

Homes of Dirt and Beauty



DESPITE THE HARDSHIPS OF LIVING ON THE PRAIRIE IN HOUSES MADE OF SOD, MANY HOMESTEADING WIVES CREATED COMFORTABLE DWELLINGS FOR THEIR FAMILIES.

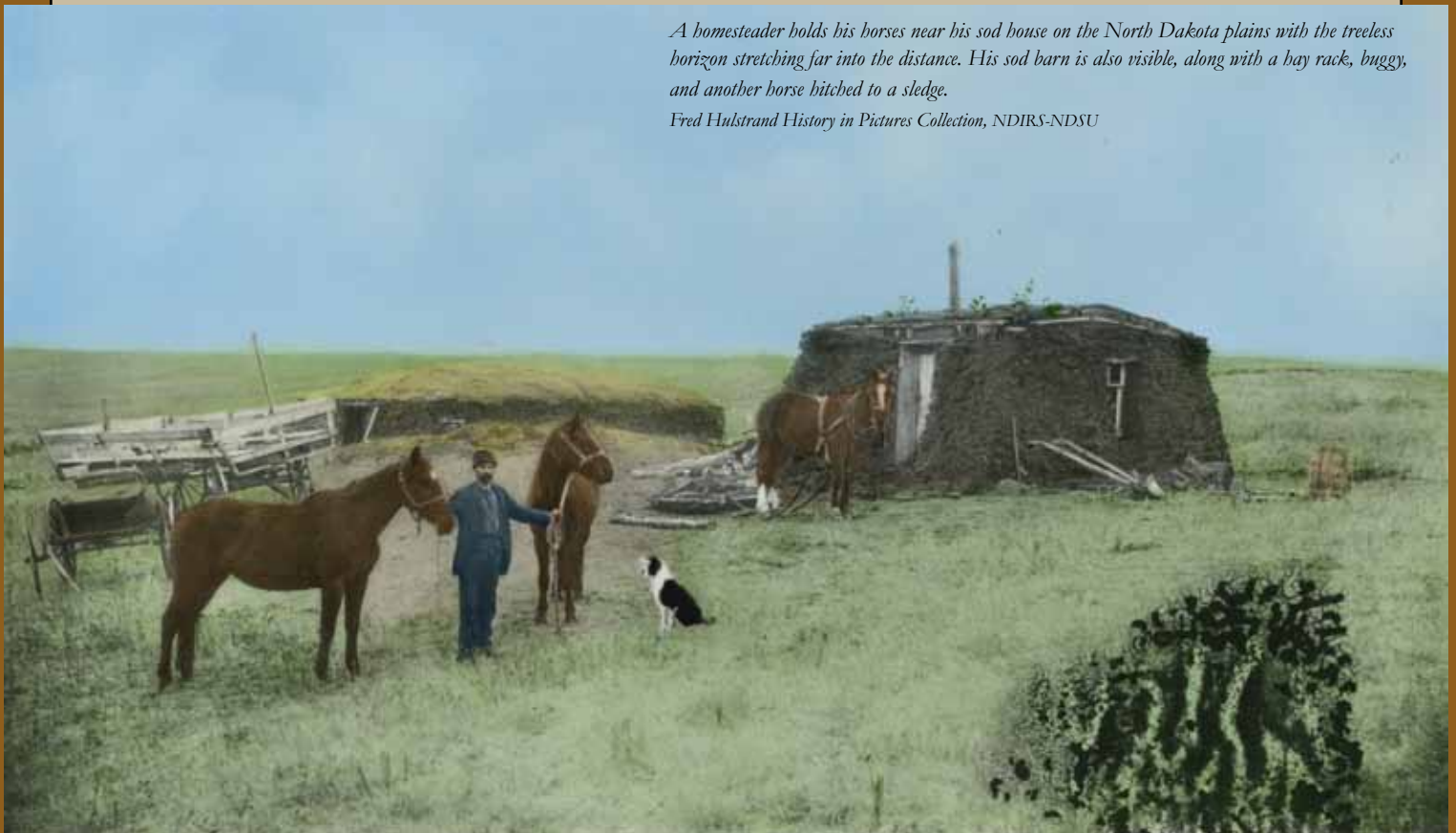
One bright October morning in the early 1870s, a Methodist minister's wife and her brother rode in a buggy far out onto the southeastern Nebraska prairie.

"All over everything lay the palpitating mists of the Indian summer, golden in the sunshine," Mrs. W.E. Morgan recorded in the journal she called *Recollections of a Pioneer Pastor's Wife*. "Over our heads beamed the bluest of skies, while around us everywhere stretched the boundless prairie, the sea of land rising and falling in undulating billows, like the waves of the ocean. Here and there appeared little black mounds, which my brother informed us were sod houses, and now and then a group of dark, flitting figures, which he said were antelope. Aside from these, no signs of life appeared."

Welcome to the American Great Plains—millions upon millions of acres stretching from the Dakotas south into Texas, where a rain shadow created by the Rockies and millennia of wind-blown prairie fires have rendered the land nearly treeless. As protection against the powerful gusts, tall prairie grasses have sent strong roots deep into the fertile soil. For thousands of years, the only humans to venture over this boundless sea of grass were nomadic Native Americans, crisscrossing the plains in pursuit of bison, elk, and white-tailed deer.

A homesteader holds his horses near his sod house on the North Dakota plains with the treeless horizon stretching far into the distance. His sod barn is also visible, along with a hay rack, buggy, and another horse hitched to a sledge.

Fred Hulstrand History in Pictures Collection, NDIRS-NDSU

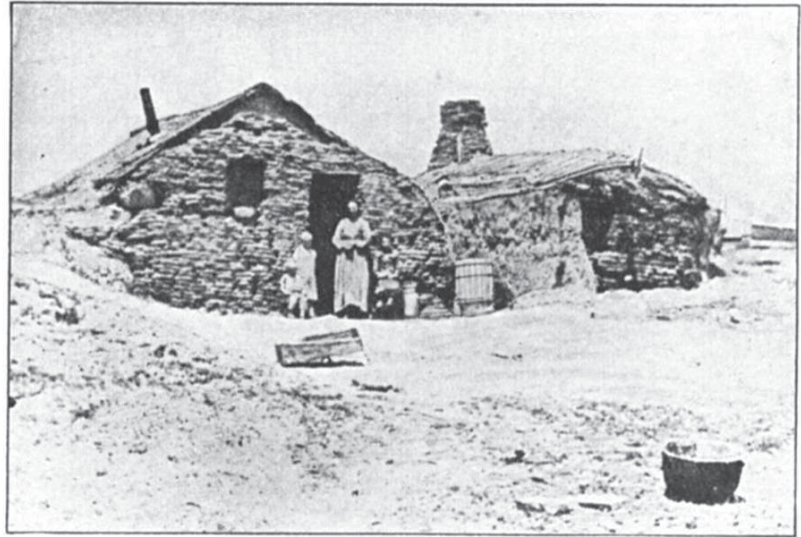


By Gregory LeFever

Then, beginning in 1862, the United States government passed a series of Homestead Acts, practically giving away land to people willing to settle the western frontier. The first act involved 160-acre plots, and later versions in 1873, 1909, and 1916 increased the plots to 320 acres and up to 640 acres per homestead.

And the plan worked. Between 1862 and 1934, 1.6 million Americans claimed homesteads covering some 270 million acres, or 10 percent of the total territorial United States land at that time. Forty percent of the settlers who paid the eighteen-dollar filing fee were able to stay on their homesteads for the five years required to acquire title to their land.

That means the other sixty percent of the homesteaders gave up—not surprising, considering how tough life could be on the plains.



What has all of this to do with the pastor's wife that beautiful morning in the 1870s? Well, those little black mounds—the sod houses—were the primary dwellings of many homesteaders who settled the Great Plains, the families who wrestled for years to clear countless acres of the stubborn grass and who eventually converted huge portions of the American prairie into one of the most productive farming areas of North America.

Later that same day on the Nebraska prairie, the pastor's wife saw first-hand how one family homesteaders lived.

“At noon we stopped for dinner at a half-way-house, and here I had my first sight of the interior of a sod house,” she wrote. “To say that it was not inspiring would be putting it very mildly. A dirt floor, a roof of willows upheld by a big tree for a ridgepole in the center, wooden bunks built around the sides of the walls for beds—and to complete the picture, a barefooted woman in a soiled calico dress. My heart was fast going down into the region of my boots.”

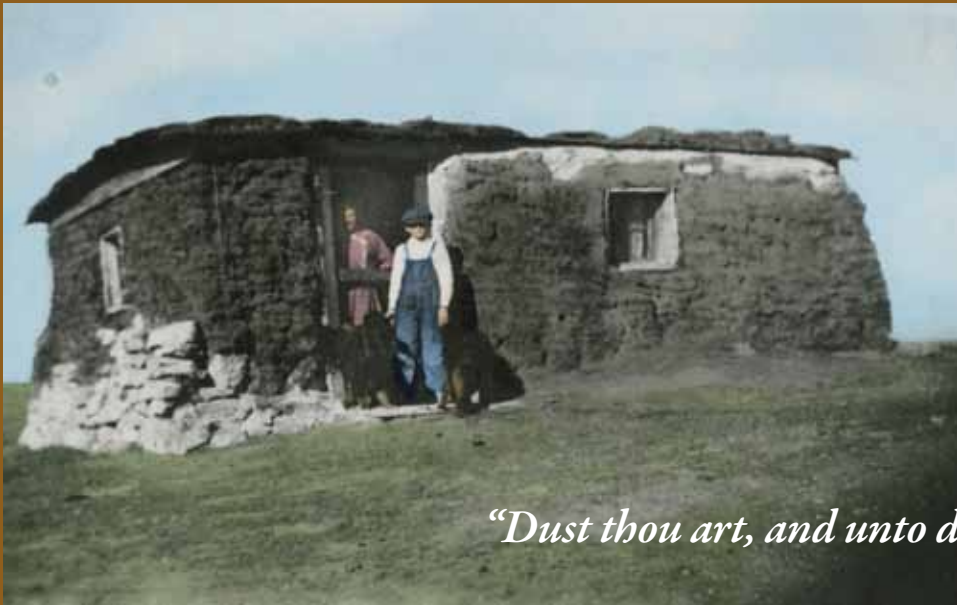
Building with Grass and Mud

For most of the homesteaders settling on the Great Plains, a sod house was their only choice of habitat. Lumber cost a fortune and had to be brought by train or wagon from sawmills several days away, when it could be delivered at all. Canvas tents were worthless against the winds, blazing summers and freezing winters. Instead, those prairie grasses with their deep and entangled root systems provided the homesteaders with shelter.

No one is sure where the style of sod house that dotted the Great Plains originated. Native American tribes such as the Pawnees and Omahas built circular lodges of sod, and Europeans such as the Scandinavians, Irish, and Germans had long histories of earthen houses, but none were like those the homesteaders were building. These just seemed to sprout from the prairie, uniquely American in form.

The Homestead Act required a house to be at least eight by ten feet, though most sod houses were nearly double that size. To cut enough one-by-three-foot strips of sod for one of these houses took a half-acre of land and plenty of hard work behind the plow.

“Had a splendid time trying to break prairie with our oxen! They were unaccustomed to pulling a plow and tried to walk in forty directions at once,” joked Rolf Johnson, a 20-year-old Swede who moved from Illinois to Phelps County, Nebraska, in 1876. “Building sod houses, especially when the wind blows, is not quite as pleasant as riding in a buggy with a girl. One's nose, eyes, mouth, ears, and hair get full of loose dirt. Okay, it's bad!”



This typical sod house belonged to the Joseph Petr family near White River, South Dakota. The two-window dwelling was built in 1913. The boy has three dogs with him and the woman is behind a screen door.

*Fred Hulstrand History in Pictures Collection,
NDIRS-NDSU*

“Dust thou art, and unto dust thou shalt return.”

To lower the profile of the sod house for protection against high winds, the floor often was dug out so people stepped down into the house and the sod walls didn't have to be so high above ground. Another form was the so-called “dugout,” where part of the house was gouged from a hillside and the rest of the home's sod walls and roof extended out from the hillside. Both approaches—the lowered floor and building out of a hillside—accounted for sod houses appearing at even short distances to be mere bumps on the prairie.

Once they were cut from the earth, the sod strips—usually about 18 inches wide and 24 inches long, not too heavy for a man to lift—were stacked grass-side-down, one row at a time, with mud between the strips, and every third layer placed crosswise to the row below. With such thick walls, the interiors of sod homes were actually much smaller than the dwelling appeared from outside. Because the sod was freshly lifted from the ground, rooms inside sod houses remained damp for months, and summer rainstorms resulted in stifling, humid air throughout the dwellings.

Wooden window and doorframes were set in place as the walls rose higher, thick stacks of sod holding them in place. Windows were the most expensive part of the sod house, so there were few of them and they were small, letting in only scant sunlight.

Roofs were the structure's biggest challenge and the most vulnerable part of the whole house. One common style of roof called for closely knit branches of elm, ash, or cottonwood to span the top of the rooms, with an additional layer of willow branches. This was topped with sheets of tarpaper or oilcloth and finally with a layer of sod. But if the roof was too steep, rain and snow runoff washed away clumps of sod, creating gaping holes. And if the roof was too flat, rain puddled on it, creating leaks or cave-ins. If the eaves were too wide, the winds could blow the whole roof away. Only with the later sod houses in the early 20th century did roofs of shingles, boards, or metal become more common.

Sod may be heavy and dirty, but it's an excellent insulator. Inside their thick-walled sod homes, homesteaders remained cool during the relentless heat of summer, sitting quietly in rooms surrounded by the smell of the earth. In winter, the thick walls held in the heat of stoves—which, in a land of scarce wood, relied on buffalo dung, grass, and corncocks for fuel—while deep snows drifted over the land. Many homesteaders freely admitting that they owed their very survival to the warmth of sod houses that had kept them from freezing to death.

“Interior Like a Fairy Palace”

Human nature being what it is, some people merely exist in their homes, while others invest considerable time and energy to make them as pleasant and comfortable as they can—regardless of their living conditions. Such was the situation with sod houses, where homesteaders spent an average of six or seven years. Some lived miserably in their dank and dark sod dwellings, willingly sharing their living quarters with vermin. Others worked hard to create beauty and to maintain some semblance of cleanliness, to make true homes for their families.

Inside, sod houses typically were divided in half, with the kitchen and living area on one side of a partition and the sleeping area on the other.

“We moved in to our sod house last Wednesday,” wrote Nebraska settler Mattie Oblinger to a friend in May of 1873. “It is not quite so convenient as a nice frame house, but I would as soon live in it as in the cabins I have lived in. And we are at home, which makes it all the more comfortable. The only objection I have is that we have no floor yet.”

Dirt floors inside a sod house could become unbearably dusty, so many dwellers watered the floor once a week to give it a smooth, clay-like surface. Some fastened carpets to the dirt floors, while others put down hand-split logs, though they made walking difficult. The wider, rough-sawn planks from distant sawmills were a luxury few could obtain.

To make the rooms more livable, families often trimmed the inside sod walls with axes and knives and then covered them with a mixture of mud and clay, sometimes adding lime if it was available from nearby natural deposits. This plaster-like surface could be whitewashed to brighten the walls, especially during spring house-cleaning to cover a winter’s worth of smoky residue.

Other times families spread oilcloth over the walls, or covered them with canvas, or pasted newspapers to them. It was common practice to keep interior walls whitewashed and to tack up light-colored muslin on ceilings so that the small amount of daylight that entered the house could be reflected throughout the interior as much as possible. Plus, coating both the interior and exterior walls with mud and clay protected them from the weather, which took only a few seasons to begin disintegrating the stacked sod.

“Without a doubt, the interior is much more inviting than the exterior,” an anonymous South Dakota woman wrote of her sod home in the late 1800s. “The interior is like a fairy palace. We have first a kitchen, which is also our son’s bedroom, our dining room and usually our sitting room, as we have there a pretty hanging lamp and our largest table. In my salon, besides my bed sits a pretty little table, a metal rocking chair, a cupboard, and two chairs with cane seats, so it is very fine.”

Stoves for cooking and heat were essential to life on the plains. When metal stovepipes weren’t available, families relied on wooden barrels to channel the smoke to the outside. While fire wasn’t much of a danger in homes with dirt walls and floors, poorly ventilated smoke could fill a home in a matter of minutes and could be very troublesome when high snowdrifts interfered with crude chimneys.

‘I Never Enjoyed Myself Better’

Mattie Oblinger moved from Indiana with her husband Uriah to Fillmore County, Nebraska, in 1873, as homesteaders. They worked the land together for seven years, during which Mattie corresponded with her family and friends back in Indiana. This is an excerpt of a letter she wrote to her brothers and sister on June 16, 1873, as she was beginning her new life and discussed the benefits of sod houses over wood frame construction. Mattie died in childbirth in 1880 when she was 36.



Most all of the people here live in sod houses and dugouts. I like the sod houses the best, as they are the most convenient. I expect you think we are miserable because we are in a sod house, but I tell you in solid earnest I never enjoyed myself better.

Some came here and put up temporary frame houses because they thought they could not live in a sod house. This Fall they are going to build a sod house so they can live comfortable this winter. A temporary frame house here is a poor thing because a house that is not plastered has the wind and dust go right through it, and they are very cold.

A sod house can be built so they are real comfortable. We build nice walls and then plaster them and lay a floor below, and then they are nice.

We have had an immense lot of rain here this season, but I guess this has been the general complaint everywhere. I think we had the hardest storm Saturday night. The wind blew very hard and I do not know how long it lasted for I went to sleep and the wind was blowing, yet we cannot notice the wind so much in a sod house as in a frame house.

Though there are few photographs showing the interiors of the original sod houses—the cramped and dark spaces did not lend themselves to the bulky camera gear of the day—we still have a few photos, a few sketches and a scattering of diary entries as testament to the domestic dedication of many of these hardy homemakers. They sewed curtains for their tiny windows, hung paintings on their walls and displayed rows of books on makeshift shelves. They created colorful quilts to chase away the gloom and they collected bouquets of prairie wildflowers. They kept their households as orderly as any housewife in the tamer regions of America.

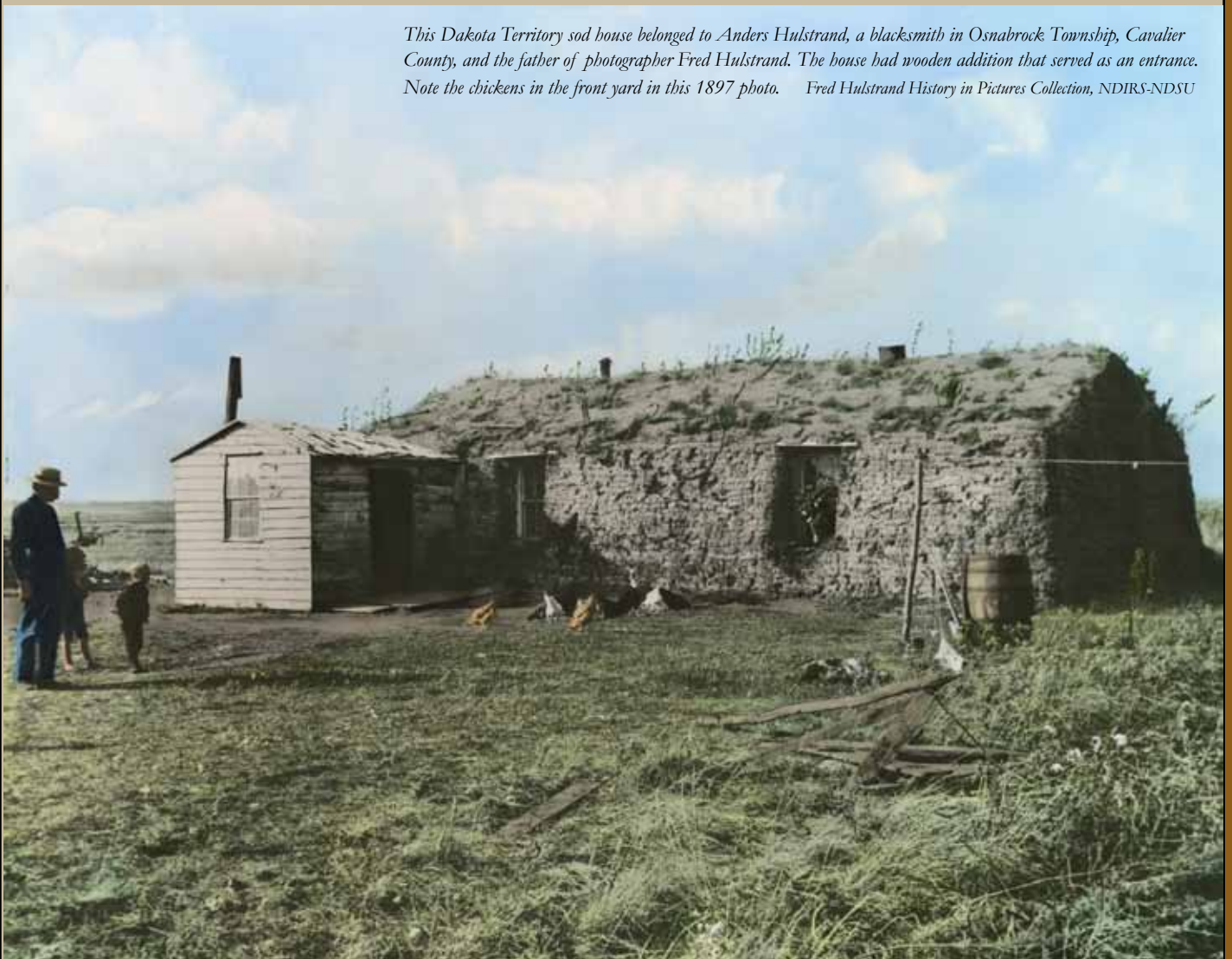
“The sod home frequently shelters beneath its roof a settler who is poor of everything but hope and determination to succeed, but yet in each we have seen a home where an intelligent family has lived in comfort and has enjoyed many of the advantages of what is called civilized life. Books, pictures, and music are sometimes seen in such habitations, occupied by well-educated and intelligent settlers.”

Those are the words the editors of *The American Agriculturist* magazine wrote in 1874 in an article celebrating the hardy homesteaders who were taking up residence on the Great Plains.

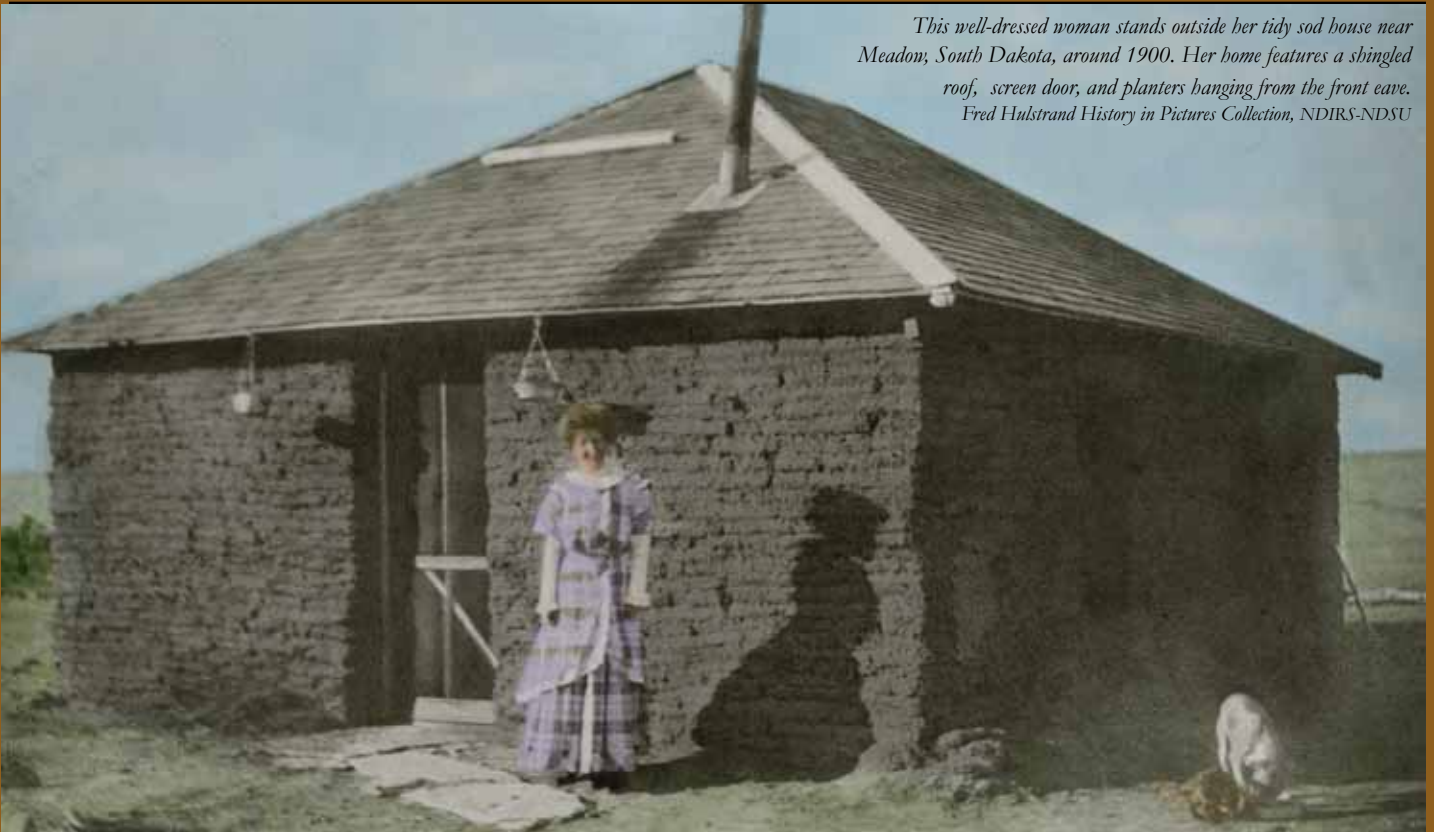
Elements, Animals, and Ruin

A house built of dirt and grass from beneath the homesteaders’ feet was also home to the earth’s other creatures as well. Sod roofs harbored all kinds of things that wind or rain easily dislodged.

This Dakota Territory sod house belonged to Anders Hulstrand, a blacksmith in Osnabrock Township, Cavalier County, and the father of photographer Fred Hulstrand. The house had wooden addition that served as an entrance. Note the chickens in the front yard in this 1897 photo. Fred Hulstrand History in Pictures Collection, NDIRS-NDSU



This well-dressed woman stands outside her tidy sod house near Meadon, South Dakota, around 1900. Her home features a shingled roof, screen door, and planters hanging from the front eave. Fred Hulstrand History in Pictures Collection, NDIRS-NDSU



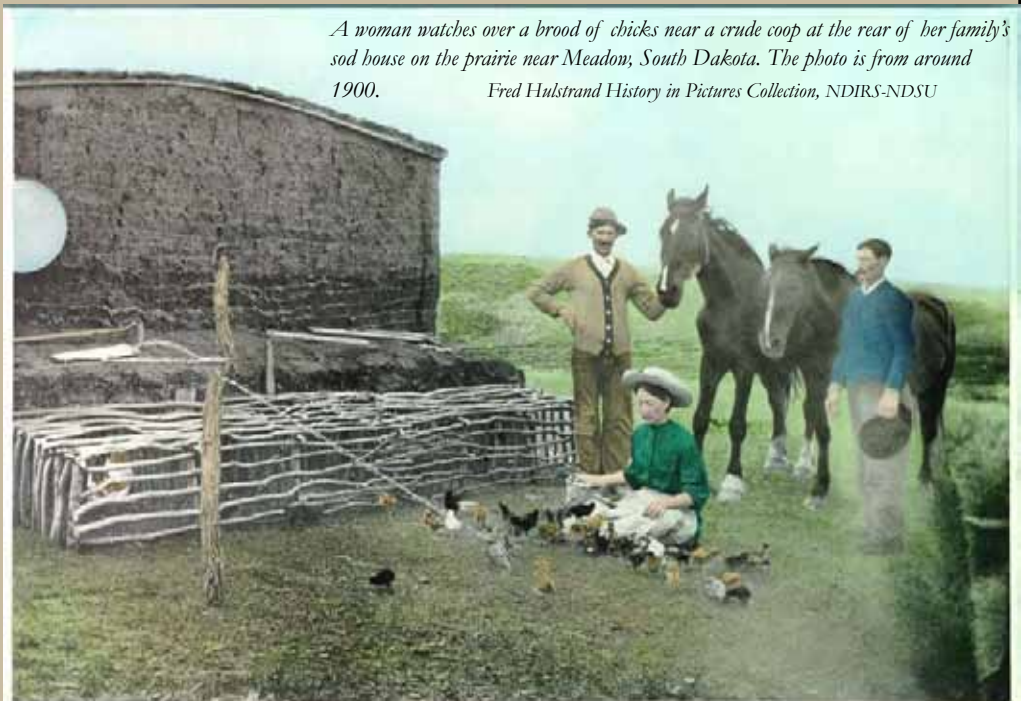
“I had not been asleep long when I was awakened by something similar to fine hail falling on my face and hands,” wrote an unidentified Kansas woman in her diary in the 1880s. “I called out: ‘Please get a light, there is something falling on my face and hands and all over the bed.’ This aroused the lady and she remarked, ‘It is only the direct falling out of the sod which our house is made of and now has become dry. When the wind blows, it crumbles off, and we are so used to it that it does not disturb us.’ But I could not sleep, for I was afraid every minute that the whole roof would fall in on us.”

Mice and rats burrowed into walls. Snakes wriggled their way into the homes and were especially fond of taking up residence beneath the wood that had been laid over dirt floors. Birds were nuisances when they carried off hunks of roof sod for building their own homes.

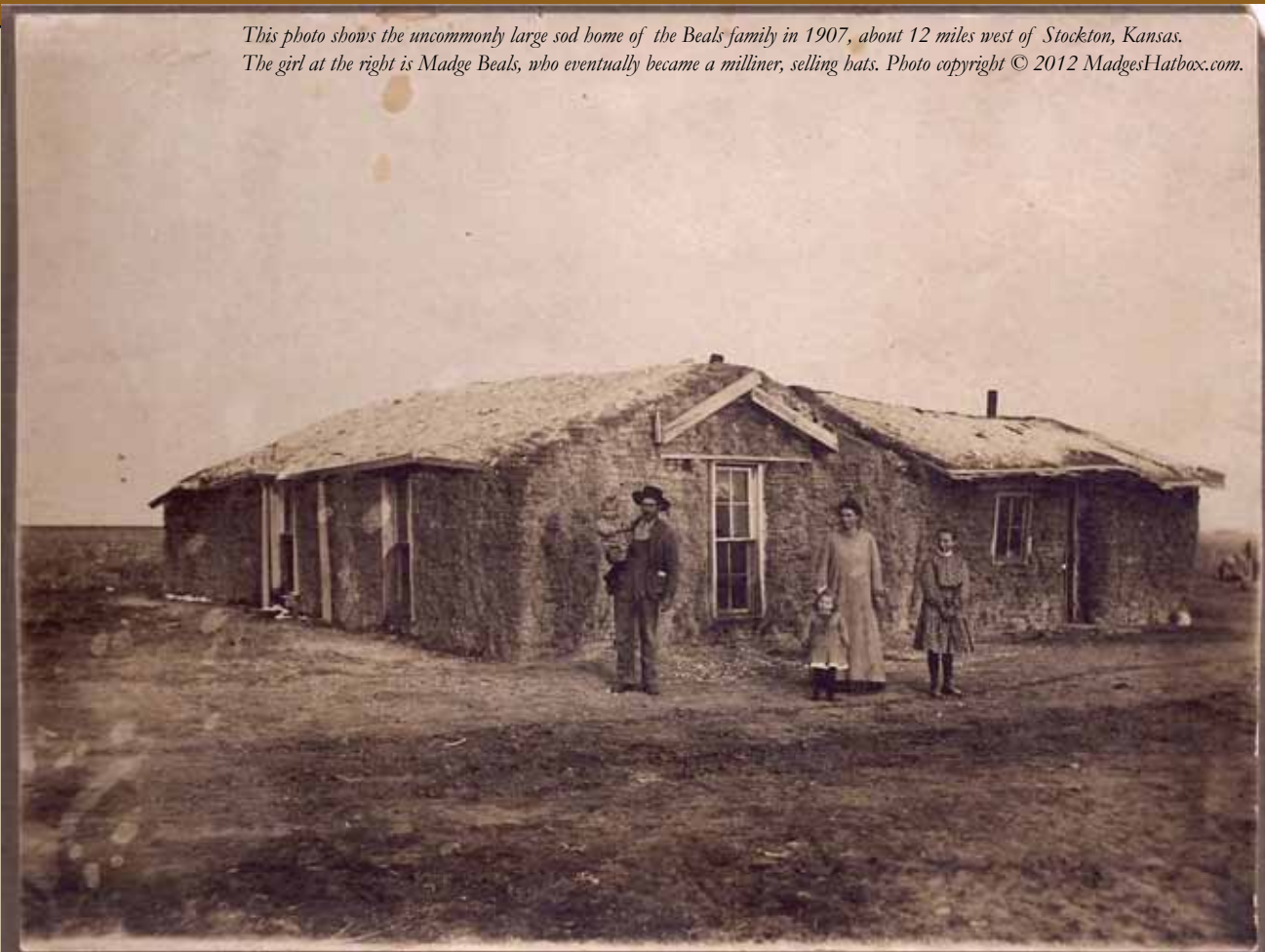
Winds were always a problem to be reckoned with. One of the benefits of keeping the sod house low and rounded was that it deflected the strong gusts, just as the weight of the sod roof kept it reasonably intact—and if part of it blew off, the roof could be repaired with more strips of sod. A documented fact is that many sod houses withstood the force of tornados year after year.

Winds also drove prairie fires across the grasslands with

A woman watches over a brood of chicks near a crude coop at the rear of her family’s sod house on the prairie near Meadon, South Dakota. The photo is from around 1900. Fred Hulstrand History in Pictures Collection, NDIRS-NDSU



This photo shows the uncommonly large sod home of the Beals family in 1907, about 12 miles west of Stockton, Kansas. The girl at the right is Madge Beals, who eventually became a milliner, selling hats. Photo copyright © 2012 MadgesHatbox.com.



astounding speed, but the composition of the dirt house provided so little fuel for the flames that the inferno usually swept past the house without much damage. Frequently settlers plowed furrows around their sod houses as firebreak protection against the grassfires. There are stories, though, of homesteaders who lived in sod houses while they constructed wood-frame houses nearby and watched in grief as prairie fires consumed the wooden houses but left the humble sod counterparts mostly untouched.

Sod houses with exteriors covered with stucco-like clay and mud had longer life expectancies, but most sod houses wore down in just a few years. Repeated exposure to heat and freezing temperatures broke down the strength of the sod's tough root system. Rain and snow runoff washed away hunks of sod, one after another. Winds eventually dried out the sod and caused it to crumble. Rodents, insects, and snakes perforated walls and roofs to hasten their decay, and weakened roofs simply collapsed.

Nearly every sod house the homesteaders raised and inhabited on the Great Plains has long vanished, sunk back into the prairie in a manner reminiscent of the line from Genesis: "Dust thou art, and unto dust thou shalt return."

History in Photos

The rare, hand-tinted photographs with this article are the work of Fred Hulstrand, who was born in 1888 in a sod house in Cavalier County of the Dakota Territory. Intrigued with photography from the age of 17, he worked odd jobs while developing his skill and eventually opened a photo studio in Park River, North Dakota, in 1916.

One of his life's goals was to preserve North Dakota pioneer history, and he spent over 60 years photographing people and events in the region. He died in 1968. These photos are from the 550 images in the Fred Hulstrand History in Pictures Collection at the Institute for Regional Studies at North Dakota State University, which gave us permission to publish them.