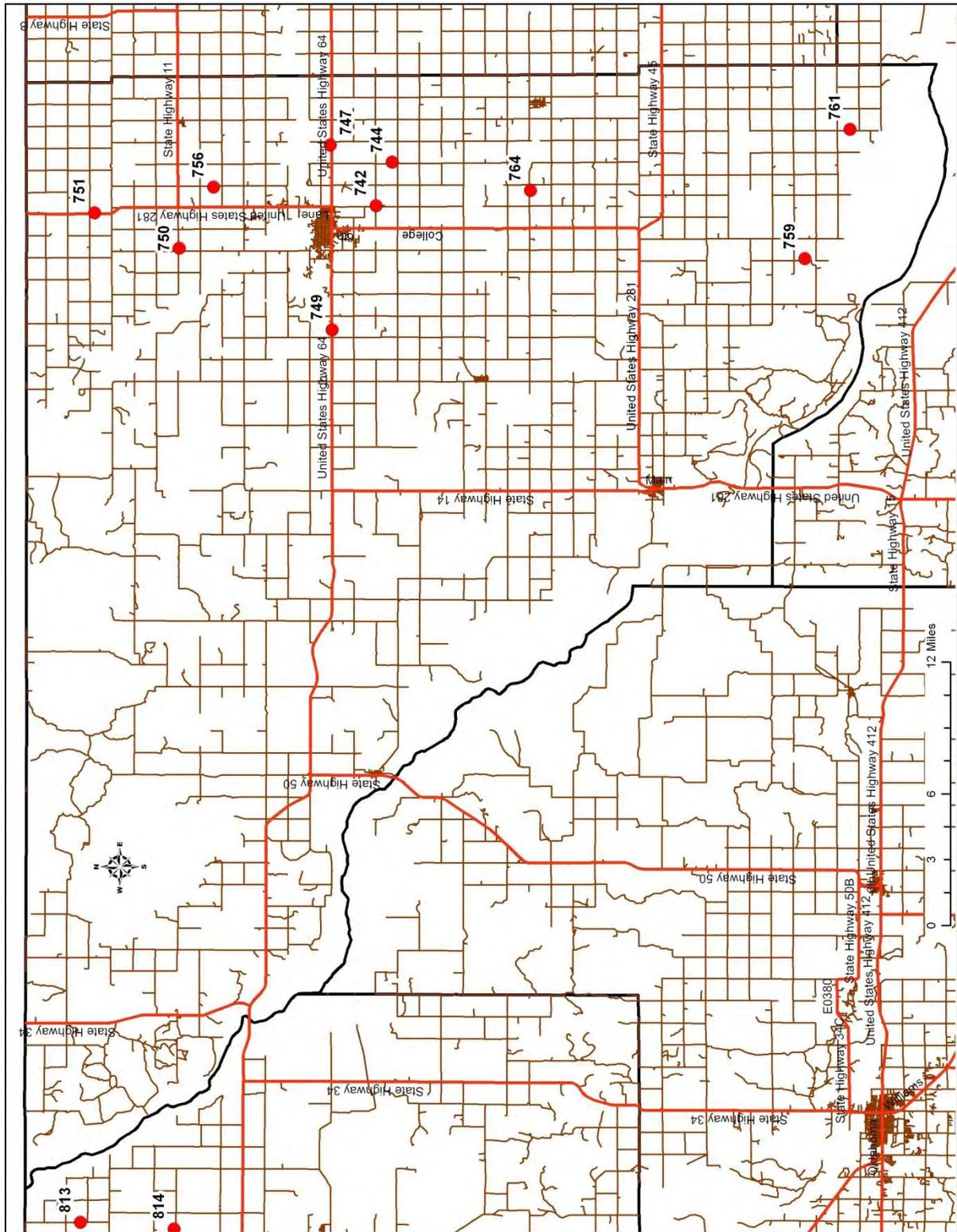
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- MAJOR COUNTY



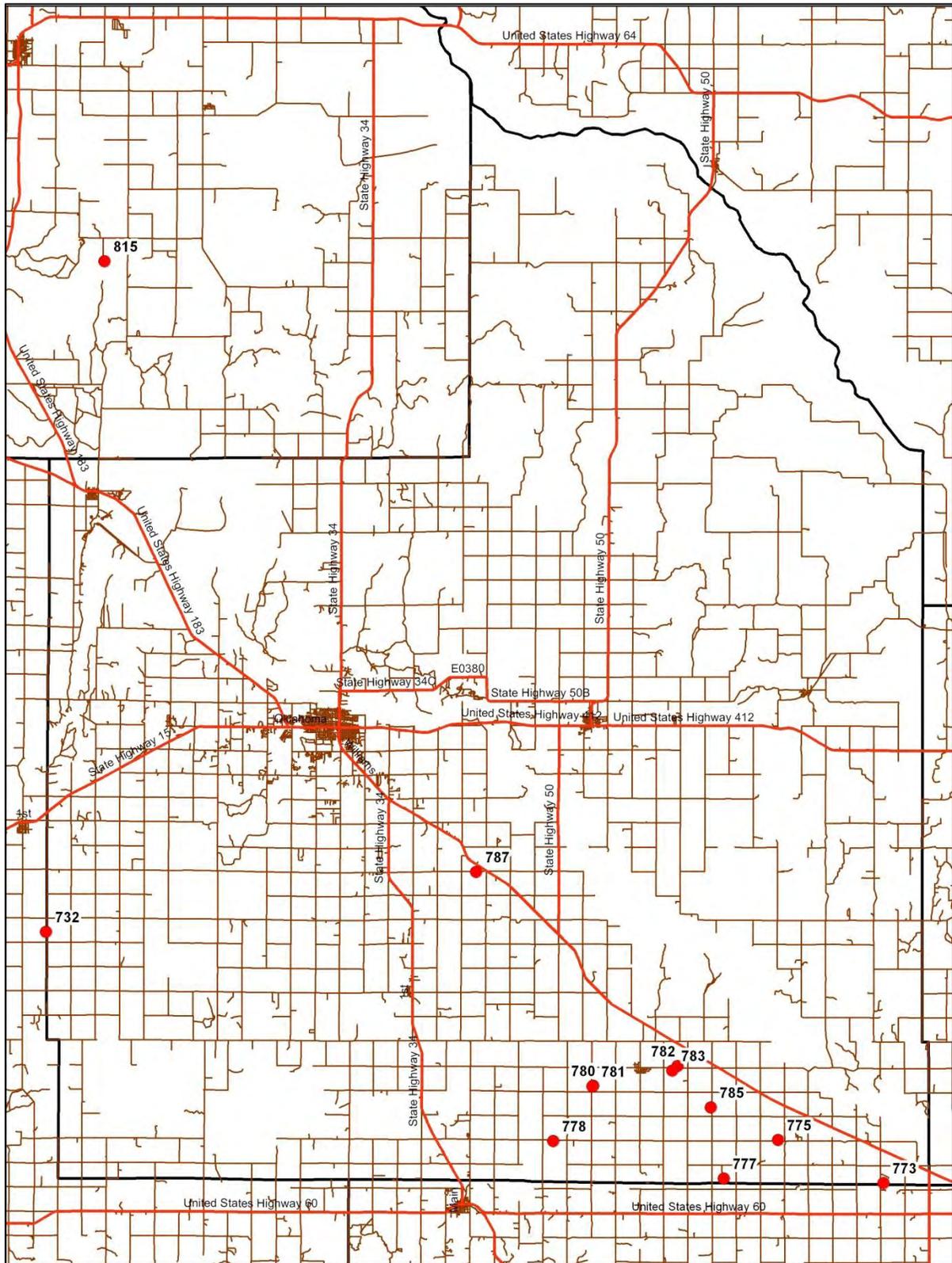
XV. APPENDIX A: PROPERTY LOCATOR MAPS -- NOBLE COUNTY



XV. APPENDIX A: PROPERTY LOCATOR MAPS -- WOODS COUNTY



XV. APPENDIX A: PROPERTY LOCATOR MAPS -- WOODWARD COUNTY



XVI. ENDNOTES TO HISTORIC CONTEXT

1. Kenneth S. Johnson, "Geomorphic Provinces," in *The Historical Atlas of Oklahoma*, Fourth Edition, ed. by Charles Robert Goins and Danney Goble (Norman: University of Oklahoma Press, 2006), 4-5. Hereafter cited as *Historical Atlas*.

2. *Ibid.*, 18-21.

3. *Ibid.*, 16-17.

4. *Ibid.*, 12-15.

5. *Ibid.*, 40-43. Kenneth R. Turner, "No Man's Land," in *The Encyclopedia of Oklahoma History and Culture*, ed. by Diana Everett (Oklahoma City: Oklahoma Historical Society, 2009), 1029-31. Hereafter cited as *Encyclopedia of Oklahoma*. W. David Baird, "Historic Context for the Agricultural Theme, Management Region #1: 1885-1942," (Oklahoma City, Oklahoma: State Historic Preservation Office, Oklahoma Historical Society, 1992), 9-11.

6. Turner, "No Man's Land," 1029-31.

7. *Ibid.*

8. Josh Clough, "Opening of the Cherokee Outlet," *Historical Atlas*, 130-31. Alvin O. Turner, "Order and Disorder: The Opening of the Cherokee Outlet," *The Chronicles of Oklahoma* 71, no. 2 (1993): 154-72. *Idem*, "Cherokee Outlet Opening," *Encyclopedia of Oklahoma*, 251-53.

9. *Ibid.*

10. *Ibid.*

11. Clough, "Leases in the Cherokee Outlet and Cheyenne-Arapaho Reservation," *Historical Atlas*, 120-21. Jimmy Snodgrass, "Cherokee Strip Live Stock Association," *Encyclopedia of Oklahoma*, 254.

12. Danney Goble, "Land Openings of Oklahoma Territory, 1889-1906," *Historical Atlas of Oklahoma*, 122-23. John R. Lovett, "Opening of the Unassigned Lands," *Historical Atlas of Oklahoma*, 124-25.

13. Clough, "Opening of the Cherokee Outlet," 130-31. Turner, "Order and Disorder: The Opening of the Cherokee Outlet," 154-72. *Idem*, "Cherokee Outlet Opening," 251-53.

14. Danney Goble, "Constitutional Convention Delegate Districts, 1906," *Historical Atlas*, 150-51.

-
15. Danney Goble, "The Twin Territories," *Historical Atlas*, 144-45. Idem, "Counties of Oklahoma Territory and Recording Districts of Indian Territory, 1906," *Historical Atlas*, 148-49.
 16. W. David Baird, "Agriculture in the Oklahoma Panhandle, 1898-1942," *The Chronicles of Oklahoma* 72, no. 2 (1994): 116-37.
 17. Baird, "Historic Context," 15-19.
 18. Ibid.
 19. Ibid.
 20. Augustus J. Veenendaal, Jr. "Chicago, Rock Island and Pacific Railway," *Encyclopedia of Oklahoma*, 259-60. Idem, "Railroads," *Encyclopedia of Oklahoma*, 1251-53.
 21. John T. Schlebecker, *Whereby We Thrive: A History of American Farming, 1607-1972* (Ames: The Iowa State University Press, 1975). John C. Hudson, *Plains Country Towns* (Minneapolis: University of Minnesota Press, 1985), 28-32.
 22. Ibid.
 23. Veenendahl, "Railroads," *Encyclopedia of Oklahoma*, 1251-53. Donovan L. Hofsommer, ed. *Railroads in Oklahoma* (Oklahoma City: Oklahoma Historical Society, 1977), 3-6. Bruce W. Hoagland and Danney Goble, "Railroads, 1870-1907,"
 24. Ibid.
 25. Augustus J. Veenendaal, Jr., "Atchison, Topeka, and Santa Fe Railway," *Encyclopedia of Oklahoma*, 78-79.
 26. George O. Carney, "Development of a Historic Context for the Agricultural Theme in Management Region #2: 1893-1930" (Oklahoma City: Oklahoma State Historic Preservation Office, Oklahoma Historical Society, 1989), 18-21.
 27. Ibid.
 28. Veenendahl, "Railroads," 1251-53. Hudson, *Plains Country Towns*, passim.
 29. Ibid.
 30. Charles Robert Goins, "Population at Statehood, 1907," *Historical Atlas*, 154-55. Historical county population data are available online at The University of Virginia Library's site at <http://mapserver.lib.virginia.edu/index.html>.

-
31. Baird, "Agriculture," 116-37. Veenendaal, "Chicago, Rock Island and Pacific Railway," 259-60.
32. Ibid.
33. Ibid.
34. Lynda Ramsey, "End of the Trail: The Barn," *Oklahoma Today* (September/October 2009): 34-41. John Fraser Hart, "Types of Barns in the Eastern United States," *Focus* 43, no. 1 (1993): 8-17. Terry G. Jordan-Bychkov, *The Upland South: The Making of an American Folk Region and Landscape* (Santa Fe: Center for American Places, 2003), 22-36.
35. Clough, "Opening of the Cherokee Outlet," *Historical Atlas*, 130-31.
36. Danney Goble, "African Americans in Oklahoma and Indian Territories, 1907," *Historical Atlas*, 138-39. Charles Robert Goins, "Minority Population Change, 1990-2000," *Historical Atlas*, 196-97. Idem, "Northwestern Oklahoma," *Historical Atlas*, 198-99. Idem, "The Oklahoma Panhandle," *Historical Atlas*, 206-07.
37. Goins, "Minority Population Change," 196-97.
38. Stella Campbell Rockwell, *Garfield County, Oklahoma, 1893-1982* (Enid, Okla.: Garfield County Historical Society, 1982). Linda D. Wilson, "Garfield County," *Encyclopedia of Oklahoma*, 569-70. Idem, "Kay County," *Encyclopedia of Oklahoma*, 786-88. Goble, "African Americans," *Historical Atlas*, 138-39.
39. Bruce W. Hoagland, "The Louisiana Purchase," *Historical Atlas*, 42-43. Turner, "No Man's Land," *Encyclopedia of Oklahoma*, 1029-31.
40. Douglas Hale, *The Germans from Russia in Oklahoma* (Norman: University of Oklahoma Press, 1980). Karel E. Bicha, *The Czechs in Oklahoma* (Norman: University of Oklahoma Press, 1980). Marvin E. Kroeker, "Die Stillen Im Lande': Mennonites in the Oklahoma Land Rushes," *Chronicles of Oklahoma* 67, no. 1 (1989): 76-97.
41. Alvin O. Turner, "Religious Traditions and Influences." *Historical Atlas*, 224-25. Current county-scale data and interactive thematic maps for religious affiliation are available from the Association of Religion Data Archives at <http://www.thearda.com>. For county-scale historical presidential election maps, see the excellent set of online maps at the Web Atlas of Oklahoma created and maintained by the Department of Geography and Cartography, East Central University, Ada <http://www.okatlas.org/>.
42. Danney Goble, "Ethnic Settlements," *Historical Atlas*, 140. See also Hale, *Germans from Russia*; Bicha, *Czechs*; Kroeker, "Die Stillen Im Lande'," 76-97.

-
43. John Fraser Hart, "Types of Barns in the Eastern United States," *Focus* 43, no. 1 (1993): 8-17. Idem, "On the Classification of Barns," *Material Culture* 26, no. 3 (1994): 37-46. See also Jordan-Bychkov's discussion of the tendency of academics to either "lump" or "split" in his chapter on the Transverse-crib barn in Jordan-Bychkov, *The Upland South*.
44. Lowell J. Soike, "Affordable Barns of the Midwest: Beginnings," In *Barns of the Midwest*, edited by Allen G. Noble and Hubert G. H. Wilhelm. Athens: Ohio University Press, 1995.
45. An obscure publication noting the Flint Hills limestone building tradition just to the north of Kay County is Charles L. Hall, "Stone Barns of the Flint Hills," *Kansas Country Living, A Publication of the Kansas Electric Cooperatives, Inc.* 17, no. 9 (1972): 12-A, 12-D.
46. Goble, "Land Openings of the Oklahoma Territory," 122-23. Clough, "The Opening of the Cherokee Outlet," 130-31.
47. Donald E. Green, "Beginnings of Wheat Culture in Oklahoma," in *Rural Oklahoma*, ed. by Donald E. Green (Oklahoma City: Oklahoma Historical Society, 1977), 56-73. Bruce W. Hoagland, "Wheat Farming, 1907-2000," *Historical Atlas*, 168. Idem, "Corn and Other Grain Farming, 1907-2000," *Historical Atlas*, 170. Bruce W. Hoagland and Danney Goble, "Livestock Production," *Historical Atlas*, 171.
48. Michael D. Green, "Indian Territory, 1866-1889," *Historical Atlas*, 98-99.
49. Goble, "Land Openings of Oklahoma Territory, 1889-1906," *Historical Atlas*, 122-23.
50. Snodgrass, "Cherokee Strip Live Stock Association," 254. Larry O'Dell, "Miller Brothers 101 Ranch," *Encyclopedia of Oklahoma*, 961-62.
51. Noble County Genealogical Society, *History of Noble County* (Norman, Okla.: n.p., 1987). Diana Everett, "Noble County," *Encyclopedia of Oklahoma*, 1028-29. Guy P. Webb, *History of Grant County, Oklahoma, 1811-1970* (North Newton, Kans.: Grant County Historical Society, 1971), passim.
52. Veenendahl, "Railroads," 1251-53.
53. Major County Historical Society, *Gloss Mountain Country: A History of Major County* (Fairview, Okla.: Major County Historical Society, 1977). Ross Peterson-Veatch, "Major County," *Encyclopedia of Oklahoma*, 879-80.
54. Schlebecker, *Whereby We Thrive*, 212. John C. Hudson, *Plains Country Towns*, 133.
55. Baird, "Historic Context," 22-23.

56. Gilbert C. Fite, *The Farmer's Frontier, 1865-1900* (New York: Holt Rinehart, and Winston, 1966). Idem, "Farming," *Encyclopedia of Oklahoma*, 474-77.

57. John R. Lovett, "Prominent Cattle Ranches," *Historical Atlas*, 172-73. O'Dell, "Miller Brothers," 961-62.

58. Historic population and farm size data are available online at The University of Virginia Library's site at <http://mapserver.lib.virginia.edu/index.html>.