NPS Form 10-900 (Rev. Oct. 1990)

United States Department of the Interior National Park Service

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM



MAR 8 1995

INTERAGENCY RESOURCES DIVISION NATIONAL PARK SERVICE

1. Name of Property	,				
historic name: Kent Da	iry Round Barn				
other name/site number:	Round Barn				
2. Location					
street & number: Two	miles North of Ro	ed Lodge on Highway	212		not for publication: n/a
city/town: Red Lodge	e				vicinity:
state: Montana	code: MT	county: Carbon co	de: 009	zip code: 59068	
3. State/Federal Age	ncy Certification				
for determination of eli the procedural and pro	gibility meets the doc ofessional requirement ommend that this pro- ts.) Official/Title Storic Preservation	cumentation standards for a ts set forth in 36 CFR Part operty be considered signif	registering pro 60. In my opi	perties in the National Regist x	at this <u>X</u> nomination <u>request</u> ter of Historic Places and meets <u>does not meet the National</u> ly. (<u>See continuation sheet</u>
In my opinion, the proj	perty meets c	loes not meet the National	Register criteri	a.	
Signature of commenti	ng or other official			Date	
State or Federal agenc	y and bureau				
4. National Park Serv	vice Certification	han			
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Carbon County, Montana

NARRATIVE DESCRIPTION

Kent Dairy Round Barn

The Kent Dairy Round Barn is located just two miles north of the town of Red Lodge, along Highway 212 which leads to the city of Billings. The barn property overlooks Rock Creek to the east. During formation of this area, Rock Creek carved a broad channel between two ridges. It is in this bottom land, against the foot of the west bench that the Kent Dairy Round Barn stands. The Kent's original residences, farm and dairy buildings for the dairy all were built close by; a series of cow trails led up the ridge to pasturage above. These trails are still extant on the property and are counted as a contributing site for purposes of this nomination.

other: n/a

A two-story building, the barn was constructed of red brick recovered from an abandoned building in Bear Creek. Construction of the Round Barn began in 1939 and continued into 1941. The inside diameter of the barn was 60 feet, enclosing an area of 2826 square feet on each of two stories. The walls were 16 feet in height and 13 inches thick. At the first floor level the wall consisted of two adjacent circles of red brick with an air space in between for insulation and ventilation purposes. On the second floor the wall was a combination of red brick on the exterior and horizontally placed wood boards on the interior. There were 25 square-shaped windows on the first floor and 12 square windows on the second floor, all spaced at regular intervals. Fresh air intakes and foul air outlets were interspersed between the windows. The original wood-shingled roof was a gambrel 3-pitch roof, which was self-supporting with three different sets of rafters, forming three concentric circles, each with a different pitch. A cupola having eight windows was positioned on the top center of the roof. There were three first floor entrances to the barn: the east, north, and south (to the milkhouse). The second floor had three entrances: the southeast, northeast and west.

8. Statement of Significance

Applicable National Register Criteria: A, C

Areas of Significance: Agriculture, Architecture

Criteria Considerations (Exceptions): n/a Period(s) of Significance: 1941-1944

Significant Person(s): n/a Significant Dates: 1941

Cultural Affiliation: n/a Architect/Builder: Armas, Harry, James, Leo, Waino, Ephraim Kent

(builders) Emery McNamee (construction consultant)

NARRATIVE STATEMENT OF SIGNIFICANCE

The Kent Dairy Round Barn is an important symbol of agricultural settlement and growth in the history of the Red Lodge community. The form is an architectural rarity, particularly in the Western states where few round barns were built. Built under the supervision of master barn builder, Emery McNamee, the kent Dairy Round Barn may be one of the last round dairy barns to have been constructed in the nation. At the state level it was one of few round barns ever built, and at present, appears to be the only remaining round brick barn in Montana. For these reasons, the Kent Dairy Round Barn is eligible for the National Register of Historic Places under Criteria A and C.

Construction Date, Original Owner, and Original Uses of Buildings

The Kent Dairy Round Barn, literally of true circular form, and the adjoining rectangular milkhouse were built in the years 1939 through 1941 by Armas, Harry, James, Leo, Waino and their father, Ephraim Kent. The construction consultant to the Kents was Emery McNamee. For nearly 30 years the Round Barn was the main site of the Kent Dairy, originally a full-operation dairy co-owned by the Kent brothers. The family farmed and milked, processed and distributed the milk to homes and stores in the Red Lodge area during the first two decades of operation. Armas and Sylvia Kent became the sole owners of the business and property as they bought out the others' shares. In the late 1950s an arrangement was formed in which the Kent Dairy sold raw milk to Cream of the Valley Dairy in Powell, Wyoming, who in turn distributed their products in the Red Lodge area. With this partnership, processing was discontinued at the Round Barn. Beginning in 1962 the Kent Dairy functioned as a producer for the Carbon County Creamery until 1969 when Armas and Sylvia Kent sold their livestock and retired from the dairy business.

The first floor of the Kent Dairy Round Barn housed the milking area for up to 37 cattle. Holsteins eventually became the dominant breed of the dairy. In the early years of operation, the cows were semi-confined to the Round Barn for all aspects of maintenance until loafing and hay barns were built near Rock Creek across Highway 212. Thereafter, the cattle were brought to the Round Barn for milking only. The cows were hand-milked and kerosene lanterns were used until electricity and three milking machines were installed in the barn in the mid to late 1940s.

Various design features of the barn reflected the goal of efficiency and convenience in feeding, milking and stabling. In the arrangement typical of many round barns, the stalls were built in circular formation on the first floor so that the heads of the herd faced the center of the floor. An unusual feature of the Kent barn was a circular feed bunk built of large stones which were hand set. Internal to the stalls, it was a continuous rock wall with an attached, continuous concrete feeding area. Another feature was a gutter that formed a complete circle behind the stalls for waste collection. Behind this, a concrete walkway extended to the interior edge of the brick wall.

The second floor loft of the Round Barn had a maximum storage capacity of 100 tons of hay. Hay was brought to the barn on wagons parked below the west upper door of the barn. Grappling hooks, mounted on tracks attached to the ceiling, were used to raise the loose hay to the second floor where it was then moved to various storage locations. Grain (wheat, oats, and barley) was delivered through the upper south-east door and stored in granaries on the second floor. The hay and grain were dropped through openings in the floor to the center area and the grain bin below. Eventually, when the cattle were stabled near Rock Creek, grain only was stored and distributed as feed in the Round Barn.

During the summer months before hay and grain were stored, barn dances were held on the second floor.

The milkhouse, a one-story building connected to the southern wall of the barn, was built following completion of the Round Barn in 1941. In the early years of operation, it was the site for processing of the milk, including pasteurization, homogenization, bottling and cold storage. Later, when the dairy functioned only as a producer, the milkhouse was used for cleaning milking equipment and for cold storage until the milk was transported to the distributors.

In general, a full-operation dairy such as the Kents offered advantages of economy, efficiency and management. Hay and grain were raised in accord with the needs of the dairy herd, and the size of the herd was adjusted to the sales of the product. Moreover, the quality of the feed given to the cattle could be controlled and fluctuations in the cost of hay and grain were avoided. The full-operation dairy was very labor intensive. Year-round chores included milking the cows twice daily, processing the milk, and delivering the milk to stores and homes. The work multiplied in the summer and fall. The additional chores in these seasons included maintaining the fences around fields and pastures, irrigating the hay and grain fields, putting up the hay, and harvesting grain. Work days in the summer months typically were on the order of twelve to fourteen hours long. Other work was done as weather permitted. This included maintenance of the buildings, repairing farm equipment, fertilizing the fields, and clearing land of brush and rocks. For many years, the Kents also cut the firewood required to heat their homes and cooking stoves.

The Kent Dairy Business was a contribution to the era of the self-sufficient family farm. It was a time in history when values of productivity, hard work, moral integrity, and stability were found on farms--and influenced the political and social fabric of this country (6, p. vii).

The Original Owners and the Family's Role in Local History

The Kentta family (Anglicized to "Kent") immigrated from Finland in the early 1900s and eventually settled in Red Lodge in 1917. They were part of the large influx of Finnish immigrants to the United States between the years 1880 and 1910 and were among those who lived in the section of Red Lodge referred to as "Finn Town." As Finnish immigrants became established in Red Lodge at the turn of the century they distinguished themselves with a variety of achievements, both cultural and occupational. Of particular interest to the history of the Kent Dairy Round Barn was their prolific carpentry, the roots of which extended to Finland, a country still world-renowned for creativity of design (architectural and otherwise). Finns built many of the homes in Red Lodge as well as the following larger community buildings: boarding houses, public saunas, stores, a church, Workers Hall, Fox Hall, and The Opera House. However, many of these buildings have since burned, been abandoned or have been remodeled extensively. In the Red Lodge area, the Round Barn is the most recent large brick landmark structure built by Finnish immigrants, which is still intact while retaining its basic original appearance, that continues to serve the community. In fact, it may be the only remaining building with all of these attributes.

In the early 1900s the Finnish people comprised a large proportion of the population of Red Lodge, one-fourth in 1910 (31, p.180). They were one of the first immigrant groups to arrive and to be employed by the coal mines. While Ephraim Kent worked in the mines, his wife, Fiina, started a dairy business in town. The dairy began fairly small, with just a cow or two. Local ordinances passed during the 1930s forbade keeping cows in town, so in 1938 the Kents purchased land out of town with the intent to build the Round Barn. Like many women of the day who ran dairy or poultry businesses for extra household income, Fiina ran the business while her husband worked elsewhere. From the beginning it was a family affair, the children helped out, delivering buckets, and later bottles, of raw milk around Red Lodge. In later years, as the dairy expanded, the family connections held fast, the sons and their wives all worked in the dairy and they hired little outside help.

In 1939, Ephraim, who had already retired, joined his sons in an immense undertaking. The Kents purchased and dismantled an abandoned building, reportedly a store, in the town of Bear Creek and salvaged the materials for the construction of the Round Barn. From family and early newspaper accounts, the specific materials recovered were brick, wood joists, and a decorative, scrolled tin ceiling. In fact, the salvaging was intensive as each brick was meticulously cleaned by hand. None of the family had worked previously with trowels, brick and mortar; but they nevertheless quickly became brick layers.

"Building round structures required knowledge and skill not possessed by the ordinary carpenter" (27, p.60). Skillful carpentry was demonstrated by the Kents in many aspects of the complex and physically demanding construction phase. Several examples follow: Ephraim and Harry are credited with the hand-hewing of two large cottonwood beams which supported the main floor ceiling of the barn and are still in place today. The plane used in finishing the beams was made by Ephraim and has been displayed in the Round Barn Restaurant for many years. The cutting bit of the plane was a piece of leaf-spring from a car. The 37 support posts on the first floor were logs shaped with the use of a draw knife.

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The stall dividers were made of iron steam pipes which were recovered from the West Side Mine in Red Lodge. To bend the straight steam pipes into arcs for stall dividers, Armas, James, and Leo used a cottonwood tree and a truck to provide pulling power. To prevent the pipes from buckling during bending, they were filled with sand. Emery McNamee, the Kents' construction consultant, was impressed with the above achievements and similar demonstrations of ingenuity and skill. (18) In keeping with Finnish tradition and characteristics commonly attributed to the Finnish people, it is apparent that the Round Barn was built with "Sisu", a Finnish word meaning determination, perseverance, and fortitude (29).

A brief search for the history of Finnish farms in this country did not reveal any direct links to the Kent Round Barn. And it is not known what Ephraim Kent's input might have been in this regard (considering that he spent the first years of his life in Finland). It is an interesting observation however, that although typically rectangular and often of log and wood-frame construction, early Finnish barns were characterized by great wall height and steep, gabled or arched roofs. They were two storied, housing the animals on the first floor and the hay above.

Architectural Significance

The History of the True Circular Form and the Architects of the Kent Dairy Round Barn

The terms circular, true round barn, and round barn are used here in reference to the construction of a true circular shape in contrast to the polygonal (8, 9, 12, or 16-sided) barns which are nearly circular in appearance and are included within the general category of round barns by some authors.

The exact origin of the idea for the round barn is not well-defined. Some historians trace round and polygonal barns to pre-Christian Greece and Rome, while others attribute their roots to the early Christian and medieval mausoleums, baptisteries, and churches. The similarity in basic shape and support of these ancient structures to that of round barns is noteworthy. One such church is the fourth century San Constanza in Rome (7, p.149). An interest in centric design in Europe may have been brought to this country by immigrants. It is known that round barns were found in France. Some round barns were viewed as symbols in the religious beliefs of groups such as the Shakers and Quakers. Also related to the question of origin is simply the aesthetic appeal of the circular shape as demonstrated in various art forms throughout the ages. To many, the round barn represents an impressive merging of aesthetic form and function.

The earliest agricultural polygonal barn on record in this country was George Washington's 16-sided barn built in 1793. In 1826 the Shakers in Hancock, Massachusetts completed what may be the first true round barn and the most famous of those built in the early 1800s. Octagonal barns were popular between 1870 and 1900. Many of the polygonal barns both preceded and coincided with the era of true round barns which occurred between the mid-1870s and well into the 1920s. "Although nearly every state can claim one or two of these [round] barns, most were constructed in the Midwest's Corn Belt" between 1900 and 1920 (15, p.1). The following statistics are reported for later discussion purposes. These numbers represent barns in existence at one time, many of which no longer stand: 226 round barns in Indiana, 215 in Wisconsin, 170 in Iowa, 170 in Minnesota, 155 in Illinois, 56 in Ohio, 49 in Nebraska (15,p.1), 25 in Michigan, and 24 in Vermont (27, p.3). Despite the seemingly large numbers, round barns actually constituted a very small percentage in comparison to the other styles of barns built in North America.

A variant on the basic round barn plan was the combination of a silo and a true circular barn. The prototype of this design was developed in the late 1880s and early 1890s by Franklin King, a physics professor at the University of Wisconsin. In connection with his research on silos, he designed a round barn for his brother which was built of horizontal wood siding with an internally supported conical roof. The all-wood circular silo (known as the King or Wisconsin silo) was positioned in the center of the round barn. King's design was widely promoted in his own textbooks and various research publications. In the early 1900s, support and enthusiasm for the circular concept further increased with

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improvements in King's roof design and the endorsement of round barns by agricultural colleges in the Midwest. For example, the University of Illinois published numerous agricultural bulletins, including the influential Economy of the Dairy Round Barn in 1910, which became the peak production year of the round barn era (15, p.26). Before the end of this decade, the frequency of round barn construction gradually declined.

Among those perfecting and modifying King's original design were a group of architects and contractors in Indiana. In the early 1900s, these entrepreneurs marketed the design referred to as the "Ideal Circular Barn" (15, p.19). While many barns of this type were built initially within the state, construction eventually extended across the Midwest and Canada. Two of the well-known engineer-contractors were Isaac and Emery McNamee, a father and son team who built the first true circular barns in Indiana (15). The McNamees, working both alone and with other contractors, promoted this construction all over Indiana and into South Dakota and Iowa. Isaac McNamee and two associates applied for and received the U.S. patent for the "Self-supporting Conical Roof" in 1905. (The contemporary technical term for this type of conical roof is "gambrel".) "In 1908, the University of Illinois Dairy Department, under the direction of Wilber J. Fraser, planned the first of three [round] barns on the campus of Champaign in east-central Illinois, using the experience of a carpenter who makes a specialty of building round barns' "(15, p.26). The "carpenter" to whom Fraser referred may have been Emery McNamee from Indiana (15, p.107).

As Isaac aged, he worked closer to home. However, Emery and his crew traveled extensively, building round barns as far north and west as Saskatchewan, Canada in 1913. He settled for a few years in Roundup, Montana before returning to Indiana in the 1920s. Emery is credited with building one of the last round barns in Indiana in 1927 (15).

The above information is background for the very interesting fact that Emery McNamee, the prominent pioneer in round barn design from Indiana, returned later to Montana (for reasons unknown to this author) and served as a consultant in the construction of the Kent Dairy Round Barn. He lived on the Kent property during the construction phase. Born in 1858, Emery was 81 years old in 1939 when construction began. Although he lived to be 100 years old (15), it is a reasonable assumption that the Kent barn may have been one of the last, if not the last of his large-scale projects. Proponents of round barns viewed the circular form as an innovative means of making farming techniques more economical and efficient. Based on Emery McNamee's early associations with other experts in the design, his many years of hands-on and supervisory experience, and his collaboration with the Illinois College of Agriculture, he promoted the various advantages of the circular form over rectangular barns.

Economy. Round barns were more economical to build than rectangular barns, up to 38% less costly (14, p.5). For the same amount of enclosure materials, a circle has a larger area than any other shape. Costs were reduced further because no scaffolding was required with a self-supporting roof (resting on vertical walls). The original roof on the Kent Round Barn was a self-supporting gambrel 3-pitch roof. The original total investment in the Round Barn was approximately \$13,000.

Ventilation and light. Because of the peaked design of the roof on a round barn, a cupola on the top center was a natural addition. It was not only decorative but also a source of ventilation, light, and security. Air and light could infiltrate the barn while its contents were protected from adverse weather. The original cupola on the Round Barn had eight windows.

Storage and convenience. With a circular design and self-supporting roof, the second floor loft provided more unobstructed storage space and, secondarily, insulation for the animals below. Another feature of storage and convenience was the circular arrangement of cattle on the first floor, in which each faced the center for feeding,

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milking and stabling. This configuration enabled the farmer to work in one continuous circular direction while the cattle were equidistant from the center and each other.

Strength and wind resistance. Structural strength, with more wind resistance (as the wind could not hold onto corners), and fewer inside drafts were additional advantages. With reference to all-wood wall construction alone, a circular, horizontal placement of wood boards produced a stronger building because it made use of the lineal (or tensile), rather than flexural, strength of lumber. The wood boards were wrapped in a horizontal pattern by one of two methods: They were either water-soaked pliable green boards or very thin dry boards which were nailed to support posts. In the case of the Kent barn, structural strength was increased by two circular layers of brick which formed the wall at the first floor level and by a circular brick and wood wall on the second floor.

A variety of materials have been used in the wall construction of barns. Round barns in Iowa were typically built of vitrified clay tile, wood, sheet or corrugated metal, or concrete (27). The same seems to be true of the Indiana round barns and probably applies to the Midwest as a whole. In comparison, the use of brick in such construction was unusual. The Kent Dairy Round Barn was built to endure.

Historical Significance

Local and National Events at the Time of Construction

Beginning in the first decade of the 1900s and throughout the 1920s, Bear Creek, located a few miles east of Red Lodge, was a prosperous mining town. In the 1930s the population of Bear Creek gradually declined from a lack of a reliable water supply and from reduced local and national demand for coal. As mines closed in Carbon County, miners were forced to find other employment. With the progressive exodus occurring in Bear Creek and other mining towns, many homes and businesses were abandoned. The depressed economy of the 1930s undoubtedly contributed to the Kents' decision to purchase an abandoned building for materials.

The construction and completion of the Kent Dairy Round Barn coincided with the beginnings of World War II. A Bulletin published by the Illinois Agricultural Experimental Station described dairy farming during the early war years: "America's dairy industry has gained a prominence today it has never before enjoyed, wartime conditions having vastly increased the public's appreciation of the nutritive qualities of dairy products" (25, p.61). In 1941, the Round Barn was mentioned specifically in connection with the war on the Farm and Home Hour radio program, broadcast from Washington D.C. According to a newspaper article, commentator, H.H. Baukhage contrasted "the peaceful nature of such construction with the war hysteria he was discussing" (3).

Similarly, it can be stated that the peaceful nature of the Kent Dairy was a sharp contrast to the adversity of the Smith Mine disaster in Washoe and other area business closings of the 1940s. Baukhage also "expended considerable air time extolling the uniqueness of the new round barn near Red Lodge. The city of Red Lodge, which was developing rapidly as a tourist center at the time, appreciated the national notice..."It may well be one of the few barns ever built that elicited comment on a national radio network" (13). Over the years, the Round Barn has also received recognition at the local and state level (1, 2, 3, 4, 5, 13, 22, and 23). It was noted in a 1941 newspaper article that there was "only one other dairy barn of similar construction in Montana...in Kalispell", and there were "two circular combination barns in the state..." (3). The barn in Kalispell is now said to be demolished. Another article described the Round Barn as the "first of its kind in South and Eastern Montana...This community should congratulate itself on having such a modern type of building as the Kent Bros. have constructed for this community" (1).

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The majority of round barns were built in the first two decades of the 20th century and declined gradually in popularity throughout the 1910s and 1920s. (A statewide survey of round barn construction in Indiana, where the building form reached it's zenith, identified only 5 constructed after 1930.) (15,P.3) This fact and several of the many reasons for the decline, all point to the strong possibility that the Kent Dairy Round Barn may be one of the last of its kind constructed. Contributing to the end of the round barn era were the financially difficult years of the 1920s plus the influence of the Great Depression in hindering most farm construction. Furthermore, "by the time farmers could afford to build again (after the Second World War), round barns--and traditional barns generally--had ceased to be practical" (27, p.61).

As farmers became more specialized, modern mechanization rendered traditional barns increasingly obsolete. It was the beginning of the end of the traditional family farm era. Again, the success of the Kent Dairy Business provided a contrast to these events in history and was an exception to some of the initial changes in agricultural practices following the war.

In addition to its function as a dairy, the Round Barn served occasionally as a community dance pavilion during the first summers of operation. Laminated wood benches along the second floor perimeter are now reminders of that period in which barn dances were a popular form of entertainment.

Dancing was and continues to be an important aspect of the Finnish culture. Red Lodge was settled by immigrants from many nations who preserved and celebrated their traditions throughout the decades. The annual Festival of Nations, initiated in the early 1950s, is the contemporary expression of these ethnic roots and of the gradual blending of cultures within the community.

Later Uses of the Buildings

In 1971, the Round Barn was sold to Carm and Shirley Hampton of Billings, who opened a restaurant and gift shop (Geshenke's Imports) on the first floor. At this time, the milkhouse was converted to a kitchen and food storage area. Short-order food items such as hamburgers, chicken, and ice cream were served in the inner circle, while gift display cases lined the periphery of the main floor. An antique shop (Bonnie's Antiques, operated by Bonnie Porter) occupied the second floor loft.

Carl and Jennie Hanson of Billings, Montana, purchased the Round Barn Restaurant in 1974 and established a Norwegian smorgasbord family-style restaurant which they managed for twenty years. The Hansons restored the first floor by removing the gift cases and re-hanging a number of the stanchions. Under their ownership, in the mid 1980s the antique shop on the second floor was replaced by a stage and seating area for the purpose of hosting local theatre productions and performances.

In 1994, the restaurant was purchased by Daniel and Marcee Farrar of Boise Idaho, who have retained a family style smorgasbord, with several menu revisions. The Norwegian theme has been replaced by a dairy decor and the theatre in the loft has been re-opened.

Conclusion

The Kent Dairy Round Barn has been a landmark of stability in the Red Lodge area throughout five and one-half decades of fluctuations in the economy and population. "This unusual structure has been the cause of constant comment on the part of thousands of persons who have viewed it from Highway 212 on their journeys to the Red Lodge country. It has become somewhat of a sentinel at the vacation city's northern entrance" (13). The Round Barn is also a monument to the heritage and character of its builders and owners, who have enriched the lives of the community and its visitors.

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The literature on round barns in this country is small, and a prevailing view among contemporary authors is that the remaining round barns in this country are an "endangered species" which must be preserved. Older rural buildings everywhere are threatened by demolition or abandonment. Others have succumbed to storms and fires. For a variety of causes, these landmarks are disappearing quickly from the North American landscape.

The following quotes are offered as further expression of the hope that the Kent Dairy Round Barn will continue to be a survivor.

"Barns such as these ought to be of more than simply family or local interest. We need to better appreciate their features, to more fully understand their place in time, and take steps to help preserve the few that remain. Round barns inform us of an era when questions of how to improve farm practices...moved many to try more efficient means of bringing hay, grain, pasturage, and animals together under one roof. The round barn represented an important part of that effort.

Much of the charm attached to round barns is, of course, intangible. Their shape...is striking--curving walls and uninterrupted roof lines impart a clean, pure form, and the great interior loft gives dramatic effect. To walk through one is to journey into a past of bygone tasks and different needs, when this silent partner on the farm stood as the...farmer's principal building. The round barn is a representation of that time and is something belonging to those years. Today, when a round barn is explored, such a time, for a moment, is captured. One can only hope that future generations will also have their chance to explore them." (27, p.68)

"Precious few of these barns remain to remind us that we are not the first, nor the last, to love and respect the land. Those people and things that have gone before us are essential--all of them--to an understanding of the present. Round barns, and all that they stand for, must be remembered and preserved" (15, p.xii).

Acknowledgements

I am grateful to all who contributed to this portion of the nomination of the Kent Dairy Round Barn to the National Register of Historic Places. Sylvia and Ray Kent provided support and encouragement while answering a seemingly endless number of questions related to the history of the Kent Dairy and family. Sylvia also supplied most of the historical documentation of the property. The Records and Assessor's Offices of the Carbon County Courthouse offered helpful assistance in researching legal documents. Leo and Mae Kent clarified and confirmed facts associated with the construction phase of the Round Barn and milkhouse. Merv Coleman photographed, in detail, the exterior and interior features of the structures and copied the original family photographs. The Farrar family provided updated sketches and measurements. Robert and Charlotte Finley motivated the further investigation of round barn origins. And Laurel, Jason, Cory, Jessica, and Kristin Kent were inspirational as the next generation for whom "Round barns, and all that they stand for, must be remembered and preserved" (15, p. xii).

I also thank the owners, past and present, for their stewardship, love and respect of the Round Barn and of the surrounding land.

name/title: Daniel and Marcie Farrar

street & number: PO Box 397 telephone: (406)664-1197 city or town: Red Lodge state: MT zip code: 59068

name/title: Sylvia Kent

street & number: PO Box 1176 telephone:

city or town: Red Lodge state: MT zip code: 59068

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On the interior, two large hand-hewn cottonwood beams (measuring 36 ft. and 38 ft. in length) supported the ceiling which was covered with a decorative, scrolled tin ceiling taken from the building in Bear Creek. Four central wood posts supported the beams. A circle of 37 log posts marked the stalls and provided support for hanging the stanchions used to keep the cows in their stalls. These hung on metal railings attached to the posts. The stalls were separated by curved iron pipes salvaged from the West Side Mine in Red Lodge. These were formed by filling each with sand and bending into a

Behind the stalls, a gutter to collect waste materials was molded into the concrete flooring. Behind the gutter a concrete walkway extended to the interior brick wall and circled the periphery of the first floor. A feed bunk which circled the center of the floor was built internally to the stalls. It was a continuous rock wall with an attached concrete feeding area. The center of the floor extending to the feed bunk was dirt, while the rest of the floor on the main level consisted of concrete. Hay was dropped into the center through an opening in the loft. A grain bin located near the milkhouse entrance stored the grain which was dropped from the loft through a chute. A wall ladder provided inside access to the second floor.

Before electricity and milking machines were installed, kerosene lamps were used in the barn and the cattle were hand-milked. Along with electricity, three milking machines were added.

The second floor was wood, possibly of tongue and groove construction as no nails are visible. The self-supporting gambrel roof did not require internal scaffolding, therefore storage space was open and unobstructed. The interior wall consisted of wood boards most of which were laid horizontally. Grappling hooks on tracks mounted to the ceiling moved the hay to various storage locations on the second floor. Bins stored the grain. Both hay and grain were dropped through openings in the floor to feed the cattle. Laminated wood benches, originally used as seating during barn dances, were attached to the walls around the periphery of the room.

Many round barns had a silo in the center. This was not necessary or desirable in the Kent Round Barn because the use of silage and corn was not characteristic of Montana dairy farming. Higher elevations in Montana have a shorter growing season, therefore limiting the crop selection of farmers. The elevation of Red Lodge is 5500 feet. Loose hay and grain (wheat, oats, and barley) were stored on the second floor of the Kent barn.

Alterations

The barn's original gambrel roof was replaced with a conical roof built by Armas and James Kent between 1967 and 1968. Due to the weight of the pulley system for lifting and distributing hay and a possible vacuum created in a severe windstorm in January of 1967, part of the roof collapsed. The replacement roof was lower, with less pitch than the original and required some internal bracing. Asphalt shingles were used.

It is important to note that the new conical roof, though different in design from the gambrel roof is historically compatible with the building form and characteristic of round barn roofs built between 1890 and 1915. The gambrel 3-pitch roof was a later development, common between 1910 and 1925. At present, the total height of the Round Barn is approximately 33 feet.

During the early 1970s, when the barn was converted to a restaurant, several minor improvements were made on the exterior. A new cupola, smaller than the original, was added. At the southeast entrance to the second floor, exterior stairs and a roof overhang were added. On the first floor, roof overhangs were added to the north entrance and the east door.

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This entrance was enclosed; the dimensions are 8 X 10 feet. Waino Paavala was the carpenter who built the roof overhangs and new cupola.

During the early 1970s a number of interior alterations were made in the conversion of the barn to a restaurant. The dirt portion of the central floor area was replaced by concrete. The gutter behind the stalls was filled in with concrete. The stanchions were removed but ten were replaced in the mid 1970s and are retained by the present owners. The iron pipes separating the cattle stalls were removed. Now only one set remains, located at the main entrance to the central eating area. The circular feed bunk was removed and replaced with a concrete floor. The grain bin was removed. An interior staircase to the second floor was added in the early or mid- 1970s; original access was by a ladder attached to the west wall.

At present, the dining area with restaurant seating occupies approximately 270 degrees of the circle from the south to the west side of the first floor. A small gift area is along the southeast wall. A food service area on the southwest side of the first floor was added in the early 1970s. It was revised in the mid-1970s to accommodate a smorgasbord, and is retained by the present owners.

To keep the building in repair, two of the windows are now covered, and some of the original wavy glass window panes had to be replaced. Some of the interior wood trim and flooring was repainted by various restaurant owners.

Construction of the conical roof in 1967-68 created an interesting network of bracing now visible on the second floor. A stage, theatre seats and wall partitions were added in the mid-1980s; however, structural members were left exposed. At present, the second floor is partitioned into a stage area, concession area, dressing and storage rooms. Used seats from former theatres (including the former Park Theatre in Red Lodge) are arranged in curved rows facing the center area stage.

The Milkhouse

Soon after completion of the Round Barn, a contiguous milkhouse was built in the shape of a rectangle, approximately 37 feet long by 24 feet wide having an interior area of approximately 888 sq. feet. The walls were constructed of two layers of red brick and measured 8 feet in height. The floor was concrete. The shingled roof was of shed type with a slight pitch. The milkhouse was connected to the south wall of the Round Barn through a walkway that adjoined an interior calving shed and storage area. There was also an outside entrance at the south end of the milkhouse.

On the interior, the milkhouse building consisted of three rooms containing three large wash tubs, a bottle washing machine, a pasteurizer, a homogenizer, a cold water milk-cooling system, a cream separator, cream cans, a bottling machine, an oil-fired boiler to make steam and hot water, and a small walk-in cooler.

Alterations

In the late 1950s when the Kent Dairy became a producer for a dairy in Powell, Wyoming, an addition of approximately 13 feet long by 24 feet wide was built onto the south wall of the milkhouse. The purpose of this construction was to provide more cold storage space with a new walk-in cooler. The appearance of the addition matches that of the original milkhouse. A roof overhang above the south entrance was added in the early 1970s. A water wheel from Richel Lodge, (built by Finnish carpenter, Isaac Johnson), free-standing in front of the milkhouse, was added and removed in the 1980s. The cement pool under the former wheel remains.

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Milk storage and processing equipment were removed in late 1960s and early 1970s when restaurant conversion took place. The interior space was somewhat repartitioned and equipped as a kitchen, while the calving shed and storage area were remodeled into restrooms.

The Calf House

A small free-standing wooden shed, approximately 8 x 12 feet in size, was added behind the west wall of the Kent Dairy Round Barn several years after construction of the barn and milkhouse. It was a holding pen for cattle that were calving and for an occasional sick animal. The calf shed was removed in the early 1970s.

The Cattle Loafing and Hay Storage Barns

A cattle loafing barn and a hay storage barn for the Kent Dairy were built across Highway 212 by Rock Creek in the mid to late 1940s. They were demolished in the late 1960s and early 1970s.

The Kent Homes and the A-Frame House

There were two homes and a garage-woodshed-workshop on the Kent property at the time of construction of the Round Barn and milkhouse. They were demolished in the late 1960s. A small A-frame house was added by Carl and Jennie Hanson to the Kent acreage in the mid to late 1970s. It provided housing for the Hansons when they ran the Round Barn restaurant, and is presently the Farrar residence. The house, located quite a distance south of the barn, was not associated with the barn historically, and was not included within the historic property boundary.

INTEGRITY

Despite adaptive reuse of this important building during the 1970s, the Kent Dairy Round Barn and the milkhouse still retain a high degree of historic and architectural integrity. While the barn no longer functions and the dairy is out of operation, the barn remains on the historic landscape, a local landmark to the agricultural history of the area. The barn, the milkhouse and the cow trails behind the barn reflect both the historic patterns of use of the property, and the Kent Dairy operation which was a vital part of the local agricultural economy for more than half a century.

As an architectural specimen, it is now one of very few round barns remaining in Montana. Thus it is an important part of the building legacy of evolving barn technology and 20th century scientific agricultural practices. The Kent Dairy Round Barn retains a high degree of integrity, with much of the original design intact. The lofty, historic gambrel roof, lost during a windstorm, was replaced by a less-spirited roof of lower dimension. However, the current roof is not unlike many in use during the period. Otherwise, many elements of the barn's original design and that of the milkhouse are retained. On the exterior, all original aspects of the design remain, save for the barn roof and minor remodeling of entrances.

On the barn interior, attempts were made to preserve elements of the cow barn while converting to a restaurant. Thus, exposed beam construction, room division, stall partitions, stanchions are well represented on the lower floor. On the second level, the installment of a stage, seating and concession area did not obscure the loft space which remains open into the roof peak. Original flooring, openings and wall treatments remain. The milkhouse interior is more altered, with a commercial kitchen replacing the milkhouse equipment. However, room divisions are largely as original preserving some of the original feeling of the space.

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Outside, the buildings retain their strong tie to the landscape. Still rural in nature, with the historic cow trails up the ridge to the west, the setting affords a clear understanding of the original use of this property. In addition, the scale of the barn on this site conveys something of the importance of this dairy in serving the local community.

A split-rail fence, a narrow sidewalk in front of the fence, decorative rocks, flowers, and a gravel and paved parking lot have been added in front of the barn in the 1970s, 1980s and 1990s by the various restaurant owners. These do change the setting and feeling from a barnyard to a roadside business. However, they are never-the-less fairly compatible with the rural setting.

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Location of the Kent Dairy Round Barn

The Kent Dairy Round Barn is located on U.S. Highway 212 approximately two miles north of Red Lodge, Montana. The town, incorporated in 1892, is the seat of Carbon County and has a population of nearly 2000. Close to the Beartooth-Absaroka Mountain Range (60 miles from both Billings to the north and Yellowstone National Park to the south), Red Lodge has a main industry of tourism. The Round Barn is situated on a parcel of land, which at the time of construction, was part of a larger acreage purchased by the Kent family in 1938 and later owned by Armas and Sylvia Kent. The setting remains rural in spite of recent development of the surrounding area, particularly along Rock Creek, across Highway 212.

A surveyor's map describes the Round Barn subdivision as "Being tract 2B, amended plat of tract 2 of C. of S. No. 654 and a portion of the E 1/2 of Sec. 15, T.7S., R.2OE., P.M.M. Carbon County, Montana" (map # 1). According to Kent Family Abstracts of Title and the Carbon County Clerk and Recorder's deed books, the Round Barn is located in a portion of the southeast quarter (SE 1/4) of the northeast quarter (NE 1/4) and a portion of the northeast quarter (NE 1/4) of the southeast quarter (SE 1/4) of Section 15, Township 7 south, Range 20 east. (See maps #2 and #3.)