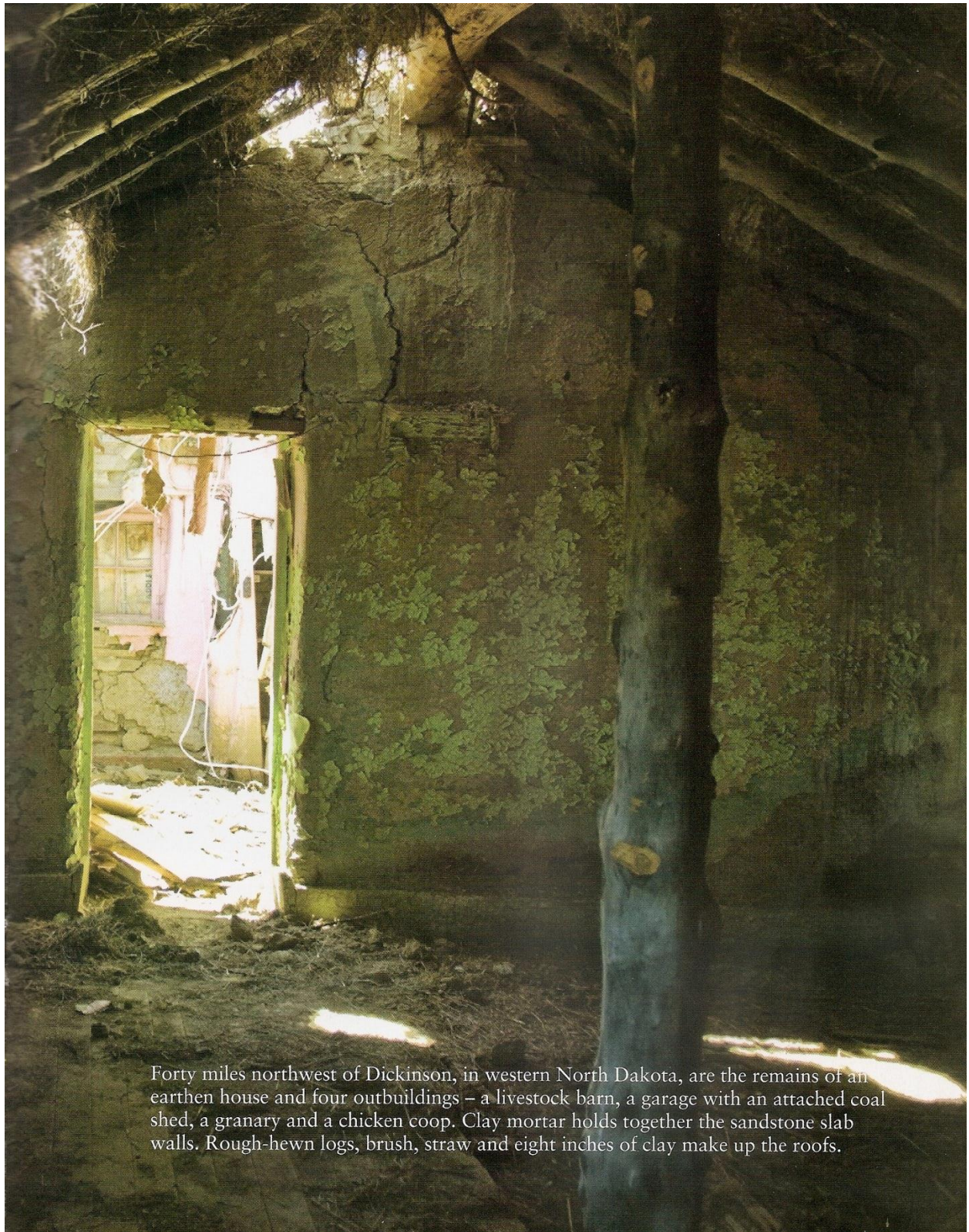


layers of history *Students work to restore earthen home*



Forty miles northwest of Dickinson, in western North Dakota, are the remains of an earthen house and four outbuildings – a livestock barn, a garage with an attached coal shed, a granary and a chicken coop. Clay mortar holds together the sandstone slab walls. Rough-hewn logs, brush, straw and eight inches of clay make up the roofs.



Unlike the drafty wood frame houses built for the purpose of staying just long enough to “prove up” the claim before selling it, earthen homes are a symbol of permanence on the Great Plains. Yet it doesn’t take long for an earthen building to decay. Cattle often do the work by rubbing up against the sides. Only a few earthen houses remain in secluded areas, and the art of building them has largely been lost.

The Hutmacher farm in western North Dakota is the best example in the Great Plains of earthen-roofed stone-slab vernacular architecture, a traditional method of construction that uses locally available resources as building materials. The Hutmachers used techniques imported with the Germans from Russia, an ethnic group that immigrated to North Dakota in the 19th and 20th centuries.

Frank Hutmacher was born in 1902 in Sulz, Russia. In 1911, he immigrated to the United States with his parents, Valentine and Frances, who built their farmstead in western North Dakota’s rolling landscape. The remains of that farm still lie in a field where cattle graze around a nearby spring.

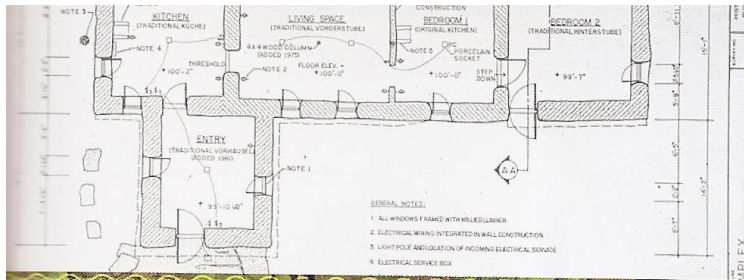
Frank grew up and married Veronica Nuss in 1927. Between 1928 and 1930, he and his brothers built a new earthen home across the road. It was a modest two rooms to overlook their 300- to 400-acre spread. Over the years, they continued to add rooms on either end – a new kitchen in 1941, another bedroom in 1950 and a *vörhausl*, or entry vestibule, in 1962, where they washed laundry and housed the cream separator. Electricity was added between 1961 and 1964. They never added plumbing to the 1,000-square-foot house.

The National Register of Historic Places lists the Hutmacher farm as one of the few remaining examples of this architectural style. The listing calls the house “especially rare in the purity of architectural form, the utilization of only native building materials and the absence of intrusion by other building forms.”

The farm’s last resident, Frank and Veronica’s son, Alex, left in 1979. The house quickly fell into disrepair.

From Manning, N.D., the farm is a 12-mile drive down hilly, gravel roads lined with wild sunflowers, cattle ranges, flax fields, road construction equipment and the occasional oil well. On a sunny July morning, a caravan of vehicles carrying students, ranging from a North Dakota State University junior to a retired couple from Washington, kicks up dust over the last ridge to the Hutmacher farm. The students are there to restore a piece of the past and to re-create a lost art of prairie home construction.

The vehicles drive through the enclosure fence, where a sign warns of rattlesnakes, and soon almost a dozen people are pulling on work gloves. They are ready to re-roof the kitchen.



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*Recipe for top layer of clay,
the resistance layer:*

- 4 inches thick
- 1 bucket lime water
- 1 bucket chopped wheat straw
- 2 buckets yellow clay
- 4 buckets masonry sand
- 2 buckets scoria



Restoration efforts took decades to get to this point. In 1980, Steve Burian of rural Manning purchased the farmstead and donated it to the Dunn County Historical Society. Lack of manpower and resources kept the society from doing much, and they gave it back. Steve Martens, NDSU associate professor of architecture, led a group to the site in 1995 to record what they could before the building completely degraded.

In 2007, Burian's son, Arnold, deeded the property over to Preservation North Dakota, a statewide non-profit organization for historical preservation. They landed a \$98,000 grant to fix the site from Save America's Treasures, a federal program. Now they needed workers.

Labor came from Tom Isern, NDSU distinguished professor of history, and Suzanne Kelley, doctoral candidate and president of Preservation North Dakota. The students are here for Isern's field school, "Prairie Earth, Prairie Homes." Isern previously took students to the site as an optional assignment in one of his history classes, but this is the first course entirely dedicated to restoration efforts. The course is open to students, teachers and anyone else with a desire to learn about earthen home dwellings and willing to get their hands dirty.

For most of the week, the class tours western North Dakota to visit a variety of earthen homes. On Tuesday, a gray and spitty day, they stop at the Hutmacher farm to deconstruct the roof over the kitchen and entryway. Strong winds and sudden downpours make the work miserable. One graduate student falls thigh-deep into the roof. They huddle together under a tarp they stretched over the garage.

By Friday, the sun is out and a slight breeze keeps the temperature from becoming unbearable. The air smells of sweet clover, dry mown grass, wild sage and clay. The odors help to evoke the farm's past.

Hutmacher wanted to keep his building costs down by using nearby resources. The stones came from the tops of the nearby hills. Hutmacher mined clay from a hill 100 yards to the west, where a coal vein also supplied the family fuel for heat and cooking. Cottonwood trees provided ridge beams to support the green ash rafters. Buckthorn, chokecherry, buffalo berry, willow, plum and red haw brush were laid over the rafters, followed by straw. Hutmacher then shoveled on layers of clay for waterproofing. Water for the clay came from the spring across the road.

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The house is an index of the countryside. Every piece of the house draws from the land around it, and soon it's easy to imagine life on the farm. The children struggling up the ditch to the gravel road carrying water. Frank mixing clay to patch the roof. Veronica cooking her famous chicken noodle soup. The farm comes to life, and its story is of a family using what they had at hand to make their home at an estimated cost of \$100.

Eleanor (Hutmacher) Urlacher grew up in the house from 1932 to 1953. She visits the class on Friday to talk about life on the farm. She tells the students how her parents couldn't plant flowers next to the house since the dirt run-off from the roof would bury them, how they had to move the root cellar three times because of cave-ins, how they farmed with horses until 1950, how her father spent six weeks making the garage one summer and would mine coal for the year in one two-week stint, and how they only had one "very serious" ceiling leak she can remember.

The house served as a popular resting spot for neighbors on the way to St. Edward's Catholic Church or nearby Fayette, which is now a ghost town. They played whist and other card games at the living room table while catching up on news of neighbors. A notch in the plaster wall still marks the spot where the table stood.

The Hutmachers raised their four girls and one boy at the farm. Veronica died in 1969. Frank died in 1974. Both are buried in St. Edward's Cemetery, a windswept area just across the road and filled with Hutmachers and other local families. Bush-like weeds cover many of the older, weatherworn gravestones. From the cemetery, the house looks much as it did 30 years ago.

The temperature continues to rise as the day wears on. The air is at least 10 degrees cooler inside the house's 16-inch-thick walls, but the years have not been kind. Splintered wood covers the floors that aren't bare dirt. Cracked and peeling paint, once bright shades of pink, green and lavender, coats the walls in patches. Straw pokes out of the clay and manure-based plaster. Of the ceiling made from cardboard and fabric soaked in wheat paste, only the rusty jar lids that held it in place remain. The five-foot-high door-frames slant to the side, and all are easy to bump into when not looking. A fine powder of dust and clay covers everything.

Outside, other sandstone buildings in various states of decay surround the students as they work. The chicken coop still has some glass in the windows, while the root cellar is now little more than a depression in the ground behind the fence surrounding the property. Old farm machinery rusts along the fence line.

Isern, dressed in tan Carhartt overalls, black boots, a red t-shirt and a green NDSU Bison baseball cap, sits cross-legged on the roof. He's waiting for more flax straw to lay over the prickly brush. It looks precarious, but he seems comfortable.



“This is a type of labor-intensive building in that it’s every year. Every year. There’s a German Russian saying – It’s work that makes life sweet.”

Even with sample testing to determine what the plaster is made of and what recipe they used for the roof, re-creating the technique of building takes more than ingredients. They still can’t get the plaster to stick to the wall as well as it used to, and they must constantly adjust the clay mix for the roof to contend with weather conditions and ingredient quality. Right out of the mixer, the clay

looks like chocolate frosting and feels like firm mud – easy to roll into a little ball and a bit gritty. Clay dust is in the air. After dumping in ingredients for the second layer of clay roof, history student Robert Kurtz spits. “I taste it,” he says.

The students work independently. Isern gives out very few orders. Everyone knows what must get done. When they need more water to make mud, Kelley runs the trailer into Killdeer to fill it up at the local campground. When they need more clay, one of the students runs the Bobcat out to dig up more. When they need more brush, Isern takes his truck to the top of a nearby hill to cut out some bull berry.



They use a few modern conveniences – a mixer, a Bobcat and a chainsaw – but mostly they work the house in the same way Hutmacher did. They re-create old skills not used in modern construction. They rely on each other to carry ridge poles and keep the chopped flax straw coming.

The class is able to get two layers of clay on one half of the kitchen by Saturday evening. The other half and the entryway are covered in brush. It's not as much as they hoped to get done, but it will be easy for the next group to continue the work in the fall.

"We're trying to do something a bit more enduring than the Hutmachers," says Isern. "This is a type of labor-intensive building in that it's every year. Every year. There's a German Russian saying – It's work that makes life sweet."

Once the main building is done, the preservation group will decide what to do next. They could go on and restore the other buildings on site, or they could start working on restoring the interior of the house to its 1950s condition. It all depends on funding. Half the students pledge their return to work on the site. Several of them talk of bringing their families.

–J. Hagen