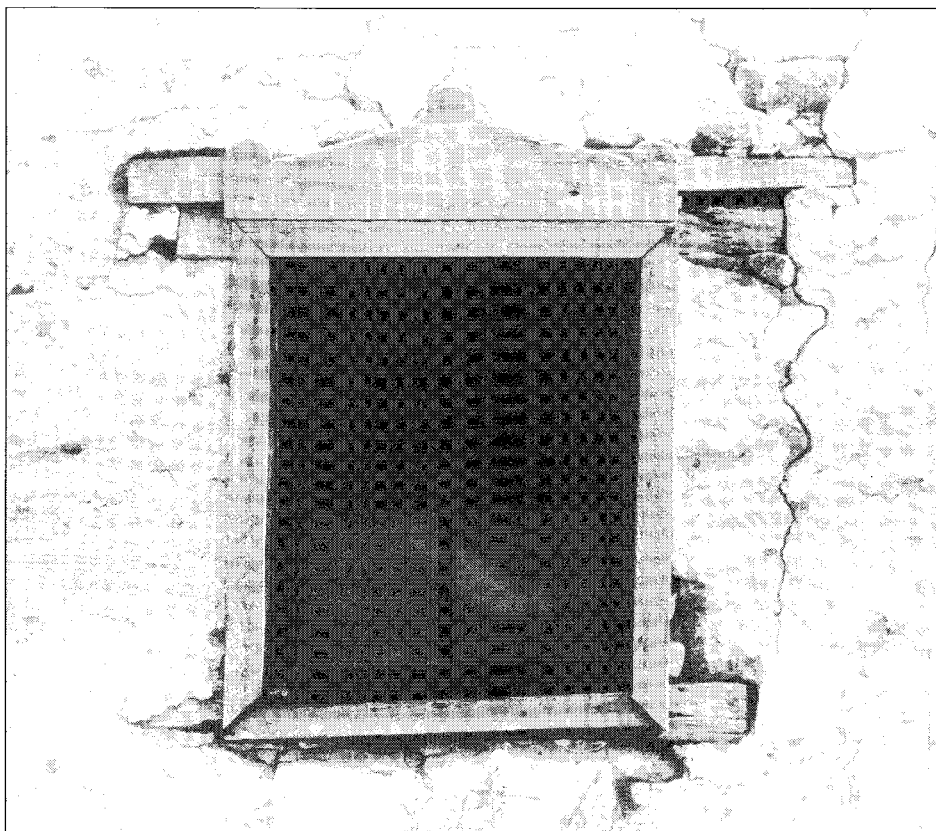


German-Russian Folk Architecture in Southeastern South Dakota



State Historical Preservation Center
Vermillion, South Dakota

German-Russian Folk Architecture
in
Southeastern South Dakota

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This publication was assisted in part by a grant from the
United States Department of the Interior, National Park
Service, National Register of Historic Places program under
the auspices of the South Dakota Department of Education
and Cultural Affairs, Office of Cultural Preservation and
administered by the State Historical Preservation Center,
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Graphics, composing, and printing by the Educational
Media Center
The University of South Dakota
Vermillion, South Dakota 57069
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To Reuben and Jimmy Goertz

CONTENTS

| | |
|--------------------|-----|
| Preface | vii |
| Abstract | ix |

Part One: The People and Their Buildings

| | |
|--|---|
| History | 1 |
| The Form of the Building | 1 |
| Research Methods | 3 |
| Survey Findings | 3 |
| Building Construction Methods | 4 |
| Heating and Cooking Structures | 6 |
| Site Arrangement | 7 |
| Floor Plans | 8 |
| Interior Decoration | 9 |

Part Two: Site Descriptions

| | |
|--|----|
| Site One: Leland Kleinsasser | 11 |
| Site Two: Pioneer Deckert House | 13 |
| Site Three: Joe L. Hofer | 14 |
| Site Four: Gene Lang | 16 |
| Site Five: LaVern Wagner | 17 |
| Site Six: Owen Zanter | 18 |
| Site Seven: Michael D. Hofer | 19 |
| Site Eight: Sollie Kaufman | 20 |
| Site Nine: Jacob Hofer | 20 |
| Site Ten: Wesley Sedlacek | 21 |
| Site Eleven: Edwin Ziegler | 23 |
| Site Twelve: Phillip Lang | 25 |
| Site Thirteen: Mayer Rademacher | 26 |
| Site Fourteen: Elmer Grosz | 28 |
| Site Fifteen: Joe Machacek | 30 |
| Site Sixteen A: Harold Schmidt | 31 |
| Site Sixteen B: Oscar Bueber | 33 |
| Site Seventeen: Viola Mikuska | 33 |
| Site Eighteen: Reuben Heckenlaible | 34 |
| Site Nineteen: Joe P. Gross | 34 |
| Site Twenty: Paul Pullman | 35 |

PREFACE

Ten years ago I was first introduced to South Dakota's marvelous collection of German-Russian puddled clay houses by Reuben Goertz. Mr. Goertz had just returned from Eastern Europe with photographs of vernacular house-barns bearing a striking resemblance to places around his home town of Freeman. In the intervening years his enthusiasm for and extensive knowledge of the German-Russian heritage made him our constant reference on the subject. In 1982 we mounted an intensive survey of these structures and this report represents the fruition of the seed which was planted and nurtured by Reuben. Much of the credit for the preparation and completion of the survey and of this publication must be granted to Ms. Carolyn Torma, Surveyor Coordinator for the State Historical Preservation Center.

It is gratifying to discover that South Dakota possesses a surviving vernacular tradition extending beyond those hallowed but somewhat wearisome icons of the pioneer myth: the soddy, dugout, and log cabin. In contrast, German-Russian architecture represents not only the immigration of a people but the transplanting of a native culture as well. Instead of building temporary houses, these pioneers employed their cultural tradition of building in earth. They were just as intent on maintaining their previous way of life.

Though given some attention initially, these elaborate structures are now often confused with sod buildings to render them consistent with general perceptions of pioneer life. Uninterpreted, the houses are in danger of eroding into the prairie without notice and an intent of this survey is to encourage their preservation.

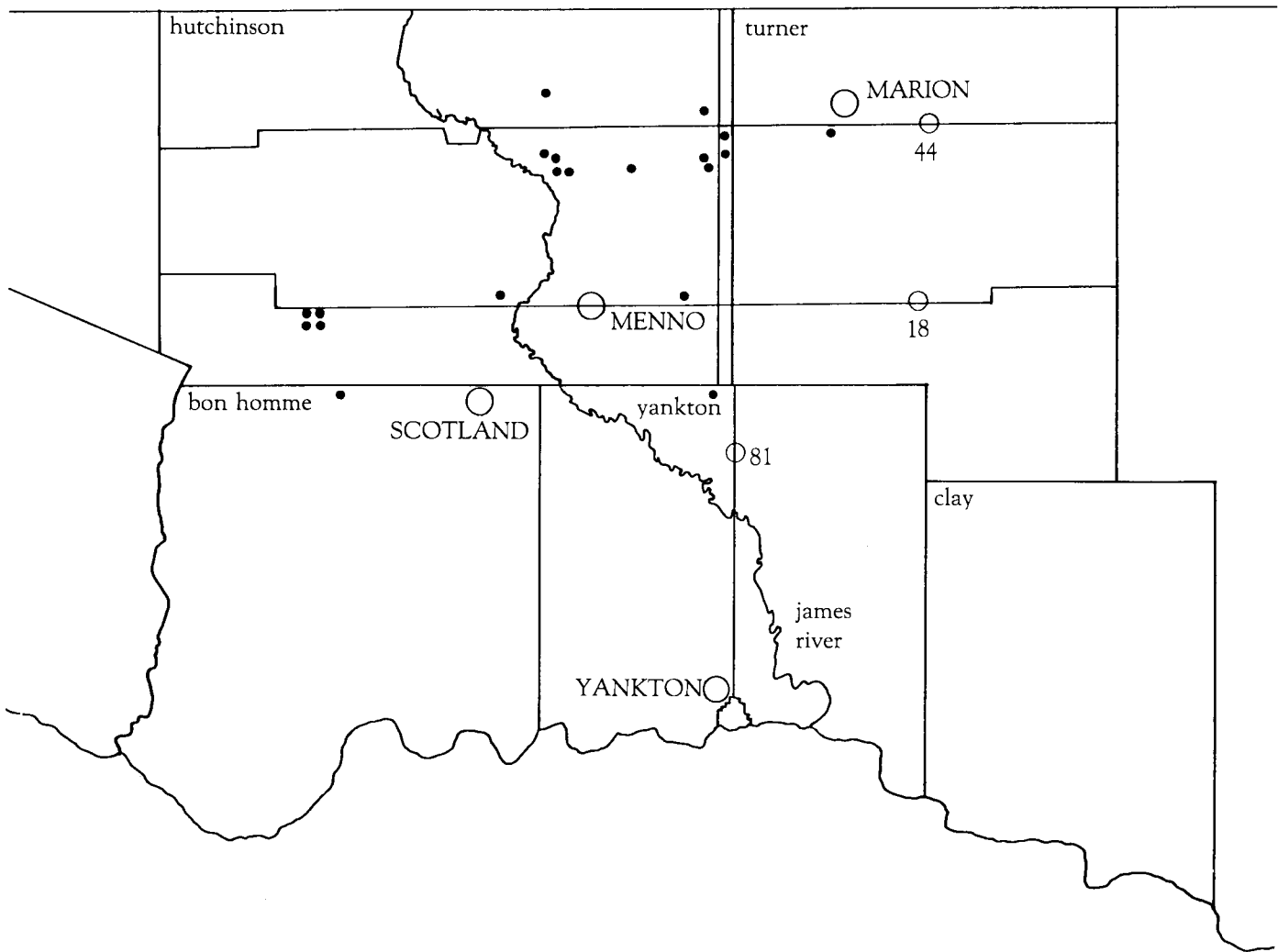
The construction details and the origin of this building tradition were closely examined by the authors in the course of the last three years. This report reveals the intriguing complexity of these relatively unknown puddled clay houses. They represent a rich historic heritage. Reviewing this work prompts the observation of how our historical perceptions become fixed and resist needed revision and further thought. The analysis of German-Russian structures presents information on a cultural legacy as well as, amazingly enough, a credible construction option for the future. One wonders how such houses could stand unappreciated for more than a century. If these obscure dwellings can yield such rich information, then what else, in our current definition of the past, have we missed?

Paul M. Putz
Director
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ABSTRACT

In the late 19th century many settlers in South Dakota migrated from Europe, and although they carried ethnic customs to the Plains, few transplanted a significant amount of their material culture. One exception was the German-Russians. They contributed a unique structure to the South Dakota landscape—a low-roofed, rectangular, central chimney house. These dwellings found in the southeastern part of the state are descendants of the folk structures of the southern Russia Steppes. Both the form of the building and the use of indigenous materials for construction were carried to America.

Notable features of the German-Russian folk house are thick, monolithic walls, a combined furnace/bake oven, massive clay chimneys, and the use of whitewash and traditional colors. The buildings were built with seven distinct construction techniques. Significant modifications to the form and construction of the structures occurred through assimilation into Anglo-American culture. These changes resulted in the gradual abandonment of traditional folk building methods and particular architectural details, but the most enduring element was the form, which was used until the First World War.



GERMAN-RUSSIAN SURVEYED SITES

THE PEOPLE AND THEIR BUILDINGS

HISTORY

The term “German-Russian” refers to a group of German-speaking people who migrated from Germany and Europe to Russia from the mid-18th to the mid-19th centuries. These people came from the southwest part of Germany in Baden-Wurttemberg, Hesse and the Rhineland-Palatinate areas, as well as parts of what is presently Austria, Switzerland, The Netherlands, and Poland. These groups were members of various religious denominations including the Catholic, Evangelical-Protestant, Lutheran, Mennonite and Hutterite faiths, and migrated to parts of western and southern Russia, settling along the Volga River, in the Crimea, Bessarabia, Molotschna, Odessa, Volhynia, Poland and elsewhere.

Fleeing from Germany because of religious persecution and mandatory military service, thousands of farmers and craftsmen responded to an invitation by Catherine the Great in 1763 to colonize the unsettled Steppe country. In addition to the above factors influencing their decision to migrate east, certain economic incentives by Catherine enticed the German-Russians to leave their mother countries and settle the vast space of southern Russia.¹ In South Russia they settled initially along the Volga River and later settlers concentrated in the Black Sea and Ukraine regions. The emigrants established both formal and informal German settlement districts or colonies distinct from the native Russian peasant villages. Each village was comprised of German-Russians who had migrated from the same area and who shared religious beliefs. Joseph S. Height notes in his book *Paradise on the Steppe*:

The Dorf-settlements of the German colonists were laid out according to a uniform and officially approved plan which, by and large, was distinctively Franconian-Alsatian in origin and character.²

In 1871 the Russian government abrogated the privileges of the colonists and began to oppress the unique lifestyle which the German settlers had developed. Unwilling to accept the restrictions forced upon them, the settlers immigrated to North and South America. Seeking large areas of undeveloped land similar to their adopted homeland of the Russian Steppe, the immigrants came to the central plains of the Dakotas, Kansas, Nebraska and eastern Colorado with hopes of renewing their independent way of life.

Between 1873 and 1918, South Dakota received thousands of German-Russian immigrants. The first settlement occurred in the southeastern part of the state near the town of Scotland, with Hutchinson, Bon Homme, western Turner and northern Yankton counties growing most rapidly from the influx of new arrivals.³ Land in southeastern South Dakota was in short supply by the mid-1880s, resulting in expansion to the north where thousands of German-Russians settled east of Mobridge and west of Aberdeen in Campbell, Edmunds, McPherson and

Walworth counties. The third settlement occurred along the Missouri River in Douglas, Charles Mix, Gregory, Corson, Dewey and Tripp counties but was not as heavily concentrated as the initial settlements to the east.

Historic accounts describe the *Russlaender*, or people of Russia, as living their lives apart from their American-born neighbors—separated by a language barrier and a distinct culture. This cultural separation was noted in an article entitled “A Bit of Europe in Dakota” from the July 11, 1896 issue of *Harper’s Weekly*:

But they did not assimilate with American ways and customs—perhaps because there was neither opportunity nor inclination. They were a people by themselves as much as they were when, still German to the core, they toiled in the wheatfields of Russia. The men assumed early the obligations of American citizenship, but for the most part they remained distinctively foreign.⁴

This lack of assimilation in the United States stems, in a large part, from the same type of sheltered lifestyle on the barren Russian Steppe, which produced distinct and segregated colonies. The Germans always felt as outsiders; indeed, they were invited by Catherine the Great for the purpose of colonizing and developing the vast wasteland, but they were allowed many privileges that Russian citizens did not have, which promoted an even greater split between the two groups.

Yet, a certain degree of cultural blending and integration occurs naturally between different ethnic groups; the Germans and Russians were no exception. Language, customs, music, foodways and other expressions of culture were exchanged both in the homelands and during the period of settlement and colonization in South Russia. Today, a blend of several cultures can be seen in the German-Russian folk architecture of South Dakota. An introduction to this architecture begins with an examination of the basic form.

THE FORM OF BUILDING

The fundamental house form brought from the Steppes to South Dakota was a rectangular-shaped, central chimney building constructed in indigenous materials. Built first in clay and stone, later, the houses were built with commercially available lumber. The *Harper’s Weekly* column noted:

Low-roofed and broad are the houses of these peasants, veritable homes of earth. They are not the sod shanties of the Western boomer by any means, for these foreigners have a way of building for the future. They construct their homes in a curious fashion, and build them so substantially they will last half a century if necessary—last until greater prosperity and American influence shall call for houses of wood or stone.⁵

The dimensions of these houses vary somewhat, but range in length from 32’ to 58’ and 19’ to 26’ in width (Fig. 1). One story in height, the houses frequently have a barn or other addition attached to one gable end with a door



Fig 1. The Ludwig Deckert house on the Freeman College campus combines form with contemporary building materials. It was moved to the site from a rural setting and restored to its original condition by family descendants and local volunteers.

connecting the two structures.

The floor plan is another distinguishing feature of these buildings. Long and rectangular in shape, the structure has a central heating unit around which the rooms are arranged. Numbering from two to five, the rooms are clustered by function. If the structures are viewed in terms of bays, or units of space, rather than individual rooms, the logic of the plan becomes apparent. All residences are organized in either two or three bays. The first bay, on the left in the illustrated plans, contains the parlor and sleeping rooms, while the second, or middle bay, contains the kitchen and vestibule; the third bay, when present, functions as either a sleeping room or a storage area. In structures which include a barn, the barn is connected to the third bay. Located between the first and second bays is the heating unit, which may be an oven, furnace or stove. Finally, the main entrance is located in the second bay, although some structures have a second, randomly placed, door.

Some houses are simply a string of rooms, one after another extending in a lateral line. These are called one room deep or single pile houses. In many cases, however, the width of the house is increased and interior partition walls added. Once again, there is a consistent logic in the plan. In the second bay, the unit is partitioned, with the

partition creating one large and one small room. The smaller room, located toward the front, functioned as a vestibule or entranceway and also a storage room. Occasionally, the ladder to the loft is located here. The larger room, of course, served as the kitchen. The first and third bays also can be partitioned with a wall running parallel to the ridge, resulting in rooms used for storage or sleeping.

A unique aspect of these dwellings is a second, interior kitchen, called a black kitchen. This partitioned area or walk-in kitchen was used primarily for cooking. On the opposite side of the chimney and located in the first bay, is a combined furnace/bake oven for baking goods. The oven forms part of the wall partition which divides the bay into two unequally-sized rooms. The room on the front is a formal parlor. To the rear of the parlor is a small room which was used as a bedroom for children or parents. Each of these rooms has a door located on either side of the furnace/bake oven which leads into the kitchen. Frequently, in the third bay and abutting the end wall is the stairway to the loft. The lofts were used for grain storage, and in some cases they also functioned as bedrooms for larger families.

Several other significant features—root cellars, exterior siding, and the number and placement of windows and

doors—together define a particular type of house that was part of the distinct culture of the German-Russian people of southeastern South Dakota.

RESEARCH METHODS

A wealth of information regarding the cultural and especially the social lives of German-Russian settlers in America and South Dakota has been accumulated over the years,⁶ but only a small portion of the literature has dealt with their architectural history. Hudson and Carlson give separate accounts of German-Russian folk house types found in North Dakota;⁷ Height discusses in a general way, the Russian dwelling, typical village layout and the Dorf settlements in Germany from where the settlers came.⁸ William Sherman gives a fairly brief but thoughtful account of the pioneer architecture of the German-Russians in the Great Plains;⁹ and Reuben Goertz provides an interesting comparison between German-Russian folk houses from the Russian Steppe and those found around Freeman, South Dakota.¹⁰

The relative lack of scholarly sources pertaining to folk houses in South Dakota necessitated thorough field work. The method involved, first, locating the body of folk architecture, identifying the most significant examples of houses, and finally, analyzing and documenting those buildings.

The primary objective of the survey was to make a permanent record of the most complete examples of this homogeneous architectural tradition. However, in the field it became clear that considerable complexity existed in the kinds of construction, thus a criterion to examine as many different construction techniques as possible was added. Although the focus of this survey was to document German-Russian folk architecture, two Czechoslovakian sites were recorded because of the striking similarities in construction techniques and general building characteristics. Initial planning had questioned whether such a similarity might exist since Czech settlement occurred as early as 1869, but time did not allow for other sites to be included in the survey.

German-Russians are made up of several groups each of which originally migrated from different parts of Europe. They spoke various dialects and belonged to separate denominations. Therefore, an attempt was made to include as much of this diversity as possible, as it was surmised that this was reflected in the material culture.

SURVEY FINDINGS

Several names for German-Russian building techniques are used regularly in both the literature by professionals and by local informants living in South Dakota. In his article "German-Russian Houses in Western North Dakota" Alvar Carlson uses the terms "rammed earth" and "fachwerk" to describe walls of "clay and stone . . . placed between upright poles." The expression "rammed earth" was used by Ralph Patty, an engineer at South Dakota State University, who wrote the article "Rammed Earth Walls for Farm Buildings" in 1933. "Pise de Terre" as Patty also called it, consisted of

"ordinary moist earth rammed into forms in place directly upon the building foundation and in sections."¹² Several local informants used the terms "sod," "mud," and "rammed earth" interchangeably when discussing these folk buildings. In this study, a specific name is attributed to each construction technique identified in the field.

Fundamental to all the buildings except frame is a basic clay mixture. The clay is used as a load-bearing material, as a mortar and when mixed with sticks and stones between joists as a kind of insulation. Details regarding how the clay was prepared vary slightly, but descriptions given by local informants are similar. The process employed the following sequence: near the site of the house a pit was dug to the depth of the clay, or if the site was adjacent to a creek, clay was removed from the bank and hauled to the pit by stoneboat. Horses, oxen, cattle, or sheep and possibly people, were confined in this pit. Topsoil, in which stones, sticks and other debris naturally occurred, was added, as was water and straw, grass and other plant materials. Animals were used to mix these ingredients while at the same time contributing manure to the mixture. Chemical analysis can determine the exact proportions of the ingredients and also whether sand was included in the mixture, as some have thought. Clay and straw was included in greater or lesser amounts when the mixture was employed as mortar or as a plaster over the interior walls. After being thoroughly mixed, the mud was allowed to set for a time, perhaps only two or three days. During this time, some drying occurred, and the mixture attained a malleable consistency. The mixture was then moved by stoneboat directly to the construction site.

Seven kinds of construction were utilized including: puddled clay, puddled clay with stone, batsa brick, rammed earth, masonry, frame, and batsa brick with frame construction. Combinations of these methods are used regularly in various parts of the house. Fieldstone interspersed with clay is commonly found in the lower area of the foundation, extending to approximately 3' to 4' in height. Batsa brick is often located inside the gable-end wall from the loft to the ridge and under the eave between the joists. Loft floors are frequently made with a mixture of puddled clay and lath strips suspended between stringers. The following describes these methods in detail.

Puddled clay is a freehand method of construction which employs no wooden supports or forms during the building of the load-bearing walls. The prepared clay mixture is piled directly on a foundation made of dry fieldstone or fieldstone with mortar. Using pitchforks or similar tools, builders usually lay the mixture up to a height of about 13" to 18", and at one site to 28", shaping it with bare hands or crude, trowel-like devices.

The reason the puddled clay was piled no higher than 28" is that the water-saturated clay spreads laterally from its own weight. Each tier of clay requires drying before the next tier can be laid although there is some disagreement about how long a period is needed. One local resident remembered that only 24 hours elapsed between tiers, while another believed the time was two weeks. Because each wall is made up of five or six tiers, the discrepancy in time required for its construction is considerable.



Fig. 2. This wooden mold used to make the clay batsa or sun-dried brick is on display at the Heritage Hall Museum in Freeman, South Dakota. Other similar molds are frequently smaller and have panels covering one side.

Puddled clay combined with stone is a second technique which requires an additional step. In most walls of this kind medium-to-large-size stones appear in regular courses, and each course is separated from others by several inches of puddled clay. Distinct from masonry construction, this method of construction uses fieldstones near the exterior surface of walls. If through weathering the stones fall away, the load-bearing clay remains standing. Because they are frequently covered with clay plaster, stones seem not to provide a decorative function, but rather, serve as a filler. According to one informant, stones shortened the work of constructing a wall by taking up space otherwise filled with clay.

Batsa represents a third technique and is the name given to sun-dried brick made of puddled clay. In his book, *Die Russlanddeutsche: Weinhundert Jahre unterwegs*, Karl Stump calls this brick "kohlsteine," but "batsa" is the local name among the South Dakota German-Russians. This is more appropriate than the Spanish word "adobe" which some publications use in reference to these buildings. Batsa found in southeastern South Dakota is about 5' wide, 3" thick and 10" long; however, a site near Eureka in north-central South Dakota contains five bricks 18" long, indicating the possibility of a geographical variance. Hand-shaped clay in the form of large biscuits bonded by clay

mortar also was found at one site in the north-central area.

The composition of the bricks is the same as the puddled clay mixture described above, with perhaps a greater amount of straw. Batsa bricks are shaped by pressing the puddled clay into a wooden mold. One such mold (Fig. 2) displayed at the Heritage Hall Museum in Freeman, South Dakota, is foursided with no top or bottom panels. The bricks are formed by placing the wooden mold on the ground, pressing the clay into it, scraping off the excess clay, and then removing the form. It is quite likely some bricks are shaped by hand. Puddled clay may also be spread on the ground to the thickness desired, allowed to set or partially dry, and then cut into individual bricks.

Rammed earth, a fourth technique, is a form of puddled clay construction in which the clay mixture is placed between vertical wood forms and compressed. A hand-held ramming device or the weight of persons standing on top of a wooden plank is used to compact the clay. As with puddled clay construction, the earthen mixture has to dry before the wood supports can be removed and the construction of the next tier undertaken. Undoubtedly improvisation produced various methods of ramming the earth into the form, although no oral evidence survives.

Masonry construction employs puddled clay as mortar. In stone masonry construction, stone rather than earth is the principal load-bearing element in masonry walls. The stone also may be roughly-dressed to form quoins and coursed rubble walls. Despite the attractiveness of the stonework, masonry walls appear to have been originally covered with clay plaster.

Houses also are built using a crude, locally manufactured, fired brick. Unlike conventional kiln-fired brick, however, this brick is not always heated to extreme temperatures or baked all the way through, resulting in a rather soft, porous material. Piled into a beehive shape around a stack of dry grass, the bricks are laid to leave a small opening at the base. The grass is ignited and allowed to burn until the bricks are sufficiently baked. Resembling conventional brick but not as durable, these bricks deteriorate rapidly when exposed to the elements.

Frame construction within the German-Russian community is the familiar balloon-frame construction method. However, it is used to frame structures according to the traditional German-Russian form. In other words, the construction technique is Anglo-American but the form is German-Russian.

The last technique is batsa brick and frame construction, a method which simply combines the two kinds of construction. The framed building has batsa brick placed between the studs of the exterior wall to the full height of that wall.

BUILDING CONSTRUCTION METHODS

In addition to the form and unique use of indigenous materials, two other unusual features are found in the construction of the buildings. These are the consistent use of a wooden wall plate in structures made of clay and the

technique used to connect the rafters and roof system to the exterior walls.

Each exterior load-bearing wall has a wooden plate commonly measuring 2" x 4". Attached at the top of the clay wall, it is connected to the ceiling joists and rafters. The length varies according to the dimensions of the structure, but usually two or three sections of wood are laid into each axial facade of an average 40' structure. The method of attaching the plate to the top of the wall has not been clearly discerned; however, it appears that a narrow groove is carved in the clay on the top of the wall into which the plate fits. Alternately, mortar may be used to bond the board into the wall.

The top of the plate frequently contains notches into which are seated ceiling joists. This combination provides a locking mechanism which prevents the load-bearing wall from spreading outward under its own weight. Several structures also employ small, wooden shims which are located under the wall plate in the corners of buildings or spaced randomly along the axial facades. The purpose of the shims is not immediately apparent, but they may serve to support the wall plate or simply raise it to a desired height.

Most structures exhibit a similar means of connecting rafters and joists to exterior walls; that is, ceiling joists are usually attached to rafters by a slot mortise. Wall material packed above the wall plate to the roof board (Fig. 3) serves as weatherproofing and insulation.

Loft floors made of clay slope upward at about a 45 degree angle to meet the exterior wall and roof boards. Variations of this flooring technique are not uncommon and at least one structure has knee walls one foot in height (see description Site 6). In this example the exterior wall extends much higher than normal above the loft floor. Furthermore, common rafter beams are inserted in the bottom where the knee wall meets the loft floor.

The width of clay loft floors varies from 6" to 9", but all floors are constructed in the same fashion. Each ceiling joist is embedded into the exterior wall (Fig. 4) and has a small one-inch wide nailing strip attached on each side. The strips support a crudely-made wooden lath as well as the clay floor material. Pieces of wooden lath are placed on top of the nailing strip, and the clay daub is then applied roughly over the lath. The underside of the floor, or ceiling, is finished

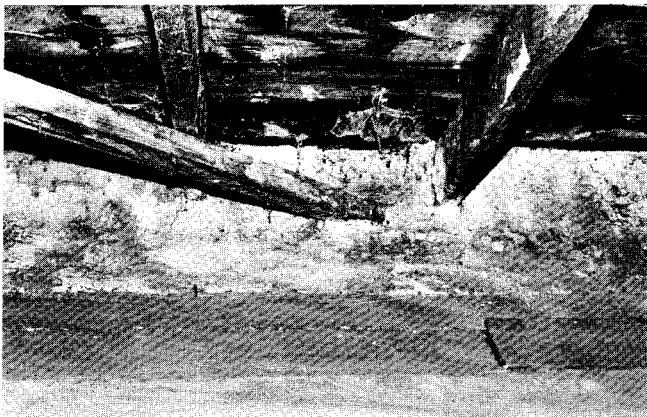


Fig. 3. A wind brace embedded into the uppermost part of a clay wall between two 2" x 4" rafters provides added roof support.

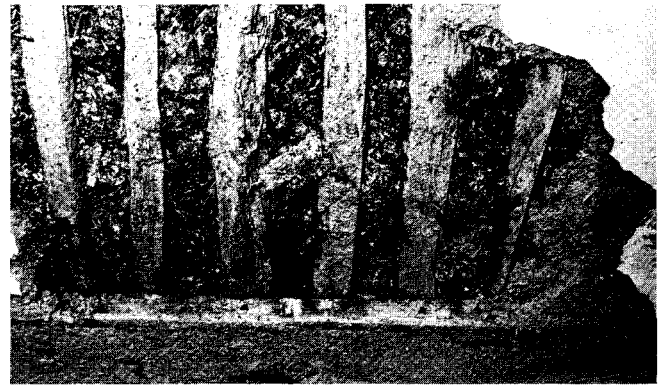


Fig. 4. This detail in the loft floor clearly shows the construction employed. Clay daub serves both as infill between the wooden staves and as a layer of plaster over which is applied whitewash.



Fig. 5. Only two windows pierce the northwest facade of the Ziegler house-barn near Kaylor, an obvious energy saving feature.

with a smooth layer of clay plaster which is then usually covered with a thin veneer of whitewash, paint or plaster.

One of the most striking features of the German-Russian house is the original batsa chimney in the loft which survives in several structures. Constructed of the same batsa brick as the houses, the chimneys can measure up to 6' in width and 15' in length at the base. They taper gradually toward the ridge into a one-foot square. A kiln-fired brick chimney stack extends through the roof. In some sites there is a small opening on the lower part of a chimney near the loft floor which gives access to the inside of the chimney for curing meat.

Roofing systems of the South Dakota German-Russian structures are not uniquely folk. Most rafters and roof boards are circular sawn and were purchased from commercial lumber mills. They are not mortised and tenoned or pegged together (an exception to the latter is Site 6).¹³ Several sites have crude ridge poles, unhewn but stripped of bark, which connect with the rafters at the peak. Other houses have wind braces, commonly made of 2" x 4" board embedded into the top of the wall near the rafters. While all houses in the survey have contemporary roofing (Fig. 4) materials such as asbestos shingle or tin, historic photographs and literature indicate that several early houses had thatch roofs at one time.

Other common features of construction include the foundation and exterior siding. Numerous structures have been well preserved, and as a result, the foundation is covered with a more recent form of cement or plaster making it difficult to determine the original material which was used. Exposed foundations are usually made of fieldstone with clay mortar or simply dry fieldstone. Most structures are supported by a foundation which is placed on the ground rather than excavated into the earth's surface.

On frame and clay-constructed buildings with wood exteriors, the most common type of siding is horizontal clapboard; several structures have drop siding as well. Some houses which have been sided at two different times originally had 12"-wide, rough-cut boards and narrower clapboard applied at a later date.

HEATING AND COOKING STRUCTURES

There is widespread recognition that the German-Russians had heating and cooking structures of a unique nature. The descriptive term used by informants is "Russian oven". Although the ovens may have originated in Russia it is more likely that the source of these structures is German, or even more broadly, central European. The term "Russian oven" actually refers to the three distinct structures which are: Type A, walk-in kitchen with attached furnace/bake oven; Type B, combined furnace/bake oven; and Type C, bake oven.

Type A is a walk-in kitchen with an attached furnace/bake oven. It is found in two extant examples, Site 1 and Site 2, and the somewhat equivocal remains of Site 14. Type A is composed of a small room and an attached furnace/bake oven. The small, centrally-located room measures about 6' square and is situated against the middle of the kitchen wall. The attached furnace/bake oven measures approximately 6' high, 2' wide and 5' long and is located opposite and perpendicular to the wall it shares with the small room.

The small room is a walk-in or "black kitchen" in which food is cooked. The term "black kitchen" derives from the appearance of the inside of the room; walls blackened with smoke and covered with soot give the effect of standing inside a chimney. The larger room within which it appears also functions as a kitchen. However, in this kitchen the food is prepared for cooking and then served. The floor of the walk-in kitchen is made of kiln-fired brick, and the same material is used for the two stoves within the kitchen.

Of the two stoves one might be called a range, since two wrought-iron rings, or burners, in its top are used to heat pots and pans. A firebox, or heating chamber, is located beneath the two burners. Directly beneath this is a second firebox used when the first chamber functions as a bake oven. The second stove has a firebox located beneath a built-in pot used to boil water, wash clothes and render animal fat. Smoke from these two cooking stoves in the walk-in kitchen rises through a large open chimney directly above.

A noteworthy feature of the walk-in kitchen includes sliding doors, mounted on an interior or exterior track, and used to prevent smoke from entering the rest of the house. Another feature is a glass-paned window which gives light and air to the small chamber.

The combined furnace/bake oven is fired through an opening located in the wall shared with the walk-in kitchen. The walls of the furnace are kiln-fired brick while the bottom of the firebox is covered with a layer of sand.

The heating chamber extends the full length of the furnace, and has a flue which follows a labyrinthine course to the chimney stack. The course is a sequence of S-shaped curves, with the curves squared-up rather than rounded. The flue turns three times or more, causing rising smoke and heat to run the full length of the furnace before being discharged into the chimney. A small chamber for baking which extends the length of the furnace is located approximately at the second passage of the flue. A pair of hinged, iron doors covers the opening to the oven. Although complex in description, the furnace/bake oven is quite simple and efficient. The several turnings of the flue serve at least two important purposes say informants. The first is safety. In early years when roofs were made of thatch, this design prevented live sparks from reaching the roof and setting it afire. The second is energy conservation. Heat trapped in the curves is stored in the furnace wall thereby heating the rooms surrounding the furnace.

Above the walk-in kitchen is the chimney (Fig. 6) which dominates the loft of the house like an enormous beehive. At the base, it is the exact size of the walk-in kitchen since it sits atop the walls of this room. The stack of the batsa chimney is made of kiln-fired brick and emerges above the roof ridge. Within the spacious interior of the chimney, meat is cured by smoke. Access to the chimney interior is gained either from the loft through a door opening into the chimney or from below, through the walk-in kitchen.

Type B is a combined furnace/bake oven described in Type A, minus the walk-in kitchen. Slight variations occur in Type B structures. These are discussed in the section on site descriptions. One feature which distinguishes this type of oven from Type A is that the loft chimney for Type B is more commonly smaller than for Type A. Other details are similar. The location of the firebox for the combined furnace/bake oven is thought to have been on the same wall as in Type A. Oral history regarding Site 7 confirms this, as does physical evidence at Site 5. However, this location may not have been standard.

Type C, the last type, is a simple bake oven. One intact example of a bake oven survives at Site 16A. The structure is the height of the room (Fig. 7), and a flue enters the large but narrow chimney in the loft.

A unique feature of this oven is the location. The bake oven measures 2'9" across and is situated in a corner of the kitchen. Here, it can take advantage of an interior wall to increase the length or depth of the baking chamber. This is accomplished by having the bake oven abut the wall which is 1'7" thick. The oven projects forward of that wall by 2'. The back side of the oven, in appearance much like a fireplace that has been walled up, extends beyond the other side of the wall. The baking chamber penetrates the wall

and is extended by the additional structure for another 1'3". The total length, then, of the baking chamber, as measured on the outside, is 4'10". The actual interior depth of this baking chamber is somewhat less since the wall thickness at the end of the chamber reduces its overall size. Additional shortening occurs because the opening to the chamber is recessed about one foot, reducing the depth of the interior of the oven to about 3'.

A large, square opening at the front of the oven gives access to the baking chamber. This opening, which measures 2'4" wide and 1'1" high, was probably covered by a hinged, iron door. Beyond this opening is a recess about 1' deep which ends in the front wall of the baking chamber. The opening is arched and measures 1'6" in height and about 1' in width.

A firebox appears to be located just below the baking chamber. The oven is probably heated by a fire in this small, 1'8" lower chamber, or live coals are placed in the baking chamber itself and removed when baking temperature is reached.

The loft chimney at Site 16A spans the width of a room and connects the flues from a Type B combined furnace/bake oven with the Type C bake oven. Made of batsa brick, the chimney is about 12' long, but in this case approximately 3' wide. The weight of the chimney rests on

the dividing wall between the entry room and the kitchen. An opening in the chimney wall gives access to its interior, where meat is placed for smoking.

SITE ARRANGEMENT

An exacting discussion of site arrangement is difficult because non-domestic structures on German-Russian farmsteads have been removed or destroyed. There seems to have been little intentional arrangement of buildings into a courtyard plan. As to the siting of the structures themselves, only a few facts are known. A driveway leads to an open area around which buildings are arranged. This space, however, cannot really be described as a courtyard. The house is a focal point in the farm yard and may be sited in any direction, although frequently it lies on a north-south axis. If the structure is a house-barn, the barn portion is usually attached to the north end. Few windows are found on the west side of the barn and fewer still, if any, are located on the north. In this, the need for shelter from the northwest wind seems to be the main consideration; the barn shelters the house and the lack of windows cuts down on heat loss.

Timber claims added to the acreage of some early farmsteads, and shelterbelts and wind breaks which were

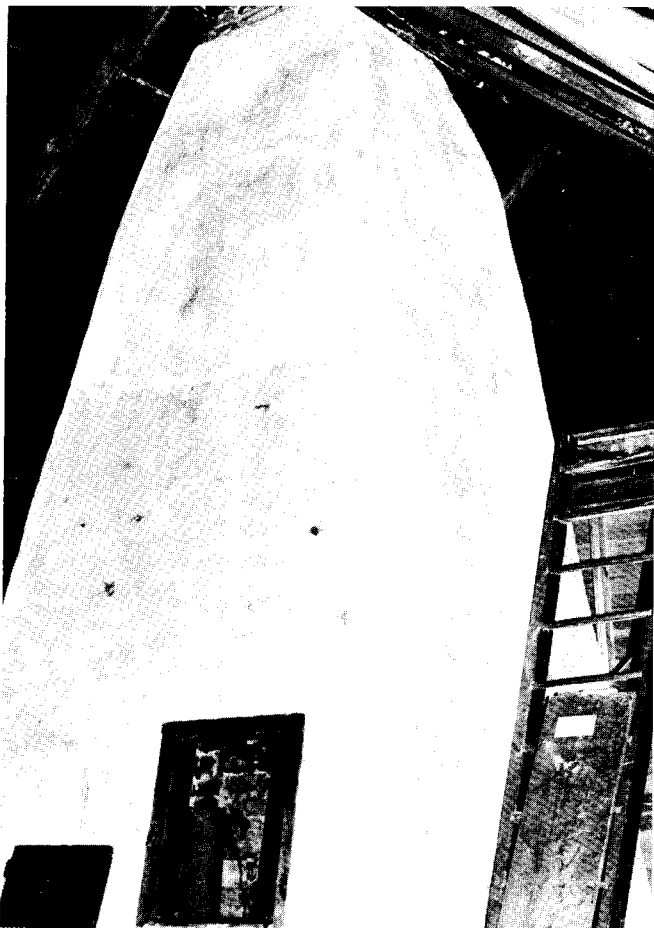


Fig. 6. A framed opening about 2' high at the base of the chimney allows meat to be hung inside for smoking; a thin layer of clay covers the batsa brick which can be seen through the opening. Kiln-fired brick is used at the top of the chimney where it meets the roof ridge.

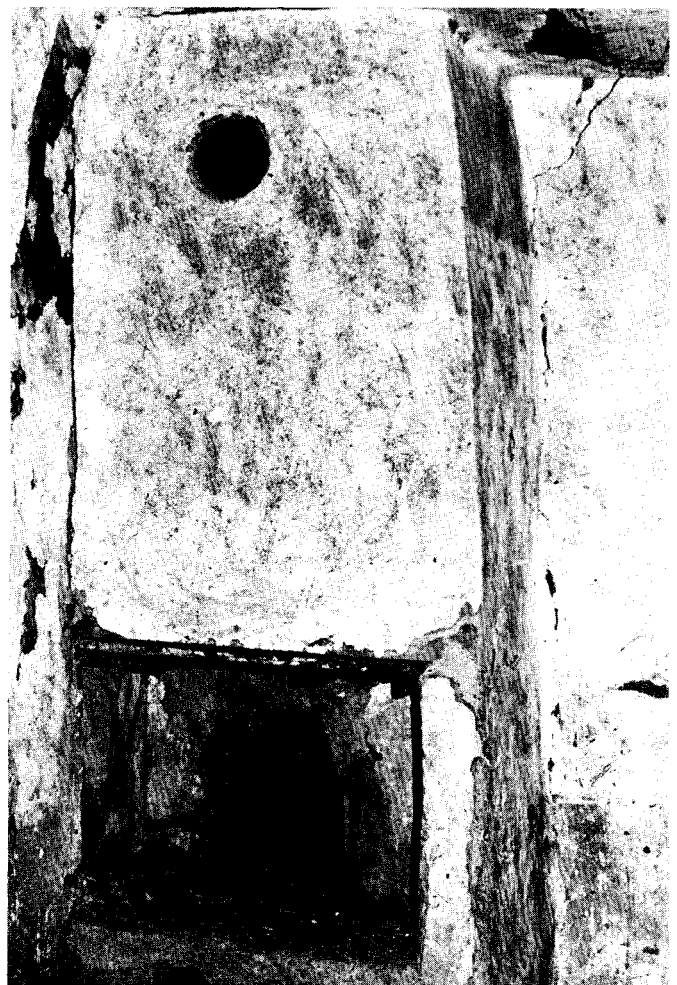


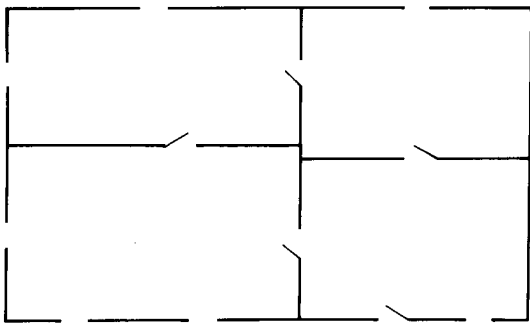
Fig. 7. Situated in the middle bay, this bake oven extends through the clay wall to a depth of 1'3".

planted from the 1880s-1930s occur at nearly every site. Remnants remain of these woods, and the trees line up in uniform rows, most often to the north and west, of the farm yard.

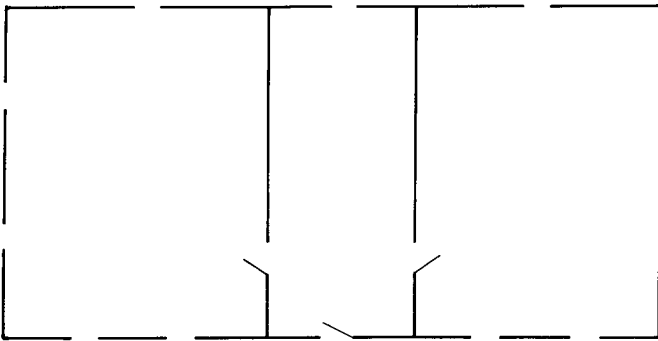
FLOOR PLANS

Slight variations on the floor plans are found among the 17 houses. The following six drawings are sketches of the room arrangements; the length and width of houses in each grouping have been averaged.

The two-bay, two-room deep floor plan is the most common and is found in five structures. Three to five openings pierce the main facade. The door is usually found to the right of center with two windows to the immediate left. While no pattern emerged regarding the width of the rooms, in four out of five houses the left bay was at least 2' longer than the right bay.

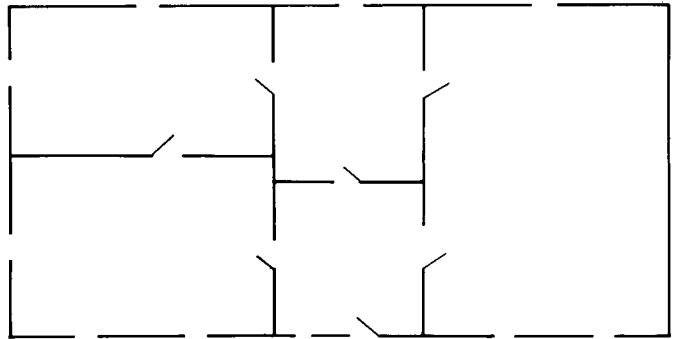


The second plan is the three-bay, one-room deep design. Three structures exhibited this floor plan. All had four to five openings on the main facade with the doorway towards the middle and two windows on each side. The middle bay in each of these structures is about 5' less in length than the outer bays. It is interesting to note that the overall width in each bay varies by only 4" for each structure.

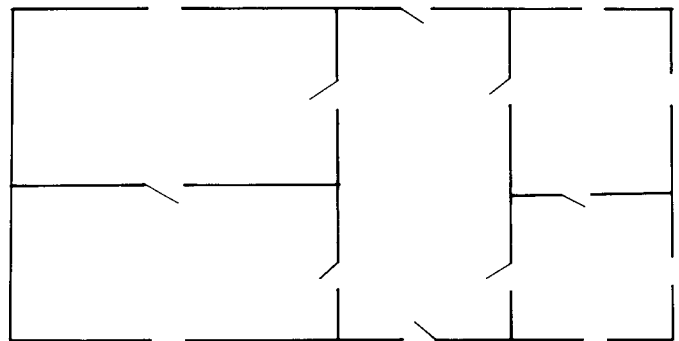


The three-bay, one and two-rooms deep plan is similar to the previous floor plan. These three-bay houses are divided laterally resulting in a five-room configuration instead of the three rooms. The front room in the middle bay, the entryway, is always the smallest room in the house, and the

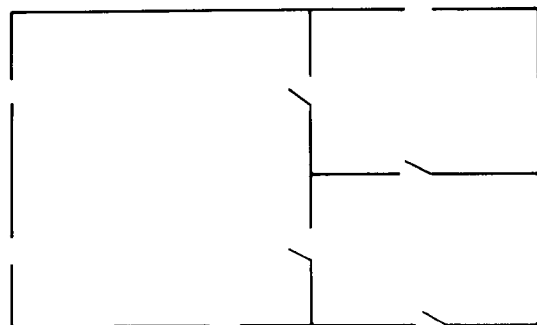
room behind the entry is generally about the same length but slightly wider. The left bay is longer than the middle bay and the front room is wider than the rear room.



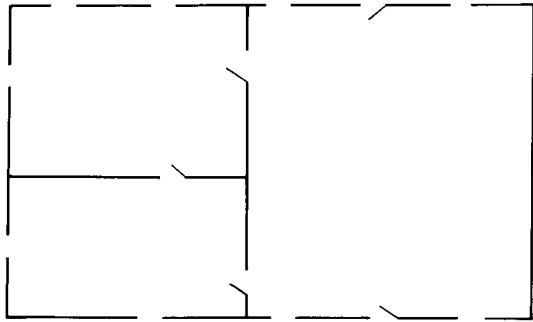
The three-bay, central hallway with double flanking rooms plan creates a relatively symmetrical structure. The nearly central hallway in these dwellings differs only slightly in both length and width. Rooms on either side of the hallway are divided laterally and are about equal in width, but vary greatly in length. Each structure has four to five openings on the main and rear facades, with the doorways facing each other. Perhaps the result of conscious planning or simply an accident, neither structure has openings on the north gable end but two each on the south gable end.



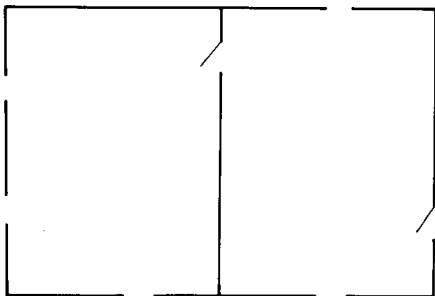
There are two variations of the two-bay, three-room plan, each a mirror image of the other. The first example has the entry open into a small room which is divided axially resulting in a slightly wider rear room in the right bay. The left bay is a nearly-square open room accessible from either the front or rear rooms of the right bay.



The second floor plan reverses the previous arrangement. Entry is made into the right bay through a large kitchen space, about 2' longer than wide. As in the arrangement above, access into the left bay is through two doorways; in this case each door abuts the exterior of a walk-in kitchen. The left bay is subdivided into two rooms and, as above, the front room is about 2' narrower than the rear room. Both structures have four openings on the main facade and two windows in the left gable end.



Only one site in the survey utilizes the two-bay, one-room deep plan. Presently a three-bay with ell addition floor plan, the primary or original dwelling is thought to be a fairly symmetrical two-bay arrangement. Both rooms are approximately the same width and differ in length by 3'6". Two windows pierce the south facade as well as the west gable end; there is one window on the north facade.



While the number of sites in the survey is limited, it is possible to make a few assumptions. Two basic floor plans seem to emerge as the dominant arrangement of interior space. First, a two-bay, double-pile plan is employed in larger structures. The other is a three-bay plan in both single and double pile which developed from the need for increased storage space.

It appears that in at least three of the floor plans discussed above the front room in the left bay is somewhat deeper than the rear room of the same bay and functions as the parlor. Furthermore, the axial center wall which divides the space is not continuous, resulting in varying room sizes unlike the transverse interior wall which serves as a complete bilateral divider.

INTERIOR DECORATION

A rich, ethnic decorative tradition is still evident in these

houses. The 1896 *Harper's Weekly* described a common dwelling:

. . . the walls are plastered with clay on the inside, and are then painted or kalsomined, the ceilings in almost all instances being tinted a pronounced blue. The walls are plain white or decorated. In this decoration much ingenuity is shown. The body of the wall will first be painted white. Then with long corncobs and different-colored strips the width of the cob's length, which is dipped in the coloring matter and rolled up and down the walls, make a queer but not inartistic graining effect. There is generally a piece of wainscoting of some natural tint, from three to four feet high.¹⁵

It appears that often wall paint was applied using a sponge, rag or other unconventional tool; window and door frames, however, seem to have been painted with a brush. Color schemes similar to the one described above are common; and one site, 16A, had walls painted with a corncob, although due to weathering and fading it is not clear if this is exactly the same process. One informant was told by his family that whitewash was made by making a fire pit in the ground and placing chalkrock in the fire. The paint, which was made by mixing the softened chalkstone with water, was applied to interior or exterior walls as part of a stucco.¹⁶ Another informant said that blue color for whitewash was derived from store-bought laundry bluing. Commercially-made color additives, such as ochre, were mixed with white paint; varying amounts of the ochre were added to achieve the desired shade of yellow, mustard and orange.¹⁷

The most common colors recorded are blue and mustard or yellow ochre. These are used throughout the house on walls, ceilings, floors, moldings and wainscoting. Various shades of turquoise blue, midnight blue and darker shades such as olive and forest green and reddish-brown are also common.

Added decoration appears in the form of stenciling, (Fig. 8) spattering and wainscoting. The most highly decorated room appears to have been the parlor or front room of the first bay. An interesting paint pattern is found in one room on the floor at Site 14. Stenciling was evident at two sites (16 and 13) and appeared in one site as a freize. Several houses have wainscoting painted in the same traditional colors as above. Two houses have evidence of oil cloth covering which was whitewashed and later covered with a stencil-like wallpaper. The oil cloth serves the dual purpose of covering the clay walls and providing a layer of insulation.

The use of a chamfer on exposed ceiling joists is observed, but the style and execution of the chamfer varies considerably. Baseboard and molding around doors are found regularly and varies somewhat in size.

Recessed cupboards and shelves (Fig. 9) are most often located in the left bay to one side of the furnace/bake oven or along the interior wall. Cupboards range in size from 4' to 6' in height and 3'6" to 4' in width. Several cupboards have glassed, hinged doors on the top with drawers on the lower half.

Rounded or sculptured corners at the juncture of the wall

and ceiling are common (Fig. 10) and most pronounced at Site 12. Conversely, squared walls and window wells are less frequent and may indicate the use of wooden molds during construction. An excellent example of this can be found at

Site 16A.

This summary has highlighted the common features which define this body of folk architecture, while the following is an in-depth description of each site.

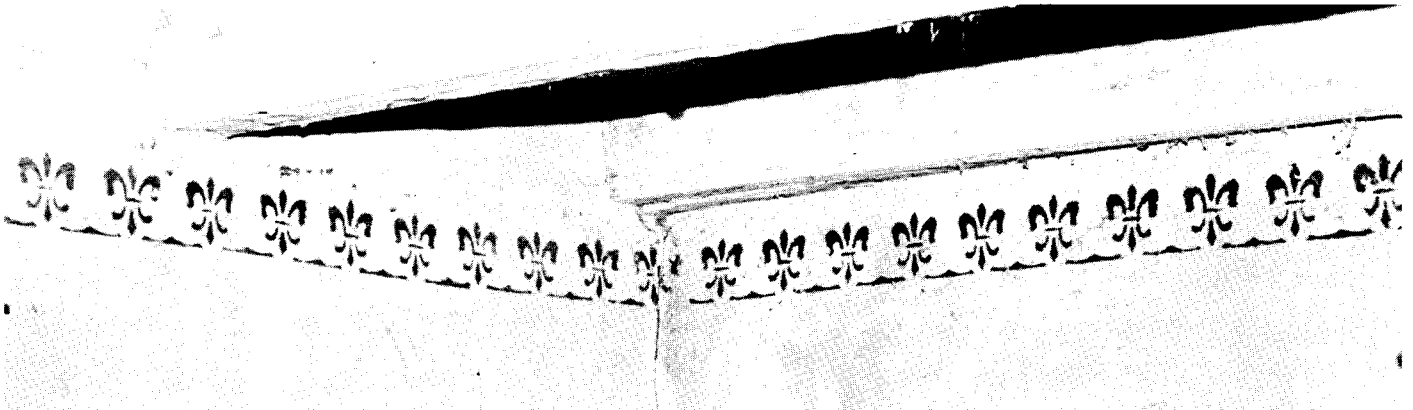


Fig. 8. This fleur-de-lis stencil pattern represents one form of decoration used by German-Russians in their homes.



Fig 9. While not all recessed cupboards are as finely crafted and impressive as this one at the Deckert house, the common location adjacent to the furnace/bake oven indicated the persistence of a cultural tradition through time.



Fig. 10. The use of a traditional folk design is found at the Phillip Lang house in the form of a surround of white painted around the front doorway. Deep sky blue on the door provides a striking contrast.



Fig. 11. The southeast elevation of the Kleinsasser house-barn is shown here.

SITE DESCRIPTIONS

SITE ONE

STRUCTURE: House-Barn

CONSTRUCTION: Batsa Brick (house only)

DIMENSIONS: 87'9" overall x 24'5"

45'6" house; 42'3" barn

YEAR BUILT: Circa 1874

FIRST OWNER: John Wiens

PRESENT OWNER: Leland Kleinsasser

COUNTY: Turner

TOWNSHIP: Rosefield

Situated at the end of a long driveway on flat terrain, Site 1 is an abandoned farmstead (Fig. 11) surrounded by cornfields. Approaching from the east, the lane leads west from the section road. Towards the center of the section three buildings grouped together on a north-south axis stand out in the vast space—the house-barn, a 20th century frame barn and turn-of-the-century frame house. These newer buildings are sited to the south and northeast, respectively. Entry into the house-barn is made through a door on the east facade while the barn is attached on the north end.

This structure is built of batsa brick. The main dwelling consists entirely of batsa brick while the barn, by all indications constructed at the same time as the house, is a simple frame building. The load-bearing walls of the house are made of several courses of batsa brick and measure about 19" in thickness.

Construction techniques in the Kleinsasser house are not unique in the survey but the combination of frame with the batsa walls deserves a brief discussion. Apparently, a framing system of vertical 2" x 4" studs was laid into the original batsa brick wall and acted as nailing supports upon which horizontal exterior siding was applied. The vertical members may have been added at a later date by carving a groove into the batsa wall and securing the studs with mortar, but more probably the batsa brick and 2" x 4" stud frame were constructed simultaneously.

Another construction feature common to the other structures is the use of a horizontal 2" x 4" wall plate placed near the top of the exterior wall. This is notched into the ceiling joist and acts as a support for the joist and prevents the wall from bulging outward. This plate runs the entire length of the long or axial facade and consists of three to four lengths of board spliced together at regular points in the structure.



Fig. 12. This three-walled black kitchen is located in the Kleinsasser house-barn. Constructed of batsa brick, the walk-in kitchen formerly had a wooden sliding door covering the 4'4" wide opening. A furnace/bake oven was fired through a small opening on the wall opposite the door. Note the window for extra light and thin clay vincer with whitewash over the batsa brick.

A rain or splash guard is found commonly on structures made of earthen material. This protective board is located on the gable end, approximately level with the loft floor. On the Kleinsasser house, it is found at the juncture of the horizontal and beveled siding.

On the interior are several notable features. For example, in the window well the window seats are split-level; as the window widens, the seat level drops about 1" from the height closer to the window frame. Another window feature unique to this building is the use of a block of wood which extends 9½" straight back from just inside the sash to where the window widens. By contrast, other houses which have walls of similar thickness contain windows which narrow at an angle until they meet the sash frame.

A recessed cupboard is also found at the Kleinsasser house. At this particular site, the cupboard was placed immediately adjacent to the furnace/bake oven, in the rear room of the first bay. The cupboard no longer exists but

evidence suggests it was approximately 3' wide. It was recessed 9" into the interior batsa wall and extended nearly the full height of the room.

An extremely rare component found at only one other site is the walk-in or black kitchen. This space, located in the central part of the house, measures approximately 6'6" x 7' with 1' thick batsa walls. This kitchen-within-a-kitchen (Fig. 12) served as the cooking area and contains two stoves, each having a different purpose. A unique feature is that neither of the stoves within the kitchen had any stovepipe or other device for transmitting smoke into a chimney, away from the cooking area proper. The walk-in kitchen thus served a dual purpose as both cooking area and functional chimney. Within the west wall of the walk-in kitchen is a small, 2' wide window (probably double-hung) which provided extra light and ventilation for the room. Along the north wall is a 4' wide entrance above which is attached the board which supports the track for a sliding door. Opposite the door is the firebox for the furnace/bake oven which was fired from the kitchen.

While the primary purpose of the walk-in kitchen was cooking, one source suggests that this space was also used to heat part of the house by tossing loose straw and other ingredients into the kitchen area and igniting them to provide temporary heat.¹⁸ A third purpose for this room was the curing of meats which took place inside the chimney directly above the cooking area. At the height of 10' the chimney narrows in width, and the two 2" x 4" beams used to hang the curing meat are located at this narrowing point.

As previously discussed, the furnace/bake oven was located opposite the kitchen in the first bay. This oven, now removed, (Fig. 13) extended almost 5' perpendicularly from the common batsa wall, and was approximately 2' wide x 6' high. Constructed of kiln-fired brick, it had two small hinged doors which opened on the west side for baked goods. Presumably this oven was used for heating and baking; according to other sources, similar ovens also heated three rooms easily on two firings a day. Some suggest

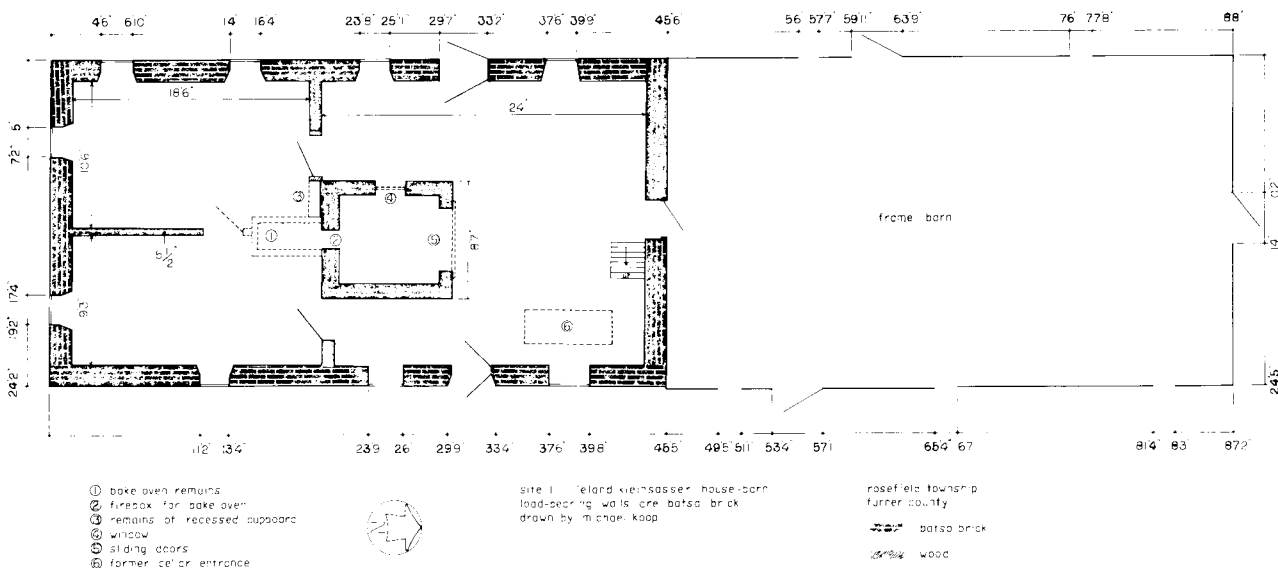


Fig. 13. Constructed entirely of batsa brick, this house is two bays wide. The south room is subdivided by a narrow batsa wall and the furnace/bake oven.

that family members slept on top of furnace/bake ovens during the coldest part of the winter.¹⁹

Attached to the south end of the furnace/bake oven is a vertical stud which served as one side of a door frame. A 3'6" wide door is located adjacent to the oven. Adjoining the door and oven is a partition wall. Approximately 5", or one batsa brick wide, the wall along with the oven served as a longitudinal room divider.

Made of batsa brick, the chimney measures approximately 7' x 6' at the base. Two sets of exposed 2" x 4" beams are embedded within the chimney; one set runs parallel with the roof ridge and is about 3' above the loft floor while the other is perpendicular to the roof and 3' higher than the previous set. Apparently the beams provide structural support for the chimney. This particular chimney is interesting in that the corner bricks are laid in an overlapping or crossing pattern and both the east and west sides of the base show a distinct convex shape.

The floor plan is two bays and has a room divider on the south end and a traditional ladder stair to the loft located on the north or barn-side wall. Adjacent to the stairway is the door which leads to the barn; immediately west of the front door is an area which is filled in with dirt that once served as a partial basement.

The southwest parlor room has oil cloth covering the original plaster which was laid over the batsa brick. All exposed ceiling joists are chamfered and have a slight upward curve in the center of the beam.

SITE TWO

STRUCTURE: House

CONSTRUCTION: Frame

DIMENSIONS: 38'6" x 26'4"

YEAR BUILT: Circa 1879

FIRST OWNER: Ludwig Deckert

PRESENT OWNER: Freeman Junior College

COUNTY: Hutchinson

TOWNSHIP: Grandview

An outstanding example of frame German-Russian construction is the Deckert house, (Fig. 14) now a museum located on the Freeman Junior College campus in Freeman.

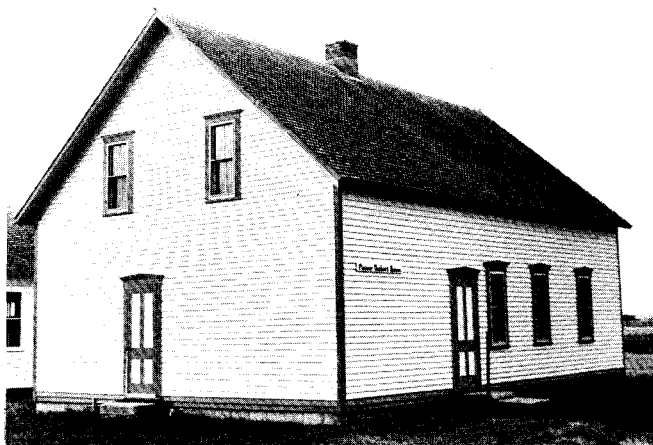


Fig. 14. Pictured here is the northwest elevation of the Deckert house.

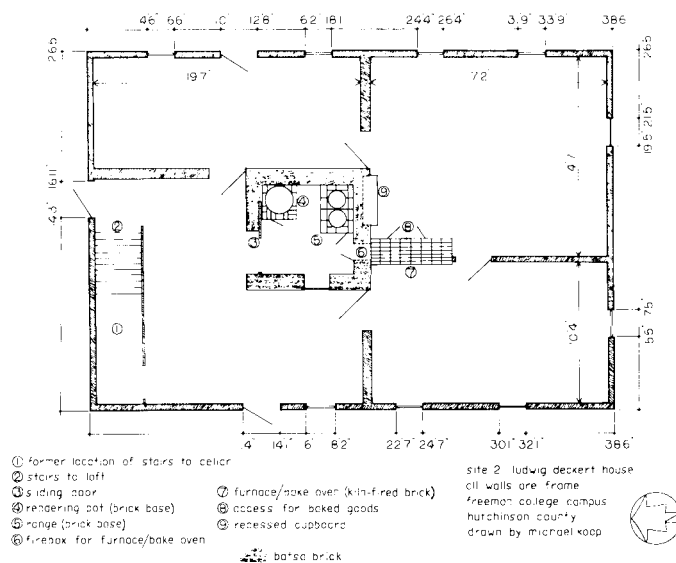


Fig. 15. Nearly an exact mirror image of the Kleinsasser house-barn, the Deckert house represents a typical German-Russian dwelling replete with the sundry amenities of a comfortable home.

Built circa 1879 by Ludwig Deckert, a farmer and carpenter, the structure exemplifies modest wealth applied to a folk building form.

Both the interior and exterior of the house have been repainted in traditional folk colors, based on recollections by descendants of Ludwig Deckert. A vorhäusl which was added to the structure in the late 1880s did not survive the move to the present site. Attached to the west entrance, the vorhäusl had a doorway facing south. Presently it serves as an enclosed porch on the Ralph Kaufman house in Freeman. Mr. Kaufman supervised the relocation of the building.

A doorway in the north gable end of the house was apparently added at a later date. According to Mr. Kaufman, this allowed a family member living in the loft a more private entrance. No other house in the survey had a ground level, gable-end doorway, except in the case of a doorway to a connecting barn.

The floor plan of the Deckert house (Fig. 15) is nearly identical to Site 1, except an additional partition wall has been built in the northeast dining room. The two bay plan is divided into four rooms.

The walk-in kitchen is similar in proportions and materials to Site 1 but has a door which slides into a frame wall rather than being attached to the exterior by a wooden track. This kitchen-within-a-kitchen also served as the cooking area and contains two stoves each serving a different purpose. Kiln-fired brick paves the kitchen floor.

The range, or cookstove, (Fig. 16) has two separate fireboxes which customarily were not stoked together. The upper firebox was used to heat the range, covered with its two metal plates upon which pots and pans were placed for frying, while the lower firebox heated the middle section used for baking purposes. The second stove, actually a rendering pot, has a single firebox and a large cooking pot. Each of these stoves is made of kiln-fired brick.

Both of the stoves and many of the kitchen utensils such as bread pans and baking boards were removed from the

Kleinsasser house and placed in the kitchen at the Deckert house. All the stovepipe in the Deckert house was added later.

The furnace/bake oven at the Deckert house (Fig. 17) was also removed from the Kleinsasser house. Based on evidence from the original site and other sources, the oven had a batsa brick base with oven doors opening to the west. However, because of extenuating circumstances, these details were not copied when the oven was moved. Immediately east of the furnace/bake oven is a recessed wall cupboard extending nearly the full height of the room. This elaborate cupboard has two glass doors for the upper shelves, two small drawers in the middle and two large cabinet doors for the lower portion.

The large chimney, 7'8" wide and 6'1" long, is made of batsa brick and has a thin clay covering. A small two-foot square opening in the upper part of the chimney provides access to the smoke chimney. This is in contrast to Site 1 which has no such opening and where meats were hooked onto beams from inside the walk-in kitchen.

The loft was lived in by a member of the Deckert family, which was not unusual. However, the Deckert house is unusual in that the loft area has a high ceiling and two small finished bedrooms partitioned off on the south end. Above these rooms extra storage or sleeping space is accessible from a stepladder.

The original site provides some interesting information about the structure. Remains of the foundation are visible and clearly show that a walkway led to a vorhäusl on the west side of the house. On the north end of the foundation is the original basement which was not reproduced at the present site. Immediately to the south of this depression is a stone foundation and a slight rise in the ground, measuring 16' in length. This mound of dirt and stone corresponds with the area of the walk-in kitchen and suggests extra support, in the form of a stone foundation, was needed for the chimney and kitchen stoves.

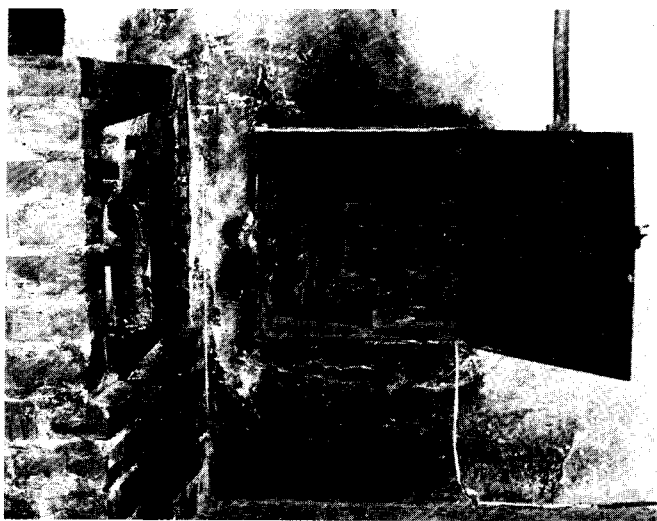


Fig. 16. Within the walk-in kitchen a brick range on the left shows two fireboxes. A kettle on top was used for cooking. The deep brick opening with hinged door on the right is a firebox for the furnace/bake oven which is located in another room.



Fig. 17. The Deckert house furnace/bake oven acts as a divider between the parlor and bedroom. Baked goods were placed inside through the two small hinged doors.



Fig. 18. Pictured here is the Joe L. Hofer frame house-barn.

SITE THREE

STRUCTURE: House-Barn

CONSTRUCTION: Frame

DIMENSIONS: 74' overall x 26'5"
36' house; 38' barn

YEAR BUILT: Unknown

FIRST OWNER: Enoch Hofer

PRESENT OWNER: Joe L. Hofer

COUNTY: Hutchinson

TOWNSHIP: Silver Lake

This 74' house-barn is constructed entirely of wood and was erected by an uncle of the present owner's father. The building is oriented on a north-south axis, perpendicular to the nearby section road. More recent frame outbuildings are sited parallel and in front of the house. Apparently the dwelling was originally two-bays wide but several wall partitions added at a later date have decreased the room sizes considerably. In the northwest room a stairway leads to a root cellar lined with fieldstone walls, measuring approximately 7' x 20'.

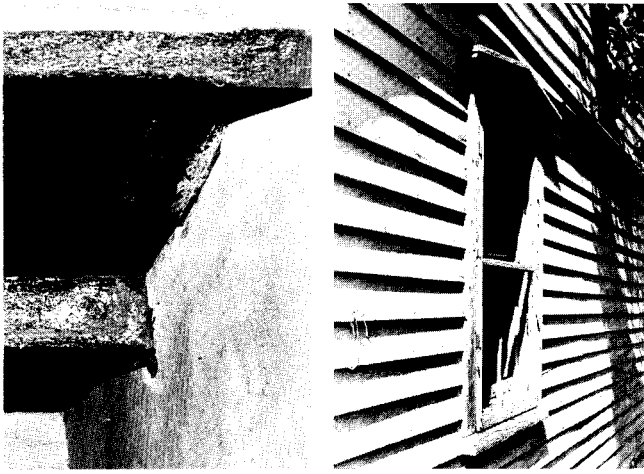


Fig. 19. A longer chamfer on the ceiling joist at the top of the photo may indicate that a furnace/bake oven was once located there. Another indication of the oven is a vertical crack in the far wall seen at the bottom left in the photo.

Fig. 20. All window frames at the Joe L. Hofer house-barn have these quarter-rounded aprons. More recent lap siding covers the 11½" wide board siding.

Evidence exists of a furnace/bake oven in the rear room of the first or south bay. Located along the north wall, the outline of an oven extends approximately 18" to the west along the wall. Through this wall extended the firebox. This is the common location of a furnace/bake oven in houses of similar dimensions. Further evidence is a series of exposed chamfered stringers (Fig. 19) with one uneven chamfer at the end of the beam, under which the furnace/bake oven was located. Because all interior walls are stud with plaster and lath infill, it is difficult to determine with absolute certainty that an oven did exist.

The existence of a walk-in kitchen is less likely, suggesting that this structure was built at a later date when lumber was readily available and more modern cooking facilities such as a wood-fired stove were employed.

Another distinguishing feature of this site is the amount and variety of paint colors used on doors, moldings, floors and ceilings. In the southeast parlor room several pieces of molding have five discernable layers of paint each a different color: red ochre, purple blue, light blue, light blue gray and light olive. In the same room the floor has both yellow ochre and red-brown colors on some floor boards and gray-blue, light blue, and light olive paint on the ceiling.

The exterior is covered with two types of siding; the earlier layer, which is attached with square nails, consists of 11½" wide common horizontal siding, and the second is 15¼" wide clapboard. A unique detail appears in the construction of the window frame (Fig. 20). In the lower part of each frame the window apron has a semi-circular shape, curving outward from below the window stool into a quarter-round shape. Other details include a transom light above the west or (rear) door.

Two significant features appear in the barn: a small, frame shed addition attached to the northwest side, common to local barns, and drop siding on the northwest side. The latter is wide cut and painted red.

According to the owner, the first structure on the property was a summer kitchen which doubled as the original dwelling. The frame house-barn, according to the owner, never had a Russian oven (furnace/bake oven) because the summer kitchen contained one. The evidence gathered from the house, however, strongly suggests that a furnace/bake oven did exist.

SITE FOUR

STRUCTURE: House
 CONSTRUCTION: Puddled Clay
 DIMENSIONS: 34' x 22'
 YEAR BUILT: Circa 1880
 FIRST OWNER: John Schempp
 PRESENT OWNER: Gene Lang
 COUNTY: Hutchinson
 TOWNSHIP: Wolf Creek

Located on a working farm, the Lang house is situated adjacent to the present dwelling and enclosed on the north and west by a thick grove of medium-growth timber (Fig. 21). Presently used for storage, and suffering some decay, the structure reveals the methods employed in the construction of earthen buildings. Although the Lang house walls are not batsa brick as in the Kleinsasser house, there are some general construction similarities in the way the wooden framing system is used to both secure the loft floor and prevent the walls from spreading outward.

Near the top of the clay wall at the Lang house a long, continuous wooden plank extends the length of the building (Fig. 22). Upon this the ceiling joists are placed. Unlike the Kleinsasser house, however, this wall plate is not a 2" x 4" board but approximately 1" x 12" in size. In addition, it does not appear to be directly attached to the joists in any manner (see Fig. 18). In at least one corner of the building a 6" wide shim of undetermined length fits between the ceiling joist and puddled clay wall.

All of the exterior walls of the Lang house are puddled clay in the true sense of the term yet the first 2'6" of each wall contains large randomly-placed stones. A 23'6" long



Fig. 21. The south elevation of the Gene Lang puddled clay and stone house is shown here.



Fig. 22. A detail of the wall and roof construction shows puddled clay packed above and below a horizontal 1" x 12" board on which joists rest. Rafters notched into joists are visible at each side of the photo.'

puddled clay addition which joins the house at the roof uses a similar construction method. Here, however, the clay/stone combination in the wall of the addition extends a total of 4' from the ground level. All exterior walls on both sections of the house have been covered with a clay plaster material and painted gray, much of which has fallen away.

The floor plan of the house is two bays with two partitions; a clay wall divides the east room in half and a frame wall once bisected the west room. According to the owner, a small staircase, which no longer exists, was located to the right of the front door leading to a small opening in the loft floor.

In the west room the outline of a furnace/bake oven can be seen against the east wall and between two doorways. This is the common location for an oven. The outline for the oven is approximately 3' wide. In length the oven extended to a vertical post employed as a brace for a door frame. Two other details strongly suggest the use of an oven: a partially painted center beam in the ceiling painted to the edge where the oven would have been, and the remnants of a stud partition which spans the west wall and ends at the vertical post door frame.

The gable walls of the loft are frame with horizontal siding. The loft floor is clay with crudely-made lath infill. The lath is suspended between the ceiling joists and measures approximately 9" in thickness. A set of wind braces reinforces the common rafter roofing system.

A small outbuilding, probably a smoke or ice house, is located just north of the puddled clay house. This structure, built of puddled clay with stone to the height of 9'6", is 15' long and 12' wide.

SITE FIVE

STRUCTURE: House

CONSTRUCTION: Frame with Batsa Brick

DIMENSIONS: 42'4" x 22'3½"

YEAR BUILT: Unknown

FIRST OWNER: Johann C. Rempfer

PRESENT OWNER: LaVern Wagner

COUNTY: Yankton

TOWNSHIP: Jamesville

A building with numerous fascinating components, the Wagner house is part of an abandoned farmstead (Fig. 24). The structure is frame with batsa brick nogging on all external walls. The exterior wall consists of two layers of horizontal wood siding, the outer layer being clapboard and the inner layer being simply rough-sawn lumber attached with cut nails. Under the siding 2" x 4" vertical studs are spaced about 16" apart on center. Between the studs batsa brick measuring about 12" long and 5"-6" wide is stacked and bonded with a clay mortar. The interior wall is made with a series of horizontal wooden lath strips approximately 2" wide nailed onto vertical studs over the batsa brick nogging. Over the lath mesh a thin layer of clay/straw mixture approximately ½" thick is applied. The final interior finish is a ¼" thick, plaster-like covering.

Above the loft floor the wall has no lath and clay/plaster coverings, but instead is enclosed by a series of three horizontal tongue and groove boards measuring 15" (Fig. 25). Concealed behind the top section of horizontal siding are a set of 2" x 4" wall plates which extend the full length of the house. The bottom most plate rests directly on the

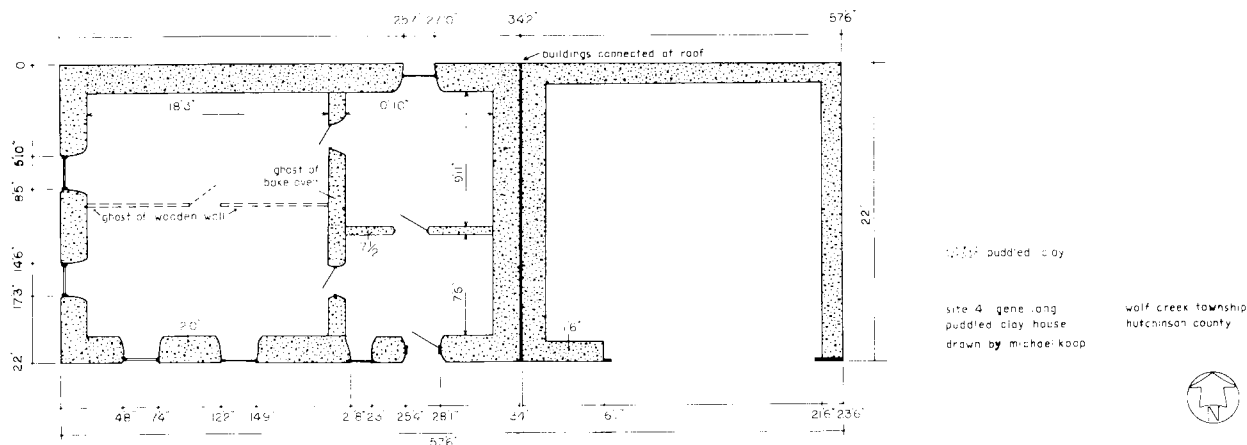


Fig. 23. Although lacking a walk-in kitchen, this house resembles the two-bay Kleinsasser plan and has a partition and furnace/bake oven in the left bay. The large open area on the right was apparently added at a later date and is used for storage.

vertical studs while the pole plate is cut to fit into the rafters.

All original, interior, partition walls are made of batsa brick but are freestanding and have no lath mesh. It appears the walls are two batsa bricks wide or approximately 13", but at least two other interior walls are only 9" thick possibly indicating the use of only one brick.

The floor plan of the house is three bays long. One original partition in the east bay bisects the space laterally. The west bay has two later stud partitions which divide the space into three rooms of unequal size, and the middle bay has an enclosed angled staircase to the loft. An interesting detail in the central bay is a series of strips of wood horizontally attached to the recesses of the walls in the doorway. Located adjacent to the staircase, the doorway served as an open cupboard when shelves were rested on the support strips.

Evidence of a furnace/bake oven is visible on the south wall of the east bay. A section of charred, kiln-fired brick formed the inside of the oven when it was intact. From the top of a 4½" floor molding the section measures 5'7" to the top brick and extends 4'10" in length from the west wall. This was the probable location for the firebox.

The vorhäusl is common in German-Russian folk building, but a vorhäusl on each facade of a structure, as in the Wagner house, is unique. The north vorhäusl has a small west window and a door facing north, while the south vorhäusl opens to the west and has a south window. Both entryways appear to have been added after the house was built since they partially conceal the original pediment above each doorway. Despite their age, each vorhäusl is constructed in a manner identical to the exterior walls. A similar lath and clay/plaster application covers the vertical stud frame although the vorhäusl walls are only 5½" thick.

A variety of paints are evident in several parts of the house. The northeast room has a tongue and groove wood ceiling painted blue-gray and light rose, floor moldings of red ochre, mustard and white, and whitewashed walls. In the southeast room the same paint scheme is used but without whitewashed walls. Dull red, medium blue, light blue and cream colors are used on the tongue and groove ceiling in the middle bay.



Fig. 24. The frame and batsa brick Rempfer-Wagner house in Yankton County is pictured here.



Fig. 25. This detail taken in the loft shows batsa brick infill between vertical wall studs; horizontal tongue and groove boards partially cover the bottom of the bricks. The distance between each 2" x 4" stud is 16".

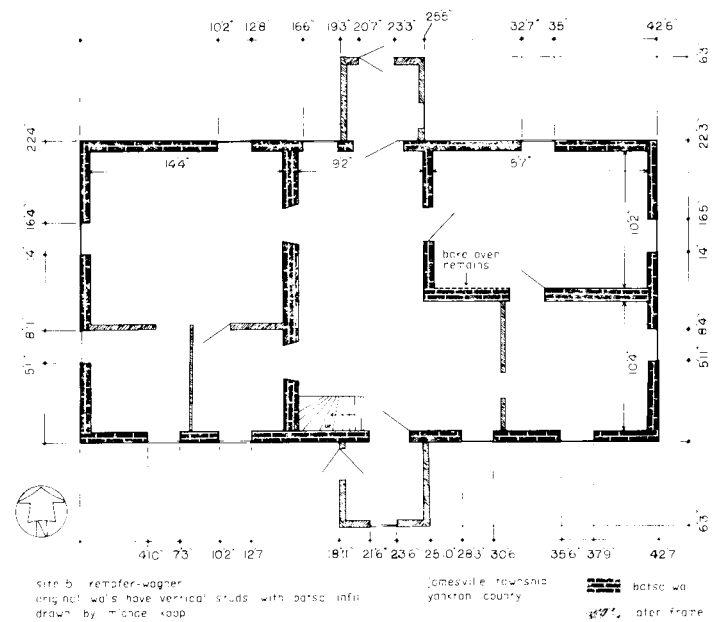


Fig. 26. Site 5 is the only surveyed house which has a vorhäusl on both the north and south facades. Comparison with Site 9 shows similarities including room arrangement, location of furnace/bake oven and exterior dimensions.

Just north of the house is a small foundation which measures approximately 10' x 16'. While this may have been a root cellar or smoke house, conversations with the owners did not verify this. A large ruin northwest of the house measures approximately 63' x 27' and was probably a barn.

The use of batsa brick in a frame structure was, no doubt, the result of both cultural and conservation concerns. The builders carried on a folk building tradition while taking advantage of contemporary building materials and techniques, and at the same time conserved energy by filling the walls with batsa brick. Settlers were well aware of the thermal qualities of dense clay walls.

SITE SIX
 STRUCTURE: House
 CONSTRUCTION: Masonry
 DIMENSIONS: 39' x 25'
 YEAR BUILT: Circa 1885
 FIRST OWNER: Gottlieb Stern
 PRESENT OWNER: Owen Zanter
 COUNTY: Hutchinson
 TOWNSHIP: Wolf Creek

An extremely well-built structure, the Zanter house displays beautifully the use of dressed stone in German-Russian building (Fig. 28). The 28" thick walls of fieldstone and clay mortar extend 14'6" in height. Between this line and the peak the wall is puddled clay. The house, 22'7" in height, has an exposed center beam in the gable ends. The beam which gives support to the 6" clay loft floor is located 11'6" from the ground.

Probably the most striking characteristic within the Zanter house is the elaborate use of timbers in the construction of the roof (Fig. 30, 31). In addition to 15 common rafters measuring 2" x 4" the roof is supported by a squared 4" x 4" ridge pole. Six extra support beams, four measuring 4" x 4" and two measuring 4" x 6", as well as six 4" x 6" vertical boards similar to knee braces are also used.

The ridge pole, which is exposed in both gable ends, is made of three separate beams joined by a scarf joint and wooden peg. Another set of the three support beams is notched in a crossing pattern with a mortise and tenon joint. A wooden peg secures them directly below the ridge pole. These support beams are parallel to, but lower than, the common rafters and are embedded into the bottom of the puddled clay knee wall at the juncture with the loft floor. Each support beam has a 2" x 4" vertical board nailed to a rafter above it. Similar to a knee brace, the rafter extends to the loft floor.

The explanation for such an extensive roof system is not clear but the need to secure the massive walls may be one

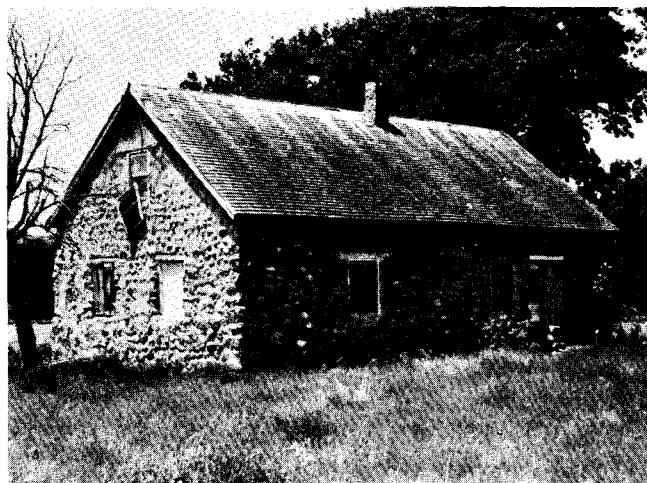
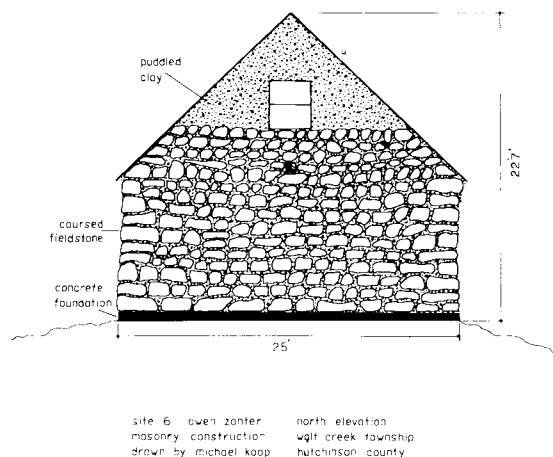


Fig. 28 & 29. The masonry Zanter house in Hutchinson County is illustrated here and below.



site 6 owen zanter north elevation
 masonry construction wolf creek township
 drawn by michael koop hutchinson county

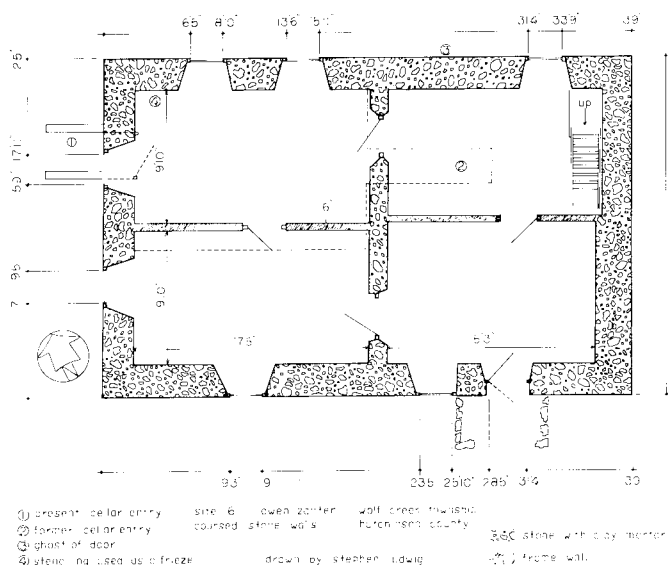


Fig. 27. In this plan of the Zanter house, evidence can be seen of a bake oven in the rear, right bay room.

possibility. Another may be the exhibition of skill by the builder.

The interior of the house is divided into four rooms of approximately equal size. The southwest room has a traditional ladder stair to the loft and a trap door over the root cellar which was permanently closed in 1948. The light-blue walls of the west room have a continuous stenciled frieze. Part of the east wall in the same room has been rebuilt in frame which suggests the existence of a furnace/bake oven at this traditional location.

On the exterior along the southeast gable-end wall, a concrete and cinder block stair cuts into the ground and leads to the cellar. The cellar room measures 12' x 17'. In the ceiling clay-covered laths are wedged between the floor joists.

The opposite end of the cellar has another set of steps which lead directly into the house but the trap door has been permanently closed. A ghost of a door measuring 4' is visible on the exterior along the west wall almost directly opposite the front entry.

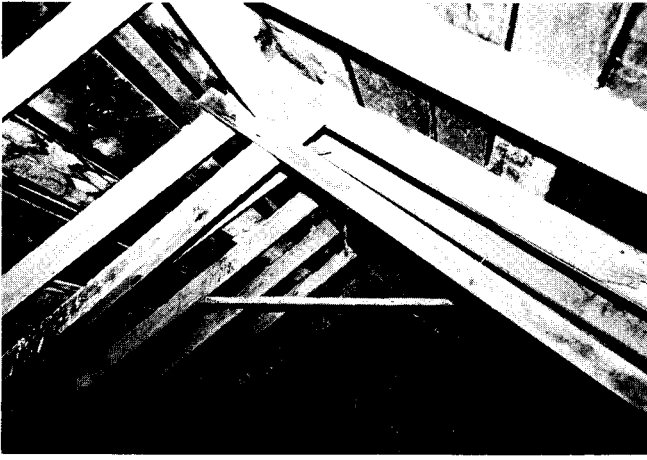


Fig. 30. Two of the six extra beams adjacent to rafters are notched below the squared ridge pole.

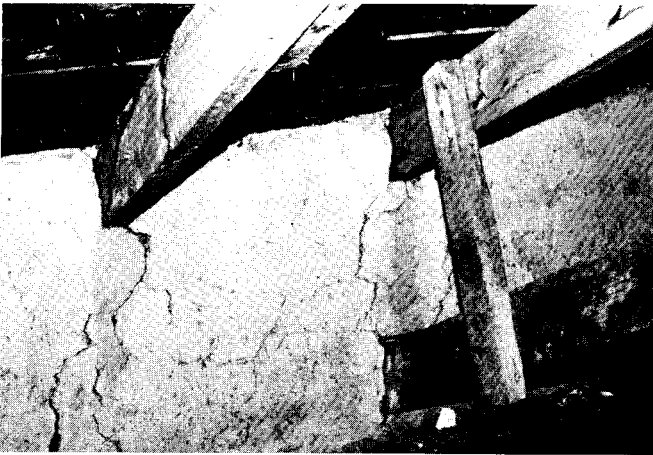


Fig. 31. This detail shows two rafters embedded into the top of the clay knee wall. An extra 4" x 4" beam placed just above the loft floor is attached to the rafter by a vertical knee brace.

The ruins of a barn measuring 33' x 28' is located 100' to the east of the house. This structure was built of the same masonry and clay mortar material. Northwest of the house are the remains of a large stone corral measuring 166' x 110'. The house is sited in the open meadow of an isolated valley surrounded by rolling hills and a creek.

SITE SEVEN

STRUCTURE: House-Barn

CONSTRUCTION: Frame

DIMENSIONS: 84' overall x 26'3"

42' x 26'3" house

42' x 26' barn (destroyed)

YEAR BUILT: 1896

FIRST OWNER: Jacob Hofer

PRESENT OWNER: Michael D. Hofer

COUNTY: Hutchinson

TOWNSHIP: Pleasant

Built in 1896 as a house-barn, (Fig. 32) the Michael D. Hofer site was constructed by, or for, a Prairie Hutterite. Since the site was originally settled in 1874, this may be the

second house on the site, quite possibly replacing one of earth construction.

Little is known about the barn since it collapsed in 1976. A shed addition, located on its west side, was carried away in a tornado in 1921. In respect to this feature, the barn is identical to the barns at Site 3 and Site 19, which are also woodframe and connected to the house.

The house, which still stands, and the barn, which is in ruins, were entirely of wood-frame construction. Together, the house and barn were approximately 84' long and 26' wide. The barn and the house both measure 42' in length.

The main facade of the house faces east by northeast and has four windows and one door. Two windows appear on both floors of the gable end wall of the south-by-southeast facade. Four windows and a door are located on the rear facade, which faces west by southwest. A 20th century summer kitchen is sited where one might expect a modestly-scaled *vorhäusl*. A door on the north by northwest side of the house opened directly into the barn; the house loft also opened into the barn through a doorway.

The exterior and interior of the house have been greatly altered, as can be expected of a house occupied until 1976. Concrete replaces the original stone foundation, and a full basement expands the space originally used as a root cellar. Asbestos shingles cover the beveled-wood, horizontal siding, and asbestos roofing covers the original wood shingles.

The interior arrangement and use of space can only be surmised although some facts are known. The house was composed of three bays of unequal length. Both the east and west doors opened into the middle bay, which probably extended the full width of the house. This room was the kitchen, as well as the day-to-day parlor, or living room. The house contained a furnace/bake oven which was fueled from a firebox opening in the south wall of the middle bay; it formed part of the dividing wall between the parlor and the bedroom of the first bay. The north or third bay was partitioned into a pantry in the northwest and a bedroom in the northeast. Access to the root cellar was probably provided through a trap door in the pantry. Between these rooms ran a corridor which opened into the barn.



Fig. 32. The remains of the attached barn can be seen at the left of this photo of the Hofer house.



Fig. 33. Pictured here is the east elevation of the Kaufman house.



Fig. 34. Although no evidence of a furnace/bake oven was found at Site 8, the same general spacing of doors and the location of a recessed cupboard indicate a typical German-Russian house with furnace/bake oven. Note the chamfer on the exposed stringers.

SITE EIGHT

STRUCTURE: House
 CONSTRUCTION: Frame
 DIMENSIONS: 32'6" x 22'5"
 YEAR BUILT: Circa 1884
 FIRST OWNER: Paul Tschetter
 PRESENT OWNER: Sollie Kaufman
 COUNTY: Hutchinson
 TOWNSHIP: Grandview

Located at the end of an eighth of a mile lane and across a bridge is the Sollie Kaufman site. The house is bordered by dense stands of trees on the north, east, west and open to fields of soybean on the south. It is the only building on the site. Its long axis is oriented due north and south.

At 32' x 22', this little house falls 4' to 10' short of all other frame houses surveyed. In good repair and little changed, it has appealing, modest details.

Like all other frame structures surveyed, it is a single-story

building with a loft, but, unlike most others, it has only four openings on its east facade and three on its west. The south wall is pierced by two windows on the first floor and a single window in the loft, while the north facade has one in the loft. All first floor windows are double-hung sash with two-over-two lights.

The floor plan consists of two bays of unequal length, each of which is subdivided into two rooms. Both doors are located in the north bay. One door is located in the west room or kitchen, which also may have been the main entry room. This room contains the stair to the loft. The west room of the south or first bay is divided again. Both of these west rooms appear to have been bedrooms. The east room, which runs the full length of the south bay, could have been a parlor, although it was used as a bedroom before the house was abandoned. An oil-burning stove and a recessed wall cupboard are located in the northwest corner of this room.

All walls are covered with wallpaper; the patterns are variations of small, dense, somewhat random designs in shades of tan or beige, as in the kitchen, or of pale rose, as in the parlor/bedroom. The wood floors are painted a dark, undetermined color. There is considerable woodwork in the house, and all of it—wood ceilings, baseboards, window casings and doors—are painted white. Fine carpentry is employed throughout. The chamfered beams have been left exposed, five of which are located in the south bay and four in the north (Fig. 34). The recessed cupboard in the parlor/bedroom is notable for the elegance of its concave and convex moldings. The cupboard consists of three shelves behind two three-light doors and a single drawer below.

SITE NINE

STRUCTURE: House
 CONSTRUCTION: Frame
 DIMENSIONS: 40'3" x 26'4"
 YEAR BUILT: 1892
 FIRST OWNER: Michael Hofer
 PRESENT OWNER: Jacob Hofer
 COUNTY: Hutchinson
 TOWNSHIP: Grandview

According to its present owner, Jacob Hofer, the Hofer house was built the year of his birth 1892. Mr. Hofer's parents came to South Dakota from the Crimea in South Russia and in 1878 settled on this site. Built with lumber from Yankton and replacing the original "sod" house (Fig. 35), this balloon-frame structure with beveled siding is located north of Freeman, abandoned and deteriorating.

The Hofer house is situated on several acres of land among twelve other farm-related structures, which are widely scattered over the site. Almost all of these are in fair to good condition. A line of trees extends along the road to the south of the site through which an entry drive is cut. Other trees are scattered across the site, with small numbers grouped mostly on its north and west sides. The ridge line of

the one-and-a-half-story house is oriented due north and south.

Similar in size to the Ludwig Deckert house, Site 9 is a large and impressive structure (Fig. 36). Five openings pierce its east and west facades—four windows are located in the first and loft floors of the gable-end wall on the south side of the house. The north gable facade is unbroken on the first floor but has two windows in the loft. All windows are double-hung sash with four-over-four lights and have pedimented moldings. Each tympanum contains scrollwork in relief. The symmetry of the door placement and the elaborate window treatment, together with the size of the house, indicate a degree of wealth and stylishness on the part of the owner. This continues into the interior. The ceilings are high, measuring 8'8" in all rooms. Exposed, chamfered beams are visible on all ceilings. Large, 4"-5" moldings frame doors and windows.

The structure is divided into three unequal bays. The middle bay, into which both doors open, is a kitchen which extends the full width of the house. The south bay is divided into two rooms of roughly equal size, while the north bay contains two rooms and a set of staircases. A pantry is located in the northwest corner of the north bay and a bedroom in the northeast. Between them is a stair to the partial cellar and another to the loft. The enclosed cellar stair is entered from the kitchen, while the loft stair opens into the northeast bedroom. The south bay is composed of two rooms, one a parlor, the other a bedroom, although it is not certain which was which. The southwest room has panel wainscoting approximately 2'11" high on all walls. The most recent paint color on the wainscoting is light tan, or beige, while the walls above are light blue. A sliding door connects this room with the southeast room. The southeast room, which may have been a parlor, contains a recessed wall cupboard in its northwest corner. In this same corner, a combined furnace/bake oven once may have stood. The cupboard measures 2'5½" wide x 7'7" high and has four shelves. Painted a dark slate-blue, six chamfered beams extend into this room. There is no wainscoting, and the walls have been both whitewashed and painted, perhaps a light blue.



Fig. 35. The Jacob Hofer frame house was built in 1892.

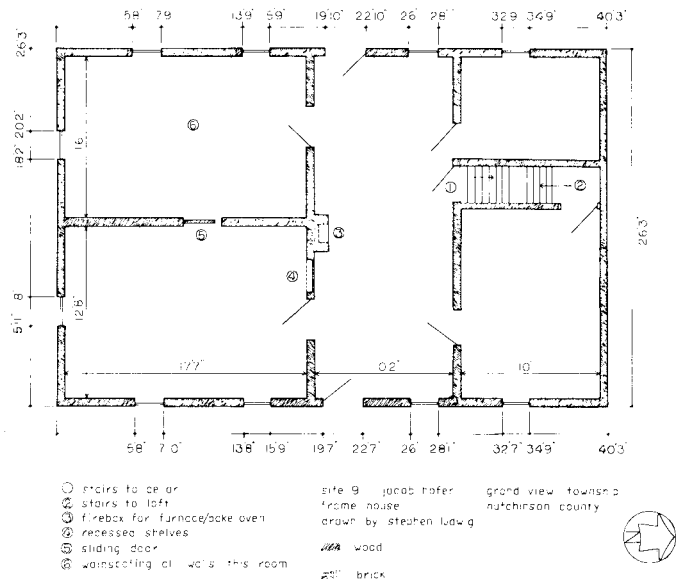


Fig. 36. The Jacob Hofer structure has unusual wainscoting in the southwest room, a sliding door, and very high ceilings. Note the location of firebox for a furnace/bake oven in southeast room.

The door adjacent to the cupboard has 5" moldings, while the other door and the window frames have 4" moldings. All doors, moldings and baseboards are painted a dark mustard color. Traces of red ochre and yellow ochre paint can be seen on the floors.

One of the most interesting features of Site 9 is the remains of a chimney and firebox from a furnace/bake oven. This relic structure is unique, yet its function as a Type B structure is strongly indicated by its location. The chimney emerges from the south wall of the kitchen in the exact alignment where a combined furnace/bake oven would have been located on the other side of the wall. The firebox measures 2'8" across and 1' deep at the base of the chimney which extends the full height of the room. The 15" square opening is located 1' from the floor. The metal frame of the firebox opening is still visible; hinges and clasp remain, but the door itself is missing. The depth of the firing chamber has been reduced by brick infill. Oil cloth is attached to the wall surrounding the firebox.

The roof is covered with wood shingle, and the foundation is made of concrete and stone. There is a kiln-fired brick chimney in the loft.

SITE TEN

STRUCTURE: House, Barn, Hog House

CONSTRUCTION: Masonry

DIMENSIONS: 44'2" x 20'3" house

44'1" x 34'3" barn

25'9" x 18'7" hog house

YEAR BUILT: Circa 1870-1879

FIRST OWNER: Thomas Cihak

PRESENT OWNER: Wesley Sedlacek

COUNTY: Bon Homme

TOWNSHIP: Emmanuel

One of the two surveyed sites built by Czechoslovakians is (Fig. 37) Site 10. Thomas Cihak, the original owner, is believed to have been Bohemian and Catholic, as is the present owner. While the exact date of construction has not been determined, circa 1870-1879 is a reasonable estimate.

The three historic buildings are intermixed with later buildings, and two are still in use. The third building, a barn, was in the process of being torn down at the time of the survey. Extensive stands of trees shelter the farmstead on the north, west and east sides. They nestle up against the north and west sides of the dwelling and the north and east sides of the hog house. Most of the rooflines on the farmstead are oriented due north/south. The hog house is the one exception among the old structures.

At the time of the survey, only the walls of the barn remained. The triangular wood portion of one gable had been removed intact, so that height at the peak of its gable was determined as 17'10" and the height from the ground to the eaves, as 8'. The width of the barn is 34'3", including an attached shed measuring approximately 10' wide. The shed measures 4'6" from the ground to the eaves.

The barn, its attached shed, the hog house and the dwelling are of masonry construction with puddled clay mortar. The stone is mostly fieldstone which appears to be granite and chalkstone. Both stone and wood were used as door and window lintels.

Some details of the construction were visible because the building was being torn down. Of interest is the 2' wide dividing wall shared by the barn and its attached shed. Very large stones from one layer penetrate the other.

In 1964 the original clay plaster of the walls was covered over or replaced with concrete and painted white. Similar repair has been done on the other two buildings, and the owner plans a complete refurbishment of the hog house.

Similar to the barn, the house has 2' wide masonry walls except in the loft portion of the gable which is frame. This pattern of construction holds for all three buildings. The thick walls of the house are pierced on the east facade by a door and three windows. An outline of a *vorhäusl* is visible about 4" from either side of the entrance, and the owner confirmed that the entry had been removed and used as a



Fig. 37. The Czech-built Sedlacek house closely resembles a typical German-Russian dwelling.



Fig. 38. What appears to be a completely stone masonry wall in the Sedlacek house actually contains a brick jack arch above the double-hung sash window.



Fig. 39. An interior view of the previous window shows clearly a continuation of the arch. Note the wall thickness and angled window opening which takes full advantage of solar heating.

shed until it rotted away. The south facade has two windows on the first floor and a single window in the loft. All of the house windows seem to be of similar construction, and the details of the construction (Fig. 38) are partly visible above these south windows. A row of kiln-fired bricks appears in the masonry over the window frame, and above this is a brick jack arch. The inner curve of the arch is slightly concave, and this curve continues through the wall and into the interior (Fig. 39) where a distinct roundness can be seen at the top of the window recess. However, this roundness appears only in the south windows; the other recesses are squared at the top.

Interior walls are white and the plaster ceiling is painted blue, but beyond the authenticity of these colors, little of the original dwelling remains intact. It is presently used as a granary, and all interior walls have been removed. More recent partitions and stalls have taken their place. A stair to the loft could be of somewhat recent make and location.

The hog house also has thick, masonry walls and a roof made of wood frame. Beveled siding is used in the loft wall of the gable ends. Unlike the barn and the house, its roof line is oriented due east/west. A wrought iron rod is embedded in the west wall which functions as an anchor and attaches the roof to the masonry wall.

SITE ELEVEN

STRUCTURE: House-Barn

CONSTRUCTION: Frame with Batsa Brick house

Batsa Brick barn

DIMENSIONS: 87'3" overall

36'9" x 19'9" house

50'6" x 18'7" barn

YEAR BUILT: Circa 1880

FIRST OWNER: Wilhelm Ziegler

PRESENT OWNER: Edwin Ziegler

COUNTY: Hutchinson

TOWNSHIP: Kaylor

Located on a working farmstead, Site 11 is abandoned and is sited to the south (Fig. 40) of the functional farm structures. In fair to good condition, the building is oriented on a north by northeast axis. Built circa 1880 by the owner's grandfather, this 87' long house-barn uses two different types of construction, frame with batsa brick in the house and batsa brick with clay facing in the barn. The 36'9" house is covered with horizontal drop siding and has a shed-roof frame vorhäusl on the east side. A door and window face the same direction. Significantly, the width of the house is 19'9½" and the barn is only 18'7" (Fig. 41). The original root cellar built of stone but covered with cement stands immediately north and west of the house. One large, deciduous tree remains adjacent to the structure on the west side.

The house is composed of two bays and has a continuous wall parallel with the roof ridge which splits the rooms into nearly equal widths. The northeast entrance room displays

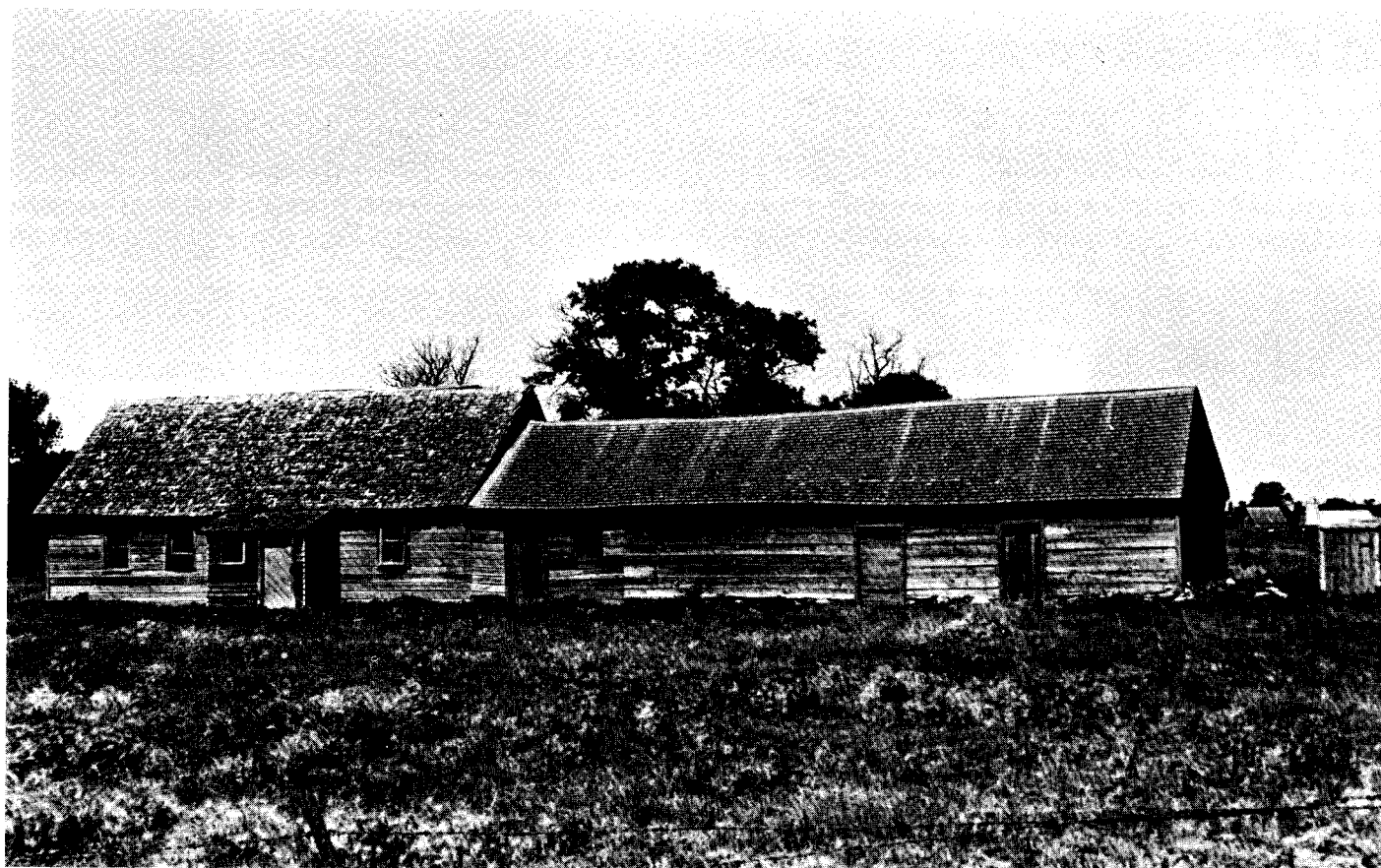


Fig. 40. The Edwin Ziegler house-barn resembles a simple frame structure. The house, however, has batsa brick infill; in addition, the barn is made of batsa with a clay veneer. Note the location of the vorhäusl and the root cellar to the right of the barn.

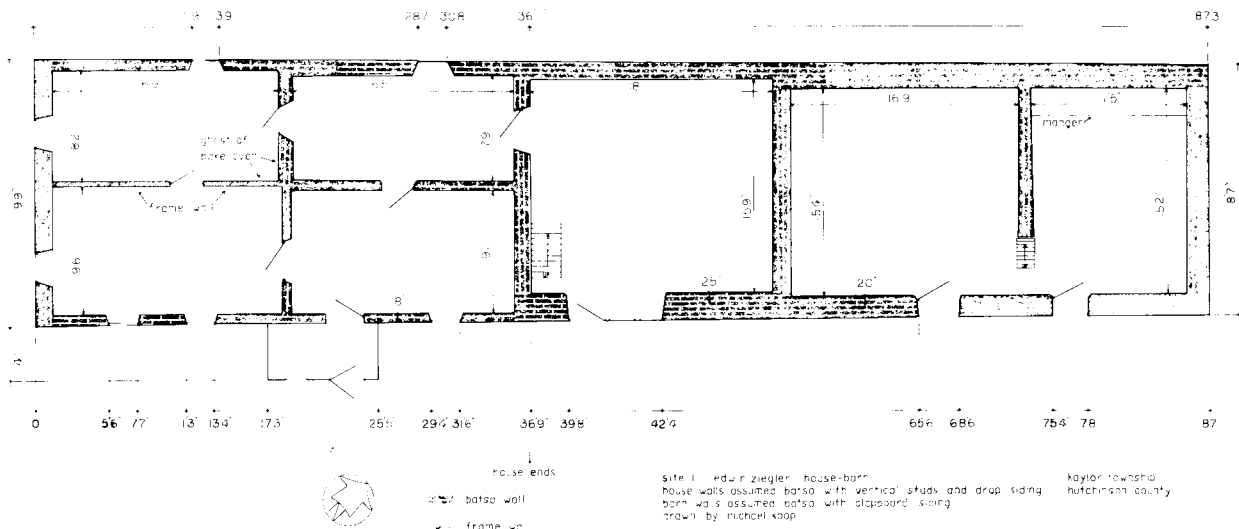


Fig. 41. Note the change in overall width from the house to the barn in this illustration.



Fig. 42. Pictured here is the ladder to the loft at the Ziegler house-barn. Sturdy and well-constructed, these ladders with mortised steps are found commonly in German-Russian homes.

various colors including a medium green ceiling, walls of white and blue, and door moldings painted blue. The northwest room, slightly narrower, is separated by 8½" batsa walls and has more elaborate colors. The ceiling has been painted rose, light yellow and medium green, while the walls employ the same colors plus a blue. The door leading into the barn is painted mustard brown. Constructed of simple vertical boards with two notched cross battens, this door has a unique type of lift latch not found on other doors within the house.

The southwest room, of similar size, has light blue and light green paint on the ceiling, mustard brown colors on

the doors and red-orange on the floor. The east wall in the room has been changed from batsa to frame suggesting the removal of a furnace/bake oven. Further evidence is the outline of an oven on the north and east walls of the room. Two windows to the east and one to the south light the southeast room (Fig. 42). In this room the colors are turquoise blue on the ceiling, red-orange on the walls and light blue and orange ochre on the two doors.

The barn has several important features. A removable staircase is located in the southeast corner abutting the exterior wall of the house. The original batsa brick chimney, accessible from the staircase but centrally located in the loft, is an unusual shape. From the roof ridge to the loft floor the north side of the chimney is 9' high, 3' long and 2' wide at the base. Attached to the taller section on the south side is a beehive-shaped portion 3¼" high, 3½" long and 2½" wide at the base. It narrows to 11" at the top. The total length at the base, however, is 6'11" (Fig. 43) indicating that the entire chimney broadens as it gets closer to the clay loft floor.

The only openings to the barn are located on the east facade in the form of three doors and a small window, an obvious energy conservation measure. The first door is part of an original 7'6" wide opening to a room which, according to the owner, was used as a workshop for repairing farm machinery. Approximately 18' in length, the south room is separated from the northern part of the barn by a continuous 16" thick batsa wall. The next two rooms in the barn are actually one complete room separated by a batsa partition which is positioned 4' from the east wall and extends the full width to the west wall. The partition is 14" thick and has a crude ladder measuring 15" in width on the end for access to the loft. Two squared, overlapping center beams which meet on top of the batsa partition extend the full length of the barn. In the northwest corner of the barn a 2' wide frame manger is embedded in the north wall and batsa partition. An interesting element within the barn is a series of sawed-off pole joists spaced about 3' apart which supported an earlier loft floor. The present ceiling joists measuring 2" x 4" are implanted adjacent to and above the pole joists and are spaced at narrower intervals.

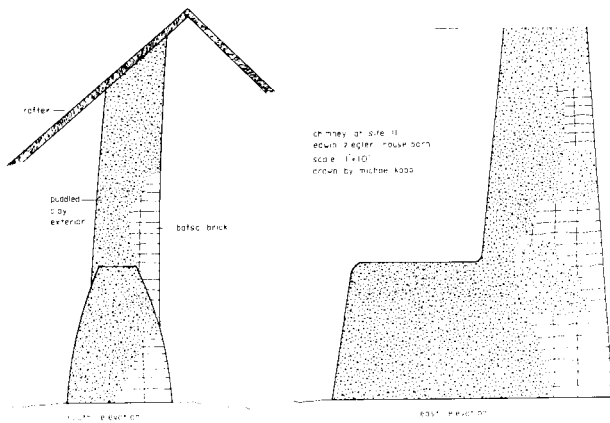


Fig. 43. The chimney at the Ziegler house-barn shows the use of large batsa blocks with clay mortar and a clay finish. This chimney does not have an opening for curing meat.

The current owner holds the original Homestead and Timber Claim documents granted to his grandfather for “proving up” his property. The Homestead paper signed by President Chester Arthur is dated June 30, 1884, and grants 160 acres to Wilhelm Ziegler; the Timber Claim, also for 160 acres, is signed by Rutherford B. Hayes on May 15, 1880.

SITE TWELVE

STRUCTURE: House

CONSTRUCTION: Puddled Clay with Stone

DIMENSIONS: 58'9" x 22'8"

YEAR BUILT: 1873

FIRST OWNER: Christ Holzwarth

PRESENT OWNER: Phillip Lang

COUNTY: Hutchinson

TOWNSHIP: Wolf Creek

Located on a working farm adjacent to Site 4, the Phillip Lang site was built in 1873 (Fig. 44). It appears to be constructed of puddled clay and stone although only a small portion of the west wall can verify this assumption. The house is currently used for storage but is kept clean and well maintained by family members.



Fig. 44. The east elevation is shown in this photograph of the Phillip Lang house.

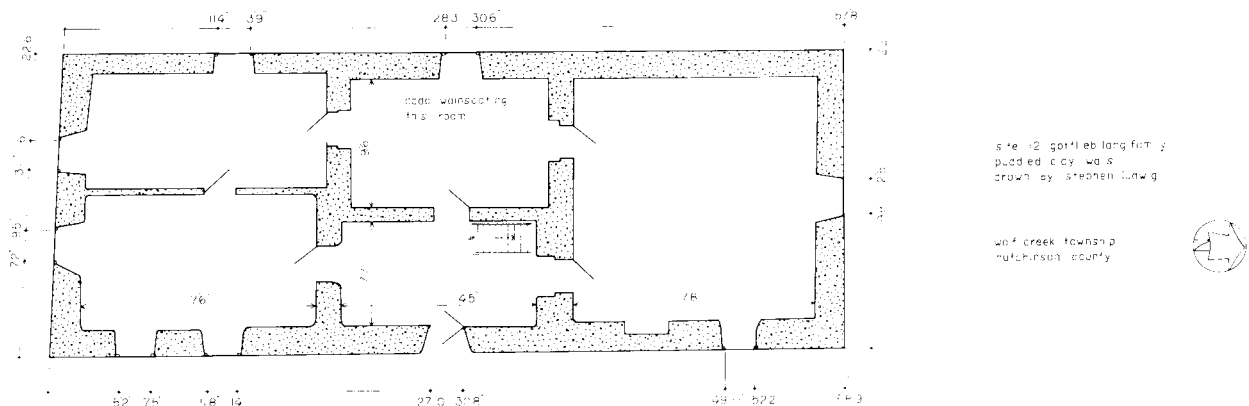


Fig. 45. The right bay of this structure was the original dwelling; one year after its completion the left and middle bays were added, creating the unusual length of this house.

narrows 5" to a 2'2" width. The west room of the south bay, formerly a bedroom for the children, has squared corners; three different colors appear on the molding: medium green, orange ochre and dark blue. A door in the east wall leads into the adjoining room of the south bay which is of nearly the same dimensions but has rounded corners as in the room immediately to the north. All walls in this room are white with dark blue paint on doors and molds.

The loft of the house has a 7" thick clay floor. The puddled clay chimney measures 1'5" wide and 1'11" long. An unusually small number of rafters totaling seventeen made of 2" x 4" and 4" x 4" beams are spaced between 3' and 4'5" apart on center. Two of these rafters and two corresponding ceiling joists near the center are spaced approximately 6' apart, apparently because the builders ran out of lumber and never finished the work. Four 2" x 4" wind braces provide added support for the roof.

All exterior walls of the house have a thin layer of clay plaster over which another coat of plaster-like composition is applied. Because the building has been preserved over the years with contemporary materials, it is difficult to determine the composition of the original facing. The north gable wall has been repaired with concrete to the eave and has an asbestos tarpaper covering to the ridge. Both gable ends retain the original wooden rain guards.

SITE THIRTEEN

STRUCTURE: House

CONSTRUCTION: Puddled Clay with Stone

DIMENSIONS: 57'8" x 19'7"

YEAR BUILT: 1878

FIRST OWNER: Henry Mayer

PRESENT OWNER: Mayer Rademacher

COUNTY: Hutchinson

TOWNSHIP: Wolf Creek

Constructed in 1878 as a homestead with Timber Claim by Henry Mayer, the present owner's grandfather, and his four sons, this puddled clay and stone house (Fig. 46) is built near Site 6 along the same creek. According to the owner,



Fig. 46. Pictured here is the abandoned Rademacher farm in Hutchinson County.

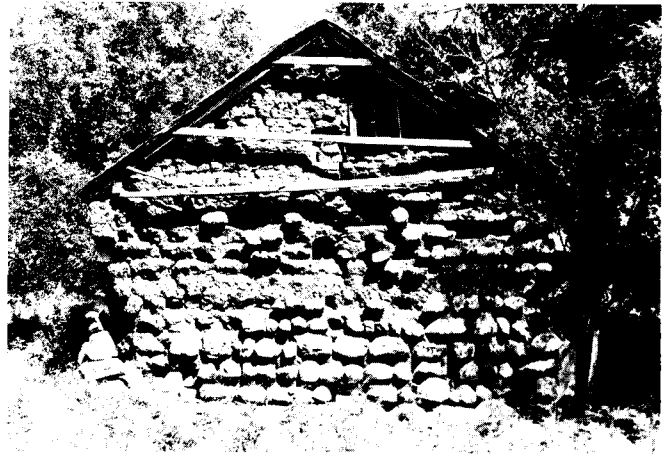


Fig. 47. Puddled clay and stone are used to the eave, while batsa brick fills the gable in the Mayer Rademacher house. Puddled clay acts as the load-bearing element in this wall; the stones which have fallen out are simply infill.

all wood for the house was hauled from Yankton, and the structure was built between the months of April and November while his grandparents and their eight children lived in a cave near the site. In true pioneer fashion, the length of the house was not pre-measured but rather stepped off in pace to achieve a desired length.

In describing the method whereby clay was prepared for use in constructing the house, the owner said that a circular pit was dug near the house site. The pit contained clay and other materials and was mixed by horses or human feet. After the clay mixture was stomped sufficiently, it was left to dry in the pit for three or four days. When it reached the proper consistency it was used as a building material.

Located in a shallow valley, the house is situated east-west. Two frame barns nearby are located to the west and north. The remains of a shelterbelt are evident to the north beyond the creek, and a steep hill rises just east of the house. A clay barn was attached to the west gable end in 1879 and was accessible only from the outside. The barn was removed in circa 1920.

The south facade of the house has five openings: an 8' wide casement window, added in 1936 to replace two windows on the west end; a shed-roof *vorhäusl* with window and door facing east; and two smaller double-hung sash windows on the east end. Another double-hung window was located in the east end, but most of the wall on that side of the house has deteriorated leaving little evidence. There are three small windows on the north facade and one on the east gable end. Each gable end is constructed of puddled clay and coursed fieldstone to the eaves (Fig. 47) and batsa brick and clay facing to the peak.

The floor plan of the house is three bays with each bay extending the full width of the house. The west room is approximately 17'6" long and has a crude step ladder to the loft in the northeast corner. Numerous colors are visible in the room: the ceiling has medium blue, light brown and salmon pink colors; a whitewashed wall is covered with shades of yellow, olive, rose and mustard brown; and window seats are painted mustard brown and olive. A small depression resembling a firebox in the lower part of the east

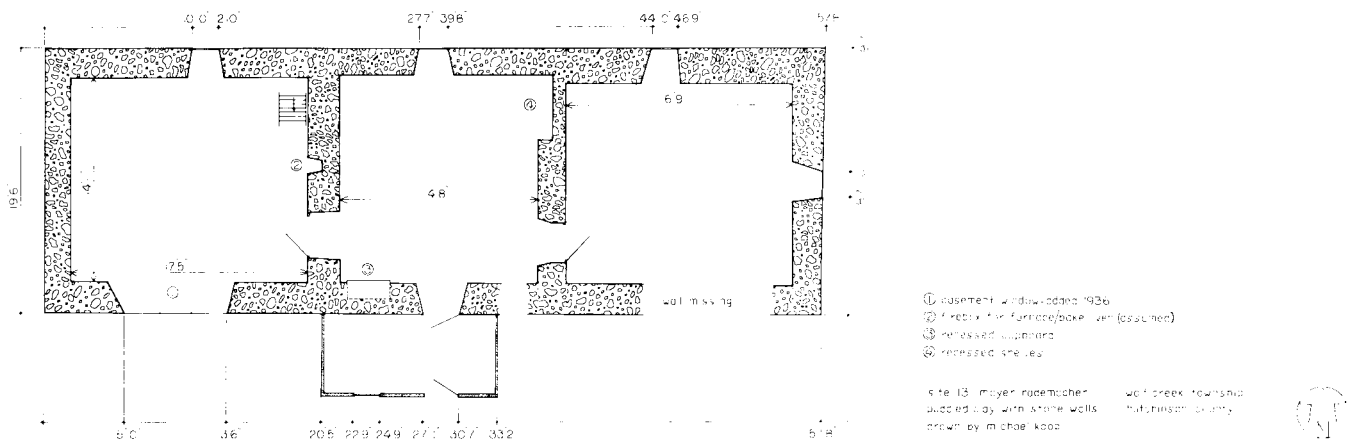


Fig. 48. Shown here is the Mayer Rademacher house. A barn was originally attached to the west end of the house. This is an unusual location for the barn and is the only example in the survey.

wall suggests the use of a furnace/bake oven. The owner stated that the house had a Russian oven several years ago. The central bay is 14'8" long (Fig. 48). The ghost of a central beam in the ceiling extends the full length of the room and meets an existing beam protruding from the east bay. A simple two-tier recessed shelf is located 3'9" from the floor in the southeast corner and measures 2' high and 4'9" wide. It still contains many kitchen spices. A more elaborate recessed cupboard to the left of the entryway has two large cabinet doors, two small drawers and two smaller cabinet doors in the bottom, and measures 3'2" in width and 5'10" in height. The east bay contains eight ceiling joists which are bolted through the ceiling to a transverse beam on the loft floor. The owner said the beam in the loft was added later to help support the weight of the grain stored in the room. The length of the bay is 16'9". It is likely that within five to ten years there will be nothing left since the southeast corner has already crumbled away. Some of the colors in this room are white, light slate blue, orange peach, light brown and pink on the ceiling; deep rose red and gray on window seats and molds; light peach, yellow green and forest green on the north wall; and a frieze of stenciled carmine fleur-de-lys.

The loft is also painted in different colors suggesting its use as a bedroom at one time. The ceiling, knee wall and batsa chimney of the middle and west sections are painted a turquoise blue while the east bay is pink.

The roof system includes a series of three overlapping round ridge poles which are stripped of bark but unhewn. These are pegged together and supported by two vertical poles and a small support plate which is mortised and tenoned between the ridge pole and vertical pole. The rafters are a combination of pole, 2" x 4", and 4" x 4" planks and do not notch into the ridgepole; they simply rest between the roofboards and the ridgepole.

The location of the kitchen and loft stairway has changed twice according to the owner. Left unexplained is the chimney toward the east end and the firebox for the furnace/bake oven located in the opposite end. The owner said that a stovepipe may have extended across the middle bay from the oven to the chimney, although a wider



Fig. 49. A section of a wall at the Rademacher house shows the batsa brick, clay mortar and a thin veneer of clay and whitewash.

chimney may have been used, as in the Schmidt site, and removed at a later date.

Regular maintenance of the house was undertaken in the fall of every year by the owner and his family when the house was still lived in. A material consisting of clay, straw and dried sheep manure (Fig. 49) was mixed together in a box and allowed to set for a couple of days before being "schmeered" on the walls with trowel-like devices or bare hands. A five-pound box of whitewash powder was then mixed with water to produce a final coating for the walls.



Fig. 50. Note the deciduous tree adjacent to the vorhäusl at the Elmer Grosz house-barn.

SITE FOURTEEN

STRUCTURE: House-Barn

CONSTRUCTION: Puddled Clay

DIMENSIONS: 82'8" overall x 23'10"
52'2" house; 30'6" barn

YEAR BUILT: 1878

FIRST OWNER: Martin Grosz

PRESENT OWNER: Elmer Grosz

COUNTY: Hutchinson

TOWNSHIP: Wittenburg

Site 14 was the original homestead of Elmer Grosz's grandparents, Martin and Wilhelmina Grosz, who came from Kulm, Russia, to South Dakota in 1878. According to the owner, his grandparents lived in a dugout when they first arrived at the farm and then moved into a frame structure. The first house is still standing and was built in 1878, the same year as the studied structure.

Presently used for storage, the house-barn is in excellent shape and is one of two puddled clay structures on the property. Mr. Grosz stated that five or six other clay buildings, including a summer kitchen, were located on the farmstead but have been destroyed. Across the property line two other puddled clay structures which were built at the same time are standing but are in poor condition.

The roof ridge runs nearly east-west and the entire structure measures approximately 82' in length and 23' in width. An 8' wide clapboard, gable-roofed vorhäusl covers the south-facing entry. A small window opens to the east. The 30' long puddled clay barn was added in a linear fashion to the east at a later date; visible today are a set of ceiling joists abutting each other and the original rain guard for the east gable end of the house. The owner said that there was once a doorway connecting the house and the barn but this was later enclosed. The barn is presently accessible from the south by two separate doors. An exterior loft stairway is built on the east exterior wall. It is interesting that the stairway was relocated outside the barn since the use of an exterior stairway on the gable end was apparently a Russian tradition.

On the north side the house-barn has four window openings, three of which light the house. Several deciduous trees surround the house to the north and west and a hill slopes steeply downward in the same direction about 50' from the house-barn.

All exterior walls of the structure are made of puddled clay and are built on a fieldstone foundation. Mr. Grosz said that the clay came from a creek bed near the house and was mixed with manure in a pit in which ponies walked around as water was added. He stated that the builders laid the clay by pitchfork and by hand without the use of forms. One 13"-15" tier of clay was laid each day and allowed to dry for twenty-four hours. The completed walls, (Fig. 51) about 18"-24" thick, were then scraped and straightened with a pitchfork. Short 4" wedges of wood are embedded in the clay in an irregular pattern; their purpose was not established. The walls are plastered with a 1/2" layer of a stucco-type material.

In the 1930s Mr. Grosz built a clay wall partition in the barn which now separates a storage bay from a laundry room to the west of it. He made this wall approximately 18" thick and followed the method which he had described as that used by his grandfather. A trowel was used to apply the material and he "had to keep it wet" as he worked with the clay and straw mixture. The interior east wall of the barn has a rounded groove along most of its length where the manger was located. Mr. Grosz explained that "horses have licked out the groove in the wall."

The house is composed of three bays, is two rooms deep, and measures 23'8" in total width. All doors and trim, except floor molds in the kitchen, were grained in the 1920s by a cousin of Mr. Grosz's and still retain a finished look. The vorhäusl opens into the kitchen. The entry has a window on each side of the door. The window to the east is only 1'9" wide, much narrower than the other 3' windows but not unlike an opening on the west side of the entryway at the Gene Lang house, Site 4. The door leading into the room to the north shows evidence of being painted sailor blue prior to graining. The northern room in the middle bay has light gold wallpaper, white ceiling paper, and geometric



Fig. 51. Distinct layers of puddled clay are visible on this barn at the Grosz farm. Stones mixed with puddled clay occur regularly toward the foundation. Note the horizontal wall plate and shims embedded between the top tier of clay and the floor joists.

design linoleum. An interesting type of lift latch on the door similar to the one at Edwin Ziegler's house-barn, Site 11, is found on a door in the room. The northwest room was a bedroom at one time and has gold wallpaper and white ceiling paper in it. A ghost of a furnace/bake oven is visible in the southeast corner, although the owner remembers no such oven. The east wall appears to be solid clay to a point 1'7" from the door frame, then stud frame for the remaining wall. On the south wall (Fig. 52) the same phenomenon is noticeable 1'11" in from the door frame. Coupled with the size of the chimney, this suggests the existence of a furnace/bake oven and possibly another stove or heating device, such as a walk-in kitchen.

According to the owner, the southwest room was used as a parlor, a room which he "never got into during the week; only, on Sundays." An indication that the room was reserved for special occasions is the grained window seats and floor moldings, a detail unique to the room. The parlor ceiling is covered with crackled white wallpaper; walls have a floral beige on white pattern; and the floor is covered with a floral-patterned linoleum that has blue and orange accents over a brown-tan base. The east bay is centrally divided by a 5" thick stud wall separating the space into two bedrooms. These rooms were originally a barn and were converted to domestic use when the new barn was added. A stud partition in the south bedroom runs perpendicular to the roof ridge and creates a small room that has a dull red floor daubed with light yellow to form a regular pattern. The north bedroom has a linoleum floor with a "Persian carpet" pattern, impressionist floral wall paper, and a long, narrow closet with blue-green wallpaper trimmed with an art-deco floral border.

In the loft the chimney (Fig. 53) measures approximately 5'6" x 15'3" at its base. It rests on a 2½" batsa brick base and has a 6" x 6" beam along the north length of the base. About 7' from the east end of the chimney is a 23" wide removable wooden door which opens into the meat curing portion of the chimney. Two 2" x 4" exposed beams embedded in the middle of the chimney hold the meat



Fig. 53. Martin Grosz, the grandfather of the present owner, built this decorative arch on this batsa chimney. This massive chimney has a small wooden door on one side. The meat to be smoked was placed in the chimney through the door.

during the curing process. At its west end, the chimney has a decorative round arch. The rafters are widely spaced and the owner stated that they were "grooved and jointed, put up with the eye without a level or square." A pitchfork was used to determine the straightness of the beams and a "plumb line was hung at the end of the roof." The loft floor has a gentle slope upward as it meets the rafter plate. From outside, a slanted, retaining piece of wood is visible on top

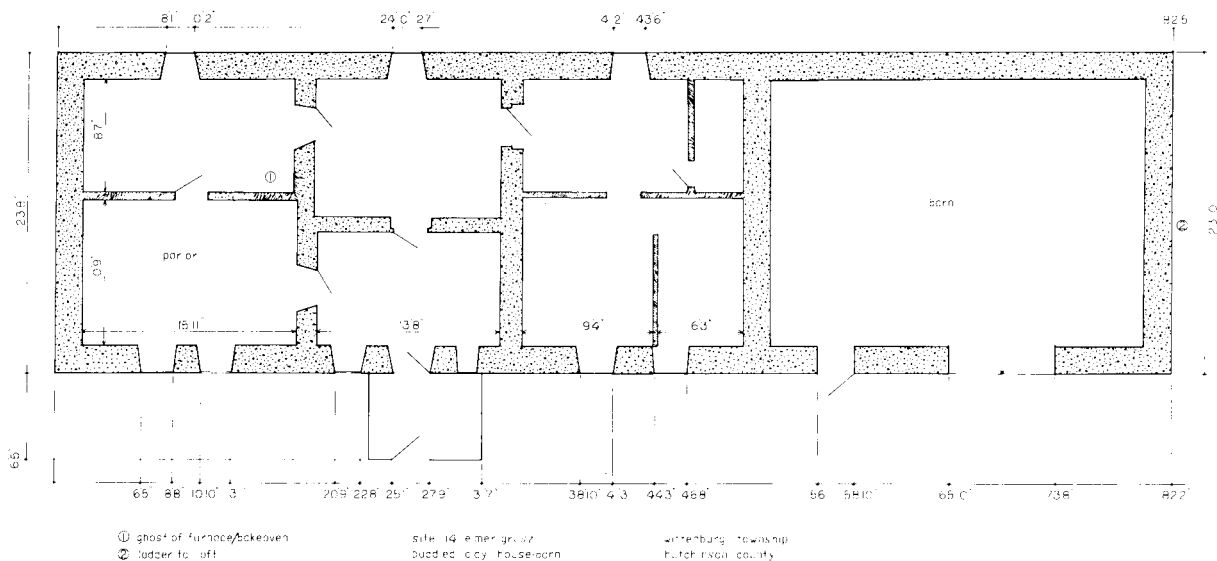


Fig. 52. A ghost of a furnace/bake oven appears in the left bay of the house. The size of both the central kitchen area and the batsa chimney strongly suggest a walk-in kitchen at one time. Note that entry into the loft is gained by the ladder at the gable end.

of the wall beneath the rafters. Mr. Grosz said that the wood for the house came from Minnesota and that the original roof was wood shingle rather than thatch.

SITE FIFTEEN

STRUCTURE: House

CONSTRUCTION: Batsa Brick, Masonry and Frame

DIMENSIONS: 60' x 21'2"

YEAR BUILT: Circa 1872

FIRST OWNER: Charlie Machacek

PRESENT OWNER: Joe Machacek

COUNTY: Yankton

TOWNSHIP: Utica

Homesteaded circa 1872 by the owner's grandfather, Charlie Machacek, Site 15, the second Czechoslovakian structure, is an example of adhering to a folk building tradition through time (Fig. 54) as evidenced by the three different kinds of construction and the expansion of the house in a linear fashion. According to the owner, his grandmother was Catholic and his grandfather "not much

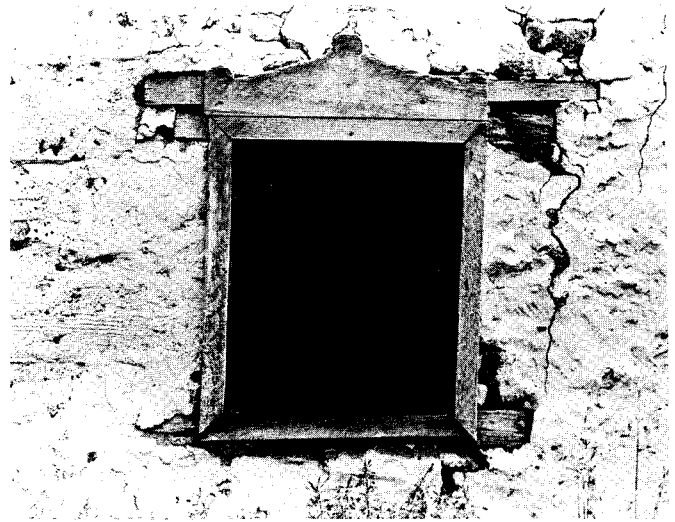


Fig. 56. This interesting folk detail in the window appears in the Machacek house. Note the whitewash wall.

of anything." The house was built by the owner's grandfather and several neighbors. Timber was used in the construction and came from the banks of the Missouri River.

Built in three sections at different times, the house uses assorted types of building materials. The middle or oldest bay of the house dates from circa 1872 and is made with batsa brick (Fig. 55). Nearly square in dimension, the bay is a single room. Six 8" hand-hewn joists are exposed in the ceiling and some display a crude chamfer. A 2'5" thick wall on the west side of the room separates the next addition dating from circa 1872-1880, which is constructed of stone with clay mortar. A crude, removable ladder to the loft is located in the northeast corner of the room.

In the loft four beams are embedded in the top of the masonry wall, 14" from the loft floor; they serve to prevent the walls from spreading. Measuring 8" they are perpendicular to the ridge. The roof in this section of the house contains nine rafters spaced about 2'6" apart on center. The loft floor is made of wood. The middle or oldest

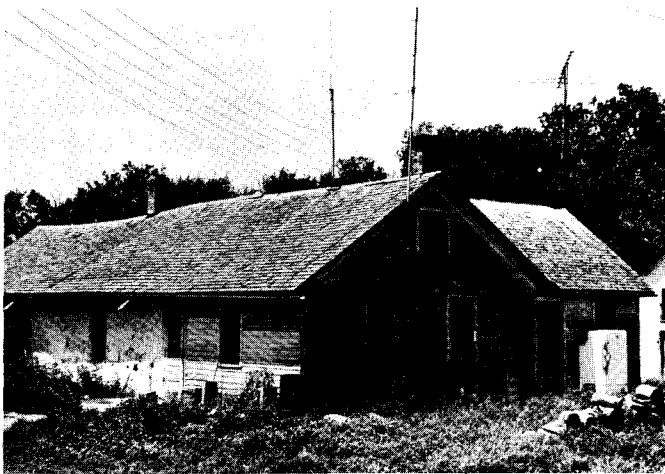


Fig. 54. The southeast elevation of the Machacek house is shown here.

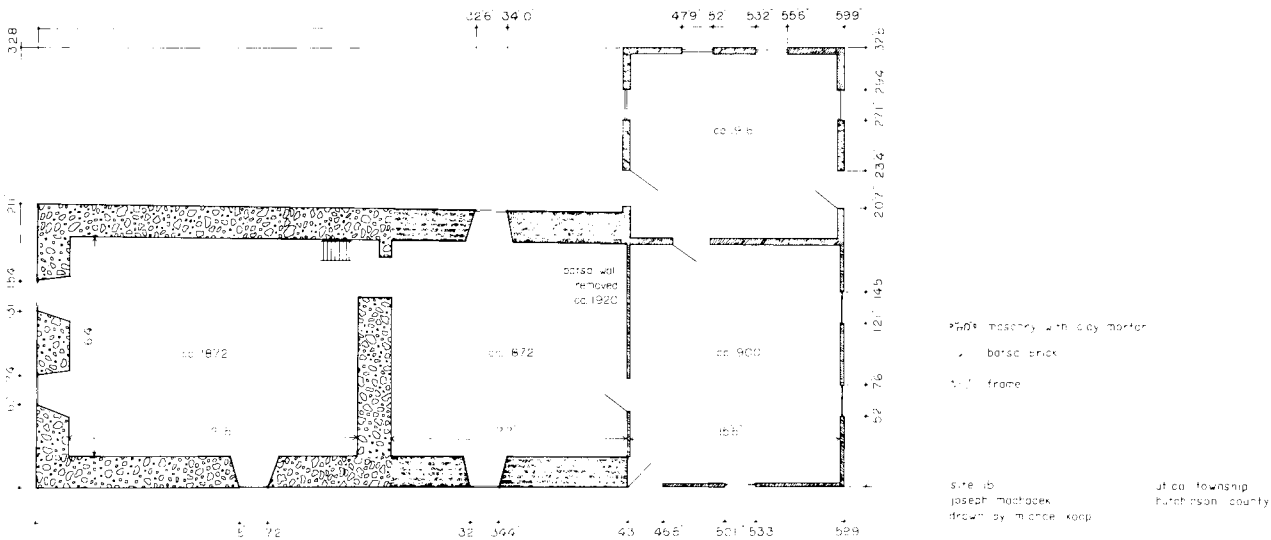


Fig. 55. Built one bay at a time, the Joe Machacek house uses three different construction materials—batsa brick, masonry and frame.



Fig. 57. Pictured here is the Schmidt house, a rammed earth structure. The light-colored material on doors, windows and under the eave is a clay veneer applied over the rammed earth walls. The clay tiers are easily distinguished; note vertical board and batten siding in the gable and projections at the top of the clay which are used to support a rain guard.

section of the loft has seven rafters measuring 4'2" apart on center and contains a mud floor of undetermined thickness. This part of the loft also has the original batsa brick chimney which measures 3' in width, 2' in length and 4'9" in height to the brick chimney stack. Approximately 3'9" from the base the chimney narrows in width creating a 1' ledge; atop of this is a group of removable batsa bricks that covers an opening into which meats were placed for smoking.

The next addition to the house was frame and built on the east end of the original puddled clay partition in circa 1900. Connected at a right angle is the most recent addition, a frame ell, added in 1916. The lofts of both frame sections have wood floors. Eight rafters spaced about 1'9" apart on center are used in the circa 1900 section. It is interesting to note that each newer addition on the house has a greater number of rafters spaced closer together than the older portion.

There are several other outbuildings within the Machacek

farmstead; three of which should be mentioned briefly. South of the main house is a masonry building, built probably in circa 1880, with a frame ell addition on the west, gable end. A Pennsylvania Dutch-style hex sign is painted on the exterior wall. According to the owner, the pattern was painted by his brother in the 1920s after visiting his mother's relatives in Gregory, South Dakota, where he saw a similar design. Southeast of the house is a frame barn built in 1885 by the owner's father which still has the date of construction inscribed on an interior board. East of the main dwelling is a small crudely-built log structure of an unknown date which has mud chinking between hand-hewn logs.

SITE SIXTEEN A

STRUCTURE: House

CONSTRUCTION: Rammed Earth

DIMENSIONS: 54' x 25'8"

YEAR BUILT: Unknown

FIRST OWNER: Probably George Vetter

PRESENT OWNER: Harold Schmidt

COUNTY: Hutchinson

TOWNSHIP: Fair

One of only two true rammed earth structures surveyed, Site 16A, the Schmidt house (Fig. 57), was originally part of a farmstead that included Site 16B, a similarly constructed barn 100 yards to the south. Several characteristics distinguish rammed earth from puddled clay construction, first, the exactness of the overall dimensions of the building and, secondly, the rectilinearity and sharpness of window sills. The height of each tier of clay in the walls and the apparent lack of any exterior siding is a third feature.

When measuring the exterior, it was assumed that the house would not be a true rectangular shape because of the degree of deterioration and hand building methods in clay structures. Quite to the contrary, Site 16A proved to be the most truly square structure in the survey, measuring exactly 54' on both axial facades and differing only 2" in the gable end measurements. The interior window sills and frames

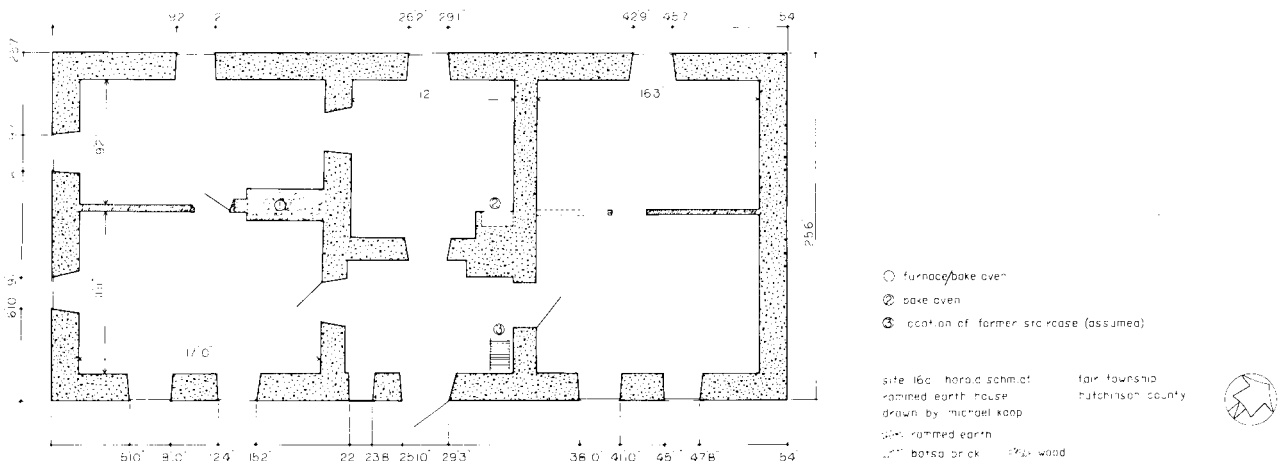


Fig. 58. Two bake ovens at the Schmidt house feed into a long, narrow batsa chimney which spans across the middle bay of the house. The weight of the chimney is supported by the axial dividing wall in the central bay.



Fig. 59. Pictured here are the crumbling remains of the furnace/bake oven at the Schmidt house. Note the clay mold at the top of the oven.

where the wall recesses at an angle toward the window are also precise and square in dimension, unlike several other clay structures which have rounded window sills and frames. The third characteristic which suggests a different building technique relates to the exterior wall; each tier of clay measures approximately 3' in height. It is likely the walls never had any type of exterior siding such as clay plaster or clapboard.

These three characteristics imply the use of both a wooden frame in which to support the clay wall and a ramming device to compact the clay to the desired height. No other structure in the survey with puddled clay walls had tiers nearly as high, and it seems probable that without the support of a wooden frame the wall would bulge or collapse under its own weight if built too high. The sharp and exact corners of the interior windows must have been sculpted with some instrument other than a pitchfork, as in Site 14, the Elmer Grosz house-barn; and it is difficult to imagine how exterior dimensions could be so precise, unless they were measured using a form or similar tool.

The interior floor plan (Fig. 58) is interesting for several reasons. The overall plan is three bays and two rooms deep with each bay divided laterally in a different place. The east bay has a 5" wide wooden partition which divides the room into nearly equal widths. There are three windows in this bay. On the south facade are two windows, one of which

has batsa brick from the lower sill to the ground. A 19½" thick clay wall separates the middle bay from the east bay.

The middle bay contains the entrance and kitchen area. A puddled clay partition wall divides the bay into two rooms. The east part of the partition wall is actually a small bake oven. The firebox and oven open to the north in this room. The back side of the oven projects 1'3" into the south room and stands 4½" high. The west part of the partition wall is simply a 19" thick puddled clay wall. A narrow 1'11" window is located just west of the main entry as in the Gene Lang house, Site 4. Based on field observation and information from Oscar Beuber, a neighbor who lives across the road from the site, an open stairway was located in the south part of the bay to the east of the front door.

The west bay contains a slightly deteriorated furnace/bake oven (Fig. 59) which doubles as part of a wall partition. The oven abuts the dividing wall between the central and west bays. Built of two materials, the oven is batsa brick 4'3" from the top to a fire plate, and small chunks of fieldstone from the fire plate to the dirt floor. The area behind the fieldstone was the firebox but the location of the opening to fire the oven cannot be determined. Similarly, the location of the oven doors is unknown since both sides of the oven have crumbled away. Mr. Beuber stated that the doors were on the north side of the oven, but the area on that side which has fallen away appears too small for two oven doors. An elaborate mold made of puddled clay on the top part of the oven remains on the north side but has a large crack and is in danger of falling apart.

Smoke and fumes from both ovens are directed into one central chimney in the loft which extends across the full length of the middle bay. The chimney is very long at the base and narrows gradually as it rises toward the roof ridge. Composed of batsa brick, the chimney (Fig. 60) has an opening in the center for meat smoking. Just below the peak the kiln-fired chimney stack has fallen away. The overall shape and construction is very similar to the chimney at Elmer Grosz's house-barn, Site 14.

The loft floor is made of 8½" thick clay straw material compacted together with staves of wood between the ceiling



Fig. 60. This batsa brick chimney is very similar to the Grosz chimney at Site 14. Note the small meat smoking opening near the loft floor.

joists. Both gable ends of the house have vertical board and batten siding with batsa brick laid one brick deep against the inside of the gable walls, from the loft floor to the peak. Gable-end rain shields, located between the top of the wall and the vertical siding, are nailed to the end ceiling joists. This prevents the clay wall from eroding. Below the ceiling joist is a 2" x 4" wall plate which extends the full length of the building; two other 2" x 4" shims are wedged above the plate and clay wall for additional support.

Immediately northwest of the house is a depression in the ground with a stone foundation that may have been the original root cellar. Northeast of the house is a foundation abutting the gable end of the house which extends 23' in length.

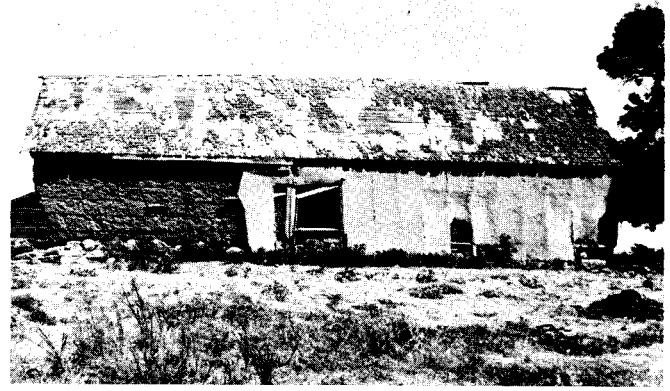


Fig. 62. The rammed earth Mikuska house is located in the same section as Site 16.

SITE SIXTEEN B
STRUCTURE: Barn
CONSTRUCTION: Rammed Earth
DIMENSIONS: 48' x 20'6"
YEAR BUILT: Unknown
FIRST OWNER: George Vetter
PRESENT OWNER: Oscar Beuber
COUNTY: Hutchinson
TOWNSHIP: Fair

Originally part of a farmstead built by two Vetter brothers that included a similarly constructed house, this barn (Fig. 61) is located across the section road from the rammed earth house.

Measuring approximately 48' in length and roughly 20' in width—actual width is difficult to determine since the north wall is eroded extensively—the building appears to have five horizontal tiers of clay/straw wall material which measure 1'6"-1'9" per tier. The building rests on a stone and clay foundation 1'6" in height. According to the current owners, the building never had any exterior siding. Each loft gable end has vertical board and batten siding.

The roof system has a single beam parallel with the long



Fig. 61. This rammed earth barn similar to the Schmidt house displays the various layers of the clay in the wall.

axis at ceiling height for half the length of the barn. This supports the ceiling joists. The interior of the barn has two partitions which appear to have been added at a later date. Within the farmstead there is a vaulted root cellar east of the barn which may be the original cellar of the Vetter brothers. It has an arched kiln-fired brick entry, vaulted ceiling of the same material and fieldstone walls in a room measuring 8'2" wide and 11'11" long.

SITE SEVENTEEN
STRUCTURE: House
CONSTRUCTION: Rammed Earth
DIMENSIONS: 48' x 19'2"
YEAR BUILT: Unknown
FIRST OWNER: Unknown
PRESENT OWNER: Viola Mikuska
COUNTY: Hutchinson
TOWNSHIP: Fair

Site 17 is located in the same section as the Schmidt house and appears to have been built with the same technique (Fig. 62). Unfortunately, the current owner, not a descendant of previous owners, does not have any knowledge of the history of the building. The structure is in very poor condition with all of the north and part of the east walls missing.

The floor plan is three bays with no lateral partitions, thereby creating three rooms of equal width and nearly the same length. The partitions are batsa and are approximately one foot wide. The interior walls of the south bay appear never to have been whitewashed but covered with plaster of Paris. A whitewash was applied to the plaster and painted pink. A window frame in this bay shows several colors including mint green, mustard yellow, dark blue, pink and white; and the window seat is carmine red. The ceiling has tongue and groove boards with mint green and mustard yellow paint. The exterior walls have five or six tiers of clay measuring 1'4" each. Several irregularly-spaced wood wedges are used in the wall as in the Elmer Grosz house-barn.

SITE EIGHTEEN

STRUCTURE: House

CONSTRUCTION: Masonry

DIMENSIONS: 18'2" x 16'2"

YEAR BUILT: Circa 1888

FIRST OWNER: Gottlieb Schmitgall

PRESENT OWNER: Reuben Heckenlaible

COUNTY: Hutchinson

TOWNSHIP: Molan

An odd-sized, masonry-built shed that was originally used as a house, Site 18 (Fig. 63) has had some modifications. The building shows no visible evidence of clay mortar in the walls although it seems probable that mortar would exist in a building constructed prior to 1888.

Measuring about 18' in length, the east facade has two sliding doors which were put in by the current owner to replace a 2'6" wide doorway and a double-hung sash window. Each gable end has a small four-pane frame window which took the place of larger storm-like windows. The south gable had an entryway and exterior ladder to the loft which is now sided over. There was also a wood partition down the middle of the interior space.

SITE NINETEEN

STRUCTURE: House-Barn

CONSTRUCTION: Frame

DIMENSIONS: 80'11" overall x 24'5"
38'5" house; 42'6" barn

YEAR BUILT: 1897

FIRST OWNER: Paul C. Gross

PRESENT OWNER: Joe P. Gross

COUNTY: Hutchinson

TOWNSHIP: Pleasant

Part of a recently abandoned farmstead which is now in estate, this house-barn (Fig. 64) is located just off a township



Fig. 63. Pictured here is the Heckenlaible shed.



Fig. 64. Built entirely of wood is the Joe P. Gross house-barn. Note the location of the windows and door.

road with the long axis running due north-south. The land was homesteaded by Matthew Meyer and this portion sold to Paul C. Gross. A Prairie Hutterite, Paul was the father of Joe P. Gross. Clarence Gross, the administrator of the estate also said that the barn which is attached to the house was built concurrently with the dwelling. The barn connects only superficially with the house and is not truly built as one unit.

A frame shed addition to the northwest side of the barn is found attached in the same location at Site 3. A large vorhäusl extends 16' from the house on the west facade with the doorway and a window facing south. Immediately to the southwest of the house is a frame summer kitchen, 10'3" wide and 22'5" long, with a door on the west facade. A dense shelterbelt several hundred feet north and a row of trees west of the house-barn provide protection from strong winds.

The floor plan of the house is an irregular two-bay, two-room deep design. The south bay has a 10'10" x 10'9" room partitioned in the northeast corner. A narrow hallway parallel with the roof ridge leads into the barn; the hallway is adjacent to an enclosed stairway to the loft. A small room approximately 8' square in the northwest corner has steps to the root cellar, which measures 19'9" x 8'6".

The southeast room has pastel bluish-green colored walls, soft yellow trim and medium blue where a recessed cupboard was located. The cupboard was removed from the north wall and taken to the Freeman College Museum and appears to have been approximately 3' wide. The southwest room has medium blue walls, a peach colored ceiling, yellow trim on the doors and medium blue window molds. The north bay of the house has the same paint scheme as the south bay.

There is no visible evidence of a furnace/bake oven; Clarence Gross said he does not think the house ever had an oven but used instead more contemporary heating and cooking structures. The chimney is made of kiln-fired brick and seems to be the original chimney by all indications. Even though it has been modified greatly on the interior, the Michael D. Hofer house-barn resembles Site 19 in overall floor plan.



Fig. 65. The Paul Pullman house is built of locally-made, kiln-fired brick. Arched windows, whitewash and pilasters are characteristics found in Ukrainian houses.

SITE TWENTY

STRUCTURE: House

CONSTRUCTION: Kiln-Fired Brick

DIMENSIONS: 42'6" x 26'4"

YEAR BUILT: 1881

FIRST OWNER: Joseph Wollman

PRESENT OWNER: Paul Pullman

COUNTY: Hutchinson

TOWNSHIP: Grand View

The Pullman house was built in 1881 by Joseph Wollman, who sold the property to Joseph C. Kleinsasser, the present owner's grandfather. The building (Fig. 65) is in excellent condition and is maintained and lived in by its owner as an integral part of a functioning dairy farm.

Material used to construct Site 20 is called kiln-fired brick; but a more accurate description is crudely-fired brick because it is not heated completely and thoroughly during the firing process, resulting in a semi-porous soft brick which will deteriorate when exposed to the elements for a long period of time. In a description from Reuben Goertz of Freeman, this brick was made by a man named Gering and was fired in the field. Green brick was piled in a beehive shape with an opening on the bottom. Straw was stacked inside the hive and ignited. The fire was fed through the

night, and by morning the bricks were allowed to cool. Several houses in the Freeman area were made of this type of brick.

Arched lintels on all windows and doors, corner and middle pilasters, and fine detailing below the eaves are distinctive features of the house. These details are similar to those found on homes on the Steppes of Russia. The loft in each gable end was originally kiln-fired brick but a storm in circa 1900 took off the roof, and the bricks were replaced by frame with horizontal clapboard. An exterior stairway to the loft on the north end of the house was removed at an undetermined date. A door in the gable end was carefully filled in and is virtually undetectable today.

The floor plan is basically three bays and two rooms deep. However, several walls that are not original divide the rooms into smaller spaces. A small closet in the north bay has several original chamfered ceiling joists and original blue paint on the doorway. A continuous 6" wall ran the width of the house in this bay but the west part has been removed for the present kitchen. The original enclosed stairway to the loft is located in the center of the bay.

Formerly one room deep, the middle bay now has a stud wall partition parallel with the roof ridge which divides the space into two rooms. On the original south wall in this bay is a recessed shelf 2'7" wide. This is also original. Adjacent to the shelf is an enclosed cupboard 2'4" wide which used to be a door that led into the south bay.

The south bay has an original room divider parallel with the roof; another more recent wall perpendicular to the ridge further divides the space. The west half of the bay contains part of the original chimney which is no longer in use.

The loft has been remodeled and is presently used as storage space and bedroom. Measurements taken in the loft

show the wall thickness at approximately 18", and through a closet are visible the original 2" x 6" rafters.

An original root cellar measuring 14'4" x 18'2" is located just east of the house and is still in use. A semi-vaulted ceiling which was frame has been replaced with a poured concrete ceiling.

NOTES

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- Joseph S. Height, *Paradise on the Steppe: A Cultural History of the Kutschurgan, Beresan, and Liebental Colonists -1804-1944* (Bismark, North Dakota: Historical Society of Germans From Russia, 1972), 119.
- Sallet, *Russian-German Settlements in the United States*, 23.
- Walker Aken, "A Bit of Europe in Dakota," *Harper's Weekly* 11 July 1896, 690.
- Ibid.*, 690.
- In addition to extensive material concerning Mennonite and Hutterite history, much has been published regarding German-Russian history. See Joseph S. Height, *Homesteaders on the Steppe* (Bismark, North Dakota: Historical Society of Germans From Russia, 1975); Gustav Gottlieb Wenzlaff, *A Son of Colonia the Forgotten* (Los Angeles: David H. Shol Co., 1937); John E. Pfeiffer, "The German-Russians and Their Immigration to South Dakota," in *Selected Papers of the First Nine Dakota History Conferences, 1969-1977*, ed. Herbert W. Blakely (Madison: Dakota State College, 1981), 200-210; Herbert S. Schell, "The German Heritage in South Dakota," in *The American-German Review*, vol. 27, no. 5 (June-July 1961), 5-9; G. August Bischoff, "A 1909 Report on Russian-German Settlements in South Dakota," trans. Anton H. Richter in *South Dakota History*, vol. 2, no. 3 (Summer 1981), 185-198.
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- Sallet, *Russian-German Settlements in the United States*, 185-195.
- Reuben Goertz, "German-Russian Houses: Here and There, Now and Then," *Clues*, (1976), 31-50.
- Carlson, "German-Russian Houses in Western North Dakota," 51.
- Ralph L. Patty and L.W. Minium, "Rammed Earth Walls for Farm Buildings," *Agricultural Experiment Station*, Bulletin 277, (April 1933), 4.
- Lumber for construction was frequently obtained from Minnesota as the following advertisement reveals: "Russian Lumber Yard! The St. Croix Lumber Co. offers the public Pine Lumber! Doors, Sash, Blinds, Brackets, Scroll-Work, Moldings, and everything that builders can require will be kept constantly on hand, and made on short notice at our mills at Stillwater, Minnesota" (*Yankton Press and Dakotan*, 7 January 1875).
- J.J. Mendel states that the First German Church used by Mennonites of Freeman had a thatch roof (*History of the People of East Freeman, Silver Lake and West Freeman from 1528-1961*), [Freeman: n.p., n.d.], 56.
- Aken, "A Bit of Europe in Dakota," 690.
- Clarence Pullman, interview with authors, Hutchinson County, South Dakota, 23 July 1982.
- Martha Zeeb, interview with authors, Freeman, South Dakota, 7 July 1982.
- Mendel, *History of the People of East Freeman, Silver Lake and West Freeman from 1528-1961*, 56.
- See J.J. Mendel, *History of Freeman from 1879 to 1958* (Freeman: n.p., 1958); J.D. Butler, "The Mennonite Stove," in *Mennonite Life*, vol. 4, no. 4 (October 1949), 29-30; and Katharine Anthony, *Catherine the Great*, (New York: Garden City Publishers, 1925), 68.