

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

For NPS use only

**National Register of Historic Places
Inventory—Nomination Form**

received APR 4 1986
date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic T.A. Leonard Barn

and/or common Leonard Barn

2. Location

street & number South side of Old Moscow Highway, approximately
3½ miles southeast of Pullman not for publication

city, town Pullman x vicinity of

state Washington code 053 county Whitman code 075

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input checked="" type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
	n/a	<input type="checkbox"/> no	<input type="checkbox"/> military
			<input checked="" type="checkbox"/> other: storage

4. Owner of Property

name Leonard Family Trust, c/o A. Christine Leonard

street & number 7416 Saraview Way

city, town Sebastapol vicinity of state California 95472

5. Location of Legal Description

courthouse, registry of deeds, etc. Whitman County Courthouse

street & number Main Street

city, town Colfax state Washington 99111

6. Representation in Existing Surveys

Washington State Inventory
title of Cultural Resources has this property been determined eligible? yes no

date January 1975 federal state county local

depository for survey records Office of Archaeology and Historic Preservation

city, town 111 W. 21st Ave., KL-11, Olympia state Washington 98504

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved date _____
<input checked="" type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

The Leonard Barn is a detached agricultural structure originally used to house horses and dairy cows and provide storage for hay and grain. It is a 12-sided polygon (dodecagon) with a centralized 10 foot diameter storage silo made of vertical wooden staves and steel tension rods. The barn measures 58 feet 1 inch in diameter and 45 feet 4 inches in height. The original design provided an open first floor with a large vaulted hay loft above; but, during the 1960s two new floors and several partitions were added to accommodate chicken raising operations.

Six-by-six Douglas fir columns and beams placed on a low concrete foundation were used to construct the first floor structural frame. The plan is regular and true to its own radial concept except where provision is made for vehicular pass-through. Here, between the north and south doors, ten-by-ten columns and beams are used to compensate for increased loads and spans. Originally, vehicular traffic could pass directly through the barn giving access to the silo door (now the elevator platform location). A Louden litter-carrier track circles the interior of the barn and includes a three-way track switch at the inside of the south door. This allows the carrier to be transferred to an outside track and support structure for dumping.

The outside walls are sheathed in green one-by-six shiplap siding placed over two-by-six light frame construction on low concrete foundation walls. Six-by-six columns occur at the wall intersections. The walls are punctuated with regularly spaced four-over-four double hung windows that provide illumination for the barn. A triple top plate acts as the bottom chord for the roof structure. The roof is a ribbed vault constructed of twelve large curved bents bearing directly on the top plate at the intersection of the walls. The bents meet directly above the center of the silo. Each of the twelve bents is constructed on five one-by-ones of various lengths laminated together and smoothed to a curve on the exterior edge. The bents are notched at the joints with the top plate of the first floor wall.

The two extra floors in the upper loft space are of conventional light frame construction: generally four-by-four columns, four-by-six beams, and two-by-six joists. They are arranged linearly, ignoring the radially organized structural grid below. The one-by-four tongue and groove flooring, though the same throughout the building, is arranged in different patterns: square on the second floor, linear on the third and fourth floors. Interior walls are generally finished with fiberboard and plywood.

Stairs from the second floor provide access to the third floor. A ladder built on the wall at the top of the stairs provides access to the third floor roof. From here, wooden scaffolding directly above the silo continues upward to the upper termination of the bents and the original cupola opening.

The dome shape of the roof flares out at the eaves in a bell shape and overhangs approximately 20 inches. The roof is covered with sawn cedar shingles with five inch exposure and is interrupted on the west and east by large dormers with pitched gable roofs. These dormers house two large, double height swinging loft doors with diagonal braces, similar in construction to the doors on the lower level. A ventilation cupola at the peak of the roof was removed.

Six outbuildings and the Leonard residence are in the vicinity of the barn but are not included in the nomination. Two buildings to the near southwest are directly associated with the barn during the non-historic period of chicken farming. The southernmost building of the pair, approximately 70 feet by 24 feet, was built about 1957-58 to accommodate laying hens and baby chicks. The building between this one and the house was built in the late nineteenth century, before the construction of the round barn. At various times, it housed pigs and was also used as a granary. A machine shed to the south is still in use. The remaining service buildings include a large chicken house to the west (c. 1963-64) and two small structures to the south. None of these is considered significant.

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The Leonard residence is a one-story brick and frame house. Originally, the house was a typical L- or T-shaped house built about 1890. But the house underwent major reconstruction in the 1940s and 50s and nothing visible is left of the original fabric. The house is not included in the nomination. The landscaping surrounding the barn is typical of Palouse area farms and includes fruit trees, fir and spruce windbreaks and random shade trees but is not considered significant.

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600-1699	<input checked="" type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/ humanitarian
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> transportation
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> other (specify)
		<input type="checkbox"/> invention		

Specific dates 1917 **Builder/Architect** James H. Cline, Builder

Statement of Significance (in one paragraph)

The T.A. Leonard Barn is an architecturally significant structure which reflects a period of agricultural innovation in the early 20th century. The round barn type, of which the Leonard Barn is an excellent example, is a physical manifestation of the need and desire for more convenient and efficient farming operations at a time when growing urbanization put new demands on America's farmers. Located on an 80-year-old family farm in the wheat-producing Palouse region, the Leonard Barn is a local landmark and has remained relatively unchanged in its original form and context. It is one of two round barns remaining in Whitman County and one of ten remaining in Washington State.

"Round barn" is a generic term used to describe barns with curved walls and circular plans, as well as multifaceted or polygon plans with five or more sides which have a central form. The specific origin of the round barn is unknown, but it is one of the many central form building types which evolved over time. George Washington designed one of the first recorded round barns in North America. Built in 1796 on his farm in Fairfax County, Virginia, it was a 16-sided polygonal barn. The most famous round barn of the 19th century is the Shaker Round Barn near Hanover, Massachusetts. Built in 1826 and rebuilt in 1865 after it was destroyed by fire, the barn is 90 feet in diameter and circular in plan with a relatively flat roof, giving the barn a low profile. Used to house cattle, the barn's origin is thought to be symbolic since the circle is the theme of Shaker culture.

The major interest in round barns in America occurred during the period 1880-1920, although at no time did the round barn become more popular than the traditional rectangular barn. The catalyst for round barn construction was research occurring at Midwestern universities. In 1889, Franklin H. King of the University of Wisconsin built a round barn and published its plan in the Wisconsin Agricultural Experimental Station Seventh Annual Report. The University of Illinois' 20 acre Demonstration Dairy Farm, begun in 1908, also became a major advocate of the round barn. With its objective "to produce the largest amount of milk for the least possible cost," the demonstration farm built several round barns. Wilbur J. Fraser wrote an article in 1910 entitled "The Economy of the Round Barn," which was published in the University's Experiment Station Bulletin #143. Jumping on the bandwagon, many farm machinery companies, such as the Loudon Machinery Company, published barn catalogs which were similar to the house plan books of today. The catalogs displayed various barn designs accompanied by a plan, perspective rendering, and verbal description of the barn. For a fee, a farmer could purchase "complete working plans and specifications."

The rise of the round barn can be attributed to the changing nature of farming at the turn of the century. Ever since the advent of the industrial revolution, the farmer was required to shift from self-sufficiency to production for market. As a result, the farm had to become more efficient in order to make a profit. By the late 19th century, the round barn was heralded by its proponents as being more efficient and convenient. Its advantages were many: it enclosed more square feet per lineal length of wall, required 30 to 50 percent less material, and was better lighted and ventilated than the traditional rectangular barn. With the livestock facing inward, feeding could be done from a central core area, while cleaning could occur along the exterior perimeter wall with the aid of a litter carrier. The demise of the round barn was almost certainly due to rising labor

9. Major Bibliographical References

See continuation sheet.

10. Geographical Data

Acreeage of nominated property less than one

Quadrangle name Moscow West, Idaho-Washington

Quadrangle scale 1:24,000

UTM References

A

1	1	4	9	0	5	9	5	5	1	7	2	1	1	5
Zone			Easting					Northing						

B

Zone			Easting					Northing						

C

Zone			Easting					Northing						

D

Zone			Easting					Northing						

E

Zone			Easting					Northing						

F

Zone			Easting					Northing						

G

Zone			Easting					Northing						

H

Zone			Easting					Northing						

Verbal boundary description and justification The nominated property includes only the barn, located in the northeast quarter of the northeast quarter of Section 15, Township 14 North, Range 45 East, Willamette Meridian. The parcel that includes the barn is legally described as parcel number 2-0000-45-14-15-1500 (Plat book 354, Page 455, File No. 419527). The nominated property (continued)

List all states and counties for properties overlapping state or county boundaries

state n/a code county code

state n/a code county code

11. Form Prepared By

name/title David M. Burger and Steven E. Nys

organization Washington State University
N.E. 980 C Street (Burger)

date September, 1985

street & number N.E. 500 Howard Street (Nys)

telephone n.a.

city or town Pullman

state WA 99163

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

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.

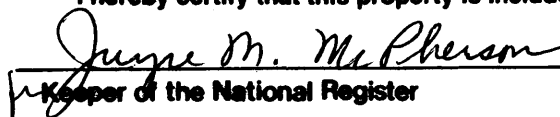
State Historic Preservation Officer signature 

title DEHPO

date 3.24.86

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I hereby certify that this property is included in the National Register
Entered in the


Keeper of the National Register

National Register

date 5/2/86

Attest:

date

Chief of Registration

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costs coupled with a lack of skilled craftsmen, rendering the barns uneconomical to build. In addition, round barns were far more difficult to expand than rectangular barns.

During the round barn era at the turn of the century, five round barns were built in Whitman County. Of these five barns, the first one, c. 1910, was a true round barn. Circular in plan and with a low profile, it resembled the Shaker Barn. The remaining four barns, built within three years of each other, are nearly identical in size, shape, and construction techniques. All have 12-sided polygonal (dodecagonal) plans, 60 feet across with a large self-supported, wood-bent, segmented dome roof. Based on a radiating structural grid, the barn construction was inherently complex requiring skilled craftsmen. The transfer of the forces from the unsupported roof to the exterior bearing wall also required a keen understanding of engineering principles.

The close relationship of the polygonal barns is readily apparent and can be traced back to the first polygonal barn (and the only other remaining round barn in Whitman County). Designed and built by Max Steinke, a St. John area farmer, it became the prototype for the other polygonal barns. The roofs on all four barns are identical except for the dormers. The wood bents for the two polygonal barns built for the Hall Brothers near Steptoe, Washington, were prefabricated by the Home Lumber Company of Spokane, Washington, and shipped to Steptoe by rail. The disproportionately large roofs, approximately three times as tall as the exterior bearing walls, gave these four barns an architectural character distinct from other round barns in the nation. For instance, of the 160 recorded round barns in Iowa, only one - the Peter Tonsfeldt Barn of LeMars, built in 1919 - is similar in form although its plan and roof are circular and not segmented (Soike, 1983).

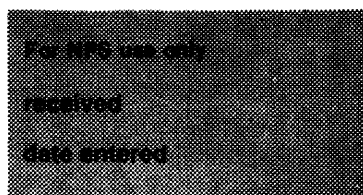
Thomas Andrew Leonard, homesteader, farmer, and school teacher, immigrated to the Palouse region from his home state of Pennsylvania. Being a man who held a high regard for education, he settled in Pullman not only for the high quality farmland but also to be near the college (now Washington State University). As a result, all three of his children graduated from Washington State University. Leonard's reputation was that of a man who never made a rash or bold decision, but rather analyzed his situation thoroughly before taking action. After his rectangular barn burned, he decided to replace it with a round barn similar to those he had viewed on his trips through the Midwest and seen in farm periodicals. According to a statement prepared by his son George Leonard, the two major reasons he built a round barn were the advantages of feeding and cleaning the livestock and the better natural lighting it offered.

Evidence suggests that Leonard used two main sources in "designing" his barn. The first source was the farm periodicals with plans. The second source was Max Steinke, whom Leonard visited to inspect his barns. The Leonard barn, although closely related to the other three barns, has some significant differences. The major difference is in the lower exterior walls. The other polygonal barns had concrete walls whereas Leonard used stud wall construction which he penetrated with more windows for light. He hated the low, dark barns so prevalent at the time so he also raised the ceiling to a greater height. Another difference lies in the dormers. Leonard used low-gabled dormers for his loft doors while the other barns had arched dormers.

Although a third floor was built above the hay mow floor in about 1960, the barn retains the initial design character of 1917, including the original green and white exterior paint job (Leonard hated red barns). Even today the barn is a source of pride for the Leonard family. Involved with reroofing the original roof, T.A. Leonard's son George was instrumental in preserving the barn at the time of his death in the fall of 1984.

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Fraser, Wilbur J., The Round Barn, Circular No. 230, University of Illinois Agricultural Experiment Station, Urbana, Illinois, September 1918.

A systematic, complete report on agricultural aspects of round barn design with photographs and drawings related to Illinois' round barns.

Soike, Lowell J., Without Right Angles, The Round Barns of Iowa, Iowa State Historical Department, Library of Congress Card Catalog No. 82-620046, 1983.

A general but informative history of round barns in Iowa and a directory of historical information on existing barns, complete with descriptions and photographs.

Toor, Karen, and Ron Towner, The Hall Round Barn: Ethnoarchaeology in Whitman Co., Wa., Under supervision of Dr. Ackerman, Anthropology 536, submitted May 23, 1983, not published.

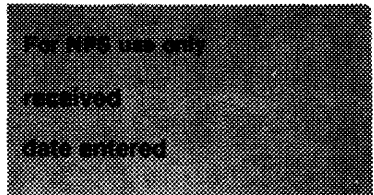
A detailed history of a 12 sided barn near Steptoe, Washington, complete with maps, construction dates, costs, photographs, drawings, and documented interviews.

Weddell, Jim, Round Barns of the Palouse, Washington State University Architecture Library Vertical File: Building Types, Round Barns, submitted 1977, not published.

General history of several barns in Whitman County, Washington, with local history, photographs, and pertinent.

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can be described thusly. To reach P.O.B., start at southeast intersection of Old Moscow Highway and the Leonard property drive, proceed approximately 1000 feet south to the end of the drive, then proceed east approximately 90 feet to a point 10 feet from the edge of the exterior barn wall. From this point of beginning, proceed in a circular path around the circumference of the barn until return to point of beginning.