

BUILDING THE FRONTIER HOME¹

Pioneers who constructed dwelling places in Minnesota Territory found their models in the homes of missionaries and fur traders who had preceded them in the region. Frequent descriptions of the work of cabin-building are recorded in letters and memoirs of missionaries. The enthusiasm of these early comers for their missions was not always coupled with training in the work of the frontier, and their homes were not as large and comfortable as those built during the fifties. Gideon and Samuel Pond, Presbyterian missionaries from New England, built a small cabin on the shore of Lake Calhoun in 1834. They laboriously peeled the bark from logs selected for the walls, to discover later that this was unnecessary. Timbers taken from a tamarack grove in the vicinity supported the roof of bark. The interior, which was divided into two tiny rooms by a partition, measured twelve by fourteen feet. As the walls were only eight feet high, there was no room above for a loft.²

Dr. Thomas S. Williamson and Alexander G. Huggins, missionaries at Lac qui Parle, in 1836 built an unusually large cabin by placing two logs end to end to form the length of each side. In 1839 they erected another log building to be used as a loom house, so their living quarters were not crowded by the equipment for weaving. Lucy M. Lewis, living at Leech Lake in 1844, where her husband was stationed by the American Board of Commissioners for Foreign Missions, sketched the outline and plan of her cabin

¹ This article is based upon a chapter in a master's thesis on "Frontier Homes and Home Management," which was submitted at the University of Minnesota in 1933. Accounts of frontier housekeeping and frontier food from the same thesis appear in the issues of the magazine for September and December, 1933. *Ed.*

² S. R. Riggs, "Sketch of Mr. Pond's Life," in *Minnesota Historical Collections*, 3: 359.

in a letter which she wrote at that time. There were two fairly large rooms in the cabin—the kitchen, which also served as a dining room, and the combined living room and bedroom. The interior “presents quite a comfortable aspect,” writes Mrs. Lewis, “when we are all seated around a fire of pine notts by the light of which Sister J. and myself sew.”³

The range in technical skill and financial resources of settlers led to wide variation in the method of cabin construction. A cabin built in St. Paul in 1842 might boast a shingled roof, while one erected nine years later in Mankato was roofed with bark, had a dirt floor, plastering of black loam, and a single opening that served both as a door and a window.⁴ In building the walls of the cabin, uniformly shaped logs were chosen and laid on the ground in the order in which they were to be raised. Two logs were placed in parallel positions, and grooves were cut near each end. Cross logs, notched to fit the grooves or “saddles,” were placed upon the bottom logs to make the framework. Each successive layer was “saddled” at the corners in this fashion; thus every log in the side was interlocked with those in the adjoining walls. Upper timbers often projected beyond the corners to some length, and household implements or hides of animals were hung upon them. The logs were rolled into place on skids with hand spikes to a point as high as the builders could reach. Forked sticks and guide ropes were used to lift the higher logs into place. The logs, if well fitted, did not become loose when doors and windows were cut out. Before the gables were laid, hewed beams were placed across the framework to serve

³ Lucy M. Lewis to John Seward, December 17, 1844, Lewis Papers; Mary Kerlinger, “Reminiscences,” 83, 95. The Minnesota Historical Society owns originals or copies of all the manuscripts used in the preparation of this paper.

⁴ J. Fletcher Williams, *History of the City of Saint Paul*, 119 (*Minnesota Historical Collections*, vol. 4); Thomas Hughes, *History of Blue Earth County*, 36 (Chicago, 1909).

as rafters. The shorter logs were used for the gables. These were tapered off to give the proper slope to the roof. Some cabins were built with grooved corner posts, into which the logs were fitted. This was known as the French plan. The home of John R. Irvine in St. Paul in 1843 was built in this way. A cabin in which all the logs in the side walls were placed upright was mentioned by one settler, who called it an "elm shack." It was built in this manner, the writer explained, so that the Indians could not climb up on the walls.⁵ The cracks between the logs were usually filled with split wood, and plastered inside and out with a mixture of clay mortar and marsh hay. Mud plastering was common in the Scandinavian settlements.

Roofing materials varied from rough dirt or straw to shingles. The cabin of rough logs near Traverse des Sioux in which the family of Alice Mendenhall George lived in 1854 was roofed with shingles made by hand. A log house on a claim near Mankato was built without nails or sawed lumber. Its roof was made of small basswood logs split and hollowed out. The first row of logs was laid hollow side up, and the next rounded side up, with the side of each log fitting into the hollow center of the log in the row beneath. Thus, the second row of logs closed up the gaps between the edges of the first. This "trough" roof formed good protection against rain, although it was not secure from cold. A "shake" roof resembled a shingled roof, for the "shakes" were split pieces of wood about an inch thick, six or eight inches wide, and three feet long. They were put on the roof in an overlapping fashion, and the lower ends were often arranged loosely so that they could be pushed back in fair weather to provide light and ventilation. A cabin built in the vicinity of the Blue Earth River in 1855 had this type of roof. A log building on a claim near Wabasha Prairie was constructed with one wall higher than

⁵ Lucy L. W. Morris, ed., *Old Rail Fence Corners*, 202 (Austin, Minnesota, 1914).

the other. The roof was laid on a slant between the two walls, thus forming the so-called "shanty" roof.⁶ The home of Julia K. S. Hibbard in East Prairie in 1856 was the only log cabin in the neighborhood with a shingled roof. Shingles were offered for sale in St. Paul throughout the territorial period, but many people could not afford to purchase them. One enterprising immigrant wrote to a friend in Chicago in 1855 asking him to learn the prices and kinds of desirable shingle machines, as he was considering the construction of a shingle mill beside the Minnesota River. He commented that "Immigrants without numbers are rushing to this region, and building materials of all kind are lacking everywhere."⁷

Spaces for doors and windows were usually cut in the logs after the walls had been constructed. The doors customarily opened inward and were fastened from the inside by cross bars. If glass was used in the windows, the panes were small. A log house near Mankato had two windows, each with four glass panes measuring eight by ten inches.⁸ Two windows, however, were considered a luxury, and many cabins had only one. The floor might be merely of earth well tramped and beaten. A clay floor well packed was not affected by water. A puncheon floor had the advantage over either of these for comfort and warmth. This was made by splitting logs and covering the floor space with them, the rounded side buried in the earth, and the flat surface smoothed off so that each log touched its neighbor. After the logs settled somewhat, they became firm; if one piece settled unevenly, it was removed and rebedded.

⁶ Alice Mendenhall George, *Story of My Childhood*, 19 (Whittier, California, 1923); J. A. Kiestler, *History of Faribault County*, 40 (Minneapolis, 1896); Marshall T. Comstock, "Early Reminiscences," 15; Edward B. Drew, "Pioneer Days in Minnesota," 91.

⁷ Julia K. S. Hibbard, "Reminiscences of Early Days, 1856-68," p. 8; Conrad Peterson, "Letters from Pioneer Days," in Swedish Historical Society of America, *Yearbook*, 9: 91 (St. Paul, 1924).

⁸ Comstock, "Early Reminiscences," 16.

The fireplace in many cabins extended outside of the building. It was made of wood, lined with stone or clay to a height of four or five feet to protect it from the fire, and above that with a crib of sticks plastered inside with clay mortar. Stones formed a more satisfactory lining than mud and sticks, according to Sherman Hall, a missionary. Sometimes the fireplace was made of rolls of clay twenty inches long and four inches in diameter, placed on a framework of upright poles and cross sticks. Each layer of rolls was molded and rubbed together until the chimney was formed. Fireplaces were not always built in the cabins of the fifties, however, because cooking stoves with tin pipes were often brought along by the settlers, and these simplified cooking and heating problems.⁹

The time required to build a cabin depended largely upon the experience of the workers. In 1857 Benjamin Densmore worked with a group of men building cabins on town sites recently surveyed near Otter Tail Lake. His record for October 31, 1857, reads: "The woods resounded to the blows from our axes as we wrought a rude cabin from the forest; heavy logs and a wet drizzling rain were no obstacle to our proceedings though we willingly acknowledged the disagreeableness of the latter. At night we had the body of the cabin complete, and material prepared for the roof." Lewis Harrington worked for five successive days in building a cabin near Hutchinson in 1855. On the first day he cut and prepared the logs; on the next, he laid the walls and camped inside because the west wind was so cold. Chinking and daubing, and manufacturing the roof, the window, and the door took three days more.¹⁰

⁹ A. E. Strand, ed., *History of Swedish-Americans of Minnesota*, 355 (Chicago, 1910); Sherman Hall, "Reminiscences of Missionary Life in the Northwest," in *New Era* (Sauk Rapids), June 28, 1860. The newspapers used in the preparation of this article are in the collection of the Minnesota Historical Society.

¹⁰ Lewis Harrington Diary, December 9, 1855; Benjamin Densmore, "Journal of an Expedition on the Frontier," *ante*, 3: 197.

Not all the cabins built by the early settlers remained their permanent homes. Cabins were often torn down and reërected in different locations for family use or for stables. One Swedish immigrant in the Middle West in 1849 wrote that "new settlers build houses of logs like barns and put clay in the crevices and manage to get along until the soil is tilled and cattle is raised; afterwards they build for themselves fine houses and plant gardens, but six or seven years are needed for that."¹¹ The development of the lumber industry made sawed wood available, if the settler had money to purchase it. The frame houses that gradually replaced log cabins in the little villages along the Mississippi and Minnesota rivers were marks of advancing prosperity.

Throughout the territorial period log cabins were built in rural districts, although after 1851 their number decreased in St. Paul. Hastily constructed frame houses sheltered many immigrants. Log cabins were often disguised by covering the exterior with siding. Many of the settlers who took up land in the new towns of the fifties lived in log cabins for years after this decade. In such places as Marine, Scandia Grove, Long Prairie, Winona, Northfield, and Rochester log cabins were used as dwellings long after they had virtually disappeared in St. Paul and St. Anthony.¹²

If the cabin was to be the permanent home of the family, it was adapted to the size of the group and many conveniences were added. A cabin with one large room was constructed in Redwood Falls in 1864. Later in the same year rooms were added on three sides. By 1865 the cabin had been enlarged to a six-room house, which was occupied by three families. The accommodations furnished in the

¹¹ Staffan Staffanson to friends and relatives in Sweden, October 9, 1849, in *Minneapolis Journal*, October 10, 1920.

¹² Strand, *Swedish-Americans of Minnesota*, 406; P. P. Quist, "Recollections of an Immigrant of 1865," in *Swedish-American Historical Bulletin*, 4: 12 (September, 1931); *Daily Post and Record* (Rochester), February 25, 1916.

cabin evidently depended more upon length of residence than upon the particular date of erection.

As the amount of sawed lumber and of capital in the territory increased, carpenters, masons, and painters were attracted to the region. By the summer of 1851, according to John H. Stevens, there were represented in St. Anthony all the various artisans needed to complete a building from foundation to ridge. Dwelling houses in the process of erection in 1857 included "everything from the balloon shanty to the most costly brick and stone edifices." Frequent references were made to the "balloon-frame" buildings constructed in St. Paul to house the rapidly increasing groups of laborers. The "braced-frame" houses of the East were replaced on the frontier by houses built on a "balloon frame," an inexpensive type of construction in which stability depended more upon exterior covering than upon the joints in the framework. This method of construction was popular in the Middle West during the last half of the nineteenth century.¹³

Building activity is suggested in one description of St. Anthony in 1853. "We see the pleasant, fresh-painted house of the villagers on the right hand: here a cottage, and there a substantial two-story house, and there again a cheap building, without cornice or ornament, peculiar to the west—a building which is neither a one-story nor a two-story house (detestable style of architecture) and piles of fresh sawed lumber." A traveler in 1850 declared that "the rudeness, newness, and unfinished aspect of the place has not surprised nor alarmed me. On the contrary, the wonder is how so much has been done in so short a time, and so many comforts and conveniences provided for. . . . There is an air of thriftiness, neatness, and goaheadative-

¹³ John H. Stevens, *Personal Recollections of Minnesota and Its People*, 118 (Minneapolis, 1890); *Minnesota Pioneer* (St. Paul), December 18, 1851; August 4, 1857; William A. Radford, ed., *Cyclopedia of Construction*, 3: 17 (Chicago, 1909).

ness in the villages here." Throughout the decade of the fifties the residential sections of St. Paul expanded. One observer commented in 1859 that there were "more buildings in erection than at any period during the ten years past; they are of more substantial character, and possess more architectural beauty. . . . The day of the ten foot balloon frame has passed; people now consult professional architects . . . not following the uncultivated tastes of the mere wood butchers of former days."¹⁴

Not all the materials for building were prepared in the territory, but the market was supplied by home industry as quickly as possible. Lime, for example, was brought from Prairie du Chien in 1851, but in 1855, although a scarcity was noted, the kilns at Shakopee were furnishing the St. Paul market with this much-desired article, sent by barge down the river. Window sashes and blinds were shipped from Galena in 1849. By 1857 J. V. Litchfield, carpenter, offered St. Cloud builders window frames in Gothic or circular patterns with blinds to correspond.¹⁵ Barnes Shingle, Lath, and Clapboard Manufactory in St. Paul advertised in 1850 that it was "grinding logs into houses every day except Sundays." Although lumber for building was not abundant in the early years of the territory, by 1857 there were twelve mills and four lumber yards in operation in St. Paul, and several at St. Anthony and on the St. Croix. Shingles were advertised frequently, and experiments were made with a composition roofing which was reported to be both fire-proof and waterproof. Hardware stores carried stocks of "house trimmings" — locks, latches, bolts, bell pulls, door knockers, hinges, putty, glass, and shutters.¹⁶

¹⁴ J. W. Bond, *Minnesota and Its Resources*, 93 (New York, 1853); H. W. Hamilton, *Rural Sketches of Minnesota*, 16 (Milan, Ohio, 1850); *Pioneer*, August 11, 1859.

¹⁵ Stevens, *Personal Recollections*, 118; *Pioneer*, April 14, 1855; *St. Cloud Visiter*, December 24, 1857.

¹⁶ *Pioneer*, October 10, November 28, 1850; October 9, 1851; May 23, 1854; September 16, 1857; March 29, 1860.

Brickmakers ordinarily went to a new region with the first settlers. So it was in St. Paul, for brick vied with lumber in popularity. "Build of brick if you want a warm, substantial building suitable for our climate, and good as ever after forty years' use," advised D. F. Brawley, who sold brick for houses, chimneys, ovens, flues, hearths, and cisterns, in small or large lots. "If we are really going to build a city," Brawley continued, "we must use brick."¹⁷ Gideon Pond built a house of brick near Bloomington in 1856, leaving as an extension to it an old wooden house. Similar houses of brick and wood were common. Building ordinances encouraged the use of brick because there was less danger from fire than in poorly constructed frame houses. In 1850 regulations enumerated the various ways in which stove pipes might be passed through the roofs of houses. Brick, stone, or earthenware cylinders might be used to prevent the contact of pipes with combustible material. Several frame houses were destroyed by fire in the summer of 1859, and people were urged to exercise great caution in the fall when they put up their stoves.¹⁸

Stone houses were erected by some pioneers, but these, like houses of brick, were more expensive than frame buildings. A report of building operations in St. Paul in 1860 indicates that of forty-two new houses, only seven were built of stone. The Henry H. Sibley house, built at Mendota in 1835, was the forerunner of the stone residences of Minnesota territorial days. The locality surrounding Mendota furnished much of the building material for this home. Stone used in the exterior construction was quarried near the trading post. Laths were made from willow rushes cut along the banks of the Minnesota River, and an inner coat of plaster made of mud and clay from the river was used in most of the walls.

An experiment with a type of stucco was announced in

¹⁷ *Pioneer*, August 30, 1849.

¹⁸ *Pioneer*, October 10, 1850; July 19, August 5, September 13, 1859.

1855 — a “newstyle house” was to be erected of gravel, stone, and mud mixed. The durability of this mixture was questioned, but it was hoped that its use would reduce the expense of building with material other than lumber. No reports as to the success of the trial are available.¹⁹

Comparisons of prices of building materials show considerable fluctuation for the period of the fifties. Brick at the kiln was worth six dollars and fifty cents a thousand in 1850, twelve dollars in 1856, and five dollars in 1860. Quotations of prices in 1851 show that lumber cost twelve dollars a thousand feet and shingles three dollars a thousand. Common foundation stone was valued at seventy-five cents a perch, and cut stone for window sills at fifty cents a foot. Lime was priced at a dollar and a quarter a barrel and sand at twelve and a half cents a load at the pit. In 1854 common lumber was available at prices ranging from ten to fourteen dollars a thousand feet, flooring and siding at sixteen dollars, and shingles from two to three and a half dollars a thousand. In 1857 prices had risen to a much higher level, and flooring and siding cost twenty-eight dollars a thousand feet and shingles, six dollars for a thousand. Quotations for charges for laborers in the early fifties show that journeymen carpenters were paid salaries ranging from a dollar and a quarter to two dollars a day. The charge for renting a wagon and a team of horses to haul sand from the pits was three dollars and fifty cents a day.²⁰

Building expenses for each house built in the various wards in St. Paul in 1860 were estimated in the *Pioneer*. These figures show that four houses were built during that year which were valued at six thousand dollars or more. These were all stone dwellings. Six ranged between three and six thousand dollars, and thirty were valued at between five hundred and three thousand dollars. A

¹⁹ *Pioneer*, April 7, 1855.

²⁰ Bond, *Minnesota and Its Resources*, 137; *Pioneer*, July 4, 1850; January 29, 1852; November 25, 1860; *Minnesota Democrat* (St. Paul), July 29, 1851.

wooden, five-room house was advertised for sale for six hundred dollars in 1850. It was a story and a half high, was lathed and plastered, was equipped with flues for stoves, had a good stable and root house, water adjoined the lot, and a cooking stove was included with the property.²¹

High rentals were the subject of frequent complaint. The *St. Anthony Express* announced on November 5, 1853, that no house, however small, was available in the community for less than seventy-five dollars a year. One-story buildings, with four rooms and with or without a cellar, pump, or cistern, rented for from twelve to sixteen dollars a month in St. Paul in 1851.²²

"Many in this vicinity are expecting to build next season," announced the editor of the *St. Anthony Express* in 1855. "While they will study to secure the most room . . . within doors, why not study to secure the utmost beauty without? Cannot some colors be chosen more agreeable than the everlasting white with green blinds?" Although the repetition may have been annoying, the color scheme as represented in individual houses was very attractive. Abby Fuller Abbe, who came to St. Paul in that year, was pleasantly surprised to see two cottages standing together, painted white with green blinds, inclosed with fences, and looking very civilized. The attractive home built in 1849 by E. N. Larpenteur on the road between the Falls of St. Anthony and St. Paul was white with green blinds.²³

The influence of the Greek revival on architectural style was evidenced particularly in the pillars and porticoes that adorned some early homes. A brick house built for William Banning in 1855 in St. Paul had a spacious portico in

²¹ *Pioneer*, January 30, 1850; November 25, 1860.

²² Bond, *Minnesota and Its Resources*, 138; *Minnesota Democrat*, July 29, 1851.

²³ *St. Anthony Express*, November 24, 1855; T. M. Newson, *Pen Pictures of St. Paul*, 163 (St. Paul, 1886); Abby Fuller Abbe, "Account of Trip West in 1854," Fuller Papers.

front, supported by Ionic columns. Corinthian pillars were used in a similar fashion on the home of Henry M. Rice in the same city. Where the buildings were made of stone or brick, the pure Greek influence was more marked. One of the best examples is the home of Alpheus Fuller, which was built in 1854 in St. Paul and is still standing on its original site. Its tall Doric columns, its square shape, and its flat roof are characteristic of the Greek temple model.²⁴

The heavy, wavy decoration of the gable ends of the roof, used on the home of William G. Le Duc in Hastings, is an exaggeration of Gothic detail common to the early Gothic revival. The pointed windows and tower entrance of this home are typical Gothic features. The Italian house, which preserved many of the details of the Greek type, but changed its square regularity, was growing in popularity in the late fifties. The home of Horace Thompson in St. Paul was of the irregular Italian villa style, "built of dressed stone laid in ranges, with bold, rustic corners." The flat roof was broken by gables over double windows in front, and by a tower directly in the center of the front. There were round arches between the pillars of the porch, which extended along the side and in front. There was a furnace in the cellar for heating the entire building, and it was equipped with gas and water from cellar to garret. The house was built by J. D. Pollock, an architect and contractor, at a cost of ten thousand dollars.²⁵

In the fifties houses were frequently constructed with large observatories on the roofs. A sixteen-room house built between 1857 and 1860 was surmounted by a spacious observatory which would hold twenty or thirty people inside, and as many more outside. The home occupied by John L. Merriam in St. Paul from 1862 to 1887 had an observatory with three windows in each side. Numerous

²⁴ *Pioneer*, July 4, 1855.

²⁵ T. F. Hamlin, *American Spirit in Architecture*, 153 (New Haven, 1926); *Pioneer*, November 25, 1860.

chimneys in both the main section and the rear wing of this building indicate that a large number of fireplaces and stoves were needed to heat such an establishment. The Henry H. Sibley residence built in St. Paul in 1862, the William S. King farmhouse in Minneapolis, the Baron Frederick de Freudenreich home on the Stillwater stage road, and the Ignatius Donnelly home in Nininger were constructed with observatories.

Houses varied in shape, but the T-shaped house was popular, since a rear wing was often added when more room was desired. Some houses were built with right, left, and back wings. Bay windows were frequently constructed to add a little space to a room, and to make a cheerful window nook. The dwelling of W. H. Peckham in St. Paul boasted one in the parlor, one in the dining room, and one in the library.²⁶

Domestic architecture on the frontier differed from that of older settlements in the East for a very short period of time. The unique characteristics of the pioneer home were developed only when construction materials common to eastern builders were lacking and frontier substitutes had to be devised. With the increase in sawed lumber, shingles, glass, and other building supplies in Minnesota in the fifties, styles of architecture then popular in the East were repeated with little modification on the frontier. Examples of architecture that represented prevailing standards in home construction in America could be found on the fringe of civilization. Some Minnesota pioneer homes have survived to the present time, and the attractive appearance that they still present suggests the practical and moderate character of much of the home-building on the frontier.

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²⁶ *Pioneer*, November 25, 1860.



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