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Barns as an index to ethnic origins in western Montana

Harold Selmer Knudsen

The University of Montana

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BARNs AS AN INDEX TO

ETHNIC ORIGINS IN WESTERN MONTANA

By

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Presented in partial fulfillment

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1969

Approved by:

[Signatures]

Chairman, Board of Examiners

Dean, Graduate School

Date
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Introduction

Carl Sauer noted\(^1\) that the cultural landscape is fashioned out of the natural landscape by a culture group. Since the introduction of man to North America, a sequence of cultural landscapes have been born, changed through time, and some have been replaced by succeeding cultural landscapes.\(^2\)

Settlement geography has been defined as "the study of the form of the cultural landscape, involving its orderly description and attempted explanation."\(^3\) Vidal de Blache and Ferdinand von Richtofen were pioneers in settlement geography. Their studies included patterns of land ownership, cultivation and the distribution and form of houses. "The Scientific Study of Settlement" (1925) by Isaiah Bowman, introduced the concept of settlement geography into the United States.\(^4\) Since that time, geographers such as Trewartha, Kniffen, Mather, and Hart have expanded the basic

\(^2\)Ibid.

premises and produced studies dealing with house types,\textsuperscript{5} tobacco barns,\textsuperscript{6} farmsteads,\textsuperscript{7} and fences,\textsuperscript{8} to only mention a few.

The Barn

The barn has been one of the most conspicuous features of the rural cultural landscape. The introduction of the barn upon the continent of North America and its subsequent advance westward, changed the primitive landscape its wake. Tempered by variation in natural as well as cultural influences, barns have become widely varied in appearance.

In Trewartha's study of American Farmsteads,\textsuperscript{9} a majority of the barns studied were divided into three basic types. These included: the standard gable (photo 1), the gambrel (photo 2) and the moniter (photo 3).\textsuperscript{10}


\textsuperscript{10}Ibid.
Sloane recognized a number of additional barn types. Although these are not common, they do exist in some parts of Montana. These types include: the saltbox barn, (photo 4) the circular barn, the gothic arch (photo 5) and the connecting barn.

Although Trewartha's study on farmsteads indicates that barn type is associated with the region and its type of agriculture, other studies suggest an association between barn type and ethnic groups. Included in these studies are: Warkentin, "Mennonite Agricultural Settlements of Southern Manitoba", Tower and Wolf, "Ethnic Groups in Cullman County, Alabama", Zelinsky, "New England Connecting Barns", Traquair, "The Old Architecture of French-Canada", and Sloane, An Age of Barns.

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The Problem

Are barns and barn features indicators of ethnic origins?

The Study Area

The area of investigation was limited to western Montana. Census figures indicate that within this area, there are a number of ethnic concentrations. The three ethnic areas selected for the study are: Frenchtown (French Canadian), Amsterdam (Dutch) and Helmville (Irish and German). In addition to these areas, Florence-Stevensville, an area having no distinct ethnic concentrations, was selected as a comparison study area.

In addition to census figures, areas of ethnic concentration were determined through: papers dealing with ethnic groups in Montana,17 a survey of maps of Montana for settlements with ethnic names, a survey of Montana telephone directories for concentrations of ethnic names,18 and an examination of some Montana cemeteries for ethnic names and places of origin.19

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19Headstones can be extremely helpful in determining the exact origins of people. The headstones in Helmville indicated that a majority of the Irish that settled in the area were from county Waterford.
Map 1

Western Montana

X Frenchtown
X Helmville
X Stevensville

Amsterdam X

The Four Study Areas
Photo 1. The Standard Gable Barn (Potomac, Montana)

Note cupola on roof.
Photo 2. The Gambrel Barn (Florence, Montana)

Photo 3. The Moniter Barn (Amsterdam, Montana)
The Method

Data

The method of study was primarily based upon field investigation. A traverse through each of the study areas was conducted, and barns along the traverse were examined for the following data:

1) Form

There are a number of forms in which a barn may be built. The most common forms have been previously noted (page 3).

2) Size

The size of a barn may be dependent upon function. Until very recently, dairy barns were built larger than non-dairy barns (photo 6). Data pertaining to size was determined through pacing the length and width of the barns.

3) Color

The practice of painting barns can be traced back to the Dutch and German settlers of colonial America. Milk based (white) paints were first used; however, they lacked soaking qualities and were replaced by oil-based paints. Venetian red, a red-brown pigment made from ferric oxide, was first used to make red paint. Red became a popular

---

color because it absorbed the sun's rays, thereby heating the barn.\textsuperscript{21}

Other less common colors used for painting barns included: yellow, made from a chromate base; violet, made from a coal tar base; and black, made from a carbon base.\textsuperscript{22}

4) Age

The luxury of milled lumber did not appear in Montana until near the turn of the century. Most buildings built in the years before the turn of the century were constructed of logs, and were usually the product of the farmstead owner. Dating a barn through the use of plat maps and land records is useful in determining the farmstead's early owners.\textsuperscript{23}

5) Origin of Builder

One of the most essential parts of this study was to determine the origin or ethnic background of the barn builder. Most of this sort of information was gained through interviewing the farmstead owner or local senior citizens. In most cases, farmsteads were held by the son or grandson of the original owner. However, in the Florence-Stevensville area, rapid turnover of land ownership made interviewing

\begin{itemize}
\item \textsuperscript{21}Ibid.
\item \textsuperscript{22}K. J. T. Ekblaw, Farm Structures, (New York: The Macmillan Co., 1914), pp. 55-56.
\item \textsuperscript{23}Plat maps and land records are available in most county court houses. Some plat maps can be helpful for variety of information, while most are poorly kept and well marked.
\end{itemize}
Photo 4. **The Saltbox Barn** (Amsterdam, Montana)

Photo 5. **The Gothic Arch** (Frenchtown, Montana)
useless, and reference to land plats and land records was required.

6) Function

As mentioned above, function may be an important factor in determining barn size and form. While early dairy barns were large, more recent milking parlors may have floor plans of less than 500 square feet. Barns may serve a variety of functions. Most were built for sheltering draft animals, while some serve as hay storage. Since the introduction of mechanization, most barns have had a change of function. Some have fallen into disuse, while others serve as storage for odds and ends.

7) Specific Details of Construction and Ornamentation

Methods of barn construction may be an important tool in determining the ethnic background of a builder. Key features in early barns include notching, hewing, chinking and various methods of ornamentation.

Corner notching is one of the most conspicuous features of log barns. There were six types of notching found in the four study areas. These are: full dovetail notching, half-dovetail notching, rounded V-notching, squared V-notching, saddle notching and square notching (fig. 1) The dovetail and half-dovetail are the most difficult methods of joining timbers; they are effective in locking the timbers in place
and forming a box corner.24 The saddle notch requires the least amount of effort to construct. In this method of notching, the logs are left in the round.

The method of hewing logs may be another important factor in determining the background of the builder. In most cases, the broad axe was used for hewing logs.25 In some cases, a narrow axe or adze was used. In both methods, axe or adze scoring can be detected on barn timbers (photos 11 and 22).

There are primarily two ways of filling or chinking the spaces between timbers. A mortar fill is the most common, but on logs left in the round, quarter round sapling strips are sometimes seen.

Cupolas are common features on a number of barns in western Montana (photos 1, 3, 4, 6, 7, 13 and 21). These ornate roof vents first appeared in the Connecticut Valley early in the nineteenth century.26

Ornamentation and variations in construction may also be a key in determining ethnic origins. The use of a hex (photo 5) seems to be a common feature in barns built by


26It was once believed that the use of lightning rods was against the will of God. However it was argued that a ventilator would repel lightning, and therefore, farmers who refused lightning rods found cupolas acceptable.
Fig. 1

The Full Dovetail Notch  The Half Dovetail Notch

**SIX NOTCHING TECHNIQUES**

The Rounded V-Notch  The Square V-Notch

The Saddle Notch  The Square Notch

After Kniffen and study areas.
Photo 6. The Big Barn A triple faced gambrel with twin cupolas. Built in 1916 by three Swiss dairymen, this barn has a floor plan of nearly 10,000 square feet. (Heath, Mont.)

Photo 7. A False Front Barn Note gambrel roof line and cupola. (Heath, Montana)
Germans in the mid-nineteenth century, while diagonally placed loft windows (photo 3) seem common of the Dutch.  

Field Method

Field investigation was accomplished through the use of the traverse. This method has been employed in a number of geographical studies to attain relative accuracy of information as well as reasonable coverage of the study area. In this study, the traverse routes and their starting points were selected after an initial reconnaissance of the study areas. Each of the study areas were traversed once and seventeen farmsteads along each traverse were examined. Data obtained along the traverse was entered on data sheets (appendix 1) and results were compiled and placed at the end of each chapter.

Thesis Format

The thesis has been divided into five chapters, an introduction and a conclusion. Chapter 1 is a historical


29 The number seventeen was selected because this is about the number of barns one person can survey in two days in the field.
SAMPLE TRAVERSE MAP

(33) - SECTION NUMBERS
7 - FARMSTEAD NUMBER
perspective of the barn. Chapters 2 through 5 deal with the four study areas: Frenchtown, Amsterdam, Helmville, and Florence-Stevensville. This is followed by a conclusion and summation.
CHAPTER I

HISTORICAL PERSPECTIVE
The word "barn" comes to us from the Old English words "bere" (barley) and "aern" (place), which, in combination, meant "a place for barley". The earliest barns were little more than a door leading into a hole in the ground. By the fifteenth century a simple hay covered A-frame was developed (fig. 2). Later, trussing techniques became more complex and thatching was introduced (fig. 2). During the early years of the seventeenth century, western European barns had developed into structures somewhat similar to those of today (fig. 2 and photo 8).

A number of barns built during the sixteenth and seventeenth centuries were built primarily for the storage of church contributions. This resulted in the church-like appearance of many European barns. The tradition of large steep church-like roofs and short walls continues in Europe today (photo 9).

When the first settlers came to America, they were faced with a new climate, new construction materials, and vast expanses of land. In addition, they were freed from

31 Ibid.
Fig. 2

THE DEVELOPMENT OF TRUSSING TECHNIQUES

Piled Hay
ca. 1400

Thatching
ca. 1500

Complex Trussing
ca. 1600

after Sloane
Photo 8. Built during the latter part of the nineteenth century, this barn in the province of Groningen, Holland, has many of the features common to western European barns of the last three centuries. Note the large, high roofs and the short walls. The exterior is of stone and tile. Note the thatched structure in the left of the photo.

Photo 9. A modern Dutch barn in Groningen, Holland. Note the high degree of upkeep. (Photos 8 & 9, courtesy of John Schutter, Manhattan, Montana).
tithes and as a result most barns of early America departed from the architectural style of Europe. Walls became higher and roofs were reduced in size and slope. Later, experimentation by various groups created the variety of barn forms seen today.

The gambrel barn (photo 2) can be traced back to the early eighteenth century of colonial America. It is generally associated with a German or Dutch influence. The great advantage of the gambrel over the gable is that it allows more storage space in the loft.

The origin of the moniter barn is unknown; however, it probably developed from the gable barn. This barn form is easily mistaken for the gable barn having sidesheds.

The circular barn is a form which was first introduced by the Quakers and Shakers.

These sects were ever conscious of emblems, customs, and ways of life that set them apart from other church-going people, and the circle frequently became the theme—there were "swing circles", "singing circles" and "praying circles". Farmers made circular designs on their barns, and their wives sewed circular designs on quilts. The Shakers used the circle in their "inspirational drawing" and invented the circular saw; they took delight in round hats, rugs, and boxes...

There is a saying that the round barn was intended "to keep the devil from hiding in the corners."

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34 Ibid., p. 41.
35 Ibid., p. 52
36 Ibid., p. 52
The Saltbox barn (photo 4) seems to have been a development of pioneers who came from England. In this form, the long protective roof generally faced north, while the steeper roof faced the warmer south.\(^{37}\)

In recent years, the barn has declined as a rural cultural feature. Rising taxes and enterprising interior decorators have hastened the destruction of many old barns.\(^{38}\) In their place, milking parlors and skeleton-like haysheds have been erected. The barn, which has played an important part in the settlement of North America is rapidly becoming a vanishing part of Americana.

\(^{37}\)Ibid., p. 45.

\(^{38}\)Daniel Sullivan, (Structural engineer-architect), Private interview, Missoula, Montana, July 16, 1969.
CHAPTER 2

THE FRENCHTOWN STUDY AREA
Introduction

Physical Setting

The Frenchtown study area is located approximately seventeen miles northwest of Missoula, Montana. The area consists of fourteen and one-half sections of land located within two townships (township 15 north and ranges 21 and 22 west, Montana Principal Meridian). This area is primarily agricultural land and makes up a substantial portion of the original area of French-Canadian settlements.

The traverse of the area begins east of Frenchtown and progresses westward to one mile west of Huson (map 3). At this point the traverse swings north away from the Mullan Road to the Sixmile Road. Farmsteads along the traverse are numbered one to seventeen in their order of appearance.

Cultural Perspective

Frenchtown was officially established in 1864; however, settlers from French Canada had migrated into the area a half dozen years before. The first settlers came to the area under the direction of Louis Brown and Baptiste De Charme in 1858. In 1867, Colonel T. F. Meager wrote in Harpers'

Magazine of the Frenchtown Valley and of some "fifty gentlemen of French extraction." In 1894, Father L. B. Palladino wrote of the French settlers and their Father Tremblay, who had come from Quebec. An examination of records at St. John's Church indicates that a majority of the settlers came from New Brunswick and Quebec. Some, however, listed their places of birth as Maine.

Census data for the year 1900 notes 633 French Canadians of foreign birth in Missoula County. By 1920, the number had been reduced to 430. The greatest influx of French Canadians came in the 1870's and 1880's. Recent French-Canadian immigration into the Valley has ceased.

H. G. Merriam in 1933 wrote of the Frenchtown Valley and the national customs of its people. Outstanding of

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42 St. John's Church, Record of Marriages, Frenchtown, Montana, pp. 1-34.
46 Henri Lavoie, Private interview held at his ranch, west of Frenchtown, Montana, April 17, 1969.
these was the celebration of St. John's Day. Activities included sports, races, and the St. John's Day dance which lasted into the next morning. One by one, these events were discarded, and six years ago, the last St. John's Day dance was held.48

In recent years, the concentration of French-Canadian population has been diluted by the introduction of non-French people.49 In the late 1950's the Hoerner-Waldorf pulp mill was established east of Frenchtown, and with it came large numbers of employees of various ethnic backgrounds.50

The Barns of the Frenchtown Valley

The barns of the Frenchtown Valley can be divided into three types representing three periods of barn construction. The early period is characterized by barns built of hand-hewn logs. The middle or transition period is characterized by the introduction of milled lumber and the modern period is typified by planed lumber, paint, glass, and cement foundations.

The Early Barns (1860-1908)

The early barns of the Frenchtown area were built of logs, hand-hewn with a broad axe, and joined by dovetails.

49Mountain States Telephone Director, Missoula and Western Montana, (Missoula: Mountain States Telephone, 1969), pp. 75.
50Ibid.
Spaces between the logs were filled with mortar and shingles were hand made. Squaring logs and dovetailing corners was a common practice in French Canada. Known as "en pieces", this form of construction has been dated back to 1698.\textsuperscript{51}

Hand-hewn structures in the Frenchtown area range from small ice and smoke houses to barns of small to moderate size (500 to 2,000 sq. ft.). The earliest of the "en pieces" barns has been dated at about 1860,\textsuperscript{52} while the latest was built in 1908.\textsuperscript{53}

An accurate dating of the early barns in the area is difficult because written records do not exist. Dating therefore is based primarily upon the estimations of senior citizens of the Frenchtown area.

**Typical Features of the Early Barns**

**Form**

All of the early barns along the traverse are characterized by a simple gable, ranging from very steep on the larger barns to moderately steep on the smaller barns.


\textsuperscript{52}Archie Beauregard, (senior citizen) private interview held at his home, west of Frenchtown, Montana, June 7, 1969.

\textsuperscript{53}Henri Lavoie, interview
Floor plans are rectangular and foundations are lacking (photo 10).

**"En Pieces" Construction**

Dovetailed joints and hewn logs are probably the most conspicuous features of the barns and outbuildings of the period (photo 11). Of the sixteen barns and outbuildings built during the early period, fifteen were dovetailed while one was joined by rounded V-notching.

In shaping the logs into beams and for the making of notches, the broad axe, not the adze, was used. Blade scoring is a common feature of the hewn logs in the area.

Shingles were also hand made. With the aid of a mallet and a sharp knife-like tool known as a froe, shingles were cut from short log segments. Shingles on the north side of many roofs have become reinforced over the years by moss, while on the warmer drier south side, there is a tendency for the shingles to deteriorate and blow off.

**Color**

Few of the early barns of the Frenchtown Valley have been painted. Primarily this is because logs offer a poor

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surface. In the study area only one "en pieces" barn was painted.

Sidesheds

Sidesheds are a familiar addition not only in the French-town area but elsewhere. They are often referred to as an afterthought, and in reality, they are. In most cases, sidesheds were added to increase shelter space for farm machinery.

Other Features

A number of the early barns have open-gable ends (photo 10). These may have been the result of difficulties in stacking and joining hewn timbers; however, they were most probably left open to ease the storing of hay.

Some of the early barns have dowels driven through the dovetail of half-dovetail notch to add strength.

The Transition Barns of the Frenchtown Valley (1890-1918)

The skills involved in "en pieces" construction went into decline with the introduction of milled lumber in the Frenchtown Valley. The first milled lumber used for barn construction appeared in the last decade of the nineteenth century. The main supplier to the Valley was the Fredrick Cormier Mill, located in the Sixmile Road area. The mill

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56Fredrick Cormier, Jr., private interview held at his home, north of Huson, June 7, 1969.
Photo 10. Built in 1908, the Lovoie barn (farmstead #6) is one of the largest "en pieces" structures in the Valley. The juncture of hewn logs along the length of the barn is somewhat typical of the "piece sur piece" construction employed in some French Canadian houses.


57 op. cit., Kniffen, p. 51.
was water powered and employed a circular saw blade instead of a gang saw for the production of siding material. Circular blade scorings are a common marking of the barns of the period.

Transition Barn Construction (1880-1918)

As mentioned earlier, milled lumber was first used for minor jobs such as filling gabled ends. Later, however, milled lumber was applied over "en pièces" to improve these structures (photo 12). Barns composed entirely of milled lumber were also built during this period. In most cases, milled lumber was affixed vertically and in this respect resembles "sur sole" and "coteaux en terre" construction so commonly employed by the French in America (fig. 3).^®

Color

None of the transition barns along the traverse were painted. Again, the unplaned surface discouraged painting.

Use

Most of the transition buildings were structures of secondary importance. That is, most were shops, graineries, and other outbuildings. Some, however, were and are used as barns.

WALL CONSTRUCTION TECHNIQUES

A "piece sur piece" junction common of many French-Canadian houses a century ago. Horizontal hewn logs are joined between vertical logs.

"Poteaux en terre" construction. Here logs are set into the ground and chinks are filled with mortar. Vertical plank construction known as "sur sole". In this type, planks are nail vertically to a sill.

The Square joint used in many of the German barns in the Helmville area.
Other Features

Unlike the barns of the early period, the transition barns in most cases have footings or foundations. Foundations are composed primarily of flat rocks stacked a few inches above the ground.

The Modern Barns (1900-date)

By the turn of the century, the Frenchtown Valley had been well settled and construction of farmsteads declined. Most of the barns built during this period bear little resemblance to the "en pieces" barns of a few years before.

Some Features of the Modern Barns

There are only five barns along the traverse that can be considered modern. All of these were built of milled and planed lumber. Three are red in color, while one is brown and the other unpainted. Two of the barns have cupolas mounted on gable roofs, while the others lack cupolas but have gambrel or gothic arch roof lines. In most cases, plans came from books or agricultural magazines.  

^Ralph Scheffer, private interview held at his ranch, south of Huson, Montana, May 1, 1969.
Photo 12. A Transition Barn. Note the milled lumber over "en pieces". (Located on farmstead 11).

Photo 13. A Modern Barn. Built in 1900, the Hamel Barn (farmstead #2) is the earliest of the modern in the study area. The cupola is a rare feature in the Valley.
### Table One (Frenchtown)

<table>
<thead>
<tr>
<th>Barn #</th>
<th>Form</th>
<th>Builders' Name</th>
<th>Origin</th>
<th>Color</th>
<th>Age</th>
<th>Use</th>
<th>Unique Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S</td>
<td>Bedard</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1890</td>
<td>Horse</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>Hamel</td>
<td>Fr-Can</td>
<td>R</td>
<td>1900</td>
<td>Horse</td>
<td>Planed and milled lumber, cu.</td>
</tr>
<tr>
<td>3</td>
<td>G</td>
<td>Boyer</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1885</td>
<td>Multi</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td>Fortais</td>
<td>Fr-Can</td>
<td>R</td>
<td>1900</td>
<td>Horse</td>
<td>Planed and milled lumber</td>
</tr>
<tr>
<td>5</td>
<td>G</td>
<td>Beauegard</td>
<td>Fr-Can</td>
<td>N</td>
<td>1905</td>
<td>Horse</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>5b</td>
<td>G</td>
<td>Beauegard</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1918</td>
<td>Cattle</td>
<td>Milled lumber</td>
</tr>
<tr>
<td>5c</td>
<td>G</td>
<td>Beauegard</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1880</td>
<td>Hay</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>6</td>
<td>G</td>
<td>Lovoie</td>
<td>Fr-Can</td>
<td>N</td>
<td>1908</td>
<td>Horse</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>Touchette, R.</td>
<td>Fr-Can</td>
<td>R</td>
<td>ca. 1885</td>
<td>Multi</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>8</td>
<td>G</td>
<td>Cyr</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1882</td>
<td>Multi</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>8b</td>
<td>G</td>
<td>Cyr</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1912</td>
<td>Cattle</td>
<td>Milled lumber</td>
</tr>
<tr>
<td>9</td>
<td>G</td>
<td>Brown</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1888</td>
<td>Hay</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>10</td>
<td>G</td>
<td>Scheffer, R.</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1880</td>
<td>Hay</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>10b</td>
<td>G</td>
<td>Scheffer, R.</td>
<td>Fr-Can</td>
<td>R</td>
<td>1924</td>
<td>Cattle</td>
<td>Planed and milled lumber hex</td>
</tr>
<tr>
<td>11</td>
<td>G</td>
<td>Touchette, F.</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1908</td>
<td>Horse</td>
<td>Milled over &quot;en pieces&quot;</td>
</tr>
<tr>
<td>11b</td>
<td>G</td>
<td>Touchette, F.</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1890</td>
<td>Multi</td>
<td>&quot;en pieces&quot;</td>
</tr>
<tr>
<td>12</td>
<td>G</td>
<td>Richardson</td>
<td>English</td>
<td>B</td>
<td>1953</td>
<td>Horse</td>
<td>Horse ornament, m&amp;p</td>
</tr>
<tr>
<td>13</td>
<td>G</td>
<td>Scheffer, E.</td>
<td>Fr-Can</td>
<td>N</td>
<td>1910</td>
<td>Horse</td>
<td>Milled siding</td>
</tr>
<tr>
<td>13b</td>
<td>G</td>
<td>Scheffer, E.</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1980</td>
<td>Hay</td>
<td>V-notch</td>
</tr>
<tr>
<td>14</td>
<td>G</td>
<td>Richardson</td>
<td>English</td>
<td>N</td>
<td>1949</td>
<td>Horse</td>
<td>Milled &amp; Planed lumber</td>
</tr>
<tr>
<td>15</td>
<td>G</td>
<td>Lanoue</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1917</td>
<td>Multi</td>
<td>Milled</td>
</tr>
<tr>
<td>16</td>
<td>G</td>
<td>Unknown</td>
<td>Non-Fr</td>
<td>R</td>
<td>????</td>
<td>Multi</td>
<td>Milled &amp; Planed, cu.</td>
</tr>
<tr>
<td>17</td>
<td>G</td>
<td>Rose</td>
<td>Fr-Can</td>
<td>N</td>
<td>ca. 1917</td>
<td>Horse</td>
<td>Milled</td>
</tr>
</tbody>
</table>

Totals: 19 Gable 2 Gambrels Of the 12 early barns, 11 were "en pieces" and 1 was V-notched
1 Gothic 1 Shed

Key: M&F - milled and planed  b - brown  Go - Gothic
     cu - cupola            r - red  Ga - Gambrel
     n - natural            G - gable
CHAPTER 3

THE AMSTERDAM STUDY AREA
Introduction

Physical Setting

The Amsterdam study area is located approximately nineteen miles northwest of Bozeman, Montana. This area of predominant Dutch settlement is confined in approximately fifty-six sections of land. Located near the center of this area are two villages, Amsterdam and Church Hill, which serve the basic needs of the community. The primary avenues of communication are Highway 291, the Virginia City Road, (Hwy 191) and the Northern Pacific Railroad (map 4).

The traverse of the area began with the first farmstead south of Church Hill, and continued south to southwest until seventeen farmsteads having barns were examined. (map 4)

Cultural Setting

The first Hollanders to settle in the Amsterdam area came in 1893 under the direction of Rev. R. Wormsey. Many of the first settlers came from other Dutch settlements in the United States; however, some had come directly from Holland. Initially, 28,000 acres of land was purchased from

60 Peter de Groot, private interview held at his store, Amsterdam, Montana, June 30, 1969.


Map 4

THE AMSTERDAM STUDY AREA

TRAVERSE AND FARMSTEAD NUMBERS

SCALE

Church Hill

Hwy 191

R4E  T2S

1  2  3  4

5  6  7  8

9  10  11  12  13  14  15  16  17
the Northern Pacific Railroad for the new settlement. Some of the latest arrivals took advantage of the Homestead Act or bought land from local owners.  

After the successful establishment of the Dutch settlement, an increasing number of new arrivals came directly from Holland. These settlers came primarily from the northern provinces of Groningen and Friesland in search of new opportunities and an escape from population pressures.  

Unlike the French-Canadians and Irish, the Hollanders continue to come from the "old country." Also unlike the French-Canadians, the Hollanders have been able to assimilate into the American culture in a remarkably short period of time. Celebration of Dutch holidays has been abandoned in favor of American holidays. Only the Dutch Reformed Church remains as a common ethnic institution.

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63 Ibid.
65 Ibid. John Schutter came to the Amsterdam area from Friesland in December, 1947.
66 Ibid. Alex Kimm, private interview held at his ranch, south of Church Hill, Montana, July 1, 1969.
The Barns of the Amsterdam Area

Unlike the barns of the Frenchtown Valley, the majority of the barns in the Amsterdam area were built after the turn of the century. As noted earlier, the period of the turn of the century and thereafter was a time of an exchange of construction ideas and techniques. As might be expected, barn forms in the area are varied and highly reflect influences of function and personal choice rather than ethnic influence.

Features of the Amsterdam Barns

Form

A variety of barn forms was discovered along the traverse. Most were gambrels and monitors; however, a gable, saltbox and gothic arch was noted (table 2). Most of the barns were of moderate size (1000-4000 sq. ft.), with the exception of the very recent milking parlors. These gambreled structures are of small size (500 sq. ft.), and represent the recent trend of barn construction in the area.


op. cit., de Groot, interview.
Construction Material

Fourteen of the seventeen barns along the traverse were built of milled and planed lumber. Siding was applied horizontally. In the three recent milking parlors, cement blocks were used for wall construction, while roofs were of wood.

<table>
<thead>
<tr>
<th>TABLE TWO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barn Types of Southern Wisconsin and the Milk Shed of New York and Boston compared with Those of Amsterdam</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Gambrel</th>
<th>Gable</th>
<th>Moniter</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>So. Wisconsin</td>
<td>53%</td>
<td>34%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>N. Y. - Boston</td>
<td>35%</td>
<td>51%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>53%</td>
<td>6%</td>
<td>29%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Color

Probably the most unique feature of the barns in the Amsterdam area is the use of white paint. On the traverse, nine of the seventeen barns were white, six were red, one was unpainted, and one was cement block gray (table 3).

\[^{69}\text{Op. cit., Trewartha, p. 183.}\]
TABLE THREE
Percentage of White Barns in
Eleven Study Areas Throughout the Nation

<table>
<thead>
<tr>
<th>Area</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amsterdam, Mont.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>So. Wisconsin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton Belt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat Belt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puget Sound Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range Grazing Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn Belt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N.Y.-Boston Milk Shed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frenchtown Valley</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helmville Study Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stevensville Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sidesheds

In the study area, the general lack of sidesheds was compensated for by an unusually large number of outbuildings. Generally outbuildings were of the shed or saltbox form. White seemed to be the outstanding color of these structures.

Other features

A number of the barns along the traverse had diagonally placed windows. This feature has been associated with colonial and nineteenth century Dutch barns.\(^{71}\) Diagonal loft

\(^{70}\)Op. cit., Trewartha, p. 183 and study area.  
windows were built high near the roof line, thus affording the greatest view. \footnote{Ibid.}

Generally, the farmsteads along the traverse were at a high level of upkeep.
Photo 14. A Gambrel in the Amsterdam Area. Built around the turn of the century. (Ecton farmstead, #17)

Photo 15. A Saltbox Barn in the Amsterdam Area. Built in 1929. (Oldenburger farmstead, #10)
### Table Four (Amsterdam)

<table>
<thead>
<tr>
<th>Barn #</th>
<th>Form</th>
<th>Builder's Name</th>
<th>Origin</th>
<th>Color</th>
<th>Age</th>
<th>Use</th>
<th>Unique Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>Schipper</td>
<td>Dutch</td>
<td>R</td>
<td>ca. 1910</td>
<td>Horse</td>
<td>Diag. window</td>
</tr>
<tr>
<td>2</td>
<td>Ga</td>
<td>Kimm</td>
<td></td>
<td>R</td>
<td>1924</td>
<td>Multi</td>
<td>Diag. window, s-shed</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>Cok</td>
<td></td>
<td>R</td>
<td>1944</td>
<td>Dairy</td>
<td>Diag. Window</td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>Broekema</td>
<td></td>
<td>R</td>
<td>ca. 1920</td>
<td>Multi</td>
<td>Diag. window, salt-b s.</td>
</tr>
<tr>
<td>5</td>
<td>Ga</td>
<td>Box</td>
<td></td>
<td>C</td>
<td>1944</td>
<td>Dairy</td>
<td>400 ton silo</td>
</tr>
<tr>
<td>6</td>
<td>Ga</td>
<td>Unknown</td>
<td></td>
<td>R</td>
<td>????</td>
<td>Dairy</td>
<td>Barn moved in 1948</td>
</tr>
<tr>
<td>7</td>
<td>M</td>
<td>Sinnemaan</td>
<td></td>
<td>W</td>
<td>ca. 1924</td>
<td>Dairy</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>M</td>
<td>Alberda</td>
<td></td>
<td>W</td>
<td>1951</td>
<td>Dairy</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>G</td>
<td>Alberda</td>
<td></td>
<td>W</td>
<td>1958</td>
<td>Dairy</td>
<td>3-faced</td>
</tr>
<tr>
<td>10</td>
<td>Sa</td>
<td>Oldenburger</td>
<td></td>
<td>W</td>
<td>1929</td>
<td>Multi</td>
<td>Hog house, run down</td>
</tr>
<tr>
<td>11</td>
<td>Go</td>
<td>Bos</td>
<td></td>
<td>W</td>
<td>ca. 1950</td>
<td>Dairy</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Ga</td>
<td>Kimm</td>
<td></td>
<td>W</td>
<td>1967</td>
<td>Dairy</td>
<td>Small parlor</td>
</tr>
<tr>
<td>13</td>
<td>Ga</td>
<td>Lucas</td>
<td></td>
<td>N</td>
<td>ca. 1900</td>
<td>Horse</td>
<td>Vertical boards</td>
</tr>
<tr>
<td>14</td>
<td>Ga</td>
<td>Van Dyken</td>
<td></td>
<td>W</td>
<td>ca. 1920</td>
<td>Horse</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Ga</td>
<td>Burkendas</td>
<td></td>
<td>R</td>
<td>1915</td>
<td>Multi</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Ga</td>
<td>Burkendas</td>
<td></td>
<td>W</td>
<td>1917</td>
<td>Horse</td>
<td>Square peak</td>
</tr>
<tr>
<td>17</td>
<td>Ga</td>
<td>Ecton</td>
<td></td>
<td>W</td>
<td>ca. 1900</td>
<td>Dairy</td>
<td>Sideshed</td>
</tr>
</tbody>
</table>

Totals: 9 Gambrels 9 White 5 Monitors 6 Red 1 Saltbox 1 Natural 1 Gothic 1 Cement 1 Gable

Key: s-shed - sideshed Ga - Gambrel Sa - Saltbox W - White salt-b - saltbox G - Gable M - Monitor R - Red C - Cement N - Natural
CHAPTER 4

THE HELMVILLE STUDY AREA
Introduction

Physical Setting

The Helmville study area is located twenty miles west of Lincoln and about forty miles northwest of Helena, Montana, in Powell County. Helmville is the only settlement in the area and is located near the center of the Nevada Valley. The main routes of communication are Highway 200 which runs east-west some five miles north of Helmville and Highway 271 which runs north-south about one mile east of Helmville, (map 1).

The traverse began at the first farmstead south of Highway 200 on Highway 271. The traverse progressed south into Helmville, then south again for four miles (map 5).

Cultural Perspective

The first settlers came into the Nevada Valley after abandoning territory placer diggings in 1867. Their lot was primarily made up of Irish and Germans. Under the Homestead Act and the Timber Claim Act, 160 acre plots were attained by the settlers. In addition, sizable parcels of land was purchased from the Northern Pacific Railroad.\(^{74}\)


\(^{74}\)Ibid.
Map 5

THE HELMVILLE STUDY AREA

TRAVERS AND FARMSTEAD NUMBERS

Scale

0—1 mi
The settlement of Helmville was named after Henry Helm, a German immigrant who was the local postmaster. 75

Until 1910, Powell County was part of Deer Lodge County and, therefore, census figures before that time are obscure. Figures for 1910 indicate 138 Irish and 190 Germans of foreign birth lived in Powell County. 76 In 1920, there were 144 Germans and 144 Irish, and in 1930, there were 100 Germans and 95 Irish of foreign birth in the County. 77 Today, most of the population in the Helmville area is Irish and German (table 6).

The early economy of the area was based upon shorthorn cattle, general agriculture and dairying. In later years, Herefords replaced the shorthorns. 78 Helmville reached its height of population and economic development in the early years of the twentieth century. 79 Since that time, Helmville has been reduced to a sleepy out-of-the-way hamlet.

75 Ibid.


79 Ibid.
The Barns of the Helmville Area

The barns of the Helmville area can be divided into two types representing two periods of barn construction. The early type is characterized by log construction while the later barns were built of milled and planed lumber. Of the early barns, two forms are common: the gambrel and the gable.

The Early Gable Barns (1867-1900)

Like the log barns of the Frenchtown Valley, the log barns of the Helmville area are of moderate size (2000 sq. ft.). Saddle or rounded-V notching are common of the gable barns in the area (photo 16). Unlike the Frenchtown barns, gable ends are filled and shingles are sawed rather than cut.

In the Helmville area, gable barns having saddle or rounded V-notching tend to be associated with Irish farmsteads (table 5).

The Early Gambrel Barns (1867-1900)

Like the gable barns, the gambrel barns were built of logs and are of moderate size (2000 sq. ft.). Floor plans are rectangular and, like most barns built before the turn of the century, foundations are lacking. In the gambrel barns square notching is more commonly seen than saddle or rounded V-notching. In addition, gable ends are not filled with logs.
as in the case of the gable barns, but with planed lumber (photo 17). Chinking with mortar is, however, common of both the gable and gambrel barns. In addition to square notching, many of the gambrel barns have a square junction along the length of the walls (fig. 3, p. 33).

The gambrel barns in the study area seem to be associated with German and English farmsteads (table 5). In the study area, square notching was not found in Irish barns, while saddle and square notching was only once found in the German barns.

<table>
<thead>
<tr>
<th></th>
<th>Gambrel</th>
<th>Gable</th>
<th>Sq. Notch</th>
<th>Saddle &amp; V-notch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irish Settlers</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>German Settlers</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Others (English)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Later Barns of the Helmville Area (1900-date)

Like the Frenchtown area, barns built after the turn of the century employed milled and planed lumber. These structures are generally larger in size and about one-half of them are painted. Two barns, the Geary barn (farmstead #8) and the Heffner barn (farmstead #12) are log barns that have been reconditioned with new roof lines, siding and paint.
Photo 16. **An early Irish Gable Barn.** Note rounded V-notching. The far sideshed is a more recent addition. (farmstead #7, Helmville, Montana)

Photo 17. **A Log Gambrel Barn.** This form is common of the German barns in the Helmville area. Sidesheds are a more recent addition. Square notching was employed. (farmstead #1, Helmville, Montana)
Color

Unlike the barns of the Amsterdam area, the later barns of the Helmville area are generally not painted. Of the six later barns, two were red, one gray, and three were left natural.
# Table Six (Helmville)

<table>
<thead>
<tr>
<th>Barn #</th>
<th>Form</th>
<th>Builder's Name</th>
<th>Origin</th>
<th>Color</th>
<th>Age</th>
<th>Use</th>
<th>Unique Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ga</td>
<td>Flemming</td>
<td>English</td>
<td>N</td>
<td>ca. 1910</td>
<td>H.</td>
<td>Square notching</td>
</tr>
<tr>
<td>2</td>
<td>Ga</td>
<td>Eder</td>
<td>German</td>
<td>N</td>
<td>ca. 1900</td>
<td>H.</td>
<td>Square notching</td>
</tr>
<tr>
<td>3</td>
<td>Ga</td>
<td>Eder</td>
<td>German</td>
<td>N</td>
<td>ca. 1910</td>
<td>H.</td>
<td>Square notching</td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td>Smith</td>
<td>Irish</td>
<td>N</td>
<td>ca. 1880</td>
<td>H.</td>
<td>Saddle notching</td>
</tr>
<tr>
<td>5</td>
<td>Ga</td>
<td>Helm</td>
<td>German</td>
<td>N</td>
<td>ca. 1870</td>
<td>H.</td>
<td>Square notching</td>
</tr>
<tr>
<td>6</td>
<td>G</td>
<td>Geary</td>
<td>Irish</td>
<td>N</td>
<td>ca. 1880</td>
<td>H.</td>
<td>Rounded V-notching</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>Geary</td>
<td>Irish</td>
<td>N</td>
<td>ca. 1880</td>
<td>H.</td>
<td>Rounded V-notching</td>
</tr>
<tr>
<td>8</td>
<td>Ga</td>
<td>Geary</td>
<td>Irish</td>
<td>N</td>
<td>ca. 1880</td>
<td>H.</td>
<td>Saddle &amp; V-notching combined</td>
</tr>
<tr>
<td>8b</td>
<td>Ga</td>
<td>Geary</td>
<td>Irish</td>
<td>R</td>
<td>ca. 1890</td>
<td>H.</td>
<td>Siding over log</td>
</tr>
<tr>
<td>9</td>
<td>Ga</td>
<td>Raymond</td>
<td>Unknown</td>
<td>N</td>
<td>ca. 1915</td>
<td>H.S.</td>
<td>Milled lumber</td>
</tr>
<tr>
<td>10</td>
<td>M</td>
<td>Unknown</td>
<td>Unknown</td>
<td>N</td>
<td>ca. 1890</td>
<td>St.</td>
<td>Milled lumber</td>
</tr>
<tr>
<td>11</td>
<td>G</td>
<td>McCormick</td>
<td>Irish</td>
<td>N</td>
<td>ca. 1870</td>
<td>H.</td>
<td>Saddle notching</td>
</tr>
<tr>
<td>12</td>
<td>Ga</td>
<td>Heffner</td>
<td>German</td>
<td>R</td>
<td>ca. 1890</td>
<td>H.</td>
<td>Siding over log</td>
</tr>
<tr>
<td>13</td>
<td>G</td>
<td>Toohy</td>
<td>Irish</td>
<td>Gr</td>
<td>ca. 1912</td>
<td>H.</td>
<td>Milled &amp; Planed lumber</td>
</tr>
<tr>
<td>14</td>
<td>G</td>
<td>Welsh</td>
<td>English</td>
<td>N</td>
<td>ca. 1880</td>
<td>H.</td>
<td>Square notching</td>
</tr>
<tr>
<td>15</td>
<td>G</td>
<td>Welsh</td>
<td>English</td>
<td>N</td>
<td>ca. 1915</td>
<td>H.</td>
<td>Milled lumber, cupola</td>
</tr>
<tr>
<td>16</td>
<td>G</td>
<td>Sandford</td>
<td>English</td>
<td>N</td>
<td>ca. 1880</td>
<td>H.</td>
<td>Saddle notching</td>
</tr>
<tr>
<td>17</td>
<td>G</td>
<td>Bermann</td>
<td>German</td>
<td>N</td>
<td>ca. 1880</td>
<td>H.</td>
<td>Rounded V-notching</td>
</tr>
</tbody>
</table>

Totals: 8 Gambrels
9 Gables
1 Moniter

Key:  G - Gable     H.S. - Horse, Sheep     N - Natural
      Ga - Gambrel    St. - Storage     R - Red
      M - Moniter    H. - Horse     Gr - Gray
CHAPTER 5

THE FLORENCE-STEVENSVILLE STUDY AREA
Introduction

Physical Setting

The Florence-Stevensville study area is located in the northern part of the Bitterroot Valley. The Valley is bounded on the west by the Bitterroot Mountains and on the east by the Sapphire Mountains. The primary route of communication is Highway 93, which runs north-south through the Valley. The study area is located approximately twenty-one miles south of Missoula.

The traverse began at the first farmstead west of Florence and continued west until it crossed the Bitterroot River. At this point, it turned south along the Bitterroot to a point one mile north of Stevensville, Montana.

Cultural Perspective

The first settlement in the Valley was established in 1841 in the Stevensville area under the direction of Father De Smet. By the 1860's, commercial agriculture in the area was stimulated by the growth of mining not only in the Valley but also in the many mining camps east of the Sapphire Mountains. In 1909, the completion of Lake Como Dam and fifty-six miles of irrigation ditch brought needed water into dry lands around

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81 Ibid.
Florence and Stevensville. Orcharding was introduced in the area early in the twentieth century. Apples became the primary crop, and the apple boom lasted until the 1920's. Since the late '20's, the Sacramento, Yakima and Willamette Valleys have surpassed the Bitterroot in fruit quality as well as quantity. Today, most of the Bitterroot's orchards have been abandoned, and cattle raising has become the primary means for the rural economy.

Photo 18. A Flume Built to Feed the Irrigation Ditches in the Bitterroot Valley. The photo was taken near Sleeping Child, east of Hamilton, Montana. The Bitterroot Mountains are on the left. (Courtesy of Mrs. David Hurtt, Florence, Montana).

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83 Ibid., pp. 4-5.
Map 6

THE FLORENCE STEVENSVILLE STUDY AREA

TRAVERSE AND FARMSTEAD NUMBERS

Scale
The first census figures for Ravalli County indicates that a large number of Germans, Irish, Swedes, English, non-French Canadians and Bulgarians of foreign birth lived in the Valley.\(^{84}\) Cemetery headstones indicate that a number of the non-foreign population in the Valley had come from the midwest.\(^{85}\)

Barns of the Florence-Stevensville Study Area

The Early Barns (1860-1900)

There are few early barns along the Florence-Stevensville traverse. Those that do exist are varied in construction, and show little relationship to each other, or early barns of other study areas. Of the seventeen farmsteads examined along the traverse, only two log barns and four log outbuildings were noted. Of the two log barns, one was a gable with square V-notching (fig. 3), while the other was a gambrel with square notching. The latter of the two was built in 1939, and can not truly be considered an early barn.

The Later Barns (1909-date)

Most of the later barns were built after the introduction of irrigation ditches in the area. One of the barns


\(^{85}\)Three Mile Road Cemetery, NE of Stevensville, Montana. St. Mary's Cemetery, Stevensville, Montana.
(farmstead #4) was built as a show piece by the Bitterroot Valley Irrigation Company in an attempt to attract buyers for their land. Most of the other barns were built by those persons who were attracted to the area.

**Form**

A majority of the barns along the traverse have gable roof lines; however, there are some gambrels and a moniter. Most of the barns have a rectangular floor plan; one exception to this is located on farmstead #5. Here a "T"-shaped floor plan was used (photo 19). In addition to the "T"-shaped barn, there are a number of barns in the Stevensville area that have three faces (photo 20). The barn on farmstead #10 is a three faced gambrel.

**Other features**

Silos are a notable feature in the Florence-Stevensville study area. There are three silos on the traverse; however, all are no longer in use. There may possibly be an association between the silo and the large number of mid-westerners in the area. However, a longer traverse would be required to prove such a relationship.

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Photo 19. A "T"-shaped Gable Barn. (farmstead #5, Florence, Montana). Three faced and "T"-shaped barns are common in the Stevensville area.

Photo 20. A Three Faced Gambrel. (farmstead #10, Florence, Montana.)
Photo 21. *Barn and Silo*. The silo is a rare feature throughout most of Montana. (Farmstead #1, Florence, Montana). The builder of the silo came from Germany, but spent some time in the mid-west.87

87R. Schroll, private interview at his ranch, one mile East of Florence, Montana, June 1, 1969.
<table>
<thead>
<tr>
<th>Barn #</th>
<th>Form</th>
<th>Builder's Name</th>
<th>Origin</th>
<th>Color</th>
<th>Age</th>
<th>Use</th>
<th>Unique Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G</td>
<td>Ahren</td>
<td>Unknown</td>
<td>R</td>
<td>ca. 1887 H.</td>
<td></td>
<td>Silo added 1919, cu.</td>
</tr>
<tr>
<td>2</td>
<td>Ga</td>
<td>Tahyer</td>
<td>Wyoming</td>
<td>R</td>
<td>ca. 1907 H.</td>
<td></td>
<td>12 x 20 feet, side sheds</td>
</tr>
<tr>
<td>3</td>
<td>G</td>
<td>Unknown</td>
<td>Unknown</td>
<td>W</td>
<td>Unknown ?</td>
<td></td>
<td>Cupola</td>
</tr>
<tr>
<td>4</td>
<td>Ga</td>
<td>Lemon B.I.Co.</td>
<td>Unknown</td>
<td>R</td>
<td>ca. 1910 D.</td>
<td></td>
<td>Photo 2</td>
</tr>
<tr>
<td>4b</td>
<td>G</td>
<td>Lemon B.I.Co.</td>
<td>Unknown</td>
<td>R</td>
<td>1938 G.</td>
<td></td>
<td>Extremely large cupola</td>
</tr>
<tr>
<td>5</td>
<td>G</td>
<td>Tillman</td>
<td>Missouri</td>
<td>N</td>
<td>ca. 1909 H.</td>
<td></td>
<td>&quot;T&quot;-shaped floor plan</td>
</tr>
<tr>
<td>5b</td>
<td>G</td>
<td>Tillman</td>
<td>Missouri</td>
<td>N</td>
<td>Unknown B.</td>
<td></td>
<td>Hewn, square notching, log</td>
</tr>
<tr>
<td>6</td>
<td>G</td>
<td>Unknown</td>
<td>Unknown</td>
<td>R</td>
<td>Unknown ?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>McNeil</td>
<td>Unknown</td>
<td>N</td>
<td>Unknown D.</td>
<td></td>
<td>Square V-notching, log</td>
</tr>
<tr>
<td>8</td>
<td>Ga</td>
<td>Unknown</td>
<td>Unknown</td>
<td>N</td>
<td>Unknown D.</td>
<td></td>
<td>Silo added in 1936, 2nd silo</td>
</tr>
<tr>
<td>9</td>
<td>Ga</td>
<td>Cerwall</td>
<td>Unknown</td>
<td>R</td>
<td>1963 D.</td>
<td></td>
<td>Peaked</td>
</tr>
<tr>
<td>10</td>
<td>Ga</td>
<td>Lockridge</td>
<td>Unknown</td>
<td>R</td>
<td>Unknown D.</td>
<td></td>
<td>3-faced</td>
</tr>
<tr>
<td>11</td>
<td>G</td>
<td>Corp.</td>
<td>-------</td>
<td>C</td>
<td>ca. 1946 S.A.</td>
<td>3 small cupolas</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>G</td>
<td>Corp.</td>
<td>-------</td>
<td>W</td>
<td>ca. 1920 S.A.</td>
<td>4 small cupolas</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>G</td>
<td>Higgins</td>
<td>Unknown</td>
<td>C</td>
<td>1966 S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>G</td>
<td>Higgins</td>
<td>Unknown</td>
<td>W</td>
<td>ca. 1910 D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>G</td>
<td>Higgins</td>
<td>Unknown</td>
<td>N</td>
<td>ca. 1910 H.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Ga</td>
<td>Brazier</td>
<td>Fr.-Can.</td>
<td>N</td>
<td>1939 D.</td>
<td></td>
<td>Square notching</td>
</tr>
<tr>
<td>17</td>
<td>M</td>
<td>Brown</td>
<td>Unknown</td>
<td>R</td>
<td>Unknown H.</td>
<td></td>
<td>2 cupolas</td>
</tr>
</tbody>
</table>

Totals: 12 Gables
6 Gambrels
1 Moniter
3 Silos

Key: Ga - Gambrel
G - Gable
M - Moniter
Corp.- Corporation or Cooperative
B.I.Co.- Bitterroot Valley Irrigation Co.

R - Red
H. - Horse
N - Natural
S.A. - Potatoes, Apples
W - White
D. - Dairy
C - Cement
G. - Grainery
Cu. - Cupola
CONCLUSION
Later Barns

The barns of the four study areas can be divided into two categories representing two periods of barn construction. Basically, these two periods are the early period (ca. 1860-1900) and the later period (ca. 1900-date).

Barns built during the later period were constructed of milled and planed lumber. Construction plans were as often as not bought of borrowed from an outside source. Generally, professional barn builders were employed and owners added little except choice of color, hardware, and ornamentation. Form, size, and features, such as cupolas, were generally the result of function and personal choice rather than ethnic influence. For these reasons, later barns are of less use as ethnic indicators than early barns.

The Amsterdam Study Area

All of the barns along the Amsterdam traverse were built during the later period. Of these, nine were gambrels, five were moniters, one was a gable, and one a saltbox. The variety of barn forms in the area discredited any possibility of using form as a cultural index. Although some of the

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barns along the traverse had diagonal windows, this feature is commonly seen in many non-Dutch barns.

The only outstanding feature of the barns along the Amsterdam traverse was the extensive use of white paint. A comparison of the Amsterdam barns to barns of other areas (table 3), indicates a high percentage of white barns (54%). This extensive use of white may be a color index common of the Dutch.

There are a number of associations between the color white and the Dutch ethnic group. Dutch Boy Paint, now owned by the National Lead Company, made only white lead paint for many years. Dutch Cleanser has for many years promised white sinks. Dutch cheese, commonly known as cottage cheese, is white, and Dutchman's-breeches is a yellow-tipped, white wild flower. A number of people interviewed in the area felt that white was cleaner looking and therefore enhanced their property.

From the results of the Amsterdam study, it should not be inferred that all white barns are Dutch barns. However, a high concentration of white barns may indicate the presence of the Dutch ethnic group.

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89 Arnold A. Nelson, private interview at his store, July 1, 1969.

Earlier Barns

Unlike the later barns, the early barns were in most cases built by the owner or homesteader. In the years before common circulation of agricultural magazines, books, and government publications, the farmer or rancher had to also be a carpenter. Skills involved in building were usually handed down from generation to generation.

The Frenchtown Study Area

As mentioned earlier, modern barns have been of little use as ethnic indicators. However, in the Frenchtown Valley, the transition barn may show a hint of ethnic influence. In these structures, the techniques of vertically affixing siding may be associated with "sur sole" and "poteaux en terre" construction, common of the early French-Canadians.

The old log ("en pieces") barns of the Frenchtown Valley are outstanding cultural indicators. The construction techniques employed in the Frenchtown Valley are identical to those of French Canada. In Traquair's study of the old architecture of French Canada, the "en pieces" method of construction predominates in pre-twentieth century structures. It therefore can, with little doubt, be concluded that the "en pieces" barns are a typical, but not necessarily an exclusive, barn construction technique of the French-Canadians.

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91 Op. cit., Kniffen, p. 44.
The Helmville Study Area

The early barns of the Helmville area indicate two distinctive forms and construction techniques. The gable barns, which were joined by saddle or V-notching, were common of the Irish settlers in the area. The gambrel barns, which in most cases were joined by square notching, were common of the German settlers in the area. Since log construction is not commonly found in Ireland, the origin of the Irish construction technique is obscure. The Irish and German immigrants that came to the Helmville area most probably adopted building techniques while in route. Once the first Irish and Germans were established, later arrivals would in all probability follow the example of their countrymen. If this is what did occur, the barns of the Helmville area are ethnic indicators on the local scale, and not, as in the case of the "en pieces" barns, a more universal ethnic index.

The Florence-Stevensville Study Area

As mentioned earlier, the Florence-Stevensville study area is an area of mixed ethnic groups. Most of the barns constructed in the area were built after the turn of the

92 There is of course the possibility that the German technique of notching could have come from Germany. Kniffen makes no mention of square notching in his study.
century. The establishment of relationships between form and color and ethnic background was therefore impossible. The high turnover of property ownership further compounded the problem. As a result, data for the area was inconclusive.

The only outstanding feature in the area was the silo, an uncommon feature in Montana.

**Summation**

In the Amsterdam area, the color white seemed to be a cultural index. In the Frenchtown area, "en pieces" construction was definitely found to be an ethnic construction technique; and in the Helmville area, variations in roof line and notching can be used, at least on the local level, as an ethnic indicator.

In conclusion, this study suggests that barn color scheme and barn construction techniques may be useful as cultural indexes to ethnic origins in western Montana. However, before any definite statement can be made regarding barns as a cultural index to ethnic origins, additional studies of this nature will have to be conducted in Montana and elsewhere in the country.
APPENDIX 1

A Sample of the Data Sheets Used on the Four Traverses.

Survey on Barns
Geog. 580 & 699

H. S. Knudsen
Dept. of Geography
University of Montana

Date__________________
Photo #________________

Type of Barn________________________________________________________

Name & Origin of Builder______________________________________________

Color Scheme________________________________________________________

Age______________________________________________________________

Use______________________________________________________________

Location___________________________________________________________

Unique features & Remarks_____________________________________________

__________________________________________________________
__________________________________________________________
Selected Bibliography

Books

_____, The Get ToGether Club, Our Neighborhood, Nov. 3, 1949

Periodicals


Documents


City of Frenchtown, St. John's Church, Record of Marriages, 1861-1933.

Papers (unpublished)


Interviews

Beauregard, Archie, (senior citizen), Private interview at his home, June 7, 1969.

Cormier, Fredrick, Jr., (senior citizen), Private interview at his home, June 7, 1969.

Geary, James and Geary, Pat, Private interview at their home, July 10, 1969.

Groot, Peter de, Private interview at his home, June 30, 1969.

LaVoie, Henri, (senior citizen), Private interview at his home, April 17, 1969.

Kimm, Axel, Private interview at his ranch, July 1, 1969.

Murphy, Raymond, (ditch rider), Private interview, July 13, 1969.


Schapper, Gerald, Private interview at his home, March 22, 1969.

Scheffer, Ralph, (senior citizen), Private interview at his home, May 1, 1969.

Schutter, John, Private interview at his farm, June 30, 1969.