

The Reusser House: A Log Structure in Iowa's 'Little Switzerland'

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AN AREA IN NORTHEAST Iowa, sometimes nicknamed "Little Switzerland," centered in northeast Fayette County and northwest Clayton County, was a popular settlement for Swiss immigrants between 1850 and 1900. The 1870 state census, the only census which reports Swiss-born citizenry, lists 3,937 inhabitants. The earliest state census, 1850, combines German, Swiss, and Austrian nationalities. The group's figure of 7,428 is most likely largely German although George Parker suggests that 2,500 of this population is Swiss.¹ There is, however, little documented information concerning the Swiss immigrants' arrival and existence in Iowa. This lack of scholarly interest is likely due to the relative 'melting-pot' nature of this ethnic community. The Dutch in Pella (Marion County), Bohemians of Spillville (Winnebago County), Norwegians in northeast Iowa, Irish in Emmetsburg (Palo Alto County), and the Germans in the Amana (Iowa County) stand out because of their spectacular festivals, historical events, customs, ideological community structure, or continued ethnic solidarity. Two other factors may account for the historian's and folklorist's neglect of Iowa's Swiss

¹ George F. Parker, *Iowa Pioneer Foundation: Volume One* (Iowa City, Iowa, 1940), 149.

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—the geographic location of Swiss in the proximity of the Norwegian, Bohemian, and German groups, and the general association of Swiss-Americans with Wisconsin.

The Swiss came to Iowa, as did other settlers, lured by the prospect of cheap, fertile land. Treaties with the Indians in the 1830s and 1840s and the Homestead Act of 1862 opened the lands in the new territory. Moreover, there were three main problems with life in Switzerland at this time—lack of economic opportunities, threat of military service, and religious constraints. This last factor resulted in the emigration of many members of the Reformed Church to the Elgin (Fayette County) area. The Apostolic Church, an offshoot of this movement, became a central organization in this district. Located about four miles southeast of Elgin, the church remains today as one of the few esoteric features of the Swiss heritage.²

The vast majority of the Swiss settlers were from Canton Bern, one of the prominent Swiss-German districts in Western Switzerland. The wooded hills and valleys of Fayette County, and the many streams, creeks, and rivers in the area were certainly familiar and attractive land features. While the immigrants did not confine themselves solely to Fayette County, an identifiable segment chose the area along the Turkey River in the Pleasant Valley Township.³

Recorded settlement patterns based on court records, county histories, newspapers, land deeds, church records, letters and diaries often reveal political trends, religious developments, and other community events. The written sources cannot, however, answer many questions, especially the ones related to cultural and everyday living habits of the immigrants. In his day-to-day life, the Swiss-German settler faced the prospect of modifying and adapting his physical environment to suit, as far as was possible, the traditions of his homeland.

Houses and barns, spoons and baskets, compost heaps and garden plots, blacksmith tongs and pottery speak to the archae-

²"The Swiss Colony in Fayette County," *The Fayette Union*, March 17, 1937.

³A. T. Andreas, *Illustrated Historical Atlas of the State of Iowa*, 1875, (orig. pub. Chicago, 1875; reprinted, Iowa City, Iowa, n.d.).

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ologist about the environment and habits of the people who made and used them. The interpretation of artifacts is, of course, quite complex and problematic. Archaeologists are fond of reconstructing a particular culture's social or economic system through the artifacts yielded by excavations. Such constructs are somewhat tenuous because of the limited sample of artifacts that might be found for any one culture. Archaeologists, especially prehistorical archaeologists, are also bound by interpretations that often rely only on the scholar's classifications and typologies. The historian or folklorist who investigates late nineteenth or early twentieth century groups is immensely aided by his access to living informants from the period under investigation. These informants may be the actual producers or builders, or the son or daughter of the person who created the artifact. Through the informant's direct contact with a specific tradition, the researcher is able to gain a more complete and true picture of the artifact and the cultural context in which the object functions.

IN 1883, THIRTY-THREE years after the first Swiss-German arrived in the Elgin area, Christian Reusser joined his countrymen in Iowa.⁴ He was born in 1863 in Steffisburg, Switzerland, a moderately sized town located about twenty miles southeast of Bern. Christian did not emigrate to America for religious reasons, he was Evangelical, nor was he forced into action by threat of military service, for Christian had two thumbs on his left hand and was therefore exempt. Perhaps through letters, or from talk in his home district, he heard of Christian Miller, a former Bern resident who was becoming a big landowner in Pleasant Valley and employing Swiss-German immigrants to manage the farm. For whatever reason, at the age of twenty-one, Christian Reusser crossed the Atlantic.

Trained as a carpenter, Christian worked his trade in the Elgin area from 1883 to 1891. He was also employed as a house-painter, and road-builder on the new Clermont-Elgin road. As a

⁴ Interviews with Rose Reusser: November 3 and 6, 1977. Joyce and Riley Grimes and Dick Westerfield also provided assistance.

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final source of income, Christian hired himself out to Elias Appleman, owner of a farm just across the road from the famous Larrabee Mill in Clermont. On July 11, 1888, his future bride, Rosina Scwendleman, arrived in Elgin, her fare paid by an admiring Christian. Although they had never previously met—Christian had corresponded with her only after seeing her photograph—the two were married on the day of her arrival. Later on, Rosina spoke of "Marriage in the forenoon, hoeing potatoes in the afternoon." Their first child was born in 1889, and seven more would follow over the next fifteen years.

Christian purchased, for \$125, ten acres of Section 16 of Township 94 (Pleasant Valley Township) in Range 7 of Fayette County. This parcel is characterized, physically, by a large and long hill which slopes downward from north to south. The western edge of the hill slopes gently at first, but then angles sharply down to a creek. The creek, running north to south, is fed, most likely, by underground streams flowing from the Bell River. This latter watercourse, a tributary of the Turkey River, is one mile north of the property. Both banks of Reusser's creek are wooded, with oak, beech, yellow poplar, and some cottonwood in the area. To the east of the main hill lies another wooded area; however, these woods are not part of the original purchase. These trees grow more dense than the previous group, with oak and yellow poplar dominating the area.

It is on the western slope of the hill, just before the steep drop to the creek, that Christian decided to build his house. The main building was constructed in 1891. This dwelling, approximately twenty-four feet by sixteen feet, contains a full, unfinished basement, two first-floor rooms, and a full-sized loft area. The barn was built north of the house, and crops and fruit trees were planted to the east. A beautiful spring is located southwest of the house, and it was in this boxed-in water outlet that the family kept butter, milk, and other dairy products.

In 1895, Reusser added a room on the westnorth side of the original house. This twelve-feet by twelve-feet addition is composed of a full basement with cement floor, one first-floor room, and an inaccessible rafter structure framed with pole rafters.

Five years later, the Reussers purchased a five-acre strip of

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land adjoining the east side of the original purchase. This parcel is entirely non-wooded and cost them \$75. A final land purchase was made in 1904, this time comprising twenty acres at an expense of \$420. Purchased from Christian Miller, Reusser's wealthy Swiss neighbor, this land lay directly west of the 1891 parcel. It includes the west bank of the creek and the adjoining west pasture. The Reussers' total land holdings never exceeded thirty-five acres—enough surely to support a carpenter who limited his farm activities to subsistent pursuits.

In 1904, Reusser added a full, two-room lean-to to the east side of the 1891 dwelling. This addition was his last. Christian became ill, developed tuberculosis, and died on October 30, 1909, at the age of forty-seven. Rosina Reusser held ownership of the land until 1914, at which time she sold the entire parcel to Louis Light.

The Reusser house has been abandoned for many years and is slowly falling into total ruin. Its construction techniques, however, can be determined. Analysis of these techniques reveals certain patterns of living that suggest accommodations made by the Swiss-German immigrants to Fayette County. The framing techniques, for example, show whether Old-World Swiss-German architectural styles continued to be followed. Close examination of the Reusser house reveals a measure of the tenacity of Old-World styles in "Little Switzerland" forty years after it was settled. Materials used in construction say something about the builder's compromises with local ecologies. Are materials unfamiliar to the builder shaped into familiar patterns? As a local carpenter, Christian Reusser likely had a great deal of contact with both Anglo-American and Swiss-German builders and houses. Reusser's house, then, may reflect his opinions of New-World styles, incorporating the aspects of both cultures. As Einar Haugen states in *The Norwegian Language in America*, the immigrant "straddles two cultures." The Reusser house is an example of this phenomenon.

The 1891 House

Basement, Foundation

THE MAIN foundation is constructed of Niagra limestone

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(Photo 1). This rock, available locally, is considered a magnesium limestone and contains some siliceous matter. Niagra limestone is a common building material in the area. The stone foundation was built originally as a solid wall on the north, west, and south sides. This pattern is broken in two places—along the north side where a cellar door was placed, and along the south wall for a small window. The door, two feet six inches wide and four feet six inches high, is of board-and-batten style, using three-fourths-inch by five- and one-fourth-inch tongue-and-groove boards for vertical pieces. This fixture, and the other board-and-batten doors in the house, do not utilize any diagonal braces as is often found on Anglo-American doors of similar style. Five cement stairs lead down from the outside to the door-opening. While it is likely that the door is the original item, it is difficult to determine whether or not Christian laid the stairs. The cement was available, for as early as 1875 the Dibble's store in Elgin advertised "White brick, red brick, lime, pumps, and Louisville Cement."⁵

The window in the south foundation wall is a square, single-pane, factory-made fixture measuring sixteen inches square. The window frame is constructed with one-inch by six-inch scraps and the walls are constructed around the frame. The placing of the window and door portray the pragmatic intentions of folk architecture styles and techniques. With the two fixtures placed opposite one another, good air circulation is provided for the ground timbers by providing a ventilation pathway. Rot and decay are prevented, especially during the summer months, because the heavier, cool air from the outside will displace the warmer, lighter air that gets trapped in the basement. The cellar thus remains cool, and the area beneath the house remains dry.

The walls are constructed of rocks cut flat on the exterior side, while the tops and bottoms of the stones are only somewhat squared. The rocks vary from three inches to eight inches in height as they are stacked, with the walls' depth ranging from ten inches to eighteen inches. The entire foundation is heavily mortared, and today the walls are virtually intact. The lengths

⁵ Andreas, *Illustrated Historical Atlas*, 367.

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Photo #1

West-south corner of 1891 house. The Niagara limestone foundation dominates the foreground; above this one can note the sill log, first floor joists' ends, and the first four course of hewn logs. Notice also the chinking between the logs and the vertical boards which supply the base for the weatherboarding.

of the three walls are: north wall—sixteen feet, five and one-half inches; south wall—sixteen feet, six and one-fourth inches; and west wall—twenty-four feet, five inches.

The hillside site facilitated the cellar, the floor of which is sloped. At the east end, the sill log lies only a foot above the ground, the log resting on a low wall of mortared limestone. From here the floor slopes downwards along the general contour of the land, and the walls become proportionally higher. The basement depth is four feet in the center of the cellar and six feet two inches at the west wall. Hard-packed dirt forms the floor, with the chimney base resting directly on the ground in the center area. The Reusser family utilized the basement as a

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storage area for potatoes, onions, canned foods, wine, and other foods.

Viewing the foundation from the outside, one notes that the northeast and southwest corners rise ten inches above ground level. From these positions the ground slopes downwards and the limestone walls become more visible. At the southwest corner almost four feet of wall height is visible. By positioning the main dwelling's horizontal logs off the ground, the wood was protected from constant ground moisture and decay.

The main sill is composed of four logs averaging twelve inches in diameter. These logs are joined in their corners by pegged lap joints. The log bottoms are hewn flat, with a broad axe, to provide a solid contact surface area with the top of the limestone walls (Photo 2). No anchoring devices are utilized to attach the sill to the wall. The top edges of the logs (two of each of beech and oak) are also hewn flat in preparation for jointing with the log floor joists. Finally, the exterior face of the sill is similarly hewn in preparation for the exterior siding. Only the interior face of the sill is left with the original bark and outer wood layers.

There are thirteen log floor joists, averaging seven inches in diameter. These joists run east and west, and they are spaced, for the most part, on two-foot centers. The chimney is positioned off-center so that the joist pattern is not broken. These joists, seven oak and six beech, are lap-notched to the sill (Photo 2). The lower half of the last twelve inches is cut away so that the log can rest on the flat top side of the sill. With this technique the joists protrude through the exterior walls and thus are visible over the sill, but are held firmly in place by spacer logs cut to fit the gaps between the joists along the sill. The top side of the joists are hewn flat in preparation for the floorboarding, and the other three sides are left in their natural state.

First-floor and Loft Framing, Roof Construction

Above the floor joists and spacer logs, Reusser begins his al-

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ternating courses of horizontal logs. The logs, largely oak with some cottonwood, are hewn flat on all four sides. As Warren Roberts notes, this process leaves only the interior heartwood which is more resistant to rot and decay than the outer wood



Photo #2

West sill log of 1891 house. The sill log, with its hewn bottom edge, rests on top of the limestone wall. The floor joist logs, in the upper left-hand corner, are lap-notched to the top of the sill. One can also see the forms of the limestone pieces and the mortaring between the stones.

layers.⁶ This hewing also results in relatively level interior and exterior wall surfaces. One notes, however, that the builder was

⁶Warren Roberts, "Some Comments on Log Construction in Scandinavia and the United States," *Folklore Today*, eds. Linda Degh, Felix Oinas, and Henry Glassie (Bloomington, Indiana, Research Center for Language and Semiotic Studies, 1976), 439.

not so concerned with using perfectly straight timbers, nor did he consider it necessary to square his logs. Where a log bowed or "fell off" Reusser chinked the resulting open spaces with smaller pieces of logs or split boards (Photo 3). The technique of chinking is common to both Anglo-American and German-American log structures. For Reusser, the use of chinking was further necessitated by his use of half-dovetail notching in the corners. The house height of the largest log is fifteen and one-half inches while the average height is ten inches. Full twenty-four foot logs are found on the east and west walls. It is likely also that Reusser utilized the trees near to the house, or higher up on the hill rather than those trees closer to the creek. The latter group, although they tend to grow faster, have a wider grain pattern which is more likely to rise when the wood becomes damp. Reusser had no time to age his logs, and thus probably preferred the closer-grained and stronger hillside trees.

From sill to second-floor joists are five courses of logs, then the same number of tiers rises from these latter joists to the rafter ends. The 1891 house is a one-and-one-half story house, and thus only partially confirms Charles van Ravensway's contention that "Germans in the U.S., and in particular, Missouri, preferred generous attic space, so they built the walls four or five courses of logs above the level of the first-floor ceiling."⁷ Even though Reusser utilizes the same amount of courses on both levels, the height of the second-floor wall is only sixty percent of the first floor. This difference is due to his use of the larger, heavier logs on the lower walls—not surprising considering the difficulty of moving the heavy logs into place. The building of horizontal log walls requires, obviously, a communal effort. While one man could fell trees, hew timbers, and form notches on his own, the help of neighbors was necessary to maneuver the logs into final position.

With the use of half-dovetail notching, the timbers rest freely upon one another and there are no protruding corners as is common to saddle or notched joints. The half-dovetail notch is

⁷ Charles van Ravensway, *The Arts and Architecture of German Settlements in Missouri* (Columbia, Missouri: University of Missouri Press, 1977), 115.

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found in many areas of the country; in Iowa examples can be seen on the log structures preserved in Decorah and Storm Lake. It is indeed interesting to note that usually drawn renderings of pioneer log structures portray protruding corner joints while documented houses present a different picture.

The second-floor joists are notched similar to the ground-floor joists. The protruding ends of the second-floor joists can be seen in Photo 3. The joists are of two varieties—those hewn on all four sides, and those hewn flat on top and bottom edges only. The two styles do not appear in any specific pattern, and it is difficult to explain their existence. The hewing of the inside and outside edges seems to have no pragmatic explanation; it is possible that these logs were cut for the exterior walls and then never used in that capacity. If these entirely hewn logs had half-dovetail ends, it would have been an easy task for Reusser to axe these away and form a lap notch.

The exterior dimensions of the 1891 house are shown in Figure 1. The rough dimensions, twenty-four feet four inches by sixteen feet four inches, are similar to the basic Anglo-American rectangular log structure dimensions of twenty-four feet by eighteen feet. On the exterior walls, Reusser used horizontal weatherboards on the outer surfaces. To form a level vertical plane for the covering, he placed one-inch by three-inch boards perpendicular to the horizontal logs (Photo 3). These strips are leveled, in turn, through the use of various widths of shims spaced between the vertical strips and the logs. Exposed portions of the house reveal shim blocks ranging from one-fourth inch to one and one-half inches in composite depth. Over the vertical boards (which are spaced, roughly, on two-foot centers) is nailed the weatherboarding. These boards are five and one-half inches wide, tapering from one-half inch at the top to one-eighth inch at their base. The longest boards measure twelve feet in length. The joints are staggered and the boards are overlapped so that the bottom edge of one board fits over the nailed top of the board directly underneath.

Considering the Iowa climate, it is not surprising that weatherboarding is used. Most log houses of the Midwest are similarly finished on the exterior face. The resulting surface aids



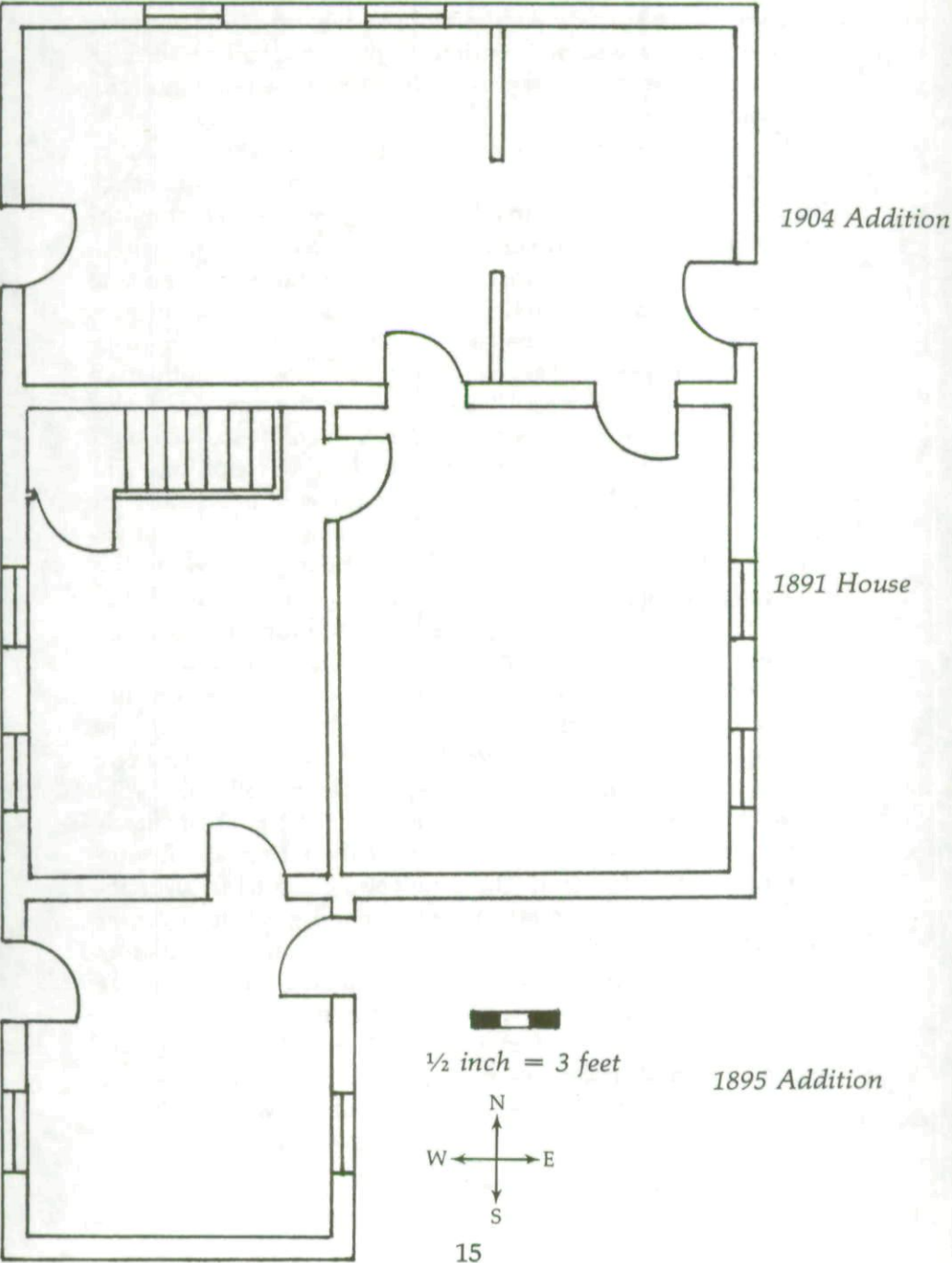
Photo #3

Section of west horizontal wall, 1891 house. Notice the unevenness in width of the large hewn logs, the pieces of wood used as chinking between the logs, and the remains of the plaster chinking. Broad axe marks are visible on the logs. Over the courses are the shims, vertical boards, and weatherboarding which provide the exterior finish.

water runoff; it also protects the nails from the rust and keeps water from penetrating the main structure at these points. Weatherboarding protects the log frame from moisture and decay. The space between the boards and the logs also provides an insulating space which traps cooler air. Reusser did not paint these boards, a common style in nineteenth century folk architecture, yet the remaining boards are in good shape. Donald Blair, in his discussion of the houses built by the Harmonists in Indiana, notes that the unpainted weatherboarding of houses built in early portions of the 1800s were in excellent shape even 120 years later.⁸

⁸ Donald Blair, *Harmonist Construction*, Indiana Historical Society Publications, vol. 23, no. 2 (Indianapolis: Indiana Historical Society, 1964): 75.

Figure 1 - Floor Plan of the Reusser House (Fayette County, Iowa)



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In addition to this exterior finish, Reusser utilized vertical, butting boards on the exterior corners. Beyond any decorative function of the trim, these boards have two practical purposes—they hold the weatherboarding in place by nailing through them, and the trim boards protect the ends of the horizontal siding from moisture.⁹

The construction of the gable ends and roof-framing needs to be discussed as a whole because the two are interconnected. Reusser seems to have framed the roof before constructing the gable ends. There are no vertical studs in the gable end, a situation that stands in contrast to most German-American and Anglo-American constructions. The builder utilized, instead, vertical planks which are nailed flat against the house (Photo 4). The bottom edges of these planks, which vary in width from five inches to ten inches and are all one inch wide, are nailed both to the horizontal logs and to a two-inch by six-inch plate which has been placed flat on top of the last course of logs. The tops of the vertical planks are nailed to the end rafters, and the exterior finish over these planks is the same type of weatherboarding previously discussed. The final construction appearance reflects, therefore, both the Pennsylvania German style of using vertical boards on the gable ends, and the Missouri German use of horizontal weatherboards in the same area.

The rafter construction is quite interesting. Reusser finished his horizontal log courses with the higher logs on the long east and west walls. He then spaced his rafters approximately two feet six inches apart, using ten rafters along each wall. The rafters are two-inch by four-inch boards, ten feet six-inches in length. A triangular notch is cut out of the rafters about fourteen inches from the end. These notched portions fit over the last log tier (Photo 5), and then the rafter ends protrude over the edge of the house. This technique keeps the water runoff from the roof away from the exterior walls. There are no gutters on this roof, nor anywhere else on the entire house.

Between the rafters, as they cross the log wall, Reusser placed sections of small poles, averaging four to five inches in diameter, to act as spacers. These spacers, chinked with the log be-

⁹Roberts, "Log Construction," 441.

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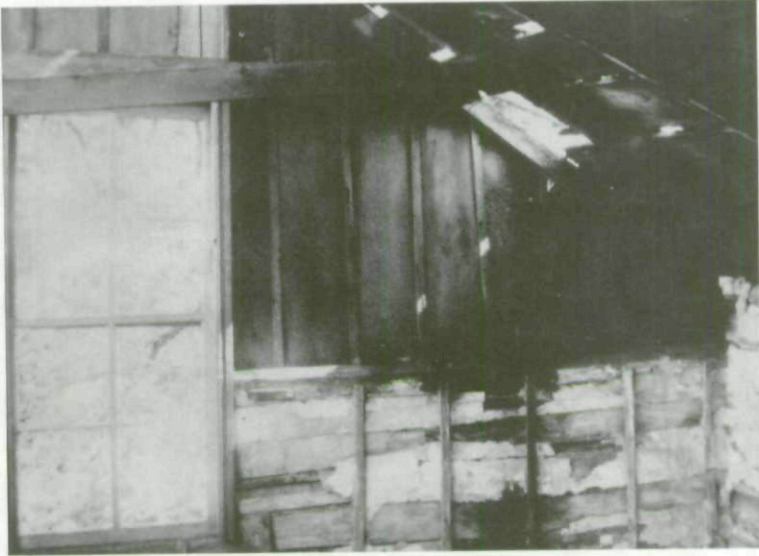


Photo #4

South gable-end of loft, 1891 house. This photograph shows the horizontal log walls with their interior plastic coat. One-inch boards, with their splices of vertical lathes, rise from the wall to the roof ridge. In the upper right-hand corner are the one-inch planks which form the roof foundation.

low by means of a lime plaster, prevent movement of the rafters either north or south along the wall. The rafters rise from the walls at an angle of forty degrees, resulting in a moderately-pitched roof. No ridge-pole is utilized in this house, reflecting the common German-American styles. The ridge joint of the rafters is fashioned with mitered angles and the rafter arms are nailed together. Small, triangular scraps of tongue-and-groove floorboard serve as braces to strengthen these peak joints. Additional lengths of one-inch by three-inch boards are nailed as space bracers at stress points along the rafter structure, but it is difficult to determine at what date these braces were added.

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Across the top edge of the rafters, Reusser laid long planks of one-inch by ten-inch by ten-foot boards. These boards provide, along with their function as a base for the shingles, a mechanism for "tying" the rafters together, and preventing motion north and south. The planks are laid from one-half inch to two inches apart, thus providing spaces for air to circulate among the shingles (Photo 5). The ends of these boards are butted and their joints are staggered. Above these planks, there is only one layer of shingles on the present house. It is assumed that these remaining shingles are the originals. They are wooden, machine-made shingles of varied widths, sixteen inches in length, and taper from three-eighths inch at the top to one-sixteenth inch at the bottom. The shingle overlap is ten inches and there is, of course, no tarpaper on the roof. For some reason this roof construction was not entirely effective, for Reusser's daughter Rose can remember feeling the effects of rain and snow in the loft area. Perhaps some of the wooden shingles were split and the water leaked between the spaces bridging the horizontal planks.

The chimney, in the center of the loft, rises through the center ridge area. This construction makes the task of flashing the chimney somewhat easier. Also, with Reusser's placement of his rafters, the truss system remains intact as only the roof planks need to be cut to provide a chimney outlet.

Interior

In terms of full framing, there are only two rooms in the 1891 house—the entire first floor, and the loft. Reusser constructed, however, partition walls just north of the center widths of both areas so that four rooms were formed. The north room on the first floor originally was a combination kitchen-dining room. In 1895, when the "new kitchen" was added to the west of the original structure, the older north room functioned only as the dining room. Rose Reusser recalls that this space was dominated by a long walnut table with chairs around the table, and an oil-cloth and kerosene lamp on its top. A cot was kept in the northwest corner, and there was "a shelf with a clock that had to be wound." The 1891 house south room, the larger first floor room, was utilized as a sitting room. Here Christian Reusser

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Photo #5

Rafter-horizontal log wall joint, 1891 house. The rafter ends are notched over the top tier of the log wall. Short spacer logs, unhewn, are placed between the rafters to prevent movement. Above these rafters are the one-inch planks with their gapped spacing.

had his desk and favorite chair. There were also two tables, chairs, and a large cupboard which held the family heirlooms and other precious objects.

The separating partition is constructed of vertical boards and battens (Photo 6). Rarely found in interior usage, this style of wall construction reveals varied widths (five to nine inches) of one-inch boards which span from floor to ceiling. These planks are nailed to strips of two-inch by four-inch boards nailed flat to both floor and ceiling. One-inch by three-inch boards are used as battens along the board joints. The wall is actually built in two sections, one on each side of the chimney. It is painted brown, but it is not known if Reusser was responsible for this work. Today there are thin sheetrock panels nailed on the interior wall, but these are definitely more recent improvements.

One set of floor boarding is laid north and south along the



Photo #6

Section of interior wall of 1891 house. The painted and unpainted areas indicate that battens originally covered the vertical board joints. These boards, as well as the spaces between them, vary in width. The thin double-sheet of plasterboard were added at a later date.

entire first floor. There are three-fourths-inch by five- and one-fourth-inch tongue-and-groove boards, laid with the joints staggered. The longest boards are eight feet in length. The floor boarding is not nailed directly to the log floor joists. Thin strips of lathing are first nailed to the joists to provide a level surface, then the floor boarding is nailed through this lathing and into the joists. In the north room, a second floor is constructed in similar style, only this second layer runs perpendicular (east-west) to the bottom boards. The sitting room floor was covered with wall-to-wall rag carpeting. Rose Reusser remembers this carpet all-too-well,

We had a carpet in the sitting room. We had to sew rags, and oh how I hated to sew those carpet rags. All our clothes, our aprons, were torn and then they were sewn together. Then they

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were taken to a Mrs. Eastman here in Elgin that did this . . . she had kind of a loom you know, I can't think of what they call it, weave I suppose. Then she would weave these carpets in strips and then we would sew them together. We had wall-to-wall carpeting I want to tell you . . . Underneath that was straw. Then we had a carpet stretcher, and we would take that carpet and stretch it, and stretch it, and stretch it. Every spring that carpet had to be taken out and that straw was nothing but powder. Then the straw was thrown away and new straw came in. We had carpet beaters. We would take that carpet out and beat the daylights out of it, and then put it back with carpet tacks.¹⁰

Although the pairs of windows in these two rooms are directly opposite one another, they do not function primarily as aids for ventilation. There are no fireplaces in the house. The Reussers always used wood-burning stoves, both for heating and cooking. Each first floor room had its own stove and separate chimney entrance. In addition to the ground floor chimney exit, some of the stove's smoke (and heat) was directed, via an additional pipe, to the loft. This pipe exited vertically from the stove, passed through a hole cut into the ceiling boards (Photo 7) between the second floor joists, and then protruded through a hole cut into the loft floor. The pipe continued, in the loft, for five additional feet in a vertical direction. Finally it was angled into the chimney. The ground floor stoves helped then to heat both floors, and bear similarity in purposes (though only somewhat in construction) to the "Dutch drum" heating technique utilized by the Pennsylvania German settlers in Harmony, Indiana.¹¹

The windows are all mass-produced six-pane units, two feet four inches in width. Reusser constructed all the necessary case-ments, stops, runners, etc. Each rough opening is trimmed on the interior face with one-inch by four-inch boards, and the

¹⁰ Interview with Rose Reusser, November 3, 1977.

¹¹ Blair, *Harmonist Construction*, 71-72. "By means of a 'thimble' through the ceiling and a short pipe, the stove vented into a 'dutch drum' in the large room upstairs. This drum was metal and about three feet in diameter and four feet high, and it, in turn, vented into the flue about the level of the upstairs ceiling."

same material is used to frame the window openings cut into the horizontal log walls. Cutting door and window openings into the solid log wall, rather than building the walls around these items, is a common feature of both Swiss-German and Anglo-American styles.

There were originally two doors to the outside. The west door, from the north room, provided easy access to the wooded areas, and also to the creek and spring. Its off-center location on the long-wall is typical of German-American log structures. The east door, from the sitting room, faces the direction from which visitors were most likely to arrive. As the Reusser house does not front on any public road, the question of where to place a front entrance does not seem to have been of great importance. With the outbuildings to the north, one might look for a south "front" facade. Yet the south wall is a gable wall, and Swiss-German houses very rarely have a gable-end door. The east door should then function as the "front" door; however when Christian added the lean-to, in 1904, to the east end, he included no doors on that side.

The door framings are similar to those of the windows. The 1891 east door is now gone, revealing a rough opening of two feet six and one-half inches. The west door is a common four-pane unit, with mass-produced hinges and latches reflecting the common style available at the turn of the century. The west door is two feet four inches wide and seven feet one-fourth inch in height. The interior wall door has a rough opening of two feet six and one-half inches, but the actual unit is gone. The remaining frame is quite interesting as it consists of 'cripples,' threshold, and header constructed from common tongue-and-groove floor boarding. Reusser seems to have employed whatever materials would fit the task in this, and other, interior framings.

The ceiling boards are nailed directly to the second floor joists. These boards, standing at a height of seven feet ten inches, are three-fourths-inch by three-inch tongue-and-groove boards with the longest units eight feet in length. The boards are characterized by two thin grooves which run the length of the board in the center area. The grooves are one-fourth inch apart

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Photo #7

*Stovepipe holes and ceiling of ground-floor.
The lower stovepipe hole leads to the chimney behind the wall, while the upper opening, in the ceiling, leads to the loft and provides the mechanism for carrying heat to that area. This photograph also gives a clear view of the "car-siding" used in the ceiling.*

and the strip between them is slightly rounded (Photo 7). In Indiana this style of wood is sometimes termed "car-siding" (because of the board's use in the construction of railroad cars), but I have not discovered any local names, in Fayette County, for this finishing material. (As this lumber is used throughout the Reusser house, it will hereafter be referred to as "car-siding" to avoid redundant explanations.) "Car-siding" appears in many houses throughout the Midwest and seems to have come into popular use in the late nineteenth century.

The interior finish on the exterior walls is the same for both rooms. From the floor to a height of two feet nine inches, Reusser utilized "car-siding" nailed in vertical fashion to lathing placed horizontally along the log walls. In some places two layers of lathing are used in order to level the vertical plane. A strip

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of one-inch by two-inch slightly-rounded molding is nailed flat on the top edge of the "car-siding," finishing the wainscoating appearance. Above the molding the "car-siding" is again used; however, here the wood is nailed horizontally to vertical lathing spaced eighteen inches apart (Photo 8). This finishing style continues to the ceiling. A baseboard of straight one-inch by four-inch board is also used, while the ceiling wall joint is sealed with chamfer strip molding.



Photo #8 1891 house interior finish on ground-floor.
The use of "car-siding" nailed to vertical lathes on the horizontal log walls marks this finish. Notice that the log wall was chinked with plaster before this finish was applied.

The final feature of the main floor area is the boxed stairs along the east wall of the north room. Enclosing the stairwell is a common German-American log structure component, though it is often found in Anglo-American structures as well. The stairs themselves are of the "ladder" style, utilizing one-inch by ten-inch stringers. The treads, twenty-six inches wide, rise eight feet over a run of six feet four inches. There is, then, quite a steep

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Photo #9

Exterior view of boxed stairway, 1891 house. One-inch wide planks are utilized to enclose the stairway which rises along the east wall of the north ground-floor room. Vertical wainscoating lines the lower section, with wallpaper (of which only tattered pieces remain) above this finish. A board-and-batten door, not visible, spanned the opening to the stairs.

climb over the nine stairs. The west side of the stairwell, facing the interior room, is enclosed with one-inch planking (Photo 9). These boards are toe-nailed to both floor and ceiling by means of a strip of two-inch by four-inch lumber nailed as guides in these areas. The support provided by this wall is important, for Reusser cut those portions of the second floor joists which protruded into the entire stairwell area. The wall thus supports the shortened ends of these joists. The enclosed stairs, and the door leading to the passage, function to keep the downstairs warm by closing off air passage to the loft. A closed stairwell also lends privacy to the main living area.

Wainscoating formed with "car-siding" is utilized on the west

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face of the plank wall. Above the molding, the wall is papered to ceiling level. The door leading to the stairs is two feet four inches in width and six feet six inches high. It is constructed of vertical boards and battens, with the long board material comprising three-fourths-inch by five and one-fourth-inch tongue-and-groove boards (commonly used as floor boards), and the four horizontal pieces are one-inch by three-inch scraps. The battens are set in pairs, with the nails of one batten driven through the vertical boards and into the batten on the other side. The threshold is a section of one-inch by three-inch board nailed flat-side down.

Loft Area

The loft is partitioned by a wall running east and west, and the two resulting rooms are similar in size to those on the main floor. Although the wall is no longer standing, Rose Reusser remembers that it originally stood about seven feet in height, thus it did not reach the roof in its center portions. A partially-disintegrated board-and-batten door is found on the loft floor. The original passage through the wall was between the chimney and the west wall. It is impossible to predict the technique of the interior wall's construction, no scraps even can be found; yet one imagines that a board-and-batten style, similar to that of the main floor partition wall, was utilized.

Common three-fourths-inch by five- and one-fourth-inch tongue-and-groove boards are used to construct the loft floor. These boards run perpendicular to the floor joists' eastwest direction and are nailed directly to the joists. The longest floor boards are twelve feet in length, and there is no baseboard in the loft. Because of the height of the horizontal log courses, there is ample room in the loft. The ceiling height ranges from four feet seven inches along the east and west walls to ten feet six inches from floor to ridge.

The north room of the loft was the children's bedroom, and it is into this room that the stairs ascend. The room's walls are unfinished, with one six-pane window in the center of the gable end. The floor hole for the vertical stove pipe, discussed previously, is located eighteen inches north of the chimney. The south room was the parents' bedroom, and the walls in this area

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are partially finished. Vertical lathing, spaced on eighteen-inch centers, still lines the log wall of the gable end (Photo 4). One finds pieces of "car-siding" on the floor of the room; it is likely that these boards provided the interior finish over the lathes. It does not appear that any finish was utilized over the vertical boards extending from the top of the log wall to the ridge. As a final finishing touch, Reusser nailed long, varied widths (seven to eleven and one-half inches) to the rafter undersides. These boards provide a rough ceiling, and they also function as further space braces for the rafters. This practice was followed only on the roof's eastern pitch. The half-finished ceiling and the half-finished loft both indicate scarcity of time, materials, and money. Rose Reusser commented, "He [Christian] just never got around to doing it." (Finishing the north end).

Chimney

The chimney rises vertically from the basement dirt floor to one tier of bricks above the cement rain-cap, fifty-two inches above the ridge. The total height of the structure is almost twenty-eight feet. Kiln-fired red bricks, most likely purchased from the nearby Clermont Brick Kilns, are utilized throughout the structure. The chimney measures one foot nine inches on its north and south sides, and one foot six inches on the east and west sides. As the structure is still in perfect condition, it is almost impossible to predict the walls' thickness. One assumes that since the average full-sized brick measures three and one-half inches in width it is probable that each course is a single brick wide. A single course of bricks for a chimney of these dimensions defines an area of 1,323 cubic inches. Allowing that seven and one-half bricks is the minimum amount needed to frame one course, the 525 cubic-inch total of these bricks would not leave enough flue space if the tiers were constructed two bricks wide.

1895 Addition

Basement, Foundation

Christian's first addition joins the original dwelling on the westnorth wall. The basement is a full twelve feet by twelve feet with a height of six feet six inches from the concrete floor to the

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exposed floor boards of the first floor. The basement frame consists of cinderblock walls on the north, south, and west sides. The walls rise directly from the floor, and the rough blocks measure ten inches in height, sixteen inches in length, and eight inches in thickness. The blocks are mortared, and the builder used special, ashlar-faced blocks to highlight the exterior corners (Photo 10).¹² The westwall doorway is framed with one-inch by six-inch boards. The door itself, however, is gone. There is



Photo #10

West-south corner of foundation, 1895 addition. The ashlar-faced blocks dominate the foreground of this photograph. Small portions of the exterior edge of the hewn sill log can be seen under the vertical boards which provide the exterior finish. A close look at these boards reveals circular saw marks from a milling process.

¹² Ashlar-faced blocks were commonly used as decorative items in the latter portions of the nineteenth century.

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Photo #11

Foundation, sill, and joist construction, 1895 addition. The sill log, unhewn on its bottom edge, is mortared over the last course of cinderblocks. The floor joists are mortared in a similar fashion, with half-height cinderblocks used as spacers between the joists. Only the top edge of these logs are hewn flat, anticipating the floorboards.

also one window, a sixteen-inch by eight-inch single-pane unit, in the south wall. The header, sill, and side boards are all constructed with one-inch by four-inch boards.

The basement has no east foundation wall. The portion of the west limestone wall of the main foundation which fronts on the addition has been removed. The result is an easy access from one cellar to the other. Oddly enough, Rose Reusser states that food storage continued under the main foundation even after this roomy addition. It is possible, of course, that the cinder-block wall functions only as a convenient and structurally-

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sound method for supporting the new kitchen.

Two logs, each eight inches in diameter, serve as sills on the north and south walls. These logs are hewn flat on the top edge, in anticipation of the floor boards, and on the outside edge, in anticipation of vertical siding. The logs, with their undressed bottom edges, are mortared onto the cinderblock walls (Photo 11). This technique may reflect the notion that undressed logs provide a more receptive surface for cement and plaster. Four log joists, averaging seven inches in diameter and hewn flat only on their top edge, are spaced approximately two feet six inches apart between the two sills. In order to provide a support for the joists' eastern ends, a summer beam is utilized where the eastern wall would normally be found (Photo 12). Summer beams are often found in Pennsylvania German dwellings, but seem more rare in Missouri German houses.¹³ The east wall beam is a milled piece of lumber measuring seven and one-half inches square. It is supported by two unhewn pole logs, each seven inches in diameter. These supports are located approximately three feet from each side wall. The floor joists rest on the top of this beam by means of a rectangular notch which is cut into the bottom of the joists' east end. As the beam appears today, it has cracked and broken at the points of contact with the support logs. Whether or not this situation is due to the method's shortcoming as a wall substitute is impossible to determine because of the house's general physical deterioration.

Another summer beam of similar construction, though still today in good condition, is located three feet six inches west of the aforementioned unit. The joists cross over the top of this beam and are held in place over the support by means of a rectangular notch cut in the joists' underside. No nails or pegs are utilized to hold the joists in position though a later addition of spacer boards between the joists was employed. On their west ends, the floor joists rest directly on the top of the block wall. Cinder blocks of half the normal height are used as spacers between the joists where they cross the wall. This entire tier, up to the top

¹³ van Ravensway, *The Arts and Architecture of German Settlements*, 116-117.

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Photo #12

Summer beam and floor joists, 1895 addition. This supporting beam, with its circular saw marks still visible, forms the east wall of the foundation. The floor joists are notched over the beam by means of a rectangular notch cut into their underside. Note that the standing log which appears to be behind the beam was originally placed under this span for support.

edge of the joists, is heavily mortared. The resulting joint is very tight and strong.

Framing

The 1895 addition walls employ vertical studs, yet here Reusser has used pole studs in the exterior walls. These poles, averaging six inches in diameter, are wrapped in a protective paper. The corner poles (northwest and southwest corners) are hewn

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flat on all four sides, while the logs along the wall lengths are hewn on only the inside and outside edges (Photo 13). The poles are tapered on their bottoms into a square tenon for insertion into a similar-shaped cavity cut into the sill. The studs' tops are sawed flat in order to provide a level nailing surface for the two one-inch by six-inch boards which comprise the plate. The vertical studs are not spaced on any consistent center measurement. The south wall, for instance, is spaced at two feet two inches, two feet eight inches, two feet four inches. There also is no diagonal bracing, more common to half-timber construction, to prevent sway of the heavy studs.

It is impossible to know for certain why Reusser used this style of construction.¹⁴ The trees were certainly near by, and the builder was not a rich man. Yet with the amount of milled lumber Reusser did use, and with the near proximity of at least two sawmills, the logs' appearance remains puzzling.¹⁵ There does not seem to be any precedent for this style of frame construction in other Swiss-German-American or German-American areas. A decisive factor may be the poles' strength in relationship to the joint at the sill. The task of securing milled two-inch lumber to a log sill is not an easy one. Whereas poles can be gently tapered without losing a great deal of strength at the joint, a milled two-inch wide board does not offer much excess wood for tapering without severely weakening the shaped end of the board.

The exterior wall finish presents another dilemma. From sill to plate, Reusser nailed wide planks in vertical fashion. Appearing in various widths (five inches to ten and one-fourth inches), these butted boards are eight feet four inches in length and one inch wide. The north and south walls are then covered with overlapping weatherboard, similar in style and technique to the

¹⁴ See Fred Kniffen and Henry Glassie, "The Building in Wood in the Eastern United States: A Time-Place Perspective," *The Geographic Review*, 56 (1966): 43, 46-48. The authors present a succinct discussion of this architectural style, especially among the French in the U.S.

¹⁵ Jason A. Swisher, *Iowa: Land of Many Mills* (Iowa City: 1940), 86-97. The author notes at least six mills in "Little Switzerland" by 1865.

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finish used on the 1891 house. On the east, gable end, however, Reusser covered the joints in the vertical boards with one-inch by three-inch battens. This finish, which stands from sill to ridge, is more suggestive of an outbuilding than a house. Use of the board-and-batten style might confirm the notion that the west side is indeed the back-side of the house, but then why did Reusser use special, ashlar-face cinderblocks on the west foundation walls? These blocks certainly add an aesthetically appealing dimension to the addition's foundation. As for the gable end wood finish, Reusser may have exhausted his supply of weatherboarding and therefore resorted to the rougher finish.

The roof of the 1895 addition is formed by five sets of pole rafters. These poles, averaging approximately four and one-half inches in diameter, are striped of their bark. The rafter ends are notched over the plate by means of a chipped-out notch cut into the underside of the pole. These notches are eighteen inches from the poles' ends, and thus there is this amount of roof overhang to aim water run-off away from the exterior walls. The rafters butt together at the ridge. They are then nailed, and their tendency to collapse or pull apart is checked with the use of trapazoidal braces constructed of scraps of tongue-and-groove floorboards. The rafter sets are spaced approximately two feet three inches apart. The westernmost set rises directly over the west wall, while the easternmost set is eleven inches from the 1891 section. Above the rafters, the roof construction is similar to that of the older portion, with the use of long, horizontal boards and machine-made shingles. At their eastern edge, the horizontal planks butt against the 1891 house west log wall. The pitch of this roof is thirty-five degrees.

Interior

The addition's interior space was utilized as a kitchen area. Rose Reusser recalls that the area was dominated by a cook stove, with water reservoir, in the northwest corner. There was also a small sink along the north wall, a small table, and a chest

of drawers in which the dishes were kept.

The ceiling joists, spanning north and south, are formed by two-inch by four-inch boards. These joints are toe-nailed into the plates and are spaced on even two-foot centers. The ceiling itself is composed of "car-siding" boards, standing at a height of seven feet five and one-fourth inches. A stovepipe hole, eight inches in diameter, is located in the northwest corner, two feet four inches from either wall. There is no floor in the small attic area and no access to the crawl space.

All of the interior walls have three-fourths-inch by three- and one-fourth inch tongue-and-groove boards as a vertical wainscoating, reaching from the floor to a height of two feet nine inches. To level the vertical plane, and to provide a nailing surface, Reusser laid horizontal strips of one-inch by three-inch boards against the vertical poles. There are two tiers of this stripping—at floor level and two feet nine inches above floor level. The wainscoating is topped off with a rounded strip of one-half-inch by one-inch molding. Above the molding is "car-siding" laid horizontally (Photo 13). This finish was not begun, however, until lathes were placed along the interior, hewn edge of the vertical poles. It is important to note that Christian did construct an interior east wall, though this structure is not a free-standing unit. He did this by nailing the finish directly to the west wall of the horizontal log structure after removing the exterior weatherboarding from this section.

The floor of the kitchen is constructed with three-fourths-inch by three-inch pine boards, nailed directly to the floor joists. There are also two four-pane windows, of the sliding-sash type, and three doors. The interior door, leading to the north room of the 1891 house has been discussed. The south exterior door is gone, though there are remains of a set of wooden stairs, ladder-type, which climbed the three feet six inches from ground to threshold. The north wall exterior door is of board-and-batten construction. The vertical boards are, not surprisingly for the Reusser house, lengths of "car-siding." Nine pieces of this board are held in place by two sets of horizontal one-inch by three-inch battens. The door is two feet six and one-fourth inches wide and seven feet three inches high.

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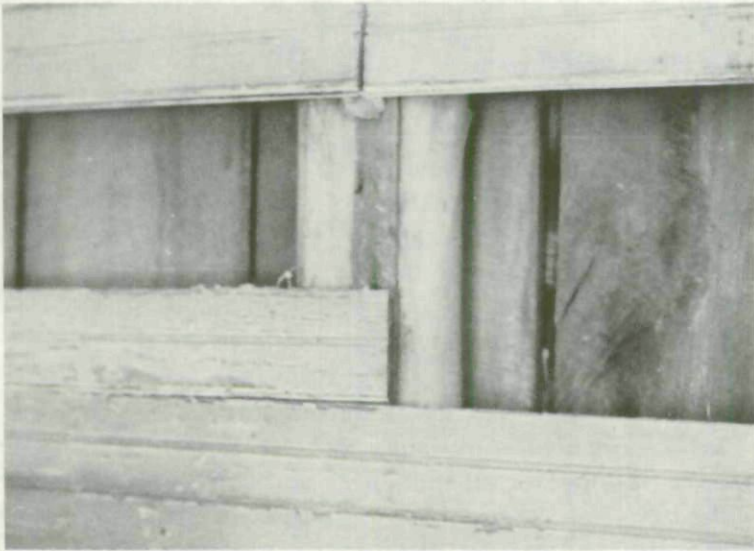


Photo #13

Pole wall stud, 1895 addition. These pole studs are hewn flat on their exterior and interior edges. The view from the interior shows the vertical lathes placed on the studs to provide a level nailing surface for the "car-siding" interior finish. Where the "car-siding" has been removed, one looks through to the one-inch wide planks which provide a base for the exterior weatherboarding.

1904 Addition

Framing

In 1904, Christian added a full-size lean-to the eastern wall of the original log structure. By this date the Reusser family numbered ten persons, and more living space was necessary. The lean-to, which gives the house a saltbox silhouette from the east side, added a good-sized parlor and small bedroom. This type

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of a full, one-story addition is common to both Anglo-American and German-American houses, though sometimes the addition is placed on the short, gable-end. The Reusser addition is remarkably similar to van Ravensway's description and photos of the lean-to addition on the Schweighausser house, a German-American log house in Missouri.¹⁶

The Reusser addition is twenty-four feet four inches by twelve feet and one and one-half inches. There is no basement, cellar, or foundation. As the ground on the north and south sides of the lean-to rises at a moderate pitch, it is likely that the builder had to do a fair amount of digging to level the terrain before construction. The sill rests directly on the ground which thus exposes the timber to constant ground moisture. Four logs, averaging eight inches in diameter, form the sill. The timbers are hewn flat on their bottom edges and are connected in their corners by pegged lap (or rebate) joints.

The north, south, and east sill logs provide the base for construction of vertical stud walls. These exterior walls are framed with two-inch by four-inch studs, spaced on two-foot centers, and toe-nailed into the log sill. Between the studs is brick nogging (Photo 14). The utilization of bricks between studs in balloon frame construction is also found in Pennsylvania German construction, and also among the German-Americans in Wisconsin, Missouri, and Indiana.¹⁷ The nogging may be regarded as the survival of a technique associated with half-timber constructed houses in Europe, and then later in a few areas of the United States. This style of construction is, of course, very practical. Most importantly, the bricks provide a strong wall with good insulation. In 1904 it wasn't possible to buy synthetic insulations. The fire-bricked material also functions as a fire-prevention material. Brick nogging is rarely used in interior walls.

¹⁶ van Ravensway, *The Arts and Architecture of German Settlements*, 135, 137.

¹⁷ Kniffen and Glassie, "Building in Wood," 53; Richard W. E. Perin, *Historic Wisconsin Buildings: A Survey of Pioneer Architecture 1835-1870* (Milwaukee, Wisconsin State Historical Society, 1962). The author notes several examples of brick nogging among German settlers; van Ravensway, *The Arts and Architecture of German Settlements*; Blair, *Harmonist Construction*.

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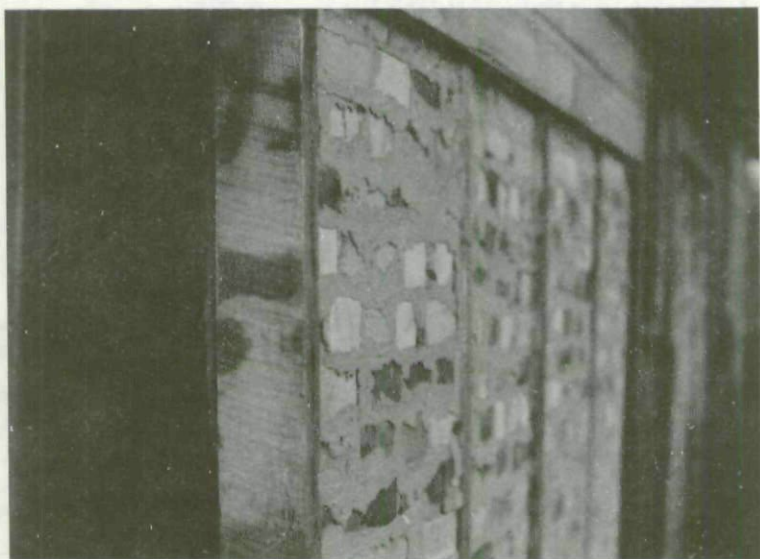


Photo #14

Brick nogging in stud walls, 1904 addition. Between the two-inch by four-inch studs is placed the brick nogging. The blend of the darker, red bricks with the lighter, white bricks can be seen as well as the heavy mortaring in these 'panels.' The exterior weatherboarding is nailed directly to the wall studs.

An important factor in Reusser's selection of his lean-to construction materials was his employment at the Clermont Brick Kilns. This business had been a thriving industry since it was first begun in 1855. In 1874, the owners shipped out nineteen railroad carloads of materials.¹⁸ In the early 1900s, Swiss-born Christian Miller was owner of the kilns, and in 1909 he sold seven million bricks. The raw materials used in the brick-making process were dug from the heavy clay land in the Turkey River valley. Reusser was working the evening shift at the brick works in 1904. It was thus very convenient for him to pull

¹⁸Frank J. Parsons, *History of Fayette County, Iowa* (Davenport, Iowa, 1923), 144.

his stone boat to work, and then return in the morning with a full load of red and/or yellow brick.

Both types of bricks are used in the nogging. They average two and one-fourth inches in height, eight inches in length, and three and one-half inches in depth. The yellow bricks, sun-baked most likely, provide adequate insulation but they cannot carry the weight of the fire-baked red bricks. There is no distinctive pattern of the two styles, but each 'panel' is at least thirty percent red brick. Reusser fit the lowest tier of bricks inside a shallow, three-inch wide groove cut into the center of the top edge of the sill logs. There is a thin layer of mortar below this first tier, and the rest of the 'panels' are heavily mortared. A plate of two-inch by four-inch boards tops off the walls at a height of seven feet ten inches. No diagonal wall braces, as are common in half-timber constructions using brick nogging, are found.

Beaded weatherboarding is nailed to the exterior faces of the studs. The bead is large, occupying the last inch of the tapered five- and one-fourth-inch tongue-and-groove boards. The tongues face skywards so that the rain runs off more easily and cannot enter into and decay the grooves. The weatherboarding provides added insulation and also keeps moisture away from the bricks and mortar (Photo 15). The lean-to is a self-standing structure; the studs closest to the 1891 house are kept one inch away from the horizontal log walls. The resulting space is filled with thin pieces of rock and then covered by a section of vertical trim.

The rafter arms of this addition are constructed entirely of two-inch by four-inch boards. The builder utilized thirteen units in the roof construction, each composed of one ceiling joist and one rafter with the latter nailed, at their joint, on the north side of the joist. The joists rest directly on the east wall plates, with an average spacing of two feet between each unit. The western ends of both the joists and the rafter arms are toe-nailed directly to the eastern horizontal log wall. Above the rafter arms Reusser employed the same roofing technique as on the 1891 and 1895 structures—long one-inch planks as a base for wooden shingles. The final pitch of the third roof is twenty degrees, the lowest in the house.

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Photo #15

North side of 1904 addition. The slope of the roof of the addition is nearly half of the adjoining 1891 house. The contrasting styles of weatherboards can be seen with the beaded boards of the addition appearing flatter because of their tongue-and-groove joints. The door is a common four-pane unit.

Interior

There are two interior walls. The long west wall is framed with two-inch by four-inch studs positioned such that although the wall forms the western perimeter of the lean-to, the wider faces of the boards face the interior space. The wall is thus two inches wide. These studs are nailed to a strip of two-inch by four-inch board placed along the hewn top surface of the western sill. In today's context, such a method of construction seems somewhat odd. Why did Reusser decide to build this wall only one inch away from the already existing eastern log wall? One hypothesis is that the new wall functioned to support the ceiling joists. The interior wall that divides the lean-to into two rooms

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is more conventional in construction. Resting on top of the floor boards, the wall is composed of two-inch by four-inch vertical studs spaced at sixteen-inch centers.

The door opening in the dividing wall is three feet nine inches wide, and is framed with pieces of the exterior beaded weatherboarding used as sill, header, and cripple studs. Again, the builder appears to frame his doors and windows with the best of suitable leftover materials. The door itself has been removed and there are no clues as to the type of fixture that spanned this large opening. The ceiling boards, "car-siding," run uninterrupted over the wall, leading one to conclude that the wall was built in the final stages of construction. As a final exterior finish on both the interior walls, Reusser spanned the studs with horizontal lathing. These rows are spaced one-half inch apart, with the joints staggered every fourth lathe. Above the lathing is a coat of plaster.

The floorboards, common five- and one-fourth-inch tongue-and-groove units, run north and south, perpendicular to the log floor joists. The flooring is nailed directly to these joists, although occasionally there are pieces of lathe placed between the two surfaces to effect a more level surface. A baseboard of one-inch by four-inch white-painted board lines the floor-wall joint, but there is no ceiling moulding.

The larger interior room, the parlor, was kept closed-off most of the time from the rest of the house. Reusser never placed any stove in this room, thus the door to the dining room (1891 structure) would have to be kept open when the parlor was used on a cold day. The interior space of this "leisure-room" was dominated by a plush, red couch, an organ (played by Rose Reusser), a table, and some chairs. Two window openings are in the east wall. Although the fixtures themselves have been taken out, one may assume that the two-feet-four- and one-fourth-inch rough openings were filled with factory-made four-pane fixtures. By the beginning of the twentieth century, door and window fixtures produced in large factories were available throughout the Midwest. Reusser's window framing is quite interesting. On one long edge of each window, a stud provides the long frame. No 'cripples,' as are commonly used in modern balloon framing,

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Photo #16

Interior view, 1904 addition. The interior finish is a plaster coat over the bricks. An interesting item is the long rail which passes directly above and below each window, the boards functioning as sill and header. Short studs are utilized to keep a uniform stud pattern.

are utilized. The opposite long edge of the window falls between normal stud spacing, yet extra studs are not employed. Instead, Reusser has extended four-foot rails, functioning as sill and header, between the studs (Photo 16). The window's long edge which lies between studs is then framed by a two-inch by four-inch board rising vertically between the two rails. Short studs are found above the header and below the sill on the sixteen-inch center points. This style of window framing within the brick nogging is noted by Hansen as common in Swiss-German construction in Europe.¹⁹ It is logical that Reusser employs this

¹⁹Hans Hansen, *Architecture in Wood* (New York, 1969), 147. The author notes this style of window framing in Swabia, Wurtenburg, Alsace, and Switzerland.

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method because basic Anglo-American window framing patterns are not adaptable to Swiss-German brick nogging techniques.

THE REUSSER HOUSE combines quite a variety of materials and construction techniques in its three sections. It is not possible to arrive at any definitive conclusions concerning Swiss-German-American folk architecture from a single study. Because documentation of Swiss-German groups in the U.S. is lacking, German-American trends and styles have to serve as comparative evidences. The Reusser house contains elements which fit both Swiss-German-American and basic Anglo-American patterns. While the Elgin area provided Reusser with new stylistic building techniques, materials, and technology, he responded to the demands of his new environment. The qualities of the hardwoods found in the Pleasant Valley Township are similar to those of the hardwood forests which cover the area near Steffisburg, Switzerland. A Swiss-German immigrant was familiar with the use of the broad-axe in hewing timbers, whereas the Norwegian immigrant, from an area where draw-knives were used to shape softwoods into timbers, may have had greater difficulties in adapting his Old World techniques to the new environment.

Certain architectural elements in the Reusser house bear relationship to basic German-American patterns. These elements included the full cellar, boxed stairway, off-center door in the long end, brick nogging in the lean-to, and the stovepipe structure in the loft of the 1891 house. The uneven division of floor space in the lean-to is a separation which is more often connected with German-American than Anglo-American styles. Finally, the use of long rails to frame the window sills and headers in the lean-to are characteristically Swiss-German.

The Swiss-German-American architecture in Iowa is just beginning to be understood. It is now necessary to do a comparative survey of many houses, barns, churches, and other buildings in the area. These structures can further provide other types of information which are usually missing from written re-

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cords. It would be interesting, for example, to examine the artifacts found in those areas of northeast Iowa where German, Swiss-German, Norwegian, and Bohemian settlers lived near one another.

This study has been further complicated by the date of the structure's construction. By the turn of the century Iowa was in full economic contact with the eastern states, and a local builder did not have to depend solely on local materials. If Reusser had been forced to use only those materials which he could gather and construct for himself, then the task of identifying Swiss-German styles would have been simplified. Characteristics such as the use of horizontal log construction, pole rafters, balloon framing, and brick nogging comprise a conglomerate of elements rarely found in a single structure. Reusser certainly took advantage of all sources. The circular saw marks visible on some of the timbers (Photo 12 and 14) are evidences that some lumber came straight from a steam-powered sawmill. Other boards were planed at a mill. The horizontal logs can easily be accounted for, but the ashlar-faced blocks are not of local production.

Other puzzling features are the abundant use of "car-siding" throughout the house and the use of vertical poles in the 1896-97 addition. Without knowing the circumstances surrounding the construction it is difficult to draw any hard conclusions except to say that these elements do exist. Possibly Reusser was able to obtain "car-siding" at a special rate due to his job experience. It is not known if he had help during the construction, and if so, whether it was from the Anglo-American, German, Swiss-German, or Norwegian groups in the area. The mounting of the horizontal logs certainly required more than one person.

Structures like the Reusser house provide some evidence on the tenacity of European cultural traits and complexes in America. Even though most folk architecture studies emphasize structures built before 1875, the study of Reusser's house reveals significant clues on the adaptation of an immigrant group to living in the middle western United States.

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