RECYCLED CONNECTIONS: RE-USE AND RELATED LANDSCAPES OF THE HISTORIC PETERSON FARMSTEAD 1855-PRESENT DAY

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JOSEPH KLOBUCHAR PNEWSKI

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Abstract

This thesis utilizes archaeological investigations undertaken at the Historic Andrew Peterson Farmstead to examine processes of production, consumption, and re-use, as well as spatial distribution and changing physical environments, socio-spatial systems, and economic networks within farmstead contexts. The Peterson farmstead was established in 1855 and has been continuously occupied to the present day, allowing for interpretations of the beginnings of agriculture in the region, as well as the evolution of farmsteads in Minnesota after the turn of the twentieth century.

Archaeological deposits and their spatial distribution within the farmstead layout supplemented by archival analyses broaden our understandings and interpretations of interrelated use areas and changing landscapes within a farmstead through ideas of production, consumption, and re-use within a farmstead context. The information gathered from archaeological deposits allow for a fuller and more complete understanding and interpretation to be utilized in the transformation of the property as an interpretive center.

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Introduction

Andrew Peterson first laid eyes on what would become his farmstead, home, and livelihood in 1853. Though not the first settler in what would become Carver County, Peterson was part of a contingent of Europeans and white Americans to attempt to homestead and settle "The Big Woods", a boundary between the fertile but unfamiliar prairie to the west and the less ideal soils of the coniferous forests to the north (Ostergren 1980: 22). When Peterson began to homestead and farm his claim beginning in 1855, he immediately was participating within much larger physical environments, social interaction systems, and wider trade and economic networks (Figure 1).

The mid-nineteenth century was a time of cultural, physical, and economic transformations in what would soon become the state of Minnesota. This is exemplified in one of the contexts most prevalent to archaeological resources in Minnesota, farmsteads. From the mid-nineteenth century forward, an explosion of settlement pushed across the state (Nienow 2007: 19-20). Because of this, the physical environment, socio-spatial contexts, and economic networks of the region were altered heavily. This was done through the adaptation of the environment to better utilize the land for westernized ideas of agricultural, the introduction of different and diverse ethnic groups and communities through forms of immigration, and the introduction of larger and more

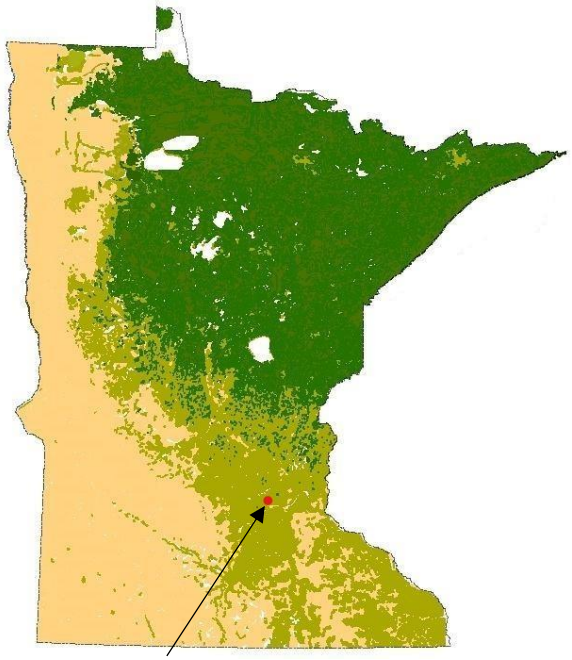

Figure 1. Location of Peterson Farmstead

complex economic interaction spheres as a result of development. These changes expanded and progressed continuously into what we see in our present day overarching landscape. The Historic Andrew Peterson Farmstead was a part of these larger processes.

Thesis Focus

This thesis will address these changes to physical environment, socio-spatial contexts, and economic networks through analyses of archaeological investigations at the Peterson Farmstead. In particular, I will focus on production, consumption, re-use patterns, and trash disposal within farmstead contexts. Farms and farmsteads have previously been interpreted as largely self-sufficient or locally focused, while ignoring wider possible interaction spheres. Instead, farmsteads work within larger local, regional, national, and even international spheres (Adams 1976; Klein 1991; Groover 2007; Nienow 2007; Terrell 2006). They do so by both producing goods to be used on different scales on and outside the farm, as well as acquiring and consuming goods that were not possible to be produced or available on the farmstead itself. Within these processes we also observe patterns of re-use, repair, and trash disposal present on farmsteads with both produced and acquired goods as well as structures themselves (Strasser 1999; Pettegrew 2002; Ford 2008; Schiffer 2010; Corbishly 2011; Amick 2015). These processes and patterns can indicate differentiations in what can be produced, difficulty of procurement, availability, economic status, and even what is considered "trash". Archaeological perspectives offer opportunities to utilize recovered materials to observe larger patterns that may not be explicit in documentation, show different preferences for goods through wider time periods, as well as demonstrate more minute and subtle forms of re-use of materials. Through observing archaeological and documentary evidence, I will show how production, consumption, and re-use patterns interact and are represented within the Peterson farmstead context, as well as how those reflections fit within previous models of farmstead operations and representations.

In this thesis, I will also explore these ideas through spatial distribution of activities within the farmstead and changing physical environments, socio-spatial contexts, and economic networks within the farmstead unit. This is interpreted largely through the physical environment of the farmstead and a "focus upon defining land use, domestic architecture, arrangement of outbuildings and fences, feature types, or general

site structure associated with a given farmstead" (Groover 2007: 16). This physical environment in turn interplays with the different socio-spatial contexts and economic networks creating the farmstead landscape. Within this physical environment, aspects of activities and tasks performed both blend and relate to one another through different features and areas within the farmstead (Trewartha 1948; Adams 1990; Ingold 1993). Through this, tasks and activities are interrelated and part of larger processes not necessarily confined to one category or another. In this same way, through the advancement of technology and modernization (Adams 1990; Cabak, Groover, and Inkrot, 1999; Beaudry 2001; Groover 2007; Ford 2008) and changes in production focus and techniques (Larkin 1982; Adams 1990; Groover 2005, 2007; Keener, Gordon, and Nye 2010) aspects of the farmstead physical environment change. These changes can include the construction, movement, and demolition of structures, and the segmentation and melding of specific use-areas. Archaeological perspectives offer a unique and important look at these changes spatially by providing evidence for location of differential buildings and use-areas that are not evident in historic photos or descriptions, offering material evidence in support of documentary evidence, and consider aspects of land and space use that are inaccessible or inefficient through documentary means. Through observing documentary and archaeological evidence, I will show how farmstead structural and use-area layout relates to activities and practices within the Peterson farmstead context and how those reflections fit within previous understandings of farmstead spatial differentiation, interrelation, and change.

I will attempt to place the Peterson farmstead within a context of both regional and national farmsteads and time period. Through archaeological investigations, documentary research, and Geographic Information Systems (GIS) mapping, this thesis attempts to utilize the Peterson farmstead to explore ideas of physical environment, socio-spatial context, and economic interaction change, production and consumption networks, as well as re-use, repair, and trash disposal patterns. Through these investigations, the Peterson farmstead shows a shifting physical environment affected by technological innovations and modernization, connections to larger production and consumption interaction spheres both regionally and internationally, as well as more prominent continuations of repair, re-use, and trash disposal within a Minnesota

farmstead context. These representations within the Peterson farmstead reflect concepts of more continuous and connected practices within farmstead operations, in contrast to previously accepted concepts of segmentation and delineation along gender and task related lines. These conclusions can be utilized to better inform interpretations of farmsteads and their archaeological presence as well as reflect the fluid physical environments, broader economic networks, and more complex socio spatial contexts in which farmsteads operate.

Chapter Layout

This thesis will be organized into four chapters, each addressing different aspects of the process. The first chapter will address the historic contexts in which the Peterson farmstead operated and operates. This will include a broad Minnesota and regional history, a wider context of United States national and regional farmstead history, as well as a brief history of how the Peterson farmstead fits within local social and economic networks. These different contexts will highlight different farmstead models related to individual farmstead units, concepts of social networks related to local communities and neighboring, as well as national and even international economic networks. This brief background will assist in placing the Peterson farmstead within a physical, social, and economic setting.

The next chapter will address the methods, techniques, and results of the archival research and archaeological investigations. This includes an outline of the methods and results of documentary and archival research, GIS mapping, and the 2016 University of Minnesota field school archaeological investigations. These methods and results will affect and inform how interpretations and analysis were performed and constructed for the Peterson farmstead.

The third chapter will consist of analysis and discussion of the findings from the archaeological investigations. The analysis will be partitioned out into sections relating to production activities; consumption practices; re-use, repair, and trash disposal; and their spatial distribution within the farmstead physical environment through time. Through these different sections, models of an idealized farmstead as a physically, socially, and economically isolated and static unit will be challenged. Aspects of production related to subsistence and commercial practices as well as the utilization of

regional resources reflect the diverse and ever changing modes manufacture utilized on farmsteads. Consumption patterns related to wider trading, economic, and social networks, modernization and mechanization, as well as fluid socio-economic status highlight the broader and more complex socio-spatial contexts and economic networks of the farmstead unit. Re-use practices within the farmstead reflect aspects of self-sufficiency, the value of "new" objects and materials, and perceptions of trash within farmstead contexts. These analyses will also address the application of archaeological perspectives to evaluate interrelated use areas and physical design change of the farmstead and how these affect wider socio-spatial contexts and economic interaction spheres. These analyses and discussions will help better understand and inform knowledge on the Peterson farmstead and farmsteads in general.

The final chapter will highlight important aspects and foci within the representations of the Peterson farmstead through the current research and investigations. It will then turn towards how this research can be utilized for interpretation within the farmstead and regional contexts in relation to the Peterson farmstead's utilization as an interpretive center and museum.

Chapter I: Historic Context

Physical Setting

The Peterson farmstead is situated three miles northeast of the town of Waconia within Carver County, Minnesota, roughly 45 minutes west of Minneapolis. This places the farmstead within the Central Lakes Deciduous South archaeological sub-region (4S) as designated by the State Historic Preservation Manual for Archaeological Projects in Minnesota. This location is also part of what is colloquially called the "Big Woods". Prior to European settlement, the area was covered in an "oak woodland and maple-basswood forests" (DNR-ECS: Big Woods Subsection 2017). Through European settlement and further development, the make-up of the region has been altered. The current composition of the "Big Woods" landscape is that of more than "75%...cropland with an additional 5 to 10% pasture. The remaining 10 to 15% of the subsection remains as either upland forest or wetland" (Ibid). The Peterson farmstead sits in a setting which is currently dominated by cropland interspersed by hardwood deciduous forest.

Minnesota and Regional History

The area now occupied by the state of Minnesota has evidence of human occupation upwards of 12,000 years ago with sites dating to the Paleo-Indian, Archaic, and Woodland periods throughout the region (Minnesota Office of the State Archaeologist). The first historically recorded people in Minnesota were the Dakota. Before European contact, tribes associated with the term "Dakota" occupied much of the state with groups reaching out farther west, including the "Big Woods" and Minnesota and Mississippi river valleys (Wingerd 2010: 4). In addition to the Dakota, the other predominant Native American group in Minnesota were the Ojibwe who entered Minnesota as early as the 1640s in response to conflict in areas farther east along the Great Lakes from European trade and settlement (Ibid: 9). The Ojibwe and Dakota maintained a tenuous peace facilitated by trade goods coming from the east, but as time went on the relationship became stressed causing more conflict between the two groups as time progressed the Ojibwe pressed westward into land formerly Dakota territory (Ibid: 33). Both the Ojibwe and Dakota were present in Minnesota when the first European settlers and Andrew Peterson entered Minnesota, though very little interaction would have occurred in the area between the two groups by the mid-nineteenth century.

Alongside Native American peoples, European and colonial powers were present in Minnesota starting as early as the seventeenth century. The earliest colonial incursions into Minnesota were initiated by the French based out of Quebec. The first official trade expedition was conducted in 1660 by Pierre-Esprit Radisson and Medard Chouart Des Groseilliers, though it is probable that many French traders had been in the region illegally before the expedition (Ibid: 6). After 1763 and the cession of all French North American holdings, the British took over official trade (Ibid: 53-54). Another change occurred after the war of 1812, with the United States establishing control over the region (Ibid: 81). Even through these changes, there was a continued presence of French-Canadian traders in the region throughout the fur trade time period.

The United States government attempts to establish control of the region culminated in the establishment of Fort Snelling at the confluence of the Minnesota and Mississippi Rivers in 1819 (Fridley 1956 : 179). Using Fort Snelling as a beginning point, the United States continued to establish other forts and agencies throughout the Minnesota territory including Fort Renville (Lac Qui Parle), Fort Ridgely, and Fort Ripley (Wingerd 2010: 112, 263). This governmental push farther west was facilitated through the creation of many unfair and one-sided treaties with Dakota people. These treaties with the Dakota in turn caused more conflict between the Dakota and the United States government and settlers until the eventual culmination in the U.S. Dakota War of 1862 (Ibid: 303-305). This conflict led to the Dakota being expelled from Minnesota and opened up further land for United States settlement.

The establishment of Fort Snelling and other governmental institutions allowed for the introduction of possibilities of settlement and new industries into Minnesota. The most prominent industries introduced to Minnesota during this time period were logging, milling, and eventually farming.

The first of these industries, outside the fur trade, in Minnesota was logging. This was accommodated by the expansive northern boreal forests and in large part the "rich pinelands of the St. Croix-Mississippi Delta" (Ibid: 175). As more people continued to enter the territory during the mid-nineteenth century the logging industry became more important and expanded into the northern forests, especially in areas with easy access to the Mississippi river and the eventual mills at Minneapolis and St. Anthony (Ibid: 222).

In this way, lumber and the timber industry helped shape the land and economic direction of the state.

Another large industry that arguably had one of the larger impacts on Minnesota was milling. The utilization of water and rivers in milling allowed for expansion and settlements to appear and grow along the Mississippi and St. Croix rivers. These mills were first largely utilized by the lumber industry with the first saw mill being constructed on the St. Croix as early as 1838 (Ibid: 136). With time, more mills appeared with most focused along the timber rich St. Croix River valley and along the Mississippi at the only falls along the entire river located in current day Minneapolis creating lumber communities at St. Anthony and Stillwater (Ibid: 210). With the increase in utilization of the rivers for processing, mills would soon become common to process the grain farmed throughout southern Minnesota, starting the introduction of the first grain mill at St. Anthony falls in 1852 (Kane 1987). This exploitation of the Mississippi river and operation of grain mills in the Minneapolis area would become the largest industry and a defining characteristic of the area.

The farming industry took root in the Minnesota territory following the United States forts and governmental facilities pushing farther and farther west into the plains along with settlers eager to utilize the fertile and relatively unbroken prairie. This push was in large part due to the establishment of governmental legislation introduced during the mid-nineteenth century such as the Pre-Emption Act of 1854, the Military Land Bounty Act of 1855, and the Homestead Act of 1862. These acts allowed for settlers who were squatting on land for a period of time to have legal claim to it, gave land to soldiers for their military service, and eventually gave homesteaders who paid a claim fee and made improvements over a period of five years legal possession of property respectively (Nienow 2007: 20). These settlers began to reshape and change the physical environment to better suit its use towards farming which in turn would help shape the socio-spatial contexts as well as larger economic networks. Most of these earliest farms were located within areas of development such as "trading post, missions, and military posts" and expanded out from those central points (Terrell 2006: 33). By the time of Peterson's farmstead, farming had become the predominant industry in southern and central Minnesota.

The introduction of these industries also increased the need for a population to work within those industries. This workforce was predominantly comprised of immigrants to the United States looking for opportunities farther west. In Minnesota, German and Scandinavian immigrants were the most prominently represented groups (Ostergren 1980: 22). These groups largely settled in concentrations and groupings in relation to their general identified nationality or ethnicity. This is evidenced throughout the state through different areas being more heavily settled by specific groups in a "patchwork quilt" of European immigrant settlement (Ibid: 22).

Immigration to Minnesota came in different waves, with the Germans being the first group to settle largely throughout the southeastern, upper Mississippi river valley and the "Big Woods" of central Minnesota (Ibid: 22). This focus of German immigrant settlement in the "Big Woods" made them a prominent group in the area and it was noted that "A few German settlers had preceded [Andrew Peterson]…in what is now Carver County" (Michelich 1984: 19).

In addition to their German counterparts, Swedish immigrants were also present throughout Minnesota. There were multiple major waves of Swedish immigration to the United States largely focused in Northern Illinois, the "Big Woods" region of Minnesota, and large portions of northern Minnesota and northwestern Wisconsin (Ostergren 1980: 22). Specifically relevant to the Carver County and the area surrounding the Peterson farmstead is the second immigration wave into the "Big Woods" during the 1850s and 1860s in which Andrew Peterson himself was a participant.

The new Swedish immigrants created a sense of community through the adoption of "American culture and identity while also maintaining levels of nationalistic segregation" (Ibid: 22). Nationalistic identities were evident through the names of towns such as "New Sweden" or "Scandia" in which community groupings were generally homogenous and segregated along national, ethnic, and often religious lines (Lofstrom 1978a: 47). These nationalistic feelings are also evident through Andrew Peterson's continued use of groupings such as "us Swedes" and "the Germans" within his journal throughout his life, "May 24, 1874 – Today 13 Germans were baptized in the Scandia Church" (Peterson 1930: 299). Along with these nationalistic identities, the Swedish immigrants also embraced their new American environments including the adoption of

"American Frontier" crops, planting wheat, corn, and oats (Ostergren 1980: 28). In addition, ideals of "American" identity were evidenced through military and patriotic pride as shown through Andrew Peterson's attempts at both joining the military and voting in national elections (Peterson 1930: 111; Mihelich 1984: 43). This juxtaposition of both national and ethnic identity along with adaptation and a new American identity allowed for the creation of unique and dynamic communities. Through these new communities and practices, Swedish immigrants managed to maintain a nationalistic character as well as embrace a new "American" identity and in turn, influenced the cultural identity of Minnesota and the region.

National Farmstead Context: 1500 AD-Present Day

Beyond the regional contexts, the Peterson farmstead also is situated within a larger national farmstead continuum. The beginnings of European or white settlement and farming in the United States started on the east coast during the colonial period and pushed farther west with the expansion of United States territory through time. Due to this wide range of time (1500 AD-Present Day) as well as the presence of diverse physical environments, farmsteads took a variety of distinct types and forms throughout United States history. These types can be organized and grouped into different patterns through their shared characteristics. An excellent example of well balanced and defined categories is portrayed in by Mark D. Groover in his 2007 book *The Archaeology of North American Farmsteads* and will be utilized throughout this thesis.

The colonial period is earliest of these defined categories lasting roughly from 1500-1790 (Groover 2007: 31). These farmsteads are often characterized by a pre-industrial context with more of a focus on self-sufficiency and vernacular culture (McMurray 2001: 18; Groover 2007: 32). This focus on self-sufficiency led to a primary focus on local industry and products. Archaeologically, these farmsteads are represented largely by these locally produced artifacts and individualized structural layout of the farmstead itself (Groover 2007: 67). Though the Peterson farmstead does not fit within the time period, aspects of colonial farmsteads would have been present on the Minnesota frontier during the 1850s.

The antebellum period follows the colonial lasting from 1790-1865 (Ibid: 18). This period saw a great increase in infrastructure allowing for more standardization and

focus on consumerism. This is evident in both the homogenization of materials associated with the farmstead as well as general farmstead layouts (Ibid: 69). Also indicative of this period is the idea of "neighboring" or a utilization of "kin-based labor systems" as well as "reciprocal labor practices…by neighbors and community members" (McMurray 2001: 18; Groover 2007: 94). Farmsteads of this time period have an archaeological profile that is represented by more utilization of industrially produced consumer goods as well as a standardization of farmstead layout. The beginnings of the Peterson farmstead fit into the standardization and consumerism of the antebellum period.

The post-bellum period continues this trend lasting from 1865-1920 (Groover 2007: 18). This period is highlighted by the increase in number of farmsteads, mechanization, and modernization of farmsteads and farming techniques. After the Civil War, a flood of peoples moved west and into newly opened territory, "encouraged by the opening of public lands and the influx of immigrants from eastern and western Europe" (Ibid: 96). In addition to larger numbers of farmsteads, great leaps in technology led to the utilization of more mechanized labor replacing what was previously work done by human or animal power, which in turn drove a process of modernization on the farmstead including the introduction of, "electricity, plumbing, the telephone, and radio" (Ibid: 97). Archaeological materials associated with this time period are represented by an increase in "factory produced consumer goods ranging from household furnishings to clothing and personal items" as well as a shift toward more new house and structural styles (Ibid: 97). The Peterson farmstead would have been at its peak of productivity and activity during the post-bellum period.

The last national period identified for farmsteads consists of the twentieth-century, specifically post-1920 (Ibid: 18). This final time period is represented through a decline in the number of farmsteads, an increase in the size of managed land, and continued advancements in mechanization and modernization. The diminishing of the number of farmsteads was a result of these processes with the consolidation of farms, "owners of larger, more prosperous farms often bought out smaller farms to increase the size of their landholdings" (Ibid: 97). These larger farms themselves could not be more profitable commercially, but would require an increase of use of gas-powered agricultural machinery. Archaeologically, this period is represented through continued increase in

factory goods and machinery related materials as well as a utilization of more "[p]rocessed foods and name brands" instead of locally produced foodstuffs (Ibid: 97). The Peterson farm would also have fit within this most recent time period with diminished but continued use to present day.

Minnesota Regional Farmstead Context 1820 AD- Present Day

The Peterson farmstead also fits with a more regionalized and Minnesota focused farmstead context. Farmsteads have been an important and intrinsic part of Minnesota history from the beginnings of white settlement. As the area that is now Minnesota gained more population and statehood, farm technological changes and farmsteads spread into the newly opened and accessible areas. In this way farmsteads within Minnesota can be viewed as part of a Minnesota farmstead continuum representing a variety of different contexts. These contexts are outlined within the MnDOT *Historical Archaeology of Minnesota Farmsteads: Historic Context Study of Minnesota Farmsteads, 1820-1960* by Michelle Terrell.

The first of these periods relates to Early Settlement, lasting from 1820-1870 (Terrell 2006: 33). These early farmsteads were often small with a farmhouse represented by a dug out, log house, or a sod house depending on environment, as well as a small number of simple outbuildings and root cellars. The majority of these farmsteads would also be located near a reliable water sources and practice small subsistence level farming (Ibid: 34). These farmsteads would largely have been subsistence based, and relatively self-sufficient. The material culture associated with these farmsteads would be represented by small amounts of artifacts and earlier dates due to their temporary nature.

The next time period is represented by the Development of a Wheat Mono-Culture from 1860-1885 (Ibid: 38). This period shows an increase in complex and more permanent structures as well as more of a focus on cash crops. Farmsteads of this period largely have a timber-framed farmhouse, more substantial outbuildings, structures for the storage of grain, and the presence of planted windbreaks or woodlots. These changes were a result of increases in both the sizes of the urban and regional markets of Minneapolis and St. Paul which required more food and agricultural goods, as well as improvements to general infrastructure including railroads and roads. These sites are

represented archaeologically through larger amounts of structures and materials related to more permanent construction as well as materials for more large scale crop harvesting.

Following this focus on cash crops we see the next time period, Diversification and the Rise of Dairying from 1875-1900 (Ibid: 41). This period saw the introduction of livestock and other industries such as orchards and maple sugaring to supplement subsistence and cash crops which were continuing to gain importance within urban and regional markets. Farmstead from this period are represented by larger and more substantial structures, the introduction of outbuildings specific to livestock such as poultry and hog houses and milk houses, as well as increased amounts of fencing and barbed wire (Ibid: 42). The archaeological deposits from this time period consist of more commercial based materials, an increase in domestic faunal assemblages, and more evident fencing.

The next period represented within the Minnesota farmstead continuum is that of Industrialization and Prosperity from 1900-1920 (Ibid: 45). This period represents a push toward modernization and mechanization on all aspects of the farm with "mass produced mechanized farm equipment and tractors aided farm efficiency, while cars, trucks, and rural mail delivery eased the isolation on the farm" (Ibid: 45). This period is evidenced through a change in construction techniques, concrete foundations, and the introduction of septic and electrical systems. Archaeologically, these sites are defined by construction materials such as concrete, altering of the subsurface through the addition of underground utilities, and increase in electrical and mechanical hardware materials.

The next two time periods overlap significantly from 1900-1940 and represent both the Development of the Cut Over, and the Development of the Livestock Industries (Ibid: 49, 53). The development of the cut over pertains exclusively to northern Minnesota as areas were logged out entirely and attempted to be farmed, with little success. These farmsteads are represented as smaller, with more specialized structures and consumer goods present archaeologically (Ibid: 49). The development of the livestock industry is representative of a significant increase in utilization and specialization in livestock and cattle by farms for commercial and urban consumption. Archaeologically, these farmsteads have larger structures, more fencing and structures related to livestock, as well as more faunal materials.

The Minnesota farmstead context continues with the Depression and Interwar Period from 1920-1940 (Ibid: 57). Just as in the national continuum, this time period is represented through an increase in mechanization, a diminishing of number of farmsteads, and an increase in individual landholdings as a result loss of population and economic circumstances. During this time period there is also a diminishment of urban and regional markets as well as a neglect of infrastructure. These factors are shown through an increase in electrical components and mechanization, an introduction of structures for the storage and repair of mechanized farm implements, and the re-use or remodeling of older structures (Ibid: 58). Archaeological indicators for this time period include an increase in hardware and machinery components, the presence of machine sheds and garages, as well as re-use or recycled materials.

The final period along the Minnesota farmstead continuum is that of World War II and the Post-war Period from 1940 to the present day. During this period, there is further decrease in the number of farms coupled in turn with larger area for the remaining farms as well as a push toward specialization (Ibid: 61). This is in part due to a population push towards urban centers and away from individual family farms. Components of farmsteads from this time include a loss in diversity of farm buildings, the use of pre-fabricated structures, and an increase in the use of steel and plastics. From an archaeological perspective, these farmsteads are represented through these more modern construction techniques and materials, as well as more hardware and machinery components associated with mechanization.

The Andrew Peterson Farmstead: 1855 AD-Present Day

The Peterson farmstead is located roughly three miles east of the town of Waconia in the north central portion of Carver County. This area was first opened up to United States settlement in 1851 with the signing of the treaties of Traverse des Sioux and Mendota. With the opening of the area to settlement, communities began to appear across the area with 25 established within Carver County from 1851-1890 (Lofstrom 1978a: 23). The Peterson farmstead itself is located within the Laketown Township as part of the Scandia community. Laketown and Scandia would have been established just before or soon after Andrew Peterson's initial settlement on the property in 1855 (Mihelich 1984: 21).

As time went on, the town of Waconia would established itself as a substantial town and trading center to be utilized by the farmstead (Lofstrom 1978a: 23). Waconia would have just been one portion of larger local and regional trading networks. Other towns within the vicinity of the Peterson farmstead that were utilized for trade and industry included the river towns of Carver and Chaska. These towns would have been part of larger networks that included regional centers utilized by the Peterson farmstead such as St. Paul and eventually Minneapolis. The participation of Andrew Peterson and the Peterson farmstead within these local and regional interaction spheres would influence how the farmstead sits within larger historical contexts.

Andrew Peterson was born on October 20th, 1818 in Sjöarp in the province of Östergötland, Sweden (Mihelich 1984: 7). Due to economic stress and overpopulation, in 1850, a 32 year old Andrew Peterson, along with a larger group of emigrants, set off for opportunities in the United States (Ibid: 11). Setting off from Västra Ryd, Sweden they arrived in Boston and continued towards the Midwest via steamboat eventually landing in Burlington, Iowa. It was there that Peterson began his new life in the United States, working on a farm doing general handiwork and helping with an orchard in addition to regular agricultural work (Ibid: 17). All of this time, Andrew Peterson was gaining skills and understandings that would soon manifest themselves in his farmstead and lifestyle in Minnesota.

In 1853, Andrew Peterson traveled to Carver County to set up a claim on the land that would soon become the location of his farmstead. Peterson and other settlers in the region used pre-emption laws to stake claim to up to 160 acres at a price of $1.25 per acre from the United States government with the condition of 14 months of residence on the property (Nienow 2007: 20). Peterson's claim constituted a full quarter section and was one of the first in the region preceded only by Andrew Bergquist and a few German settlers (Mihelich 1984: 19, 21). After establishing the location of his property, Peterson returned to Iowa to acquire more funds and prepare to homestead the land. Two years later in 1855 Peterson began his return trip via riverboat on the Mississippi and Minnesota rivers, eventually arriving sometime before June 18th. Andrew Peterson was finally back on his land, and after an exchange in which he paid another squatter 20

dollars to establish full possession of the claim (Ibid: 20), he was ready to begin to establish his new farmstead and life in Minnesota.

After the establishment of his physical farmstead, Andrew Peterson continued building a life in his new home through his participation within the community of settlers within the area. Though one of the earliest settlers within the region, Peterson was never isolated entirely with neighbors constituting groups of Dakota, German settlers, and other Swedish immigrants (Ibid: 19). The Peterson farmstead itself sits within the Laketown township in which 51 other properties are considered part of the Scandia community, as well as 16 additional properties within the adjacent Waconia township (Ibid: 21). Prominently mentioned within the Peterson journal are neighbors including the Nilsson, Bergquist, Nelson, Anderson, Broberg, and Lundsten families (Peterson 1930). This larger group of neighbors, particularly the Swedish settlers, constituted a larger social network for which Peterson could rely on for labor and community support. Early on, this involved working with and for many of his neighbors including the construction of many of their houses and structures as well as the general establishment and improvement of claims (Mihelich 1984: 22). As time went on, this labor continues toward construction of more outbuildings, as well as the harvesting of crops and other products (Peterson 1930: 519). This was in turn supplemented later on by paid laborers for specialized and larger work projects, for example when Peterson recorded "September 8, 1873 – Today Peterman and his company are here threshing" (Peterson 1930: 285). This practice of neighboring is present throughout farmsteads and rural life during the time as a form of community building and insurance (Groover 2007: 90).

Other settlers and community members also figure into the Peterson farmstead's social life as part of the same church, school, and family systems (Mihelich 1984: 29). Gatherings would occur as part of religious events, seasonal milestones, as well as national holidays (Peterson 1930). In addition to these wider gatherings, the Peterson farmstead also was a place for people outside the community to stay during their time within the community including relatives, teachers, religious leaders, horticultural experts, salesmen, and even vagrants (Mihelich 1984: 42). This cemented the Peterson farmstead as a focal point both within the community and wider regional networks.

Along with building a community, Andrew Peterson also began to build a family. He met Elsa Ingeman, who was 17 years his younger, and the two were married on September 15, 1858 (Mihelich 1984: 39). Together, Andrew and Elsa had a total of nine children: four sons and five daughters. Their first was Ida, who was born nearly a year after their marriage. After which they had George (Sture) in 1861, John (Axel) in 1862, Charles (Carl) in 1865, Frank in 1867, Emma in 1870, Anna in 1872, Josephine in 1875, and Oscar in 1878. In all, the family had generally good health and all the children reached adulthood aside from Anna who died in 1889 at the age of 17 (Ibid: 44).

Andrew Peterson and his family lived and worked on his land keeping the farmstead functional and profitable throughout the latter half of the nineteenth century. Andrew Peterson himself continued to work throughout his life, though his role diminished later in his life (Ibid: 139). Eventually Andrew Peterson passed away on March 29, 1898 at the age of 80 years old (Ibid: 140). Elsa lived in the original farmhouse until her death in 1922, with Emma, Oscar, John, and Charles all still living on the property. Emma's death in 1943 signified a shift in ownership of the property away from the Peterson family (Ibid: 146). Andrew Peterson raised his family and lived out a good portion of his life on his farmstead located in Carver County.

Andrew Peterson Farmstead: Recent History

Andrew Peterson and his family maintained ownership of the farmstead up until Emma's death in 1943 (Ibid: 146). The farmstead was then entrusted to a caretaker for Emma, Sarah Peterson (no relation), who owned the land until 1969 when it was sold at auction to a private development company. Development plans were put into place, but the company abandoned the plans and transferred the land to Ward Holasek sometime in the 1970s (Ibid: 147). Mr. Holasek continued to operate the property as a small scale horse farm and maintained a wagon collection on the property. Through this collection, Mr. Holasek collected and kept many pieces of old farm equipment present on the farmstead when he acquired the property as well as many pieces he purchased from other locations at auction. In 1970, the property was put on the National Register of Historic Places with state level significance, and in 2012 the land was willed to the Carver County Historical Society (CCHS).

In May 2015 as part of this acquisition of the property, the CCHS utilized a grant from the Arts and Cultural Heritage Fund through the Clear Water, Land, and Legacy Amendment to create a Master Concept Plan for the creation of an interpretive center for the history of Andrew Peterson, immigration, and Minnesota agricultural histories. In fall 2015, a structural conditions report was completed by the University of Minnesota and renovations to farmstead structures are currently underway. This thesis, in conjunction with the 2016 University of Minnesota archaeological field school, will help identify, evaluate, and recommend interpretation for the archaeological deposits and features on the Historic Andrew Peterson Farmstead.

Chapter II: Methods and Results

In order to critically examine how the Andrew Peterson farmstead compares and fits within larger understandings of other farmstead archaeology and Minnesota farmstead history as a whole, multiple methods of investigations were employed. Documentary research and Geographic Information Systems (GIS) analyses, as well as archaeological survey and excavation all contributed to interpretations of the Peterson farmstead. Archival research was conducted at multiple locations across the state and through different form of documentation. GIS analyses and visualizations were utilized in tandem with archival research to indicate aspects of no longer extant structural features as well as locations and density of artifact scatters. Archaeological investigations were conducted through ground penetrating radar (GPR), pedestrian, and shovel test pit (STP) survey, as well as full unit excavation. This multi-faceted approach allows for a much wider and more complete understanding of how the Peterson farmstead, and Minnesota farmsteads in general functioned from the mid-nineteenth century through present day.

Documentary Research

Before archaeological investigation can begin, an extensive amount of archival and documentary research about a location and site must be conducted. These documentary and archival research was conducted largely at the Carver County Historical Society (CCHS), the Minnesota Historical Society (MnHS), and the University of Minnesota. The archival research conducted on the Peterson farmstead included the use of primary and secondary archival resources, wider archaeological contexts and specific studies, as well as current Peterson farmstead documentation and future plans. This archival and documentary research was utilized and helped inform the archaeological investigations conducted at the Peterson farmstead by the 2016 University of Minnesota archaeological field school.

GIS Mapping

Along with larger documentary research, historic maps and aerial photography were also accessed to observe physical environment utilization and change within the farmstead. These resources were largely collected from the CCHS Historic Andrew Peterson Farmstead Concept Master Plan, and the Minnesota Historic Aerial Photographs Online database (MHAPO). Through these maps and aerials, structural layout and land-

use can be accessed. ArcMap software was then utilized to georeference and manipulate historic maps on the current physical environment to place and interpret the locations and movement of structures through time. This GIS mapping was utilized to locate and focus archaeological investigations during the 2016 archaeological field school.

Archaeological Investigations

The archaeological investigations at the Peterson farmstead were conducted May 23rd through June 1st, 2016 by the University of Minnesota archaeological field school. The field school was designed to both teach archaeological field techniques and methods as well as investigate archaeological deposits associated with the Peterson farmstead. Archaeological investigations were comprised of a GPR, pedestrian, and STP survey, as well as four excavation units throughout the Peterson farmstead. All locational information was collected through the Trimble® 6000 Series GeoXH using TerraSync™ software and utilizing the World Geodetic System (WGS84) projection. This information was then analyzed and utilized for mapping purposes using ArcMap software.

Ground Penetrating Radar (GPR)

A Ground Penetrating Radar (GPR) survey was utilized to indirectly identify subsurface features on the Peterson farmstead. For this survey, a 400 megahertz Geophysical Survey Systems Inc. (GSSI) GPR antenna capable of giving clear images to a depth of four meters was utilized. For each suitable area, a grid was set up with transects running at 0.5 -meter increments both north-south and east-west. The antenna was dragged over each transect of the grid allowing for overlap between transects. Once collected, the data was then combined to form coherent and usable subsurface images. All portions of the survey utilized the same techniques, methods, and equipment to allow for comparison and consistency throughout the Peterson farmstead. The GPR survey on the Peterson farmstead was conducted on May 23rd 2016.

Pedestrian Survey

A pedestrian survey was also conducted at the Peterson farmstead during the 2016 University of Minnesota field school. This survey consisted of five-meter transects running north-south over the entirety of the farmstead property. During the pedestrian survey, surface features, depressions, stone foundations, structural remains, and artifact scatters were identified and flagged throughout the property. Flagged features and

artifacts were selectively photographed and documented. All portions of the survey utilized the same techniques and methods to allow for comparison and consistency throughout the Peterson farmstead. The pedestrian survey on the Peterson farmstead took place on March 5 and 10, and May 23rd, 2016.

Shovel Test Pit Survey

A shovel test pit (STP) survey was conducted during the 2016 archaeological field school at the Peterson farmstead. Minnesota State Historic Preservation Office (MnSHPO) standards were utilized as the guidelines for the STP survey. A maximum 15-meter grid was utilized for the survey. Radial STPs were excavated at five and ten meters intervals in each cardinal direction from positive tests. Each STP was dug to a roughly 30 cm width, and excavated to sterile subsoil. All soil was screened through ¼-inch screens, and all materials were collected for curation within individual contexts. Soil matrix color, consistency and transitions as well as overall depth were documented for each test excavated. Each STP was excavated using the same methods and techniques so as to have easily comparable data across the site. The STP survey on the Peterson farmstead took place May 24th-26th, 2016.

Excavation Units

In addition to archaeological survey, excavation units were also utilized on the Peterson farmstead. MnSHPO standards were again utilized as the guidelines for the excavation units. Each of the excavation units was one-meter by one-meter in size oriented north-south with a datum roughly 10cm above ground surface on the southwest corner. Each unit was excavated through shovel skimming and troweling techniques. Units were excavated in either 5cm or 10cm arbitrary levels within natural strata to a depth of at least 10cm into sterile subsoil. Soil matrix color, consistency and transitions were documented in accordance with their depth. All soil was screened through ¼-inch screen and all recovered artifacts were collected. Provenience of identified artifacts and features within levels and stratigraphy were documented through standardized forms, photos, drawings, and separate context bags for each level. Each unit was excavated using the same methods and techniques so as to have easily comparable data across the site. Excavations were conducted from May 26th through June 1st, 2016.

Archival Research and GIS Mapping Results

Archival research of the Peterson farmstead offered a substantial amount of documentation. Due to the high levels of documentation associated with Andrew Peterson and the farmstead, many different types of resources were utilized. These included many state, county and local primary records, local and regional secondary sources, as well as current and ongoing documentation about the farmstead. Through these resources, as well as historic maps and photographs, aspects of the farmstead were then mapped utilizing GIS.

Historic Documentation

A majority of this research was conducted through accessing primary documents. For the Peterson farmstead, documents of the time period included General Land Office (GLO) records, plat maps, property deeds, census, county, and church records. In addition, a unique and perhaps more important piece of primary documentation consisted of a diary kept by Andrew Peterson from 1855 until his death in 1898 while he lived on the farmstead. This diary gives a detailed look into the everyday life on the Peterson farmstead, revealing "their daily routine…information about the community, the crops, his horticultural work, and their church life…description of the rhythms of seasonal work on the frontier, set in the context of social, political, economic, and religious life" (Mihelich 1984: 2-3). The journal provides such a vivid account of all aspects of frontier farmstead life that it was used as reference material for Vilhelm Moberg's novels about Swedish emigration to the United States in 1951-1961 (Ibid: 1). The 2,000 page journal kept by Andrew Peterson during his time spent in the region is an invaluable resource documenting aspects of everyday life on the Peterson farmstead.

In addition to primary sources, histories and contexts provided a background and setting for the Peterson farmstead. Included within these secondary sources were generalized regional and local histories and representations, supplemental historic contexts, and archaeological studies. All of these sources were selected and utilized as representing similar environments and time periods to the Peterson farmstead. These local histories and wider contexts offer a historical background and setting, inform ideas of wider archaeological patterns and representations of different time periods, as well as

Figure 2. Peterson Farmstead 1885-1917 Layout

comparisons and discussions for the archaeological deposits recovered at the Peterson farmstead.

Peterson Farmstead Interpretative Documentation

Supplementing these broader resources, recent Peterson farmstead documentation and research was also utilized. This included the current Carver County Historical Society Concept Master Plan, the National Register of Historic Places nomination, and the current University of Minnesota Historic Structure Conditions Report. These documents help guide current knowledge and understandings, highlight significant features, emphasize concerns, and give future plans for the farmstead. This information allows for archaeological investigations to be designed in such a way as to answer relevant questions and avoid adverse effects on the Peterson farmstead.

GIS Mapping

Visualization of the archival documentation was achieved through utilization of GIS mapping. This included maps from 1937, 1940, 1945, and 1960 accessed from MHAPO, as well as drawings and references of structure locations indicated within the Carver County Historical Society Concept Master Plan from 1885, 1917, 1930, 2015, and future plans. These photographs and plans were georeferenced onto current aerials of the site, and structure footprints were digitized for each structure present within each year (see Figures 1-4). This shows growth and change on the Peterson farmstead from its

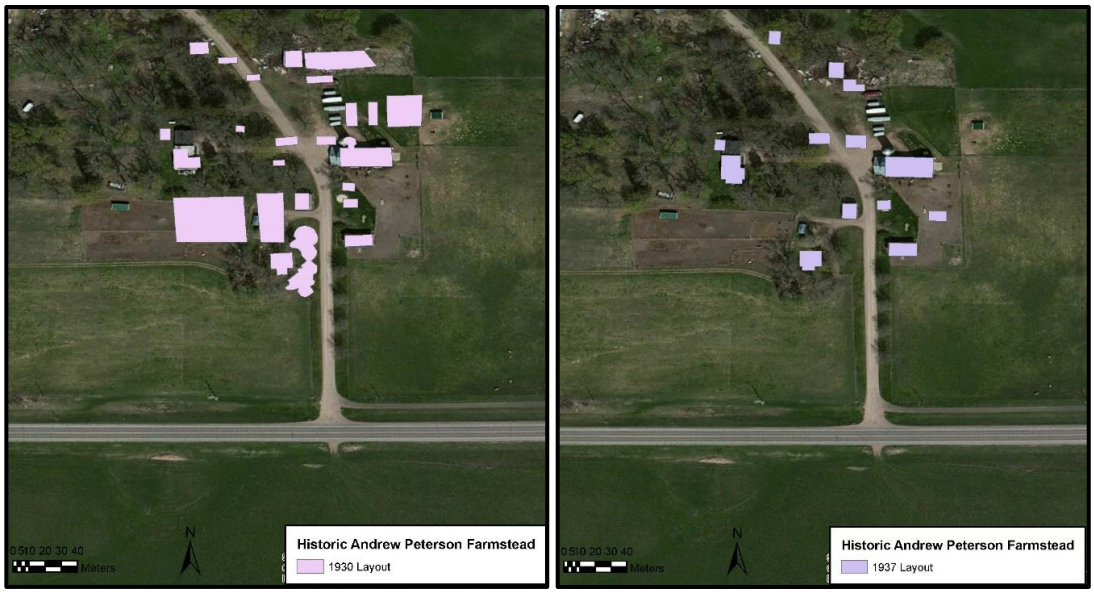

Figure 3. Peterson Farmstead 1930-1937 Layout

earliest iterations to future plans (1885-Present Day) and how it relates to the current physical design on the farmstead.

North of the Farmhouse

Historically, the area north of the farmhouse showed little change through time. Drawn maps representing 1885-1930 illustrate the area as cleared with agricultural and storage structures associated (CCHS 2015). These work structures as well as cleared areas are also indicated in the area on 1937, 1940, 1945 and 1960 aerials (MHAPO 1937, 1940, 1945, 1960).

West of the Farmhouse

West of the farmhouse represented the smallest of the areas identified for mapping analysis, as very little room was available between the farmhouse and the western property line. Maps from the CCHS Master Plan show the area as largely devoid of structures and likely utilized for agricultural purposes as mentioned within the Peterson journal, "June 1 1858 – Planted corn on the newly cleared field on the west side of the house" (Peterson 1930: 49; CCHS 2015). On the 1937, 1940, 1945, and 1960 historic aerials, a former garage structure was identified to the north and west of the current garage (MHAPO 1937, 1940, 1945, 1960). The rest of the area (within the current

Figure 4. Peterson Farmstead 1940-1945 Layout

Peterson property) shows no structures and likely was continually utilized as an agricultural field throughout the farmsteads history.

South of the Farmhouse

The area south of the farmhouse was also analyzed through GIS mapping. This area was by far the largest open expanse on the farmstead. Historically, this was one of the areas indicated as containing portions of an apple orchard. This is evident in historical photos from 1885 and the area is indicated as the location of the orchard in 1885-1930 maps within the CCHS Master Plan (CCHS 2015). Historic aerials in 1937 through 1960 show a relatively open space with possible remnant elements of an orchard (MHAPO 1937, 1940, 1945, 1960). In addition to this open space, a structure identified as the "Peltz farmhouse" is indicated to the south east of the current farmhouse (Michelich 1984: 145).

East of the Farmhouse

The final portion of the farmstead to be investigated via GIS mapping was located to the east of the farmhouse. A majority of the current structures on the farmstead are located in this area including the granary, north barn, south barn, and 1917 barn (Grover 2015). Maps from the CCHS Master Plan show higher numbers of structures within the area, and suggest that the area was more heavily utilized even early on in the farmstead's history (CCHS 2015). Through historical aerial photographs, a large number of other

Figure 5. Peterson Farmstead 1960 Layout

structures were indicated within the eastern section of the farmstead. As many as nine in 1945 and as few as five in 1937 are visible from 1937 through 1960. In addition, a "Machine Shop" was also indicated in the area on the 1979 National Register of Historic Places (NRHP) Nomination (Lofstrom 1978b).

Archaeological Investigation Results

Archaeological investigations offer a unique and important glimpse into life on the Peterson farm. The entirety of the farmstead was surveyed archaeologically, but specific areas were chosen for more focused study (Figure 6). Through both archival research and consultation with the CCHR, areas to the north, east, and south east of the farmhouse were identified as potential areas for archaeological investigation pertaining to no longer extant structures and differential use areas with high artifact content. In addition to these spaces, areas to the south and west of the farmhouse were investigated, through consultation with the CCHS, as part of compliance procedures for the installation of a new septic tank and system on the farmstead.

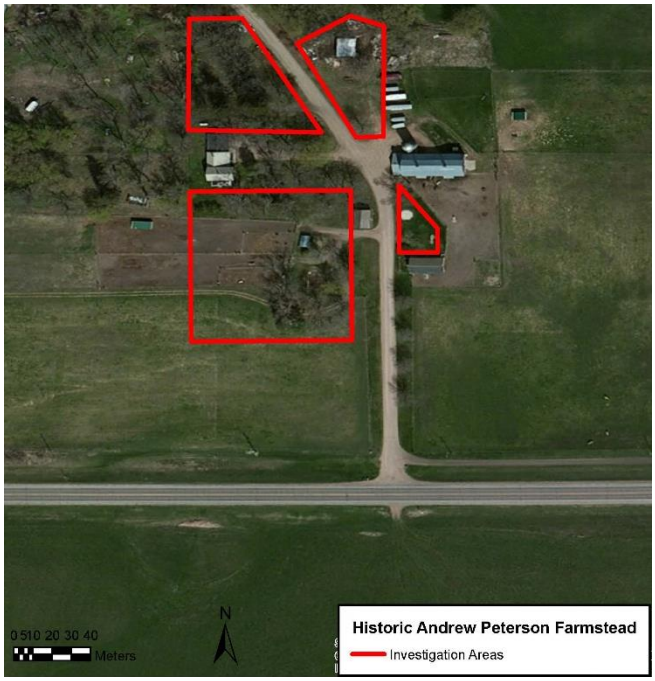

Figure 6. Archaeological Investigation Areas

GPR Survey

To best utilize resources, a GPR survey was first conducted on the Peterson farmstead. Areas for potential GPR survey were identified through historic aerial photography, the CCHS Master Plan, and mentions of structural positions in primary sources (Figure 7). In addition to this, each of the areas was selected due to its relatively open and unobstructed layout to facilitate the use of consistent transects. Within the survey, special attention was given to depressions and irregularities on the ground surface suggestive of structural foundations or dense artifact deposits. Through this we focused our survey to three main grids located in different areas of the farmstead.

GPR Grid 1

North of the farmhouse, a 10-meter north south and 35-meter east west grid was established. GPR Grid 1 was predominantly a grass lawn with seven medium to large trees throughout. Two depressions were identified during set up on the west half of the grid. Data collected from the area indicated locations of disturbance throughout the area

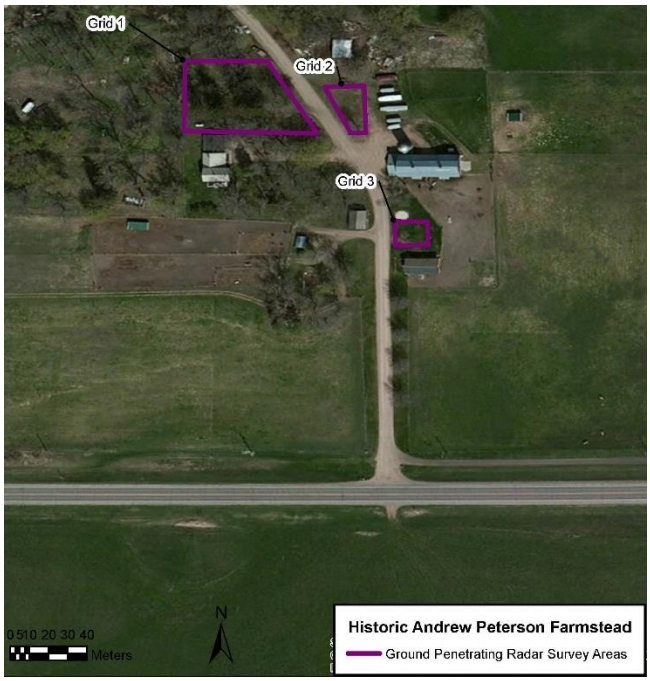

Figure 7. GPR Survey Locations

(Figure 8). The identified locations within the grid correlated largely to tree positioning and were likely indicative of bioturbation and disturbance from root activity. Data collected from the location did not provide any conclusive results due to the highly disturbed nature of the area, coupled with a high content of clay in the soil. The survey of GPR Grid 1, north of the farmhouse, identified no subsurface features for further investigation

GPR Grid 2

Between the 1917 barn and the north barn, a 10-meter north-south by 13-meter east-west was established. GPR Grid 2 was predominantly gravel driveway and showed high levels of surface disturbance. No surface features were readily visible over the gridded area. Once again, data collection from the location did not provide any conclusive results due to the heavily disturbed context and high clay content within the soil. The survey of GPR Grid 2, between the 1917 and north barn, did not identify any subsurface features for further investigation.

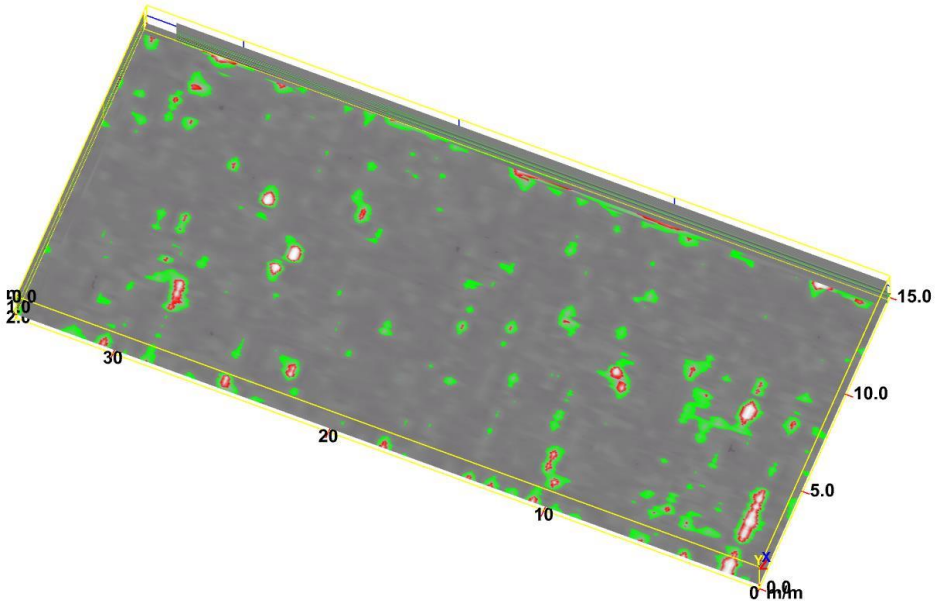

Figure 8. Grid 1 Survey Results 175cmbs

GPR Grid 3

Between the 1917 barn and the south barn, a 16-meter north-south and 18-meter east-west grid was established. GPR Grid 3 was located in a relatively open and grassy are with evidence of heavy disturbance. Aside from the octagonal concrete foundation located outside the grid to the west, on surface features were identified in the area. Again, data collection from the location did not provide any conclusive results due to high levels of disturbance and high clay content within the soil. The survey of GPR Grid 3, between the 1917 barn and the south barn, did not identify any subsurface features for further investigation.

Summary

A GPR survey was conducted at the Peterson farmstead at three separate locations. All three areas were surveyed utilizing the same techniques and methods. No conclusive data was collected during the GPR survey due to high levels of disturbance and high clay content of the soil on the Peterson farmstead. As a result, no subsurface features were identified for further investigation through the GPR survey on the Peterson farmstead.

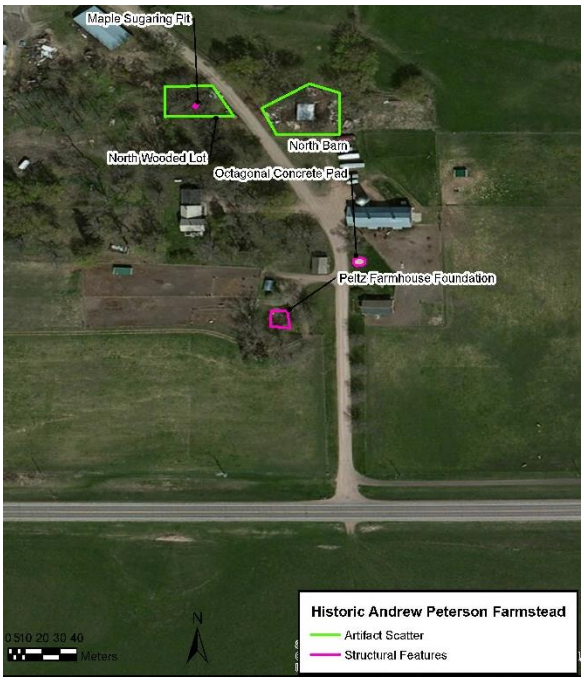

Figure 9. Pedestrian Survey Locations

Pedestrian Survey

A pedestrian survey was also conducted at the Peterson farmstead. A total of five areas were identified through this survey including artifact scatters in wooded areas north of the farmhouse and around the north barn, and foundations of a maple sugar boiling pit, early 20th century farmhouse, and an octagonal concrete pad (Figure 9). These locations were documented through the recording of material content, dimensions, and overall indicated as possible areas for further archaeological investigation and interpretation.

North Wooded Lot

North of the farmhouse there is a dispersed and light artifact scatter covering the extent of the unmaintained wooded area along with multiple areas of concentration. These areas were concentrated along the edges of the wooded area, particularly along the south edge closest to the farmhouse and along the east edge closest to the road.

The artifacts located within this area largely relate to more modern construction materials and structural debris. In particular, piles and concentrations of asphalt shingles, cinder blocks, bricks, wire fencing, and miscellaneous wood siding and plank fragments make up a majority of the materials identified. In addition to these, large piles of

discarded telephone poles, electrical insulators, and wooden fence posts are also present throughout the area.

The artifact scatters located within the northern wooded area are suggestive of more recent mid to late twentieth century dumping and collecting practices of the Peterson farmstead. The locations of the concentrations are likely related to ease of access to the south and east edges of the wooded area in relation to everyday activities on the farmstead. The artifacts are also representative of mid to late twentieth century dumping events. Because of the large size and dispersed nature of recent materials identified within the north wooded area no artifacts were collected and no further investigations were conducted.

North Barn

The area surrounding the north barn contained a denser artifact scatter than that located in the North Wooded Lot. Materials and concentrations were identified starting three to ten feet surrounding the north barn on all sides. During the survey, the area directly surrounding the north barn was in the process of being cleaned and cleared to accommodate work space for the reconstructing and renovating of the barn. As such, the location of artifacts and materials may have been altered due to these activities.

The materials associated within the artifact scatter and concentrations around the north barn were extremely diverse. Included within this scatter were artifacts relating to construction, farming, and food preparation activities on the farmstead. The construction related materials included stacks of hand hewn timbers from both the north barn and previously demolished structures that contained both wooden pegs and square nails, concrete and cinder block fragments, as well as piles of fieldstone with associated mortar. The farming and work related artifacts included wagon components and wheels, sled components, oil cans, a water pump components, a water tank, animal cages, leather harnesses, feed containers, machinery components for gas powered engines, an ice saw and a field rake. Food preparation and serving artifacts present around the north barn included ceramic bowls and cups, glass jars, coffee cans, and wood stove components.

The artifact scatters located around the north barn are suggestive of wider dumping and collecting practices of the Peterson farmstead. The location of these concentrations and overall artifact scatter suggest easily accessed dumping events on the

periphery of use areas on the farmstead. The wide range of materials and associated time period of the artifact scatter around the north barn indicate a long term use of the area as a trash dump on the farmstead. The materials show both evidence of disposal as well as intentional storage. The materials within the north barn artifacts were not collected during field survey, but the CCHS collected specific items and tools meant for further interpretation on the farmstead.

Maple Sugar Boiling Pit

In addition to surface artifact scatters, foundations and surface features were identified during the pedestrian survey. First and foremost, a maple sugar boiling pit foundation was identified in the wooded area north of the farmhouse. The foundation was located in the far south east corner of the wooded area nearest the farmhouse and road. The foundation was surrounded by overgrown brush and was not visible from outside the wooded area.

The foundation maple sugar boiling pit consisted of a rectangular concrete foundation split into two sections that spanned in total 11 feet east-west, 4 feet north-south, and roughly 1 foot tall. The foundational concrete is made up of smaller field stone in a cement matrix with iron alloy rebar evident on the northeast deteriorated end. The west end is more intact and smaller of the two sections at roughly 2 ½ feet long. The internal space is open with yellow Chaska brick lining the inside. The eastern portion is much more deteriorated with no intact eastern edge present. The interior of the 9 ½ foot section is open with a crushed iron alloy pan near the eastern edge of the foundation. The foundation itself is covered by a pile of deteriorating wooden fence posts lying roughly southeast to northwest along the center of the pit.

These dimensions and content of the foundation as well as its location within a wooded area near the farmstead are similar to previously recorded maple-sugar boiling pits and likely represents these processes (McMurray 2001; Thomas and Silbernagel 2003; Keener et al. 2010). The use of concrete and rebar, as well as the size of the foundation suggest an early twentieth century construction date. The smaller western portion of the foundation along with the brick lining present is indicative of the oven, where the fire would be lit to boil the maple syrup. The portion on the eastern edge with the crushed iron alloy pan is similar to previously identified maple-sugar boiling pans and

is an identifying factor for the boiling pit (Thomas and Silbernagel 2003; Keener et al. 2010). The overall deterioration of the concrete and aspects of the pit, as well as the stacking of deteriorating fence posts on top of the foundation are indicative of disuse of the pit for a significant amount of time.

Peltz Farmhouse Foundation

During the pedestrian survey of the Peterson farmstead, a second farmhouse foundation was encountered. The foundation is located directly to the south of the extant granary building and just west of the main road of the farmstead. This location is lightly wooded with an open pasture and lawn to the west and south (Figure 9).

The foundation itself is concrete and comprised of fieldstone plastered in cement with iron alloy ties throughout. The rectangular foundation shows areas of heavy deterioration, but it is roughly 26 feet east-west, 32 feet north-south, and 3 feet tall at its most exposed. The northeast portion of the foundation is no longer present, the northwest corner of the foundation is subsurface, and the western half of the south wall has collapsed inward. A brick-lined depression measuring 10 feet north-south and 5 feet east-west is located along the north wall on the interior of the foundation. In addition, small amounts of modern trash are present around the interior of the foundation.

These features, as well as historic photographs and aerials suggest this was the location of the Peltz farmhouse. The concrete over fieldstone foundation, as well as historic references and documentation show this structure to have been constructed in 1926 for John and Louise Peltz who worked as tenant farmers and caretakers for the then elderly Peterson children (Ibid:145). The brick lined depression in the interior of the foundation is likely representative of a cellar or substantial storage area located below the farmhouse. The structure itself is present in photographs and stood until sometime before the 1979 National Register of Historic Places nomination, when it is no longer present. The lack of architectural debris both within and around the foundation is indicative that the demolition was cleaned or moved.

Octagonal Concrete Pad

The final surface feature, other than fully extant structures, that was identified through pedestrian survey on the Peterson farmstead was an octagonal concrete pad (Figure 9). The concrete pad is located between the 1917 barn and the south barn on the

east side of the main farmstead road. This location is relatively open and grassy, and shows high levels of disturbance.

The feature itself was comprised of concrete and was octagonal in shape. The pad was roughly 16 feet both north-south and east-west at its greatest extents. Each of the eight straight faces of the octagon were roughly 7 ½ feet long. The concrete itself is in relatively good condition with very little deterioration evident. When encountered during the pedestrian survey, portions of the pad were covered by growth and soil development. In addition, timber and tarp construction materials were piled on top of the pad.

Both historic documentation and visual evidence indicate there were two smaller structures in the general area of the feature as late as the 1960s. These structures are smaller rectangular structures and do not appear to have octagonal features and are not entirely on the same position as the current pad.

Summary

Through pedestrian survey, artifact scatters and deteriorated structural remains were identified and flagged throughout the Peterson farmstead property. The artifact scatters on the north side of the farmstead are indicative of a modern trash dump and storage of repurposed construction and collected farm materials. The foundation, in the wooded lot to the north of the farmhouse is representative of an early twentieth century maple-sugar boiling pit indicative of the utilization of regional resources. Finally, both the 1926 Peltz farmhouse foundation and the octagonal concrete pad are indicative of changing physical layout and utilization on the Peterson farmstead.

Shovel Test Pit Survey

A STP survey was also conducted during the 2016 University of Minnesota archaeological field school. The STP grid for the Peterson farmstead was separated into two main areas with individual STPs in other lower potential areas for specific testing (Figure 10). On the south and west sides of the farmhouse, a series of 26 STPs were excavated in four 15-meter north-south transects. In addition, a total of 14 radials were excavated off of positive STPs within this area. A second grid of STPs was set up on a general east-west orientation comprised of 17 STPs spaced at oscillating 10-meter intervals. Along with these grids, a total of seven STPs were excavated in an east-west transect between the north and south grids. Finally, five individual STPs were placed to

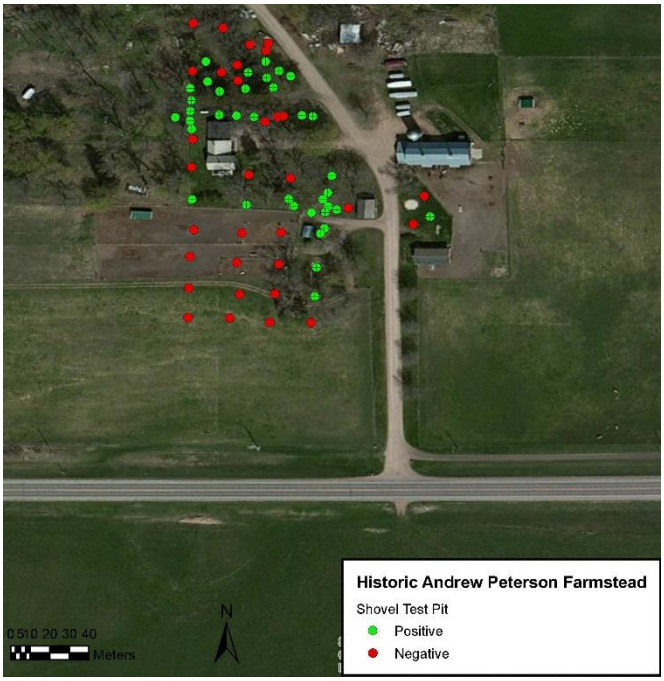

Figure 10. STP Survey Locations

test between the 1917 and south barn, the area around the maple-sugar boiling pit, and a depression in the north wooded area. In all, a total of 69 STPs were excavated within the two grids and individual locations on the Peterson farmstead.

Each STP was excavated to sterile subsoil with depths ranging from 38 to 76 centimeters below ground surface (cmbs). The stratigraphy throughout the STPs within the Peterson farmstead show an upper Stratum A comprised of a 10yr 2/1-2/2 silt loam, gradually transitioning to a 10yr 4/2-4/6 clay loam subsoil around 20-50 cmbs depending on the area of the farmstead. There is relatively little gravel content or bioturbation from roots or animal activities throughout the grids. The results of the STP survey show relatively consistent stratigraphy throughout the Peterson farmstead.

During the Peterson farmstead STP survey, a total of 38 negative and 31 positive STPs were excavated. Artifact content within the positive STPs ranged from the surface and sod cap to 57 cmbs with the majority of artifacts occurring within Stratum A from 16-40 cmbs. In all, 675 artifacts were collected throughout the survey. The artifact content of the STP survey shows a relatively shallow and consistent occupation layer throughout the Peterson farmstead.

Three main areas were identified through the STP survey as containing higher amounts of archaeological resources on the Peterson farmstead. These included both clusters of positive STPs and high artifact content within individual STPs, suggesting the presence of denser archaeological deposits. The areas identified included a STP identified containing a high artifact content north of the farmhouse (Concentration 1) and clusters of positive STPs both northwest of the garage (Concentration 2) and southeast of the farmhouse (Concentration 3).

Concentration 1

North of the farmhouse, a dense artifact concentration was identified near the center of the northern STP grid. STP GR1/4 contained a relatively high amount of artifacts evenly distributed through the entirety of the stratigraphy. These materials included high amounts of nails, can and wire fragments, glass sherds, and a complete iron alloy agricultural hoe head. Due to the high density of artifacts, the STP was expanded into Excavation Unit One (EU1) to better determine vertical provenience. A more detailed look at the artifacts and context will be described in the following section.

Concentration 2

The second area identified was northwest of the farmhouse, just off the northwest corner of the modern extant garage. In this location, a cluster of positive STPs was encountered consisting of STP 1/8 as well as radials 1/8-5S, 1/8-10S, 1/8-10E, and 1/85W. A total of 108 artifacts were recovered within the upper 50 cmbs of Stratum A throughout these STPs. The majority of the recovered artifacts were related to construction and utilitarian related activities. Construction related artifacts include both wire and machine-cut nails, and asphalt shingle fragments. Utilitarian related artifacts included copper wire, hardware fragments, and electrical insulators. The rest of the artifacts included coal and clinkers, charcoal, as well as modern trash. Due to the clustering of positive tests and high numbers of artifacts, Excavation Unit Two (EU2) was placed in the vicinity of these STPs.

Concentration 3

The final location identified through the STP survey on the Peterson farmstead was located just southeast of the modern farmhouse. In this area, a cluster of positive STPs was encountered including STP 4/5 and 4/4, as well as radials 4/5-5N, 4/5-10N,

4/5-5E, 4/5-5S, 4/5-10S, 4/5-5W, and 4/5-10W. A total of 323 artifacts were recovered within these tests. In opposition to the artifacts from northwest of the farmhouse, a large amount of food preparation and clothing related artifacts were present within these STPs. Food preparation materials such as ceramic and glass sherds and faunal remains are predominant through the cluster. Clothing related artifacts include, a high amount of buttons, catches, snaps, beads, and a zipper are present. In addition to these artifacts, there is also a high amount of wire and machine-cut nails. Due to the differential content of these STPs from the rest of the site as well as the high density of artifacts within the area, Excavation Unit 3 (EU3) was placed in the vicinity of these tests.

Summary

Through the STP survey on the Peterson farmstead, subsurface stratigraphy and artifact content was established. Three areas were identified during the survey through both the clustering of positive STPs and high artifact individual tests. Concentration 1 consisted of high artifact content within STP GR1/4 showing largely farm and work related artifacts. Concentration 2 was indicated by a cluster of STP1/8 and radials representing high amounts of work and construction related artifacts. Finally, Concentration 3 was represented through a cluster of STP 4/5 and radials reflecting high amounts of food preparation and clothing related artifacts. Each of these three areas was further investigated through the use of formal excavation units.

Excavation Units

Excavation units were also utilized during the 2016 University of Minnesota archaeological field school. Through GPR, pedestrian, and STP surveys on the Peterson farmstead, areas were identified for more regimented and controlled excavation. This resulted in the opening of four excavation units in different areas on the farmstead (Figure 11).

Excavation Unit 1

The first one by one meter excavation unit (EU1) was opened on the north side of the farmhouse. The unit was placed in relation to high numbers of artifacts recovered in STP GR1/4. Once high amounts of artifacts were encountered, the STP was stopped and the excavation unit was opened. EU1 was placed in such a manner that the southwest portion of the unit intersected portions of the STP. This led to a slight disparity with

Figure 11. Excavation Unit Locations

depths of the unit, with portions of southwest area of the unit being up to 10cm deeper than the rest of the unit for the upper 38 centimeters below datum (cmbd). The entirety of the unit consisted of a 7.5yr 2.5/1 clay loam Stratum A from 12-52cmbd gradually transitioning to a 10yr 2/2 subsoil from 52-63cmbd. This made EU1 the deepest excavation unit on the Peterson farmstead. Small amounts of bioturbation from roots and no features were identified within EU1.

EU1 has the highest artifact content of any excavation unit on the Peterson farmstead with a total of 355 artifacts collected (Table 1). It should be noted that a single artifact was collected in the subsoil, though this may have been knocked in from a higher context.

Table 1.Excavation Unit 1

Stratum	Level	# of Artifacts	Depths (cmbd)
A	1	273	12-22
A	2	31	22-32
A	3	35	32-42
A	4	15	42-52
B	1	1	52-63

The artifacts collected from EU1 are largely representative of farm work related activities and trash disposal on the Peterson farmstead. The utilitarian related materials

include metal can fragments, wire and machine-cut nails, wire fragments, hardware, an unidentified tool fragment, and an agricultural hoe head. In addition, a significant number of trash disposal artifacts were also collected including high amounts of domestic glass, ceramic, and plastic. There is also evidence of burning within the units with charcoal and clinkers present as well as other artifacts showing evidence of burning.

Excavation Unit 2

The second one by one meter excavation unit (EU2) opened was located northwest of the current garage. EU2 was placed in relation to a cluster of positive STPs consisting of STP 1/8 and radials. In its entirety EU2 consisted of a 10yr 2/1 silt loam Stratum A from 6.5-47cmbd, with a gradual transition to a 10yr 3.3 clay loam subsoil from 47-56cmbd. There were three features identified within the unit, and very little bioturbation present.

EU2 had a total of 104 artifacts, making it the lowest in artifact content on the Peterson farmstead (Table 2). The heavy concentration of artifacts in the upper levels of EU2 suggests relatively recent deposits.

Table 2. Excavation Unit 2

Stratum	Level	# of Artifacts	Depths (cmbd)
A	1	101	6.5-16.5
A	2	0	16.5-26.5
A	3	3	26.5-37
A	4	0	37-47
B	1	0	36-56

The artifacts collected from EU2 are predominantly related to construction and utilitarian work. Construction related materials include wire and machine-cut nails, shingle fragments, as well as brick and mortar fragments. Farm work materials were much less prevalent with only wire fragments and an electrical insulator. In addition, there are artifacts related to trash disposal identified as well including glass sherds, ceramic sherd, and plastic fragments.

In addition to artifacts, EU2 also contained three features. These were three dark stains running in a relatively straight east-west line across the center of the unit between 41-42cmbd. Feature 1 is located in the center of the unit and was asymmetrical in shape, roughly 18cm east-west, 17cm north-south, and 10cm deep. Feature 2 was located on the

west half of the unit and was circular in shape, roughly 10cm in diameter and 12cm deep. Feature 3 is located on the east wall of the unit and was oblong in shape, roughly 8cm east-west, 14cm north-south, and 12cm deep.

Excavation Unit 3

The third location for a one by one meter excavation unit was located to the southeast of the farmhouse. EU3 was located in relation to a cluster of positive STPs including STP 4/5 and radials. The unit consisted of a 10yr 2/1 silty loam Stratum A from 10-47cmbd gradually transitioning to a 10yr 2/2 clay loam subsoil from 47-54cmbd. There was very little bioturbation and no features identified within EU3.

A total of 254 artifacts were collected from EU3 (Table 3). The majority of artifacts within the uppermost portion of Stratum A are indicative of more recent deposits, but more even distribution within the upper 30cmbd likely is evidence of recent plowing or disturbance in the area.

Table 3. Excavation Unit 3

Stratum	Level	# of Artifacts	Depths (cmbd)
A	1	84	10-21
A	2	147	21-32
A	3	17	32-41
A	4	6	41-51
B	1	0	51-54

Within EU3 there is a much higher proportion of food preparation, construction, and clothing related artifacts. Food preparation artifacts included higher proportions of faunal remains, as well as small amounts of ceramic and glass sherds. Construction related materials included an extremely high proportion of wire and machine-cut nails, wire fragments, tacks, and wood screws. Most interestingly, there is an extremely high proportion of clothing related artifacts such as pins, buttons, snaps, catches, latches, and a zipper recovered from EU3.

Excavation Unit 4

The final one by one meter unit excavated at the Peterson farmstead was located to the northeast of the farmhouse near the main road. EU4 was placed largely in relation to the located of a no longer extant structure indicated on historic aerials, as well as positive STP GR0/7. During the excavation unit EU4, a concrete foundation of a

structure was uncovered creating a more complicated stratigraphy. The natural stratigraphy of EU4 consisted of a 10yr 2/2 silt loam Stratum A from 10-35cmbd and a 10yr 2/4 clay subsoil from 35-50cmbd. In addition to this, on the east half of the unit, a 10yr 4/3 sand feature was encountered on the east side of the foundation from 25-40cmbd. Though little natural bioturbation was encountered, the foundation and feature made EU4 the most complicated stratigraphic unit on the Peterson farmstead.

During excavation on EU4, a total of 241 artifacts were collected (Table 4). The majority of the artifacts located above the bottom of the sand feature and foundation are suggestive that the artifacts relate to the previously extant structure.

Table 4. Excavation Unit 4

Stratum	Level	# of Artifacts	Depths (cmbd)
A	1	56	10-20
A	2	65	20-25
A	3	40	25-30
A	4	12	30-35
A	5	5	35-40
Sand Fill	1	19	25-30
Sand Fill	2	36	30-35
Sand Fill	3	8	35-40
B	1	0	35-40
B	2	0	40-54

The artifacts collected from EU4 are largely work and construction related. Construction related materials are represented through wire and machine-cut nails, asphalt shingles, mortar fragments, flat window glass fragments, and a single fragment of limestone with paint on one side. Utilitarian related artifacts included wire fragments, a washer, an iron alloy cap, and an unidentified “tool”. In addition to these artifacts, there is a significant number of coal fragments identified within the natural profile of EU4.

There was little different between the artifact content of the sand fill feature and the natural profile within EU4. Within the sand feature, wire and machine-cut nails, mortar fragments, and flat window glass sherds were representative of construction related materials. Utilitarian related artifacts were also present with wire fragments, and a hardware component represented. In addition, coal fragments were also recovered from within the sand feature. This artifact content shows little differentiation between the feature and the natural profile.

In addition to the artifacts collected from EU4, a structural foundation and substantial soil feature were also identified. The foundation consisted of deteriorated concrete and rebar sitting on top of a footing of Chaska brick fragments and mortar. The foundation is roughly angled north-south just west of the center extending 70 centimeters from the north wall of EU4. The top of the foundation lies at 15cmbd and the footing extends down to 42cmbd. Coupled with this foundation is a sand-fill feature extending over the entirety of the east half of the unit from 25-40cmbd. This sand-fill feature corresponds both to the bottom of the footing and the eastern edge of the foundation feature. This suggests that the sand feature is likely fill or a floor for the interior of a structure.

Summary

Through the utilization of excavation units, a more spatially focused as well as systematic and controlled stratigraphic view of the archaeological deposits were accessed on the Peterson farmstead. EU1 was identified as the deepest and highest in artifact content on the farmstead, largely representative of utilitarian and agricultural activities and trash deposits. EU2 contained artifacts largely representative of utilitarian and construction materials as well as a fence feature. EU3 had the most diverse artifact content on the farmstead, largely associated with food preparation and clothing related artifacts. Finally, EU4 contained a structural foundation along with largely utilitarian and storage related artifacts. These excavation units help show the diverse and fluid use areas on the Peterson farmstead as well as how the structural environment and utilization changes through time.

Artifact Curation

A total of 1,629 artifacts were collected through excavations related to both the STP survey and excavation units on the Peterson farmstead. Once collected, the artifacts were brought back to the University of Minnesota's Wilford Lab for cleaning and curation. All artifacts were cleaned using a soft bristled brush and water when applicable and not detrimental to the material. These artifact were then set aside in drying racks to remove all residual moisture. Cleaned artifacts were analyzed per the MnHS standards utilizing the Getty Arts and Architecture Thesaurus (AAT). Each artifact was cataloged in a Microsoft Excel worksheet using MnHS guidelines and standards. Each artifact was

clearly labeled with an accession number and a descriptive bag tag. Finally, each artifact was placed within a larger provenience bag. All artifacts and associated documentation will be turned over to the CCHS at the conclusion of this project for curation and storage.

Chapter III: Analyses and Discussions

These multiple lines of evidence were utilized to address questions related to the Peterson farmstead. This was done through exploring aspects of different practices and tasks within the larger farmstead environment. First, I explore activities related to farmstead production and creation of goods and materials for use within and outside the farmstead. Next, I consider practices related to the acquisition and use of commercial goods as well as connections to broader economic networks. Then, I highlight concepts of re-use of goods and materials as well as general trash disposal within the farmstead. Finally, I examine these concepts of production, consumption, and re-use spatially within a changing farmstead physical environment. I consider how analyses of the archaeological deposits and historic documentation show that the Peterson farmstead aligns with or contrasts to current archaeological theory and farmstead models. Analyses of the Peterson farmstead archaeological deposits, in conjunction with discussions of wider and more diverse historical and archaeological farmstead models allow for a deeper and fuller understanding of mid-nineteenth to twentieth century Upper Midwest farmsteads, as it is represented within the archaeology of the Peterson farmstead.

Production

Different forms of production are evident within the Peterson farmstead. The larger purpose of most farmsteads is that of production of agricultural goods, through crop fields, orchards, livestock, and other regional resources (Trewartha 1948; Beaudry 2001; Groover 2005, 2007; Terrell 2006). On the Peterson farmstead, these aspects of production can be separated into four main representations within the farmstead including: the maple sugar boiling pit, the orchards, livestock and faunal utilization, and construction materials and techniques.

Analyses

Field Agriculture

The largest and most prevalent example of production on the Peterson farm was field agriculture and cash crops. For the Peterson farm this meant crops such as wheat and corn. Within Andrew Peterson's journal we see mentions of the utilization of wheat, and corn (Peterson 1930: 76, 432). Both wheat and corn would have been an important resource within his own uses as well as for commercial sale (Ibid: 76, 238). These crops

were so important that Peterson even constructed structures on the property to help facilitate their harvest and storage (Ibid: 28).

In addition to these crops, Peterson also utilized smaller yields of other crops such as potatoes, beans, and pumpkins: "November 1, 1862 - In the morning I plowed and then hauled pumpkins, beans, etc." (Ibid: 115). The utilization of wheat, corn, and other crops falls in line with larger patterns of farmsteads, and specifically at Scandinavian farmsteads of the time, "settlers planted the majority of their acreage in wheat, the great American frontier crop, and devoted the remainder to a number of secondary crops, but mainly corn and oats" (Ostergren 1980:28). The production of these crops is a hallmark and important part of agricultural production of the time, and as such were an intricate part of agricultural activities on the Peterson farmstead.

Archaeologically, larger crop fields and gardens were likely present farther off the property and as such, no direct archaeological evidence of cash crop or agricultural field production were evidenced on the Peterson farmstead property. Larger expanses outside the study area to the west, north, and east were likely locations for agricultural fields and production. Indirectly, agricultural mechanization is indicative and required to utilize and maintain these larger expanses for more involved cash crops. A total of 129 hardware components, including washers, rivets, electrical components, grommets, and wire, were identified within the Peterson farm archaeological deposits. These artifacts suggest components of agricultural machinery and general mechanization related to field agriculture.

Maple Sugar

One of the most evident aspects of production within the farmstead property is through exploitation of maples trees and their sugar. Throughout the nineteenth and early twentieth centuries, maple sugar production was an important activity on farmsteads through the associated region (McMurray 2001; Thomas and Silbernagel 2003; Keener et al. 2010). Maple sugar production and its importance within the daily activities of the Peterson farmstead are present through mentions of many different aspects of the process in his journal, for example "March 24, 1857 – Made troughs for the maple sap, etc." (Peterson 1930: 31); "March 31, 1857 – In all there are 66 maples bored for syrup" (Ibid: 31); and "April 3, 1873 – Plastered around the kettle etc. (Ibid: 277). This documentary

evidence is confirmed through the identification of a maple sugar boiling pit foundation within the northern wooded area. The feature was comprised of a brick oven within a larger concrete foundation containing an iron alloy pan. The dimensions of the foundation (11ft by 4ft and roughly 1ft tall) and material composition are representative and strikingly similar to previously identified maple sugaring pits (Keener et al. 2010: 144). This substantial foundation, and its material make up, suggest that the utilization of maple sugaring continued into the early twentieth century. These factors show maple sugaring as utilization of local and regional resources as important on the Peterson farmstead. The presence of only one foundation is indicative of smaller scale utilization, and suggest that it was not the primary form of production occurring on the farmstead, as was common throughout the region (McMurray 2001; Thomas and Silbernagel 2003; Keener et al. 2010).

Orchards

Another important form of production utilized within the Peterson farmstead was through the orchards within the property. Orchards, and the cultivation of different fruits, were utilized within many farmsteads of the period and were often located fairly close to the farmhouse itself (Trewartha 1948; Terrell 2006). This is also true of the Peterson farmstead, as evidenced by historic photographs showing orchards as prominent portions of the Peterson farmstead, with Andrew Peterson often posing alongside them (Mihelich 1984: 80, 122). Peterson utilized his knowledge and skills in creating the orchard as one of the most important aspects of production on the farmstead. This is documented through his journal, with upwards of 404 apple, 13 pear, 30 plum, and 12 cherry trees mentioned within 1873 alone (Peterson 1930: 124). Orchards remained prominent on the farmstead during Andrew Peterson's life with multiple orchards utilized for different types of fruits, (Ibid: 438). This diversification and experimentation was an important aspect of the orchards on the Peterson farmstead, allowing for the production of different fruits and products for the farmstead. These orchards were not only sources for subsistence, but were also sources of production for outside consumption within the larger township and county, as demonstrated in this notation: "April 21, 1888 – This morning Carl and I went into Waconia and sold apple and boxelder trees: (Ibid: 699).

Though difficult to ascertain archaeologically, the lack of cultural deposits on the south portion of the farmstead, in tandem with historic aerials and plans potentially suggest that the area was utilized as an orchard (MHAPO 1937; Mihelich 1984; CCHS 2015). The lack of artifacts could be the product of high levels of disturbance from the orchard's removal, or later utilization as a pasture. Through the diverse and large numbers of goods within these orchards, Andrew Peterson was able to expand the overall production of the farmstead.

Livestock

Along with crops and regional resources, animals and livestock were also forms of production on the Peterson farmstead. Livestock, and animal resources were an important part of a majority of farmsteads both regionally and nationally (Trewartha 1948; Adams 1990; Groover 2007; Nienow 2007; Terrell 2006), and this was also the case on the Peterson farmstead. Andrew Peterson documented the utilization of livestock and animal resources on the farmstead as both aspects of farmstead use ("September 10, 1881 – In the morning I butchered a ewe") and commercial sale, ("February 13, 1863 - Nicholas and I went to Pappids with eggs and butter") (Peterson 1930: 463 and 135).Through these entries, it is also evident that animal resources were utilized for both meat and dairy products like butter (Ibid: 69). But the small scale of these resources are evident when an assessor came to the farmstead, enumerating "July 16, 1862 - one bullock…one bullock…three cows with calves…two ewes with lambs…five pigs" (Ibid: 109). Livestock was in turn likely located and indicated on the farmstead through barn and work yards: "April 1, 1875 - …we began to lay fence for the new cattle yard (barn yard)" (Ibid: 314).

Archaeologically, aspects of animal resource production are shown through a total of 70 faunal artifacts recovered from the farmstead. The vast majority of these artifacts are highly fragmentary and not found in high amounts throughout property. Smaller levels of fragmented artifacts suggest lower levels of animal resources being utilized and that livestock was not as an important or heavily utilized product on the Peterson farmstead. Though fragmentary, 62 of the faunal artifacts recovered were identified as medium to large mammal bone. This suggests that pig, cow, and lamb were the prominent animals utilized on the farmstead. In addition to this, saw marks and cut

marks on eight of the faunal artifacts indicate that animals were being butchered and consumed on site. Finally 63 of the faunal artifacts were recovered near the farmhouse, largely on the south side of the farmstead. This suggests that animal resources were being utilized and consumed by the farmstead itself.

Construction and Manufacture

Finally the construction of structures and manufacture of tools on the Peterson farmstead area are also indicative of localized production. Farmsteads within the region, particularly during early and frontier periods were constructed as "dugouts, log cabins or small shanties" (Terrell 2006: 33). Such is the case on the Peterson farmstead as well, as noted in documentary evidence of the no longer extant log shanty, "June 26, 1855 – Began to cut timber for my shanty" (Peterson 1930: 8).This utilization of local resources for the production of construction materials continues during Andrew Peterson's lifetime on the farmstead; for example his journal later noted "April 1 and 2, 1888 – We dovetailed the timber that I am going to use for the new granary" (Ibid: 426). In addition, Peterson documents the production of specific tools and goods such as storage containers, as in this example: "November 26, 1858 - Hooped barrels and washtubs for Mr. Wilson all day" (Ibid: 57).

Archaeological investigations, including pedestrian survey, current structures, as well as piles of barn planks and timbers, show evidence of hand cut hew marks, evidencing hand production. These hand hewn planks often also contain hand carved wooden peg fasteners that were utilized to join together components of structures. In addition to wooden components of structures, the foundation recovered from EU4 showed evidence of farmstead production through the utilization of non-traditional components of brick and concrete fragments likely indicative of on-site production.

<u>Discussions</u>

Production and manufacture of goods are among the most significant activities practiced on farms and farmsteads. As such, many different aspects of daily life are influenced by and through different forms of production on farmsteads. These different forms change through time, and can largely be reflective of different practices within the way the farmstead is operated (Beaudry 2001; Groover 2007; Terrell 2006). Archaeological evidence and historic documentation of different production forms can be

utilized to examine concepts of subsistence, and commercial and regional resource utilization within a farmstead (Groover 2007; Terrell 2006).

Subsistence Production

First and foremost, farmstead production is evidenced through subsistence practices, and the Peterson farmstead is no exception. Subsistence practices pertain to small scale production within family-based labor systems for use by the individual or household (Groover 2007: 8). This form of farming is largely evident on the frontier and within early farmsteads as a lack of access to outside resources and consumer goods required farmsteads to supply a majority of foodstuffs and resources independently. (Groover 2007; Nienow 2007; Terrell 2006). Within the general region, this is largely represented through smaller agricultural fields, diverse crops, and smaller number of animals (Groover 2007; Terrell 2006).

These practices are evident on the Peterson farmstead through both aspects of construction materials and food processing practices. Within the Andrew Peterson journal, the production of construction related materials is indicated through the utilization of timbers for the original log shanty as well as for outbuildings and fences for example "March 19, 1856 - Made fence rails from the logs" (Peterson 1930: 20). During pedestrian survey, hand hewn wooden fasteners and plank timbers were present within current structures and construction material piles surrounding the north barn. On the Peterson farmstead, these produced and formed materials for construction indicate subsistence practices are present.

Subsistence on the Peterson farmstead is also shown through food production and processing. This is evident throughout the Andrew Peterson journal in mentions of potato production (Ibid: 8) and the individualized butchering of animals, such as "December 4, 1866 - Per Daniel and I butchered the boar" (Ibid: 174). These practices are also represented through the presence of small amounts of butchered animal bone. The faunal remains from the farmstead are highly fragmentary and overwhelmingly identified as medium to large mammal, suggesting the small-scale butchering of animals for individual and household use. The planting of subsistence crops would be largely peripheral to the location of the farmstead and does not readily appear in the archaeological deposits on the Peterson farmstead property.

Commercial Production

In contrast to subsistence level production, the Peterson farmstead also participated in production practices for commercial purposes outside the farmstead. Commercial production refers to larger scale practices focused on cash crops, for utilization outside the individual farmstead unit as part of wider commercial economies (Cabak et al. 1999; Groover 2005, 2007; Terrell 2006). This form of production occurs along a spectrum from the selling of excess goods (Terrell 2006: 33) and shift toward a focus on nearly all production of agricultural goods for outside consumption through aspects of modernization and mechanization (Cabak et al. 1999: 25; Groover 2007: 235).

The transition from subsistence to commercial production is documented through the Peterson journal's mentions of excess a diverse set of goods being sold or traded: "February 2, 1863 - I sold 9 bu. of barley…one hide on 19½ lbs…one calf on 43lbs….11 doz. eggs and 15lbs. of butter" (Peterson 1930: 135). The sale of this diverse set of goods in irregular amounts and at irregular times of the year is indicative of more utilization of excess goods opportunistically. The production of crops for more commercial sale became more and more prevalent on the Peterson farmstead through time with advancements in the agricultural tools and machinery utilized: "September 8, 1873 – Today Peterman and his company are threshing today and we also finished threshing today" (Ibid: 285). Through the utilization of newer technologies and mechanization, Peterson was able to increase the amounts of cultivated land changing the production focus to commercial.

Archaeologically, higher amounts of agricultural machinery hardware, and presence of mechanization-related structures for maintenance and storage of machinery indicate this transition toward more commercial productions. More expansive agricultural fields were planted and harvested through the use and general maintenance of agricultural machinery. This increase in agricultural field size as well as mechanization of agricultural tools indicates changes towards a commercial agricultural production focus. In addition to this, increasing numbers of structures, indicated on historic aerials and through the foundation recovered from EU4, in turn signal this shift as well. The associated archaeological deposits, heavy in hardware components and agricultural tool

related artifacts, show these structures to be related to the storage and maintenance of agricultural machinery.

Regional Resources

Finally, aspects of production on the Peterson farmstead also reflect the utilization of local and regional resources. As part of a larger environment, farmsteads during the mid-nineteenth and early-twentieth centuries often exploited natural resources as a way of supplementing other forms of agricultural production, particularly in areas where supplemental income would be required due to low agricultural output such as Minnesota (McMurry, 2001; Thomas and Silbernagel 2003; Terrell 2006: 49; Keener et al. 2010).

Historic documentation through the Peterson journal indicates the exploitation of several non-agricultural regional resources including fish ("October 10, 1856 - Went fishing with the seine") and bees ("October 11, 1859 - We chopped down the bee maple and hauled home the bees") (Peterson 1930: 28 and 69) though no archaeological evidence is present for either one of these resources. Maple sugar production and its importance within the daily activities of the farmstead are also evident within the Peterson journal, with dozens of references to the process through time including upwards of 311 maples bored within a single year (Michelich 1984: 42). In its most simple form the sap was tapped from the trees and allowed to run down into troughs that were eventually combined into a larger pan which would then be boiled over an oven or fire. During pedestrian survey, a late-nineteenth century to early-twentieth century concrete maple sugar boiling pit, with a very little cultural material associated, was identified in the northern wooded area on the periphery of the Peterson property. The maple sugar boiling pit itself is in a fairly deteriorated condition, suggesting a lack of use for a substantial amount of time. Regional resource exploitation of maple trees was utilized on the Peterson farmstead during the mid-nineteenth to early-twentieth centuries, but followed national trends with its diminished utilization later into the twentieth century (McMurry 2001; Thomas and Silbernagel 2003; Keener et al. 2010).

Another regional resource available in the northern United States is ice. When temperatures were cold enough to allow for adequately thick ice, a process would begin through which the ice could be extracted for use in cellars and preservation processes (Weightman 2003: 2). During pedestrian survey, an ice saw was identified in the artifact

scatter surrounding the north barn. The complete tool is roughly six feet long in total with an elongated handle and six blades making up a four foot long cutting surface with an attachment area located on one end. The tool was likely utilized as a plow attachment to facilitate the cutting of ice. Before refrigeration, ice would have been an important resource for the Peterson farmstead for the preservation of food stuffs.

Production Summary

Production on farmsteads relates to different aspects of farmstead economy and resource utilization. Subsistence production, commercial production, and exploitation of regional resources are all present on the Peterson farmstead. Subsistence based production is evident in the small scale utilization of livestock through individual butchering and household utilization as well as through the presence of hand-hewn and produced construction materials. This shows self-sufficiency on the Peterson farmstead within both food and construction processes. Commercial based production is also present on the Peterson farmstead, shown through large amounts of hardware and machinery components and structures or use areas for the maintenance and storage of agricultural machinery. This illustrates the shift towards more mechanized machinery and tools being utilized for the production of goods on larger scales for sale and trade. Finally, exploitation of regional resources is evident on the Peterson farmstead through evidence of maple sugar and ice production. Regional resources such as maple sugar and ice were being utilized within the Peterson farmstead as supplemental to more substantial processes of production. These practices show the Peterson farmstead evolved from largely subsistence production into a more commercialized form, while all the time supplementing through the exploitation of regional resources.

Consumption

In contrast and in conjunction with production, aspects of consumption are also prominent within understandings of how farmsteads function. Though largely producers, farmsteads are consumers of goods such as different food stuffs, agricultural machinery and tools, construction materials, and new technologies. These types of consumer goods are represented in greater numbers through time and with advancements towards modernization and mechanization (Larkin 1982; Cabak et al. 1999; Klein 2001; Groover 2005, 2007; Terrell 2006; Ford 2008). Consumption is evident in archaeological and

documentary representations of foodways, agriculture and utilitarian work, and leisure and luxury materials present on the farmstead. I use analyses of the Peterson farmstead to connect with larger understandings of consumption on mid-nineteenth century to early-twentieth century Upper Midwest farmstead contexts.

Analyses

Foodways

One of the most evident forms of consumption on farmsteads is foodways. On the Peterson farmstead there are limited, but distinct, ceramic and glass container artifacts related to food consumption and storage. Consumption of food products on the farmstead can be ascertained through the types of containers and vessels that were brought into and utilized on the farmstead (Klein 1991, 2001; Cabak et al. 1999; Groover 2005, 2007; Terrell 2006; Hayes 2013). A total of 37 ceramic artifacts related to food containment and consumption were identified on the farmstead, including 33 ironstone, one porcelain, and three stoneware sherds, representative of bowls and containers for everyday food consumption. The ceramic assemblage is largely fragmentary but suggests utilization of regular bowls, containers, and crocks on the farmstead. Along with these, 161 glass sherds (145 colorless, 11 brown, and 5 green) are representative of glass medicine, alcohol, and food containers. Of these glass sherds, three threaded rim sherds are present suggesting twentieth century containers. In addition, 23 milk glass sherds suggest canning, and 18 pressed glass sherds suggest more decorative serving wares. The glass materials on the farmstead are indicative of containers, canning, and serving components of consumer goods. In addition, a total of 124 iron alloy can fragments, and one aluminum can fragment are also present within the archaeological deposits. These fragments are largely indicative of food and drink containers. A single can "key" suggests canned meats that would have been popular of the time. In addition to these subsurface finds, containers and consumer products related to foodways were also visible during the pedestrian survey. These included glass jar containers with threaded iron alloy caps, coffee cans, as well as a light scattering of ceramic and glass sherds within the different dumps and trash disposal areas around the farmstead.

Agricultural and Utilitarian Work

In addition, there were also aspects and materials related to agricultural work and construction represented within consumption on the Peterson farmstead. Though these materials were utilized for production, many of their components had to be brought onto the farmstead from outside areas. These materials are largely represented through agricultural machinery and hardware, as well as consumer material such as nails, brick, rebar, and concrete. As mentioned within the production section, a total of 149 hardware, machinery, and agricultural tool components are present on the farmstead. In addition to these subsurface artifacts, many mechanized agricultural artifacts were identified during the pedestrian survey, including engine components, water pumps, and feed containers. All of these artifacts and materials are representative of material required to be brought onto the farmstead for the purposes of agricultural production. In this way, they are important within both consumption and production spheres. In addition to agricultural tool artifacts, construction materials also needed to be brought onto the farmstead. These included a total of 203 wire nails, 63 machine-cut nails, 29 asphalt shingle fragments, and 12 brick fragments. Along with these subsurface artifacts, during the pedestrian survey multiple foundations were encountered comprised of concrete and rebar that would also have had to be brought onto the farmstead. These materials utilized for more substantial construction through time could not be produced on the farmstead.

Leisure and Luxury

Finally, consumption material related to leisure and luxury activities are also present on the Peterson farmstead. Within the Peterson farmstead these artifacts related to toys, games, as well as target shooting, including one construction brick toy, likely from the 1960s, and one glass marble game piece. Being made of plastic and glass, toys would likely have had to been purchased and brought onto the farmstead. These artifacts would have been for children on the farmstead, showing aspects of family make-up and leisure activities within the farmstead. In addition, a total of eight .22 caliber shell casings were also recovered on the farmstead. In conjunction with these, during pedestrian survey, an iron alloy plate containing .22 bullet holes was located in the north wooded area. These artifacts taken together indicate target shooting. Target shooting was and is a regular leisure based activity in rural areas, and most cases is being done to

both hone skills as well as a way to pass the time. Both the ammunition as well as any firearm would have had to been purchased from outside the farmstead.

Discussions

Goods are continually being brought onto and being utilized within farmstead contexts. These materials would have contributed to and been shaped by the types of activities on the farmstead as well as larger contexts and interaction spheres. Through time different numbers and types of materials, as well as their location within the farmstead are indicative of these different social and economic relationships. These relationships are reflected distinctly through archaeological evidence of consumption on a farmstead highlighting concepts of wider trade networks, modernization, and economic position (Adams 1976, 1990; Klein 1991; Cabak et al. 1999; Groover 2005, 2007; Terrell 2006). Through these concepts, a more full understanding can be gleaned about both the Peterson farmstead, as well as Upper Midwest historic farmsteads as a whole.

Consumer and Trade Networks

Farmsteads in general were not isolated, but rather were part of much larger contexts comprised of wider trade networks and economic spheres (Adams 1976; Glassie 1972; Klein 1991; Cabak et al. 1999; Catts 2001; Groover 2005, 2007; Terrell 2006). Time and advancements in infrastructure made more consumer goods accessible and utilized on farmsteads (Groover 2007: 68-69). Materials that were brought onto the farmstead yield information about where goods originated and the general networks that the farmstead participated in. These networks can fit into different frameworks including, "(1) local; (2) local-commercial; (3) area-commercial; (4) regional; (5) national; and (6) international" (Adams 1976: 104).

These networks are evident within the Andrew Peterson journal through references to local and regional trade and their change through time. Peterson mentions aspects of local networks through the act of *neighboring*, for example: "March 17, 1855 – Jonas Petter helped me haul rails (Peterson 1930: 20). In addition to community building, these services were expected to be reciprocated at a later date. Local-commercial networks also allowed for the gain of resources that they would not have access to: "November 27, 1858 - First I went to alexanders and paid for 3½ bushels of rye" (Ibid: 57). The Peterson farmstead in turn, participated in area-commercial networks

for materials not accessible from neighbors or nearby farms: "May 17, 1864 - We also went to Chaska while I bought a woll jack of Warner for a dollar" (Ibid: 140). Peterson also mentions larger regional networks, for even more exotic or factory manufactured goods: "March 18, 1855 - Nilsson came back from St. Paul today and …he bought for me: 6 yard material for trousers…6 yard white drill for underpants…6 yard shirt material…1 black hat…1 comb" (Ibid: 20). These descriptions within the diary show the wider community that the Peterson farmstead was a part of, and how those interactions influenced consumer culture within the farmstead.

The vast majority of materials on the farmstead were too fragmentary to determine point of origin with no marks or labels present on subsurface artifacts. As such, larger and more complete artifacts largely identified through pedestrian survey were utilized. Area networks begin to be more present through the presence of nine Chaska brick fragments comprised of "a distinctly cream-colored brick made in Carver County, Minnesota…concentrated in the city of Chaska" (Henning 2011: 2). The footing for the foundation within EU4 also contained multiple Chaska brick fragments. In addition, the smokehouse (on the north side of the farmhouse), and the kitchen attached to the farmhouse were also comprised of Chaska brick (Grover 2015).

National networks are indicated through the presence of a water pump in the North Barn artifact scatter with the marking, "MFD by Hayes Pump and Planter Co. // Galva Ill., USA". The company identified as the producer would have been in operation in Galva, Illinois from 1886-1931 (http://genealogytrails.com/ill/henry/bios_miscell.html). Galva, Illinois is located within Henry County in the central western portion of the state. Though likely not purchased directly from the manufacturer, the pump is indicative of the Peterson farmstead participation in national commercial networks.

Finally, international networks were evident on the Peterson farmstead through the identification of coffee cans containing the label "100% Columbian". Though not acquired directly from Columbia, the consumption of Columbian coffee on the Peterson farmstead indicates its participation in even the farthest reaching networks. In both historic documentation and archaeological deposits, it is evident that the Peterson

farmstead was an active participant in local, area, regional, national, and international trade networks and economic spheres.

Modernization and Mechanization

On the Peterson farmstead, there are patterns and changes in the types of materials that are brought onto and consumed on farmsteads. Modernization and mechanization on farmsteads brought change through "replacement of traditional social forms and animate based labor systems with scientific technology and inanimate power" (Cabak et al. 1999: 23). This is evidenced within farmstead contexts largely through mechanization of agriculture, consumerism, commercialization, and popular culture. Changes in infrastructure, technological advancements, and access facilitated a shift from a production focused to a consumption focus on farmsteads is evident through the types of material present on the farmstead (Cabak et al. 1999; Groover 2005, 2007; Terrell 2006).

As a fully operational farm for the majority of its history, the Peterson farmstead utilized consumer goods related to modernization and consumer culture in household, agricultural, and even architectural components. Within the household, and specifically through food preparation, the entirety of the ceramic and glass assemblages recovered on the farmstead are indicative of these more commercial and mass produced goods associated with changes in consumer trends. This shows the Peterson farmstead as participating in larger national trends of commercialization and modernization requiring materials and goods brought onto the farmstead (Cabak et al. 1999; Groover 2007). Agricultural and utilitarian change is also present through higher amounts of hardware and machinery associated with mechanized agricultural equipment (Cabak et al. 1999). This in turn shows the Peterson farmstead utilizing modern and mechanized agricultural techniques that would require equipment to be purchased and brought onto the farmstead. Construction materials would also have been brought onto the farmstead for more modern architecture. These included asphalt shingles, mass produced machine cut and wire nails, as well as concrete and rebar within foundations. These construction materials are indicative of the utilization of more modern construction techniques on the Peterson farmstead. Consumer goods related to modernization of utilities and introduction of electricity also appear at the Peterson farmstead including five light bulb sherds and fragments, an electrical insulator, and portions of copper wire. These items show the

utilization of consumer products to facilitate the modernization of utilities on the farmstead.

Economic Position

Finally, consumption related material cultural on the Peterson farmstead also indicates economic position. The amount of financial and economic resources available within the farmstead is often shown through the amounts of manufactured and consumer based goods (Klein 1991; Cabak et al. 1999; Groover 2007; Terrell 2006). Commercial materials can be indicative of the associated wealth group with newer and more "in fashion" materials representative of more affluent household and farmsteads (Klein 1991), and older or more damaged goods indicative of lower wealth group and economic status (Strasser 1999).

Early on, the Peterson farmstead would likely not have been wealthy, given their focus on production, but as time moved forward and the farmstead was more established, opportunities for the accumulation of both consumer goods and non-essential items are evident. Examples may be found within the Andrew Peterson journal, where he mentions the purchase of picture frames, a doll, and dollhouse (Mihelich 1984: 77). The money spent on these items suggests surplus resources being utilized for purchasing and obtaining luxury and leisure items. Supporting this documentation, archaeological deposits of the farmstead include a glass marble and plastic construction brick toy, as well as decorative pressed glass, more expensive forms of glassware typical of higher economic status. These objects contribute nothing to agricultural or domestic work and suggest that resources were being utilized for leisure and luxury items.

Economic status is also indicated through evidence of agricultural mechanization through high amounts of hardware and machinery components. The presence of these artifacts could suggest the ability on the Peterson farmstead to exploit and use technological advancements as they became available (Groover 2007: 17). Through all of these items related to consumer goods and materials, the archaeological deposits reflect small and ephemeral aspects of higher wealth, though economic status is shown to be a fluid and muddy concept on the Peterson farmstead.

Consumption Summary

The consumption related artifacts on the Peterson farmstead reflect participation in wide and diverse trends and economic networks, shows evidence of consumerism through modernization and mechanization, and offers insight into economic position. Local Chaska brick, nationally-distributed farm equipment, and international coffee are all present on the Peterson farmstead. This shows that the farmstead itself was a part of a diverse and vast array of different economic networks. The large number of manufactured wares and glass, as well as hardware and mechanized agricultural equipment reflect aspects of modernization on the Peterson farmstead. These materials indicate that the farmstead participated in rural modernization and mechanization as part of larger national contexts and trends (Cabak et al. 1999; Groover 2007). Finally mechanization, decorated glasswares, and non-essential items present on the farmstead show economic status rising through time. Through these factors, the Peterson farmstead is shown to be an active and adaptable consumer participating in many different economic and interaction spheres.

Re-use, Repair, and Trash

As part of these larger concepts of production and consumption, materials and goods are understood and utilized in different ways on the Peterson farmstead. The use of a material does not necessarily always fall within one category or another, but rather along a spectrum of utilization. An interesting aspect of this utilization is re-use and repair of materials and goods. For the purposes of this thesis, I use definitions of re-use drawn from Michael Schiffer, "*human activities that transform artifacts from state to state in systematic context"* (Schiffer 2010: 32). Within this definition there are four forms of re-use including lateral cycling (change in artifact user or social use), recycling (change in an objects form), secondary use (change in an objects use), and conservatory processes (long-term preservation) (Ibid: 32-33). Repair and maintenance are also considered as part of the extension of use-life for materials and reflect similar ideas to re-use (Amick 2014).

Along with re-use and repair, trash is also present within farmstead environments. Definitions of "trash" are variable according to the context in which items exist (Strasser 1999: 5). For the purposes of this paper, trash is defined as materials that are largely

designated as no longer useful or serviceable. Considering this definition, three types of disposal techniques are considered: subsurface trash pits (intentional pits dug for the containment of refuse), surface dumps (surface concentrations relegated to peripheral areas), and sheet middens (general disbursement of refuse) (Stewart-Abernathy 1986; Cabak et al. 1999: 32; Strasser 1999: 23, 37; Cattis 2001).

Analyses

Agricultural Mechanization

One of the most evident examples of re-use and repair on the Peterson farmstead was through the implementation and maintenance of agricultural mechanization. The use of more mechanized forms of agricultural tools both gave higher production abilities, but also required more specialized knowledge and strategies to maintain and extend the use-life of larger and more expensive agricultural machinery (Strasser 1999). This was largely done through replacement and repair of mechanized agricultural tools components and parts. This mechanization and associated maintenance is reflected though an increase in hardware and machinery related artifacts (Groover 2007; Terrell 2006). On the Peterson farmstead there were a total of 148 hardware artifacts related to agricultural mechanization recovered through excavation. These artifacts largely represented small, easily broken, and easily replaced machinery components such as washers, screws, rivets, grommets, and bolts. In addition to these subsurface finds, during pedestrian survey multiple larger mechanized agriculture components were identified including engine components, water pumps, cages, wagon components and other agricultural related materials largely within artifact scatters around the north barn. The appearance of additional structures including machine shops on the physical layout are indicative of spaces for the storage but also maintenance and repair of agricultural machinery (MHAPO 1937, 1940, 1945, 1960; Lofstrom 1978b).

Structural Components

In addition to mechanized agricultural materials, aspects of the structures themselves point towards re-use and repair. This is evident throughout history with structures being re-purposed or portions of previous structures being utilized as construction materials (Kent 1990; Adams 2002a, 2002b, Terrell 2006). Re-purposed materials were also used as construction materials on the Peterson farmstead. Within

EU4 the foundation encountered contained aspects of recycling within the footing for the foundation itself. Large fragments of Chaska brick as well as concrete fragments were identified as cemented together for the purposes of the footing for the structure. This is evidence of the utilization of materials collected from previous structures in the construction of new structures including some extant structures on the farmstead. The construction of the 1917 barn included "reclaimed timbers and foundation elements from a previous structures (Grover 2015: 58) and in the granary through the use of "hewn logs [that] came from a previous log house" (Ibid: 78).

Re-use of construction materials is also present currently on the farmstead, with multiple piles of architectural components that are to be used in the north barn reconstruction identified through pedestrian survey. These previous barn planks and structural components reflect ideas of more conservatory processes for the purposes of "their potential to furnish historic information" (Schiffer 2010: 33).

Storage

Re-use and repair patterns are also present in general storage and surface scatters around the Peterson farmstead. The collection and storage of materials for future use has been an important aspect of farmstead occupation and site utilization (Bradley 1988; Pettegrew 2002; Terrell 2006). Multiple surface finds and dumps were located during the pedestrian survey of the farmstead. A number of these surface scatters contain highly concentrated piles and groupings of similar materials. These scatters and dumps were found throughout the northern portion of the farmstead, both in the wooded area and around the north barn. The materials within these dumps include piles of telephone poles, railroad ties, cages, and wooden blocks. These materials would have largely been collected within the past 40 years for regular maintenance on the farmstead and utilization within re-use contexts. Piles of construction materials were also identified around the north barn, likely for their utilization within the repair of the structure. Within these larger artifact scatters around the north barn, multiple re-purposed materials were identified during the pedestrian survey, including oil cans cut and bent into containers, and larger barrels cut vertically for potential use as water troughs. This material shows how objects were changed and altered for re-purposing within farmstead contexts (Pettegrew 2002; Schiffer 2010).

Trash Disposal

In contrast and conversation with re-use and repair, is the disposal of trash through different techniques and content. Within pedestrian and STP survey as well as excavation units, trash disposal was evident on the farmstead. In general, within the open areas of the farmstead to the north, west, and southeast of the farmhouse there is a light artifact scatter indicated through the STP survey, representative of a sheet midden dispersal of refuse across the site. Along with this, a more concentrated disposal is evident on the north side of the farmhouse, with high concentration of fragmentary artifacts with evidence of burning suggests a purposeful concentration of material. Larger surface dumps and trash deposits are also located within the wooded area on the northern periphery of the Peterson farmstead. These deposits show larger materials and artifacts that would not have been easily disposed of, segregated and pushed to the periphery of the property (Strasser 1999: 23).

Discussions

Re-use, repair, and trash disposal have been important human practices and within the operation and maintenance of farmstead life (Rathje and Murray 1992; Strasser 1999; Valquero et al. 2012; Amick 2014). Specifically, different types of re-use, repair, and trash disposal reflect ways that farmsteads value materials (Strasser 1999; Beaudry 2001; Adams 2002a, 2002b). Different aspects of re-use, repair, and disposal of trash on a farmstead can be indicative of self-sufficiency, perceptions of trash, and economic position (Strasser 1999; Beaudry 2001; Adams 2002a, 2002b; Amick 2014).

Self-Sufficiency

Subsistence and self-sufficiency were an important aspects of most households up until the beginning of the twentieth century, particularly within colonial or frontier contexts where commercial goods were less available (Groover 2007; Terrell 2006). Towards the beginning of the twentieth century, through more access to commercial goods and advancements in infrastructure there were "[s]ignificant historical shifts away from the age-old tradition of artifact mending, repair, recycling, and repeated reuse" (Amick 2014: 4). But aspects of this tradition are still evident on the United States farmstead through principals of repair, secondary use, and recycling of agricultural

machinery, structural elements, and domestic materials (Strasser 1999; Beaudry 2001; Terrell 2006).

Historic documentation and archaeological deposits indicate that re-use was a major component of self-reliance on the Peterson farmstead. The Peterson journal itself points towards tool and object maintenance and repair of domestic items, agricultural tools, and more structural features (Peterson 1930: 49, 519, 252). This larger skillset allowed for the extension of use-life of materials and objects (Strasser 1999: 13).

Archaeological evidence also shows this through materials associated with agricultural machinery maintenance. High levels of replacement machinery components show that maintenance was being done on agricultural machinery on the farmstead, instead of buying new materials and goods and relying on a consumer market. Self-sufficiency is also evident through construction on the farmstead. The presence of broken and previously used Chaska brick and concrete in the footing found in EU4 and the re-use of barn wood for the construction of the 1917 barn and the granary indicate the use of previously utilized construction materials in newer construction. Previous structures were re-used and re-purposed for the construction of new structures rather than purchasing new materials from outside the farmstead (Terrell 2006).

Perceptions of Trash

The introduction of industrial and mass production created more material and less space to accommodate goods, requiring the sorting out of broken, old, and unused materials (Strasser 1999: 13-14). Along with these increases in consumption and disposable goods, the consumer economy also created "new" markets which began to depend on continuous disposal of older materials (Ibid: 15). But in rural area and farmsteads where wider skillsets were still accessible, aspects of re-use and repair remained prevalent leading to different understandings of trash (Strasser 1999: 10, 23; Wainwright 2006). In addition, rural and farmstead layouts contained more room to store and keep material for further use or purposes, impacting perceptions of broken and older tools, materials, and objects (Strasser 1999: 12).

In Andrew Peterson's journal, he mentions the re-use of materials within his own farmstead: "December 1, 1888 - …the other boys hauled home the trash of the old fence" (Peterson 1930: 725). It is evident that even objects viewed as "trash" were brought back

to the farmstead in order to be utilized for other purposes. These different values of trash and new materials were also evident within some of the consumer attitudes on the farmstead: "October 25, 1873 – Went to Carver Market to buy soldiers clothes at the auction" (Ibid: 288). In his acquisition of used clothes, Andrew Peterson practiced lateral cycling, and utilization of older objects, rather than considering them trash (Schiffer 2010).

Piles and concentrations of railroad ties, fence posts, animal cages and even harnesses were identified around the farmstead through pedestrian survey. These are likely stored materials as indicated by the apparent sorting into useable materials and those no longer useable that could be easily identified for utilization at later points (Strasser 1999; Amick 2014). Objects with apparent alterations or aspects of recycling were also present within the surface scatters. An example of this was a "Nutro // Blended Glycols" oil can that shows evidence of tin bending of one of the sides to an open position to convert the enclosed and empty oil can into a new purpose as an open storage container. This shows a recycling of what could be considered trash into a more useable object. Another example observed was a large iron alloy barrel cut down the center vertically to create two sides to a trough-like object.

Trash disposal is evident through multiple methods and techniques. In general, a light and fragmentary artifact scatter represented generalized dispersal of refuse across the site. In addition, a trash pit was encountered showing more concentrated disposal of fragmentary artifacts with evidence of burning, suggesting a purposeful concentration of material. Larger surface dumps and trash deposits are also located within the wooded area on the northern periphery of the Peterson farmstead. These different methods and content indicate the longevity of occupation and changes of material use through modernization (Strasser 1999; Amick 2014).

Economic Position

Lastly, but perhaps most obviously, aspects of re-use are indicators of economic status and position on the Peterson farmstead. A household's economic status and class can greatly affect the patterns of re-use within a given site with individuals and households of higher economic status lends itself to having the ability to be more wasteful, while individuals and households of lower economic status tend to waste less

and attempt to utilize objects for longer periods of time (Strasser 1999: 9). However, rural areas and farmsteads in general practiced more re-used and kept materials longer than most urban settings and as such, these differentiations are less evident on farmsteads (Deetz 1977; Strasser 1999; Groover 2007).

Though difficult to tell, there are some hints within the Peterson journal and historic documentation itself. As previously stated, the economic position of the Peterson farmstead was relatively fluid and fluctuated through time. One more concrete example of difficult economic times is the purchase of older equipment rather than new machinery: "September 31, 1883 – Went after an old reaper that I bought from Malmberg" (Peterson 1930: 579). This, paired with the purchase of used "soldier clothes" mentioned in the last section give the impression that aspects of re-use were utilized on the Peterson farmstead in part due to smaller available funds at times.

Re-use of construction materials also hint at economic position. The presence of both wood from previous structures within the 1917 barn and granary (Grover 2015), as well as the fragments of Chaska brick and concrete within the footing for the foundation in EU4 are indicative of re-use during construction activities. These would have been common throughout the region especially during more lean economic times and specifically the Great Depression (Terrell 2006). This shows the Peterson farmstead as facing similar tough economic times during the Depression era as well, making the re-use of structures and structural components economically sensible. It is evident that the economic position of those on the farmstead was never static, but rather fluctuated through time.

In addition to the presence of more altered and poorer condition objects, re-use within structural aspects of a farmstead can also be indicative of lower economic status: "there was minimal new construction during the depression era. Existing buildings were remodeled and reused for the sake of economy" (Terrell 2006: 57).

Re-use and Repair Summary

Artifacts and features related to re-use, repair, and trash related artifacts on the Peterson farmstead reflect concepts of self-sufficiency and subsistence, changing and evolving perceptions of trash, and indicators of economic position. Self-sufficiency is evident through the identification of agricultural maintenance hardware, and aspects of

reuse within construction. The storage of materials, different trash disposal techniques, and repurposing and extension of use-life of materials reflect changing and differential perceptions of what is "trash" showing extensions of use-life of materials. Finally, aspects of fluctuating and changing economic status are evidenced through re-used construction materials and acquisition of second-hand materials.

Spatial Representations and Change

These different concepts of production, consumption, re-use, and trash are all present within the physical environment of the farmstead. For the purposes of this section, the physical environment of the farmstead layout is defined as, "at least one dwelling as well as associated farm elements including domestic (privies, smokehouse, spring houses, wood sheds, etc.) and agricultural outbuildings (barns, granaries, livestock housing, etc.) and the surrounding work yards, gardens, and directly associated activity areas" (Terrell 2006: 8). Addressing ideas of space and farmstead layout design provide a context and background for larger concepts of task and activity differentiation, interrelation and change through time.

Analyses

Physical Representations

Physical aspects of the farmstead relate to the structural and use-space on the Peterson farmstead. Beginning with the original "log shanty" construction as well as the potatoes that were grubbed during the original homesteading of the property in 1855 (Peterson 1930: 22), the farmstead grew in the form of more structures and development, including a granary to contain the newly harvested crops, a wood shed and brick smokehouse for curing and storing meats, and more ephemeral outbuildings such as cow sheds and oxen stables (Ibid: 28, 57, 72, 79). In addition to the farmstead area itself, Peterson began developing the surrounding land for grain production as well as areas for an orchard (Ibid: 10).

As activities and processes continued to grow and change on the property so did the physical environment. The next large change in the farmstead layout was the addition of the modern "new" farmhouse in 1870 (Ibid: 234). Other structures would follow as time went on with the farmstead continually growing and expanding. A kitchen addition on the farmhouse was constructed in 1881, the current south barn was constructed in

1884, the north barn in 1887, and a well house in 1891 (CCHS 2015: 11). In addition to new construction, buildings themselves moved within the farmstead layout including the granary which appears from historic photographs to have moved to its current location post 1885.

Even after Andrew Peterson's death, the farmstead continually changed with further additions and demolitions on the property. This includes the still standing large 1917 barn, which was constructed with materials from a smaller barn on the same location from the Peterson era (Grover 2015: 58). A smaller farmhouse for a hired hand, John Peltz, was built in the 1920s (Mihelich 1984: 145). Historic aerials of the farmstead starting in the 1930s show the addition of many other structures such as a possible machine shop, storage buildings, a milking barn, and corn cribs at various locations throughout the farmstead (Ibid: 144).

After the 1930s, the farmstead began a gradual decline and general reduction of size documented in the 1978 National Register Nomination, with only one additional structure "Machine Shed (post-1900)" present on the property (Lofstrom 1978b). This continued on the farmstead until its acquisition of the property by the CCHS in 2012. Presently, the 1870 farmhouse, North (1887) and South Barn (1884), 1917 barn, granary (new location), and smokehouse (1860s) remain on the property. The remnants of the 1920s Peltz farmhouse are still present as well, with the superstructure demolished sometime in the 1980s (Ibid: 183).

Discussions

Different production, consumption, re-use, and trash practices within the space and physical layout on the Peterson farmstead offer a unique and important view into farmsteads as a whole. The farmstead represents "the center of operations on an American farm. It contains the operator's residence; barns and sheds for the shelter of animals, the storage of feeds, and the protection of tools and machinery; together with adjoin feeding pends and yards, a home garden and possibly an orchard" (Trewartha 1948: 169). Physical environment and layout shape activities and processes occurring on a farmstead, particularly the interrelation of activities and practices within discrete areas on the farmstead as well the as changing farmstead composition.

Spatial Activities and Practices

Practices and activities operate within a farmstead through the spatial arrangement of structures and open spaces. My interpretations are influenced by Tim Ingold's concept of taskscape, where "the taskscape is an array of related activities" (Ingold, 1993: 158). In this understanding, taskscape represents the many different operations performed within an environment as dependent and influential among all other tasks and operations through interactivity (Ibid: 163). This idea of taskscape is useful in the rural context of farmsteads where different activities or "tasks" are performed throughout the entirety of the property (Terrell 2006: 23). Taking this approach, the placement of structures within this layout can be attributed to energy expenditure and efficiency, highlighting activities which occur more regularly and require more work as located closer to the center of the farmstead, while actions that happen less often and require lower amounts of work will be located farther from the center (Adams 1990: 94). Taken together, all of the activities and practices within the farmstead become a set and interrelated process. This view allows a more complete "industrial archaeological" perspective of the activities performed within the physical environment of the farmstead as both connected and fluid (Terrell 2006).

When looking at spatial aspects of a farmstead, it is intuitive to categorize spaces as differentiated through the types of activities performed within them. Within previous studies, these designations are traditionally split into, "domestic", "utilitarian", "consumption", and "production" spaces (Trewartha 1948; Zierden 1996; Cabak et al. 1999; Terrell 2006). Within these categories, domestic areas are defined by utilization of the space for food processing and preparation, cleaning, and laundering and usually interpreted as a gendered space for women (Zierden 1996; Cabak et al. 1999). Utilitarian spaces on a farmstead are usually defined as where activities related to agricultural work, maintenance of tools and machinery, and livestock care take place and are largely relegated to men (Cabak et al. 1999: 169; Terrell 2006). In this same way, consumption areas reflect spaces that relate predominantly to activities requiring materials brought onto the farmstead. Specifically, this usually pertains to consumer based goods such as food containers, hardware components, and new technologies (Adams 1976; Klein 1991; Cabak et al. 1999). Similarly, production spaces relate to the utilization or exploitation of

resources for the production of goods on the farmstead. through barn yards, work yards, orchards near or within the farmstead (Trewartha 1948: 189-190; Glassie 1972), agricultural field crops (Adams 1990: 94), and exploitation of regional resources including maple sugar (Keener et al. 2010: 142). Though at times helpful, these restrictive and strict definitions of segmentation of space within farmsteads are not necessarily as distinct within the Peterson farmstead.

On the Peterson farmstead spatial distribution of activities reflect much more connection (Ingold 1993). The property was largely open and fluid allowing for the different activities and practices within the farmstead to work as part of the larger processes and operations. Activities related to everyday operation of the agricultural and production aspects of the farm as well as those related to consumption practices were present within all areas within the farmstead. Agricultural machinery hardware is present throughout the entirety of the farmstead, indicating maintenance and storage throughout the property. North of the farmhouse, the presence of the maple sugar boiling pit as well as the open space to the north potential use as a work yard indicates production and utilitarian work within the farmstead property. On the eastern side of the property, structures currently and historically show utilization of space for more agricultural and work related purposes. The western edge of the property abuts agricultural fields and was likely utilized for production activities as well (Adams 1990). Finally, the southern portion of the property contained portion of the orchard (MHAPO 1937, 1940, 1945, 1960; Lofstrom 1978b; Mihelich 1984; Grover 2015; CCHS 2015).

In this same way, activities traditionally relegated to both domestic practices and requiring materials that were brought onto the farmstead were present throughout the entirety of the property as well. There is a light artifact scatter of ceramic and glass that is likely representative of consumption practices throughout the entire property. To the north, higher concentrations of farmhouse trash and materials suggest its use within a consumption and domestic sphere. Historic aerials and plans show higher numbers of structures on the eastern half of the farmstead, suggesting areas where more consumer goods could be stored and utilized within aspects of agricultural (MHAPO 1937, 1940, 1945, 1960). On the southern portion of the Peterson farmstead historic aerials, and pedestrian survey confirmed the presence of a secondary farmhouse, as well as

excavations indicating much more diverse artifacts including higher proportions of domestic glass, ceramics, and faunal material, as well as clothing related materials such as buttons, zippers, and rivets suggesting more activities related to cooking, cleaning, and laundering occurring within the area (MHAPO 1937, 1940, 1945, 1960; Mihelich 1984).

These spatial representations have temporal implications as well. The different production techniques present on the farmstead point towards diversification for continued production activities throughout the year. Production activities would have been present in the early spring through tapping maple trees and boiling sugar (McMurray 2001; Thomas and Silbernagel 2003; Keener et al. 2010), continued through the spring and summer through planting and maintaining agricultural fields (Trewartha 1948; Terrell 2006; Groover 2007), persisted in the late summer and fall through harvesting of apples and field crops (Trewartha 1948; Mihelich 1984; Terrell 2006; Groover 2007), and even maintained through the winter through livestock and harvesting of ice (Weightman 2003). These diverse and interrelated production activities contributed to the functioning taskscape as well as helped maintain production year round on the Peterson farmstead.

This more continuous and interrelated taskscape model contrasts previous farmstead models in which activities were relegated to gendered spaces. Within these previous models domestic activities related to food preparation and laundering were identified as largely female spaces while agricultural and construction activities to men (Trewartha 1948; Zierden 1996; Cabak et al. 1999). This gendered segregation is not necessarily present on the Peterson farmstead with all activities occurring throughout the entirety of the farmstead. Within the Andrew Peterson journal he mentions the sewing and mending of clothes by men, for example "May 24, 1858 – Forenoon, mended shoes" (Peterson 1930: 49), and "November 30 1871 – Lars today began to sew clothes for us" (Ibid: 252). These examples highlight how male members of the farmstead participated within the sewing and mending of clothes which are traditionally interpreted as female domestic activities. In this same way, female members of the farmstead participated in agricultural activities traditionally relegated to males: "July 22, 1858 – First I cut hay then Elsa and I cocked hay" (Ibid: 109). Even when activities still contained some aspects of gender such as the shearing of sheep in the spring, efficiency and time

appeared to trump these segregations: "When the boys worked at it in 1887, they 'helped the women folks to shear the sheep'" (Mihelich 1984: 42). This generalization and blending of traditionally gendered activities are likely a result of necessity within frontier and settler farmstead (Terrell 2006; Groover 2007).

Taken together, these observations within the Peterson farmstead reflect the fluidity and interrelation of activities and space utilization within the property. Rather than separate and segmented spaces for individualized activities, each area contains aspects of production, consumption, utilitarian, and domestic spheres without gender-segregated spaces. Though some areas show higher utilization for specific activities, there is not necessarily a hard and definite segmentation and delineation of those spaces. No one area is utilized entirely for one purpose, but rather for an array of interrelated activities contributing to the farmstead as a functioning whole. This again reflects the farmstead taskscape as a connected array of practices and activities that all contribute to the everyday operation and success of the farmstead (Ingold 1993). The activities and practices on the Peterson farmstead both influenced and were affected by the needs of the farmstead and as such changed and shifted through time.

Construction, Movement, and Demolition of Structures

Space and physical layout are also in constant flux through the Peterson farmstead's history. One of the more evident indicators of change on farmsteads is through the shift and changing of the structural layout. Through the construction, movement, and demolition of structures we can see changes in the way that the farmstead is being utilized (Trewartha 1948; Glassie 1972; Adams 1990; Cabak et al. 1999; Groover 2007; Terrell 2006). These changes can pertain to specialization of techniques and methods through modernization and mechanization (Glassie 1972; Cabak et al. 1999; Grover 2007; Ford 2008; Terrell 2006) as well as economic and shifting needs of the farmstead (Terrell 2006).

Historic aerials show that up to eight no longer extant structures were present on the north and east areas of the farmstead, in addition to a farmhouse (constructed in 1926) to the southeast of the current farmhouse (MHAPO 1937, 1940, 1945, 1960). Archaeological investigations on the north and east portions of the farmstead located a surface concrete pad as well as a subsurface foundation likely related to these demolished

structures. The location, associated hardware and agricultural machinery in the area, and foundation indicate that the structures were likely a part of the push towards modernization and mechanization. The foundation for the "Peltz" farmhouse structure is present as well, with its construction and eventual demolition (in the 1980s) illuminating changing demographics, utilizations, and priorities of the Peterson farmstead from a working farm to a general residence. Historic documentation and pedestrian survey show that multiple privies, wells, and smaller outbuildings were once located on the Peterson farmstead that are no longer present. The demolition of these structures was likely part of modernization of utilities and sanitation practices.

Early photographs of the Peterson farmstead indicate that the current granary was originally located farther to the west during Andrew Peterson's lifetime and at some point between 1885 and 1930, the granary was relocated to its current position within the current farmstead unit. The reason for this movement was likely due to a desire to utilize areas immediately to the west of the farmstead property for agricultural fields. Though there is no mention of it, the structure could have been moved during a time of economic stress in the form of the beginnings of the Great Depression.

Changes in Use-Space

Physical environmental change is also shown through changes in the non-structural aspects of the Peterson farmstead. Agricultural development and changes affect the way that open areas and utilizable space are located on farmsteads (Trewartha 1948; Glassie 1972; Adams 1990; Cabak et al. 1999; Groover 2007; Terrell 2006), and may lead to more specialized areas within the physical layout such as hog, cow, or barn yards, and work yards for agricultural machinery and maintenance (Trewartha 1948; Adams 1990; Terrell 2006). In addition to this, other production areas, such as agricultural fields and orchards can be altered or change in response to environmental, social, or market stimuli (Adams 1990; Groover 2007; Terrell 2006).

Through time, and in part due to changes in structural composition, spaces for yards, orchards and agricultural fields shifted and changed on the Peterson farmstead. Larger scale changes, such as changes to agricultural fields or orchards, are in part documented through historic aerials and documentation showing aspects of the evolution of these use-areas (MHAPO 1937, 1940, 1945 1960; Michelich 1984). These records

document the removal of the orchard to the south of the farmhouse sometime before 1937. This was likely as a result of changes in the reliance on production aspects of the Peterson farmstead. Decreases in the vegetation around the farmstead and replacement with agricultural fields along the western and northern edges also indicate changes in utilization towards cash crops and away from the regional resources of maple sugaring.

Smaller alterations were also present on the Peterson farmstead through changes in livestock and work yard locations. For example Peterson documented "November 30, 1888 – Axel and Carl hauled the old fence over to the new hog pasture" (Peterson 1930: 725). These smaller changes reflect changes in positioning of certain work areas and storage areas on the farmstead, reflective of shifts in production and utilization. The presence of a fence line feature within the archaeological deposits on the northwest portion of the property could reflect these changes in site and spatial use.

Spatial Representations and Change Summary

Spatial layout and change on the Peterson farmstead relate to aspects of daily life. Historic documentation, maps, and the archaeological investigations show that the physical layout and environment is an important and fluid concept on the Peterson farmstead. The presence of diverse activities and practices throughout the entirety of the property shows the farmstead unit to be best represented as an array of interrelated tasks rather than strictly segmented or gendered use-areas (Ingold 1993; Ford 2008). Farmstead layout evolution and change is present through structural change and altering of use-area utilization. The introduction, removal, and movement of structures within the farmstead point towards modernization and mechanization as well as different economic circumstances; while non-structural changes in use-space indicate larger changes in utilization and production on the Peterson farmstead. These separate changes show the Peterson farmstead as not static, but rather fluid and constantly adapting to changes in the physical environment and larger landscapes.

Chapter IV: Representations and Interpretation

Historic Peterson Farmstead Representations

The Peterson farmstead is representative of the diverse and complex set of activities, practices, and time periods within farmstead contexts. Through historic documentation and archaeological deposits, the Peterson farmstead is shown to be a participant within production and consumption networks and practicing higher levels of re-use of materials within a fluid and shifting physical environment through time.

Examples of agricultural machinery, natural resource exploitation, orchard utilization, and creation of tools and structural elements show production activities as an important and evolving aspect within the farmstead's operation. These representatives highlight farmstead production activities as part of a spectrum, utilizing self-sufficient and supplementary practices, as well as highly expanded and commercialized practices.

In this same way, the operation of the farmstead also required materials to be brought onto the property including agricultural machinery and tools, foodstuffs and clothing, and construction materials. These materials reflect the range of networks and interaction spheres from local to international that farmsteads participate and changes indicative of modernization and mechanization within farmstead life.

The archaeological materials and their location of recovery show that activities related to production and materials brought onto the farmstead are not independent, but rather are intertwined and interrelated practices to the operation and success of the Peterson farmstead. Materials brought onto the farmstead were required to facilitate aspects of the production activities. This integration is reflected further through practices of re-use and recycling, where materials that were brought onto the farmstead could be repurposed into new objects.

All of these materials and practices play out within the physical environment and layout of the farmstead, with structures and open areas indicative of activities and practices occurring on the farmstead comprising a connected and fluid set of processes, shifting through time as the needs of the farmstead changed. Spatial analysis can in turn refute assertions of gendered and segmented spaces by highlighting the connected and interrelated nature of the farmstead unit. These interpretations show the Peterson

farmstead to be a constant evolution and transforming environment in which diverse processes work in tandem to create a successful and operational farmstead.

Further Interpretations

Part of the impetus for the project is the plan to develop the Peterson farmstead into an interpretive center and a museum for the Carver County Historical Society. Through the analysis and discussions of archaeological investigations, different aspects of representations and interpretations can be explored through the interpretive center and museum. These investigations can help indicate areas for interpretation, expand understandings to wider time periods of the Peterson farmstead, explore larger production and consumption networks that the Peterson farmstead participated in, contrast forms of production, as well as highlight aspects of reuse and understandings of material use on farmsteads. Allowing for the larger and more diverse interpretations of the Peterson farmstead allows for better understandings of both the Peterson farmstead and Upper Midwest farmsteads as a whole.

<u>Areas for Interpretation</u>

First and most evidently, the archaeological investigations can inform the location and placement of interpretation areas and plaques. Through areas and features identified within the investigations, interpretation can highlight areas not necessarily as prominent or visually evident within the current representation of the farmstead. Most prominent and interesting would be the maple sugar boiling pit located in the north wooded lot. The interpretation of this feature could help show the prominent utilization of maple sugar production on the Peterson farmstead through time. Another area for potential interpretation is represented by the Peltz farmhouse foundation on the south side of the farmstead. Through interpretation of this area, aspects of physical layout change through time as well as domestic aspects of life on the Peterson farmstead may be explored. Further, the area to the north of the farmhouse, and specifically the area in which the foundation was recovered in EU4, could also be an area for interpretation highlighting work yards, mechanization of farmsteads and structural environment evolution. These four areas offer opportunities and avenues for the interpretation of less visible aspects of historic farmsteads.

Expansion of Interpretive Time Periods

Along with specific areas, archaeological resources and interpretations can also help address wider time periods on the farmstead. This could be shown through differential farmstead layouts and structural composition as well as changes within material culture. Specifically, historic maps, photos, archival documentation, and archaeological evidence show aspects of changing and shifting farmstead layouts through construction, demolition, and movement of structures. In turn, this can also show how the differential use space for different activities evolves through time. Along with these physical environmental representations, materials related to mechanization and modernization can be utilized to show changing time periods and the fluidity of farmstead representations. Broader and more expansive understandings of farmstead utilization and needs are shown through these changes and evolutions.

Broader Interaction and Trade Networks

Archaeological investigations also offer opportunities toward the interpretation of wider production and consumption networks connected to the Peterson farmstead. Historic documentation and archaeological materials can highlight the many different levels of networks that the Peterson farmstead and other farmsteads participate in historically and into the modern day. On the Peterson farmstead, these include local, local-commercial, area-commercial, regional, national, and even international networks. Material encountered archaeologically in turn indicates the types of materials that are involved within these networks. In particular, materials produced or created within the farmstead, contrasted with those purchased or brought onto the farmstead, illuminate concepts of the different types of materials associated within these networks. In addition, histories of other regional farmsteads would be beneficial in understanding the wider local community that the Peterson farmstead was a participant.

Maple Sugar and Orchard Production Activities

Archaeological investigations also highlight different forms of production activities within the Peterson farmstead. Of the production activities, maple sugar exploitation and the orchard offer insight into different and contrasting production techniques employed on farmsteads. As a naturally occurring resource, the exploitation of maple sugar requires very little set up or maintenance, though higher levels of

processing are required to create a useable product. In contrast, the Peterson's orchards required much more planning and constant maintenance in order to be productive. These differences in production methods and techniques highlight both the wide array of resources and goods produced on the farmstead as well as show the adaptation and expanded skillset employed on farmsteads. Both maple sugar exploitation and the orchard highlight how resources and goods were utilized on the Peterson farmstead at different times of the year to create a fully functioning and continuously operational farmstead.

Re-use and Trash

Finally, archaeological deposits on the Peterson farmstead also allow for interpretations of re-use and useable material on farmsteads. Analysis of materials related to mechanical hardware and components of tools allow for interpretation of the fixing of materials and the skillsets involved in mending materials. These concepts highlight examples of the extension of use-life and usefulness of specific objects and tools on the farmstead. In addition, re-use and specifically the materials related to recycling of objects and tools give opportunities for interpretation of current and historical understandings and perceptions of trash and non-useable objects. The evolving uses for materials also illustrates how materials are altered and utilized for needed purposes on farmsteads rather than being purchased or acquired from outside areas, allowing for interpretation of self-sufficiency and self-reliance within the farmstead environment.

Interpretation Summary

Archaeological evidence and investigations support and offer different opportunities for interpretation on the Peterson farmstead than those available through archival materials alone. Low visibility and underrepresented histories farmstead life can be accessed through these interpretations. Archaeological interpretations can highlight specific areas for representation and explanation within the farmstead, expand understandings and perceptions to broader time periods, expose and explore wider trade and interaction spheres, contrast forms of production, and highlight attitudes of reuse and trash within the Peterson farmstead environment. These interpretations offer

opportunities for better understandings of the Peterson farmstead as well as Upper Midwest farmsteads as a whole.

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APPENDIX


North Barn
NE Garden
Woodshed
Smokehouse
Farmhouse
Well
Middle Barn
Granary
SW Garden
Milk House
South Barn
Apple Orchard
Log House
N
0 5 10 20 30 40
Meters
Historic Andrew Peterson Farmstead
1885 Layout


North Barn
Chicken Coop
East Corn Crib
West Corn Crib
Smokehouse
Woodshed
Storage Building
1917 Barn
Farmhouse
Well
Milk House
Granary
South Barn
Orchard
0 5 10 20 30 40
Meters
N
Historic Andrew Peterson Farmstead
1917 Layout


Bone Mill
NorthBarn
Hog Pen
Outbuilding
Chickencoop
East Corn Crib
Garden
Outbuilding
West Corn Crib
Woodshed
Smokehouse
Storage Building
Well
1917 Barn
Farmhouse
Garden
Garden
Shop House
Milk House
Granary
South Barn
Peltz Farmhouse
Remnant Orchard
N
0 5 10 20 30 40
Meters
Historic Andrew Peterson Farmstead
1930 Layout

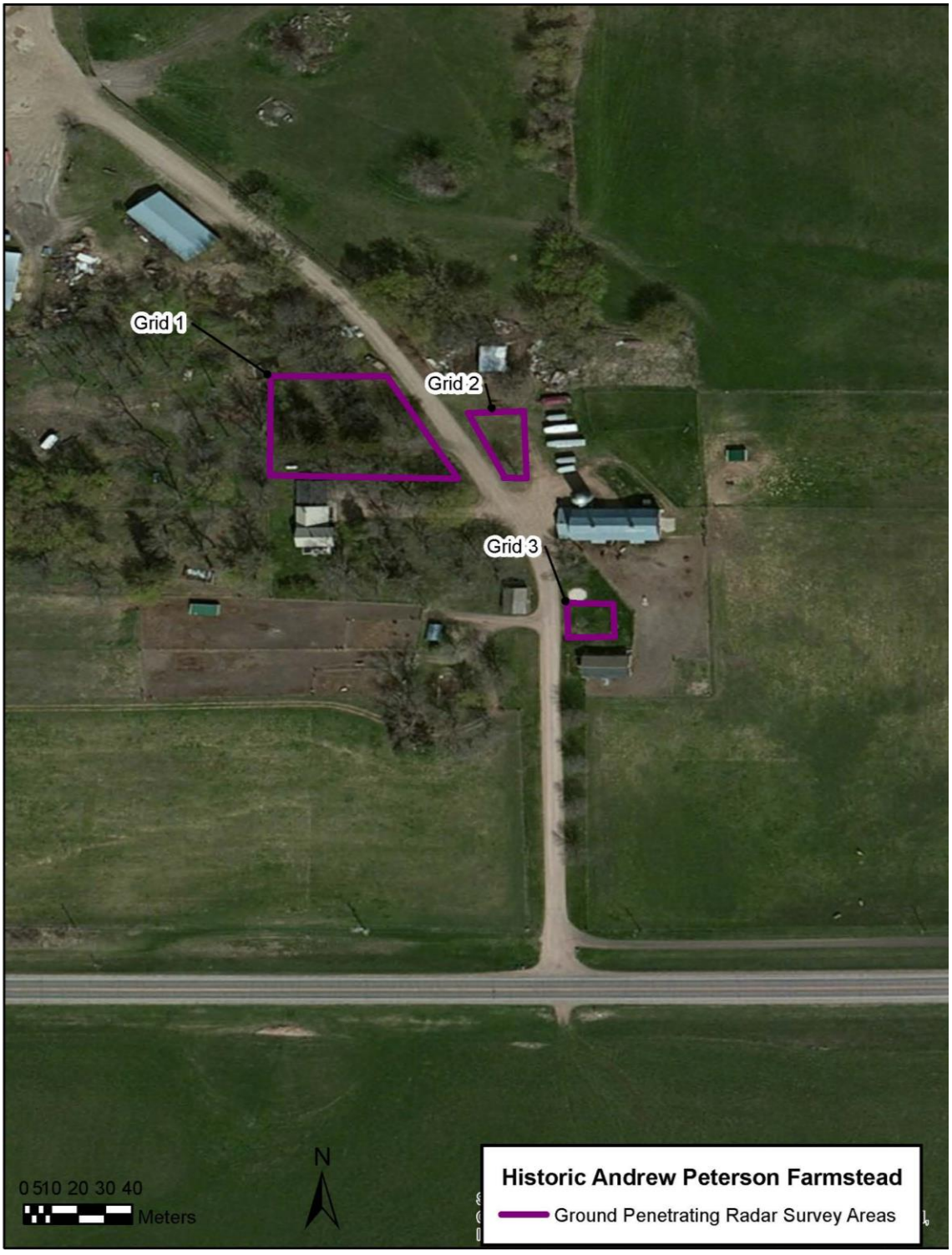

Bone Mill (Unknown)
North Barn
Unknown Structure
Unknown Structure
Garage (Unverified)
Farmhouse
Unknown Structure
1917 Barn
Shop House (Unverified)
Unknown Structure
Granary
South Barn
Peltz/Tenant Farmhouse
N
0 5 10 20 30 40
Meters
Historic Andrew Peterson Farmstead
1937 Layout


North Barn
Unknown Structure
Unknown Structure
Garage (Unverified)
Unknown Structure
Farmhouse
Unknown Structure
Unknown Structure
1917 Barn
Granary
Unknown Structure
Shop House (Unverified)
South Barn
Peltz/Tenant Farmhouse
N
0 5 10 20 30 40
Meters
Historic Andrew Peterson Farmstead
1940 Layout

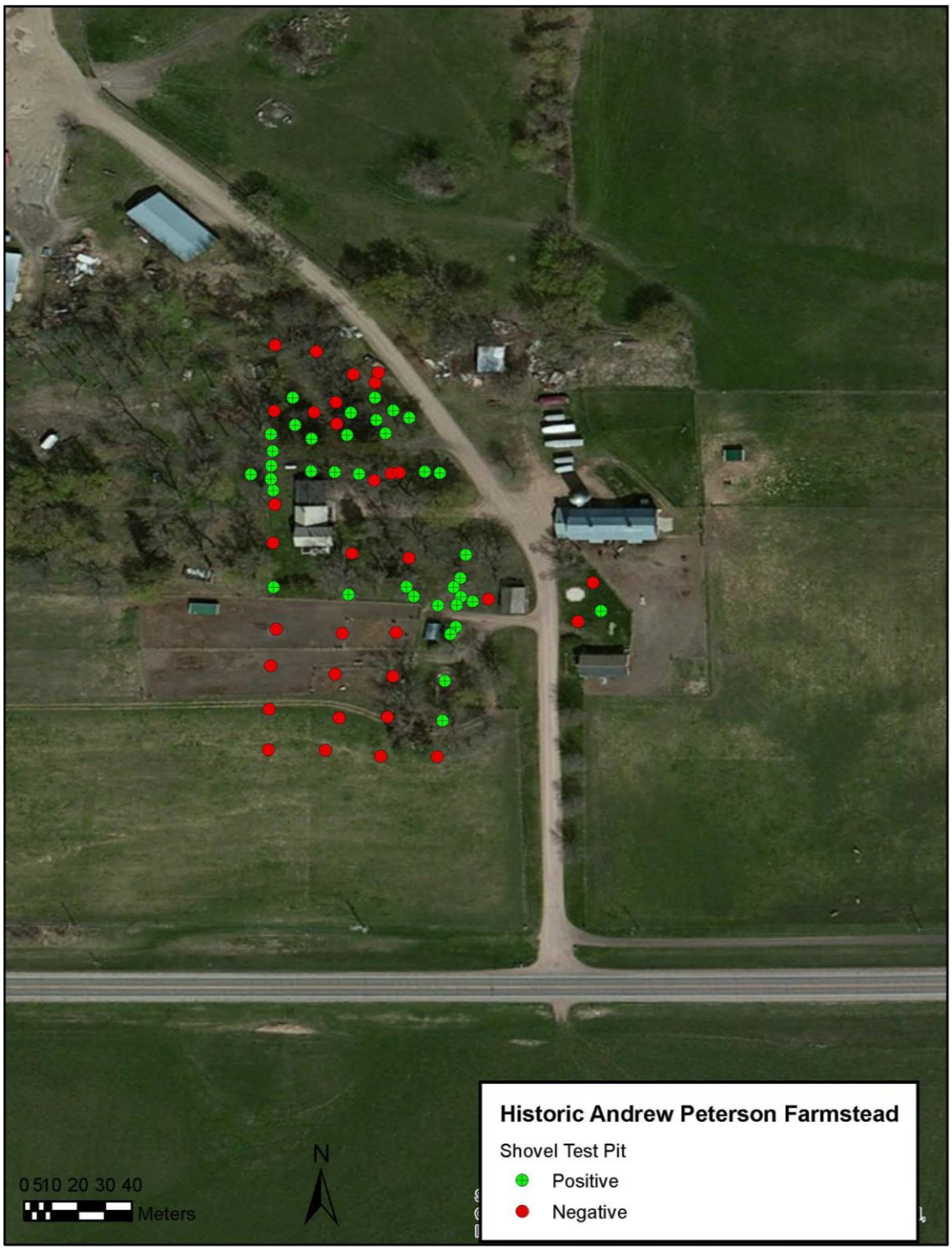

North Barn
Unknown Structure
Unknown Structure
Unknown Structure
Unknown Structure
Garage (Unverified)
Farmhouse
Unknown Structure
Unknown Structure
Unknown Structure
1917 Barn
Shop House (Unverified)
Unknown Structure
Granary
Unknown Structure
South Barn
Peltz/Tenant Farmhouse
N
0 5 10 20 30 40
Meters
Historic Andrew Peterson Farmstead
1945 Layout


Unknown Structure
North Barn
Unknown Structure
Unknown Structure
Garage (Unverified)
Unknown Structure
1917 Barn
Farmhouse
Unknown Structure
Unknown Structure
Granary
Unknown Structure
South Barn
Shop House (Unverified)
Peltz/Tenant Farmhouse
N
0 5 10 20 30 40
Meters
Historic Andrew Peterson Farmstead
1960 Layout


0 5 10 20 30 40
Meters
N
Historic Andrew Peterson Farmstead
Investigation Areas


Grid 1
Grid 2
Grid 3
0 5 10 20 30 40
Meters
N
Historic Andrew Peterson Farmstead
Ground Penetrating Radar Survey Areas


Maple Sugaring Pit
North Barn
North Wooded Lot
Octagonal Concrete Pad
Peltz Farmhouse Foundation
0 5 10 20 30 40
Meters
N
Historic Andrew Peterson Farmstead
Artifact Scatter
Structural Features


Historic Andrew Peterson Farmstead
Shovel Test Pit
Positive
Negative
N
0 5 10 20 30 40
Meters


EU_1
EU_2
EU_4
EU_3
0 5 10 20 30 40
Meters
N
Historic Andrew Peterson Farmstead
Excavation Unit