NPS Form 10-900 OMB No. 1024-0018 (Expires 5/31/2012)

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NATIONAL PARK SERVICE

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**United States Department of the Interior**
National Park Service

# National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

## 1. Name of Property

historic name Weigandt Barn

other names/site number

## 2. Location

street & number 27285 Silver Valley Road [ ] not for publication

city or town Murdo [x] vicinity

state South Dakota code SD county Jones code 075 zip code 57559

## 3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this _x_ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property _x_ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

**___ national ___ statewide _x_ local**

Jay D. Vogt — 04-25-2012
Signature of certifying official/Title — Date

SD SHPO
State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official — Date

Title — State or Federal agency/bureau or Tribal Government

## 4. National Park Service Certification

I hereby certify that this property is:

✓ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:)

for [signature]
Signature of the Keeper — Date of Action 1/9/13

Weigandt Barn
Name of Property

Jones County, SD
County and State

## 5. Classification

**Ownership of Property**
(Check as many boxes as apply.)

- [x] private
- [ ] public - Local
- [ ] public - State
- [ ] public - Federal

**Category of Property**
(Check only **one** box.)

- [x] building(s)
- [ ] district
- [ ] site
- [ ] structure
- [ ] object

**Number of Resources within Property**
(Do not include previously listed resources in the count.)

| Contributing | Noncontributing | |
|---|---|---|
| 1 | 0 | buildings |
| 0 | 0 | sites |
| 0 | 0 | structures |
| 0 | 0 | objects |
| 1 | 0 | **Total** |

**Name of related multiple property listing**
(Enter "N/A" if property is not part of a multiple property listing)

n/a

***Number of contributing resources previously listed in the National Register***

n/a

## 6. Function or Use

**Historic Functions**
(Enter categories from instructions.)

Agriculture/Subsistence: animal facility

**Current Functions**
(Enter categories from instructions.)

Agriculture/Subsistence: animal facility

## 7. Description

**Architectural Classification**
(Enter categories from instructions.)

Other: Western Feeder Barn

**Materials**
(Enter categories from instructions.)

foundation: Concrete
walls: Wood
roof: Metal
other: Synthetics: fiberglass

## Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

### Summary Paragraph

The Weigandt Barn is located in rural Jones County. It is located within a farmyard that has a modern house, two metal buildings and six metal silos. The barn is located in the northwest corner of the farmyard. A shelterbelt surrounds the north and west sides of the farmyard. Surrounding the farmyard are pastures and fields cultivated with row crops. The terrain is slightly rolling. The rectilinear barn has a fieldstone and poured concrete foundation, board-and-batten wood siding and a front gabled roof clad in tin. The majority of the window openings have been infilled with fiberglass. The barn is large for the region measuring approximately 64' x 70'.

## Narrative Description

### General Characteristics

The Weigandt Barn has its original fieldstone and poured concrete foundation. The original board-and-batten siding is in good condition considering its age with only a few boards or battens missing. All of the window openings on the barn are the same size. Most of the window openings have been infilled with fiberglass, wood or are open. The changes to the windows occurred in the late 1960s. All of the original windows were fixed four-pane. The roof originally had wood shingles and was covered in tin. The gable roof slightly overhangs the eaves and metal gutters and downspouts are attached. Because the barn sits on a slope, the west floor steps up to the central floor which then steps up to the east floor.

### Exterior South Elevation (front)

Starting at the southeast corner and moving west there is a board-and-batten Dutch door, six infilled window openings (five with fiberglass and one with wood), a hinged opening that measures 3' x 3' that is located about 3' feet from the ground, and another infilled window opening. Centered on this elevation is a large haymow door. This door is made of the same board-and-batten as the siding and measures approximately 9' x 12'. The door is mounted on a metal track. There is also an infilled window opening in the gable.

### Exterior East and West Elevation

The east elevation has seven windows, five of which are infilled with fiberglass and two that remain open. There is a board-and-batten Dutch door near center. The west elevation has eight window openings; five of the openings are boarded, two are open and one is infilled with fiberglass.

### Exterior North Elevation

Starting at the northwest corner and moving east there is a window opening infilled in with fiberglass, a board-and-batten Dutch door with a hinged 3' x 3' board-and-batten hay door above it, a window opening infilled with fiberglass, a window opening, a window opening infilled with wood, a 3' x 3' board-and-batten hay door and board-and-batten Dutch door. There is an open window opening in the gable.

### Interior

The barn has a main level and an open hay mow. The haymow has lofts on the east, west and north sides. The south side is where the haymow door is located. Support purloins line the east and west lofts. The main level of the barn is divided into three segments creating west, central and east sections.

The east section has a room at the northeast corner. The rest of the space is divided into animal pens. The pens are framed with lumber of different dimensions. The pens are built around 8"x 8" support posts and consist primarily of 2"x 12" lumber. The west wall of the east section, which separates it from the haymow, is clad with 2"x 12" lumber. There is a door near the center of this wall that leads into the hay mow. The central section is the open haymow. At the south end of the central section is a room that connects the east and west sections of the barn. This creates a "U" shape for the upper haymow. The west section is largely open with a couple of animal pens and stalls. These are built around the 8"x 8" support posts and are constructed with a variety of lumber sizes. Attached to the rafters is the steel railway track that was used to carry feed into the barn and manure out. The east wall of the west section is clad with 2"x 12" lumber.

The upper haymow level is "U" shaped. It is open except for the braced purloins. The haymow never had a mechanical hay spring. Hay was pulled through the square hole on the north wall by horse and rope.

The support of the barn is a partial post and beam and formed into four bents. Ten kingposts, five on each side of the central aisle, attach to the top beam at the rafters. The six kingposts in the middle have braces on both sides; the kingposts on the corners have one brace (the other side of the post is the wall). The kingposts on two of the interior bents (see plan) are connected by reinforced and braced lumber. The other interior bent is not reinforced and is supported only by the kingposts. These were never connected to allow more space to swing large bundles of hay into the hay mow. On the east and west sides of the haymow are braced purloins that attach to a top beam. The base of these purloin are attached to the beams that run lengthwise in between the kingposts.

Weigandt Barn
Name of Property

Jones County, SD
County and State

## 8. Statement of Significance

### Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [ ] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [x] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

### Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

### Areas of Significance
(Enter categories from instructions.)

Architecture

### Period of Significance

1917

### Significant Dates

1917

### Significant Person
(Complete only if Criterion B is marked above.)

n/a

### Cultural Affiliation

n/a

### Architect/Builder

August Weigandt - Builder

### Period of Significance (justification)

The period of significance is the date of construction.

### Criteria Considerations (explanation, if necessary)

**Statement of Significance Summary Paragraph** (Provide a summary paragraph that includes level of significance and applicable criteria.)

The Weigandt Barn is significant locally for the National Register of Historic Places under Criterion C as a good example of a Western Feeder barn.

**Narrative Statement of Significance** (Provide at least **one** paragraph for each area of significance.)

The Weigandt Barn is architecturally significant as a Western Feeder barn in West River South Dakota. The large board-and-batten barn represents an uncommon barn type in West River South Dakota. August Weigandt, a carpenter by trade, built the barn in 1917. Weigandt homesteaded his claim in 1904 and by 1917 had the resources to construct barn. Weigandt's variation on the popular Western Feeder barn form is significant architecturally in Jones County and in West River South Dakota. The *Common Farm Barns of South Dakota 1857-1958 Historic Context* outlines the significance of this barn type.

**Developmental history/additional historic context information** (if appropriate)

**Western Feeder Barns (From the Common Farm Barns of South Dakota 1857-1958 Historic Context)**

The Western Feeder type farm barn, also commonly known as the "three portal" or "transverse frame" barn, consists of a rectilinear, plank-framed core one and one-half stories high with a broad, low-pitched gable roof and short sidewalls. The principle roof is most often straight gable, but sometimes it is extended by shed roofs having a different pitch slightly lower than that of the principle roof; the resulting profile is referred to as an "extended" or "broken" gable when viewed end-on. Occasionally, a third shed with an identically-sloped roof if placed on the back side of the barn as well. The typical feeder barn has a central storage space for hay and feed that is usually about 24 feet wide; with the side feeding sheds, the barn is usually between 48 and 60 feet wide. The foremost authority on Iowa farm barns has identified three distinct sub-types of "beef cattle feeder barns" in that state: an early, broad, gabled-roofed form; a three-bay "extended gable" variant dating from the 1890s; and a monitor gable roof form that was popular between 1900 and 1920. The latter, while not a true monitor barn, is often identified as a "monitor" in field surveys; a recent study of farm barns in northern Utah classifies this as a type of "intermountain barn". The characteristic three portals are the opening to the three broad feeding alleys that extend through the barn, parallel to the axis of the roof. A large hay hood projects from under the peak of the gable to protect the hayfork track, which is used to load the central hay barn. The main floor if sometimes partitioned off with separate rooms for storing grain, farm machinery space, horse stalls, cattle pens, feed rooms, and wagon sheds.[i]

The Western feeder barn was built to "finish" beef cattle or sheep on hay, grain, and other rations after they had grown to maturity – in some parts of the state, especially in the West River region, it also functioned as a dairy barn. Until the early twentieth century, West River livestock ranchers fattened their beef cattle and sheep on grass and sold them directly to the packers, so they had little need for cattle barns. Feeder barns were built primarily in the East River counties where large numbers of western livestock were "finished" before

[i]Robert Vogel. *Common Farm Barns in South Dakota 1857-1958 Historic Context*. (Pierre: SD, South Dakota State Historic Preservation Office, 2007), F44-45.

slaughter. The feeder barn was also well adapted to the West River country, where a number were built in the 1920s and 1930s when some of the large cattle outfits began to feed out their breeding stock over the winter months and desired shelter for valuable saddle and draft horses.[ii]

Barn writers have argued with authority that German-Americans created the traditional, multi-level, wood-framed American farm barn, so it is perhaps not surprising that they also credit the Western feeder barn to Teutonic folk architecture, along with the inevitable blending of Dutch and English elements. In its South Dakota context, the Western feeder barn is an architectural carry-over from the Corn Belt, where large numbers where built; the same basic form is built throughout the Great Plains and Intermountain West. The plans for beef cattle barns illustrated in nineteenth-century plan books do not appear substantially different in form and structure from conventional farm barns. The Western feeder barn form was widely promoted by agricultural extension in the early twentieth century. Farmers generally liked its strong lines and broad expanse of roof. Its chief advantage over other common barn forms was its commodious stable and large hayloft, which provided handling room and feed for large numbers of animals that could be accommodated in any of the standard general purpose barns. Balloon-framed with stock lumber, it was also comparatively cheap and easy to build. Carter and Foster state flatly that it was the most common type of beef cattle feeder barn in the Midwest.[iii]

**More on Feeder Barns**

The Western Feeder barn, also commonly known as the "three-portal" or "transverse frame" barn, is thought to have Germanic influences, although no barn type in the Midwest has a singular influence.[iv] German settlers brought with them a system of agricultural land use that differed from other settlers. Of special significance was the interrelationship between crop farming and animal keeping, a factor that influenced the type of barns German settlers constructed.[v] The farming of small grains were important along with keeping animals, which required a sizeable barn to store hay and sheaths of grain awaiting threshing, and to accommodate a threshing floor and animal stalls.[vi]

The Western Feeder barn is related to, or derived from, the three-portal barn. As explained in Allen G. Noble and Hubert G.H. Wilhelm's Barns of the Midwest:

> "The development of the three-portal barn has been linked with Appalachian folk structures, especially the transverse crib barn (Kniffen 1965). The latter has a central drive, parallel to the roof ridge, and next to the drive are corn cribs and stalls. There is an overhead hayloft underneath a large roof. This barn probably had its origin in the log-building practices of the Upland South. Because log-building techniques diffused from the Swedish-Swiss-German settlement core of southeastern Pennsylvania and the Delaware Valley into the southern Appalachians, the transverse crib barn and its Midwestern offspring, the three-portal barn, may be circuitously related to Germanic settlement influences."

Noble and Wilhelm also suggest that the three-portal barn may be related to the Dutch settlement in the Hudson Valley and to early immigrants in western Ohio and eastern Indiana from the German province of

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[ii] Ibid, F-45.
[iii] Ibid, F-45.
[iv] Allen G. Noble and Hubert G.H. Wilhelm. *Barns of the Midwest*. (Athens: Ohio, Ohio University Press, 1995), 66.
[v] Noble and Wilhelm, 66.
[vi] Noble and Wilhelm, 66-67.

Lower Saxony.[vii] The Western Feeder barn and its forerunner the three-portal barn seem to have Germanic influences, though a path of diffusion isn't clear.[viii]

As a German immigrant, August Weigandt would have been influenced by his Germanic roots. Along with farming, Weigandt was also a carpenter. He constructed some of the first buildings in and around Murdo including a saloon for Clyde McDonell, the 1917 Jones County Courthouse, the Gem Hotel, the Westover Store and the 1917 grade school. Weigandt had a builder's aptitude and would have had Old World influences to draw upon for the construction of his barn.

**Construction Methods and Materials (From the Common Farm Barns in South Dakota 1858-1958 Historic Context)**

Farm barn construction in South Dakota during the great rural building boom of 1896-1929 was spurred by the availability of cheap mass-produced building materials, especially softwood lumber. The overwhelming majority of the barns that survive to the present day were built of yard lumber that was freighted in on railcars from the big mills in Minnesota, Wisconsin, Iowa, Texas, Louisiana, Washington and Oregon. Lumber yards, a vital adjunct to the development of commercial farming, were located in every town and village in South Dakota with a railroad siding. Eastern white pine was the most important timber species logged in the Great Lakes region, the center of large-scale lumbering during the second half of the nineteenth century. The first decades of the twentieth century saw the growth of the great Southern and Western timberlands, which provided most of the construction lumber used in the twentieth century. From the late 1870s through the 1920s, the Black Hills was also an important source of construction lumber, chiefly Ponderosa pine. Because of its high bending and compression strength, Douglas fir from the Rocky Mountains and Pacific Northwest was regarded as ideal wood for barn framing, while eastern white pine and southern yellow pine made excellent dimension lumber for structural work. Occasionally, a South Dakota farm barn was shingled with bald cypress imported from the Gulf Coast.[ix]

By the late 1880s much of the lumber available to South Dakota barn builders was being milled to uniform sizes, though there was wide variation in the dimension standards used by mills located in different parts of the country. It was not until the 1930s that the various regional lumber manufacturers agreed to a uniform standard for each class of common stock. Most of the building lumber used in South Dakota farm barns was produced far from where it was used; indeed, some of it was shipped great distances. Local mills also produced boards and timbers to non-standard specifications, although by the early 1900s construction lumber was no longer milled locally outside of the Black Hills. Therefore, many of the boards would have had to be ripped or planed on the farm and fitted into place. Consequently, it is not at all uncommon to find a barn built with lumber that is of non-standard thickness, width or length. Similar discrepancies existed in other construction materials.[x]

Because it is a biological material, wood is subject to gross deterioration from dampness, insects and microorganisms. Builders' guides and engineering texts emphasized the need for using only well-seasoned lumber in farm barn construction. Insufficiently dried lumber quickly shrank and became warped out of shape, especially under semi-arid conditions. Boards milled from Ponderosa pine and Black Hills spruce were often preferred over other woods for barn siding in the West River country because they were naturally resistant to warping and did not require as much drying as yellow pine or fir. Even in well-built farm barns, however, rot

[vii] Noble and Wilhelm, 74.
[viii] Noble and Wilhelm, 75.
[ix] Vogel, E-18.
[x] Ibid, E-18, E-20.

and dry rot often attacks the joists, beams, studs and posts. In timber frame barns, the old mortise and tenon connections also have a tendency to split when they dry out, especially if the wood used is not seasoned oak. Although paint slows down the weathering of barn siding, it does not prevent decay from the action of fungi on damp wood, which nearly always starts on the unpainted interior side. Decay in barn wood is forestalled chiefly by regular maintenance, good ventilation and proper site drainage. The use of wood preservatives to increase the serviceable life of frames and boards began in the late nineteenth century with cold-soaking seasoned timbers in coal tar creosote, zinc chloride, and various mixtures of compounds of arsenic, chromium or copper. Pressure treated wood was developed in the twentieth century using steam or hot-and-cold bath methods but was not widely used for framing in farm buildings until after the Second World War.[xi]

The walls of most common farm barns were balloon-framed out of two-inch planking. A wall framed in this manner will have wooden sills laid on top of the foundation walls, onto which the vertical framing members, 2"x 6" or 2"x 4" studs, are toe-nailed on 12-inch or 16-inch centers. The barn siding is nailed to the outside of the studs. It is rare to find barn walls with sheeting underneath the siding, as in house construction.[xii]

The wall height of a barn, sometimes expressed in stories, is not always easy to visualize. Floor height varies within multi-level barns, which balance stable area below against hay storage capacity on their upper levels. The conventional frame barn with an upper-level hayloft is one and one-half stories in height.[xiii]

Barn siding came in a wide range of sizes and shapes, rough or dressed, with considerable variation in thickness and width. Planed, matched, inch-and-a-quarter pine boards were the standard barn siding materials. Two basic types of wall cladding were generally preferred by South Dakota barn builders. The most common was to nail the boards to the outside of the framing in horizontal strips, with the upper board overlapping the one below it, making the surface weather-tight. To keep the boards from looking uneven, the siding was sometimes built using beveled or tapered boards called clapboards. In vertical siding, the boards were placed side-by-side but did not overlap, and to keep out the weather, the joint formed where the two sides met was covered by a narrow strip of wood, called a batten – hence the common name, board-and-batten siding. Farm barns were sometimes sheathed in rough boards nailed flush to the studs, without any overlap, but as the wood weathers the boards often crack or become loose. Twentieth-century barn siding often has boards that were tongued-and-grooved along the edges, which made the wall more durable and weather-tight, as well as more pleasing to the eye. Old barn siding varies in width from just under three inches to twelve inches and the boards are typically about one-inch thick and planed on both sides. The old barn builder's axiom that siding made of "good stuff" will last as long as the barn does is generally found to be true.[xiv]

Another of the biggest changes in barn construction practices resulted from the widespread adoption of concrete after about 1900. In fact, the invention of the powdered cement mixture probably revolutionized farm building as much as any other technological advance. Contractors soon perfected the art of poured concrete construction, which allowed them to replace stone foundations with poured concrete footings that better distributed the weight of the barn from the foundation walls to the soil. Concrete eventually replaced cut stone walls altogether and by about 1920 modular concrete blocks were the most common structural system used in barn basement walls.[xv]

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[xi] Ibid, E-20.
[xii] Ibid, E-26.
[xiii] Ibid, E-26.
[xiv] Ibid, E-35.
[xv] Ibid, E-23.

**Weigandt Construction Methods**

It isn't known where the lumber for the Weigandt Barn came from, but the Black Hills was a possible source. The railroad reached Rapid City in 1907, so lumber could have been heading east from that point on. As a carpenter, August would have known that the Ponderosa pine and Black Hills spruce available in the hills were very rot resistant and suitable for barn construction. It is not known what type of wood was used to construct the barn. However, the barn has never been painted and the unpainted wood has held up well considering its exposure to the elements. This could indicate that the wood was constructed from the durable pine and spruce found in the Black Hills.

The Weigandt barn is typical balloon frame construction framed primarily with 2"x 4" and 2"x 6" lumber. The siding is 12' planks with wood battens. Use of board-and-batten on barns is less common on barns of this size. Most siding is vertical clapboard, tongue-and-groove or vertical board without battens. The foundation is concrete and the interior floor is concrete along the walkway and dirt for the rest of the floor.

**Barn Architecture in South Dakota (from the Common Farm Barns in South Dakota 1858-1958 Historic Context)**

South Dakota's common farm barns are best understood and appreciated as examples of vernacular architecture. Vernacular architecture encompasses many types of buildings which were constructed for everyday use by ordinary people, often using locally available materials, and reflecting regional variations in the built environment. Unlike the academic or period styles, architectural fashion did not dictate farm barn design to any great extent—there is no such thing as a "Victorian" or a "Craftsman" barn. In most cases, if a farmer wanted to make his barn appear more stylish, he embellished it with some minor form of detailing, such as exposed rafter tails along the eaves of the roof or some stickwork applied to the gable wall. The typical South Dakota farm barn built between the 1850s and the 1950s was a large, wood-framed, general purpose outbuilding that provided shelter for crops, animals, tools, and manure under one roof. Although somewhat plain if not altogether homely in appearance, it was usually built strong, capacious, and well proportioned. Drainage, exposure to sunlight, and access to water were the chief practical considerations in selecting the building site, and as agriculture expanded and farms became more specialized farmers sometimes added a lean-to or wing to the old barn or erected a second barn to meet the requirements of new crops and livestock.[xvi]

Under ordinary circumstances, farmers and ranchers built the kinds of barns they were used to working with. Oftentimes they simply followed the lead of their neighbors, which explains why the predominant barn types in South Dakota are conventional Midwestern barns that reflect the broad patterns of farm barn development in the north-central states. Like generations of American agriculturists before them, whenever they encountered novel situations, Dakotans attempted to reconcile the new environment to their preconceived notions of what a good farm barn should be. Thus, barn builders have historically tended to be conservative, preferring to design and construct their farm barns along traditional lines, though they were usually amenable to variations suggested by other farmers. The profession of the agricultural engineer did not emerge until the early 1900s, but many important innovations in barn planning trickled down to farmers, either by personal contact or through books, magazines, agricultural bulletins, and newspapers. In newly settled areas under frontier conditions, homesteaders had little choice but to build for expediency, guided by common sense and convenience, using whatever materials were at hand. In long-settled agricultural districts, however, a few common barn configurations came to be preferred over others, and in most cases the choice of design and materials for new farm barns seems to have been influenced most by their similarity to the barns forms

[xvi] Vogel, E-5.

prevailing in neighboring communities. Over time, specific combinations of roof shapes, floor plans, structural systems, and materials became fixed solutions to the requirements of individual farmers and ranchers for new barns. Some of these common barn modes persisted in South Dakota for over a century.[xvii]

*The Origin and Diffusion of Common Barn Forms*

The basic pattern of rural settlement and agricultural development in South Dakota was derived chiefly from the Midwest. It is not surprising, then, that the common farm barns of South Dakota are not very different from contemporaneous farm barns built in Minnesota, Iowa, North Dakota, and Nebraska. Working under the assumption that farm barn building concepts were shaped primarily by regional and ethnic influences, barn historians have generally looked to the New England and Middle Atlantic culture hearths, as well as Old World folk architecture, for the pre-industrial origins of Midwestern barn-building traditions. The prototype for the conventional, two-level, gable-roofed general purpose farm barn, for example, is most often identified in the literature as the English three-bay threshing barn that evolved in New England during the seventeenth and eighteenth centuries. German and Swiss emigrants are credited with the introduction of the bank barn, widely known as the Pennsylvania Barn, and large, multi-level farm barns with masonry basements are sometimes referred to simply as "German" barns, regardless of location or the cultural affiliations of their builders. Much of the current thinking on barn type origins and diffusion tends to emphasize the "Americanization" of traditional Colonial and Old World folk barn forms through regional innovations and adaptations.[xviii]

While culture is not necessary rooted in ethnicity or nationality, the folk building traditions of some ethnic groups have been shown to be durable and persistent with respect to farm barn architecture in South Dakota. Folk architecture is characterized by its conservatism, drawing upon a limited range of building prototypes and allowing few individual variations. Immigrants carried their folk barn designs and methods of construction in their collective consciousness, thus eliminating the need for any kind of plans. These traditional approaches to building seem to have been very much alive and well in certain parts of South Dakota during the early settlement period. Few, if any, folk barns appear to have been built in the state after 1940, however.[xix]

South Dakota's ethnic tapestry has always been a complex mosaic and the folk architecture contributions of immigrant communities were varied. By and large, foreign-born settlers seem to have largely discarded their traditional barn forms when they arrived in South Dakota and were content to build farm barns which resembled those of their American neighbors. This is not surprising, as a pervasive national culture had already developed by the mid-nineteenth century, particularly in the Midwest, and the impulse for immigrants to conform to the dominant cultural forms of their new homeland must have been strong. However, in certain places where dense concentrations of a particular ethnic group occurred, cultural historians have sometimes been able to discern examples of their distinctive folk architecture in barns, though the reasons for their perseverance is not always clear. For example, German-Russian immigrants in southeast South Dakota made greater use of their traditional house-barns, in which humans and animals were quartered together under the same roof. Farm barns which reflect elements of ethnic folk architecture are notably present in eastern South Dakota, where a handful of surviving specimens of Czech, Norwegian, Danish, and Finnish folk barns have been documented.[xx]

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[xvii] Ibid, E5-6.
[xviii] Ibid, E-6.
[xix] Ibid, E-6.
[xx] Ibid, E-6.

Although they were the dominant culture group in South Dakota, American immigrants whose ancestors had resided in North America for multiple generations, the so-called "old-stock Americans," also subscribed to a number of folk building traditions. South Dakota's native-born settlers hailed from diverse regions but were predominantly Midwesterners whose forbears had been part of the great westward migration into the Old Northwest and the Upper Mississippi Valley and they appear to have been fairly evenly distributed along the homesteader frontier that swept over the region between 1857 and 1915. The culture hearth of the "cattle kingdom" in the West River country, on the other hand, was Texas and the Old Southwest, where the predominant architectural and land use patterns were an amalgam of Tidewater, Appalachian, and Spanish Borderland traditions. With respect to barn building, the Midwesterners generally adhered to the "big barn" pattern that had developed in New England and Pennsylvania, with its emphasis on large, wooden grain and livestock barns. In contrast, West River livestock ranchers as a group were not heavily dependent upon buildings other than dwellings, and when they built barns they seem to have been less bound by tradition and were more inclined to adopt new, functional forms.[xxi]

Several distinct but related folk barn building traditions converged during the westward movement of American agriculture across the Appalachian barrier that began in the late-eighteenth century. In what is now western Pennsylvania and Ohio, the exigencies of pioneer life forced settlers to adapt their farming practices and buildings to changing conditions, and as settlers from various regions and ethnic backgrounds were thrown together under similar environmental conditions there gradually developed a composite form of vernacular barn architecture that was unique to the Midwest. Even during the very early stages of agricultural settlement in the Old Northwest, several innovations in farm barn form and structure were in evidence by the 1820s. Several major farm barn types eventually evolved in Ohio, Indiana, and Illinois, the core of the Midwest, where the English Three-Bay, Raised Three-Bay, Pennsylvania Bank Barn, and Sweitzer types predominated. With small modifications, these were the types of conventional farm barns that were built in Michigan, Wisconsin, Iowa, and Minnesota during the early settlement period. These regional vernacular adaptations of folk barn prototypes were not significantly modified by agricultural science and engineering until near the end of the nineteenth century.[xxii]

In South Dakota, most common farm barns were an amalgam of pre-industrial and contemporary vernacular building forms. The term *contemporary vernacular* refers to the popular architecture that emerged from the Industrial Revolution. The factory system in North America dates from the early 1800s and the rising tide of industrialization had an immediate and transformational impact on agriculture, especially in the areas of mechanized cultivation and transportation. In the area of farm building, new technologies and products also effected revolutionary changes in the form, structure, and fabric of farm barns, but the pace of change was slower. First and foremost, the mass production and marketing of machine-sawn lumber stimulated the development of balloon-framing, which allowed barn builders to substitute light-weight milled boards for the traditional heavy timber frames, while at the same time saving farmers' considerable labor and expense. Of course, without the invention and manufacture of railroad transportation equipment, commercial lumbering would have been well-nigh impossible on the western plains. By the time South Dakota was opened to settlement, barn builders had come to rely more and more on factory-made building tools and materials, including machine-cut nails, door and window hardware, galvanized sheet metal, window glass, saws, and hammers. The invention of new farming implements and machinery also effected important changes in the form and function of farm barns. Like agriculture itself, the pattern of barn type diffusion was east-to-west and at the local level was tied to the proximity of railroads. The progress of barn design was likewise influenced by

[xxi] Ibid, E-7.
[xxii] Ibid, E-7.

the state of regional agricultural development, with the most rapid development occurring wherever farming operations were most intensive and there was capital available for investment in new buildings.[xxiii]

The relationship between folk and contemporary vernacular architecture was never stable with respect to farm barns. Although contemporary vernacular architecture strove for efficiency through the application of science and technology, farmers were by nature conservative in their approach to building and pressure to confirm with "general consent" was an important, though under-recognized, characteristic of farm management during the era of traditional farming. In South Dakota generally, cultural traditions continued to inform the design and construction of farm barns well into the twentieth century. Even barns designed by academically trained agricultural engineers often incorporated traditional barn forms, such as the gambrel roof shape or board-and-batten siding, in deference to long established tastes and conventional wisdom. The forms, plans, and images of contemporary vernacular farm barns were transmitted and entered the collective consciousness of farmers experientially, through observation and personal communication, or through the media of agricultural journalism, education, and commercial product marketing. Thus, contemporary vernacular architecture was popular architecture in the truest sense, in that it allowed individual farmers and builders to self-consciously select the basic barn plan that best met their particular needs and then modify it according to their notions of usefulness and propriety.[xxiv]

*The Influence of Agricultural Science and Engineering*

In the eastern United States the work of John Pitkin Norton, Orange Judd, Jesse Buel, and others demonstrated to Americans the practical benefits of scientific farming before the Civil War. Relatively little interest was shown in barn improvements, however, outside of a small circle of wealthy gentleman farmers and amateur architects. Early efforts aimed at improving the quality of rural architecture through books such as Asher Benjamin's *American Builder's Companion* and Minard Lafever's *Modern Builder's Guide*, both published in the 1830s, probably had little influence on western farm building because of their limited distribution. However, a distinguishing feature of nineteenth-century book publishing in the United States was the architectural pattern book containing written descriptions, plans, and elevations for every conceivable kind of building. The first mass-market pattern books aimed at general readers appeared during the late 1830s and the genre remained popular until the early 1900s. Andrew Jackson Downing and Alexander Jackson Davis were nineteenth-century America's most original and prolific architects and while their main focus was on picturesquely styled cottages and villas, their appreciation for the role of architecture as a civilizing force in rural life was expressed in numerous plans for farm barns. Davis introduced balloon framing to a mass audience in his pattern book *Rural Residences* (1837), while Downing's *Cottage Residences* (1842) and *The Architecture of Country Houses* (1850) became national best-sellers and were frequently reprinted for generations after the author's untimely death in a steamboat accident in 1852. Although they are widely credited with launching the Victorian aesthetic in American domestic architecture, the extent to which the early pattern book architects directly influenced common barn building is difficult to gauge.[xxv]

The federal government's involvement in agriculture dates from 1839, when Congress appropriated funds for the use of the Patent Office in collecting agricultural statistics. The first annual report on agriculture in the United States appeared in 1854 and in 1862 responsibility for the promotion of agriculture was transferred to a the newly created bureau headed by the Commissioner of Agriculture. The bureau's 1867 report devoted a

[xxiii] Ibid, E-7
[xxiv] Ibid, E7-8.
[xxv] Ibid, E-8.

section to barns, illustrated with engraved views, and offered the following commentary on the need for a new kind of general purpose barn:

> A modern American barn upon a farm where a general mixed husbandry is practiced ought to include under one roof, or at least in one building, including wings, all the accommodations furnished by the collection of buildings which usually form so nondescript a group around any old farm homestead . . . One good building takes the place of a score of others of all ages and as diverse in character as ingeniously inconvenient.[xxvi]
>
> Grassroots interest in agricultural improvements found an outlet in agricultural societies, which sprang up all over the country during the nineteenth century to spread information about improved farming methods through agricultural fairs and publications. There were over nine hundred agricultural societies in the United States by 1858 and the institution migrated west into Dakota, where a territorial agricultural society was formed in the late 1870s. County agricultural societies were also formed and several put on fairs prior to the first territorial fair held at Sioux Falls in 1885.[xxvii]

Agricultural journalism evolved in tandem with the agricultural societies. The beginnings of the "farm press" can be traced to *The American Farmer* (1819-33), *The Cultivator* (1834-53), and the *American Agriculturist* (1842-79). There were at least thirty agricultural periodicals in circulation by the 1840s, with more than one hundred thousand subscribers. Chicago emerged as the hub of agricultural publishing, with over fifty farm periodicals published there. Probably the most influential Midwestern farm journal was *The Prairie Farmer*, founded in 1840 as the *Union Agriculturist and Western Prairie Farmer* by the forerunner of the Illinois State Agricultural Society; starting with a subscription base of about 500, the weekly newspaper was mailed to more than 12,000 in 1859 and circulation peaked at 370,000 in 1950. The first mass distribution farm newspaper to be published in Dakota Territory was the *Dakota Farmer*, founded in Aberdeen in 1881, followed by the *Northwestern Farmer and Breeder* which started publication in Fargo in 1883. Both papers were subsequently acquired by Fargo businessman Edward A. Webb, who merged them to form the *Northwestern Farmer*. In 1890 Webb moved the company to the Twin Cities, where the paper, renamed *The Farmer* in 1898, formed the basis of the Webb Publishing Company, which continued to print a separate South Dakota edition until 1979. Other widely read late-nineteenth century farm periodicals with a penchant for farm barns included the Chicago-based *Breeder's Gazette* (1881-1931), a weekly illustrated livestock and crop reporting journal founded by J. H. Sanders, who also published numerous books of barn plans. Much of the success of these farmer periodicals stemmed from their practice of soliciting information from individual farmers. An opinion survey of farmers conducted for the U.S. Department of Agriculture revealed that the farm press was one of the dominating influences in American agriculture, ahead of the agricultural colleges and cooperative extension services.[xxviii]

While many of the early published barn plans illustrated the inventiveness and ingenuity of their creators, many were not practical for use by ordinary farmers. Lewis F. Allen, author of one of the earliest architectural pattern books aimed at rural builders, cautioned against eccentricity in barn design:

> It may not be out of place here, to remark that many *designers* of barns, sheds and other out-buildings for the accommodation of farm stock, have indulged in fanciful arrangements for the convenience and comfort of animals, which are so complicated that when constructed, as they sometimes are, the practical, common-sense farmer will not use them; and, in the *learning* required in their use, are altogether unfit for the use and treatment they usually get from those who have the daily care of the stock which they are intended for, and for the rough usage they receive from the animals themselves. A very pretty, and a very

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[xxvii] Ibid, E-8, E-10.
[xxviii] Ibid, E-10.

> plausible arrangement of stabling, and feeding, and all the etceteras of a barn establishment, may be thus got up by an ingenious theorist at the fireside, which will work to a charm, as he dilates upon its good qualities; untried; but, when subjected to experiment will be utterly worthless for practical use.[xxix]

Notwithstanding the obvious need for better educational facilities, agricultural education in the United States got off to a slow start. Professorships in natural history, chemistry, and agriculture were established at Columbia, Yale, and other eastern colleges at a fairly early date, but there was no institution of higher learning dedicated principally to the agricultural sciences until the 1850s, when Michigan, Maryland, and Pennsylvania created the first state-supported agricultural colleges. The great impetus to agricultural education came with the passage of the Morrill Act in 1862, which provided for a grant of land to each state for the purpose of endowing colleges of agriculture and the mechanic arts. Land grant colleges were soon established in all of the states and territories, including Dakota, where the Dakota Agricultural College at Brookings (modern-day South Dakota State University) opened its doors in 1885. The Hatch Act of 1886 provided funds for agricultural experiment stations in the various state colleges with the mission of research in all branches of agriculture which were considered useful to farmers. The territorial legislature was quick to establish stations at Fargo and Brookings. The value of agricultural extension work was recognized by Congress in 1914 with the passage of the Smith-Lever Act, which appropriated funds for a wide range of farmer education and technical assistance programs, including the extension agent program. A year later, the South Dakota legislature approved funds for a new agricultural extension facility on 320 acres northwest of the recently re-named South Dakota College of Agriculture and Mechanic Arts at Brookings. In addition to teaching and research, the mission of the agricultural colleges and experiment stations included the dissemination of information to farmers. The South Dakota Agricultural Experiment Station began printing extension bulletins in 1887 and had fifteen titles in its catalog by the time of statehood.[xxx]

The period from roughly 1870 to 1940 witnessed revolutionary changes in the design and construction of farm barns. By that time the Industrial Revolution had progressed sufficiently so that many kinds of buildings could be planned on solid engineering principles and built from standardized, mass-produced materials. In large parts of the country, folk barn architecture gave way to contemporary forms. This trend toward designed farm barns encouraged architects, engineers, farm managers, and building materials manufacturers to concentrate more on the development of new kinds of farm barns. At the same time, improved building tools, materials, and marketing made it easier for farmers to learn about, acquire, and build better farm buildings.[xxxi]

No factor has been more significant in the evolution of farm barn design than the advent of agricultural engineering. The formative years of the profession took place during the late eighteenth and early nineteenth centuries, but until the 1870s agricultural science placed more emphasis on improved farm machinery, soil chemistry, plant science, and animal husbandry than on farm planning or structural engineering. Opportunities for professional practice in designing barns were few and far between until near the turn of the century. Much of the early work in farm barn engineering was carried on by amateurs, mostly individual farmers, carpenters, and mechanics. For example, neither John L. Shawver or Joseph E. Wing, who were responsible for some of the earliest breakthroughs in the application of balloon framing and self-supporting rafter systems to farm barn design, was a trained architect or engineer—Shawver, of Bellefontaine, Ohio, was a former schoolteacher, while Wing was a gentleman farmer from upstate New York.[xxxii]

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[xxix] Ibid, E-10.
[xxx] Ibid, E-10, E-12.
[xxxi] Ibid, E-12.
[xxxii] Ibid, E-12.

Before the 1880s it was difficult to obtain comprehensive, professional training in agricultural engineering and much of the early academic work in the field was carried on by men who had been trained in other disciplines such as agronomy, chemistry, economics, or civil engineering. The multidisciplinary character of the profession is personified in the career of Franklin Hiram King of Wisconsin, who taught agricultural physics, invented a widely used barn ventilation system, was chief soil agent of the U.S. Bureau of Soils, and conducted the first agricultural engineering extension work in the 1890s. A great deal of important work on farm barns was carried at an early date at the various Midwestern agricultural colleges and experiment stations. The first undergraduate degree programs in agricultural engineering were established at the Iowa State College and the University of Wisconsin in 1904, and the colleges of agriculture and engineering at Minnesota, Illinois, Michigan, and North Dakota also offered undergraduate training in the field and eventually established agricultural engineering degree programs. In 1907 agricultural engineers from around the country gathered at the University of Wisconsin in Madison to character the American Society of Agricultural Engineers (now known as the American Society of Agricultural and Biological Engineers).[xxxiii]

According to the annual reports of the Agricultural Experiment Station at Brookings, instruction in agricultural engineering was included in the course of study at the Dakota Agricultural College during the late 1880s. In the 1890s a Department of Architecture and Agricultural Engineering was established, although agricultural engineering did not attain the dignity of a separate department until 1925. The barns constructed on the Brookings campus and at the Eureka, Highmore, Cottonwood, and Vivian sub-stations were showplaces and laboratories for the new building methods. South Dakota's agricultural engineers made important contributions in diverse areas, including development of one of the first forced-air barn ventilation systems (see Kelley 1921). Ralph L. Patty, who was appointed extension specialist in agricultural engineering in 1916, carried out important work in the areas of farm drainage and dairy barn sanitation and garnered national attention for his experiments with rammed earth construction in the 1930s.[xxxiv]

Prospective farm barn builders in South Dakota did not lack for farm barn plans and specifications that were inexpensive and readily available from a variety of sources. This included practical information on the design, construction, and maintenance of farm buildings disseminated by the various agricultural colleges and experiment stations, which were published in bulletins and circulars that were distributed gratis to any farmer who asked to have his names placed on a station's mailing list. Agricultural engineering research and farm building education was also carried on by the U.S. Department of Agriculture, where the bureau of agricultural engineering began collecting data relating to farm buildings in the early 1890s. Over the years a wealth of information about farm barns found an outlet in the department's numerous publications programs, especially the *Farmer's Bulletin* pamphlet series, with more than two thousand titles, which were distributed to farmers free of charge from 1889 until 1984.[xxxv]

Architectural pattern books enjoyed a renewal of popularity after the Civil War and continued to include farm barn plans, often accompanied by detailed specifications and step-by-step instructions for their erection. An entirely new genre of barn plans emerged near the end of the nineteenth century when commercial barn planning services began to produce and distribute catalogs of barn plans, often as an adjunct to other agricultural product lines. The most successful of these was the Louden Machinery Company of Fairfield, Iowa. Founded in 1867 by William Louden, the company started out as a manufacturer of hay fork carriers and other farm equipment invented by Louden himself. The company entered the architectural business in the 1890s and eventually marked a wide range of houses, garages, and other buildings. Louden's free barn planning service was started in 1906 and relied on colorfully illustrated catalogs to market its ever-growing portfolio of general purpose and specialty barns. Louden advertised widely in the farm press and offered its

[xxxiii] Ibid, E-12.
[xxxiv] Ibid, E-13.
[xxxv] Ibid, E-13.

customers coupons redeemable for free, customized barn plans. Between 1907 and 1939, the Louden design team in Fairfield reportedly drew up plans and specifications for more than 30,000 farm barns for clients all over the world.. A competitor, the James Manufacturing Company of Fort Atkinson, Wisconsin, also garnered a share of the Midwestern barn planning business through its *Jamesway Barn Book* farm building magazine. There were hundreds, perhaps more than one thousand different farm barn plans in circulation by the late 1920s.[xxxvi]

A raft of trade books aimed at encouraging farmers to construct better farm buildings appeared during the first two decades of the twentieth century, with titles like *Barn Plans and Outbuildings*, *Modern Farm Buildings*, *The Farmer His Own Builder*, *The Farmstead: The Making of the Rural Home and the Lay-Out of the Farm*, and *Modern Farmyard Buildings*. Many of these works were frequently reprinted, indicating a strong and persistent demand. Barn plans also made up chapters in general guides to farming and the popular encyclopedia *Farm Knowledge*, which was prepared for Sears, Roebuck and Company. William A. Radford, an architectural pattern book imprèsario based in Chicago who was best known for his house plan books, also published several volumes of barn plans as well a manual on framing, all under the auspices of the Radford Architectural Company. Radford, who also stumped for barns on the road and held free barn planning seminars for farmers, claimed it cost thousands of dollars to compile each book, which retailed for one or two dollars. Few agricultural publishers devoted as much ink to barn plans as James H. Sanders and his son Alvin, publishers of the *Breeder's Gazette*. In the 1890s Sanders and his son created their own publishing house to produce volumes of farm building plans contributed by *Gazette* subscribers and leading experts from around the country. Many of the barn plans were contributed by farmers and were illustrated with renderings prepared by the staff at Sanders Publishing. The company's philosophy on barns and the need for barn books was summed up by Alvin Sanders:

> In barn building as in the planning of the farm house, nearly every individual has his own peculiar ideas and tastes. It is rarely that one is entirely satisfied with what a neighbor has done in such matters. At the same time it is clear that many general propositions may be gleaned from a study of what successful farmers in different parts of the country have already carried out.[xxxvii]

A number of respected academics also produced textbooks for courses in farm management and agricultural engineering that influenced the broad pattern of farm barn design and construction beyond the classroom walls. Of these the most popular and widely used were probably *Agricultural Engineering*, a general textbook by J. Brownlee Davidson of Iowa State College, published in 1913 and widely adapted by others; and *Farm Buildings*, co-authored by Deane G. Carter and W. A. Foster of the Iowa State Agricultural Experiment Station, first printed in 1922, with a fourth edition issued in 1954. Karl J. T. Ekblaw of the University of Illinois contributed a general textbook on rural building, *Farm Structures* (1914), and the first comprehensive work on the uses of concrete in farm construction (1917) that were standard reference works for years to come. By the 1920s, agricultural engineers had largely displaced architects in farm building—the prevailing opinion among the engineering profession being that architects were not equipped to design proper farm barns because they "did not care for this class of work because of the low fees for services and lack of transportation facilities." Farm buildings figured prominently in the agricultural engineering literature of the 1920s and 1930s, which saw a steady stream of important contributions on barn design, sanitation, construction methods, planning, and maintenance.[xxxviii]

Interest in factory-fabricated, mass-distributed farm buildings developed toward the end of the nineteenth century. The first mail-order catalog barn "kits" may have appeared as early as the 1860s but apparently did

[xxxvi] Ibid, E-13.
[xxxvii] Ibid, E-13-14.
[xxxviii] Ibid, E-14.

not gain wide acceptance until after the turn of the century. Sears, Roebuck and Company was not the first to offer barns for sale through its mail-order catalog, but its *Book of Barns* may have been the number-one source of kit barns in the country between 1911 and 1929. In addition to the illustrated catalogs, kit barns were also widely advertised in newspapers and magazines. To obtain a mail-order barn, a farmer simply selected a model from one of several catalogs that were in wide circulation and submitted the order with a down-payment. Barns were available for as little as $800, delivered. Barn lumber, hardware, and fixtures were manufactured at mills scattered around the country—Gordon-Van Tine Company, which fabricated most of the Sears barns and also marketed its own brand of barns, had mills in Davenport, Iowa, Chehalis, Washington, and St. Louis, Missouri. Once the parts had been manufactured they were shipped to the various company building yards, where they were marked, assembled, and shipped to the railroad station nearest the purchaser.[xxxix]

The focus of agricultural engineering eventually began to shift away from farm buildings toward an emphasis on farm machinery, drainage, and irrigation, although barn plans continued to be developed and distributed. The Midwest Plan Service, a consortium of agricultural engineering departments formed to develop and distribute state-of-the-art farm building plans, was formed in 1933 with the South Dakota State Agricultural Extension Service as a charter member. The trend toward mass-produced farm buildings was directed by the growing class of professionally trained agricultural and industrial engineers who were employed by private companies that had begun moving to capitalize on the new building technologies. Like their colleagues at the agricultural colleges and experiment stations, private sector engineers also conducted research and experiments in new farm barn design and construction and published the results of their work in professional journals, monographs, and trade magazines. An important marketing tool for the new generation of farm barns was found in the promotional materials which were widely distributed by extension personnel and given away free at state and county fairs.[xl]

**South Dakota Agricultural History (from the Common Farm Barns in South Dakota 1858-1958 Historic Context)**

It would be difficult to understate the importance of agriculture in South Dakota history. Despite the sharp reduction in the number of family farms and ranches and shifts in other sectors of the economy since the late 1950s, agriculture remains a dominant industry in the state as well as its most extensive land use. The ongoing transformation of its rural built environment is reflected in the heritage of South Dakota farm barns.[xli]

In broad, general terms, the history of South Dakota agriculture during the settlement period, which ended about 1917, was chiefly the story of the westward movement of the farming frontier from the older settled parts of the Midwest onto the northern plains, the continuous opening of new land for speculation and production, the modification of traditional farming practices by the introduction of improved machinery, and recurring cycles of economic boom and bust. Secondary themes include the emphasis on wheat farming, the rise and decline of open range livestock ranching, and the attempts to cultivate large areas of semi-arid land using dry-land farming techniques. During the post-settlement period, South Dakota agriculture entered an entirely new phase, characterized by radically different patterns of land use and production. The four decades after 1917 were marked by the steady industrialization of agriculture, as manifested by increased mechanization, the expanding role of government in agriculture, and overproduction of staple crops and livestock. Other outstanding factors in the changing face of rural South Dakota have been the rise in the standard of living, marked shifts in the number and size of family farms, and the increasing economic and functional obsolescence of traditional agricultural buildings. The year 1958 was selected as the terminal date for the

[xxxix] Ibid, E-14.
[xl] Ibid, E-14.
[xli] Ibid, E-1.

historic context because it generally corresponds to the beginning of the post-industrial or "agri-business" era in South Dakota agricultural history.[xlii]

Euro-Americans had been prodding and probing what is now South Dakota for nearly a hundred years before the first pioneer farms were established near present-day Sioux Falls in 1857-58. After Congress authorized the organization of Dakota Territory in 1861, the rectangular survey began to prepare the way for opening the interior to settlement and various schemes were advanced to promote immigration. The region's reputation as part of the "Great American Desert" retarded agricultural development and Dakota remained a scantily populated borderland until the late 1860s. The first significant wave of immigrants began moving into the territory after the Civil War, and the influx of settlers soon reached boom proportions. Free land under the Homestead Act of 1862 was a strong inducement to take up quarter-sections of prairie land along the Big Sioux, Vermilion, and James rivers, and the territory's attractions were widely proclaimed in a torrent of guide books, pamphlets, newspaper articles, and magazine features. Several successive years of good crop growing conditions and the approach of railroads then being constructed across Iowa and Minnesota also helped encourage agricultural development. However, neither cash grain farming nor stock raising were practical on a commercial scale due to the lack of transportation facilities and markets.[xliii]

The First Dakota Boom of 1868-73 was an illusion for most of the territory's agriculturists. The Panic of 1873 hit the region especially hard and was followed by several years of depressed prices for farm products. The financial depression would have held up agricultural development in any event, but to the economic crisis was added a succession of natural disasters in the form of droughts and grasshopper plagues. Most of the homesteaders were left impoverished and many farms were abandoned. The cycle of boom-and-bust repeated itself during the Great Dakota Boom of 1878-87, which was marked by a tremendous increase in immigration and agricultural expansion. During the years 1875-86, abundant rainfall occurred over the Great Plains, a phenomenon which received an immense amount of attention in government reports and the popular press. Attracted by the prospects of grain farming, the East River country[xliv] became dotted with prairie homesteads and there was wild speculation on the progress of the territory, which was believed to be on the verge of being admitted to statehood. The rapid influx of settlers afforded a ready market for grain, beef, and other farm products, but it was the railroads that were the primary motive force behind late-nineteenth century agricultural expansion. Until the first train rolled into Sioux Falls in 1878, the Missouri River and a primitive network of overland trails were the territory's only routes of immigration and commerce. Two major Midwestern railways, the Chicago & Northwestern and the Chicago, Milwaukee & St. Paul, penetrated Dakota in the late 1870s and quickly caught up with the leading edge of settlement. By 1881, both railroads had pushed their main lines as far west as the Missouri River and were busy constructing a skeleton network of branch lines.[xlv]

Homesteaders found the Dakota prairies relatively easy to cultivate. Steel plows, mechanical reapers, threshing machines, and mowers had all been invented before the Civil War and new models were available that were specially adapted to western prairie farming. Farms were taken up in 160-acre tracts that could be "proved up" in five years or commuted for cash. Many homesteaders stayed in one place only long enough to prove up or commute their claims, then sell or rent the land to an actual settler. The conventional wisdom was

[xlii] Ibid, E-1.
[xliii] Ibid, E2-3.
[xliv] It is customary for South Dakotans to apply the terms "East River" and "West River" to the eastern and western sections of the state, with the Missouri River forming the line of demarcation; see Edward Patrick Hogan and Erin Hogan Fouberg, *The Geography of South Dakota* (Sioux Falls, 2001), 157-161.
[xlv] Ibid, E-3.

that a prairie farmer could acquire all the land he wanted, grow wheat, and become prosperous in the span of three or four years. The reality was much more stark. Homesteading in Dakota was no bonanza for the average settler. Environmental hazards included hot winds, extremes of high and low temperature, blizzards, hail, frost, floods, noxious weeds, prairie fires, and insect infestations. The greatest and most persistent threat to agriculture, however, was drought.[xlvi]

Handicapped by climate and inaccessibility, agricultural development in the West River country was slow, and a kind of hollow frontier developed during the 1870s, when the leading edge of settlement leapfrogged the Missouri Plateau. The search for precious metals played a major role in the exploration and initial settlement of the Black Hills, where the discovery of gold in 1874 was followed by the establishment of subsistence farming and livestock herding. Between the eastern fringe of the farming frontier and the mining settlements of the Black Hills stretched a vast territory of grassland that was widely regarded as unfit for any kind of agricultural use until it was discovered that the longhorn cattle of Texas not only could survive the harsh climate of the northern plains unsheltered but flourished on the natural forage provided by the short-grass prairie. The slaughter of the great northern buffalo herd and the reduction of the Sioux nation cleared the way for the expansion of the "cattle kingdom" into western Dakota, and by 1885 a number of large cattle outfits had moved in and were in control of large holdings. Except for the mining camps and Indian reservations, the whole region was one vast, unbroken stretch of grazing territory where cattle could be turned out to forage on the free grass of the public domain—stockmen rarely owned more than small portions of the land, which they obtained for little or nothing, over which their herds ranged. After the annual roundup the steers were trailed eastward to the railheads, where they were loaded on railcars for shipment direct to the packers, while the bulls, cows, and calves were kept for breeding stock or sold to newcomers who were streaming onto the northern plains looking to cash in on the "beef bonanza". Sheep also became a profitable form of livestock ranching enterprise on the high plains, beginning with flocks of Mexican sheep that were driven up from Nebraska. Contrary to popular folklore, cattle and sheep ranching coexisted to a considerable extent on the open range. Homesteaders and barbed-wire fences nibbled at the edges of the range, although very little land was actually placed under cultivation before the late 1890s.[xlvii]

Severe blizzards and drought in 1886-87, and a devastating drop in beef prices caused by overproduction, signaled the close of the great open range cattle boom. Inflated values were wiped out and many of the large cattle companies failed. Meanwhile, the return of droughts and crop failures turned the East River homesteader boom to bust and the wild optimism of the mid-1880s quickly gave way to despair as thousands of settlers were bankrupted. Even more striking than the sharp reduction in crop and livestock production was the precipitous decline in population, with some counties losing more than half their population in a matter of months, one of the factors which delayed South Dakota statehood until 1889. A large proportion of the homesteaders never "proved up" or obtained their patent through commutation and moved away, and thousands of farmsteads were either abandoned or sold. Droughts and crop failures persisted through the early 1890s and the national depression brought on by the Panic of 1893 further retarded agricultural development.[xlviii]

Agriculture during the settlement period was labor intensive and production was distributed over large areas with tens of thousands of small, fairly diversified farms where the bulk of the state's population lived. Farmers not only employed most of the work force, they owned several hundred thousand work animals (e.g., 720,060 horses in 1925) and were near-continuously engaged in building construction activities of one kind or another. Farm production emphasized a few important commodities: spring wheat, barley, flax, corn, and beef cattle.

[xlvi] Ibid, E-3.
[xlvii] Ibid, E2-3.
[xlviii] Ibid, E-3.

Undoubtedly the most striking feature in the early agricultural history of the state was the predominance of wheat as the main field crop. (By 1909, South Dakota ranked third in the nation in wheat production.) Land was so easily acquired that it perpetuated old-fashioned and wasteful farming practices—when his land wore out from growing wheat year after year, the prairie homesteader usually found it cheaper to take up new land than to care for the old. Even more harmful to agriculture was the mania for speculation in land as a commodity, which made farming less efficient and encouraged settlers to take up claims in areas which were totally unsuited to general farming on 160-acre homesteads. Most homesteaders literally scratched out a livelihood under near-subsistence conditions, constrained by the underdeveloped rural infrastructure and harried by droughts, prairie fires, blizzards, and locusts. Nevertheless, there were many careful, progressive farmers and ranchers whose enterprises became increasingly efficient and specialized. Overall, the development of grain farming and livestock ranching depended largely upon markets and transportation, and because of the mature railroad system and the expanding domestic market for foodstuffs, at the turn of the century South Dakota was on the verge of developing a sustainable agricultural economy based on the production of cereal and meat.[xlix]

Agricultural historians sometimes refer to the years from 1896 to 1920 as the Age of Prosperity. In South Dakota, this period was marked by another surge of immigration and amazingly rapid settlement of large areas hitherto undeveloped. By 1917 practically all of the arable land in the state had been claimed and occupied, thanks to the government's liberal land policies and the mania for dry-land farming. South Dakota agriculture boomed as never before during the First World War when the market prices of farm products reached record levels; and while the war in Europe triggered a great increase in demand for American agricultural exports, the biggest market expansion was in the United States, created by the explosive growth of the non-farm population between 1890 and 1920. East River farmers especially saw substantial improvement in income and quality of life and the rising tide of rural prosperity triggered a great building boom, perhaps the biggest in the state's history. As agriculture become more commercially oriented, subsistence farming gradually disappeared and farmers began to start thinking of themselves as businessmen.[l]

The final chapter in South Dakota's homestead era took place between 1902 and 1917, when the last of the great Indian reservations were opened up to settlers. Convinced by dry-land farming propagandists that "rain follows the plow," settlers fanned out across the West River country to take up enlarged homesteads on sub-marginal land where they tried to make a living growing wheat on land that was physically unsuited for cultivation. After the onset of a severe drought in 1915, much of the topsoil that had been exposed by dry farming was deflated by wind erosion; huge dust storms, precursors of the 1930s "Dust Bowl," swept over the high plains, destroying crops and livestock. Most of the West River homesteaders lost their farms and were forced to migrate elsewhere. For a generation, the trend in agriculture throughout most of the West River country was backward.[li]

Notwithstanding a postwar recession and several years of bad crops, trends which were operative before the turn of the century continued to modify farming during the 1920s. Great advances were made in farm mechanization, highlighted by a 162% increase between 1920 and 1930 in the number of South Dakota farm families owning at least one tractor. The same period saw automobile ownership more than double, with 86% of farm families owning a car at the time of the 1930 census. In the southeast, farmers embraced the Corn Belt farming system, with its emphasis on corn and other feed crops and livestock. Increasing numbers of farmers turned to dairying in order to increase their profit margins, although many small herds were liquidated

[xlix] Ibid, E-3.
[l] Ibid, E3-4.
[li] Ibid, E4.

during the 1930s and 1950s because of drought and a major drop in the price of milk. Wheat and other small grains continued to dominate farm output, especially in the northern and central parts of the state.[lii]

The farm crisis of the early 1920s and the Great Depression of 1929-35 wiped out much of the farm wealth that had accumulated during the era of prosperity. Chief among South Dakota farmers' problems, aside from the near-collapse of the general economy and depressed commodity prices, was the persistence of drought. Outbreaks of wheat rust and grasshopper infestations further reduced crop yields and forced many farmers to leave the land. The average value of an acre of South Dakota farmland fell from over $200 in 1920 to less than $50 in 1940, while the market prices for wheat, corn, and beef did not return to 1919 levels again until after the Second World War. Nevertheless, the number of farms and agricultural production actually increased during the 1930s, despite tremendous population shifts. The adversity of the Great Depression was followed by a spectacular expansion of farming brought on by the Second World War which greatly improved the financial condition of most farm and ranch families. The postwar years saw the trend toward farm enlargement resume and accelerate, although much of the increase was offset by the increasing number of family farms that passed out of existence. New kinds of farm machinery, electric power, and improved highways helped lighten the work and improve the quality of life on thousands of farms and farms.[liii]

By the middle of the twentieth century three distinct type-of-farming regions had developed within the state's borders. The Corn Belt system of mixed feed crops, grain, and livestock farming predominated in the east and east-central areas, where corn was the major field crop. Because corn cropping draws heavily on soil fertility, farmers grew oats, wheat, soybeans, and hay as the transitional crops in a three- or four-year rotation. A large proportion of the crops raised were used to fatten beef cattle and hogs, although there were also many large farms where corn, oats, and soybeans were cultivated as cash crops. The practice of fattening beef cattle on grain in farm feedlots, which had been evolving in eastern South Dakota since the 1880s, became more widespread after 1935, although the region was regarded as under-stocked with feeder cattle throughout most of the 1950s due to the persistence of drought conditions. Because of its cooler climate and less productive soils, the counties in northeast South Dakota historically had a higher proportion of dairy farmers and a considerable amount of dairy farming continued to be carried on in the southeast corner of the state as well because of its close proximity to major markets for fluid milk. Farming in the north-central counties was dominated by spring wheat and small grains, as it had been since the days of the homesteaders, and increased mechanization significantly enlarged the acreage that could be farmed by a single family. Barley and flax were also grown on a commercial scale and most grain farmers also raised some cattle as well as small acreages of corn and hay. The western half of the state was part of the range livestock region where beef cattle and sheep were the most important enterprises. Three-fourths of all land west of the Missouri River was used for grazing, although less than half of it was privately owned. By the late 1950s, the trend away from raising steers on grass was well underway and most of the cattle raised on the western range were being shipped as calves or yearlings to farms and feedlots in the Corn Belt to be fattened on grain before they were sold for slaughter. Drought and shortages of range feed made the 1950s a difficult decade for cattlemen, however.[liv]

As with other sectors of the South Dakota economy, the transformation of agriculture and rural life between 1857 and 1958 was driven by long-term economic shifts, as well as periods of economic and environmental crisis. Among the most influential trends were technological development, the rise of consumer influence in agricultural production, and the increasing integration of South Dakota farming and ranching into national and global markets. Technological developments in agriculture were particularly influential in driving change on the

[lii] Ibid, E4.
[liii] Ibid, E-4.
[liv] Ibid, E4-5.

farm and the pace of change, already rapid during the late-nineteenth century, became extraordinarily rapid during the post-settlement phase in the state's history. Advances in farm mechanization and transportation led to ever-increasing economies of scale that spurred rapid and far-reaching shifts in farm size, accompanied by an equally rapid decline in the number of farms and in the farm population. From near complete reliance on animal power in 1900, South Dakota farmers rapidly embraced mechanical power: threshers, combines, tractors, and trucks became routine adjuncts to farming by 1940. Advances in plant and animal breeding increased yields and quality and helped generate unprecedented growth in agricultural productivity. At the same time, the structure of farms and the built environment also underwent tremendous transformation.[lv]

**August Weigandt History**

August Weigandt was born in Germany in 1862. He entered the German Army at age 14 and later came to the United States to avoid further compulsory military service. At age 18, he immigrated to America. When he arrived, he had no money and could not speak English. He settled in Moline, Illinois, and worked in the grocery business with his brother Ted.

In 1890 he married Emma Dillig in Davenport, Iowa, before moving to Clover, Virginia. They farmed there for several years and had five children. Emma died in 1902, prompting August to move back to Moline, Illinois, to be closer to relatives who could help him take care of his children Harry, Ludwig, Edward, Clarence and Lilly.

In October 1904, August homesteaded in Jones County. He built a 12' x 16' claim shack with a lean-to on the west side for two cows and four horses. In 1906, August married Caroline Luett. Caroline and the children tended to the stock and much of the farming while August worked as a carpenter.

August built all of the buildings on his farm, including the barn. After its completion in 1917, a Red Cross benefit dance was given for World War I.

August passed away in August 1950. His sons purchased his estate from the other heirs. His son Harry later bought out two brothers' shares. Edward and his son Leonard continued to manage the farm until Edward's death in 1959. Leonard continued to operate the farm for his uncle Harry until Harry's death in 1965, at which time he purchased the property. The farm has remained in the Weigandt family since 1904. Bruce and Karen (Weigandt) Royer, purchased the property in 1993.

**History of Jones County**

Jones County is located west of the Missouri River in south central South Dakota. Farming and livestock production are the major industries of the rural county which covers 972 square miles. Its population in 2010 was 1,006.

The land that would become Jones County was once part of the Great Sioux Reservation established by the Fort Laramie Treaty of 1868. The reservation would be reduced in 1890 to open up an additional 11 million acres for settlers. The reduction opened settlement to land between the White and Cheyenne Rivers and the entire strip between the 102nd and 103rd meridians extending south to the Cheyenne River. The area included

[lv] Ibid, E-5.

all of Presho and Pratt counties lying north of the White River and all of Lyman County except for three townships in the southwest corner.[lvi]

A gun firing on 10 February 1890 at Chamberlain in Brule County on the east side of the Missouri River opened up the settlement rush into the opened reservation lands. Prospective claimants rushed forward to stake their claims and to file on lands at the United States Land Office in Chamberlain. Settlers took advantage of the Homestead Act of 1862. It provided for the transfer of 160 acres of unoccupied public lands to each homesteader on payment of a nominal fee after five years of residing on and improving the claim. The land could also be acquired after six months of residence for $1.25 an acre.

When the reservation was opened in 1890, Jones County had not been created. As more and more people settled Lyman County, a movement was started to divide it. An election in November of 1916 approved the division. However, when the county was split a controversy arose over the bonded and warranted indebtedness of Lyman County. The commissioners of the new Jones County and old Lyman County could not agree on the mutual assumption of the debts, which held up the process. The state legislature agreed on an emergency enactment on 10 March 1917 that decreed that the executive accountant of South Dakota would make an inventory of the assets and liabilities to both the original and new counties. This account was then sent to the county commissions with the assets and liabilities apportioned in the manner prescribed by the law.[lvii]

## 9. Major Bibliographical References

**Bibliography** (Cite the books, articles, and other sources used in preparing this form.)

Book and Thimble Club. *Proving Up: Jones County History.* Printed by Pischel Yearbooks Inc., Murdo: SD, 1969.

Nobles, Allen G. and Hubert G.H. Wilhelm. *Barns of the Midwest.* Ohio University Press, Athens: Ohio, 1995.

Vogel, Robert. *Common Farm Barns of South Dakota 1858-1958 Historic Context.* South Dakota State Historic Preservation Office, Pierre: SD, 2007.

**Previous documentation on file (NPS):**

___preliminary determination of individual listing (36 CFR 67 has been requested)
___previously listed in the National Register
___previously determined eligible by the National Register

**Primary location of additional data:**

___State Historic Preservation Office
___Other State agency
___Federal agency
___Local government

[lvi] Book and Thimble Club. *Proving Up: Jones County History.* (Murdo: SD, printed by Pischel Yearbooks Inc., 1969), 14-15.
[lvii] Ibid, 20.

Weigandt Barn
Name of Property

Jones County, SD
County and State

___designated a National Historic Landmark
___recorded by Historic American Buildings Survey #_____
___recorded by Historic American Engineering Record # _____
___recorded by Historic American Landscape Survey # _____

___University
___Other
Name of repository: _____

Historic Resources Survey Number (if assigned): _____

## 10. Geographical Data

**Acreage of Property** Less than one
(Do not include previously listed resource acreage.)

**UTM References**
(Place additional UTM references on a continuation sheet.)

| | Zone | Easting | Northing | | Zone | Easting | Northing |
|---|---|---|---|---|---|---|---|
| 1 | 14 | 365883 | 4858358 | 3 | | | |
| 2 | | | | 4 | | | |

**Verbal Boundary Description** (Describe the boundaries of the property.)
The boundary is an imaginary line that begins three feet northwest of the northwest corner and runs east to a point three feet northeast of the northeast corner and then runs south to a point three feet southeast of the southeast corner and then runs west to a point three feet to the southwest of the southwest corner and then runs north to the original starting point. Also, see attached maps/site plans.

**Boundary Justification** (Explain why the boundaries were selected.)
The boundary includes only the Weigandt Barn.

## 11. Form Prepared By

name/title C.B. Nelson
organization SD State Historic Preservation Office date 1 October 2011
street & number 900 Governors Drive telephone 605-773-3458
city or town Pierre state SD zip code 57501
e-mail

## Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- ***Continuation Sheets***
- **Additional items:** (Check with the SHPO or FPO for any additional items.)

**Photographs:**

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property: Weigandt Barn

City or Vicinity: Murdo vic.

County: Jones County State: SD

Photographer: C.B. Nelson

Date Photographed: 20 November 2011

Description of Photograph(s) and number:

1 of _6__.

| | |
|---|---|
| WeigandtBarn_JonesCounty_SD_0001 | NW |
| WeigandtBarn_JonesCounty_SD_0002 | NE |
| WeigandtBarn_JonesCounty_SD_0003 | SE |
| WeigandtBarn_JonesCounty_SD_0004 | S |
| WeigandtBarn_JonesCounty_SD_0005 | N |
| WeigandtBarn_JonesCounty_SD_0006 | W |

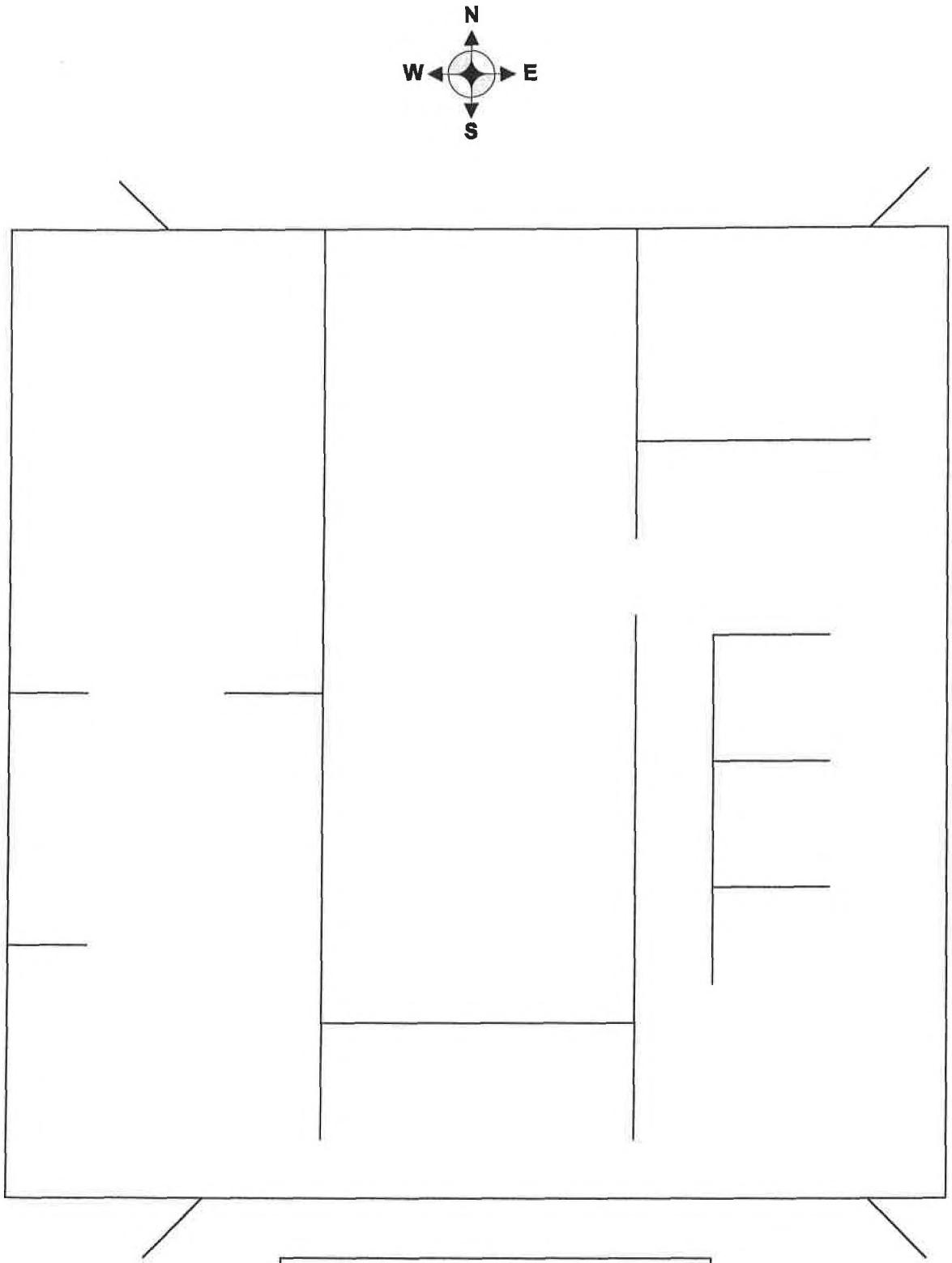
***Property Owner:***

(Complete this item at the request of the SHPO or FPO.)

name Bruce and Karen Royer

street & number 27285 Silver Valley Road – PO Box 53 telephone 605-669-2874

city or town Murdo state SD zip code 57501




Weigandt Barn - Main Level
Murdo, vicinity
Jones County