## NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS


## 3 CLASSIFICATION



7 DESCRIPTION

## CONDITION

_excellent XGOOD -falR

## CHECK ONE

_ UNALTERED
X ${ }_{\text {Altered }}$

CHECK ONE
X original site
-MOVED DATE

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE
INTRODUCTION

## General Description

Centric barns constitute a visually distinctive theme among agricultural structures, and are notable not only for their visual impact but for the relatively brief period of time in history during which they were constructed. The dates of construction of those in Rock County seem to relate closely to experimentation and publication of centric barns in two time periods - first about 1880-90 and later about 1910.

The five centric barns in Rock County were constructed within a period of less than 25 years, and are distributed fairly randomly around the edges of the county, 15 to 20 miles away from Janesville, the county seat.

The five are: the Risum round barn ( $60^{\prime} \mathrm{d} ., 1890-92$ ) and the Gempeler round barn (68! d., ca. 1912), both in the Town of Spring Valley, to the west; the Dougan round barn ( $60^{\prime} \mathrm{d} ., 1911$ ), to the south and within the present city limits of Beloit; the Dean-Armstrong octagonal barn (52' d., ca. 1889-93, wing 1910), in the Town of Lima to the northeast; and the Gilley-Tofsland octagonal barn (56' d., 1913), in the Town of Porter to the north. The Beloit barn is the only one threatened with urban assimilation, specifically by a trailer court; the others remain in rural settings surrounded by tilled or grazed farmland. Each may be considered the primary barn on its farmstead, though each is part of a complex of outbuildings (some older, and • all of lesser importance) and a farmhouse extant nearby.

All are bank barns, reached on at least two levels. The ground level is the cow (and horse) stable, and the upper is the mow story. In the case of the Gilley barn the latter is a mezzanine or third story. Four are built into a hill; the fifth (Dougan) is on almost flat terrain, with a built-up ramp. Three are relatively free-standing entities, with perhaps a shed or porch attached, while the Dean-Armstrong barn has a full-sized barn wing, and the Dougan barn is attached by a passage to an older, 19th century rectangular barn. Three barns - one octagonal and two round - were built around and supported by silos: two are not, though the silo added to the inside of the Dean barn has since been removed.

The foundations vary - limestone, fieldstone or concrete - as do the details of construction and the framing of the roofs. Heavy posts and beams support the basement ceilings, but $2^{\prime \prime} \times 6^{\prime \prime}$ or $2^{\prime \prime} \times 8^{\prime \prime}$ studs and joists are used to frame the mow walls. Notched, morticed posts and beams are used in the Dean-Armstrong barn; but generally a nailed, lighter wall frame is used. Four barns of horizontal lapped siding; the Dean-Armstrong barn is board and batten. Four barns are topped by cupolas and one by vents. The two roofs in Spring Valley are conical (of which one is topped with a conical and one with a octagonal cupola); the Lima barn roof is of straight hipped octagonal segments; the Beloit barn is gambreled conical and the Porter barn is gambreled octagonal.

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## 7. DESCRIPTION (continued) <br> General Description (continued)

None of the five is any longer part of a dairy operation. One (Lima) stables riding horses, one (Gempeler, Spring valley) at least recently housed beef cattle and hogs, and another (Porter) housed sheep, All are being used for storage, and some still hold hay, though only one holds a current crop. The condition ranges from fair to very good, and while at least three of the owners express their intention to maintain or repair them, listing on the National Register might encourage their preservation.

INDIVIDUAL BUILDINGS
The Dean-Armstrong-Englund Octagonal Barn, ca. 1889-93


UTM Reference: 16/352760/4743220, Lima Center, Wis., 1:24000.

## Description:

The Dean-Armstrong-Englund octagonal barn is built into a natural rise on its west and northwest: there probably was some grading to the contours of the land. It is the only Rock County centric barn which incorporates fieldstone into the random limestone foundtion (fieldstone is used more in the northeast than in the rest of Rock County) and happens to be the only one of the five to be sided with vertical boards and battens. The dimensions are about $20^{\prime}$ per side and $52^{\prime}$ in diameter. The roof consists of straight octagonal segments, converging at an octagonal appendage which is a new (ca, 1975) fiberglass replacement of the previous cupola which blew over in a windstorm. The owners wish to replace it with a more appropriate restoration of the cupola. There are no windows in the octagonal frame; the barn is lit by the cupola and by the windows and doors at the entrance wing.

The mow story is supported by smooth, heavy, about $8^{\prime \prime} \times 9^{\prime \prime} \times 18^{\prime}$ posts, locked into the beams with mortise and tenon and wooden pegs; "square" nails are also used. The rafters are parallel, intersecting at the trapezoidal edges of the straight octagonal sides. An angular James Co. (Fort Atkinson) hay track is suspended from the struts which project from above and below an octagonal band attached below the rafters about half way up the ceiling. From an octagonal collar around the upper eight sides, below the cupola, eight horizontal beams project to meet at the center and are tied by a ring. A later stave silo which was removed about 1965 by the previous owners did not support the roof. Its smooth concrete base, about 15 feet in diameter, remains at the lower level of the barn.

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## 7. DESCRIPTION (continued)

The basement story is supported by the stone walls and by large, rough-hewn timbers, some of which have been replaced by steel columns. The floor is now concrete, with a passageway around the perimeter and $6^{\prime \prime}$ high platform with stalls around the concrete silo foundation. Marks from the concrete forms are still visible. A circular metal track around the ceiling carried a large manure bucket into a room at the east end of the east wing, for storage and disposal. Water pipes are also still in existence.

Two tall wings extend from the core. The northwest entrance wing, at the upper grade, is about $12^{\prime} \times 20^{\prime}$. It is fronted by sliding doors with two small windows above. The $24^{\prime} \times 26^{\prime}$ east wing is supported on concrete foundations as high as the stone walls on the north and south sides, while the east side is frame almost to the ground. It contains rooms for storage (one is now a tack room), pens, passageways and the manure room to the east. The frame portion on the upper story opens to the octagon and holds more hay.

The $25^{\prime} \mathrm{x} 20^{\prime}$ foundations of a former west wing which once served as a horse barn are still in existence; three walls are stone and the south wall is white frame. This wing was torn down by the present owners, and the wood was used as interior paneling to remodel another building, a granary about $100^{\prime}$ to the south of the barn, into a craft studio. A one-story milkhouse projects from this south wall to the southwest of the barn. A one-story, shed-roofed pumphouse is attached to the southeast corner of the octagon.

The octagonal barn is still in use; it now serves as hay storage and a stable for appaloosa horses, of which there are about 25 on the farm. While the stanchions on the ground story have been removed, the metal railings for the previous calf and bull pens on the ground story are still intact. The outbuildings and farmhouse were all built in the twentieth century and are not part of the nomination.

## Significance

This, one of the two earliest of the Rock County centric barns, is significant for its incorporation of the older mortice and tenon construction in the posts and beams, though not in the rafters; it is transitional to the newer, light weight framing which was generally advocated in the building of centric barns. Though it was later taken out, it supposedly had a kind of "windmill" ventilation system, evidence of the experimentation with ventilation in these late 19th century barns. The addition of wings a few years after construction of the octagon gives a broad profile to the barn, yet the large east wing is a more integral part of this structure than is the 19 th century barn attached by a passageway to the southwest of the Dougan barn.

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7. DESCRIPTION (continued)

Significance (continued)
The barn was built by Silas Dean, who had obtained the farm in 1867. It was probably built between 1889 and 1893, when he took out mortgages of $\$ 1000$ and $\$ 3600$ respectively. The cupola then was about $21 / 2$ times its present height, according to the sister of longtime owner Wilmer Armstrong, Its panels of horizontal shuttered louyers evidently contributed to a "windmill" arrangement which was connected to the water supply below.

In 1899 Mr . Dean sold the farm to Margaret Armstrong; by 1904 it belonged to Wi11iam Armstrong. Wilmer Armstrong, owner of the longest duration, took out the "windmil1," feeling it was not effective enough, and built the stave silo on concrete foundations ca. 1907-15; at the same time he poured the concrete floor around it and installed a new set of stanchions. About 1920 he added the east wing and installed the basement ceiling track for the manure bucket; in the 1930's he added the hay track in the upper story.
(Douglas and Hartung, RCHSB, pp. 91, 100, 122-3; Apps and Strang, Barns of Wis., illus. p. 42; interviews with Mrs. Homer Englund, Miss Grace Armstrong, August, 1978.)
$\frac{\text { The Risum Round Barn, 1890-92 }}{\text { NW NE } 34 \text {, Spring Va11ey }} \quad v \quad \mathrm{~s}$
NW NE 34, Spring Valley
Owner: Mr. and Mrs. H. Mervin Risum
R. 3, Risum Road, Brodhead, WI 53520

UTM reference: 16/311880/4718580, Brodhead East, Wis.-I11., 1:24000.

## Description:

The Risum round barn, 60 feet in diameter, of horizontal lapped siding on limestone foundations, was built around a frame silo faced with a concrete block base. The barn is surmounted by a conical roof with an octagonal cupola, whose sides alternate louvers and 2 -over- 2 windows.

Built into a slight grade upward to the southwest, the mow story is reached by an earth and concrete ramp. The largely exposed ground story is walled with quarried limestone on that side, but is frame over low foundations to the east. Fenestration consists of 4 -over-4 double-hung sash windows with 12 ' square panes, on the ground story, as well as on two levels of the mow story, with six windows high under the eaves, for light and ventilation when the mow was full of hay. Further natural ventilation was provided by the draft from the hay chutes to the cupola.

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## 7. DESCRIPTION (continued)

The ground story could hold 30 cows, with stalls for six horses. The corridor leads around the outside. A manure track was installed about 1914.

Framing is of $2^{\prime \prime} \times 6^{\prime \prime}$ and $2^{\prime \prime} \times 8^{\prime \prime}$ members. Studs are 28 feet long; the rafters are 32 feet. The plate was built of two layers of one-inch boards, sawn into a circular shape, according to the grandson of the builder, and fitted to overlap so that the center of one meets the edge of the other. The roof supports are constructed like a huge umbrella. The rafters form a continuous web, four inches apart at the juncture with the silo and two feet apart above the studs. The 12 foot diameter silo is sturdier than a barrel-like stave silo, according to the owner, being constructed of $2^{\prime \prime} \times 6^{\prime \prime}$ studs from the ground to the peak, and two layers of lath, with building paper between, laid in opposing diagonal patterns. The interior was cement sand plastered and sealed with cement grout. A 1921 cylinder-cut silo filler remains in place, in excellent condition, with three helix-shaped knives; it is potentially operable. The metal loader pipe and silo cover pipe is also in place.

A ladder alongside the silo walls leads up to the cupola via the diagonal struts to the rafters. One could climb up above the hay and manipulate the hay-track, which was installed about the time the barn was built. Its carrier has been replaced. The hay track makes a complete circle at the juncture of rafters and struts. It could be pulled most of the way around from the floor, but had to be hand pushed at the end.

The barn is probably in the best condition of the five. Its wood shingled roof was covered with asphalt shingles in 1977. According to the owner, the sills need some repair. The barn will continue in use, especially for storage, as part of their larger farm operation.

The farmhouse and outbuildings have been extensively altered and are not part of the nomination.

## Significance

The Risum barn is significant for the construction of its wood silo as an integral part of the barn, and for its early date of construction, being built between 1890 and 1892, according to the owner and the grandson of the builder. Car1 Risum (1847-1899), a native of Norway, came to this country when seven years old, with his father, Hans Ludwig Risum, a printer who supposedly came to Rock County to work on the Norwegian language publication Emigrantin. Carl obtained the farm from his father in 1876, after serving in the Civil War. The carpenter was John Gansert or Gansell, according to oral tradition, but there is no record of the exact date or cost. The lumber was hauled from the Brodhead depot about six miles away.

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7. DESCRIPTION (continued)
(Wm. F. Brown, ed., Rock County, Chicago, 1908, Vol II, p. 1023; Luther Valley Centennial, 1839-1939, Rock County, 1939, pp. 81-82; "The Barn is Round," Janesville Gazette, Nov. 2, 1974; Douglas and Hartung, RCHSB, pp. 91, 100, 168-9; interview with H. M. Risum, Oct. 1978.)

The Dougan Round Barn, 1911
444 West Colley Road
Owner: Mr. and Mrs. Ronald Dougan
Colley Road, Beloit, WI 53511
UTM reference: 16/336600/4707880, Shopiere, Wis., 1:24000.

## Description:

The Dougan round barn of 1911 is built on the flattest terrain of the five in Rock County. Its mow story is reached by a man-made ramp or "barn bridge," once plank but cemented in 1930. It is the only one without a cupola; the tip of its steep, conical gambreled roof conceals a 50 foot tall poured concrete silo with a ten foot frame superstructure built to support the roof. White horizontal lapped siding wraps around the 60 foot diameter barn cylinder. Frame covers the ground story as well as the mow story; the low foundations are of concrete. Many windows indicate the concern for light and ventilation: 20 -over- 6 windows on the ground story, nine 6 -over- 6 windows on the mow story, and four small windows high in the rafters. Six inch square air ducts are placed between the basement windows, four feet above the ground and just above the foundations, to discharge cold air from below, while two tall wooden shafts on the east and west sides of the silo circulate air to the top of the barn, with upward suction from exhausts on the main floor. Two ventilators project from the roof.

The ground story has a circular concrete floor with drain and 20 metal stanchions. There are five ground story exits. One on the southwest is a passage to an older, 19th century barn of hand-hewn construction sided with flush vertical frame, on limestone foundations, which show repairs by Mr. Ron Dougan. Cows entered through a ten foot long, steep gabled wind on the west, passing under a burlap flap to remove flies, which were ingeniously discharged into a wooden cage and disposed of. Other exits lead to a concrete yard to the north. The older barn is included in the nomination.

The mow interior is dominated by the silo, 12 feet in diameter, and the open space around it. Though a portion of the northwest was later walled off as a separate grain storage room, it is still an impressive space. The rafters rise above the studs in three segments, converging from about two feet apart at the plate to about 6 inches apart at the juncture with the silo. The rafters of the central segment are double, wrapping around the segments above and below; the hay track is suspended from this portion. Added bracing connects with the silo. The following motto was painted on the walls of the silo by the owner:

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7. DESCRIPTION (continued)

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The Aim of This Farm:
1. Good Crops
2. Proper Storage
3. Profitable Live Stock
4. A Stable Market
5. Life as well as a Living
W. J. Dougan
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The barn needs repair. Some panes are out and shingles gone; older wood shingles appear under worn green asphalt shingles. It is used only for storage at present. Several frame buildings nearby, including a milhouse, to which the milk was once pumped underground, are not included in this nomination. An open shed about 100 feet long, where the cows waited to be milked, and called the "Ladies Lounge" by the Dougans, was to the west of the barn but is now gone. The frame, two story vernacular farmhouse of ca. 1860-70 has been altered and is not included in this nomination.

## Significance

According to the son of the builder, whose juvenile handprints were imbedded in the concrete floor of the barn, the barn was built in 1911 following to the concepts of Prof. F. H. King of the University of Wisconsin, who espoused compact, economical construction, reduction of labor and operating costs to obtain the optimum profit for the owner, and adequate light and ventilation for the livestock. Wesson J. Dougan, a young methodist minister, had bought the farm in 1906 from Mrs. S. G. Colley. The original Colley pioneer had been an early settler of the Town of Turtle, and the Colleys had built the older barn, to which the round barn was connected, and the farmhouse. Mr . Dougan and the carpenter, Mark Keller, arranged the two by six rafters out on a field until they developed an "aesthetically pleasing roof shape." The silo, constructed first, was used for support. Years later cross pieces of 2 " x 6 "s were added to the roof to counteract horizontal shifting of the walls and roof.

The barn was utilized for the Dougan Guernsey Farm, which at one time had a herd of 120 cows. Stone mangers were flush with the feeding floor, and there were wedge-shaped drinking cups. The original floor was plank, until 1930. The first milking machine, an Empire, was installed ca. 1920; pails were made of German silver. Later, a vacuum pump discharged the milk through a pipe under the roadway to the milkhouse vats about 200 feet distant. Grain was ground on the second floor, where the bins were enclosed over the grinder at a later date. The hay track, installed where the barn was new, utilized a motor and jacks to pull the rope of the hay fork. The adjacent older barn was used for horses, then calves.

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## 7. DESCRIPTION (continued)

The dairy operation lasted until 1968; the farm is now being sold under land contract, and a trailer court has grown up around it on the west and north. When enough (150 acres) of the farm has been paid for, the farm buildings will go to the new owners. It is hoped that the barn be preserved, possibly with an adaptive re-use, although it may not be possible to retain the other farm structures.
(Atlas, 1873, p. 39; Atlas of Rock County, 1917, illus., n.p.; "Round barn weathers the end of an era," Beloit Daily News, ca. 1974; Douglas and Hartung, RCHSB, pp. 91, 100, 200, 204-5; interview with Ronald Dougan, Sept. and Nov. 1978.)

The Gempeler Round Barn, ca. 1912
NE, SE 5, Spring Valley
Owner: Mr. and Mrs. Howard Krupke

R. 1, Brodhead, WI 53520

UTM reference: 16/309000/4725900, Orfordvi11e, Wis., 1:24000.

## Description:

The Gempeler round barn is $68^{\prime}$ in diameter, and almost that high, according to Chester Gempeler, the son of the owner for whom the barn was built. The barn is not built around a silo but is constructed around a strong central post, which supports the basement story. This post is a solid oak trunk over 9 feet high, set upside down like an inverted pylon. It is $21 / 2$ feet at the base and 3 feet in diameter at the top, from where a contiguous web of $3^{\prime \prime} \times 10^{\prime \prime}$ s which circles the basement ceiling and is supported by $6^{\prime \prime} \times 8^{\prime \prime}$ posts. More rafters extend to the outer wall. The central corral is open, but the outer spaces, about 12 feet wide, are broken up into pens around the circumference. The entrance to the basement story is at the south. There are sets of four-paned windows which flank the door and also appear, with less frequency, at the east and west portion of the basement. The foundations are of rough, random limestone, almost two feet thick. The lapped siding is a weatherbeaten red. The conical roof is covered with worn asphalt over the original wood shingles. It is topped by a cylindrical, cone-roofed cupola with louvers.

The mow floor is relatively open. It is entered at the north, on a natural rise of ground, through tall sliding doors, which conform to the rounded sides of the barn. The studs around the wall are $18^{\prime}$ high and about $30^{\prime \prime}$ apart. Though windows are relatively few, their panes are gone, and the weather-beaten red siding, asphalt shingled roof, and wood floor are now in poor enough condition to admit more light and weather than the builders had intended. About 1930 a rectangular framework was constructed inside, south of the entrance, with triangular bracing to strengthen the roof against a developing torque movement. A grain storage room is on the right side;

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## 7. DESCRIPTION (continued)

otherwise it is open. The posts of this framework were notched to receive its beams, which in turn support a ladder which rises to the cupola. Half the rafters, which are aligned on the plate above the studs, reach all the way to the collar below the cupola. Every other one reaches only as far as a circular band of headers about halfway up the roof, which also supports a hay track.

The collar is braced with rectilinear cross pieces, leaving a central square opening through which one can climb up the ladder into the cupola. Some of the horizontal louvers which have come loose from the cupola are hanging on the framework, until they can be restored. In spite of added bracing, the roof has pitched and buckled somewhat, which sets the cupola slightly askew. A rounded pent overhang over the south basement story of the barn is to shelter the cows. An attached pen, built as a $15^{\prime}$ long wedge shape because of the circular contour of the barn, is adjacent to the southeast. The barn is still usable for cattle on the ground story, but the holes in the mow floor make it relatively unsafe for the storage of hay.

The farmhouse has been extensively altered and the outbuildings are either altered or much newer. These structures are therefore not included in the nomination.

## Significance

The Gempeler round barn, nestled in a picturesque hilly setting typical of western Rock County, is significant for its ingenious construction, with its main story supported by an inverse pylon made up of an oak trunk upside down in the center of the basement. It was wider at the top to provide bearing for the floor, according to the former owner and son of the builder, who watched the construction as a 12-year old boy. The trunk was cut from a tree on the farm and set onto a cement block base about a food wider around it. The surrounding floor was dirt, until cement was added about 15 years ago. The ground floor rafters were trimmed to fit them together in a circle on top of the post; the last one was toe-nailed into place. Sills were laid on the foundation, of random limestone which was quarried on the farm. The studs were tied to the bottom and spiked through the joists.

As the circumference was large enough, the lapped siding boards were bent around the studs and nailed into place. Headers were nailed into rafters on the ground; the rafters were hoisted up by ropes. Gempeler watched one of the barn builders ride the rafters upward to tighten them into place, and come back down by ladder. The rafters were stabilized by the collar, which also supported the cupola. The collar boards were prepared by being sawn away at intervals, almost half way through, so they would bend in a tight circle.

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7. DESCRIPTION (continued)

The barn was constructed by the Hasse brothers, from Durand, Illinois, in the summer and fall of 1912. They had evidently shown the owner some of their work on barns near Tyrone, Illinois.

Chris Gempeler had bought the farm in 1902; he raised Guernsey cows. Young stock stayed in the center, around the post, with an aisle between them and the about 28 cows and 11 horses, who faced them around the outside. All were fed from this aisle. A stave silo was added just to the southeast about 1920; the present concrete silo replaced it about 1930 after the other blew down.

The son, Chester Gempeler, continued to farm after his father's retirement, taking out the horse stalls and eventually switching over to Holsteins. Electricity was added ca. 1930, and interior braces added to the mow ca. 1938. He found the barn "handy to do work in." He continued using the barn until 1967 when the farm was sold to the present owners, on a now complete land contract. The new owners intend to repair or restore the barn within a year or two.
(Doug1as and Hartung, RCHSB, pp. 91, 100, 168-9; interviews with Chester Gempeler and Howard Krupke, Oct. and Nov., 1978.)

The Gilley-Tofsland Octagonal Barn, ca. 1913
NE NE 3, Porter
Owner: Mr. Torris Tofsland
R. 1, Edgerton, WI 53534

UTM reference: 16/322260/47456100, Cooksville, Wis., 1:24000.

## Description:

The Gilley-Tofsland octagonal barn, 56 feet in diameter, is built around a rocktextured concrete silo, about 15 feet in diameter, which stops several feet short of the octagonal cupola. Built into the side of a hill, the barn has three floors: an eight foot high basement used for cattle, which is exposed to the south and west; a main story about nine feet high, with several grain bins, which is entered from the east; and a "mezzanine" hay-mow floor which is wrapped around the silo on all but the north side, where the main floor is open to the rafters. Here a pair of doors about twelve feet high allows for hay wagons to enter.

The basement story is built of rock-textured concrete blocks. Its ceiling is supported on $8^{\prime \prime} \times 8^{\prime \prime}$ chamfered wood posts, painted white, and an octagonal ring of beams, five and a half feet out from the edge of the silo, and diagonal beams at the corners. Rafters, $2^{\prime \prime} \times 8^{\prime \prime}$ and about 14 inches apart, intersect to form triangulation with these

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## 7. DESCRIPTION (continued)

diagonals. A corridor runs along the south and east walls with wedge-shaped stalls to the center, and a raised platform continues from the north to southwest. A circular ceiling track allows for manure disposal to the south yard.

Horizontal, lapped siding, painted red, covers the exterior. The gambreled octagonal roof is covered with green asphalt shingles, in good condition. Light and ventilation are well planned, with banks of four-paned windows on all sides of the basement except below the main story entrances, pairs of double hung two-over-two windows on the main story, and four-paned square windows at the corners of the "mezzanine." The most dramatic light is provided by the cupola, which is relatively low, with pairs of fourpaned windows alternating with shuttered panels. More ventilation is provided by the tall frame ventilator shaft on the west side of the silo.

The haymow is a fairly open space, punctuated by eight inner posts which intersect with the gambrel ridge. They do not align with the eight $9^{\prime \prime} \mathrm{x} 99^{\prime \prime}$ posts on the main floor, which support the mezzanine mow. The roof is made up of trapezoids, whose horizontal edges and vertical ridges form wedges; the parallel rafters intersect with the ridges. From a collar around the upper eight sides, eight horizontal beams project to meet at a kingpost at the base of the cupola. The interior of the cupola was painted white, which, though now faded, adds to the illumination of the barn space.

The barn is in'a picturesque setting, in the hamlet of Stebbinsville, less than $1 / 8$ mile from the Stebbinsville-Burno dam of ca. 1916, which once again provides some hydroelectric power to nearby Stoughton. A small red board and batten one story octagonal building about 40 feet to the northeast, is used as a woodshed. The present owner believes it was built before the barn as an exercise in octagonal building; in any case it nicely complements the barn. This, along with the small frame milkhouse adjacent to the barn, are included in the nomination. Other buildings are not significant and are not included.

## Significance

The Gilley-Tofsland barn, because of its mezzanine, is the only one of the centric barns to be three storied. According to the present owner, the barn was built by a carpenter, John Almond, for Will Gilley in 1913. Gilley used the barn for his herd of Guernsey cows. He was the second husband of Flora Wood Gilley, a daughter of Harrison Stebbins (1820-1882), a prominent early settler of Porter Township, whose fine stone house in Section 8 is about $21 / 2$ miles from Cooksville. Stebbins had obtained the land on which the octagonal barn is now located in 1857, and ten years later erected a gristmill nearby, which was destroyed by a storm in 1911. Flora obtained the farm in 1882.

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7. DESCRIPTION (continued)

The farm was sold to Torris Tofsland, present owner and occupant, and Julia and Melvin Tofsland, in 1936. He continued using the barn for Guernseys, then a mixed herd, until 1957, and subsequently raised sheep there until about 1970 . It is still used for storage. Though he considers the barn inefficient for dairy cattle because of the waste space and unnecessary walking, he believes it adequate for young or beef stock.
(Portrait and Biographical Album of Rock County, 1889, pp. 715-16; Douglas and Hartung, RCHSB, pp. 91, 100, 138-9; interview with Torris Tofsland, Sept. 1978.)

## 8 SIGNIFICANCE

PERIOD
—PREHISTOHIC
_-1400-1499
-1500-1599

- 1600-1699
- 1700-1799
$\mathrm{X}_{1800-1899}$ $\mathrm{X}_{1} 1900-$

AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW

| -ARCHEOLOGY-PREHISTORIC | _COMMUNITY PLANNING |
| :---: | :---: |
| -ARCHEOLOGY-HISTORIC | __CONSERVATION |
| $\underline{X}_{\text {agriculture }}$ | _-ECONOMICS |
| $\underline{X}_{\text {Architecture }}$ | --EDUCATION |
| -ART | -engineering |
| -COMmerce | -exploration/SETtLEMENT |
| -COMMUNICATIONS | - Industry |
|  | _Invention |


| -LANDSCAPE ARCHITECTURE | -religion |
| :---: | :---: |
| -LAW | __science |
| -literature | _Sculpture |
| -military | -socialhumanitarian |
| -MUSIC | -THEATER |
| _PHILOSOPHY | - transportation |
| _-POLITICS/GOVERNMENT | __OTHER (SPECIF |

SPECIFIC DATES 1889-1913 BUILDER/ARCHITECT

## STATEMENT OF SIGNIFICANCE

The five centric Rock County barns are significant architecturally as exemplifying a type of construction: functional building in frame, stone and concrete, with a round or octagonal plan for the care of dairy herds. They are secondly significant for their connection to the dairy industry in southern Wisconsin.

Centric barns, though eccentric in the history of American barn building, were promoted in agricultural literature around the turn of the century and were built in some number, from Vermont to California. Rock County retains five of these barns, which though much less publicized than the Clausing centric barns of Ozaukee near the Lake Michigan shore, merit preservation. These five are the only centric barns known to have been built in Rock County. Such barns still exist in neighboring Green (four) and Dane counties. Others, known to have existed in these counties, according to the present Rock County owners, have burned or been destroyed.

The Wisconsin dairy industry grew rapidly in the late 19 th century. Rock County is situated in the center of the southern Wisconsin dairy belt, being considered by the 1920's to be "one of the Banner Five" counties, in the heart of "America's Dairyland," and for its size stated to be at the head of the list. 1 The dumber of dairy cows in Rock County almost doubled between 1880 and $1907 .{ }^{1}$ This growth was abetted by the encouragement of improved herds of dairy cattle by Hoard's Dairyman, published in nearby Fort Atkinson, by research by the University of Wisconsin Agricultural Experiment Stations, and by the development at the University of Wisconsin in 1890 of the Babcock test to determine the amount of butterfat in milk. An efficient and inexpensive barn construction was sought to house the purebred Guernsey and other herds, as well as the draft horses, needed on the farm. To some extent in Wisconsin and especially in Illinois, centric barns were espoused for their advantages of "convenience, strength and cheapness."3

Precedents include the round Shaker barn at Hacock, Mass., of 1826 (rebuilt l865) with its $31 / 2$ foot thick stone walls, its elaborate network of rafters, and central ventilating shaft from barn floor to cupola, which was published in farm journals by the $1880^{\prime} s, 4$ and in the writings of Orson Fowler, who promoted the spatial economy and efficient arrangement of octagonal barns in the 1850 's. 5 Yet closer sources were the manuals and bulletins put out by the University of Wisconsin and the University of Illinois, and commercial books as well as periodicals such as The American Agriculturalist, The Country Gentlemen, Hoard's Dairyman, and The Breeders Gazette, Prof. F. H. King (1848-1911) of the University of Wisconsin, who was nationally known for his work on soils and his system of barn ventilation; ${ }^{6}$ and who wrote in several farm journals, also designed in 1889 a round barn near Whitewater, "not for novelty but for advantage,"

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which was nationally published. ${ }^{7}$ It may also have been locally known to Dean. It was 92 feet in diameter and so larger than the Rock County examples. Yet his precepts and designs were known to have incluenced at least Wesson J. Dougan of Beloit. ${ }^{8}$

The Beloit barn used three concentric stone walls (any visible portion is now cement) under the foundations; the published barn used four. King proposed framing with hammer and saw in "the new method", and planned construction around a central silo, which was frame in the older King example an-d concrete in Dougan's barn. Dougan also placed great emphasis on ventilation; the "auger holes" in the outer walls of the foundation are both designs. ${ }^{9}$ King's round barn was designed to allow "the best performance of the animals", and the best use of labor for profit. Echoes of these slogans were painted onto the siol walls (see: description) by W. J. Dougan on completion of the barn.

With their differences in dimension, date, carpenter, and details of construction, the Rock County centric barns did not seem to influence each other; rather the knowledge of the onwer or barn builder must have derived to some extent from some of these publications.

For convenience, all the centric barns tended to include all functions possible within one roof: mow, stable, milking stanchions, silo and granary. They incorporated the latest developments, often a round silo in the center, 10 some kind of ventilating system, including louvers or a cupola, and conveniences such as a hay track with pulley in the mow and a manure track below. In all the Rock County examples, the ground story plan is centric, with rows of cows facing the center (King and later Dougan pointed out that a cow is wedge shaped), with a circular aisle for convenience in doing chores. The barn was generally considered "handy to do chores in", though one long-time owner, not the original builder, did not like it, for dairy cattle because he felt the plan involved too much walking around. ${ }^{11}$ Sliding barn doors, of vertical siding, conform smoothly to the contour of the round barns or are flat in the octagonal barns.

For strenght, the barns seemed superior. The continuous plate of a round barn converted the "lateral thrusts of the roof into vertical loads upon the outside bearing walls". 12 The horizontal siding, like a hoop, holds the barn together, taking "advantage of the lineal, instead of the breaking strenght of the lumber". ${ }^{13}$ The Risum round barn has withstood the tornadoes of 1911 and 1940 which supposedly below down nearby buildings; yet the Dougan and Gempeler barns once developed torques which were rectified with further bracing.

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Though the University of Illinois considered octagonal barns less stable than round barns, they may have been built along Lake Michigan to withstand the winds, and may also have been built for the same reason. in Rock County. Generally, round barns are more common than octagonal barns; yet there seems to be no connection between those of Rock and Ozaukee counties. ${ }^{14}$

For cheapness, a round or polygonal barn gave more interior wall space for the amount of exterior wall, thus saving in lumber, using up to one-fourth.. or one-third less; ${ }^{15}$ it could also utilize balloon frame rather than heavy timering. Also, because the silo was generally inside the barn, it was protected and probably needed less maintenance; for instance the 1921 silo filler of the Risum barn is still in fine condition.

Yet today the inherent value of the barns stems not from cheapness but from the functional beauty of the framing, the intricate patterns of webbing and struts in the roofs and the transition to the cupola, and the lofty open spaces of the interiors, softly lit from above. The construction was done with variety and ingenuity by various barn builders, who consulted with the owners and sometimes worked with them to plan the details of the layout. Relatively little is known about the carpenters, except the names remembered by descendents of the owners. Mark Keller (Dougan) was a carpenter in Beloit who also worked on houses; the Hasse brothers (Gempeler) were evidently barn builders from Durand, Illinois; John Almond (Gilley) and John Gansert or Gansell (Risum) are other names of builders which were remembered. ${ }^{16}$

1. R. B. Way, Rock River Valley, Chicago: Clarke, 1926, Vo1. I, p. 437.
2. Brown, Rock County, Chicago: Cooper, 1908, Vo1. I, pp. 402-403 (from 15 M in 1880 to 28 M in 1907.)
3. W. J. Fraser, Economy of the Round Dairy Barn, U. of I11. Ag. Exper. Station, Bu11. No. 143, Urbana, 1910, p. 44.
4. E. Arthur and D. Whitney, The Barn: A Vanishing Landmark in America, New York Graphic, 1972, pp. 151, 155.
5. O.S. Fowler, A Home for All, or, The Gravel Wall and Octagon Mode of Building, New York, 1854, p. 82 .

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CONTINUATION SHEET
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6. Byron Halsted, Barn Plans and Outbuildings, N.Y., 1904, p. 2; C. A. Ocock, The King System of Ventilation, U. of Wis. Ag. Exp. St. Bull. No. 164, Msn, 1908 (which applied to conventional barns).
7. Wis. Ag. Exper. Station, 7th Annual Report, Madison 1890, pp. 183-92, also Sanders, Farm Buildings, Chicago, 1893, 1905, pp. 77 ff, illus. p.79.
8. Interview with Ron Dougan, Sept. and Nov., 1978.
9. Sanders, Op. cit., p. 80.
10. Before 1880 silos were rare; they developed from long pits to a tall square box; the cylindrical shape was then adopted because there was not spoilage in the corners to be considered.
11. Pro-were Ron Dougan and Chester Gempeler, sons of the builders, who had seen the barns built; con-was Torris Tofsland, who bought his farm in 1936.
12. Richard Perrin, Historic Wisconsin Buildings, Milwaukee 1962, p. 43.
13. W. J. Fraser, Op. cit., pg. 6.
14. Apps and Strang, Barns of Wisconsin, Madison; Tamarack Press, 1977, p. 43; interview with Jerry Apps, Oct. 1978.
15. Fraser, Op. cit., p. 7.
16. Interview with Ron Dougan, Chris Gempeler, Torris Tofsland, and Merwin Risum, Sept. and Oct. 1978.

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Fraser; W. J., Economy of the Round Dairy Barn, U. of Ill, Exper. Station Bull. No. 143, Urbana, 1910 (2nd ed., Circular No. 230, 1918).

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## 10GEOGRAPHICAL DATA (See item 7)

ACREAGE OF NOMINATED PROPERTY


VERBAL BOUNDARY DESCRIPTION
The outside walls of each structure.


## 11 FORM PREPARED BY

name/title


12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION
THEE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:
NATIONAL _
STATE
LOCAL X

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE
title


DATE
5.27. 27
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