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Article Title: Nebraska's Round Barns

Full Citation: Roger L Welsch, "Nebraska's Round Barns," *Nebraska History* 51 (1970): 48-92.

URL of article: http://www.nebraskahistory.org/publish/publicat/history/full-text/NH1970Round_Barns.pdf

Date: 6/15/2011

Article Summary: Roger Welsch presents a brief history of "round" barns in Nebraska along with diagrams and details of construction, advantages and disadvantages of such barns. An inventory of 36 round barns with some photos is included.

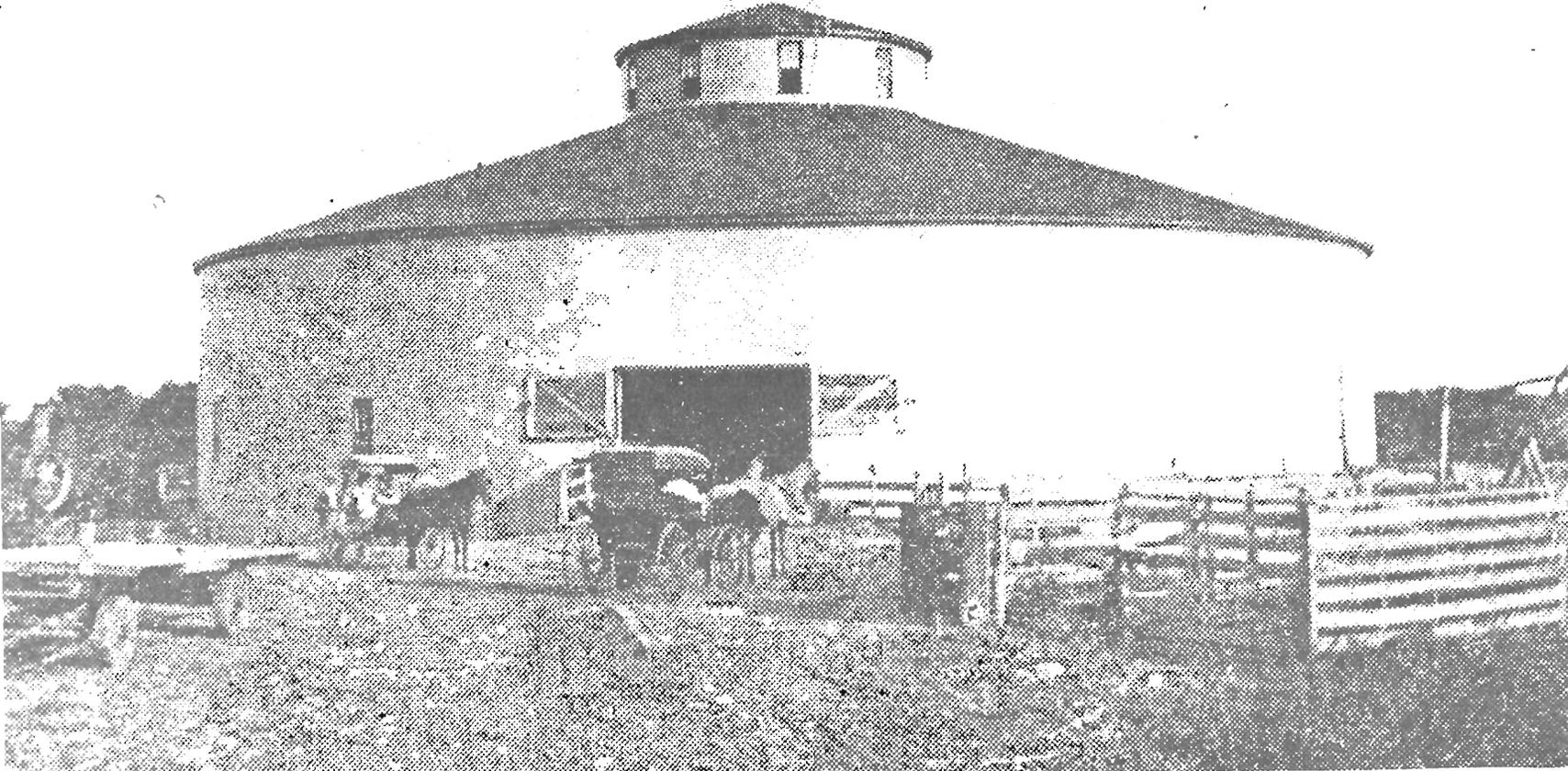
Cataloging Information:

Names: Richard Perrin, Robert-Lionel Seguin, Eric Sloane, Ruby Rounds, William E Clark, Orson Squire Fowler; C F Doane, John C Baker

Place Names: Fort Erie, Ontario; Fort Edgecomb, Maine; Fairfax County, Virginia; Cherry County, Nebraska; Sioux City, Iowa; Nebraska City, Nebraska; Missouri River; Nebraska: Thedford, Auburn, Fairfield, Nelson, Beaver Crossing, Burchard, Loup City, Ord, Amboy Junction, Red Cloud, Malcolm, Pilger, Broken Bow, Edgar, Lincoln, Laurel, York, Pleasant Dale, David City, Minden, Spencer, Clay Center, Uehling, Shickley, Ragan, Ashland, Lawrence, Wood Lake, Arapahoe, Sutton, Sidney, Elm Creek

Keywords: popular architecture; gable roof; gambrel roof; plate; balloon construction; bank construction; ramp barn; University of Illinois bulletin

Photographs / Images: Barn No 9 east of Red Cloud; Barn No 21, near Minden; 8-sided Barn No 6 near Burchard; Barn No 23 near Clay Center; Barn No 12 west of Broken Bow; Barn No 19, a polyhedral barn near David City; Barn No 3, near Fairfield; Barn No 30, near Lincoln; Corrugated iron barn, No 14, near Lincoln; Barn No 2, southwest of Auburn; Map "Key to the Distribution of Nebraska Round Barn Characteristics"



Barn No. 9, located east of Red Cloud, is one of the largest round barns in America. Its heavy timbers are held in place by sheer tension; no pegs, spikes, or nails are used. (See barn No. 9.)

Nebraska's Round Barns

By ROGER L. WELSCH

On a bright fall day in 1964 I was driving down a gravel road southeast of Lincoln telling Victor Lane, a friend and colleague of mine, about an exciting course in folk architecture that I had just completed at Indiana University's Folklore Institute. I was describing to him traditional barn roof styles and the very rational bases for them. As we drove along I pointed out to him the short-span gable, the longer-span "broken" gable, the gambrel with its eminent efficiency of space and strutting, and then, since I did not immediately see one, I tried to describe the Gothic or "rainbow" roof, with its two steep convex curves meeting at the roof ridge. In attempting to describe the great falling arcs, I used the word "round."¹

Professor Lane said that he was quite familiar with these round-roofed barns and that one was located along this very road that he frequently drove to his Bennet home. But he asked why I restricted my term "round" to the roof when the walls are also round. Our mutual terminological confusion had not yet been resolved when my eyes fell on what was indeed a round barn. The roof was a cone, and the floor plan was clearly round. We then knew what we were talking about, but a new confusion settled over me. The smug certainty of classroom knowledge was

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confronted with a field reality: why round? Was this barn one of a kind, one of several, or a representative of a whole tradition? Was this a Nebraska, west-central, or American phenomenon? What kind of story lay behind this striking building?

I spent four years investigating Nebraska's round barns – writing letters and “teaser” articles for newspapers and magazines, corresponding with builders and owners, traveling to every corner of the state, photographing the buildings, measuring them, interviewing owners and neighbors, discussing with friends and fellow folklorists the various aspects of the round barn. I believe that the history of the round barn constitutes an interesting chapter in the story of this country's vernacular architecture – a short chapter to be sure, but nonetheless an interesting one. The individual barns can never enjoy the respect of buildings like Lincoln's Kennard House or Fairview, William Jennings Bryan's hilltop home, but, just as historians have begun to examine the lives of common men at various points in history along with those of generals and princes, they have also begun to turn their attention to the typical buildings of a period as well as those that have some special historic or artistic significance. This study is in that spirit.

TERMINOLOGY

There are a few words we should agree on. In my usage *sophisticated* or *art* architecture is a studied and deliberate art, its products designed by specific, trained architects who strive to create individual works of art in building construction. The Nebraska State Capitol, old City Hall, and the Sheldon Memorial Art Gallery – all located in Lincoln – are examples of this type of architecture. *Folk* architecture is a traditional form, developed over many generations by a number of usually anonymous contributors and passed from one builder to another by unsophisticated (usually oral) means. Most sod and log houses are examples of folk architecture. *Vernacular* or *popular* architecture is a middle ground between art and folk architecture – it is neither and yet it is both. Vernacular architecture is usually created, transmitted, and used by artisans with some technical but little artistic training, and it is transmitted by popular media – magazines, newspapers, cheap books. Most older, lower- and middle-class, urban houses are in this category.

In this article I use the word "round" as a generic term. It will include polyhedral constructions with five or more equilateral sides. Wherever it is necessary to distinguish between forms, I will use specific terms like octagon, decagon, 14-sided, and "true-round." This is not an article on pure architecture, and I will avoid technical terminology insofar as possible. There are, however, no adequate substitutes for the following:

Gable roof: a roof having a single slope on each side of a central ridge.

Gambrel roof: a roof having both an upper and lower slope on each side of a central ridge.

I have used these traditional terms to describe round-barn roofs while altering their meaning somewhat to apply to the unusual round-barn floor plan. With all round barns the roof slopes up to a peak rather than to a ridge and forms what might be called a pyramid or cone roof. When the rafters run straight from the plate toward the central peak, I have called this a gable roof, even though there is no gable. And when the rafters slope up from the walls at one angle and then break later at a flatter angle toward the central peak, I have called this a gambrel roof. In short, I have labeled roofs on the basis of their silhouette rather than their three-dimensional configuration.

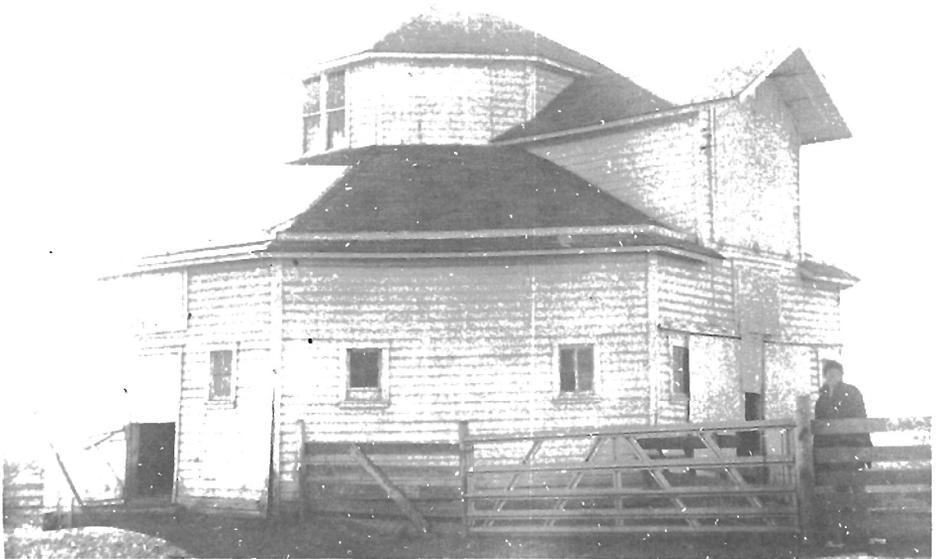
Plate: a horizontal structural member running along the top of an external wall and supporting the roof rafters.

Balloon construction: a form of framing in which the weight of the roof and upper floors is borne by a series of closely spaced, light weight, upright studs, each linking the plate and the first floor sill. Almost all modern frame buildings are of balloon construction, the roof being carried by vertical two-by-fours in the walls.

Bank barn: Hoisting hay into a barn loft so that it can later be thrown down to the animals in a lower floor area is a strenuous task. Some barn builders eased the job by building bank barns, which were situated on a hillside so that wagons of hay could be driven directly into the loft. An added advantage of bank barns was that they permitted the sheltering of animals partially below ground level, where it was cooler in the summer and warmer in the winter. A variant of the bank barn is the *ramp barn*; where no hills were convenient, a ramp of earth was built to lead to the upper level. The ramp usually stopped short of the barn itself and a short "bridge" joined the two, leaving air space which prevented frost heave within the ramp from damaging the foundation wall of the barn.



Built of vitreous tile, this round barn (No. 21) is located 10 miles north of Minden. The loft floor is situated just below the loft door.



An 8-sided structure (No. 6), this barn is located near Burchard. Its architectural features are readily observed in this photograph.



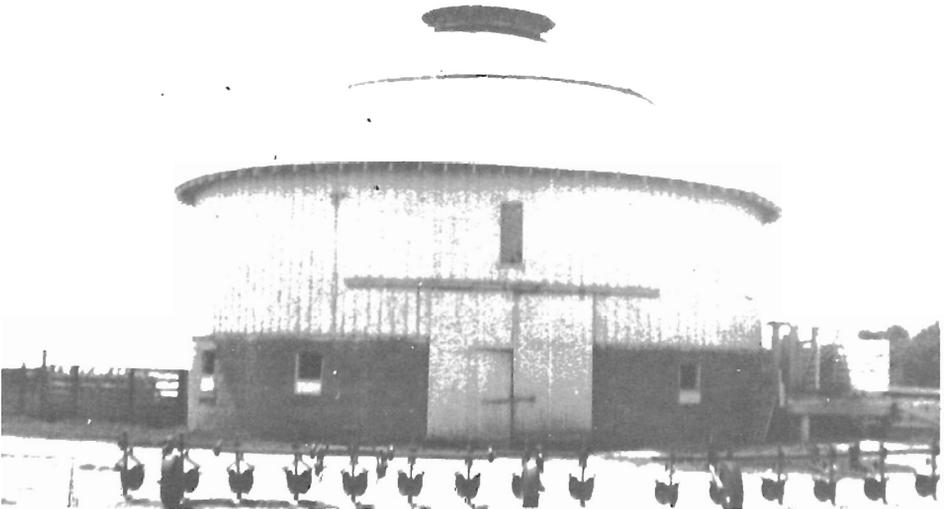
This striking barn (No. 23), southwest of Clay Center, is one of the most attractive barns in Nebraska. The patterns of the siding, the angular gables, and the texture of the unpainted wood blend to create a distinctive effect.



Although this barn (No. 12), just west of Broken Bow, is built of tile, there are upright concrete members to bear the weight of the roof.



This polyhedral barn (No. 19) is located southwest of David City. The position of the loft windows shows that the loft floor is situated midway up the wall, somewhat below the roof plate. Rectangular (unlike round) construction requires that a floor be located at the plate level.



Barn No. 3, south of Fairfield, is unusual in that a frame upper level is supported by a concrete block first level.



Barn No. 30, southeast of Lincoln, is entered by one of two ramps. The small frame building at the lower right is part of the modern milking shed. The white structure just above the main door is an elevator loft. Note the ramp in the lower left of the photograph.



There is an air of the space age about this corrugated iron barn (No. 14), southeast of Lincoln and near barn No. 30. The lean-to does not continue around the front of the barn.



Barn No. 2, southwest of Auburn, is one of Nebraska's oldest round barns. Its heavy timbered framework is handsomely joined, and its curious roof configuration is duplicated by no other Nebraska barn.

HISTORY OF THE ROUND BARN

The origin of the round barn is unknown. I have not been able to find any direct European antecedents. To be sure small, round, stone huts have been used in Europe as field shelters,² but there are no clear connections between these structures and American barns. There are no consistent patterns of the nationalities of round-barn builders or owners in Nebraska or in the United States in general. Other writers' speculations regarding origins appear to be just that, even though Richard Perrin notes³ that most round barns in Wisconsin were built by one German; but Perrin also says that the octagonal barn is "unique to Wisconsin"! Perrin, Robert-Lionel Seguin,⁴ and Eric Sloane⁵ all suggest that the round barn originated in America about 1830. In *Octagon Buildings in New York State*, compiled by Ruby Rounds(!),⁶ the earliest octagonal building listed is a schoolhouse built in 1825 in Etna. Several houses were built around 1840, and of the 12 barns catalogued only 3 are dated, the earliest at 1870-1880. The Shaker colony at Hancock, Massachusetts, built in 1826 a huge, round, stone barn, 90 feet in diameter, which is claimed by some to be the first of its kind,⁷ and Eric Sloane further suggests that this barn is "the first American 'modern architecture.'" But while it may indeed have been the first true-round barn in the nation, there was at least one earlier generic round barn — a 16-sided barn located in Fairfax County, Virginia, and interestingly enough built for the Father of Our Country George Washington.⁸ Apparently, since documentation on this building is at best confused, it was constructed from Washington's own plan in 1793 and later enlarged by William E. Clark in 1874.⁹ The building was destroyed by fire in 1967.¹⁰

The circle and polyhedron, however, also enjoyed popularity in other forms of architecture at an early date. Fort Erie (late 18th century) in Ontario and Fort Edgecomb (early 19th century) in Maine were octagons built of logs; here the use of the octagon form permitted a large building to be constructed of relatively short logs.¹¹ The Omaha and Pawnee Indians of Nebraska built round earth-lodges, and the Navajo of the Southwest still occupy polyhedral log hogans. There is also evidence of one round sod house built by white pioneers in Nebraska's Cherry County.¹² Wherever and whenever the concept of the round barn originated, two influences that encouraged its popularity and elaboration

can be clearly delineated: (1) Orson Squire Fowler and (2) popular farm journals of the late 19th and early 20th centuries.

Orson Squire Fowler is himself deserving of an extended study. He is one of those curious combinations of genius and eccentric that season America's history. Fowler was a phrenology enthusiast and editor of the *Phrenological Journal*; author of *Sexual Science*, "a frank marriage manual of 930 pages";¹³ and publisher in 1856 of *A Home for All; or the Gravel Wall and Octagon Mode of Building, New, Cheap, Convenient, Superior, and Adapted to Rich and Poor*.¹⁴ Fowler was plumping primarily for the octagonal floor plan, but he prescribed not only how the house was to be built and the construction material but also the kinds of plants to be put around it. Many of his suggestions would be radical even today and were most certainly startling in 1856: poured concrete walls, central heating, dumb waiters, interior plumbing, flush toilets, built-in communication systems, and glass roofing. While he did have very sound reasons for most of his innovations, Fowler tended to be somewhat mystical in the particulars: he favored glass and stone because they are "nature's materials," and he predicted that the convenience of his designs would influence the disposition of generations that would grow up in octagon homes in such a way as to render them "constitutionally amiable and good."¹⁵ Fowler's rationale for the octagon will be discussed more fully below in the examination of the rationale for the round barn in general.

Fowler's enthusiasm and well-ordered polemic did exert a significant influence on sophisticated and popular American architecture. Most states east of the Rocky Mountains have a few of Fowler's octagon houses yet today, mostly built between 1850 and 1900. In Nebraska, for example, there are two octagon houses south of Nebraska City, east of Lorton, and an octagon can be seen perched high above the Missouri River as one crosses the bridge north into Sioux City, Iowa. It is certainly likely that Fowler's influence on sophisticated house architecture spread also to popular barn construction, and it may be noted that Fowler appended to *A Home for All* . . . a chapter entitled "Octagonal Barns, Carriage Houses, etc."

Another influence, and in many cases an extension of Fowler's, was the articles on round barns which appeared periodically in farm journals throughout the last three decades of the 19th century and the first three decades of the 20th century.¹⁶ Several factors make these articles of special interest to this study:

1. They dealt specifically with barns.

2. They were seldom theoretical but instead described barns that were already built and in use.

3. The journals were directed to farmers rather than the general public.

4. Three Nebraska builders of round barns mentioned to me that they had seen such farm journal articles before they built their barns.

Nebraska farmers never, as far as I have been able to determine, built their round barns on the basis of specific plans shown in such journals or Fowler's book. They took the idea from these written sources and adapted it to their own needs and means, and each farmer built a barn uniquely his own within a general popular concept. Other farmers took the idea from another round barn in Nebraska or another state, but the sequence by oral transmission or observation rarely, as far as I can determine, extended beyond two transmissions; that is, three barns. For this reason, and because the barns were frequently built in Nebraska by trained carpenters, and also because the limited number of such buildings precludes the rubric "traditional," Nebraska's round barns must be considered popular (or vernacular) rather than folk architecture. Nebraska's round barns were built at the end of a period marked by widespread interest in round and octagonal structures. Indeed, they were built toward the end of the barn-building period in this region, and barns of great size are rarely built on the modern farm. Round-barn building is known to have moved farther westward — one round barn stands near Wray, Colorado, and I am aware of several in Oregon.

THE BARNs

Below is a listing of round barns I have located in Nebraska. In folklore it is impossible to know when the field worker has achieved a total corpus — that is, when he has collected every possible item. The *Omaha World-Herald's Magazine of the Midlands*, the *Lincoln Journal and Star*, the *Nebraska Farmer*, and the *Journal of Popular Culture*¹⁷ were kind enough to carry articles and queries for me. Nebraska Wesleyan University students were asked to canvass relatives and friends. Few new reports of Nebraska round barns have come to me for well over a year now; so, while there may be a few such barns I have not located, it seems unlikely that there could be many. I still have unconfirmed reports of several additional round barns in Nebraska, and I have tried to find all of these but without

success. There is supposed to be a large one just east of Ord, another in the vicinity of Hartington, a "round-cornered" barn near Fort Calhoun, and a round barn not far south of Lexington. Perhaps the latter is the Hiles hangar discussed below.

The barns I have described below are farm buildings. There are many round buildings used around the state as sale barns (in Fullerton and Bartley, for example) and several fairgrounds have round pavilions (in Dëshler and formerly in Seward, for example). I have not listed them below because they are not used on a single farmstead for general farm functions. Nor have I included the thousands of small, prefabricated, round hog sheds that can be seen on so many Nebraska farmsteads. These sheds are clearly outside the major tradition I am treating here, although they might indeed be an offspring of it. One of the most curious of Nebraska's round buildings, the Harry J. W. Hiles aircraft hangar south of Gothenburg, has also been excluded since it obviously is not a barn. Fortunately, I will not have to file away facts about this fascinating building permanently, for I am currently studying Nebraska's baled-hay buildings, and Hiles' singular hangar was built in part of baled hay.

I have listed the barns in the approximate order in which they were built; obviously many of the dates must be estimates, for few people bother to record dates on such mundane buildings as barns, even though they are round. Only one barn (No. 29 below) had its construction date inscribed on it: In fact, most information on each building came to me in the form of oral history, a notoriously unreliable source. In general, however, I believe the dates shown are reasonably accurate, and the information has, except where otherwise noted, been collected by me personally.

BARN NO. 1

Location: About 4 miles north of Thedford on a Kinkaid land grant.

Date: I have been unable to obtain the construction date of this barn. It was destroyed by fire in 1919. Since it was considered a landmark in 1905, it does qualify as one of Nebraska's first round barns. It was built by Clifford Ankney.¹⁸

Form: An old photograph suggests that the barn had 12 or 14 sides, each 10 or 12 feet long. The roof was of gambrel form.

Construction: The barn had a balloon frame with horizontal siding.

BARN NO. 2

Location: 9½ miles southwest of Auburn.

Date: The obvious antiquity of this barn makes it difficult to assign a definite date of construction, but it is probably as much as 90 years old. It is the farthest east of Nebraska's round barns and located close to the state's first settlements, and the incredible craftsmanship in its framing suggests 19th century work.

Form: This barn has 8 sides, each 27½ feet long. It is a bank barn with a modified gambrel roof, the lower pitch made up of alternating square and triangular sections (a total of 8 sections) and the upper pitch consisting of 4 trapezoids, a unique form among Nebraska's round barns.

Construction: The roof is supported by four-by-four inch vertical timbers arrayed down the center of the barn. The foundation is limestone, a departure from the more usual (and more modern) poured concrete foundation of most round barns in Nebraska. The timbers are linked with mortise and tenon joints at all angles and dovetails are used where timbers abut; all joints are pegged with one-inch wooden pins, except diagonal members which are so fitted that pegs are not required. The workmanship on this barn is truly impressive; in my opinion it is one of the state's finest barns.

BARN NO. 3

Location: 1 mile south of Fairfield.

Date: The earliest date suggested for this barn is in the 1880's, although another oral source suggests 1910. The latter date seems more likely, and the barn may even have been built more recently. It is indeed remarkably well preserved if it is over 80 years old.

Form: This is a true-round barn with a 27-foot radius and a central silo. The gambrel roof encloses a loft.

Construction: The main floor wall is constructed of concrete blocks, while the loft level has a balloon frame with vertical siding. Round timbers lend additional support to the loft floor.

BARN NO. 4

Location: 9 miles southeast of Nelson.

Date: No precise date is known, but the building was probably constructed in the late 19th or early 20th century.

Form: This barn has 15 sides, each 14 feet long, and has a central silo 16 feet in diameter.

Construction: The walls are horizontally planked. Balloon construction dominates, but heavy vertical timbers support the gallery loft. All timbers and structural members are bolted, and the gambrel roof is braced against a 38-foot high silo which projects above the upper slope of the gambrel, providing central ventilation and light.

BARN NO. 5

Location: 1½ miles southeast of Beaver Crossing. Only close examination reveals this building to be a round barn,¹⁹ because its roof configuration suggests a rectangular barn.

Date: As was the case with several of Nebraska's oldest round barns, local informants commented that this barn was already considered old and a landmark by the 1920's or earlier, and very likely it was built in the late 19th century.

Form: The 8 sides are each 20 feet long. The roof is of gable form, but 2 dormers extend out from the peak of the roof to meet the walls of 2 opposite sides of the barn, so that the barn's profile is similar to that of a typical gabled, rectangular barn.

Construction: This barn has a heavy frame of seven-by-seven inch timbers spiked together. The siding consists of vertical planking with narrow batten strips sealing the vertical joints.

BARN NO. 6

Location: ½ mile north of Burchard and just west of Highway 99.

Date: This barn was built early in the 20th century.

Form: Each side of this octagon measures 10 feet. An octagonal loft level with 8-foot sides projects above the structure's principal roof. A hay loft occupies the center of the interior and a dormer provides access to the loft level.

Construction: This barn has a balloon frame with horizontal siding.

BARN NO. 7

Location: About midway on the old highway from Loup City to Ord, where the barn has long stood as a prominent landmark.

Date: This structure was built in the late 19th or early 20th century.

Form: The barn has 24 short sides, each approximately 4 feet long. The gable roof is crowned by a central ventilating cupola. There is no loft. The walls, however, are lower than most round barn walls — about 8 feet high. The diameter is 40 feet. Local residents commonly remark that the structure was built to house pigs.

Construction: Balloon construction dominates, although a central timber supports the peak of the roof. The siding is laid vertically.

BARN NO. 8

Location: About 2 miles southwest of barn No. 7.

Date: The two brothers who own the barn say that it was old in their earliest memories, and it was probably built prior to 1900.

Form: This is the smallest of Nebraska's round barns, having a diameter of just over 30 feet. It has 12 sides and horizontal siding. The gable roof is peaked with a conical ventilator, much the same as barn No. 7 to which it is clearly related.

Construction: Balloon construction dominates, despite the vestigial use of a center post.

BARN NO. 9

Location: Just south of Amboy Junction and east of Red Cloud.

Date: This barn was built in 1902-1903 by the Starke brothers, who

came from the northeastern United States where, according to Percy Rasser, the present owner, they became acquainted with round barns. Oral history further tells that they made a fortune in Great Lakes shipping and so could afford this immense structure. It certainly is the largest round barn in Nebraska and may be one of the largest round barns in the nation.

Form: A central silo, 28 feet in diameter and 65 feet high, dominates the interior of the barn, which has a diameter of 130 feet. It is a true-round barn, and it has a gable roof of low pitch (required by its enormous size) and a height of 32 feet from the ground to the eaves. An earthen ramp, which encloses a potato cellar, leads to the main level of the barn. It has 3 levels: the bottom for animals, the second for machinery and high enough to permit the passage of a self-propelled threshing machine, and the third (or loft level) for hay.

Construction: The barn wall is now covered with corrugated iron, but the structure is a combination of balloon framing and the use of heavy timber supports. The timbers supporting the upper floors are twelve-by-twelves. Because of the huge size of these members and the stress on them, the builders felt that the use of spikes, pegs, nails, and bolts would be futile and used a technique which holds the members in place by sheer tension.

BARN NO. 10

Location: Near Malcolm.

Date: This building was erected in 1902 and razed in 1958 or 1959.

Form: It is difficult to obtain even the most basic information about razed barns, even if they are unusual landmarks like round barns. Many people told me they had been able to see this barn from U. S. Highway 34, north of the Lincoln Air Base. I was not able to obtain a photograph of it, even though it was demolished only 11 or 12 years ago. The information I do have was gleaned by two Nebraska Wesleyan University geography students, Rex Scott and George Irwin, who investigated it as part of a field work project under the direction of Prof. David Stephens, now on the staff of the University of Nebraska Geography Department. The barn was apparently true-round in form and had a central silo.

Construction: The barn was frame with a limestone foundation, but little else is known about it.

BARN NO. 11

Location: 2½ miles northwest of Pilger.

Date: The structure was built in 1908 purportedly as a sale barn, although this seems doubtful.

Form: This true-round barn has a double gambrel roof – that is, a roof having three distinct pitches between the roof peak and the eaves. There is a partial loft with an open circle in the center, which may have been planned to circumscribe a silo or simply as a shaft for dropping hay and for ventilation.

Construction: The walls are built of concrete blocks made on the farm site, and the timbers used are formed of cottonwood milled on the farm. A nearby shed is of interest because not only its walls but also its roof are composed of poured concrete.

BARN NO. 12

Location: 2 miles west of Broken Bow.

Date: This building was erected about 1902.

Form: This barn has 16 sides and is about 48 feet in diameter. It has a gable roof. While there is no central silo, there is a central heater, since the barn was built to be (and has been used exclusively as) a hog shelter.

Construction: This is one of 6 Nebraska barns known to be built of ceramic blocks. A frame loft is used to store feed. Concrete pillars within the walls support the weight of the roof.²⁰

BARN NO. 13

Location: 3 miles east of Edgar.

Date: Built in 1910, this structure had a central frame silo, which was removed about 1920.

Form: This handsome true-round barn has a gambrel roof. Projecting from the roof is a single prominent dormer, which permits hay to be loaded directly into the loft area.

Construction: The barn has a balloon frame with vertical siding.

BARN NO. 14

Location: 3 miles south and 5 miles east of Lincoln, near barn No. 30.

Date: This structure was built about 1910.

Form: This true-round barn and No. 24 below are unusual in their configuration. Although several polyhedral barns (Nos. 6, 16, and 17, for example) have a central loft level projecting above the principal roof, barns No. 14 and No. 24 are the only true-round barns with a central vault surrounded by a semi-circular lean-to. In both cases the lean-to was built as an original part of the barn. A gap is left in the encircling lean-to of each barn so that access can be had directly into the central vault rather than through the lean-to. Hay can be hoisted into the vault and dropped into the central storage area without having to be lifted and carried over the lean-to.

Construction: The framing is balloon, but the sheathing has been put on horizontally, a unique feature among Nebraska's true-round barns. This means that each board had to be bent slightly around the vertical studs of the walls. Although this was easily done, for the bend was indeed slight, the constant outward pull of the sheathing planks has contributed to the deterioration of the barn. This outward pressure has broken the sills and wrenched them outward. The door posts have rotted as a result of manure being in constant contact with them.

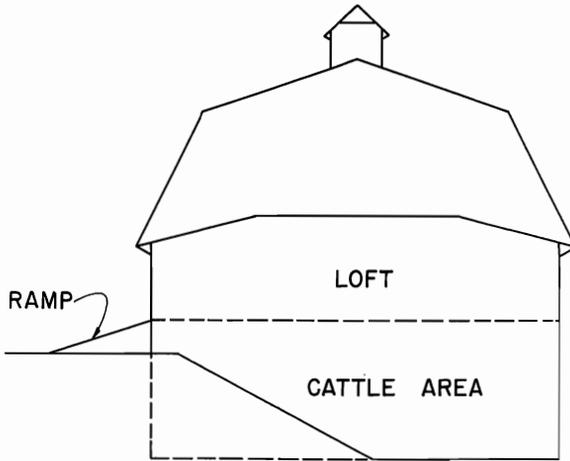
BARN NO. 15

Location: 9 miles north and 1 mile east of Laurel.

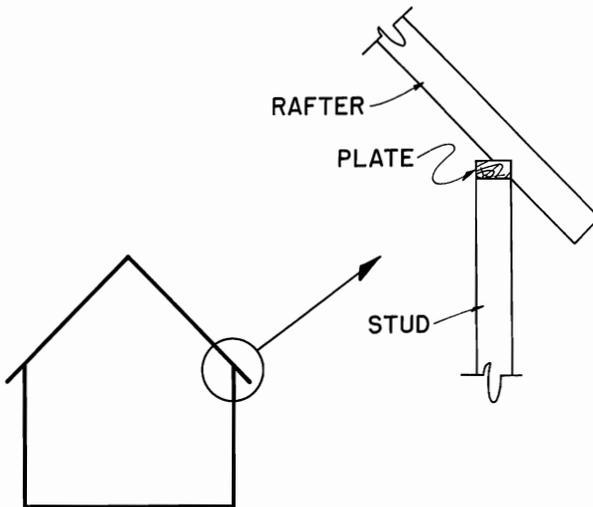
Date: This structure has been altered substantially in form since its construction in 1908-1911.

Form: This barn has 12 sides, each 14 feet long, and a gable roof with a very prominent front dormer extending out from the roof peak to the plate. Added at an unknown date after the original construction, this dormer leads into a loft resting on the plate.

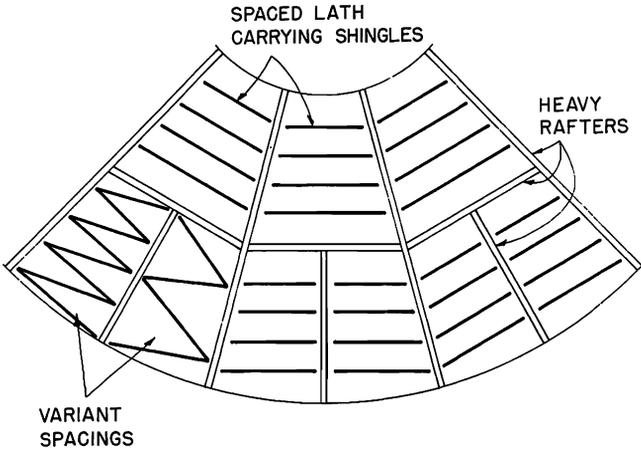
Construction: The balloon framing of this barn rests on a cement block foundation, which replaces an earlier limestone base.



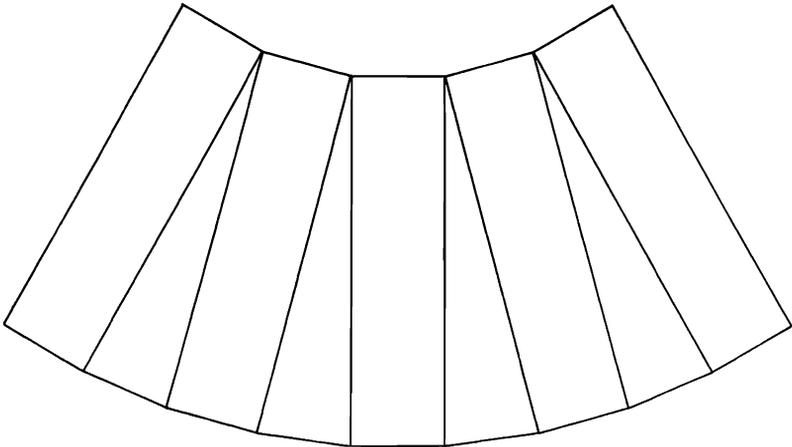
Ramp barns (built on a hillside) and bank barns (which substitute an earthen ramp for a hill) permit the entry of vehicles at the loft level, simplifying hay storage and winter feeding. Most Nebraska ramps face east.



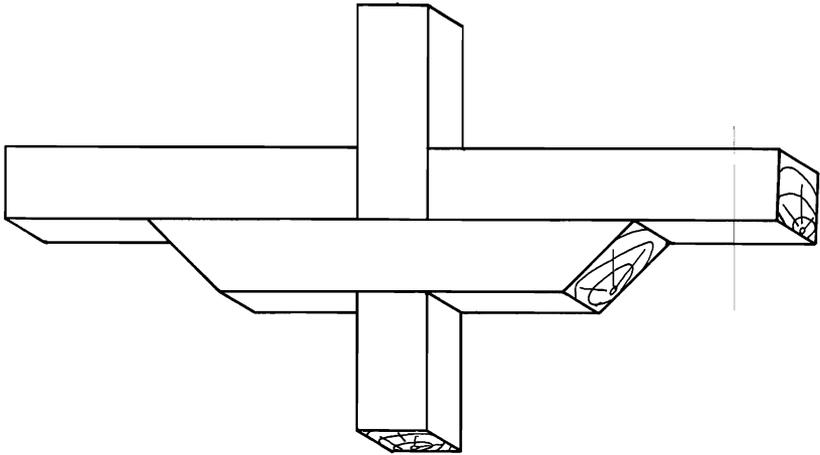
A rectangular building requires a series of horizontal chords which cross from plate to plate and form, together with the roof rafters, a triangular roof truss. Without these chords the weight of the roof pushes out instead of down on the walls, and collapse is almost certain. A principal advantage of the round barn is that no cross-beams resting on the circular plate are needed.



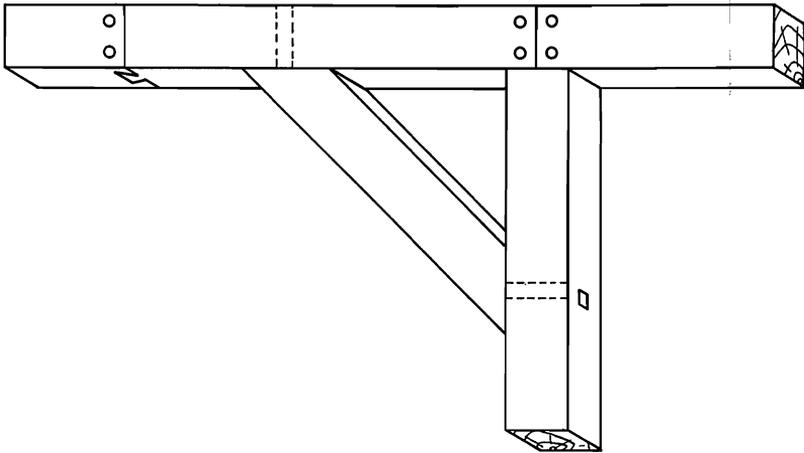
Roofing posed special problems for the round-barn builder, including how to adapt square-cut lumber to circular or angular surfaces. A variety of solutions, some illustrated here, were adopted in Nebraska.



When laying sheathing boards over the rafters of the round barn roof, some builders tapered each board to form an elongated triangle. It was easier, however, to do as some builders did and taper only every other board, as illustrated here.



Barn No. 9 near Red Cloud is so massive that the use of pegs, spikes, or nails to join the heavy timbers would be futile. A short, horizontal stub rests across a primary upright and distributes the pressure across a broad area of the horizontal, floor-bearing beams. Above the stub and between the beams rests an upright passing through the next level.



The joining of heavy timbers in barn No. 2, southwest of Auburn, compares to joinery in fine antique furniture: all butt ends are dove-tailed and pegged; diagonal braces link the main vertical and horizontal members in mortise-and-tenon joints in such a way that no pegs are needed.

BARN NO. 16

Location: 6 miles west and 1 mile south of York.

Date: This barn was built in 1911.

Form: This 6-sided barn, each side being 21½ feet long, was originally intended to be a hog barn and was briefly used as a sale pavilion, but it is now a loafing shed, as is the case with many Nebraska barns. There is an upper level elevated above the principal roof, but there is no loft. This upper level instead conducts light and ventilation into the barn, as is the case with barns 14 and 24.

Construction: The plank siding is laid horizontally over a balloon frame. The two south walls have windows along their entire length.

BARN NO. 17

Location: 2 miles northeast of York on U. S. Highway 34.

Date: This barn was built in 1912. As I drove by York in early June, 1969, I noticed that the house associated with the barn was being razed; hence, it may not be long before the barn is destroyed too.

Form: This 6-sided barn, each side being 18½ feet long, is one of the smaller round barns in Nebraska. It was originally intended to be a hog barn, but it is now used as a granary, which has put far more stress on the framework than it was built to withstand; cables have been extended around the barn and tightened with turnbuckles to truss the walls. The form is obviously related to that of barn No. 16, which stands only a few miles to the southwest, even though I was not able to determine the exact relationship between the two barns.

Construction: Balloon framing dominates, although additional support is provided by some four-by-four inch timbers. The siding is laid horizontally.

BARN NO. 18

Location: ½ mile north of Pleasant Dale.

Date: This barn was purportedly built in 1912-1913. There is, however, some uncertainty about this date, and the barn may actually have been built as much as 10 years later.

Form: As originally built, this true-round barn had a gambrel roof, which collapsed in 1967, and a central silo against which the roof was braced. The diameter of the barn is 38 feet and the diameter of the silo alone is approximately 15 feet. A ramp leads up to the loft level.

Construction: The walls are formed of tile blocks, and the framing of the roof and floors consists of two-by-fours. A track led around the interior joint of the roof's two pitches to carry hay into the back of the loft. Short lath stringers running across the radial rafters carried the cedar shingles.

BARN NO. 19

Location: 5 miles southwest of David City.

Date: This building was constructed in 1912.

Form: The 16 sides of this barn are each 14 feet long. There is a partial loft; that is, the loft floor is like a pie with a piece missing.

Construction: The siding is laid horizontally and the construction is a combination of balloon and heavy timber framing, utilizing seven-by-sevens, two-by-tens, and two-by-sixes.

BARN NO. 20

Location: About 50 feet northeast of barn No. 19 and situated on the same farmstead.

Date: This structure was also built in 1912.

Form: This octagonal barn, having sides about 8 to 10 feet long, is one of the smallest barns in Nebraska. It has a gable roof.

Construction: The balloon framework is weatherproofed with vertical siding.

BARN NO. 21

Location: 10 miles due north of Minden on Highway 10.

Date: This barn was built in 1913 as one of a pair of round barns. The round barn to the east of the present barn was destroyed about 1950 when a tornado toppled a silo into it.

Form: This true-round barn has a gambrel roof crowned by a large and prominent ventilator cupola. The loft floor, penetrated by two hay chutes that permit hay to be thrown down through the floor when the loft is full, is supported below the plate. This provides a much larger storage space than if the loft floor were supported by the plate and allows hay to be loaded into the loft through a door in the wall rather than through a dormer. This barn is not a ramp or bank barn.

Construction: The main wall of the barn is constructed of ceramic tile blocks. The timbers used for floor supports, two-by-tens laminated to form eight-by-tens, are stronger than solid beams. Some eight-by-eight timbers have been used as vertical members and joists.

BARN NO. 22

Location: Immediately west of Spencer.

Date: This structure was built in 1914.

Form: This is one of the few barns that I have not been able to examine personally. From photographs and reports, however, I have learned that it has 16 sides, each about 14 feet in length, and a gambrel roof. It has no central silo, nor is it a bank or ramp barn; but it does have a loft.

Construction: This is essentially a balloon barn, despite the use of some heavy internal supports. The siding is laid horizontally.

BARN NO. 23

Location: 1 mile west and 2 miles south of Clay Center.

Date: This barn was constructed about 1915.

Form: This octagonal barn is one of the most striking barn buildings in Nebraska. It has 8 sides, each 20 feet long, and a central silo, 20 feet in diameter. It has a gambrel roof enclosing a loft. Two gambrel-shaped dormers, one above the other, project outward from the roof, which is crowned by a central ventilator cupola. This gives the building a "hooded" appearance — all the more striking in view of local reports

that the building was once used as a meeting hall for the Ku Klux Klan. The structure has also been used as a roller-skating rink and dance hall.

Construction: The framing is a combination of balloon construction and heavy timbering, consisting of four-by-fours, two-by-tens, and six-by-sixes. The wall siding consists of one-by-sixes laid horizontally, and the angles of the dormers are emphasized by the biased sheathing of the main and loft doors.

BARN NO. 24

Location: 6 miles east and 1 mile south of Lincoln.

Date: This structure was erected about 1917 and razed in 1967.

Form: This barn was almost identical and closely related to barn No. 14; indeed, it was built by an uncle of the builder of barn No. 14 at the latter's suggestion and under his direction. The lean-to was divided into two arcs of different radii, causing a slight discontinuity at the back of the barn. This same disparity is reflected in the poured concrete foundation, which shows that it was intentional.

Construction: The barn was of balloon construction. There was no loft, although there was an upper door. A track led from this door to the peak of the roof so that hay could be carried in over the main door and dropped into the hay storage area in the center of the barn.

BARN NO. 25

Location: Eastern edge of Uehling. Perhaps it might be more appropriate to say the town is on the western edge of the farm, for the barn was built by the founder of Uehling and is now owned by Orville Uehling.

Date: This barn was built in 1917.

Form: This octagon structure has a gambrel roof enclosing a loft and has a central silo. The present owner suggests that it was built on the basis of Illinois prototypes. Its position high on a prominent hill and its large size make it visible for some distance. Its diameter is about 85 feet.

Construction: The barn has a balloon frame with horizontal siding.

BARN NO. 26

Location: 2 miles east of Shickley.

Date: This structure was built in 1917.

Form: This is a small, true-round barn, obviously built to house poultry. It has 2 low levels, each about 4 feet in height, and small bins. The radius is $14\frac{1}{2}$ feet. The gable roof, which is almost entirely gone now, was partly supported by a central vertical post. There are many windows on the south side to take advantage of the winter sun.

Construction: The walls are constructed of interlocking concrete blocks, used also for a silo on the same farmstead and described by the owner as "silo blocks." Iron cables encircle and bond the structure.

BARN NO. 27

Location: 2 miles south and 5 miles east of Ragan.

Date: This barn was built in 1920.

Form: I have been able to obtain almost no information about this octagonal barn. Its sides are each about 10 feet long. In form it is very much like Nos. 14 and 24, except that the lean-to section completely encircles the central vault. The barn has fewer windows than the typical Nebraska round barn, and this may explain in part why it no longer is used for animals, serving now only as a granary. There is no loft.

Construction: The balloon frame is weatherproofed with corrugated iron siding.

BARN NO. 28

Location: $6\frac{1}{2}$ miles west and 1 mile north of Ashland.

Date: This building was erected in 1921.

Form: This true-round barn, built of ceramic-tile blocks, lost its gambrel roof several years ago to a tornado, but it is still in use as a dairy shed. It is a bank barn, and it does not have a central silo. It stands about 100 feet from one of the largest and handsomest barns I have seen in the state.

Construction: The loft floor is supported by heavy vertical timbers. These timbers and the horizontal floor beams are joined in the same manner as those explained above for barn No. 9.

BARN NO. 29

Location: 3 miles southwest of Lawrence.

Date: This barn was built in 1921.

Form: This handsome ramp barn has a gambrel roof and is a true-round barn.

Construction: The barn has a balloon frame with vertical siding.

BARN NO. 30

Location: 4 miles south and 5 miles east of Lincoln, near barn No. 14.

Date: The building was erected in 1924.

Form: This true-round barn is built of tile blocks. This structure has two banks (one bridged), a central silo, and a gambrel roof. It is a large barn with a diameter of 90 feet. The builder said that he remembers getting the idea for the barn from an article in a popular farm journal; he used only the idea, however, not the specific plans.

Construction: The main floor of this barn is perhaps 12 feet below the plate, and there are no loft or plate chords, leaving an immense open interior. The visitor is reminded of the European Gothic cathedral, which has a similar openness as a result of its use of flying buttresses. (See "Advantages" below for an explanation of the round barn's ability to provide such an uncluttered interior.)

BARN NO. 31

Location: ½ mile west of Wood Lake.

Date: It is not known when this building, razed about 1930, was erected.

Form: The walls were about 15 to 20 feet high, and the barn had a diameter of 65 feet. No other data regarding the form or construction are available.

BARN NO. 32

Location: 2 miles east of Shickley and about 100 feet northeast of barn No. 26.

Date: This barn was built about 1928.

Form: This is without question the most primitive of the barns included in this study. It is an 8-sided lean-to built around one half of a cement silo. It has a radius of about 25 feet.

Construction: The framework consists of unmilled poles and four-by-fours and is covered with vertical siding. The owner believes the lean-to was built sometime after the construction of the silo.

BARN NO. 33

Location: About 3 miles north and 4 miles east of Arapahoe.

Date: No information is available.

Form: Little is known about this barn, and only a ruin remains. A concrete block wall segment, about 40 feet long and 6 feet high, remains standing in the middle of a field, high atop a hill. The ruins suggest that the structure was a true-round barn, had no central silo, was not a bank or ramp barn, and was perhaps 60 feet in diameter. Little else can be determined from the debris. It was built, local informants say, by a man called "Popcorn" McClellan, who gained his nickname from his affection for growing popcorn. It is also rumored that he plowed his fields in a circle and suffered a good deal of ridicule for his round barn.

BARN NO. 34

Location: 2 miles northeast of Sutton.

Date: The construction date is unknown. When I visited the barn in 1967, the owner told me that demolition was imminent.

Form: Each side of this octagon is 17½ feet long. The barn has a gable roof and is a bank barn.

Construction: The frame is balloon with horizontal siding and rests on a limestone foundation.

BARN NO. 35

Location: Directly outside Sidney.

Date: This barn was probably built during World War II.

Form: A student reported this barn to me. I have not seen it myself, but I have seen a picture of it taken from a distance. The barn has a low profile and the roof sweeps up, across, and up again in an arabesque ogee curve to a central point. It apparently has few outside windows and no loft. It had been, my student learned, a military ammunition storage building that was moved onto the farm to be used as a barn after it had been declared and sold as surplus. Therefore, it is actually outside the barn tradition, not having been used for farm purposes originally.

Construction: It is built of some sort of composition material. I have no data regarding the framework.

BARN NO. 36

Location: About 3 miles northwest of Elm Creek. This barn was brought to my attention since the above list was compiled, and its location is not shown on the accompanying map. I have not had the opportunity to investigate this barn.

Date: This structure was built about 1908-1911.

Form: The barn is said to have been a true-round barn with a diameter of about 60 feet. It was unique in that a windmill projected from the center of the roof.

Construction: The barn had a balloon frame.

CONCLUSIONS

One of the basic things a field worker wants to do with a body of collected information is to develop conclusions and generalizations regarding the diffusion and distribution of the versions and variants and the reason for and functions of the item and its variations.

Distribution maps dealing with construction material, roof type, the presence of a loft or dormer, and dates of Nebraska round barns would show little or no significant patterning. There was, however, a clustering of barns built between 1910 and 1920 on the southern edge of the eastern Platte valley; this may reflect economic and historical conditions. Among the remaining factors — bank and ramp barns, central silos, and shape — there are no clear patterns. As the reader can see from the map, however, barns with central silos are clustered tightly in one area — indeed, much the same area in which most bank and ramp barns and most true-round barns are located. While octagons have no apparent patterning, the polyhedrals with more than eight sides are most numerous north of the Platte River.

How may these patterns be interpreted? Perhaps historic, economic, or demographic determinants are involved, or even chance, since we are dealing with a small and segmented sample. Interpretations, however, are beyond my skill and interest and the scope of this study; perhaps an economist, historian, or geographer will be able to make use of the patterns in another study. Indeed, it is my opinion that it is almost essential that studies be made of barns in neighboring states, especially Iowa, Kansas, and South Dakota, before distributional analyses can validly be drawn for Nebraska round barns.

In folklore there are often no reasons for distributions other than arbitrary and conventional traditions. Just as there are no real reasons for dialect and diction areas, there are no reasons why in one area of the Appalachians one type of corner is used in log construction while in an adjacent area another corner is used or why one version of “Barbara Allen” is prevalent in one valley while a neighboring hollow sings quite a

different version — except where there is a distinct physical barrier. So it may also be the case that the farmers of one area learned from each other to build round, bank barns with central silos while others marched to a different drum. At any rate, the suggested cohesion of the pattern lends credence to the concept of this barn form as a unified tradition rather than independent phenomena inspired *only* by separate readings of farm journals and sightings of other round buildings.

I doubt that the concentration of round barns in the southeastern quarter of the state carries any significance. This corner is closer in distance and culture to the eastern American tradition of barn building, and the farms in this part of the state tend to be smaller and therefore more numerous than those to the west and north.²¹ It follows that there should be more barns, including round and polyhedral ones, to the south and east. The contradiction of the Sand Hills barn (No. 1) is baffling. Why would one of Nebraska's oldest round barns be located in one of the most recently and sparsely settled regions in the state? Perhaps to baffle folklorists and historians.

DISADVANTAGES OF ROUND BARNs

Generalizations regarding the rationale and difficulties of round construction are manifold. The disadvantages are most easily disposed of, so I shall treat them first:

1. Eric Sloane suggests that dividing round barns was a problem because, following one system of partitioning, one obtained (especially toward the center of the barn) pie-shaped stalls, and, he jokes, cows are not pie-shaped.²² However, no Nebraska round barns have divisions which extend to the center of the barn floor; the center is either an open section or is occupied by a silo or hay storage area. Stalls are therefore only slightly trapezoidal, not dramatically so. Besides, as the University of Illinois round-barn bulletin²³ points out, cows *are* pie-shaped and their movements in a stall are even more definitely triangular, so perhaps even in rectangular barns the stalls should be pie-shaped!

2. Several commentators²⁴ have suggested that laying out a round barn would pose arithmetic difficulties to the less than sophisticated barn builder. It does seem possible that a builder would have some trouble

estimating, for example, the number of shingles necessary for a rounded gambrel roof, but certainly there would be no trouble in establishing the floor form — a long piece of cord and a stake would do the job. A rectangular floor plan is simple enough to lay out but a round plan is even simpler. An octagon is derived by cutting off the corners of a square, a hexagon by cutting the corners off of a triangle, a duodecagon by cutting away the corners of a hexagon, and so forth.

3. Several barn owners complained to me that maintenance costs on round barns is high. This objection is harder to counter. A conventional gable roof has only two planes to shingle; a hipped roof has four. But the roof of a round barn relative to its wall length has an incredible area (see point No. 2 under "Advantages"), and it follows that something has to cover that area. The University of Illinois bulletin, *The Round Barn*, further suggests, "The objection has also been made that rectangular objects cannot be placed in a circle without waste of space. This does not apply to a dairy or horse barn for the following reasons: first, cows and horses are wedge-shaped, requiring less space in front than at the rear; second, the storage capacity for hay and grain depends upon cubical content alone; third, silos should be circular no matter where built."²⁵ In addition, the bulletin might have noted that the diameter of most round barns is sufficiently great that the curve of the walls is negligible behind the area occupied by rectangular objects like boxes, wagons, or bales.

4. The University of Illinois bulletin points out the disadvantages as well as the advantages of the round barn. It says that the difficulty of building additions to a finished round barn is a decided problem.²⁶ But almost a quarter of Nebraska's extant round barns have rectangular additions, so the problem can apparently be overcome.

5. Both the University of Illinois bulletin²⁷ and C. F. Doane²⁸ comment on the problem of ventilating and lighting the central area of the barn, which is far removed from walls and therefore from windows and doors. The University of Illinois recommended more windows and a central ventilating cupola, which almost all Nebraska round barns do have. Describing the Shaker Round barn in New Lebanon, New York, the noted architect Sibyl Moholy-Nagy observes, "A circular barn can be evenly lighted through a 'lantern' [that is, a ventilator], here taking the form of a

handsome turret which originally had louvres that moved with the wind to admit fresh air and daylight.”²⁹

6. Doane, in his anti-round barn polemic, enumerates other disadvantages, some legitimate, others plainly superficial: “If the silo is not located in the center of the barn this space is almost as good as wasted, for there is no other practical use to which it can be put.”³⁰ It is difficult to imagine why Doane felt that the center area of a round barn would be any less useful than the center of a rectangular barn, since in both cases the use of the central area is in no way determined by the shape of the outside walls. Where there is no central silo in Nebraska round barns, the central area is used for hay storage, farrowing pens, loafing areas, or as a through lane.

7. Doane continues, “Very few people who have had any experience with silos believe they should be located in the barn. One reason for this is that the silo in this location is a little harder to fill; another is that when throwing out decayed silage the odor is rather hard to overcome and the decayed silage is hard to dispose of.”³¹ The first argument may be valid in some situations, but I heard no comments of this sort from Nebraska round-barn owners. With good ventilation odors are quickly dispelled, and waste silage should not be any harder to dispose of from the interior than the exterior of a barn, since in either case it must be removed some distance from the site.

8. A third objection cited by Doane³² is that “the ceilings must be made so high that each individual animal has more cubic space than can be kept at a reasonable temperature by body heat.” This suggests that Doane’s conclusions were based only on partial, theoretical evidence. As explained under Advantage No. 7 below, it is possible in the round barn to adjust the loft floor to any height, as contrasted with the rectangular barn, where one floor *must* be at the plate level.

9. A last disadvantage listed by Doane³³ is that “the support of the second floor in a round barn calls for such a wilderness of timbers as to be thoroughly objectionable from the standpoint of appearance, sanitation and light.” Whatever theoretical considerations led Doane to believe such supports were necessary are not based in fact. The horizontal timbers of the round barn never cross the center of the barn, even though some are

supported near the center by a post or silo. One of the notable features of Nebraska round barns, in fact, is the uncluttered appearance of all levels.

10. Doane and several other writers³⁴ discuss the problem of loading hay into barns that are not bank or ramp barns. Nebraska barn builders devised several solutions. Tracks running from the loft or dormer door to the peak or silo were used in barn Nos. 14 and 24; circular tracks running along the gambrel joint were used in barn No. 18; a block and tackle arrangement was used to hoist hay up through the interior of the other barns (e.g., barn No. 3). This last solution, however, only introduced another problem: by exerting excessive and uneven pressure on a light roof structure, the roof was easily pulled out of line, broken, or seriously weakened. This difficulty was not exclusive to the round barn, of course, and a drive through the Nebraska countryside will reveal many rectangular barns with broken spines.

11. The University of Illinois pamphlet mentions a point found nowhere else:³⁵ "The round barn does not make so good a windbreak for the stock when turned out-of-doors." And then it gives its own solution to the problem: "This disadvantage can be partially obviated by building a high board fence radiating from the barn to shelter the stock from cold winds."

12. Seguin notes that round barns demand unusual angles and joints and that local carpenters might have a hard time adjusting their rectangular experience to round construction.³⁶ This was a valid problem that occasionally shows up in Nebraska barns. Too often, floor beams radiate from the center all the way to the plate, causing wasted space at the center and weakness at the outer edges; too often builders tried to butt squared lumber in the coned roof with disastrous consequences.

13. This point is really only a continuation of No. 12 above. Even adept carpenters had problems sheathing the roof cones. Two solutions were adapted to Nebraska barns: (1) alternating squared with triangular sheathing boards and (2) mounting shingles directly on irregularly spaced lath, a technique frequently used for mounting European tile shingles. Another objection of Seguin may be mentioned: that there was waste incurred in cutting odd-sized and angled pieces of lumber. The well-built round barn required few such cuts and in many cases it was possible to

employ odd-sized, otherwise useless pieces of lumber with fewer cuts than might be required in building a rectangular barn. (See advantage No. 6 below.)

14. Moholy-Nagy states: "Its obvious disadvantage is that it lacks loft space, since the roof rests on the walls, thereby limiting span and height."³⁷ I must admit that I do not understand the statement at all. One of the primary advantages of the round barn is its *added* loft space and the fact that the loft floor does *not* have to rest on the wall plate. (See advantage No. 7 below.) Moholy-Nagy's remark may be based only on the Shaker barn, which has a shallow roof pitch and almost no loft.

15. Finally, several printed sources state without elaboration that true-round barns are more expensive than octagons and are without additional advantages. According to one publication, "The true circular barn is too expensive, and has really no economical points or conveniences not possessed by the octagon."³⁸ According to another publication, "The circle encloses the largest area, for its circumference or outside wall, of any form; but the true circle is too expensive to build, and the octagon approaches the circle in economy of outside wall, and is as easily built as the square."³⁹

It may seem peculiar to debate advantages and disadvantages as if discussing philosophy or theology, but in the history of round-barn building the commentary surrounding the barns became a polemic, fought with the ferocity and verbosity of opposing evangelists. The fever pitch of the struggle can be seen clearly in the list of articles cited in note 16. Note the contentious nature of their titles.

It is my distinct impression that most negative comments come from theoreticians, while those farmers who live with the round barns are generally enthusiastic about them. In part this may be the result of that feature of human nature which forbids admitting publicly our mistakes — and jeopardizing in this case future real estate transactions. But even in anonymous and casual situations farmers seem favorably disposed toward their round barns or condemnatory toward all barns in general. Nebraska farmers who do not like their round barns are not interested in trading them for rectangular ones — they just do not need a barn.

The University of Illinois circulated a questionnaire to 120 round-barn

owners (presumably in Illinois, but no information regarding the sample is given) and found that "no users reported dissatisfaction arising from the arrangement of their barns. They were unanimous in declaring them economical in construction and convenient in feeding and caring for stock."⁴⁰

John C. Baker, who built and used a round barn in Manhattan, Illinois, commented: "I find these barns all I could desire. They are warm in winter and cool in summer, and I notice one good thing about them is that drafts never blow onto the stock as in oblong barns or square barns. They are very convenient for feeding but they must be seen to be appreciated."⁴¹

ADVANTAGES OF ROUND BARNs

1. Although this cannot be counted a major advantage of the round barn, we can begin with Mr. Baker's comment about the lack of drafts. One of Fowler's major points in favor of the octagonal house was that each room had only one wall exposed to the weather, whereas rectangular houses had at least four rooms with two walls exposed. In those barns that had dividing walls, the same advantage obtained.

2. The most commonly noted advantage is that of the amount of interior space in relationship to wall length. A square barn with 4 walls each 40 feet long (that is, a total wall length of 160 feet) has a floor area of 1,600 square feet. An octagon with 8 sides each 20 feet long (again, a total wall length of 160 feet) has an area of 1,931.4 square feet — almost a fifth more space for the same money spent on lumber or blocks. A circle with a circumference of 160 feet contains 2,038.2 square feet — a fourth more than the rectangle. The importance of these ratios to the Plains economy, where building materials were at such a premium, is obvious.

3. While the rectangular barn offers a broad side to the prairie winds, incurring tremendous stress, the true-round barn always turns a convex surface to the wind and the polyhedral barn presents a short side to the wind. Only one round barn (No. 21) in Nebraska is known to have been destroyed by wind, and this occurred when a tornado blew a silo into it; two others (Nos. 18 and 28) had roofs removed by tornadoes. It is perhaps

significant that in many cases the farmhouse associated with a round barn has given way to the elements while the barn continues to be of service (e.g., Nos. 7, 14, 17).

4. Stemming from advantage No. 3 is one noted by the University of Illinois:⁴² "Not so much strength is needed in the walls and therefore less framing lumber is used, and . . .

5. "Because of its barrel-like construction and its ability to resist the wind, the round barn may, with safety, be built higher than a rectangular structure of equal floor area."⁴³ As a *Breeders Gazette* writer commented about an Iowa barn, "This . . . is just the thing for a windy country."⁴⁴

6. In addition to the advantage of using less wood, the round barn permitted the use of shorter pieces: "(A correspondent at Ritchfield Springs) remarks that it is easier to procure timber 25 feet than 60 [sic],"⁴⁵ and the true round-barn with siding laid horizontally (e.g., barns No. 14 and No. 24) allowed the use of irregular lengths of siding butted end to end and evened only at the doors and windows, not at corners, as would be the case with a cornered structure. Polyhedral buildings also allowed the use of shorter lengths of siding.

7. One of the most basic and important advantages is the extra loft space obtained through round construction: "The long [i.e., rectangular] barn requires posts and purlins to support the roof, which are obstructions in filling with hay and grain, while the octagonal roof of one-third pitch is self-supporting, resting only on the outside plates, and may be safely stretched over a diameter large enough to accommodate a farm of 1,000 acres, or say 150 feet in diameter. *The plates perform the office of the bottom chord, and the hip rafters of the top chord, in a truss.* The strain on the plates is an endwise pull, and if they are strong enough to stand the strain of the push at the foot of the rafters, the bottom of the roof cannot spread, and the rafters being properly bridged from the middle to the top, cannot crush, and the whole roof must remain rigidly in place. *Its external form being that of an octagonal cone, each side bears equally upon every other side, and it has great strength without any cross ties or beams, requiring no more material or labor than the ordinary roof* [italics mine]."⁴⁶

The above considerations help explain this advantage: round barn construction allows the suspension of the loft floor at any elevation on the wall rather than only on the plate, where it must be located in the case of

the rectangular building; for with round barns, unlike rectangular barns, loft-floor beams are needed only to support flooring and need not function also as chords in a triangular roof truss. After the initial surprise of the basic form of the round barn – I am thinking especially of barn No. 30 – it is precisely this point that strikes the observer: the interior of most round barns is very much like that of a Gothic cathedral; it is possible to look up the walls and across the ceiling through unobstructed open space. There are no floor beams running across the barn from the wall tops. While the outward thrust of the Gothic cathedral is contained by exterior buttresses, the lateral thrust of the round and polyhedral barn is converted to vertical thrust by the circular, closed plate, obviating the need for crossbeams at any level. To the farmer loading hay, this unobstructed interior must be a joy.

8. *Rural Affairs* also notes that hayracks can be driven into the round barn and unloaded conveniently in any direction.⁴⁷ Similarly, animals can be fed from the central silo with ease.

9. Moholy-Nagy notes:⁴⁸ “In a square barn, either the team must be unhitched to leave the building, or a second door must be provided at the opposite end, entailing severe loss in space and weather security. In the round barn, the team was driven along the curved interior, leaving by the same opening through which it entered.” While the owner of only one Nebraska barn (No. 9) mentioned this advantage to me, it would be possible to perform this maneuver in most of Nebraska’s large round barns.

10. An unusual benefit enjoyed by round-barn owners, but admitted to me by only one, stems from the difficulty of computing the volume of hay in a compound lens at one side of the barn. This difficulty can be counted as an advantage because, according to this one farmer, while the tax assessor was skilled in calculating hay volume for tax purposes in a rectangular barn, he had to guess at the volume in the round barn. The assessor guessed about one-fourth low every year for over 30 years, and the farmer estimated that through this tax break he saved enough money to pay for the barn.

11. Several facetious explanations have been given for round-barn construction, and two may be mentioned here for their folkloric interest. Moholy-Nagy opines of a Shaker round barn that “perhaps it was the frustrations of their celibate existence that spurred them to such originality.”⁴⁹ And Eric Sloane says of the same barn that “there is a saying that the barn was intended ‘to keep the devil from hiding in the corners.’ ”⁵⁰

My interest in round barns is such that it is difficult for me to maintain objectivity, but it is my estimation that the advantages of round barns far outweigh the disadvantages. When I began this study, I wondered why anyone would build a round barn, but by the time I finished I wondered why anyone would ever build anything but a round barn.

Perhaps that question should be examined seriously. Traditional arts, crafts, and architecture cherish utility; the round barn enjoyed some sophisticated, popular, and folk support; enough were built that the concept approached the status of "traditional"; the barns were widely dispersed and highly visible. Why then did they not become a more prevalent form of folk architecture?

All answers must constitute, of course, pure historical speculation. Perhaps the round barn would have become a standard barn form if barn building had continued; but, just as the popularity of round barns was spreading, principles of farming and rural economics brought a halt to virtually all barn building. Note these statements: "Round barns are gaining in popularity [in 1916]." ⁵¹ "Round barns are gaining in popularity in all sections of the country. . . . Round barns have grown out of the freak stage into the kind that look good to a great many farm owners [in 1915]." ⁵²

More importantly, however, folk tradition is a preservative rather than an innovative process. New variations are constantly initiated while old ones drop away, but it is indeed rare that a radical departure is introduced and accepted with any alacrity into the world of folk culture. Even if barn construction had continued vigorously to the present, it is altogether likely that round barns would still be regarded with distrust by most traditionally oriented farmers. ⁵³ As it is, it seems unlikely that any new round barns will ever be built.

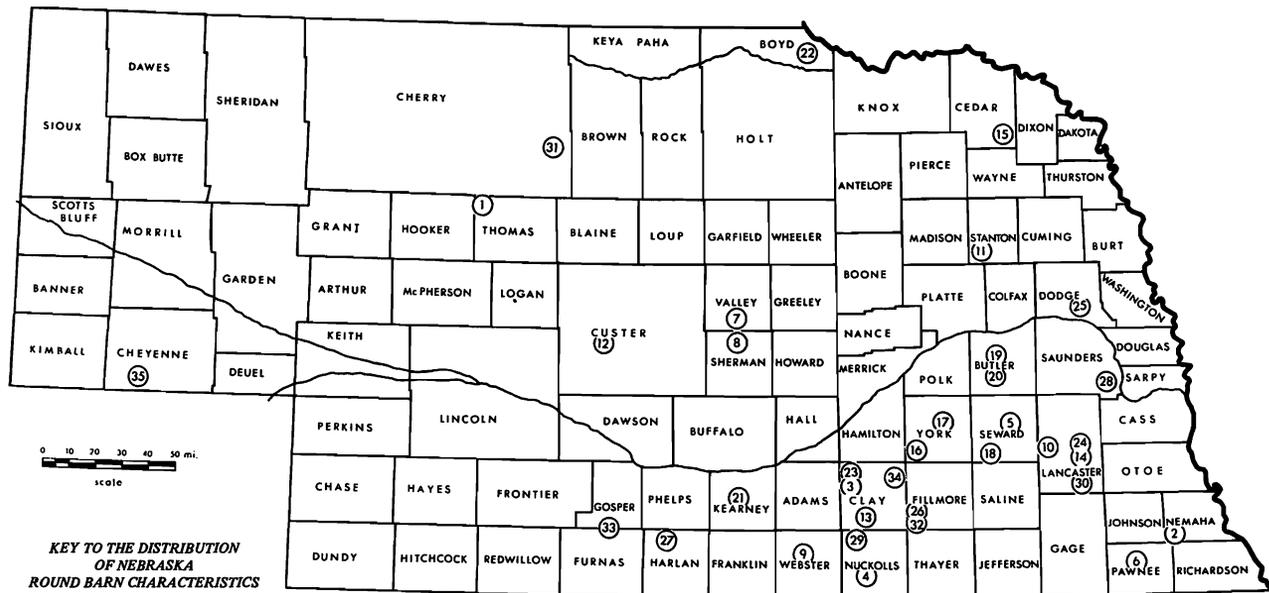
While the economic advantages of the round barn have faded into insignificance, it is a real comfort to unashamed romantics like me that a new esthetic appreciation is developing for barns in general and round barns in particular. Sunday newspaper supplements in the past few years have carried frequent articles about round barns — approaching them as attractive features of the landscape. ⁵⁴ A shopping center is being developed on the site of a round barn near Champaign-Urbana, Illinois, and, instead of razing this fine old barn, the developers are converting it into a restaurant at the very center of the commercial complex. ⁵⁵ A round

barn south of Derby, Kansas, has been converted into a community center, housing a lodge hall, antique shop, and osteopathic clinic.

To the builder of round barns, though economics were of course the primary concern, esthetics were to be considered: "This farmer does not quite understand the construction of the roof, as he did not provide for a cupola, *and this form of barn does not look well without one* [italics mine]." ⁵⁶ Now, after years of having their barns reviled, ignored, or viewed as weird architectural follies, farmers are surprised to find a renewed interest in these handsome buildings. One farmer told me with a baffled shrug that during each visit his son-in-law from the East filled his station wagon with planks from the farm's barn stalls. The New Yorker was, it seems, using the heavy planks, rubbed to a high and handsome finish by decades of cows, to panel the wall on either side of his fireplace. And I will never forget the look of combined disbelief and pleasure I evoked when I enthusiastically praised the beauty of one Nebraska barn and told the owner that whenever he is ready to sell his barn, I am ready to buy it!

NOTES

1. The folklorist is always hard-pressed to acknowledge all of his debts because in his field work he depends on the help of hundreds and perhaps thousands of people. Therefore, first and foremost, I must express my sincerest although impersonal appreciation to the many people who wrote me in response to my queries in the *Omaha World-Herald*, *Lincoln Journal and Star*, and *Nebraska Farmer*, thus leading me to new barns and clarifying the history of those I had already found. I also thank the editors of these publications for their cooperation. Of course I appreciate the help of my students, who during their vacations asked relatives and neighbors about round barns. Certainly the relatives and neighbors who endured all the questions deserve recognition too. Special thanks are due Mrs. Judy McCulloh of Champaign-Urbana, Illinois, who so kindly ran down references and books and who also located and photographed barns. Professor Warren Roberts of the Folklore Institute at Indiana University gave me many helpful suggestions and references, and it was he who first led me into the fascinating study of folk architecture. My wife helped me with her limitless patience and I owe my children apologies, for they will grow up believing that all barns are round. Most of all, however, I want to thank Nebraska's farmers, who humored me when I asked if I might measure and photograph their barns; my thanks to them certainly deserves more than a line in a footnote. It should be added here that I have driven into perhaps 500 farmyards to ask directions, to ask about the history of some building, to request permission to snoop around a barn, or, during my recent work with pioneer housing, to probe inside their homes. I have *never* been turned away.



- Floor Plan:** Round – 3, 9, 10, 11, 13, 14, 18, 21, 24, 26, 28, 29, 30, 33, 35
 Octagonal – 2, 5, 20, 23, 25, 27, 34 Other Polyhedral – 1, 7, 8, 12, 15, 16, 17, 19, 22, 32
- Ramp Barns:** 2, 9, 18, 28, 29, 30, 34 Central Silo: 3, 9, 10, 13, 18, 23, 25, 30, 32
- Construction:** Balloon – 1, 4, 6, 7, 8, 13, 14, 16, 17, 20, 23, 24, 25, 27, 29, 34
 Heavy Timber – 2, 3, 5, 9, 19, 32 Masonry – 11, 12, 15, 18, 21, 26, 28, 30, 33

2. See, for example, Christoph Simonett's *Die Bauernhaeuser des Kantons Graubunden*: Vol. II, *Wirtschaftsbauten et al.* (Verlag Schweizerische Gesellschaft fuer Volkskunde, 1968), 49-53 .

3. Richard Perrin, *Historic Wisconsin Buildings: A Survey of Pioneer Architecture 1835-1870*, Milwaukee Public Museum Publications in History, No. 4 (1962), 43-45.

4. Robert-Lionel Seguin, *Les Granges du Quebec du XVIIe au XIXe Siecle* (Ottawa: Ministere du Nord Canadien et des Ressources Nationales, 1963), 82-83. Seguin's view, however, is probably as provincial as Perrin's, for he states that there were only 30 to 40 such barns built across the United States — 5 in Pennsylvania, 3 in Indiana, 4 or 5 in Illinois, 2 in Minnesota, and several others in Kentucky.

5. Eric Sloane, *American Barns and Covered Bridges* (New York, 1954), 76.

6. Ruby Rounds, compiler, *Octagon Buildings in New York State* (Cooperstown: New York State Historical Association, 1954), *passim*.

7. For example, Sibyl Moholy-Nagy, *Native Genius in Anonymous Architecture* (New York, 1957), 138.

8. Eric Sloane, *An Age of Barns* (New York, 1966), 53.

9. Marguerite Marigold, "Hayfield." *Historical Society of Fairfax County, Virginia*, IX (Vienna, Va., 1965), 52.

10. *Pioneer American Society Newsletter*, II:3 (May, 1969), 4.

11. Moholy-Nagy, *op. cit.*, 150.

12. Roger L. Welsch, *Sod Walls: The Story of the Nebraska Sod House* (Broken Bow, Neb., 1968), 38.

13. John Maass, *The Gingerbread Age* (New York, 1957), 55-56.

14. Orson Squire Fowler, *A Home for All; or the Gravel Wall and Octagon Mode of Building, New, Cheap, Convenient, Superior and Adapted to Rich and Poor, Showing the Superiority of This Gravel Concrete over Brick, Stone, and Frame Houses; Manner of Making and Decorating It; Its Cost; Outside Finish; Clay Houses; Defects in Small, Low, Long-Winged, and Cottage Houses; Different Plans; The Author's Residence; Green and Ice Houses; Filters; Grounds; Shrubbery; Fruits and Their Culture; Roofing; Schoolhouses and Churches; Banks and Out-Buildings; Board and Plank Walls; The Workingman's Dwelling, Etc., Etc.* (New York, 1856).

15. *Ibid.*, 14.

16. Among the farm journals which carried round-barn articles are the following: *The Cultivator and Country Gentleman*: June 2, 1859; April 15, 1886; "Buildings and Feeding," April 22, 1886; September 14, 1912; "Boost for the Round Barn," May 19, 1917; "Hole in the Doughnut: Some Arguments Against the Round Barn," February 24, 1917; "Round Barn of Hollow Tile," February 3, 1917; "Why I Like a Round Barn," April 8, 1916.

Farm Engineering: "Round Roofed Barn," May, 1916; "Circular Barn that Satisfies," December, 1916.

Power Farming: "Round Barn for Economy," March, 1918; "Round Barn for the Man Who Produces Milk," February, 1919.

Wallace's: "Round Versus Rectangular Barns," February, 22, 1918.

Orange Judd Farmer: "Another Round Barn Circular," December 22, 1918.

Jersey Bulletin: "Circular Barn That Has Good Points," October 13, 1920; "Circular Dairy Barn — Some Samples," June 29, 1921.

Building Age: "Economy Applied to Dairy Barns; Advantages and Methods of Construction of the Circular Type," February, 1921; "Round Barn Design," October, 1922.

Dairy Farming: "Round Barn and Its Advantages," January 15, 1925; "Round Dairy Barn," August, 1927.

17. Published by the Center for Popular Culture, Bowling Green State University, Bowling Green, Ohio.

18. Most of the barns were reported to me by a number of people and it would be impossible to acknowledge all of them, but in this case, because the building had so long ago passed from the scene, only one person was able to call it to my attention, Mr. Willard Lynch of Thedford, and for his help I thank him.

19. One of the peculiar things that I sensed at once when I began my work with round barns was their incredible visibility. On several occasions when I was looking for a round barn, I would spot it at a distance which actually prohibited delineating its floor plan. On one occasion I was driving through Illinois west of Chicago, again with Professor V. H. Lane. He said, "Isn't that a round barn?" pointing at a tiny bump on the horizon. We turned off the Interstate and drove a full four miles before we came to what was indeed a round barn. Students in my folklore classes who have been sent out to examine round barns have since reported that they have spotted them in different parts of the United States at distances that amaze them.

20. My thanks to the staff of the *Custer County Chief* (Broken Bow, Neb.) for investigating this barn for me.

21. N. D. Searcy and A. R. Longwell, *Nebraska Atlas* (Kearney, 1964), 41-42.

22. Sloane, *American Barns and Covered Bridges*, 76.

23. Wilber J. Fraser, *The Round Barn*, University of Illinois Agricultural Experimental Station; Circular No. 230, revision of No. 143 (Urbana, 1918), 11.

24. C. E. Doane, "Round Barn Handicaps," *The Country Gentlemen*, September 14, 1912; Sloane, *American Barns and Covered Bridges*, 76; Seguin, *op. cit.*, 85.

25. Fraser, *op. cit.*, 11.

26. *Ibid.*, 10; see also Moholy-Nagy, *op. cit.*, 138.

27. Fraser, *op. cit.*, 10-11.

28. Doane, *op. cit.*

29. Moholy-Nagy, *op. cit.*, 136.

30. Doane, *op. cit.*

31. *Ibid.*

32. *Ibid.*

33. *Ibid.*

34. e.g., Seguin, *op. cit.*, 84.

35. Fraser, *op. cit.*, 11.

36. Seguin, *op. cit.*, 85; note also "Round the Farm," *The Country Gentleman*, December 18, 1915, p. 14, under W. E. F. [rudden], "A Round Barn of Concrete: The greatest drawback connected [sic] is the fact that local contractors are not familiar with details and methods of construction."

37. Moholy-Nagy, *op. cit.*, 138.

38. *Annual Register of Rural Affairs*, III (Albany, New York, 1878), 252.

39. Elliot Stewart, *Feeding Animals* (Lakeview, New York, 1883; revised 1890), 89.

40. Fraser, *op. cit.*, 4-5.

41. *Barn Plans and Outbuildings* (New York: Orange Judd Co., 1881; revised 1917), 222-223.

42. Fraser, *op. cit.*, 6.
43. *Ibid.*
44. "Farm Buildings," *The Breeder's Gazette* (Chicago, 1911), 51.
45. *The Cultivator and Country Gentleman*, LI, No. 1733 (April 15, 1886), 290.
46. *Annual Register of Rural Affairs*, III, 249-250.
47. *Ibid.*, 249.
48. Moholy-Nagy, *op. cit.*, 136.
49. *Ibid.*
50. Sloane, *An Age of Barns*, 52.
51. W. E. F. [rudden], "Round the Farm," *The Country Gentleman* (December 18, 1915), 14.
52. W. E. Frudden, *Farm Buildings – How to Build Them* (Charles City, Iowa, 1916), 19.
53. Although most folklorists feel that rural populations tend, for a variety of reasons, to be more traditionally oriented than urban populations, this term is not at all meant to be pejorative. These same scholars also feel that traditional beliefs and customs pervade all levels of society, including folklorists and historians.
54. Recent newspaper magazine supplements carrying round-barn feature articles are the following:
- "Barnstorming in Washington," *The Seattle Times*, October 31, 1965.
- Robert Reiss, "Ohio's Odd-Shaped Barns," *Columbus Dispatch*, June 4, 1967.
- Frank Miller, color cover painting of Iowa round barn in *Des Moines Register's Picture*, January 10, 1965.
- Gordon Englehart, "Barns in the Round," Louisville, Kentucky, *Courier-Journal Magazine*, October 23, 1966.
- Roger Welsch, "Round Barns," *Omaha World-Herald's Magazine of the Midlands*, October 3, 1965.
- "The 8-sided Round Barn," *Imperial Oil Revue*, 52:1, February, 1968. Included is a poem to the barn by Miriam Waddington.
- Jack Bailey, "Big Circular Barn is a Landmark Along the Old Loup City Trail," *The Grand Island (Nebraska) Independent*, December, 1964.
- Jack Bailey, "Roaming . . . Central Nebraska," *The Grand Island Independent*, January 6, 1965.
55. *Champaign-Urbana Courier*, March 20, 1969.
56. Stewart, *op. cit.*, *passim*.