COMING THROUGH WITH RYE

An Historic Agricultural Landscape Study of South Manitou Island at Sleeping Bear Dunes National Lakeshore, Michigan

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National Field Area, National Park Serivce
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FOREWORD

During the past several years, the Midwest Regional Office of the National Park Service has been sponsoring a series of projects that focus on the historic agricultural landscapes at Sleeping Bear Dunes National Lakeshore in Michigan. South Manitou Island is a part of the Lakeshore. The historic landscapes at South Manitou Island provide an excellent opportunity for presenting examples of the changes that occur at historic sites. On the island there is a rare opportunity for visitors to experience remnants of pre-settlement landscapes (dunes and giant cedars); examples of exploration and settlement (graves and ruins); displays of agricultural development related to homesteading and scientific agriculture (farms and landscape components); and portrayals of the regeneration of logged and farmed landscapes into second growth climax forest. Not only do each of these examples exist for island visitors to see and experience first hand on the island, but they are intertwined--all occur within an area of fewer than 5,500 acres. This is a place where even the most casual visitor is struck by the changes that have taken, and continue to take place, in the landscape.

This report endeavors to identify, evaluate, and provide management recommendations for the historic agricultural landscapes at South Manitou Island. The inventory and evaluation were conducted by applying accepted methods as outlined in several national guidelines that address cultural landscapes and rural historic sites. An inventory and analysis which compared existing and previous conditions indicated that many physical reminders of historic use are still evident. These include historic farmsteads with buildings, large expanses of old fields, remnant orchards, farm implements, domestic plants (lilac, rhubarb, asparagus, roses, raspberries, and others), and grave sites. Based on the evaluation a *rural historic landscape district* was defined. The South Manitou Island Historic Agricultural District is recommended for nomination as a National Register District. The district is significant according to Criterion A because of its association with the transformation of rural agriculture in America from general farming to scientific agriculture spanning a period from 1838 to 1940.

Once the island's historic agricultural sites were determined to be eligible for nomination to the National Register, it became evident that new management directives need to be considered for South Manitou Island. The existing management philosophy, for example, emphasizes *natural* resource preservation and gives minimal attention to the preservation of South Manitou's historic agricultural sites. To aid park managers in the development of a resource management plan that integrates both *natural* and *cultural* landscape management concerns, a series of management alternatives was developed. Alternative goals for resource management were generated, ranging from those that give greatest emphasis to natural resource preservation to others emphasizing cultural resource preservation. Each goal was evaluated in terms of its effect upon cultural landscapes, as well as its effect upon natural landscapes. Finally, a management approach was recommended for the preservation of the resources associated with the proposed Historic Agricultural District at South Manitou Island.

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Chapter 1
INTRODUCTION

Purpose and Scope of the Project

During recent years, there has been a movement toward increased awareness and appreciation of America's vernacular cultural landscapes. Since the 1980's, the National Park Service (NPS) has been a leading organization in this movement, and has begun to consider new management techniques for many of its properties where human interaction with the land has been especially significant.

Sleeping Bear Dunes National Lakeshore (SLBE) is one such NPS unit. The use of the land for agriculture, natural resource extraction, and recreation--all of which occurred prior to the establishment of the Lakeshore--has left indelible imprints on the landscape. The task of identifying the cultural traces that are significant and worthy of preservation and interpretation is a challenge for NPS managers. Determining the most appropriate management goals for historic landscapes in the National Park system is a complicated task that often involves making comparisons between two distinct resource management worldviews. It involves integrating decision-making efforts in order to preserve both natural and cultural landscape resources. To help the Lakeshore staff deal with these issues, the Midwest Region of the National Park Service has sponsored several projects that focus on the historic agricultural landscapes at Sleeping Bear Dunes National Lakeshore.

The overall purpose of this report is to document and make a comprehensive evaluation of the historic agricultural landscape components and patterns at South Manitou Island. The report focuses upon extant agricultural resources that remain on the island by: 1) identifying and documenting its significant historic/cultural landscape resources; and 2) evaluating the interpretive potential of these resources as they relate to the history of agriculture in the region. In addition, the project considers the historic relationships that existed between islanders and the land, but which are no longer apparent in its natural features. More specifically, the following objectives are addressed throughout the report:

- *To determine the overall significance of South Manitou Island as part of regional agricultural, settlement, and ethnic patterns. This includes utilizing the two previous reports to compare the island with the entire two-county region and the Port Oneida district on the mainland. These comparisons consider microclimates, soil capabilities, vegetation, population, farming techniques, and island logistics.*
- *To make detailed assessments of the fourteen homestead claims that were filed for island property and, whenever possible. trace the evolution of these homesteads over ensuing years.*
- *To undertake a detailed study that evaluates South Manitou's previous importance, both in the region and state, as a producer of certain hybrid seed crops, (e.g., Rosen rye and Michelite beans.)*
- *To assess the physical/natural conditions that made the island a focal point for establishing the above crops. This includes a discussion of South Manitou's indigenous natural resource characteristics, including its native plant communities, soil types, and microclimates.*
- *To document the surviving agricultural features on South Manitou Island. This includes the preparation of measured drawings documenting the architectural and landscape features of existing farmsteads and buildings.*
- *To evaluate the significance and integrity of the island's extant agricultural farmsteads, buildings, and landscapes within the context of regional agricultural history.*
- *To evaluate the extant resources of South Manitou Island within the context of the vernacular and ethnic architectural expressions that are found in the Upper Great Lakes region.*
- *To assess the potential of each extant farmstead site and other individual buildings on the island for interpretation in terms of the following themes: agricultural history, ethnic settlement, and architecture.*
- *To recommend priorities for preserving and managing the identified resources that may be considered by NPS staff and managers.*

These objectives are meant to provide a basis for determining which of the island's resources are primary--i.e., (possess the highest level of significance, integrity, and potential for thematic interpretation)--and which properties are eligible for nomination to the National Register of Historic Places.

Determining Significance and Integrity

An in-depth review of National Register criteria for evaluating rural historic landscapes and of cultural landscape reports for several NPS sites was undertaken before the data collection phase of this project was initiated. This ensured that the collected data would effectively provide a basis for determining significance and integrity levels of historic agricultural landscapes on South Manitou Island. The ensuing paragraphs provide a summary of the guidelines used to determine significance and integrity of rural historic landscapes.

National Register Bulletin #30 (Guidelines for Evaluating and Documenting Rural Historic Landscapes) provides guidance for the preparation of nominations to the National Register of Historic Places. In this document, a *rural historic landscape* is defined as "a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features."[1] To be eligible for listing on the National Register of Historic Places, a property must satisfy the criteria for historical significance and integrity.

In order to determine significance and integrity it is essential to understand the historical contexts of a property. This involves an in-depth evaluation of the site. Such an evaluation concentrates on the "presence of tangible landscape features and the evidence of the processes, cultural and natural, that have shaped the landscape."[2] A review of historical facts and survey data is necessary to verify the presence of historic landscape characteristics that are in a sufficiently representative condition to convey the history of a community or region. A comparison of properties that relate to the same historical contexts can help identify those that are eligible for listing on the National Register, and to determine the relative level of significance: local, state, or national.

According to Bulletin #30, *significance* is "ascribed by specific criteria and weighed within the framework of a community, region, or State's historic contexts."[3]

[1] Linda Flint McClelland, et al., Guidelines for Evaluating and Documenting Rural Historic Landscapes. National Register Bulletin #30 (Washington, D.C.: National Park Service), 1-2.
[2] Ibid., 12
[3] Ibid., 2

Historic contexts provide background information about the trends and patterns that shaped a particular geographical area. This information links a rural property with important historical themes, such as dairy farming or cattle grazing, and indicates whether the property is unique or representative of its time and place. Contextual information also provides for the grouping of properties having similar patterns of historic development, thereby making it possible to weigh their relative importance. The definition of significance is divided into three parts: 1) applying National Register criteria; 2) selecting areas of significance; and 3) defining the period of significance.

National Register Criteria

To apply National Register criteria, one must determine if the property possesses significance in at least one of the four aspects of cultural heritage. Criterion A applies to properties that "are associated with events that have made a significant contribution to the broad patterns of our history." Criterion B applies to properties "associated with the lives of persons significant in our past." Criterion C applies to properties that "embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction." Criterion D applies to properties that "have yielded, or may be likely to yield, information important in prehistory and history."[4]

In addition to properties that meet criteria A through D, there are some "exceptions" that may also be considered eligible. "Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years ..." are not considered eligible. However, these types of properties will qualify if they are "integral parts of districts that do meet the criteria," or if they fall within one of seven categories of exceptions.[5]

[4] Ibid., 20
[5] Ibid.

Areas of Significance

The area of significance is "that aspect of history in which a rural property, through use, occupation, physical character, or association, influenced the development or identity of its community or region."[6] There are ten areas of significance that commonly apply to rural landscapes: agriculture, architecture, archeology, community planning and development, conservation, engineering, exploration/settlement, industry, landscape architecture, and science. Since landscapes and their cultural influences change continuously, a landscape may have several areas of historical significance. Therefore it is important to develop "an understanding of the landscape as a continuum through history" in order to assess its cultural and historic value. The features that contribute to the significance of a landscape must be present in order for the landscape to have integrity.[7]

Periods of Significance

The period of significance is the "span of time when a property was associated with important events, activities, persons, cultural groups, and land uses or attained important physical qualities or characteristics."[8] The period of significance begins with the date of the earliest land use or activity that has importance in an area, and which is reflected by historic characteristics that still remain obvious. The period ends with the date when events, activities, and construction that have historic importance cease to occur. Properties that have evolved and achieved importance during separate periods, some spanning several hundred years, may have a number of periods of significance. All landscape characteristics should be considered: buildings and structures may date to one era, while roads, field patterns, and archeological sites refer to earlier ones.[9]

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[6] Ibid.
[7] Charles A. Birnbaum, Protecting Cultural Landscapes: Planning. Treatment and Management of Historic Landscapes Preservation Brief #36 (Washington, D.C.: National Park Service, Cultural Resources, 1994), 10.
[8] McClelland, et al., 21.
[9] Ibid.

Figure 1. South Manitou Island's Chicago Road (ca. 1900)

Chapter 2
CULTURAL LANDSCAPES

Definition of Cultural Landscapes

Landscapes affected by human manipulation are often called "cultural landscapes." This term was first used in the United States by geographer Carl Ortwin Sauer when he distinguished between cultural and natural landscapes in 1925. He defined the cultural landscape as being fashioned from the natural landscape by a cultural group. Sauer wrote extensively about human-land relationships and defined the interactions that form cultural landscapes. In describing humans as manipulators, Sauer stated the following: "Culture is the agent, the natural area is the medium, the cultural landscape the result."[1]

Other definitions of cultural landscapes vary depending on the purpose for which the term is being used. The National Park Service defines cultural landscapes as geographic areas that include "both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values."[2] In this report, a cultural landscape is defined as follows:

- *Cultural landscape*--an area that is being controlled by human interaction, or still has the dominant appearance of the effect of such interaction, even if the activity is no longer occurring.

In contrast to this, a natural landscape is defined in the following manner:

- *Natural landscape*--an area that has little or no indication to the casual viewer of human interaction currently being present.

While the separation of natural and cultural landscapes is useful for discussion, it also can be considered a false abstraction due to the inherent integration of the cultural and natural aspects of landscapes, or the "reality of the union of physical and cultural

[1] Carl 0. Sauer, "The Morphology of Landscape," in Land and Life: A Selection from the Writings of Carl Ortwin Sauer, ed., by John Leighly (Berkeley, CA: University of California Press, 1967, originally published in 1925), 343.

[2] Charles A. Birnbaum, "Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes," Preservation Briefs 36 (Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance Division, 1994), 1.

elements of the landscape."[3] Interaction with the land is a basic element of human life, and throughout history the survival of people has been closely related to the land on which they live, and their ability to understand and manipulate it. In 1952 Sauer said of humans:

> … with each new skill he found in his surroundings more opportunity, or "resources," to fashion products of use to himself, to improve his well-being, and to increase his numbers. An environment can only be described in terms of the knowledge and preferences of the occupying persons: "natural resources" are in fact cultural appraisals.[4]

Sauer viewed humans as parts of ecological systems, with their actions on the land being expressed in the form of cultural landscapes. He stated that geography "is or should be aware not only of the dependence of life on the physical environment, but also of the interdependence of living things in a common habitat, or of total ecology."[5] Sauer, who was intensely aware of the ability of humans to impact ecological systems, referred to them as "agents of modification." He continued his assessment with the following observation:

> The works of man express themselves in the cultural landscape. There may be a succession of these landscapes with a succession of cultures. They are derived in each case from the natural landscape, man expressing his place in nature as a distinct agent of modification. [6]

In this view, the activities of people are closely related to the opportunities presented by the natural landscape.

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[3] Sauer, 325.
[4] John Leighly, "Introduction," in Land and Life: A Selection from the Writings of Carl Ortwin Sauer (Berkeley, California: University of California Press, 1967), 2.
[5] Ibid., 1.
[6] Sauer, 333.

When considering Sauer's discussions, the division of cultural landscapes from natural landscapes may appear to be an artificial separation. However, it is a division that is useful for the purposes of this report. Other views that indicate problems with this division include the idea that interactions between humans and natural systems are a part of nature--because humans themselves are considered parts of natural systems. This view is one to which this report adheres. In the case of South Manitou Island, however, it would lead to the definition of the entire island as a cultural landscape, limiting the ability to contrast the visually apparent cultural areas with ones that appear natural. The definitions provided above allow a division to be made between these two types of landscapes, thereby facilitating considerations of historical integrity and landscape management.

Another view indicates that if utilization or disturbance by humans is considered to alter natural systems permanently, then there are few or no natural systems in existence. This viewpoint was expressed by geographer Peirce Lewis, who stated that it is "proper and important to think of cultural landscape as nearly everything that we can see when we go outdoors." While the "noun 'landscape' evokes images of snow-capped mountains and waves beating on a rock-bound coast," Lewis has stressed that "nearly every square millimeter of the United States has been altered by humankind somehow, at some time."[7] This is an important consideration, but it should not be allowed to limit the usefulness of the concept of cultural landscapes by suggesting that they contain everything and therefore describe nothing specifically. According to D. W. Meinig, landscape is related to nature, but is not identical to it. Meinig has written that "nature is a part of every landscape, but is no more than a part of any landscape which has felt the impact of man. In this view landscape is always inclusive of man and nature, rather than a way of distinguishing, or at least emphasizing, nature..."[8]

All of South Manitou Island's landscapes have been disturbed at some level. For the purposes of this study, land disturbed by humans a long time ago is considered as

[7] Peirce F. Lewis, "Axioms for Reading the Landscape: Some Guides to the American Scene," in The Interpretation of Ordinary Landscapes: Geographical Essays. ed., D.W. Meinig (New York: Oxford University Press, 1979), 12.
[8] D W. Meinig, "Introduction", in Meinig, The Interpretation of Ordinary Landscapes Geographical Essays (New York: Oxford University Press, 1979), 2.

natural if it has been left to regenerate on its own. Following this logic the perceived "naturalness" of an area would be higher if the disturbance were inflicted in the distant past. Somewhere there is an imaginary line that divides the natural from the cultural landscape, but its definition constantly changes. It changes according to the specific situation and the variables that are present. How much intervention occurred, how long it occurred, how long ago it occurred, and what type of impact it made are to be considered in determining when a natural system becomes a cultural system, and when or if it changes again to be a natural system. Many of the cultural landscapes on the island have been (or are being) taken over by natural processes, and it is often difficult to decide to which group they belong. Therefore, the definitions of cultural landscapes stated above are helpful for this project.

Types of cultural landscapes

When cultural landscapes are considered on a case-by-case basis, their significance, as related to the human activities and relationships with the land, should be used to define their value. The National Park Service currently recognizes four types of cultural landscapes: historic sites; ethnographic landscapes; historic designed landscapes; and historic vernacular landscapes.[9]

Historic sites and scenes are landscapes deemed significant because of their association with "a historic event, activity, or person." Battlefields such as Manassas and Antietam, as well as presidential houses and their grounds, are examples of historic sites. Ethnographic landscapes are properties that contain a "variety of natural and cultural resources that associated people define as heritage resources." These include settlement sites, religious sacred sites, and massive geological structures. Historic designed landscapes are those "consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition." These landscapes can be distinguished because of their individual significance, but usually they are related to a

[9] Birnbaum, "Protecting Cultural Landscapes", 1.

particular designer, trend, or event that has had a significant impact upon the style of that period.[10] The fourth type, historic vernacular landscapes, are defined as those that …

> "evolved through use by the people whose activities or occupancy shaped that landscape. Through social or cultural attitudes of an individual, family or a community, the landscape reflects the physical, biological, and cultural character of those everyday lives. Function plays a significant role in vernacular landscapes. They can be a single property such as a farm or a collections of properties such as a district of historic farms along a river valley. Examples include rural villages, industrial complexes, and agricultural landscapes."[11]

Vernacular landscapes often provide examples of the symbiotic relationships that occur between humans and the land. A greater understanding of these landscapes may provide an important link in our comprehension of human-land relationships. Current concerns about the sustainability of environmental and human systems indicate a need for better mechanisms to deal with human-land interactions. Some clues, or even answers, may lie in the innovative ways that people have dealt with and related to the land in the past.

To J. B. Jackson, the "dean" of landscape studies in the United States, vernacular landscapes are important and need to be observed, studied, and ultimately understood in order to begin to grasp the societal use of space and the organization of places. In 1984 he stated that a "vernacular culture would imply a way of life ruled by tradition and custom, entirely remote from the larger world of politics and law; a way of life where identity derived not from permanent possession of land but from membership in a group or super-family."[12] Landscape architect Michael Hough also has written about

[10] Ibid., 2.
[11] Ibid.
[12] John Brinckerhoff Jackson, Discovering the Vernacular Landscape (New Haven, Connecticut: Yale University Press, 1984), 149

vernacular landscapes, stating that "the differences between one place and another have arisen, not from efforts to create long-range visions and grand designs, but from vernacular responses to the practical problems of everyday life."[13]

Often the landscape "draws historical or cultural significance from long and distinctive use by the people who live on it."[14] Groups of people around the world, especially in pre-industrial, agricultural societies, have lived according to different cultural norms and surroundings. These cultural norms, as well as environmental situations, result in a variety of attitudes and symbols that people use to relate to the land. People use the land and leave their imprint on it -- in the form of fences, roads, structures, and even place names. "Thus the land has historical or cultural value," according to Melody Webb, "in its portrayal of a particular human use."[15] The preservation and interpretation of vernacular landscapes can play a key role in our understanding of the ways that humans have interacted with the land in the past. Since cultural landscapes "may be thought of simply as the interface between human activities and the land," Arnold Alanen, in referring to rural historic landscapes (a type of vernacular landscape), has stated that "when more of these intuitively shaped landscapes are understood, the richness of America's past will be better appreciated."[16]

The historic agricultural landscapes at South Manitou Island provide an example of a rural historic landscape. On this Lake Michigan island, the lives of residents were intimately intertwined with the land on which they lived. Understanding those relationships, and evaluating the remaining traces of them, is a primary goal of this project. How management decisions should be made for these landscapes is the other major goal.

[13] Michael Hough, Out of Place Restoring Identity to the Regional Landscape (New Haven, Connecticut: Yale University Press, 1990), 179.
[14] Melody Webb, "Cultural Landscapes in the National Park Service", The Public Historian 9, (No. 2, 1987), 77
[15] Ibid.
[16] Arnold R. Alanen, "Considering Cultural Landscapes," Historic Preservation Forum (January/February, 1991), 20 and 23.

Chapter 3
PHYSIOGRAPHIC AND GEOGRAPHIC CONTEXT

Location

Sleeping Bear Dunes National Lakeshore is located on the northwestern shore of Michigan's lower peninsula. It is a region of rolling hills, glacial lakes, and massive coastal sand dunes. In addition to the mainland portion, the Lakeshore includes two islands, North and South Manitou. South Manitou Island is a distinctive area of the Lakeshore. It is located roughly seventeen miles west of Leland, Michigan, and is approximately eight square miles (or 5,260 acres) in size.

Major features associated with the island include the natural deep-water harbor at its eastern edge, a village and lighthouse at its southeastern corner, perched sand dunes on the western shore, forest communities composed of northern hardwoods and conifers located in the interior sections, and historic farm sites interspersed throughout its central area.

FIGURE 2
LOCATION OF THE STUDY AREA IN THE UPPER MIDWEST

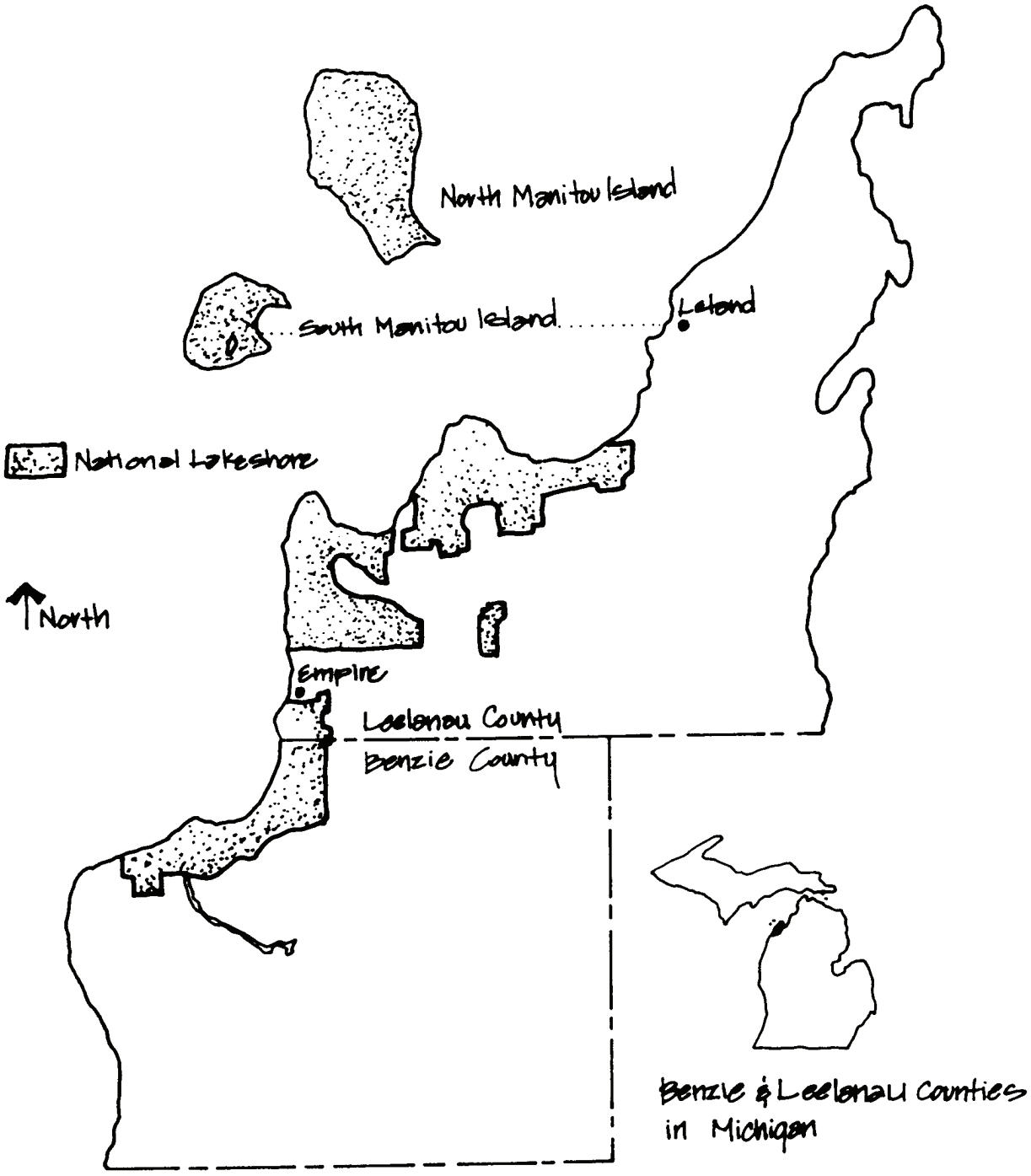

FIGURE 3
LOCATION OF THE SLEEPING BEAR DUNES NATIONAL LAKESHORE IN LEELAUAU AND BENZIE COUNTIES

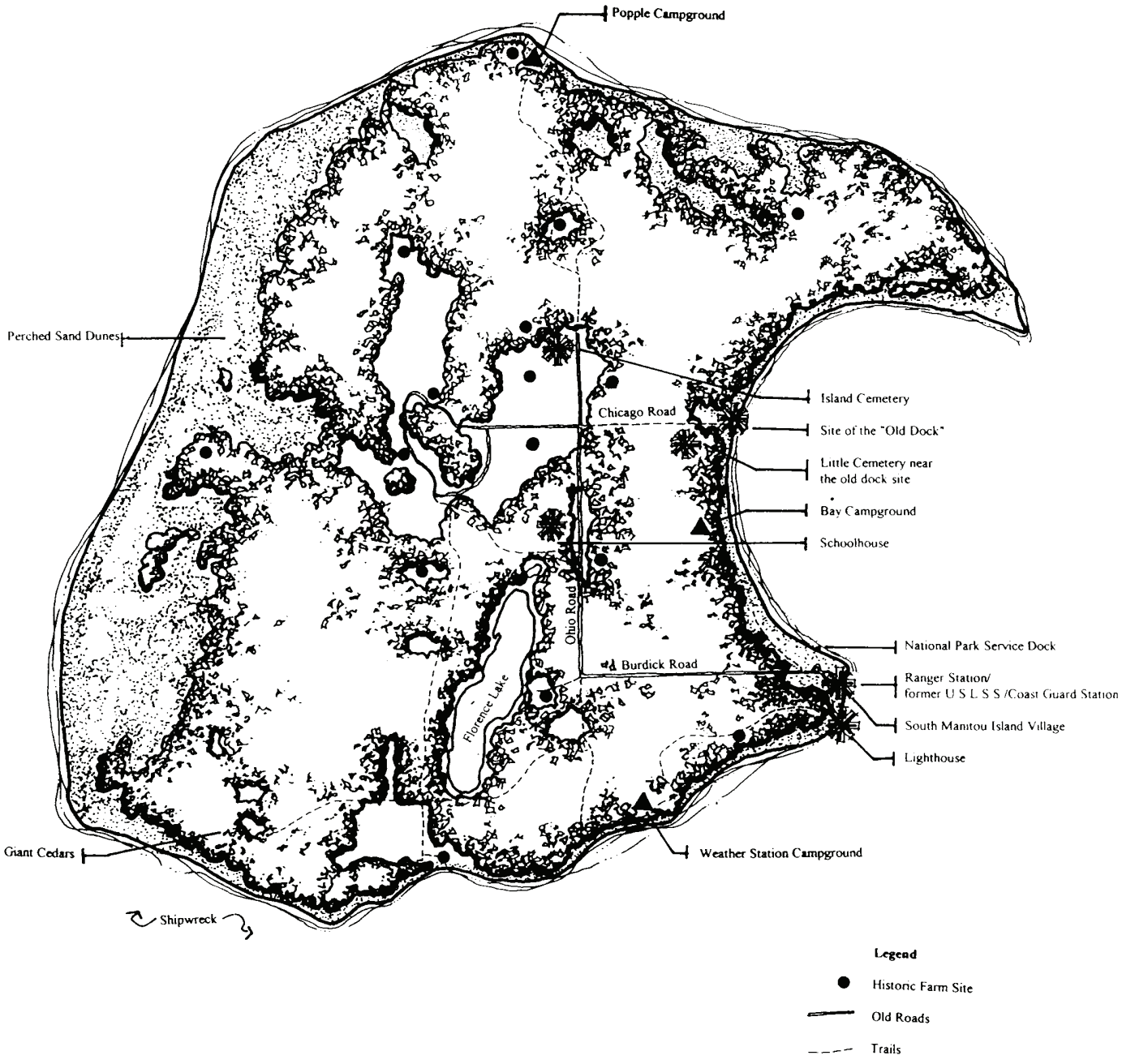

FIGURE 4
MAJOR PHYSICAL AND CULTURAL FEATURES
OF SOUTH MANITOU ISLAND

Glacial Activity

The surface features of the entire Sleeping Bear Dunes region were formed about 11,000 years ago during the Wisconsin glacial stage of the Pleistocene Epoch (Ice Age). The Wisconsin stage began about 70,000 years ago and lasted some 60,000 years. During this period, several glacial advances and retreats took place. Each of these "substages" lasted several thousand years, and are identified by the distinctive landscape features created during that period.[1]

The Port Huron Substage was one of the substages of the Wisconsin glaciation, occurring 11,000 years ago. The topography of the Sleeping Bear Dunes region was formed during this period. As the glacier retreated to the north, it created a series of moraines--hilly belts of ridges and mounds formed by glacial debris.[2]

The geologic base of South Manitou Island is made up of glacial moraine. A series of changes in the water level of the Great Lakes that occurred during a post-glacial period formed the island's outline and surface features. The changes to the Great Lakes involved the formation of several stages of fossil lakes which had surface levels that were both higher and lower than today's average of about 578 feet. These changes were caused by modifications in the drainage pattern of the retreating glacier due to extreme changes in flow during periods of advance and retreat. A resurgence of the remaining glacier cut off established drainage outlets, thereby forcing higher lake levels; in other instances, lake levels were lowered as new drainage openings were found.[3]

Soil Associations and Topography

The island's soils have been categorized into three general soil associations. Each covers approximately one-third of the island's surface area. The slopes on the island are closely associated with the soils and will be explained in conjunction with them.

The East Lake-Eastport-Lupton association is found on the eastern portion of the island, stretching from the harbor and southern shore to just west of Florence Lake. This

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[1] Olsen Haswell and Arnold R. Alanen, A Garden Apart An Agricultural and Settlement History of Michigan's Sleeping Bear Dunes National Lakeshore Region (Omaha, Nebraska and Lansing, Michigan: Midwest Regional Office, National Park Service and State Historic Preservation Office, Michigan Bureau of History, 1994), 6.
[2] Ibid., 5.
[3] R.H.Ruchhoft, Exploring North Manitou South Manitou. High and Garden Islands of the Lake Michigan Archipelago (Cincinnati, Ohio: Pucelle Press, 1991), 40.

soil association is characterized as "well drained and moderately well drained, nearly level to gently sloping, sandy soils, and very poorly drained, nearly level, mucky soils, on lake terraces and beach ridges."[4] These lowland soils are rated either marginal or submarginal for agricultural use due to their low fertility, poor drainage, and vulnerability to wind and wave erosion. The original forest cover included mixed cedar, spruce, tamarack, aspen, white birch, alder and willow, with oak and pine growing on drier sites.[5]

The second soil association touches the southern shore of the island just south of Florence Lake and stretches west and north, forming a band that is roughly located in the central portion of the island. This is the Emmet-Leelanau association, which is categorized as "well-drained, nearly level to very steep, loamy and sandy soils on moraines and till plains."[6] The Emmet soils are well suited to a wide variety of crops, and are among the more desirable orchard soils in frost-protected areas. Topographically, this soil association is characterized by rolling and hilly highlands. Soils of the Emmet series originally supported forests of sugar maple, beech, some yellow birch, black cherry, and elm.[7]

The third soil type is found along the island's western and northern shores. Termed the Deer Park-Dune soil association, it is well drained, strongly sloping to very steep, and represented by sandy soils on dunes.[8] The dunes on the island were formed during the same post-glacial low water periods that contributed to the formation of Lake Michigan. Prevailing westerly winds picked up sand that accumulated along the shore and deposited it inland, forming perched dunes. Perched dunes lie atop glacial highlands, sometimes hundreds of feet above the lake level. These dunes present a striking landscape feature, but their role in the island's agricultural history has been insignificant. The soil overlying the dunes is classified as submarginal for agricultural use due to its low fertility and vulnerability to wind erosion.[9]

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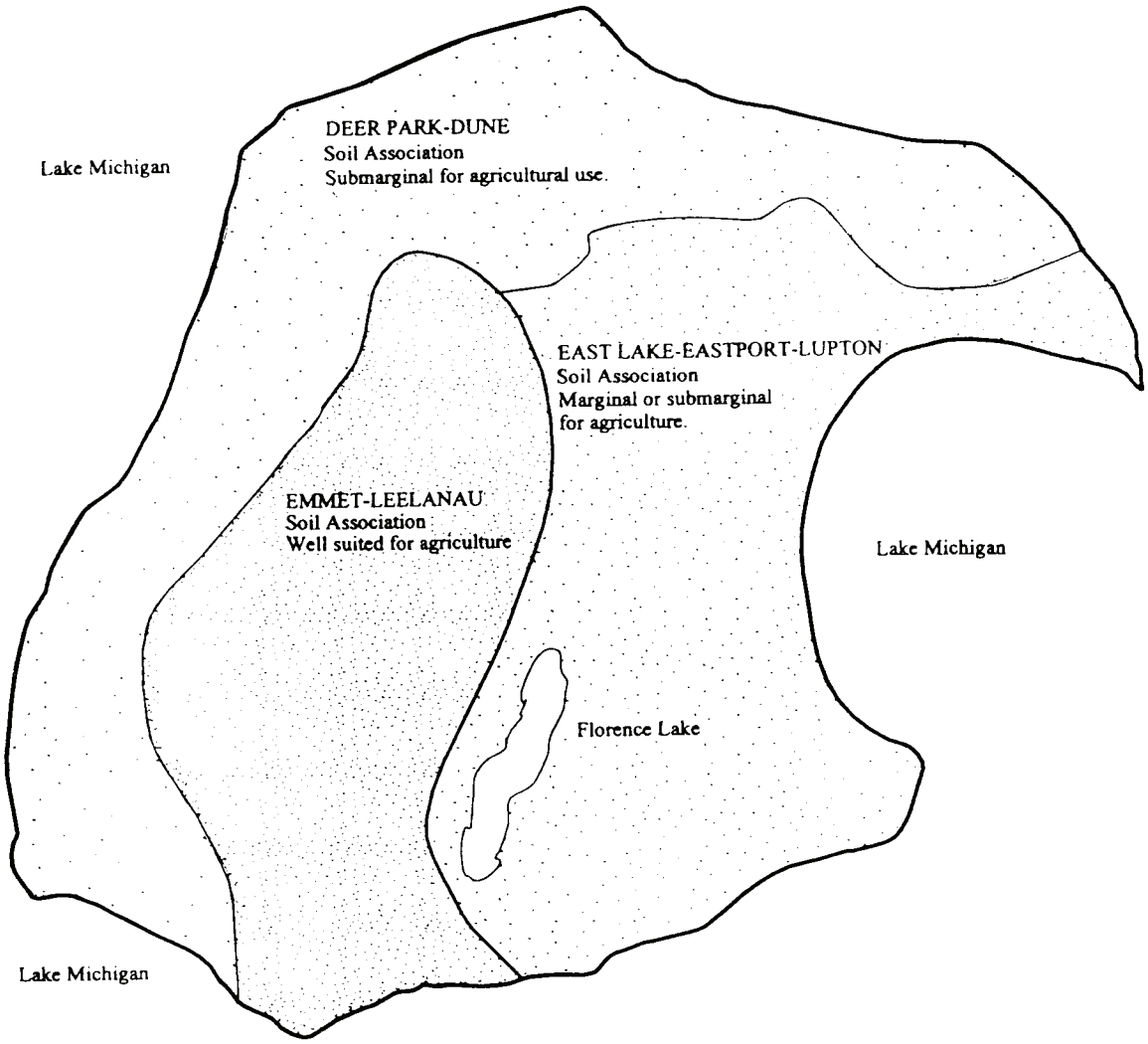
[4] Herman L. Weber, Soil Survey of Leelanau County Michigan (Washington, D. C.: USDA Soil Conservation Service, in cooperation with the Michigan Agricultural Experiment Station, 1973), 13-14.
[5] Haswelt and Alanen, 1994, 11.
[6] Weber, 1973, "General Soil Map," n.p.
[7] Ibid.
[8] Ibid.
[9] Haswelt and Alanen, 8.



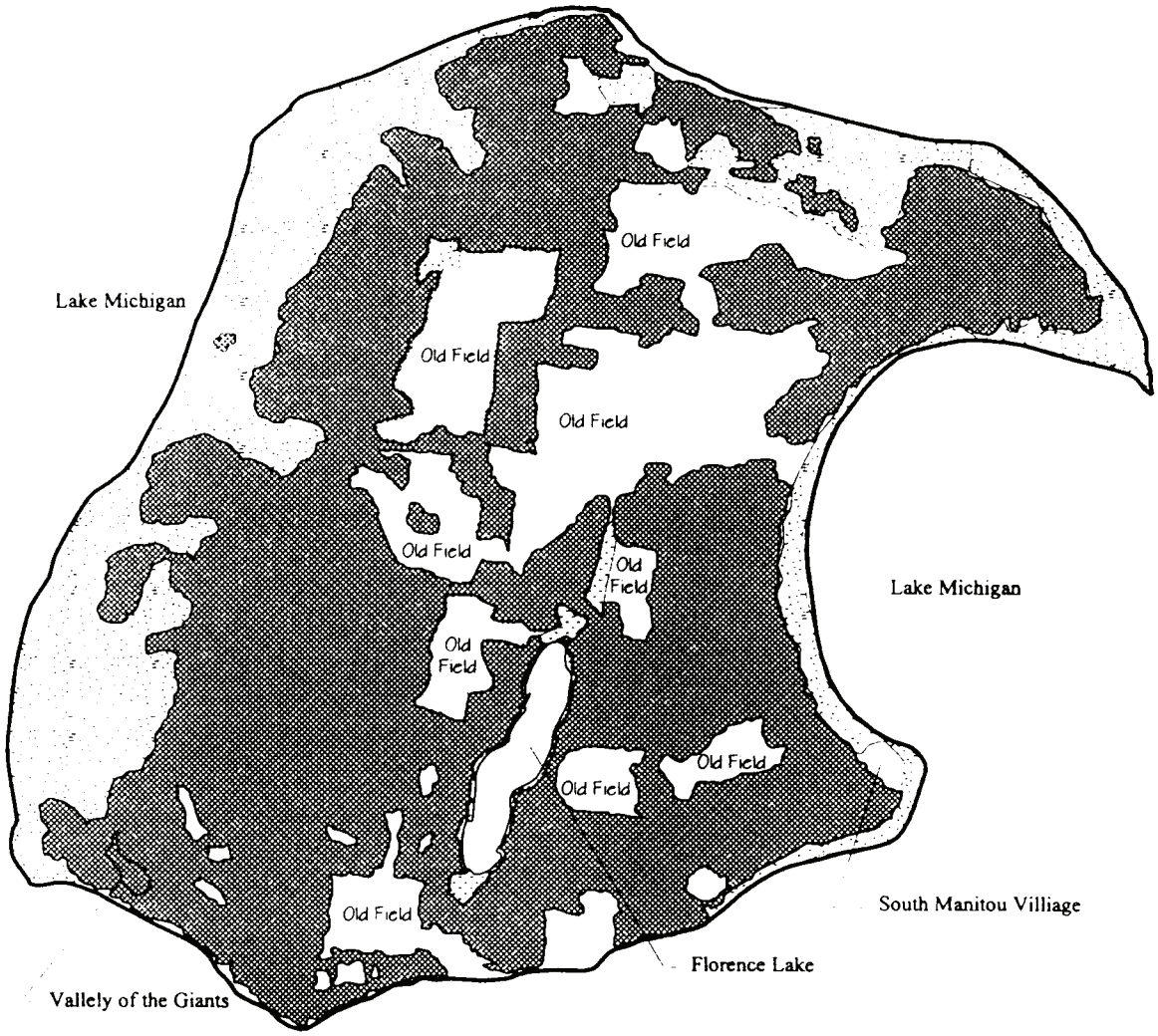
EAST LAKE-EASTPORT-LUPTON
This soil is characterized as well drained and moderately well drained, nearly level to gently sloping, sandy soils, and very poorly drained, nearly level, mucky soils, on lake terraces and beach ridges. These lowland soils are rated either marginal or submarginal for agricultural use due to their low fertility, poor drainage, and vulnerability to wind and wave erosion.

EMMET-LEELANAU
This soil is well-drained, nearly level to very steep, loamy and sandy soils on moraines and till plains. The Emmet soils are well suited to a variety of crops and are among the more desirable orchard soils in frost-protected areas.

DEER PARK-DUNE
This soil is characterized as well-drained, strongly sloping to very steep. It ocurrs as sandy soils on dunes.

Source: Derived from Hermann L. Weber, Soil Survey of Leelanau County, Michigan (Washington, D.C.: U. S. Government Printing Office, 1973), n.p.

FIGURE 5
SOIL ASSOCIATIONS OF SOUTH MANITOU ISLAND



WOODLAND COMMUNITIES
(Northern Hardwoods, Northern Conifers, and Coastal Forest)

WETLANDS

Old Field

OLD FIELDS
(Ranging from dense Juniper to past Juniper)

DUNES, SHORES, AND BLUFFS

Source: Derived from Brian T. Hazlett and Robert T. VandeKopple, The Terrestrial Vegetation and Flora of North and South Manitou Islands (Douglas Lake: University of Michigan Biological Station, 1983), n.p.

FIGURE 6
VEGETATION OF SOUTH MANITOU ISLAND

Vegetation

The island's vegetation is made up of several plant communities. They include Northern Hardwoods (subtypes: 1. Beech-Maple, 2. Beech-Maple-Yellow Birch-Hemlock, 3. Beech-Maple-Oak, 4. Beech-Maple-Ash, and 5. Maple-Ash-Basswood),Cedar-Maple-Ash (found in the Valley of the Giants); Northern Conifers; Coastal Forest (subtypes: 1. Mixed Pines, 2. Cedar-Fir- Aspen, 3. Hemlock-Hardwoods); Dunes; and Wetlands.[10] The understory for many of these communities is diverse, perhaps due in large part to the absence of deer on the island and the long time period since disturbance.

There also are large areas of abandoned farm fields and a lake (Florence Lake). The fields are remnants of originally forested land that was cleared for farms. Historically, the fields have been used for cultivation, grazing, and orchards. The relative amount of time since the fields have been abandoned can be determined by the extent of Juniperus cover in most areas.[11] In a study of the terrestrial vegetation and flora of the island done in 1983, the fields were divided into four subtypes representing various coverages of *Juniperus*: a) Dense Juniper – cover > 50%; b) Medium Juniper -- cover = 25 - 50%; c) Low Juniper -- cover < 25%; and d) Past Juniper -- declining / absent; some tree species.[12] The general pattern of field succession begins with the invasion of woody species including *Rosa, Rhus typhina, Juniperus communis*, and *Pyrus malus*. Eventually, other woody species begin to establish themselves within the field and eventually the field becomes forest.[13] The type and duration of human activity at a given site is bound to impact the succession process, but it is difficult to state this effect implicitly.

[10] Brian T Hazlett, The Terrestrial Vegetation and Flora of North and South Manitou Islands Sleeping Bear Dunes National Lakeshore (Douglas Lake, Michigan: University of Michigan Biological Station, Technical Report No.11, 1983), 8.

[11] There are 82 acres of old fields on the island that are managed according to the Lakeshore's Open Field Management Plan. Because the plan includes removal of Juniperus, the percentage of plant cover cannot be used to determine the length of time since those fields were abandoned.

[12] Hazlett, 8.

[13] Ibid., 20-21

Chapter 4
AGRICULTURAL HISTORY OF SOUTH MANITOU ISLAND

South Manitou Island is a distinctive area of Sleeping Bear Dunes National Lakeshore. The settlement and community that emerged and developed on this Lake Michigan island played a major role in the early history of the region. The island, for example, served as a fueling station for Lake Michigan steamers by the mid 1840s, about ten years before the nearby mainland area began to be populated by significant numbers of white settlers. While lumbering operations originally brought early settlers to the island, they quickly pursued agricultural activities after establishing themselves.[1]

Early island farming consisted of subsistence production, with the agricultural products being used to sustain local families. As the farmers established themselves and were able to produce limited amounts of surplus products, the extra quantities (primarily fruits or grain crops) were sold to steamboat operators on their way to Chicago, Buffalo, and other Great Lakes ports. Eventually, during the height of the island's agricultural activities, its isolated location served as a great advantage for the production of specialized hybrid seed crops. In particular, the island was selected as an ideal location for raising Rosen rye seed. Rye is open fertilized and will mix with air-borne pollen sources when they are available, weakening the desired traits of specialized strains. On the island it was possible to eliminate all other rye pollen sources because of its distance from the mainland and an agreement among the island's farmers to grow Rosen rye only. Due to their success growing high quality Rosen rye seed, the island's farmers won fame and received prizes at national and international seed exhibitions.[2]

[1] Myron Vent, South Manitou Island: From Pioneer Community to National Park (Eastern National Park and Monument Association, 1973); Susan Olsen Haswell and Arnold R. Alanen, A Garden Apart An Agricultural and Settlement History of Michigan's Sleeping Bear Dunes National Lakeshore Region (Omaha, Nebraska, and Lansing, Michigan: Midwest Regional Office, National Park Service and State Historic Preservation Office, Michigan Bureau of History, 1994); Orange Risdon, "Surveyor's Map" (Detroit: Surveyor General's Office, 1848). The survey map contains the earliest documentation of agriculture on the island. The sketch map depicts an area shown as "improvement, 15 or 20 acres." The improved area was located in the southeastern portion of Section 33 and the southwestern portion of Section 34.

[2] Haswell and Alanen, 104-108

The island community included people with various backgrounds and occupations. They were engaged in lumbering, farming, fishing, and land speculation. Other people were employed by the U.S. Life-Saving Service (later the U.S. Coast Guard), and as lighthouse keepers, schoolteachers, postmasters, and storekeepers.[3] These people relied heavily on one another. Once on the island, their cooperation was important to ensure survival.

The areas of significance that serve as the foci for this project are exploration/settlement, agriculture, and science. The exploration and settlement phase of the island will be considered as the time period that begins when the first documented settler established residence on the island (ca. 1838), and ends in 1863 when a number of homestead claims were made.

On the island, *agricultural* use occurred from approximately 1847 through the early 1970's. This time span is discussed in terms of several periods: *eotechnic* agriculture, *paleotechnic* agriculture, *neotechnic* agriculture, and agricultural decline. The term, *eotechnic*, is defined by Haswell and Alanen as the era "characterized by family-operated farms established on small clearings carved from the forest," where the "primary goal was subsistence" and the majority of "agricultural products were consumed by the people who harvested them."[4] For South Manitou Island, the eotechnic period will be defined as starting in 1847, when the first survey of the island indicated that about fifteen to twenty acres of land had been cleared for fields and orchards. This period continued until roughly 1868, when the first group of island homestead claims were "proved up."

The *paleotechnic* phase is represented by technological and social changes that "necessitate profound adjustments in agricultural practices," where the "primary objective was not subsistence, but realizing maximum profits with minimum effort."[5] For the island, this period began around 1868, a time when several farms, which raised livestock, crops and orchards, were well under way. The period continued until 1940 or so, when agricultural decline began, and persisted until the National Lakeshore was established.

[3] Manuscript schedules for the Federal Population Censuses, 1860-1880, 1900-1920.
[4] Haswell and Alanen, 65.
[5] Ibid., 65-68.

From 1918 to 1940, the paleotechnic phase also overlapped with the *neotechnic* era. The *neotechnic* phase is defined as one where "scientific agriculture, through which discoveries in basic research have been applied successfully to the practical problems of farming" predominates.[6] This phase began with the introduction of Rosen Rye to the island in 1918 and continued until the early 1940's.

Pre-Settlement History

Archeological research indicates that Paleo-Indians hunted in the Sleeping Bear Dunes region more than ten thousand years ago.[7] The earliest evidence of habitation at South Manitou Island dates to the late Woodland period (A.D. 500/600 to A.D. 1620). At sites on both North and South Manitou Islands, late Woodland pottery has been found.[8]

In other parts of Michigan, Native Americans were engaged in agriculture by about A.D. 900 to 1000. Evidence indicates that maize, beans, squash, and gourds were grown. Seasonal activities involved moving to temporary villages to fish, or farm. It appears, however, that the sites within the Lakeshore region were neither agricultural, nor focused on fishing. They seem to have been short-term, temporary sites used for seasonal hunting.[9] According to Lovis, "it is apparent that the resources of the Lakeshore vicinity were best integrated into a broader economic and social lifestyle during the Late Archaic and Late Woodland periods." The area sites were used in this manner--as satellites to larger seasonal villages--by groups from areas both to the north and south of the region.[10] It is likely that the sites were temporary camps of the Ottawa and Ojibwa, who occupied nearby areas from the late-1600's through the mid-1800's.[11] Life for the North American native changed dramatically with the arrival of European settlers. Contact with missionaries, the military, and traders resulted in major changes in the Native American's tools, locations, and social organization.[12]

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[6] Ibid., 66.
[7] Ibid., 19.
[8] William A. Lovis, Sleeping Bear Dunes National Lakeshore: Archaeological Survey (Denver, Colorado: National Park Service, 1984), 8-9.
[9] Ibid.. 9; George N. Fuller, ed., Michigan A Centennial History of the State and its People (Chicago: The Lewis Publishing Company, 1939), 475.
[10] Lovis, 12.
[11] Charles E. Cleland, Rites of Conquest The History and Culture of Michigan's Native Americans. Maps I through 6, (Ann Arbor, Michigan: The University of Michigan Press, 1992), n.p.
[12] Lovis 10.

The Legend of the Great Spirit--Manitou

According to Native American legend, South Manitou Island (along with North Manitou) was seen as a manifestation of the Great Spirit -- Manitou. "Indian tradition, according to Henry Rowe Schoolcraft, pictured the Great Manitou, in the beginning of all things, as a spirit floating on a raft with many animals."[13]

The story of the sleeping bear is the most popular of the legends that relate to the islands. In this legend, a mother bear and two cubs escaped a forest fire on the Wisconsin side of Lake Michigan by swimming across the lake. The cubs drowned before reaching the shore. The mother made it safely to land, but when she looked back for her cubs she could not find them. She waited at the edge of the water and eventually lay down to sleep. The Great Manitou raised the two cubs above the water where she could see them, forming North and South Manitou Islands. The mother bear remained to watch her cubs and was transformed into a great sand dune, the "Sleeping Bear Dune."[14]

Exploration and Settlement (1835-1863)

During the 1600's and 1700's, the land of the Great Lakes region was seen as being most valuable for fur trade; colonization, whether under French or British rule, was discouraged. After the termination of the French and Indian War in 1760, the islands were turned over to the British by the French. With the end of the American Revolutionary War, the islands were then incorporated into the Northwest Territory of the United States. In 1800 they became part of Indiana Territory, and in 1805 a part of the Territory of Michigan. When General Hull surrendered Detroit (the territorial capital) to the British in 1812, the area was again under British control for almost a year until the U.S. Army recaptured the capital city.[15]

After the war years two major events occurred which would impact the Manitou Islands and their history: the introduction of steamboats on the Great Lakes in 1818, and the opening of the Erie Canal in 1825. The latter occurrence provided opportunities for the development of a transportation route from the eastern states and Europe to

[13] Vent, 7.
[14] Ibid.
[15] Ibid., 8-10

midwestern America that settlers could utilize more quickly and easily than the difficult overland route.[16]

According to Myron Vent, the first written notations of the islands were made by passengers traveling on wood-burning steamers that stopped to refuel. On 4 July 1836, Harriet Martineau noted the North and South Manitou islands in her journal, stating: "They are two: sandy and precipitous at the south and clothed with wood, from the crest of the cliffs to the north extremity, which slopes down gradually to the water." She also noted that the mainland had not yet been settled, writing: "No land speculators have set foot here yet. A few Indian dwellings, with evergreen woods and sandy cliffs are all."[17]

On 14 November 1837, Thomas Nye arrived at the Manitou Islands on the steamer *Constellation*, where passengers spent the night before continuing to Chicago. In 1838 Francis Count de Castlenau passed through the Manitou passage during a storm. His notations describe the fear that was instilled in travelers as they passed through the treacherous passage during harsh weather.[18]

South Manitou Island's natural, deep-water harbor and abundant hardwoods made the island an ideal stopping point for these travelers. It was easy to refuel here, and the harbor doubled as a safe-haven during turbulent weather. Early entrepreneurs took advantage of these conditions and cut wood on the island to sell to the steamers.[19]

Also during this period, the establishment of a lighthouse on the island was considered by the federal government. In 1837, Lt. G. J. Pendergast made a report to the U.S. Board of Navy Commissioners recommending the construction of a lighthouse on the southern end of South Manitou Island; it was to have a revolving light to distinguish it from other lights. The revolving light was never provided, but over time South Manitou Island did have three different lighthouses. The first was authorized on 7 July 1838, when the I,J.S. Congress appropriated $5,000 "for erecting a lighthouse on South Manitou Island, Lake Michigan, in the State of Michigan." Construction began in 1839 and was completed in 1840. William Burton was selected to become the island's first lighthouse keeper.[20]

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[16] Ibid., 10.
[17] Ibid., 13.
[18] Ibid., 15.
[19] Ibid.
[20] Ibid., 13 and 46-47

Margaret Fuller visited the Island in 1843. She recorded her impression in the following passage from her book, Summer on the Lakes, 1843:

> In the afternoon we went on shore at the Manitou Island, where the boat stops to wood. No one lives here except woodcutters for the steamboats. I had thought of such a position from its mixture of profound solitude with service to the great world as possessing an ideal beauty. I think so still, after seeing the woodcutters and their slovenly huts.
>
> On the most beautiful beach of smooth white pebbles, interspersed with agates and carnelians (sic), for those who know how to find them, we stopped, not like the Indian with some humble offering ... to please the Manitou, but S.and I., like other emigrants, went not to give but to get, to rifle the wood of flowers for the service of the fire-ship. We returned with a rich booty among which was the *uva ursi* whose leaves the Indians smoke, with the kinnick-kinnick, and which had then just put forth its highly-finished little blossoms, as pretty as those of the blueberry.[21]

Her reflections on the island and its inhabitants--the woodcutters--give a vivid picture of an overcut land and the less-than-refined people who were engaged in this activity. Yet she did find beauty, unlike Andrew Rundel, who visited the island in 1846 and described the island as barren and gloomy, being covered with "dwarf pine or stunted cedar."[22]

As Margaret Fuller observed, the earliest island settlers were cutting wood for steamers. Many of these people were single men, but eventually families began to settle on the island. During the 1850s the forest products industry dominated the Lakeshore Region. Throughout the region, new communities were established near wooding docks and sawmills. In 1850 John Dorsey and John Lerue established a cooperage and began producing barrels for packing fish. The first sawmill in the region was built at Glen Arbor in 1855 and a wooding dock was established there in 1857. By the end of the decade there were at least four sawmills and three wooding docks operating from the

[21] Margaret Fuller, Summer On the Lakes, 1843 (Urbana and Chicago: University of Illinois Press, 1991), 17-19; reprint of original version, cited in Vent.
[22] Andrew Rundel, cited in Vent, 18.

mainland portion of the Lakeshore region. Through the 1850s communication and transportation were attained through access to the water. The first regional road was constructed between Benzonia and Traverse City in the fall of 1863.[23]

In order to present an illustration of early settlement life, two early island families will be discussed briefly: the Burtons and Burdicks. William N. Burton is generally recognized as being the first settler on South Manitou Island. He and his family arrived around 1835-36. Burton cut wood on the island and sold it to steamboat operators. In 1838, when Lieutenant James Homans came to the island to determine its potential as a lighthouse site, he reported to the U.S. Secretary of the Treasury on the conditions that he surveyed; Homans mentioned a house and steamboat landing at the center of the harbor.[24] It may be assumed that these facilities belonged to the Burtons.

In 1847 the island was surveyed by Orange Risdon, on behalf of the federal government. His notes indicate that at "Burton's Harbor" there were a grocery, barn, house, blacksmith's shop, and other buildings. There also were three to four miles of railroad tracks laid in a southwesterly direction through Section 3 that extended almost to the center of Section 4; the line also included branches used for hauling steamboat wood.[25] The first purchase of island property was made by Burton in 1849.[26] The cutover condition of large portions of the island, noted in the 1847 survey, indicate that Burton (and probably others) was cutting through land that he did not own several years before the survey was conducted.

The manuscript schedules for the 1860 federal population census list three separate Burton households: William Burton (age 65), and his wife, Marett (age 60); Elly Burton (age 37), Ann (33), Kate (13), Mate (10), Frances (8), and William (5); and Covel Burton (age 27), and a female (22).[27] The 1870 population census lists only one Burton household, that of Ellison Burton (age 51) and Anna Burton (age 47); and their six

[23] Haswell and Alanen, 3 1-34.
[24] Vent, 32.
[25] Orange Risdon, Original Survey Notes, 1847.
[26] Vent, 32; also noted in Linda Henry, unpublished family history of South Manitou Island, on file at the Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan, "William Burton Dock."
[27] Manuscript schedules, Federal Population Census, 1860. The name of Covel Burton's 22 year old wife is not legible on the manuscript copy available in the library of the State Historical Society of Wisconsin. Also, the name "Marett" Burton is very difficult to read, and may be a different name.

children: Mary (19), Francis (18), Willis (15), Alfred (12), Jessie (9), and Carrie (4).[28] In 1880, the only Burton listed as a resident on the island was E.E. (Elly) Burton, then age 61. By 1900, no members of the Burton family appear on the Census manuscript.[29]

The 1860 Population Census manuscript schedules indicate that a total of 2,500 people lived in the Lakeshore region. The immigrant population of North and South Manitou Islands represented 48 percent of the residents. At the same time, only 25 percent of the mainland's population were immigrants.[30] Of the 2,500 people in the region, 74 were residing in 17 households on South Manitou Island. There were at least seven day-laborers and four farmers. In addition, a lighthouse keeper, Patrick Glenn, and a shoemaker, John Shoemaker, were enumerated.[31] It is believed that Burton was hiring day laborers to help cut wood to supply the steamers. Some of these laborers eventually brought their families and settled on the island, where they established farms.[32]

Putnam and Melissa Burdick also were early island settlers. They eventually owned a large area of the island. Apparently Putnam bought land rights from soldiers and widows of soldiers that had been granted through the Military Land Bounty Act for military service done before 1855.[33] The two Burdicks are listed on the 1860 census as being 52 and 31 years of age, respectively. Also listed are their six children, Ann (age 18), Mary (16), Andrew (14), George (12), Fanny (2), and Frank (1).[34] Putnam Burdick's grandson, James Burdick, served as the South Manitou Lighthouse Keeper from 1 July

[28] Manuscript schedules, Federal Population Census, 1870. The conflict in ages for Ellison (Elly) and Anna (Ann) is probably due to the illegibility of the 1860 manuscript schedules. Mary, who appears in 1870 as 19 years of age, is probably the same person as Mate, listed in 1860 as 10 years old. Willis is probably the same person as William. If Alfred's age is correct in the 1870 census (12 years old), he should have appeared in the 1860 census as well.
[29] Manuscript schedules, Federal Population Census, 1880 and 1900.
[30] Haswell and Alanen, 36.
[31] Manuscript schedules, Federal Population Census, 1860.
[32] Myron Vent, South Manitou Island: From Pioneer Community to National Park (Washington, D.C. Eastern National Park and Monument Association, 1973), 25. George Johann Hutzler was one of these individuals; his significance, and that of his extended family, in the development of island agriculture is documented throughout this report.
[33] Linda Henry, Unpublished Family History, "Putnam and Melissa Burdick," This information is recorded in a document being prepared by one of South Manitou Island's seasonal rangers, Linda Henry. The manuscript traces the history of most of the properties on the island. The current draft of her document, termed "unpublished family history" in this report, does not have page numbers. Therefore, in place of such numbers, the sections of her manuscript that refer to island families are identified in the footnotes.
[34] Manuscript schedules for the Federal Population Census, 1860.

1908 until 1 February 1928.[35] His descendants still visit the island each summer and actively participate in the South Manitou Memorial Society.

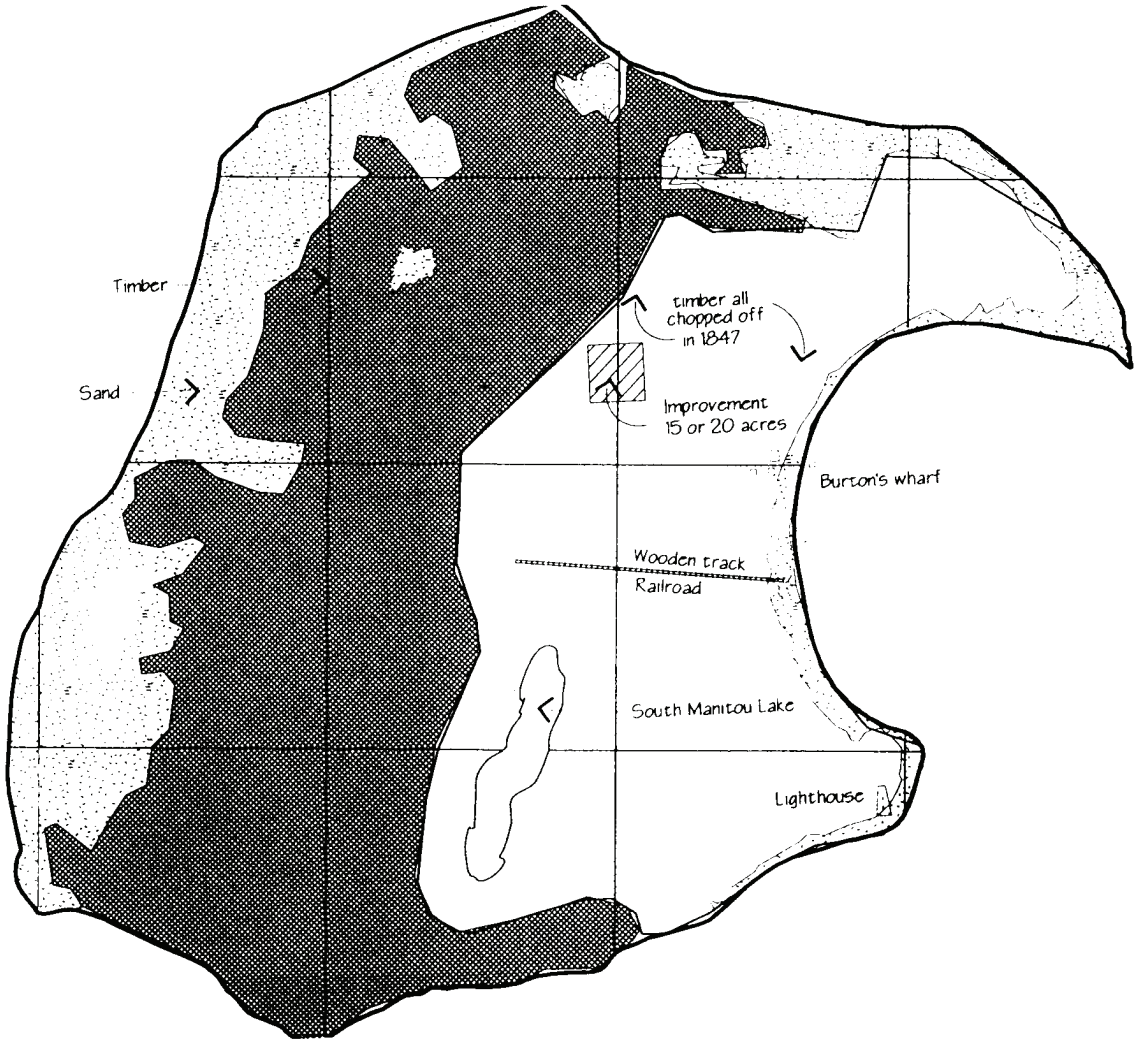


FIGURE 7
1847 SURVEY

[35] Unpublished list, "South Manitou Island Lighthouse, Lighthouse Keepers and First Assistant Keepers," available at Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.

Eotechnic agriculture and the homestead era (1847-1868)

Once farming families had established themselves on the island, the exploration and settlement period gradually eased into the eotechnic, or period of subsistence agriculture.

The Journey to the Island

While the island's natural features provided opportunities for its first settlers, South Manitou's prime location on a major transportation route offered encouragement for the origins of agriculture. The first farming family to settle on the island was headed by George Johann Hutzler. The story of the Hutzler's trip to the island as told by Myron Vent illustrates the ordeals that many immigrants to America experienced during the mid-1800's. On 21 October 1853, Hutzler and his family boarded the *Sir Isaac Newton* in Hamburg, Germany, to sail for New York. Departing with Hutzler from their home in Oberkrumbach, Bavaria, were his wife, Margaretha, and five children, Elizabeth, Margaretha, George, Anna, and Johann. The voyage, undertaken in the winter, was long and hard. Before the Hutzlers arrived in the New York City harbor on 23 January 1854, one of the children, Johann, had died. [36]

The Hutzlers proceeded to Buffalo via the Buffalo and New York City Railroad. The following summer, most of the Hutzlers came down with cholera. The majority of the family recovered, but George, Jr., died from the disease. In January 1855, another son, also named George, was born. In the spring of that year, George Johann was determined to find a better place for his family to settle permanently. By taking a job on the steamer *Iowa*, he was able to get first-hand impressions of the inland United States. The ship, which made regular runs between Buffalo and Chicago, sailed on Lakes Erie, Huron, and Michigan.[37]

The *Iowa* stopped at South Manitou Island on one of these trips. Hutzler secured a job with a Mr. Burton, who needed laborers to cut wood. It took a little over a year for Hutzler to earn enough to allow him to pay for his family's passage to the island. Arriving in late 1856, the family began farming.[38] George Johann Hutzler filed a

[36] Vent, 22.
[37] Ibid., 23-24.
[38] Ibid., 25-28.

homestead claim on 9 January 1863. By the time the proof was filed for the claim in August 1868, the families had cultivated about 15 acres of land, built two barns, planted 60 fruit trees, and dug a well. They also constructed a 20' x 28' house with a shingle roof, board floor, two outside doors, and five windows.[39] (More information about the family and their activities on the island is provided in the "Individual Farmsteads" section of this report.)

While George Johann Hutzler and his family were becoming established island farmers, other people were doing the same. Homesteading was the prevalent approach used to obtain agricultural land on the island; this process enabled families to acquire acreage via their own manual labor rather than using cash.

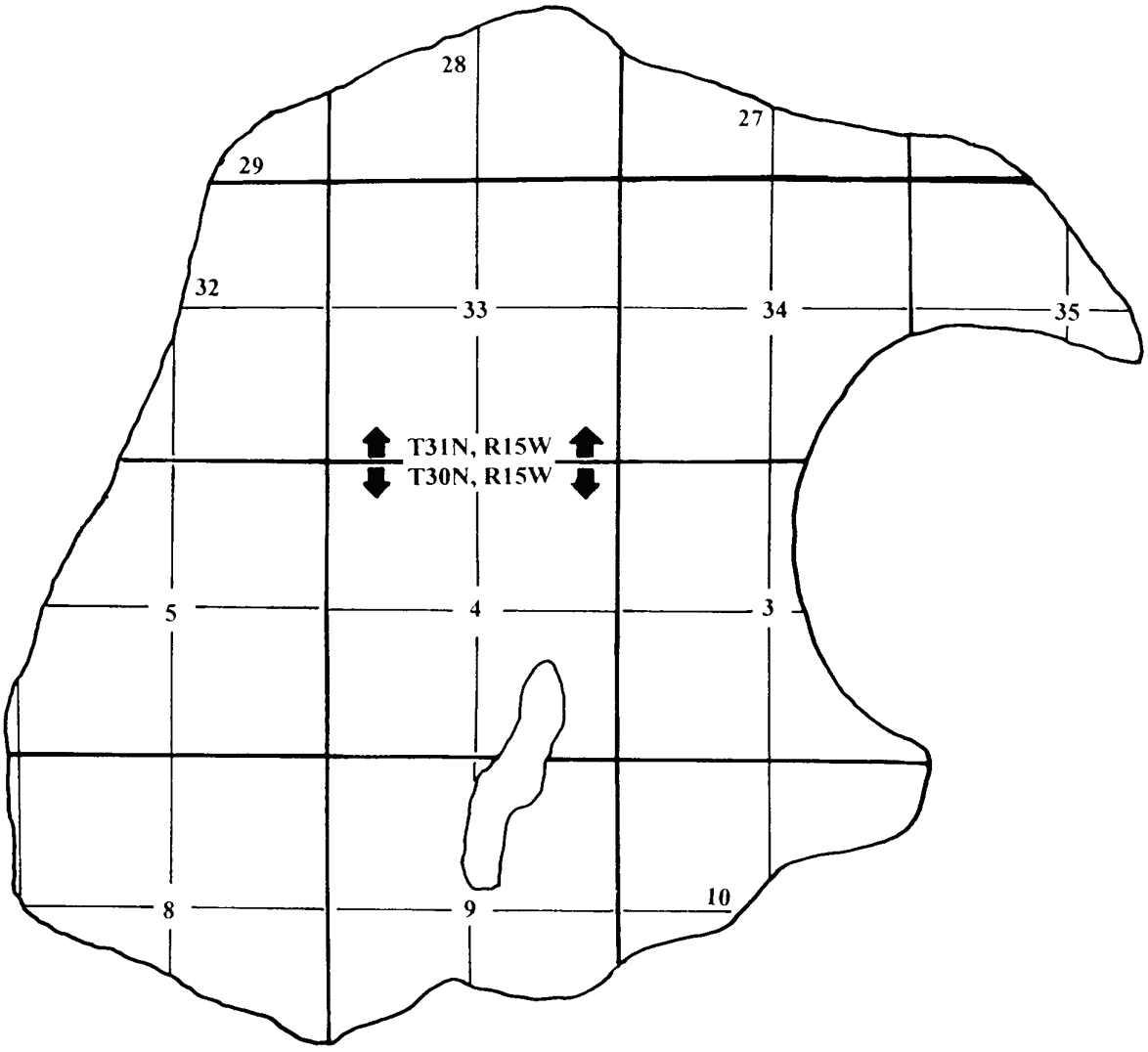
The Homestead Act and South Manitou Island Farms

Passage of the Homestead Act by the U.S. Congress on 29 May 1862 assured that the island had an agricultural future, albeit one that could be achieved only through the hard work and determination of its settlers. The influence of the Homestead Act on island settlement and agriculture is exemplified by the large proportion of South Manitou property that was acquired by homesteading. Of the island's total 5,260 acres, approximately two-thirds are beach, sand dunes, or steep slopes unsuitable for agriculture. The central portion of the island, however, is comprised of conditions (soils, slopes, and drainage) that were relatively well suited for agriculture (this area is made up of the Emmet-Leelanau soil association).[40]

Over one-third of the island's land surface (1,943 acres) was claimed via the Homestead Act. The first five homestead claims were made for land located in the central portion of the island, coresponding with the location of the Emmet-Leelanau soil association. Figure 9 illustrates the order and locations of the homestead claims made for South Manitou Island property. A comparison of Figures 5 and 9 demonstrates that the majority of island property appropriate for farming was originally acquired through the homestead process.

[39] Homestead Application No. 99, Traverse City Land Office, on file in National Archives and Records Administration, Washington, D.C.

[40] Sec Section II of this report, "Physiographic and Geographic Context." In Figure 5: "Soil Associations of South Manitou Island," the locations of the island's three soil types are illustrated. The one that is well suited for agriculture, the Emmet-Leelanau soil association, is located in the central portion of the island.



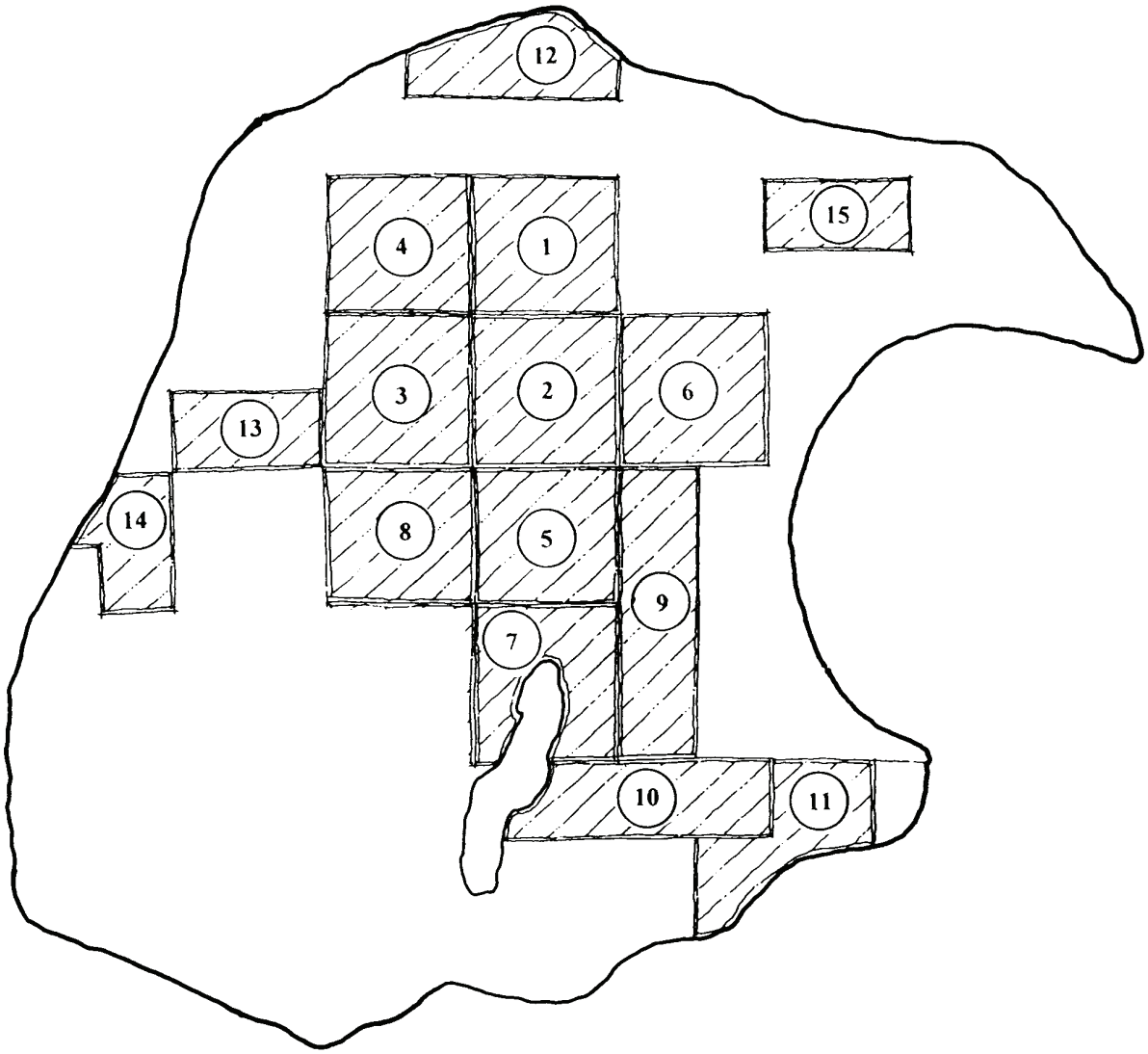
LEGEND

33 SECTION NUMBER

SECTION LINES

QUARTER-SECTION LINES

FIGURE 8
SOUTH MANITOU ISLAND TOWNSHIP & SECTION LOCATIONS



CLAIMANTS LISTED IN ORDER OF INITIAL FILING DATE

1. George Hutzler
2. Thomas Kitchen/Mary Kitchen
3. Christopher Beck
4. George Haas
5. Alfred T. Evans
6. Richard Kitchen
7. James A. Sheridan/ Aaron Sheridan
8. Conrad Hutzler
9. Thomas Armstrong
10. James Miller
11. Joseph Haas
12. Andrew Erickson
13. August Beck
14. Roland Shank
15. Ray Kent

FIGURE 9
SOUTH MANITOU ISLAND HOMESTEAD CLAIMS

TABLE 1
SOUTH MANITOU ISLAND HOMESTEAD CLAIMS MADE IN 1863

	FILING DATE	APP #	PROOF DATE	CERT #	OWNER NAME	PROPERTY DESCRIPTION	SIZE
1	9 Jan.	99	26 Aug. 1868	221	George Hutzler	T31N,R15W, S33,NE1/4	160ac
2	31 Jan.	133	17 June 1868	149	Thomas Kitchen* Mary Kitchen	T31N,R15W, S33,SE1/4	160ac
3	25 Feb.	153	26 Aug. 1868	220	Christopher Beck	T31N,R15W, S33,SW1/4	160ac
4	25 Feb.	154	26 Aug. 1868	218	George Haas	T31N,R15W, SEE,NW1/4	160ac
5	11 July	427	9 July 1870	457	Alfred T. Evans	T30N,R15W, S4,NE1/4	160ac
6	**	**	26 Aug. 1868	**	Richard Kitchen	T31N,R15W, S34,SW1/4	160ac

Sources: Homestead Applications for South Manitou Island, Traverse City Land Office, on file in National Archives and Records Administration, Washington, D.C.

* Thomas Kitchen died before the proof for his claim was filed. His widow, Mary Kitchen, filed the proof.
** The homestead application for Richard Kitchen was not available.

TABLE 2
SOUTH MANITOU ISLAND HOMESTEAD CLAIMS MADE IN 1868

	FILING DATE	APP #	PROOF DATE	CERT #	OWNER NAME	PROPERTY DESCRIPTION	SIZE
7	2 April	2937	9 April 1874	1689	James A. Sheridan*** Aaron Sheridan	T30N,R15W, S4,LOT1-4	130.22 acres
8	20 April	2974	18 July 1873	1417	Conrad Hutzler	T30N,R15W, S4,NW1/4	160ac
9	2 May	3006	7 Oct. 1874	1945	Thomas Armstrong	T30N,R15W, W1/2 of NW1/4 W1/2 of SW1/4	160ac

Sources: Homestead Applications for South Manitou Island, Traverse City Land Office, on file in National Archives and Records Administration, Washington, D.C.

*** James A. Sheridan died before the proof for his claim was filed. His son, Aaron Sheridan, filed the proof for this property.

TABLE 3
SOUTH MANITOU ISLAND HOMESTEAD CLAIMS
MADE BETWEEN 1875 & 1890

	FILING DATE	APP #	PROOF DATE	CERT #	OWNER NAME	PROPERTY DESCRIPTION	SIZE
10	20 Feb. 1875	6467	27 Aug. 1881	4872	James Miller	T30N,R15W, S9,LOT1&S10 N1/2 of NW1/4	128.25 acres
11	19 March 1883	8490	6 Aug. 1891	6666	Joseph Haas	T30N,R15W, S10,LOTS 1-3	137.49 acres
12	23 Aug. 1890	****	8 Sept. 1897	****	Andrew Erickson	T30N,R15W, S28,LOTS 1-3	129.7 acres

TABLE 4
SOUTH MANITOU ISLAND HOMESTEAD CLAIMS
MADE BETWEEN 1903 & 1915

	FILING DATE	APP #	PROOF DATE	CERT #	OWNER NAME	PROPERTY DESCRIPTION	SIZE
13	23 July 1903	11109	25 July 1908	311	August Beck	T31N,R15W, S32,2 ½ of NW1/4	80ac
14	14 Aug. 1903	11128	26 July 1910	925	Roland Shank	T30N,R15W, S5,E1/2 of NW1/4 LOT 1 & SE1/4 of NW1/4	90.06 acres
15	24 June 1915	3761	23 April 1923	927951	Ray Kent	T31N,R15W, S34,N1/2 of NE1/4	80ac

Sources: Homestead Applications for South Manitou Island, Traverse City Land Office, on file in National Archives and Records Administration, Washington, D.C.

**** The homestead application for this property was not available.

Homestead claims for South Manitou Island land were filed in Traverse City. A trip to Traverse City in the 1860's was not an easy one, and accounts tell of island residents who walked the entire distance, which is over 30 miles, after they arrived on the mainland. The first claim for an island property was filed by George Hutzler on 9 January 1863. He was closely followed by Thomas Kitchen on 31 January. George Haas and Christopher Beck, who probably made the trip together, filed their claims on 25 February 1863. On 11 July, Alfred Evans made the last island claim for that year. A summary of information from the homestead applications for 1863 is provided in Table 1. Before the end of the decade, three more claims had been filed for island property: James Sheridan on 2 April 1868; Conrad Hutzler on 20 April 1868; and Thomas Armstrong on 24 May 1868. A summary of information from the homestead applications for 1868 is provided in Table 2. Later that year, the four original claimants of 1863 filed proofs and received property titles: Thomas Kitchen on 17 June, and George Hutzler, George Haas, and Christopher Beck, all on 26 August. The proofs contain detailed information regarding improvements made to the land. (More information from these documents may be found in the "Farmstead Inventory" section of this document.)

Other Island Activities

Also on the island during the homestead period were people who engaged in fishing, and others who practiced a number of trades. A 1854 newspaper clipping, for example, made the following reference to a cooper: "The search for pine for wooden ships and fish-kegs brought John Fisher and his friend John Dorsey to the mainland in 1854. John Dorsey, a cooper by trade, lived on South Manitou Island where he made fish kegs by hand."[45] Six different lighthouse keepers served during the 1847 to 1868 interim. George Clarke began on 6 August 1845; Benjamin Ross on 27 June 1849; Alonzo Slyfield on 9 September 1853; Patrick Glenn on 27 June 1859; P.W. Kirtland on 17 June 1861; and Aaron A. Sheridan on 21 July 1866.[46]

[45] Undated newspaper clipping in the Betty Kramer Collection, Notebook #3, 49, Leelanau Historical Museum, Leland, MI.

[46] Unpublished list, "South Manitou Island Lighthouse, Lighthouse Keepers and First Assistant Keepers," available at Sleeping Bear Dunes National Lakeshore Headquarters, Empire, MI.

Paleotechnic agriculture (1868-1940)

The first homesteaders began to pursue a more broadly based agrarian life on fairly well established farms by the late 1860's. These years will be termed the era of paleotechnic agriculture in the subsequent discussion.

Farming Life on South Manitou Island

Most farming activities that occurred on South Manitou Island from the post-Civil War years to the pre-World War II period reflected the *eotechnic* and/or *paleotechnic* phases of agricultural activity. Due to isolation from goods and supplies, the island's residents were *always* "subsistence" farmers to some extent. In addition to the gathering of wild berries, mushrooms, maple sap, and ginseng, as well as the harvesting of ice and the cutting of timber, the residents grew a variety of crops, vegetables, and fruits, raised

FIGURE 10. South Manitou Lighthouse (ca. 1910-1920)

livestock, and made hard cider. Many of them fished, chopped wood for sale, and worked at various jobs such as postmaster, lighthouse keeper, or Life-Saving Service/Coast Guard employee. The distinction between the eotechnic and paleotechnic phases is based on available documentation which indicates that several well established farms were on the island by 1868. These units were something more than simple fields cut out of the forest. They included productive orchards and plowed fields that provided for the production of some surplus crops and/or feed for livestock.[47] The surplus was readily purchased by the captains of passing steamers, or by mainland settlers struggling to establish themselves.

The 1870 federal population census indicates that 14 households and 76 people were on the island. Of the 14 households, 12 listed farming as the occupation for the head-of-household. The other two heads noted their occupations as wood merchant and retail grocer.[48] Only one new homestead patent was filed for island property during the 1870's (James Miller, 20 February 1875). In addition, final proofs were provided for four properties that had been filed during the 1860's: Alfred T. Evans (9 July 1870); Conrad Hutzler (18 July 1873); James A. Sheridan (9 April 1874); and Thomas Armstrong (7 October 1874).[49] Information regarding these homestead applications is summarized in Tables 1 through 3.

The 1870 census of agriculture for Manitou County, which included South Manitou, North Manitou, and the Fox Islands, lists twelve farmers. Nine of the twelve were South Manitou residents.[50] Seven of these farmers obtained their land through the homestead process. In 1870, the island's farms included 173 acres of improved land, 123 of which were on property originally acquired through homesteading activity. There were six horses on the island, all owned by George Hutzler; and two mules, which were owned by William Smith. South Manitou's farmers had a total of 30 milk cows, 57 other cattle, 12 working oxen, and 25 swine. Crop production in 1869 included 64 bushels of

[47] Homestead Applications (99, 133, 153, 154, 427, 2937, 2974, 3006, 6467, 8490, 11109, 11128, 03761, and two, for Richard Kitchen and Andrew Erickson, that were not located), Traverse City Land Office, National Archives and Records Administration, Washington, D.C.
[48] Manuscript schedules for the Federal Population Census, 1870.
[49] Homestead Applications (427, 2974, 2937, 3006), Traverse City Land Office, National Archives and Records Administration, Washington, D.C.
[50] This was determined by comparing the names on the manuscript schedules for the 1870 Federal Agricultural Census with those on the 1870 Federal Population Census.

Figure 11. The Pig Barn at the George Johann Hutzler Farm. It was built sometime between 1870 and 1880 (1976)

spring wheat, 361 bushels of rye, 320 bushels of Indian corn, 193 bushels of oats, and 1,950 bushels of Irish potatoes. In addition, 1,520 pounds of butter were made on the island in 1869.[51]

The 1880 population census indicates that South Manitou Island included 20 households and 98 people. Of the 20 households, 13 listed farming as the occupation for the head-of-household. Other occupations included lighthouse keeper, fisherman (two households), sailor, book binder, house keeper, and wood merchant.[52] The 1880 Federal Agricultural Census for South Manitou Island enumerated 12 farmers, and 427 acres of tilled land. Ten of these farms originally were acquired as homesteads.[53] In 1880, the island's farmers had 49 milk cows, 126 other cattle, and 54 swine; 2,430 pounds of butter

[51] Manuscript schedules for the Federal Agricultural Census, 1870.
[52] Manuscript schedules for the Federal Population Census, 1880.
[53] This was determined by comparing the names on the manuscript schedules for the 1880 Federal Agricultural Census with the names on the homestead claims filed by island residents.

Figure 12. Plowing Fields for Crops (ca. 1922-1946)

were produced on these farms. The crops included 18 acres of barley, which produced 1,800 bushels of grain; 16 acres of Indian corn (590 bushels); 44 acres of oats (1,247 bushels); 49 acres of rye (1,208 bushels); 17 acres of wheat (254 bushels); and 35 acres of Irish potatoes (3,720 bushels). In addition, 64 bushels of Canada peas and one bushel of beans were produced; 79 apple trees bore 19 bushels of fruit, and three peach trees produced two bushels. [54]

On 27 August 1881, James Miller filed for his land patent, and on 19 March 1883 Joseph Haas did likewise. Andrew Erickson filed for his patent on 23 August 1890; Joseph Haas did so on 6 August 1891; and Andrew Erickson on 8 September 1897.[55]

[54] Manuscript schedules for the Federal Agricultural Census, 1880.
[55] Homestead Applications (6467, 8490, and Andrew Erickson, claim number unknown), Traverse City Land Office, National Archives and Records Administration, Washington. D.C.

Agricultural Activities

The islander's lives during the paleotechnic period were filled with a diversity of activities, which continue to live in the memories of many subsequent residents and their descendants. Gaining an understanding of these routine activities through the eyes of people who participated in them can help in providing an understanding of the imprints that these actions left on the landscape. The following section of the report describes some of the agricultural activities that were an integral part of the farmers' lives. These descriptions use intimate details of everyday life that have been preserved through the tradition of oral history. They provide a basis for understanding the close relationships that existed between the islanders and the South Manitou landscape.

Figure 13. Lola Hutzler and Haystacks on a South Manitou Farm (ca. 1922-1946)

Threshing

Most of the island's farmers grew grains that required threshing to prepare them for human use, animal consumption, or marketing. On the island, threshing activities required cooperation: only by working together, and assisting one another, could residents accomplish this task safely and efficiently. In addition, a threshing machine was an expensive but necessary piece of equipment that could not be brought easily to the island from the mainland. According to oral history accounts, during the time period from around the 1910's until the early 1940's, typically one large threshing machine on the island was shared by all the farmers. The farmers pooled their money to buy the machine, which was hauled by horses to each farm as it was needed. All of the participating farmers would then come to the farm and help get the job done. The machine was then moved to subsequent farms until all of the threshing was completed.[56]

This activity was a significant event, and many of the island's non-farmers also got involved. Glenn Furst, whose father was in the U.S. Coast Guard, worked on several of the island farms as a young man and often helped with threshing. According to Furst, the farmers always needed help at threshing time: "There was always room for us young people, to handle bundles of straw, and really get very very dirty, you know." In addition to hard work, threshing involved social interaction, including the "real nice meal" that was served to the workers.[57]

> That was the big time and the farmer's wives would get together and plan the meal, which consisted mostly of potatoes and meat and gravy ... they put tables together, there was a big long thrashing table ... it would be inside, and ... all of the men had to wash their faces and hands outside by the porch when they came in ... and their faces might be shiny white, but the back of their neck and ears would be all dirty ... but everybody had a good time. It was rather a joyous occasion, there was always hard cider around, the white lightening ...[58]

[56] 0ral interviews with Glenn Furst and Louise Oligney, conducted on 17 September 1994 and 18 September 1994 respectively, by Brenda Williams, transcripts on file at Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan

[57] Glenn Furst interview.

[58] Ibid.

Threshing was an activity that included a division of labor -- the men participated in the actual threshing, whereas the women prepared a feast for everyone to share. Children also came along, and helped by fetching water or by participating in other chores. One previous island resident remembered helping her mother prepare dinner for the threshers when they came to the Beck farm. She recalled that the women in the family would begin their work several days before the threshers arrived by baking pies and bread and preparing the meat. When threshing was being done at another farm, her mother would go there and help to prepare the meal.[59]

Figure 14. George Hutzler's Slaughtered Cattle for Sale to the Visiting Butcher (ca. 1922-1946)

[59] Louise Oligney interview.

Market Dilemmas and Winter Storage

The island's farmers grew potatoes and beans for their own use, as well as for cash sale. An early account of a mainland family that was having difficulty getting their farm established refers to a winter trip to South Manitou Island to purchase potatoes.[60] These crops were also sold to broader markets that were accessible through trade with merchants who came to the island on steamers when they were headed to other ports. As was true of farmers virtually everywhere, the market often guided them to plant particular crops, only to be disappointed at harvest time when they found out that surplus production had caused the prices to plummet. A story told by Charles Anderson illustrates this dilemma:

> In the war year of 1917 potatoes were selling for $4 per hundred pounds, red beans $15 per hundred, so Dad said plant the whole farm in potatoes and beans. There were about sixty acres cleared, the rest was woods. That was a very good price and so most everyone that year must have also planted potatoes and beans. The price that fall for potatoes dropped to $1 per hundred, so Dad said hold them until spring. By spring the price had dropped to 50 cents per hundred.[61]

To protect and store various foods and produce through the winter was a problem that inspired a simple technique: the natural insulation provided by the soil. Potatoes were put into large pits and covered with straw and lumber so they would not freeze. Each farm had an outdoor root cellar, or pits that were dug to store produce through the winter. This was done to provide food in the cold months, and sometimes to save a crop that could be sold for better prices the next year.

[60] Haswell and Alanen, 73.
[61] Charles M. Anderson, Isle of View: A History of South Manitou Island (Frankfort: Michigan, J.B. Publications, 1979), 60-61.

Other Island Activities

The 1870's are considered to be the decade when development reached its height on the island. A dock was in place at Glen Arbor as early as 1857 and another dock was built at Leland by 1860. These docks facilitated communication and trade between the island and mainland.[62] The South Manitou Post Office was opened on 2 September 1879, with Richard Kitchen serving as the first postmaster. In 1894 Manitou County was dissolved and both South and North Manitou Islands became part of Leelanau County. In 1902 the life saving station (part of the U.S. Lifesaving Service) was established on South Manitou Island.[63] In 1915, when this organization was replaced by the U.S. Coast Guard, the island station became part of the latter. Gus B. Lofberg, the first Officer in Charge, was appointed 22 February 1902. He was followed by fifteen other keepers, the last of whom was John D. Kirby, appointed on 20 October 1941.[64]

Figure 15. The Coast Guard Station at South Manitou Island (1994)

[62] Haswell and Alanen, 31-32.
[63] Vent, 40-54.
[64] List compiled and distributed by staff members at Sleeping Bear Dunes National Lakeshore Headquarters. Empire, Michigan.

Figure 16. The South Manitou Island Lighthouse

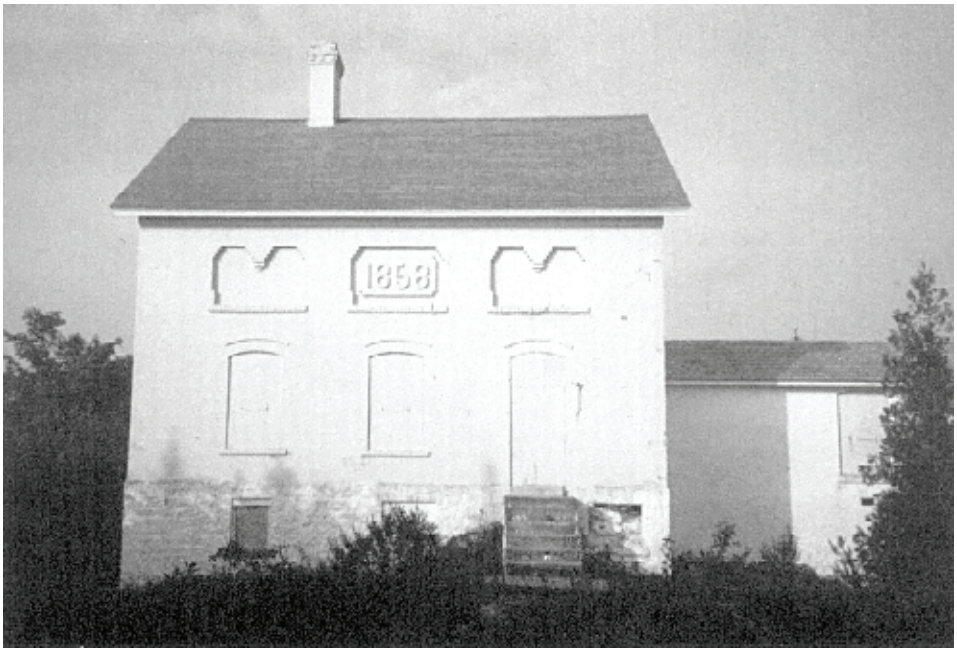


Figure 17. SMI Lighthouse Keeper's Residence (1994)

In 1871, the current lighthouse was constructed. On 9 September 1872, Mrs. Aaron Sheridan was appointed the First Assistant to the keeper of the light. Several keepers and first assistant keepers followed the Sheridans. John K. Tobin, appointed on 1 September 1935, was the last keeper of the South Manitou Light.[65] During this period the location of the island village gradually shifted from the "old dock" at the center of the harbor to the area around the lighthouse and Life Saving Station/Coast Guard Station. When wooding operations served as the primary activities the old dock location provided a safe site for the refueling of steamers conveniently and proved to be accessible to the wood source--the island's northern hardwood forest. The dock area, the heart of the island community, provided access to outside markets and offered opportunities for transportation and communication. From this location, cord wood and agricultural products were exported; and staples and building materials not available on the island were imported. As early as 1847 the original village (referred to as "Burton's Harbor") had a dock, grocery, barn, house, blacksmith's shop, and other buildings.[66] When the island's first post office was opened in 1879, it was located near the old dock at Burton's Harbor.[67]

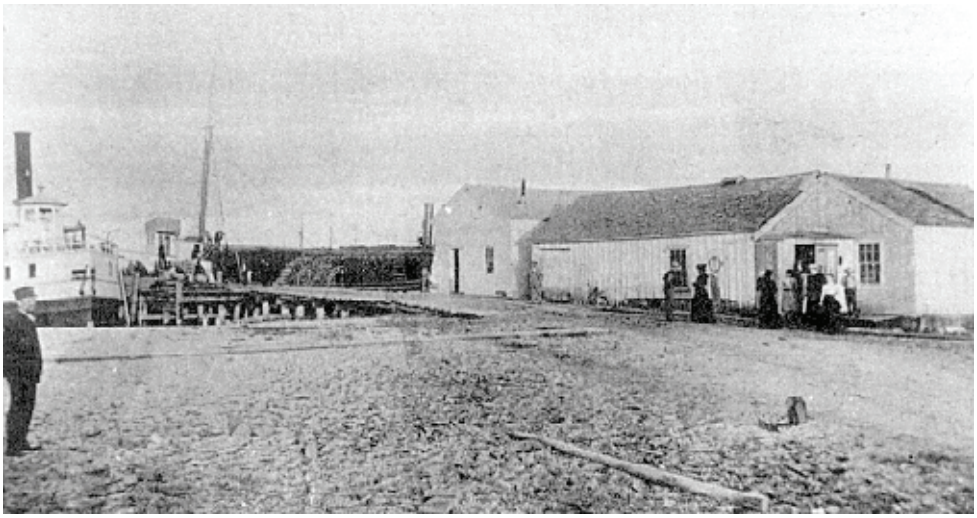


Figure 18. The Old Dock at SMI (date unknown)

[65] Ibid.
[66] Orange Risdon, Original Survey Notes, 1847.
[67] Vent, 41-42.

While the old dock was located to provide protection and accessibility to marketable resources, the sites selected for the lighthouse and Life-Saving Station/Coast Guard facilities were based on very different criteria. The Lighthouse was constructed on the southeastern shore of the island to mark the dangerous straits in the Manitou Passage. Like most lighthouse complexes, it was developed as an independent entity, with all functions and needs housed in officially determined areas. The Life-Saving/Coast Guard complex required a location that would allow easy embarking/debarking of rescue boats, as well as proximity to views of the most dangerous parts of the passage. This resulted in its placement close to the general area of the Lighthouse complex but, instead of being exposed to the open shore, the LSS/CG complex location provided some protection by being tucked into the southern tip of the harbor. Like the lighthouse complex, the LSS/CG compound did not rely on local facilities; it was designed to be self-sufficient. Since all but one of the extant village structures was built after the LSS was established on the island in 1902 (only the visitor center pre-dates the LSS/CG station--it was originally constructed in 1879), it is probable that the village did not exist before this time. It was not until the lighthouse and LSS/CG complexes were established that this island area became an important residential and community node. As servicemen and their families were added to the island's population near the LSS/CG complex, the population formerly associated with the island's logging operations decreased.

Eventually, logging operations abated and ships no longer stopped at the harbor; the old dock became expensive and difficult for islanders to maintain. As the dock fell into disrepair the original island village dwindled in size and importance. The existence and on-going maintenance of docking facilities near the LSS/CG complex provided an alternative to the old dock. The LSS/CG crew built small houses near the station and gradually, the area became the new hub for the island. When the Burdicks moved their general store from its original location near the "old dock" to a site near the Coast Guard Station in 1923, the island's community center had shifted.[68] By that time, the majority of the village residences had been constructed in a somewhat linear cluster near the Coast Guard Station.

[68] Robert H. Ruchhoft, Exploring North Manitou South Manitou High and Garden Islands of the Lake Michigan Archipelago (Cincinnati, Ohio: The Purcelle Press, 1990), 90.

South Manitou village occupants were integral participants in the close-knit island community. Many of the village residents were second (and later third) generation islanders who moved to the village to work for the LSS/CG. They often were related by family or marriage to the island's farmers. The first keeper of the LSS was Gus B. Lofberg, who arrived February 1902. The first crew was made up of three islanders (George I. Haas, Martin Furst, and David Furst) and three members recruited from the outside (Jacob Jacobsen, Thorwald Jesperson, and John Hanneson). According to Vent, islanders frequently filled crew positions:

> Although the crew for the station was regularly recruited from the mainland, strong support was provided by young men from families on the island. George Haas and Martin Furst ended up as permanent members of the crew and after a time became Surfman No. 1 and Surfman No. 2 respectively. As time went on, other islanders included Lawrence Haas, David Furst, Andrew Burdick, Theodore Thompson, Benth Johnson, Harrison Haas, and Harold Tobin.[69]

Over time, members of several island farming families served in the LSS/CG. The small island farms offered no more than limited production and profitability, and by the turn of the century it became difficult for them to serve as the sole support for large families. As island families grew, the LSS/CG provided career opportunities for islanders who may have otherwise been forced to leave the island and their families so as to make a living. Other village residents were LSS/CG servicemen who transferred to South Manitou from different locations. The houses provided a place for families to live together, as the CG Station/LSS buildings provided accommodations only for single servicemen and the keeper's family. During the winter season, when the station was closed, only the keeper's family resided in the station. The village houses provided a place for crew members to live year-round on the island.

Because of possible emergencies, crew members needed to be on hand at all times; therefore, the houses located near the LSS/CG complex served as ideal residences

[69] Vent, p.63.

Figure 19. SMI Village Johnson House (1994)

This house is listed on the National Register as part of the "South Manitou Island Lighthouse Complex and Life-Saving Station Historical District." Located near the lifesaving station, it was traditionally inhabited by Life-Saving Service/Coast Guard personnel. The exact date of construction is not known. It was built shortly after the nearby lifesaving station, which was erected in 1902.

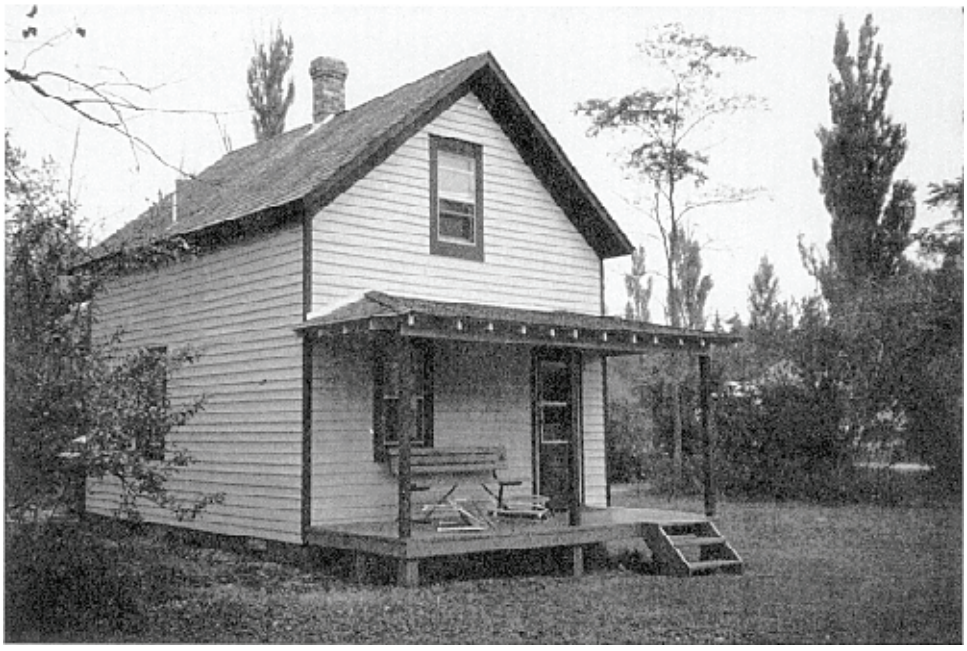


Figure 20. SMI Village Leinbach House, built ca. 1930 (1994)

This house is listed on the National Register as part of the "South Manitou Island Lighthouse Complex and Life-Saving Station Historical District." It is located near the lifesaving station and was traditionally inhabited by Life-Saving Service/Coast Guard personnel.

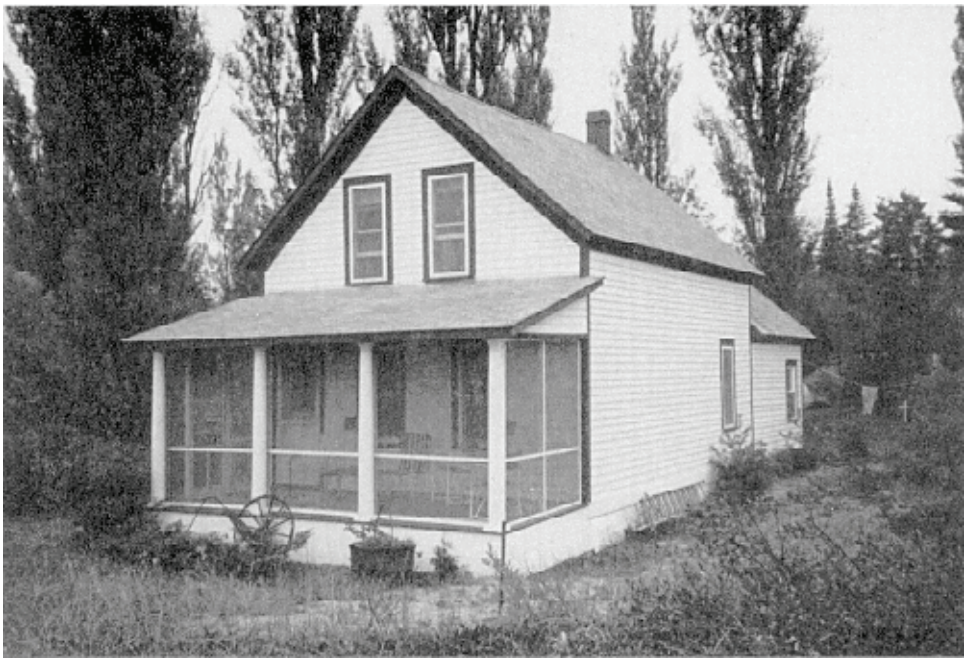


Figure 21. SMI Village Thompson/Meeker House (1994)
This house was built by Theodore Thompson, a USLSS employee, in 1915. According to the manuscript schedules for the federal population census of 1900, Theodore Thompson emigrated from Norway in 1890.

Figure 22. SMI Village Tobin Store/House (1994)
This residence was occupied by John and Lottie Tobin and their children. Tobin was in the USLSS.

Figure 23. SMI Village Furst/Cramer House (1994)
This house was occupied by Martin Furst of the USLSS. It was built ca. 1914-1916.

Figure 24. SMI Village Haas/Jenks House (1994)
This house was occupied by Harrison Haas of the USLSS. It was built ca. 1914-1916.

for crew families. It was a typical requirement that all crew members sleep at the station when on duty. Married crewmen, however, were allowed to stay with their families on their days off [70].

The majority of houses in the village were built (or moved there) between 1908 and 1920. Many were constructed in 1914 and 1915. It is difficult to determine why so many of the village houses were built on or brought to the island in a relatively short time period. Several possibilities exist. During the early twentieth century the LSS was criticized for inefficiency. In 1915, it was reorganized and merged with the Cutter Revenue Service, creating the United States Coast Guard[71]. The housing development could reflect the change from the LSS to the CG in 1915: perhaps a change in policy resulted in a greater number of married crew members, or the longer season (crew members eventually held year-long appointments) led more crew members to move their families to the island village. Since many of the crew members were originally from the island, the large number of houses added to the village between 1914-15 may indicate that a number of men had reached a marriageable age by this time. The dependable employment opportunities enabled them to provide economic security for their families. Several of the island village houses were Montgomery Ward kit homes. Since this affordable housing type allowed construction to occur quickly it is possible that the kit homes contributed to village growth during a short period of time.

For several years before the reorganization (between 1911 and 1915), the South Manitou Island Station suffered from inadequate facilities and a lack of needed improvements[72]. During that period Allen A. Kent served as the keeper (August 25, 1910 - July 25, 1916)[73]. Charles Anderson described Kent as a gruff person, but noted that Oscar Smith (Kent's successor) was "the opposite of Mr. Kent, very strict, refined and dignified."[74] It also is possible that the need to improve residential quarters, or the desire of the crew to secure a break from a domineering captain, led to the development of several village residences.

[70] Weeks, 116.
[71] Weeks, 10.
[72] Pfaller, 29.
[73] Vent, 95.
[74] Anderson, 23-24.

Figure 25. SMI Post Office/Visitor Center Building (1994)

The island post office/general store served as a major link between the island and mainland. This structure was built in 1879 and altered ca. 1904-1924. When the Burdicks moved their general store from its original location near the "old dock" in 1923, the island's community center already had shifted. By that time, the majority of village residences had been constructed near the Coast Guard Station.

While the islanders were multi-skilled and resourceful, there were some talents and services that had to be imported from the outside. In 1920, when Charles Anderson decided to build a new barn, he hired Albert Welch and his wife from Maple City to come to the island to make cement blocks for the foundation. In this case beach sand was available on the island, but someone with training and skill was required to produce the blocks that were made by hand[75]. Apparently, however, the barn was never completed. F. E. Fisher and B. J. Morgan set up a sawmill on South Manitou Island in 1905, which employed over 50 loggers. Two sawmills were in operation on the island by 1913. The people who worked at these operations put in long days, and their day-to-day life must have been tiring and monotonous[76].

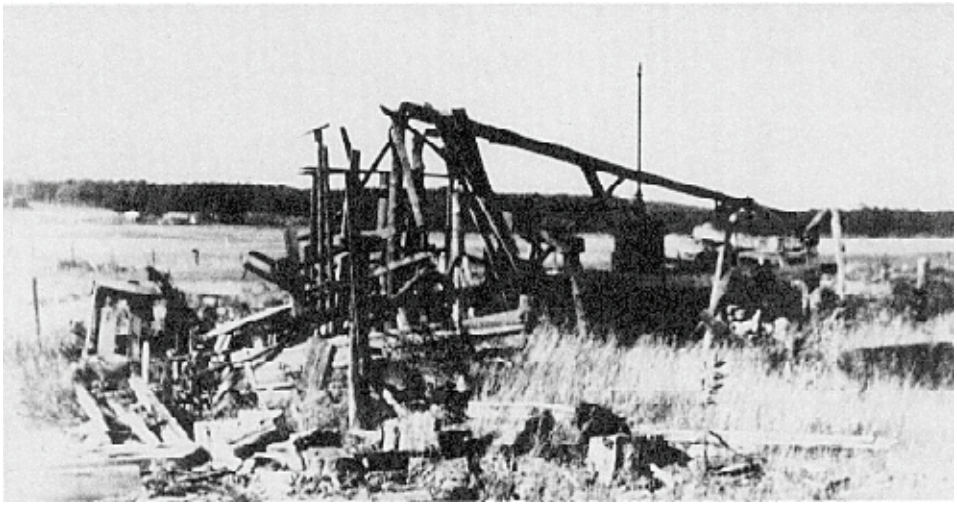


Figure 26. Remains of the Morgan-Fisher Sawmill in 1927

[75] Vent, 62.
[76] Ibid., 41.

The activities that have been described here present images of life on the island The diversity of abilities displayed by the islanders, and the necessity for them to cooperate with one another is clear when the intricacies (and difficulties) of the daily tasks they performed are understood. The ability of the islanders to work together--no matter what their differences--coupled with the island's isolated location, set the stage for the introduction of Rosen rye, and the establishment of the neotechnic phase of agriculture. The *neotechnic* and *paleotechnic* phases began to overlap in 1918 when researchers from Michigan State Agricultural College (now Michigan State University) identified the island as an ideal location for the growing of specialized seed crops that required isolation from pollination by generic strains.

Neotechnic Agriculture (1918 - 1940)

General Description

The Neotechnic phase may be defined as a period of "scientific agriculture"[77]. During this era, scientific research discoveries were applied to practical farming problems. The transformation from general or subsistence farming to scientific agriculture had a profound impact on American agricultural history. The impacts of this movement dramatically affected rural landscapes throughout America. As the business of agriscience has grown, the existence of small farms and farming communities has become increasingly tentative. Rural agricultural landscape patterns--consisting of clusters of buildings, fences, open fields, fencerows, and other landscape elements, arranged according to regional or ethnic traditions--are being replaced with large-scale expanses of single-use landscapes.

The movement toward scientific agriculture took place between 1850 and 1940, a period when American farming was "transformed from a simple, pioneer, self-sufficient operation into a modem business organized on a commercial basis and utilizing the tools of new scientific advancements." As the transformation progressed, farmers concentrated on the increased production of crops, often specializing in strains particularly well suited to local conditions. This specialization resulted in many farmers

[77] Haswell and Alanen, 66.

becoming dependent upon others for food, clothes, and implements, that formerly would have been produced at home. In addition, farmers became reliant on scientific information that was provided to them by researchers. In this way economic interdependence replaced self-sufficiency for a growing number of American farmers[78].

The American way of life both on the farm and in the city experienced major changes because of the Industrial Revolution. Changes in manufacturing industries resulted in the replacement of hand labor with machine production. Also, increased transportation opportunities led a movement from local markets to national and international trade. The impact of these changes "had a profound effect on the direction of American history in the years that followed"[79]. With more people living and working in cities--and not growing their own food--fewer farmers had to supply produce for a greater number of people[80]. Changes in the rural landscape were swift and dramatic in some instances, while in other areas the transformation of agriculture occurred slowly, if at all. At one phase, an entire rural region might be booming with activity due to its ability to fill a particular niche. The same locality could swiftly find that the next phase had rendered their contributions obsolete.

South Manitou Island's farmers had a place in this pattern. While they were privately subsistence farmers through the turn of the century, a phase of scientific agriculture began on the island in 1918 when it was chosen, by researchers at Michigan State College (now MSU) as a site for the growing of Rosen rye seed. The school opened in 1857 as the first state agricultural college in the nation. Since 1875 the college has brought information to farms through extension programs. These programs included experimentation with and the development of new strains of crops[81].

Much agricultural research in the United States has been derived from agricultural experiment stations and agricultural colleges. The experiment stations for example, focused on a variety of agricultural factors, including soil chemistry, animal husbandry, and eventually, crops. When work with crops began, the seed varieties then available to American farmers were rather limited: "While many useful varieties of the

[78] Dunbar, 486.
[79] Edward C. Hamper, Jr., and Marie Wittenberg, The Lifeline of America: Development of the Food Industry (New York: McGraw-Hill Book Company, 1964), 46.
[80] Ibid., 93.
[81] Dunbar, 486.

more important field crops were available it was apparent that for the maximum production and greatest adaptation it would be necessary to develop new strains to meet various needs." The agricultural communities of the American Midwest needed crops that were proven performers in local conditions. "While considerable gain was obtained by the importation of varieties of crops from other parts of the world," agricultural scientist H. H. Love stated in 1937, "it was evident that in the end new strains must be developed by breeding and selection in order to obtain greater yields and better quality"[82]. The improvement of field crops gradually emerged as a major focus of the scientific agricultural community.

The Michigan College of Agriculture and Experiment Station was the second institution in the United States to employ a full-time person to work on plant improvement when Frank A. Spragg was hired for this position in 1906. Spragg, who made significant advances with various crops, developed the Robust bean, Red Rock wheat, and Rosen rye among others[83]. Rosen rye became an especially important crop to the farmers of South Manitou Island in the 1920's and 1930's. In addition to Rosen rye, another specialized crop grown on the island was Michelite pea-beans.

Production of Rye in America

Compared to wheat and barley, rye has been cultivated for a relatively short period of time. Wheat and barley culture were recorded as early as 3000 B.C. Both have been closely associated with the progress of civilization, including the people of many nations who have depended upon the grains to serve as food both for themselves and their animals[84]. Rye, on the other hand, is native to northeastern Europe and was first recorded as a cultivated crop by Roman writers. The agricultural development of rye continued over 1500 years, and the crop has held a place of great importance for many nations. The principal use of rye is for making bread for human consumption. Between

[82] H. H. Love, "Contribution of Plant Breeding to the Agriculture of the United States, (1930)," in Spragg Memorial Lectures on Plant Breeding (East Lansing: Department of Farm Crops, Michigan State College, 1937), 6-8; Illinois was the first agricultural station to include plant breeding in its program when experiments began in 1896.
[83] Ibid.
[84] George Livingston, Field Crop Production (New York: The Macmillan Company, 1915), 99 and 164.

1865 and 1915 the "culture of rye in all rye-growing countries," was declining and other crops such as wheat, corn, and oats were increasing[85].

When compared to wheat, rye is more dependable on lighter sandy soils--those that are typical in Michigan. Rye is versatile and can be productively used for pasture, green manure, and as a cover and grain crop[86]. Generally, rye is easily fertilized and cross-pollinates like corn. "Developing and maintaining a pure strain of rye is one of the most difficult problems of a plant breeder," reported Michigan State College scientist F.A. Spragg in 1917, because of this cross-fertilizing feature[87].

From the turn of the century until the early 1930s, rye was a favorite crop in Michigan. "Up to 1923 the acreage sown exceeded 400,000 while in 1919 under the stimulus of the World War prices, the acreage reached 900,000." The importance of rye in Michigan began to decline in the 1930s. In 1939, Fuller stated that Michigan was the principal breeding ground for "Rosen rye," and that since 1912 Rosen rye was "practically the only strain favored by Michigan growers"[88].

Rosen Rye

In 1909, a student from Russia named Rosen, who was then attending Michigan Agricultural College, brought Russian rye seed to plant breeder F. A. Spragg. With improvement the variety quickly showed outstanding superiority. After "proving its ability to double the yields obtainable with any other variety," it was distributed around the state (in 1912) with good results when it was kept pure. Unfortunately, Rosen grown in fields adjacent to common rye produced crops that were crossed, resulting in reduced yields[89]. In 1917, the Michigan Board of Agriculture's Annual Report used the cultivation of Rosen rye as an example of the "value and need for community action"[90].

[85] George N. Fuller, Michigan A Centennial History of the State and its People (Chicago: The Lewis Publishing Company, 1939), 177-179.
[86] Howard C. Rather, Coming Through With Rye, Extension Series No. 44 (East Lansing: Extension Division, Michigan State College of Agriculture and Applied Science, 1925), n.p.; there was an update of this bulletin in 1941 written by Alvin A. Johnson.
[87] Frank A. Spragg, Rosen Rye, Bulletin No. 9, (East Lansing: Michigan Agricultural College, Extension Division, 1917), n.p.
[88] Fuller, 478.
[89] Spragg, Ibid.
[90] State Board of Agriculture of the State of Michigan, Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan for the year 1917 (Lansing: State Board.

**Figure 27. Pure Rosen rye seed head in the center,
pure common rye on the right, and some crossed types on the left.**

> *Rosen Rye*: The growing of Rosen rye has furnished an excellent example of the value and need of community action. Its superiority over common rye is at once admitted by all who have had an opportunity to see the two growing under similar conditions. This coupled with the fact that it mixes by cross-fertilization, at once challenges the best that there is in community spirit in rye growing sections to show the possibilities of standardization for more profitable production and better marketing. The results of the lack of community action are very evident in the fact that of the estimated 15,000 acres of Rosen rye in the state, probably not more than 5% of it is 99% pure[91].

The difficulties encountered in keeping the crop pure were discussed over and over again as the main problem posed by this highly productive crop. A statement from the Michigan Board of Agriculture's annual report for 1918 reflects this factor:

> The Agents have given much time toward interesting farmers in inspection and certification of Rosen Rye with a view to keeping it pure. This is now the main problem. It is no longer a question of a wider distribution of this variety in Michigan, for in several counties Rosen Rye is now sown almost exclusively; but out of the 250,000 acres estimated to have been grown in the state this year only a small amount is passing the regulations for certification. The community effort that has made this variety the standard for Michigan is praiseworthy, but an even greater community effort will be required to keep it pure[92].

In a 1918 letter published with the Experiment Station reports, Spragg stressed that more strenuous methods needed to up-breed the rye. In the next year, 50 bushels of head-selected Rosen rye seed were planted on South Manitou Island[93].

After an investigation of Lake Michigan's islands, South Manitou was carefully selected as an area to conduct Rosen rye experiments. Spragg must have been

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[91] Ibid.

[92] State Board of Agriculture of the State of Michigan, Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan for the year 1918. (Lansing: State Board of Agriculture, 1918), 215

[93] Ibid., 285; Rather, n.p.; Johnson's revision of this bulletin, written in June 1941, contains similar references to South Manitou Island.

considering the islands as suitable sites for the production of this crop as early as 1917. In a 1920 extension bulletin Spragg stated that since the Danes grew seed on islands to maintain purity, the seed stock for Rosen rye would also need to be grown at least a quarter mile distant from common rye[94]. In the report, Spragg discussed the initiation of the Manitou Island Rosen rye project:

> In order to insure the production of a supply of Rosen Rye of high purity, by increasing selected strains, where common rye can be eradicated and its introduction prevented, arrangements were made in the spring and summer of 1919 to introduce, on the South Manitou Island, selected strains of Rosen. The South Manitou was selected, after an investigation of Michigan shore islands by the writer, as being best suited. On September 12th, Mr. J. W. Nicolson was delegated to visit the island for the purpose of interesting the island farmers in adopting Rosen Rye as the standard rye of the island. Eleven farmers on the island took up the Rosen and, owing to the lateness of the arrival of the seed, the remainder made plantings of the island strain or Rosen secured from Traverse City. At the present time, the Rosen is showing up splendidly and those on the island have announced their intention of adopting it as the standard variety. The Michigan Crop Improvement Association has authorized the organization of an "Island order" to develop the highest type of Rosen possible. The work will be continued this year, based on selections made from isolated fields on the island, and next year pure strains will be introduced from the Experiment Station plats. The South Manitou bland should serve as a safe source of increase for the best type of Rosen Rye, since its isolated position enables the growers to prevent the introduction of poor strains[95].

The island's isolated location and record of community cooperation proved to be an ideal place for solving the cross-pollination problems posed by the crop. In a 1925 extension

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[94] Spragg, n.p.

[95] State Board of Agriculture of the State of Michigan, Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan for the year 1920. (Lansing: State Board of Agriculture, 1920), 281-282; the quotation is from a letter from J.F. Cox, Farm Crops Division, to Director R.S. Shaw, M.A.C., in the report on the farm crops section.

bulletin, appropriately entitled Coming Through with Rye the island was discussed specifically:

> **South Manitou Island is Pure Seed Breeding Ground:** To further assist in maintaining a pure Rosen supply, fifty bushels of the head-selected Rosen seed were planted on South Manitou Island, twelve miles off the mainland in northern Lake Michigan. This was in 1918, and ever since, in the perfect isolation of the island's forest-surrounded fields, there has been produced some of the purest and best quality of rye known. Each year representatives of the Crops Department of the Michigan State College work with island rye growers in further head-selecting Rosen rye to be increased on South Manitou for later use by growers on the mainland. Four years out of six, island rye, resulting from this careful selection work, has won sweepstakes honors at the International Grain and Hay Show, the greatest distinction which rye can achieve.
>
> **Seed Certified by Michigan Crop Improvement Association Has Unusual Merit:** Growers wishing to secure the most from their rye crop, both in quality and in yield, will do well to renew their seed very frequently from stock certified by the Michigan Crop Improvement Association. This open organization of farmers works under the supervision of the Michigan State College, and the rye it certifies comes directly from the Experiment Station from South Manitou or other parts where breeding work is maintained, or is mainland seed only a generation or two removed from the highly desirable head-selected stock. Such seed rye is grown in isolated fields, thoroughly cleaned and rouged to free them from weeds, and it conforms to very high standards of purity and vigor in order to meet the requirements for certification laid down by the Association.
>
> Pure Rosen, thus handled, frequently yields from thirty to forty-five bushels per acre under favorable conditions, with yields of as high as fifty-four bushels per acre having been recorded. Common or mixed rye seldom exceeds fifteen to eighteen bushels per acre, and a twenty to twenty-five bushel yield is exceptional [96].

[96] Rather, 1925, n.p.

The importance of Rosen rye to Michigan agriculture during the early twentieth century was repeatedly expressed in Board of Agriculture annual reports[97]. In addition to the significant role that the production of this seed crop played on South Manitou Island, Rosen rye strains eventually were distributed and grown throughout the nation. By 1925, Rosen or "near-Rosen" occupied practically all of the Michigan rye acreage, and the variety was important in the states of the northern Corn Belt, in New York, and on the lighter soils of southern Wisconsin and Minnesota[98]. In 1921, Spragg began an experiment to compare the Rosen rye varieties most highly recommended throughout the country, including those from Michigan. The following excerpt from Spragg's statement in the 1922 State Board of Agriculture's annual report explains the importance of this experiment:

> A yield test series of ryes was planted last fall. This has been needed for a number of years. When the Rosen rye was originally distributed in 1912 the tests on the Station plats showed that it was yielding about twice as much as the ryes generally in use. Because of its superior yield and quality it would have entirely replaced all original ryes, had it not been that it, being an open fertile crop, was somewhat intercrossed with inferior rye varieties in earlier years. Five years passed before the Michigan Crop Improvement Association instituted field and grain inspection in 1917, selecting only five per cent of the Rosen rye to continue as certified Rosen. The different growers, through selection from their strains of Rosen have produced different strains but nothing was known regarding the relative yielding powers of these strains. Also, during the last decade, considerable rye breeding has been done by other experiment stations. As Rosen rye is now sold to buyers in nearly every rye growing state, it was advisable for the Michigan Station to make a collection of the ryes recommended by other stations and conduct a complete varietal test[99].

[97] State Board of Agriculture of the State of Michigan, Annual Reports, 1918 through 1924 (Lansing: State Board of Agriculture).
[98] Joseph F. Cox, Crop Production and Soil Management (New York: John Wiley & Sons, Inc., 1925), 287. Also in this book, Figure 142 is entitled: "An Isolated Rosen Rye Seed Field on the South Manitou Island, Michigan", 290.
[99] State Board of Agriculture of the State of Michigan, Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan for the year 1922 (Lansing: State Board of Agriculture), 1922, 215.

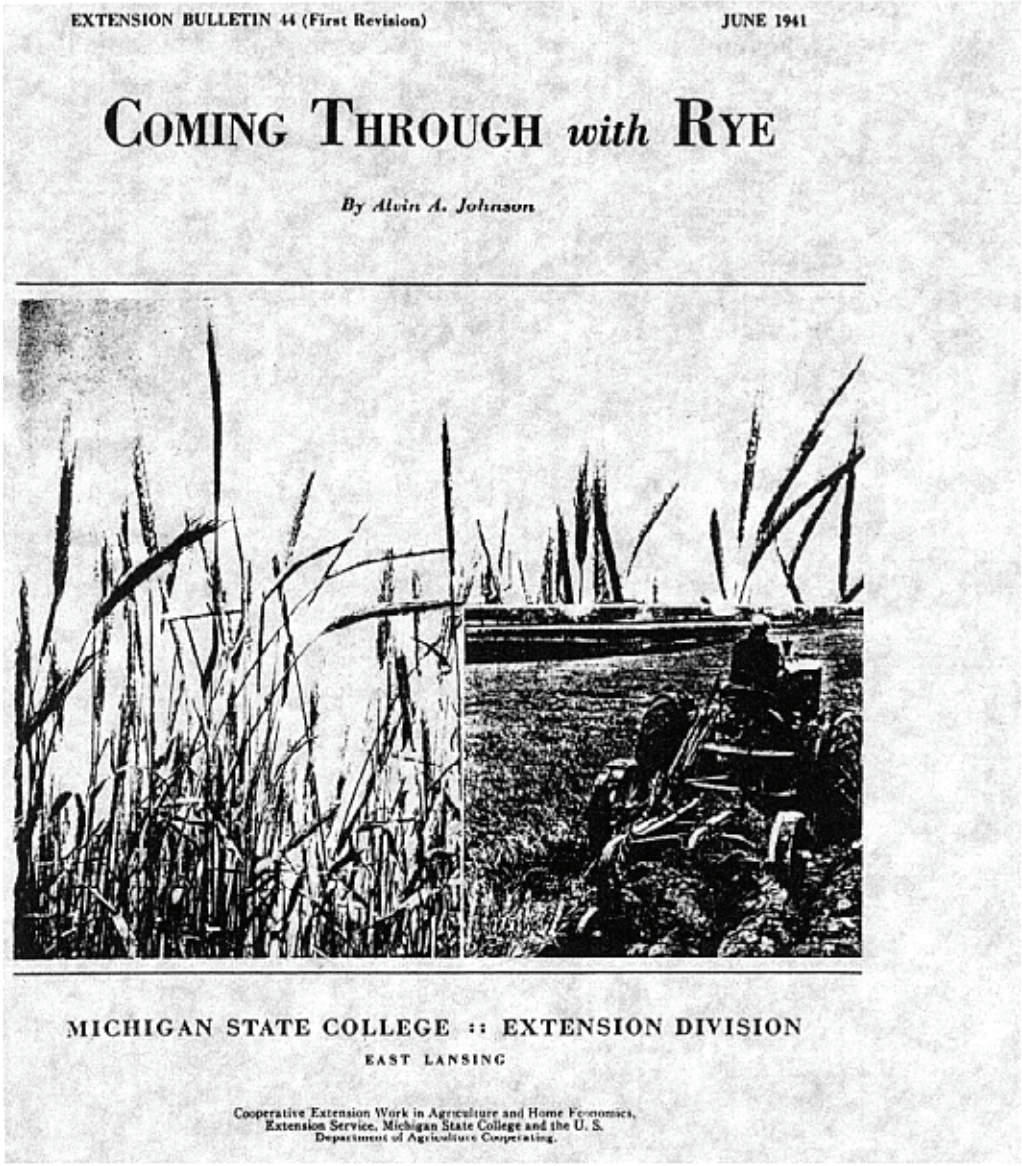

Figure 28. Cover of a 1941 Extension Bulletin: "Coming Through With Rye."

Another report, in 1923, indicated that the experiment was continuing:

> In the fall of 1921 a large number of ryes were obtained from various experiment stations over the country. Our circular letter aimed to find all of the ryes that are being recommended by experiment stations. These ryes were included in a varietal series which also included a number of strains of Rosen. The series was repeated this year and will be repeated the third year in order that we may find the better yielding ryes for breeding purposes and that we may become intelligent regarding the relative values of the various pedigreed varieties under Michigan conditions[100].

The project continued until Spragg's death in an automobile accident on 12 August 1924. In the Board of Agriculture's annual report for that year, Joseph Cox stated that Spragg's experiments would continue; nevertheless, annual reports for subsequent years do not include specific references to the island. Spragg's ledgers, on file in the Michigan State University archives, contain numerous listings of "Island Rosen Rye" and "Hutzler Rosen Rye," indicating that island varieties were among those being compared nationally. The numerous first prize awards the Hutzlers received at national and international agricultural expositions indicate that the strains grown on the island were highly acclaimed. The 1924 annual report stated: "The Rosen rye, distributed in 1912, has spread from ocean to ocean and is now reported in Farmers' Bulletin No.1358 as the best rye for the corn belt conditions"[101].

During the time that Spragg was at the Michigan Experiment Station, Cox was head of the Farm Crops Department. In his 1925 book, Crop Production and Soil Management, Cox made references to the island's farmers and their success in growing

[100] State Board of Agriculture of the State of Michigan, Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan for the Year 1923. (Lansing: State Board of Agriculture, 1923), 241.
[101] F. A. Spragg, "1924 Report of the Section of Farm Crops, Michigan Agricultural Experiment Station," in State Board of Agriculture of the State of Michigan, Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan for the Year 1924 (Lansing: State Board of Agriculture, 1924), 221.

Figure 29. George Hutzler with ribbons won for his Rosen Rye (date unknown)

Figure 30. Louis Hutzler with prize Rosen Rye (ca. 1925)

Rosen rye. A copy, found on the island by Park Service personnel, contains the following inscription on the inside front cover:

> To my friends, George and Louis Hutzler, whose remarkable work in selecting and improving the Rosen Rye has furnished an outstanding example which may well serve as an inspiration to coming generations. With fondest regards, Joseph F. Cox. January 24, 1925[102].

Quite obviously, the Hutzler's crop management activities were highly respected by many people, including crop scientists. While the island was no longer mentioned in the State Board of Agriculture's Annual Reports after 1924, oral histories and other sources indicate that the production of Rosen rye seed and other crops continued late into the 1930's, and even possibly into the early 1940's. In 1938, the annual Co-operative Extension report mentioned an agent's visit to the island's farms:

> Rosen Rye: The County Agent made the trip to South Manitou Island and visited the farm of George and Lewis Hutzler who grow the pure strains of Rosen Rye. The rye fields were looking fine. Some rows were cultivated and being used in the head selection work. These were especially fine. The Hutzlers take great pride in their farm and do not try to grow great acreages but grow about twelve acres each year. Discussed the problem of head selection and raising and distributing seed[103].

The earliest aerial photograph of the island was taken that same year; an examination of it provides an image of cropland locations on the island. These are described in the section of this report entitled "Evaluation of island scale landscape characteristics.

[102] Joseph F. Cox, Crop Production and Soil Management (New York: John Wiley and Sons, Inc.), 1925; the inscription is on a copy now found at Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.
[103] Narrative Report of County Agricultural Agent, Benzie and Leelanau Counties Michigan, 1938, on file at the Benzie County Cooperative Extension Service office, Beulah.

Michelite Beans

In addition to rye, beans were also grown for seed on the island. While there is not as much documentation for this crop as for Rosen rye, most of the island's farms grew seed beans for cash sale. In a 1938 Co-operative Extension report, a specific registered bean, Michelite, is mentioned:

> Seed grown on South Manitou: The Hutzler's of South Manitou Island grow registered Michelite beans for seed. Being isolated their crops are exceptionally free from disease. Their fields were visited at the same time as the Rosen Rye plots[104].

A 1946 newspaper article indicates that in 1937 the "famed Michelite bean got its start on South Manitou Island." The article indicates that a Michigan State college plant breeder, Dr. E.E. Down, developed the Michelite variety and supervised the planting of purified seed on the island. It was estimated that "at least eighty percent of all pea beans grown in the United States," in 1937, were "of the improved Michelite variety," and "only a small percentage of Michelite beans now raised are more than two generations removed from the parent stock of South Manitou Island"[105].

It appears the beans were grown on the island for many of the same reasons as Rosen rye. Frank Spragg, the scientist from Michigan State University who conducted the Rosen rye experiments, also did work with many other crops, including Michelite beans.

Growing specialized seed crops filled a niche that allowed island farmers to prosper--despite their remote location and the small size of the farms. Nonetheless, even this form of specialization could not sustain the island's farms as changes in markets, competition, and transportation technology began to take a toll by the late 1920's.

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[104] Ibid.

[105] "Guardians: From Lonely Manitou Island Come Nation's Blueblood Seeds," State Journa1 (Lansing, Michigan, 29 September 1946). The importance of pea beans, or navy beans, is well documented for its role in feeding Americans during the war. However, the connection made between these beans and South Manitou Island has not been as well documented as for Rosen rye. It has not been able to verify the claim made in this article, that island beans were the parent stock for the majority of Michelite beans in the country.

Figure 31. A bean field at the George Conrad Hutzler Farm on South Manitou Island (ca. 1922-1946)

Agricultural Decline, Early Tourism and Related Developments (1940 - 1970)

Agricultural Decline

According to oral histories, the introduction of new technologies changed South Manitou Island as it became less important as a transportation hub for farmers who gradually became isolated from their markets. Louise Oligney, who lived at the August Beck farm from 1927 to 1930, pointed out the difficulties involved with transporting agricultural products to the mainland[106]. She indicated that changes in transportation technology had a dramatic impact on the island's farmers. When the conversion from steamers to coal burning ships was made on the Great Lakes, it no longer was necessary to stop at the island for fueling purposes. Also, the development of better roads and railroads on the mainland made those farms more competitive and accessible to markets than the island farms. When asked if her grandfather, August Beck, ever mentioned anything in particular that was done differently than had occurred earlier, Ms. Oligney responded:

> The major changes that were coming at that time, which had a bearing on the farm, was the fact that there were no longer the big ships coming in. The dock had deteriorated and the marketing of the products from the farms for money to buy the staples and to carry on the farm was becoming much more difficult to come by. They would have to try to get somebody from over here at Frankfort to come over with barges … that was the biggest problem, and that was what discouraged my father ... and he gave up on it.
>
> Now, before that, not while I was there, but I understand from my grandfather and others there that they had pretty good markets. Because the big ships would come in and buy the grain and beans … and I believe they even sold cordwood … so, yes; things were changing[107].

[106] Interview with Louise Oligney, conducted 18 September 1994, by Brenda Williams; transcript on file at Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.
[107] Ibid.

She also remembered that to afford the costs associated with transporting crops to market, several island farmers would arrange to ship their products at the same time. When asked about the way they went about this, Ms. Oligney replied:

> They usually tried to get together, so that when the barge came they would have a load to make it worthwhile, otherwise the cost was so great, and you couldn't afford it. But I remember that my father would make a trip over by the regular mail boat and to try to set up a buyer for whatever he had to sell[108].

The farmers had to make two trips, one to find a buyer or buyers and the other to transport their goods. The trip, which could easily take an entire day or more, was a substantial amount of time to spend away from the daily operations of a small family farm.

In the 1940's, several families associated with island agriculture began to leave. Many left for health purposes, especially as people became older and were unable to handle strenuous farming life. In many cases, younger individuals departed earlier to seek employment, companionship with people of their own ages, and easier lives for themselves and their families. As it became more and more complicated to reach the island, and fewer and fewer people lived there, the diverse community in which people could rely upon others to provide services and help was disbanding. As the long-time residents left, several sold their land to a developer named William Boals; with this action, the tourist era began on South Manitou Island.

Early Tourism and Development

William Boals was a member of "Lee Island Associates," a development group that intended to turn South Manitou Island into a resort. Around 1948, the organization took over ownership of the Conrad Hutzler farm, which was purchased from Louis Hutzler. By this time, the Associates already had obtained title to the Theodore and August Beck farms. According to one account, the new owners planned to continue previous agricultural practices by raising rye and beans, and eventually by

[108] Ibid.

FABULOUS SOUTH MANITOU ISLAND

(Also known as Lee Island)

LOCATED 225 miles north of Chicago, in Lake Michigan . . . 16 miles from Leland via U.S. Mail boat . . . 8 miles from Glen Arbor . . . 29 miles from Traverse City . . . 230 miles from Detroit

ALTITUDE—1100 feet above sea level.

COOL—20 degrees cooler in summer than on mainland

AREA—5,000 acres, 4 by 3½ miles.

SAND DUNES—450 feet high. Climbing for hardy mountaineers, fine view.

SMALL LAKE in center of island, one mile long, half mile wide. Fishing.

LUMBER CAMP—Old Michigan lives again.

U. S. COAST GUARD—Government dock, U. S. Coast Guardsmen, assures safety.

PHONE connected with mainland cable.

PESTS—No rats or poisonous snakes.

AIR FIELD for small planes. Emergency.

STOCK RAISING—Farming, deep sea and small lake fishing

GEOLOGY—Underlying salt. Oil 40 miles east and Pentwater south.

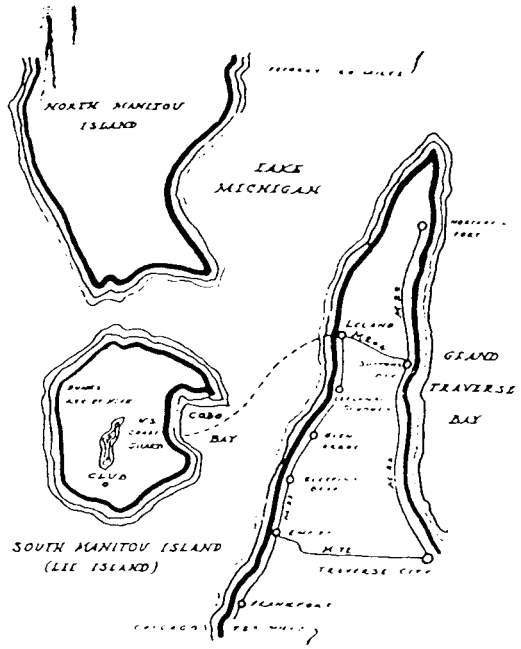
COBO BAY—Mile wide, take largest ships, fine bay of refuge for yachtsmen. Prevailing winds from west. Also beautiful sandy **BEACH** for bathing.

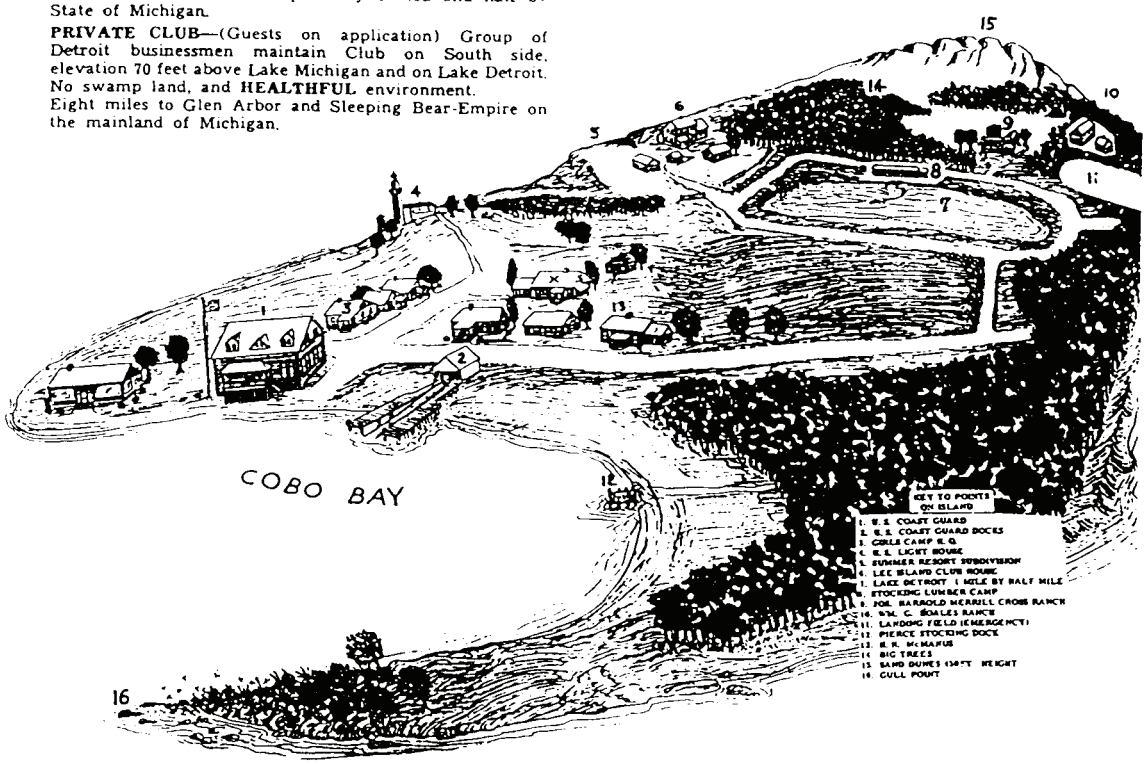
GAME—No game on Island (1200 head of deer on North Manitou Island 4 miles North)

GOOD ROADS—Several cars on Island.

OWNERSHIP—About half privately owned and half by State of Michigan.

PRIVATE CLUB—(Guests on application) Group of Detroit businessmen maintain Club on South side, elevation 70 feet above Lake Michigan and on Lake Detroit. No swamp land, and **HEALTHFUL** environment. Eight miles to Glen Arbor and Sleeping Bear-Empire on the mainland of Michigan.





Artist's sketch of South Manitou Island, Michigan

Figure 32. Development Plan for South Manitou Island (1959)

adding livestock[109]. That same year, an article in Motor News discussed South Manitou Island and a proposed development planned by the "Lee Island Company," headed by Lee Barrett[110]. This plan never completely materialized, but the Theodore Beck farmhouse was renovated into a "lodge" for visitors. This house sits on a bluff at the southern end of the island and provides visitors with spectacular views of Lake Michigan and Sleeping Bear Point on the mainland.

Development efforts at the site were renewed in 1959 when Joseph W. Harrold announced plans to build a marina, lunchroom, and other facilities on the island for summer guests. A newspaper account from that period reported on these plans:

> Immediate and long-range plans for developing South Manitou Island as a tourist and resort center were announced this week by Joseph W. Harrold of Detroit.
>
> Harrold, president of the Lee Island Company formed several years ago by I. Lee Barratt of Detroit to develop the island, has leased for three years from the Company its lodge and 243 acres of land which includes access both to Lake Michigan and to the inland lake. He plans immediately to begin construction of a marina, lunch room, golf driving range and putting green. The marina will include a 90 foot "L" shaped dock, pilings for which already are being cut.
>
> George Grosvenor of Leland, operator of the 52-foot island mail boat Manitou Isle, expects to make daily passenger runs to the island. The new development will be on the south end of the island. The present lodge will accommodate 12 to 15 guests. Harrold expects later to expand the marina and build guest cottages[111].

[109] Undated newspaper clipping located in the Betty Kramer Collection, Notebook #2, 21, on file in the Leelanau Historical Museum, Leland, Michigan; the name of the newspaper is missing and "1948" is written above the clipping.

[110] Vent, 42.

[111] Newspaper clipping located in the Betty Kramer Collection Notebook #2, 61, on file in Leelanau Historical Museum, Leland, Michigan; the name of the newspaper is missing and "5-7-59" is written at the top of the clipping.

Again, most of the facilities were never constructed. A June 1962 newspaper advertisement for the lodge indicates that the facility operated for over a decade[112].

Also in 1959, other attempts were made to encourage recreation and tourism on the island. Fred Burdick returned to South Manitou, where he had been born (he is a descendant of Putnam Burdick, the second settler on the island). Joined by his wife, Bea, they began a small tourist operation. Eventually the Burdicks constructed several cottages along the edge of Florence Lake, and operated the island store (his parents had run a store and post office on the island when Fred lived there as a child)[113]. The Burdicks provided several other services for visitors, including jeep transportation around the island, and burro rides. A 1959 newspaper article referred to the difficulties involved in transporting the burros to the island:

> Three burros, bound for South Manitou Island, displayed a natural reluctance to "walking the Plank" Thursday as they were urged aboard the mail boat *"Smiling Thru"* for their 18 mile Lake Michigan ride. The Burros, owned by Mr. and Mrs. Fred Burdick of South Manitou and Lansing, will be used in sulky or saddle to provide rides for island visitors. Jeep transportation also is provided for the hundreds of persons expected to go to the island by excursion boat during the summer[114].

The Burdicks, who owned a sizable portion of island property, began to partition some of it for sale and development in the 1960's. One of these parcels was sold before the National Park Service approached island land owners to inform them about plans to make it an NPS unit. In the late 1960's, activities were in motion to create a National Lakeshore from portions of Leelanau and Benzie counties, including all of South and North Manitou Islands.

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[112] Undated newspaper clipping located in the Betty Kramer Collection. Notebook #2, 60, on file in the Leelanau Historical Museum, Leland, MI.
[113] Fred Burdick interview.
[114] Newspaper clipping located in the Betty Kramer Collection, Notebook #2, 60, on file in the Leelanau Historical Museum, Leland, MI; the name of the newspaper is missing and "6-4-59" is written at the bottom of the clipping.

The National Park Era (1970 - Present)

Sleeping Bear Dunes National Lakeshore (SLBE) was authorized by the U.S. Congress in 1970, with all of SMI included within its boundaries. In 1974 the island's last permanent residents, who were tenant farmers, moved from the island[115]. Since that time, the NPS has been responsible for managing the island's resources. Once SLBE was authorized, the main management objective was to preserve the dunes and natural landscape features threatened with destruction by intensive recreation and tourism. Since preservation of the *cultural* landscape was not a primary concern at the time, attempts were made to eliminate most traces of human activity in many areas--including SMI.

The current management of SMI is guided by several NPS planning documents; they are summarized briefly in the ensuing discussion, with emphasis given to the management of the historic farm sites. Both the General Management Plan and Wilderness Recommendation establish 1,058 acres of the island as potential wilderness; 4,253 acres are recommended for wilderness designation; and 167 acres in an agricultural zone are excluded from any wilderness designation[116]. The island's wilderness designation has not yet been approved by the U.S. Congress; nevertheless, NPS policy requires that "The Park Service will take no action that would diminish the wilderness suitability of an area recommended for wilderness study or for wilderness designation until the legislative process has been completed. Until that process has been completed, management decisions pertaining to recommended wilderness and wilderness study areas will be made in expectation of eventual wilderness designation"[117]. These policies go on to state that "cultural features ... included within wilderness will be protected and maintained using methods that are consistent with the preservation of wilderness character and values"[118]. Both the GMP (1979) and Wilderness Recommendation (1981) were prepared before rural vernacular landscapes were recognized by the NPS as having potential significance. It is important that these planning documents now be reconsidered as new information regarding the Lakeshore's resources emerges.

[115] "Island's Last Two Permanent Residents Forced to Leave," Detroit Free Press 26 May 1974.
[116] National Park Service, Sleeping Bear Dunes National Lakeshore General Management Plan (Empire, MI: Sleeping Bear Dunes National Lakeshore, 1979); National Park Service, Sleeping Bear Dunes National Lakeshore Wilderness Recommendation (Empire, MI: Sleeping Bear Dunes National Lakeshore, 1981).
[117] U.S. Department of the Interior, National Park Service, "Management Policies." Chapter 6. (Washington, D.C. 1988), 6:3.
[118] Ibid., 6:7.

An Open Field Management Plan was also prepared for Sleeping Bear Dunes National Lakeshore in May 1990. This plan contains management recommendations for two of the historic farm sites on South Manitou Island. These farms are located in the agricultural landscape zone along the vehicle tour route. The plan recommends keeping the identified "old fields" open through a combination of mowing and hand cutting. This procedure is used for 37 acres at the August Beck farm and 45 acres at the George Conrad Hutzler farm. The plan indicates that much of the original configuration of the fields has been lost, and that re-establishing the historic patterns would be unrealistic due to the expense involved. The plan prescribes establishing a 50-foot wide swath around the fields at the existing forest edge. Also, a 50-foot swath is to be mowed around the buildings. Brushy plant species at the centers of the fields are recommended for removal by hand. Mowing is suggested on a five year cycle that is to occur after 15 August of any given year. The fields are to be monitored to determine that the five year cycle is adequate. Old fields located outside the designated agricultural landscape zones are managed with a "no action" alternative, which "allows natural succession to occur"[119].

The Open Field Management Plan plays a major role in preserving the historic agricultural landscapes associated with the Beck and Hutzler farms. The choice of these sites as a focus for open field management was based on their condition when the plan was prepared. Since they were the most recently cultivated sites, forest succession was less prominent. The assumption that the original field shapes had changed was based on their fallow condition for many years. New information regarding historic field patterns is included in the evaluation section of this report. Also, management approaches are presented in the landscape management section.

The Cultural Resource Management Plan for the Lakeshore is updated yearly[120]. This document outlines the present status of cultural resources within the boundaries of the Lakeshore, and provides an overview of current management programs and project statements for required future projects. The plan indicates the great need to inventory,

[119] Sleeping Bear Dunes National Lakeshore Open Field Management Plan (Empire, MI: Sleeping Bear Dunes National Lakeshore. 1990).
[120] Sleeping Bear Dunes National Lakeshore Cultural Resource Management Plan (Empire, MI: Sleeping Bear Dunes National Lakeshore, 1993).

evaluate, protect, and stabilize the extensive cultural resources located within the Lakeshore's boundaries. "Inventory and evaluation is (sic) essential so that the NPS and the public will know the extent of cultural resources within the park and their significance." It points out that the "public has expressed their desire that visitor access to key cultural resources be a top priority." Concern about the proper allocation of Lakeshore resources is clear in the document; likewise it points out that the extensive agricultural resources within its boundaries increases the need for evaluation[121]. This report documents and evaluates the historic agricultural landscapes on SMI and is intended to address the need to seek a better understanding of these resources. When this study is coupled with the two previous reports prepared for assessing the historic and cultural landscape resources of the Sleeping Bear Dunes region and Port Oneida district, they will inform managers and help them make better decisions for the Lakeshore's cultural landscape resources[122].

Figure 33. The Christoph & Catharine Beck/August & Elizabeth Beck Farm (1976)

[121] Ibid.
[122] HaswelI and Alanen, 1994; Marla J. McEnaney, William H. Tishler and Arnold R. Alanen, Farming at the Water's Edge: An Assessment of Agricultural and Cultural Landscape Resources at the Proposed Port Oneida Rural Historic District. Sleeping Bear Dunes National Lakeshore Michigan (Omaha: Midwest Regional Office, National Park Service, 1995).

Chapter 5
DESCRIPTION AND ANALYSIS OF INDIVIDUAL FARMSTEADS

This section focuses on those historic agricultural properties that are considered to have played an influential role in the island's past, and continue to display tangible reminders of that past. In addition, it includes information about properties originally acquired through the provisions of the 1862 Homestead Act but which no longer contain any extant features. Also included are several non-farm properties and elements that are directly related to the historic significance of the island's agricultural landscapes. All of the farms described in this chapter were first purchased through the terms of the 1862 Homestead Act, with the exception of the Theodore and Alvina Beck farm. While this farm was not purchased through the homestead process, it is included because of the integral role that the farm played in the Beck family operations as well as in the island community. Also, the extant buildings and cultural landscape components at this property required analysis to determine their levels of significance and integrity.

The farms included have been divided into four categories based on the current condition of the properties. They are listed as follows: 1) "farms with standing structures," including buildings in stable condition and, in some cases, the ruins of structures and cultural landscape remnants; 2) "farms with ruins of structures," and cultural landscape remnants; 3) "farms with cultural landscape remnants," not including any remnants of buildings, other than foundations, but they may include small-scale elements such as stone walls and farm equipment and/or domestic plants; and 4) farms that have no extant features but were acquired through the Homestead Act.[1]

In addition to the agricultural properties described in this chapter, there were other farms on the island. Through time, the island farming community included several farms that were small in size or operated for relatively brief periods of time. The children of a farming family may have been given, or purchased, a small parcel of land

[1] One of the South Manitou Island seasonal rangers, Linda Henry, is preparing a detailed document that traces the history of most of the properties on the island. The current draft of her document, termed "unpublished family history" in this report, has been used along with other sources in the preparation of the "family history" portions of this section. Since her unpublished family history does not have page numbers, the specific sections of her report that refer to individual farms will be identified in the footnotes.

where they could live and have a garden, while continuing to work on the main family farm. In other cases, people who had occupations other than agriculture ran a small farm to supplement their pantry or income. Farms that were short lived, small, have no remaining extant features, or for which little information is available, have not been described in this report.

The sites included in this chapter are:

Farms with Surviving Buildings

- George Johann & Margaretha Hutzler/John Hutzler Farm
- George Conrad & Mary Ann Hutzler/George & Josephine Hutzler/Louis & Lois Hutzler Farm
- The Beck Family--Chnstoph & Catharine Beck/August & Elizabeth Beck Farm (Christoph Beck Homestead and August Beck Homestead)
- Theodore & Alvina Beck Farm
- James Sheridan/Aaron & Julia Sheridan/Henry & Maggie Haas Farm

Farms with Structural Ruins

- Thomas & Mary Kitchen/Mary (Kitchen) Price & Thomas Price/Andrew & Sarah Burdick Farm
- George & Maria Haas/Willie (Bill) Haas Farm

Farms with Cultural Landscape Remnants

- Thomas & Mary Kitchen/Mary (Kitchen) Price & Thomas Price/Charles & Mollie Anderson Farm
- Alfred & Hannah Evans/Thomas & Estelle Foster Farm & Sawmill

Homesteaded Farms with No Extant Features

- Andrew & Ulricka Erickson Homestead
- Richard and Sarah Kitchen Homestead
- Roland Shank Homestead
- James & Elizabeth Miller Homestead
- Thomas & Margaret Armstrong Homestead
- Joseph Haas Homestead
- Ray Kent Homestead

Non-Farm Properties Related to Agricultural Community

- Schoolhouse Site
- Roads and Trails
- The Island Cemetery
- The “Old Dock” Site
- Site of the Historic Railroad Track
- Grave Sites
- The Sawmill Site

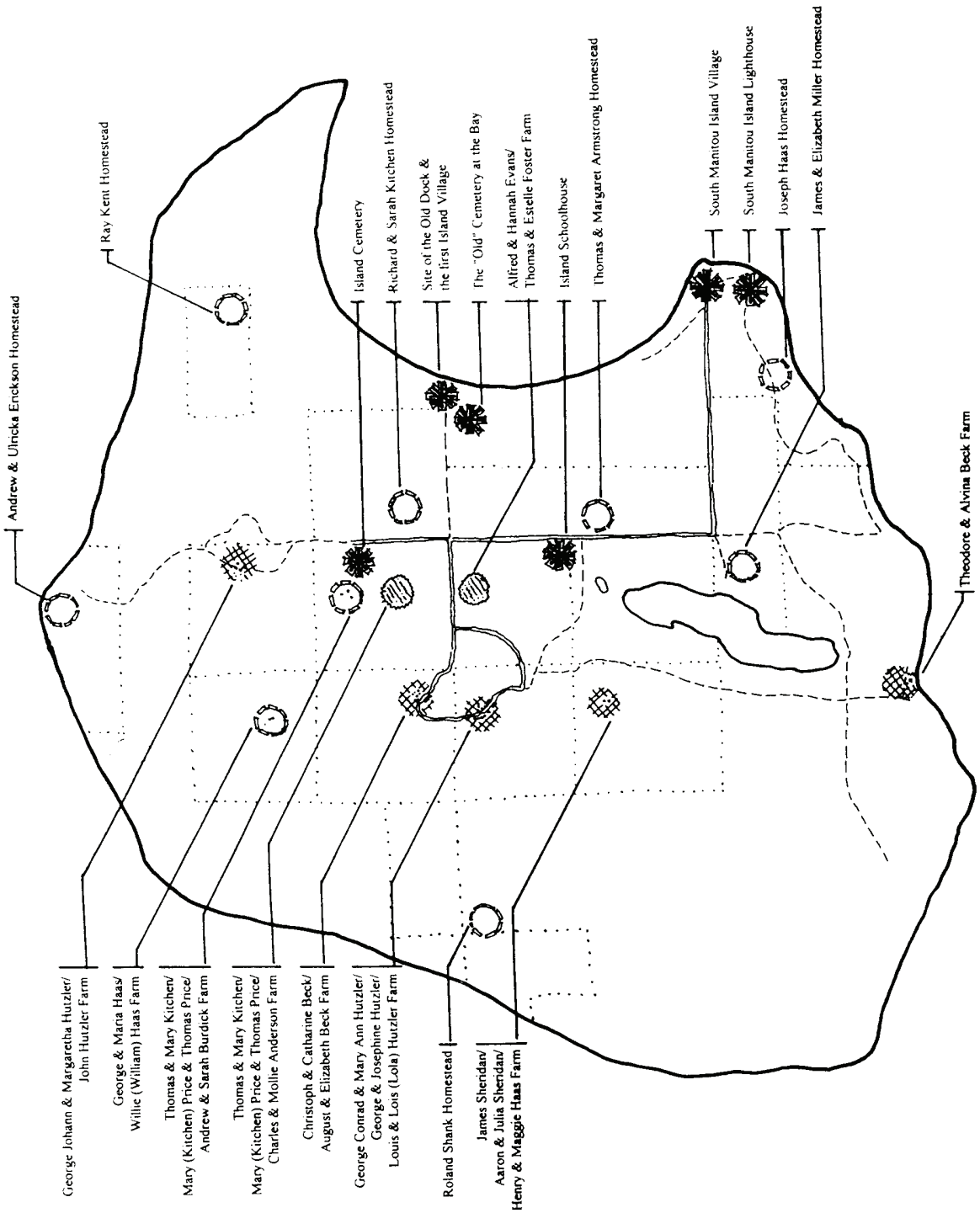

FIGURE 34. SOUTH MANITOU ISLAND HISTORIC SITES

*For explanation of symbols, see page 82.

Farms with Surviving Buildings

George Johann and Margaretha Hutzler/John Hutzler Farm

Family History and Agricultural Data

George Johann and Margaretha Hutzler, along with their children, are considered the first farming family to arrive on South Manitou Island. The story of their trip is described in the Agricultural History section of this report. The first homestead application for an island parcel was filed by Hutzler on 9 January 1863 for 160 acres of land described as the Northeast quarter of Section 33 in Township 31 North, Range 15 West. The proof for this claim, filed in August 1868, stated that the family had cultivated 15 acres of land, built two barns, planted 60 fruit trees, dug a well, and built a 20' x 28' house with a shingle roof, board floor, two outside doors, and five windows.[2]

The manuscript schedules for the 1870 Agricultural Census indicate that this farm included 40 acres of improved land and 280 acres of woodland. George Hutzler owned six horses (the only farm horses on the island at the time), ten milk cows, sixteen other cattle, and four working oxen. During the year ending 1 June 1870, the farm produced 15 bushels of spring wheat, 150 bushels of rye, 10 bushels of oats, 300 bushels of Irish potatoes, 150 pounds of butter, and 6 tons of hay. The overall value of the farm was estimated at $1,139.[3]

The next ten years were a time of growth for the Hutzler farm: the area of tilled fields expanded from 40 to 60 acres, and the value of the farm increased from $1,139 to $2,000. In 1880, the farm included eight milk cows, twenty-eight other cattle, and six swine. The crops included six acres planted to barley, which produced 180 bushels; four acres planted to Indian corn (100 bushels); twenty acres planted to rye (500 bushels); two acres planted to wheat (20 bushels); four acres planted to oats (200 bushels); and three acres planted to potatoes, (400 bushels). The Hutzlers also grew four bushels of peas and one bushel of beans; they harvested two bushels of peaches from one tree, and four bushels of apples from ten trees.[4] The Hutzler family built a large barn for livestock that

[2] Homestead Application No. 99, Traverse City Land Office (National Archives and Records Administration, Washington, D.C.).
[3] Manuscript schedules for the Federal Census of Agriculture, 1870.
[4] Manuscript schedules, for the Federal Census of Agriculture, 1880.

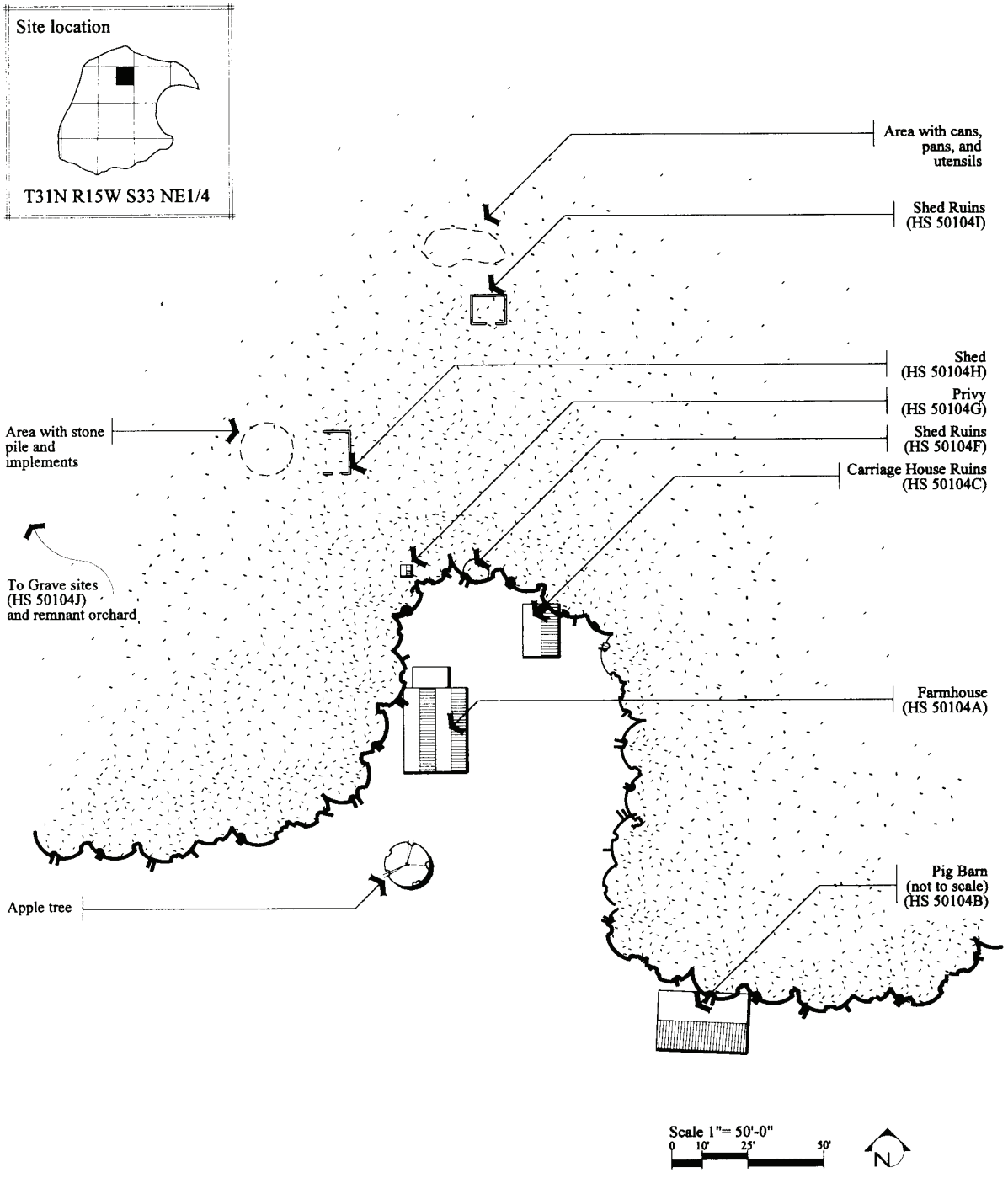

FIGURE 35
PLAN OF THE GEORGE JOHANN & MARGARETHA HUTZLER FARM (1994)

was destroyed by fire in the 1930's.[5] There also were several other outbuildings, including a pig barn that still stands and is listed in the National Register of Historic Places.

George Hutzler lived on the island for the remainder of his life (he died in 1888). After his death, Margaretha eventually moved to Chicago where she died in 1909.[6] Johnny Hutzler continued to operate the farm after his parents' deaths. He married Bertha Peth; they had one son, Stanley, who was born around 1899. The couple divorced after Stanley was tragically trampled by a bull and died when he was two years of age. After their separation, John and Bertha still relied on one another. He would cut wood for her in the winter, and she would bake bread for him and feed his animals. John continued to farm on the family homestead until his death in 1944.[7] The property was purchased in the 1970's by the National Park Service from Martin J. McCarthy.[8]

Location

This is the northern-most farm on the island that still has extant buildings. It can be found by traveling north, for about one-half mile, on the trail that leads from the island cemetery to the Popple Campground. Since the farm is not part of the vehicular tour, it can be reached only on foot. Beginning at the open expanse near the cemetery, the trail quickly enters the wooded area, consisting of a Beech-Maple-Yellow Birch-Hemlock forest that alternates with patches of old fields filled with dense juniper.

Slightly south of the farm complex a small trail leads west from the main path to the grave sites for George Johann Hutzler, and a burial marked "Peth." This site is completely surrounded by dense forest. Just to the north are indications that a different type of landscape once existed at this site: tree stumps display diameters ranging from 30"- 40"-- the remnants of an orchard. While there no longer are any fruit-producing trees,

[5] Vent, 29; also noted in Henry, "George Johann and Margaretha Hutzler/John Hutzler Farm."
[6] Vent, 30; cited in Henry, "George Johann and Margaretha Hutzler/John Hutzler Farm."
[7] Vent, 72-75; also noted in Henry, "George Johann and Margaretha Hutzler/John Hutzler Farm." Other sources that coincide with this story include the manuscript schedules for the Federal Population Census, 1900; and Charles M. Anderson, Isle of View: A History of South Manitou Island (Frankfort, Michigan: J.B. Publications, 1979). 79-85.
[8] "National Park Service Land Status Map" (Washington, D.C.: United States Department of the Interior, Office of Land Acquisition and Water Resources, 1970).

Figure 36. George Johann and Margaretha Hutzler/John Hutzler Farm (1994)

and the stumps are surrounded by the dense shade of the forest, a grid pattern running north-south and east-west can be detected. This reflects a deliberate planting pattern--indicating that the trees were planted in rows as an orchard.

Since the area was mostly cut over when George Johann Hutzler and his family arrived, the isolated nature of the farm was not always evident. At that time there undoubtedly were some spectacular views toward Lake Michigan and North Manitou Island.

Landscape Setting

At the farm site itself, tall grasses and forbs are growing along with dense clumps of sumac. The pig barn, and then the residence, can be viewed in the clearing. There is an open area between these buildings, although views to the north and west are limited by the trees and understory vegetation close to the buildings; the same is true to the east and south where dense Rhus.typhina (Sumac), Prunus sp. (Cherry), Populus tremuloides (Aspen), and other young woody species exist. Due to the dense vegetation, it is difficult to distinguish the topography, but the buildings are on a flat area, and the surrounding land slopes gently downward from them.

One of the plots for the 1983 vegetation survey was located on this farm. In this survey the fields around the farm were classified as dense juniper. "The only other woody species within the plot was Prunus pensylvanica," stated the report's author, "but other trees in the area include Populus tremuloides, Ostrya virginiana, Acer saccharum, Betula papyrifera and Rhus Typhina."[9] All of these are listed in the 1983 survey as ground layer species. Many are now maturing and form the midstory and canopy layer, displaying heights ranging from a few inches to about twelve feet. Rhus typhina seems to be declining and many of the plants are dead or dying. Other groundlayer species include Aster sp., Hypericum sp, Rumex acetosella, Poa compressa, and Rosa sp. The field between the two buildings includes many of these plants, as well as dense stands of Daucus carota (Queen Anne's Lace) and very thick patches of Rhus radicans (Poison Ivy).

[9] Brian T. Hazlett, The Terrestrial Vegetation and Flora of North and South Manitou Islands Sleeping Bear Dunes National Lakeshore. Technical Report No.11 (Douglas Lake: University of Michigan Biological Station, 1983), 124.

Cultural Landscape Elements

There are very few identifiable domestic plants associated with the site. This farm had not been occupied for several years when the Park Service acquired the island. Because of the lack of recent activity, previous land-use patterns are hard to recognize. Orchard remnants near the gravesite, and to the east of the buildings, contain plants which no longer produce blooms or fruit. Since they are not obvious it is necessary to look very carefully in order to find them. The fields are in a late stage of succession, and now appear as early woodlands rather than old fields. One apple tree east of the residence, which stands out very clearly. may have been planted for ornamental purposes (10" caliper and about 15' tall).

Buildings and Objects

The first building that can be seen from the path is the pig barn. This structure is listed in the National Register of Historic Places. According to the nomination, George Johann Hutzler and his sons, George and John built it sometime between 1870 and 1880. A two-story structure, the top level was used to store hay, which also provided insulation during the winter. The foundation was constructed of massive, hand-hewn wooden beams (as large as sixteen inches square), and the lower story consists of logs joined at the corners with square notches secured with spikes. The barn represents a vernacular tradition from a time "when buildings were not built from published plans."[10]

Two other buildings are also visible in the clearing. The two-story residence (21' x 28'-6" with a 7'-6" x 12' addition) has a gambrel roof covered with asphalt shingles and clapboard siding. The southern-most structure of the farmstead, it is in good condition and was used as recently as 1983 when Brian Hazlett was undertaking research to document the island's terrestrial vegetation and flora. North of the dwelling is the 12' x 18' carriage house with a gable roof covered by red tarpaper. According to the 1988 "List of Classified Structures," this building had two 20' x 20' additions (it is now in ruins).[11] Access to the building is difficult because of its instability and the rubble piled

[10] National Register Nomination, "Hutzler's Barn" (on file at Sleeping Bear Dunes National Lakeshore; Empire, Michigan), July 1976.

[11] National Park Service, Park Historic Architecture Division, "List of Classified Structures," 1988; on file at Sleeping Bear Dunes National Lakeshore, Empire, Michigan.

around it. Now located on the edge of the clearing, the encroaching forest soon will encompass it. To the west of the carriage house, and behind the residence is a privy situated just inside the tree line; asphalt paper covers the gable roof and is also used for siding. it is in fair condition, and was probably a recent addition to this site.[12]

The ruins of several more farm structures are evident as one enters the trees where the privy is located. About twenty-eight feet northwest of the privy are the remains of a shed or animal pen. It measures 9'-6" x 15' and has walls on three sides and a doorway in one. The fourth side is open. It was constructed of hewn logs placed upon a concrete/wood foundation. To the west of this structure is an odd assortment of instruments--long metal poles with crude handles on the end, and a stone pile that may have been a fire pit. This area may have been used for butchering purposes. Previous residents have indicated that butchering was done outside on the island.

About forty to fifty feet north of this area are the ruins of a 10' x 12' shack. An outside area adjoining it contains many old cans, pans, and utensils. Bottles and pots are inside the structure. Many stories refer to the production of moonshine on the island; Johnny Hutzler supposedly had an operation behind his house.[13]

Contributing Structures

PIG BARN
National Register Number: 78000375
Structure Number: HS 50104B
Dimensions: 16'x 30';
Foundation: Hand hewn beams as large as 16" square; notches at the ends form the corner;
Siding: Wood siding attached with square nails;
Roof: Gable roof with wood shingles.

FARMHOUSE
Structure Number: HS 50104A
Dimensions: 21' x 28'-6" with 7'-6" x 12' addition;
Siding: Clapboard;

[12] Site investigation conducted in June 1994 and August 1994 by Brenda Williams.
[13] This information was gathered from oral interviews with previous island residents conducted during the summer of 1994 by Brenda Williams. (Some of the people who provided stories about hard cider did not want them to be placed "on record.")

Roof: Gambrel with simulated asphalt shingles.

PRIVY (HS 50104G)
SHED/PEN RUINS (HS 50104H)

Contributing Landscape Components
GRAVE SITES AND REMNANT ORCHARD NEAR GRAVES (HS 50104J)
APPLE TREE NEAR FARM HOUSE
RUINS OF CARRIAGE HOUSE (HS 50104C)
AREA WITH STONE PILE AND IMPLEMENTS
AREA WITH CANS, PANS AND UTENSILS
SHED RUINS (HS 501041)
RUINS OF SHED (HS 50104F)

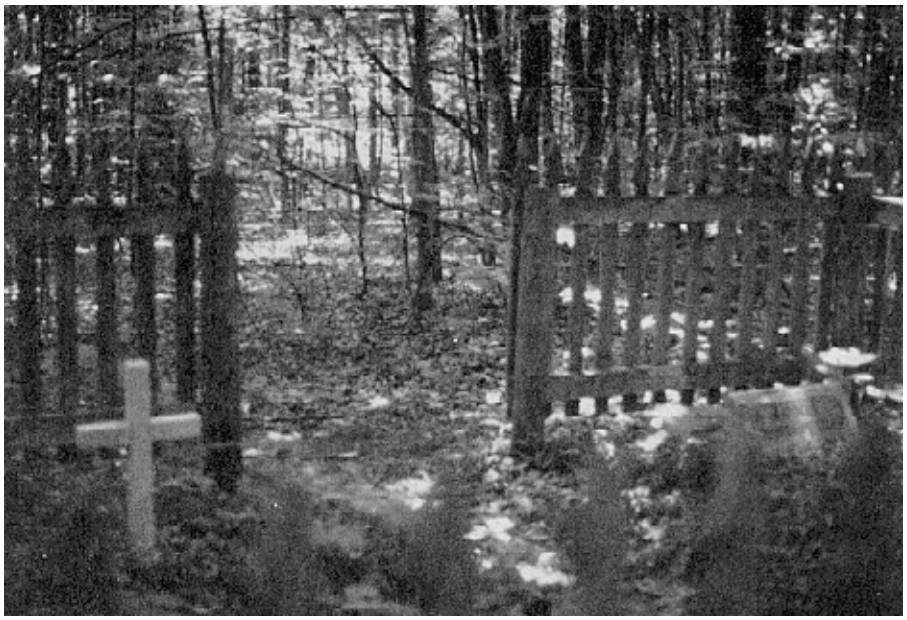

Figure 37. Grave Sites in the Woods
Slightly south of the farm complex a small trail leads west from the main path to the gravesites for George Johann Hutzler, and a burial marked "Peth."

Figure 38. Farmhouse at the George Johann and Margaretha Hutzler Farm (1944)

Figure 39. The George Johann Hutzler Pig Barn (1944)

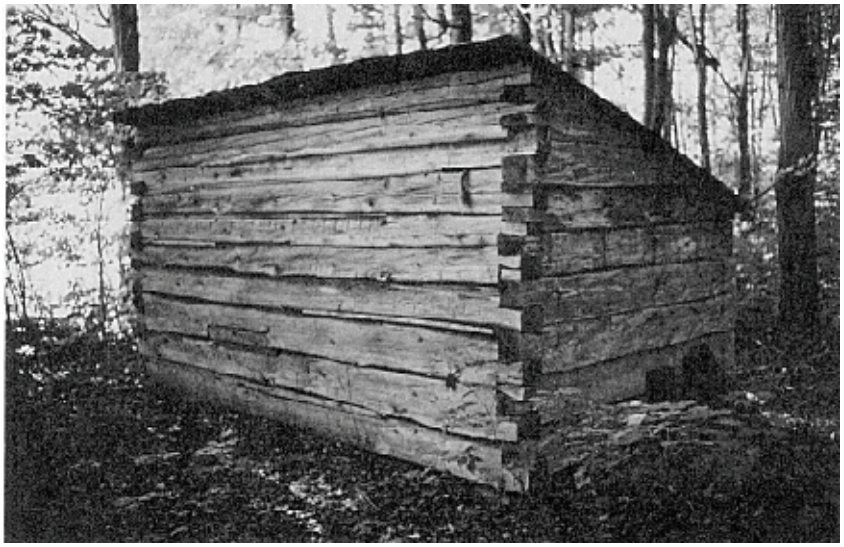

Figure 40. Pen in the woods (1976)

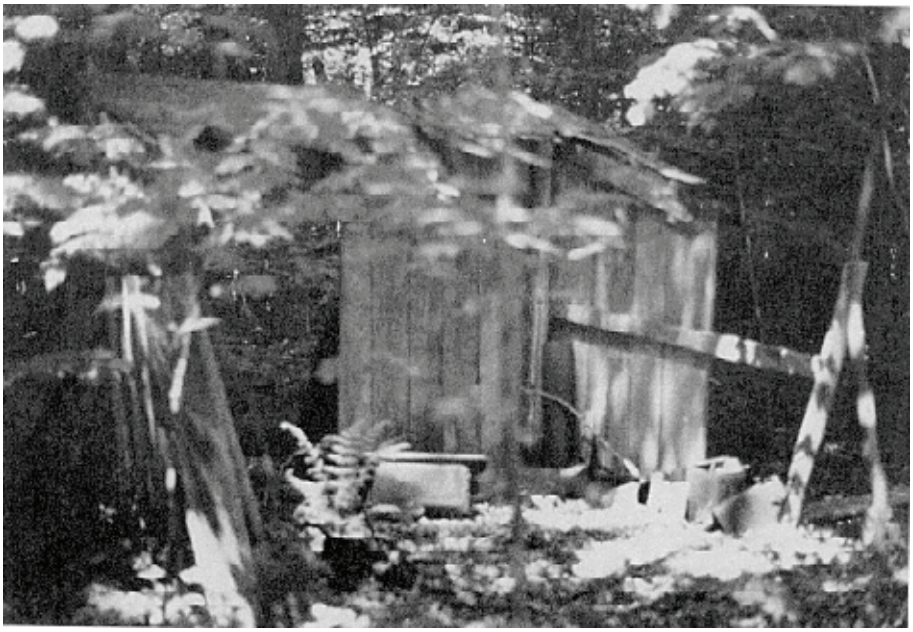

Figure 41. Ruins of building in the woods (1944)

George Conrad & Mary Ann Hutzler/George & Josephine Hutzler/Louis & Lois Hutzler Farm

Farmstead History and Agricultural Data

George Conrad Hutzler, who was George Johann Hutzler's half brother, moved to the island sometime before 1867.[14] A homestead claim was filed in his name on 20 April 1868 for 160 acres of land on South Manitou Island (T30N, R15W, S4, NW1/4); it states that he was a naturalized citizen of the United States.[15] The manuscript schedules for the 1870 Federal Population Census indicate that George Conrad (49) was the head of a household that included his wife and their children: Mary Ann (age 8), Catherine (4), and Margaret (1). Roland (13), George Conrad's stepson, was also included.[16] George Conrad Hutzler's name does not appear in the manuscript schedules for the 1870 Agricultural Census, indicating that the farm probably had not yet been established.[17]

George Conrad Hutzler filed the final proof for his homestead claim on 18 July 1873. In this proof, witnesses George Hutzler and Charles Wall stated that G. Conrad Hutzler had built a log house that was one and one-half stories high. It had a board floor and shingle roof, three doors, and four windows. They also indicated that he had "chopped" 25 acres of land, planted 25 fruit trees and 10 currant bushes, and built a log barn.[18] When the proof was filed, the Hutzler's youngest son, George, Jr., was about one year old.[19] Eventually, George, Jr., and his family, brought fame to the island through their production of prize-winning Rosen rye seed.[20]

In the manuscript schedules for the 1880 Federal Agricultural Census, Conrad Hutzler is enumerated as the operator of a farm that consisted of 160 acres of land that

[14] In the Homestead Proof, filed on 15 July 1873, George Hutzler and Charles Wall testified that Conrad Hutzler had settled on the homestead site on 1 August 1867. However, Myron Vent (p. 37) indicates that George Johann may have filed the patent for Conrad Hutzler, indicating that they may have been stretching the truth about his half-brother's settlement date; also noted in Henry, "George Conrad and Mary Ann Hutzler/George and Josephine Hutzler/Louis and Lois Hutzler Farm."

[15] Homestead Application No. 2574. Traverse City Land Office, National Archives and Records Administration, Washington, D.C.

[16] Manuscript schedules for the Federal Population Census, 1870.

[17] Manuscript schedules for the Federal Agricultural Census, 1870.

[18] Homestead Application No. 2974, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.

[19] The 1880 Population Census states that George, Jr. was eight years old, indicating he was born around 1872.

[20] The "Island Agricultural History" section of this document provides a detailed description of this topic.

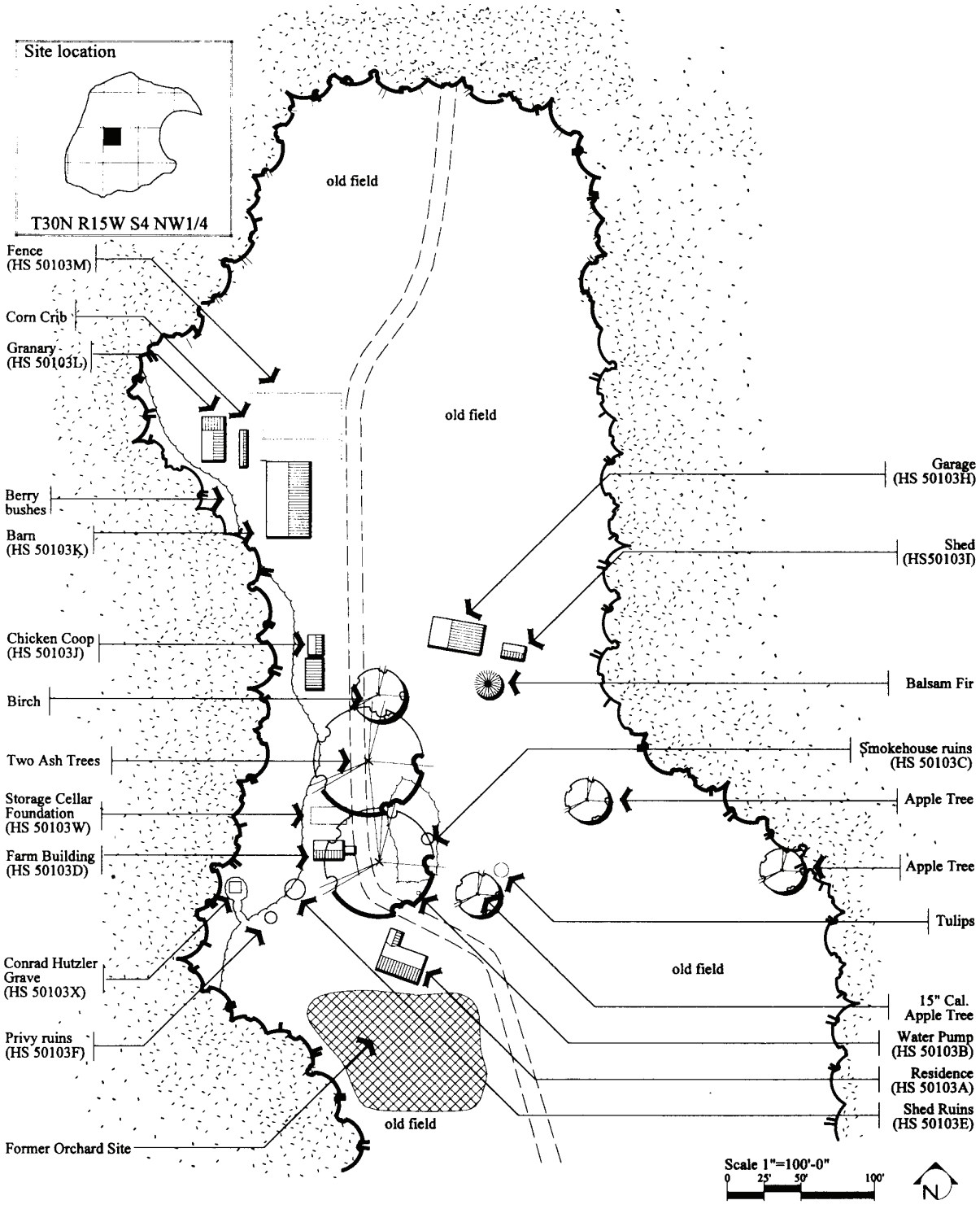

FIGURE 42
PLAN OF THE GEORGE CONRAD & MARY ANN HUTZLER FARM

included 20 acres of tilled land, 4 acres of permanent meadows, and 136 acres of woodland and forest. The farm, including its land, fences, and buildings, was valued at $1,000; the farm implements at $100; and the livestock at $400. Hutzler had eight swine, five milk cows, and ten other cattle on 1 June 1880. In 1879, he had purchased one cow, slaughtered one, and two had either died, strayed, or been stolen. A total of 200 pounds of butter were made on the farm in 1879. In that year, two acres of land had been planted to barley, which produced 40 bushels; three acres to oats, (45 bushels); two acres to rye, (50 bushels); and four acres to Irish potatoes (500 bushels).[21]

In 1900, George Hutzler (age 27) was the head of a household that included his wife, Josephine (23), son, Lewis (Louis) (4), and a border, Roland Shank (44).[22] It was Louis, and his father, George Jr., who gained fame as producers of Rosen rye. (The General History section of this document discusses the significance of Rosen rye during the "Neotechnic agriculture" period on the island.) The two Hutzlers took the lead in growing Rosen rye seed; after their attempts proved successful, they were joined by other farmers on the island.[23]

According to the oral histories recently conducted by Linda Henry, in February 1922, Louis Hutzler married Lola. She became very involved in the farming activities pursued by her husband and father-in-law, and is pictured in numerous photos standing next to a prize cow, and holding a first-prize ribbon or trophy for agricultural products. Also according to Henry, Louis and Lola Hutzler remained on the island farm until selling it to the Boales family in 1946. The Hutzlers then moved to Marshall, Michigan.[24] The Riker family rented the farm from the Boales and remained as the island's last farmers until the Boales sold the property to the Park Service and the Rikers were asked to relocate.[25]

[21] Manuscript schedules for the Federal Agricultural Census, 1880.
[22] Manuscript schedules for the Federal Population Census, 1900.
[23] Haswell and Alanen, 71.
[24] Henry, "George Conrad and Mary Ann Hutzler/George and Josephine Hutzler/Louis and Lois Hutzler Farm"; and historic photographs on file at Sleeping Bear Dunes National Lakeshore, Empire, Michigan--in particular, Lola Hutzler's album, lent by Glenn and Ethyl Furst.
[25] Anderson, 96-97; also noted in Henry, "George Conrad and Mary Ann Hutzler/George and Josephine Hutzler/Louis and Lois Hutzler Farm."

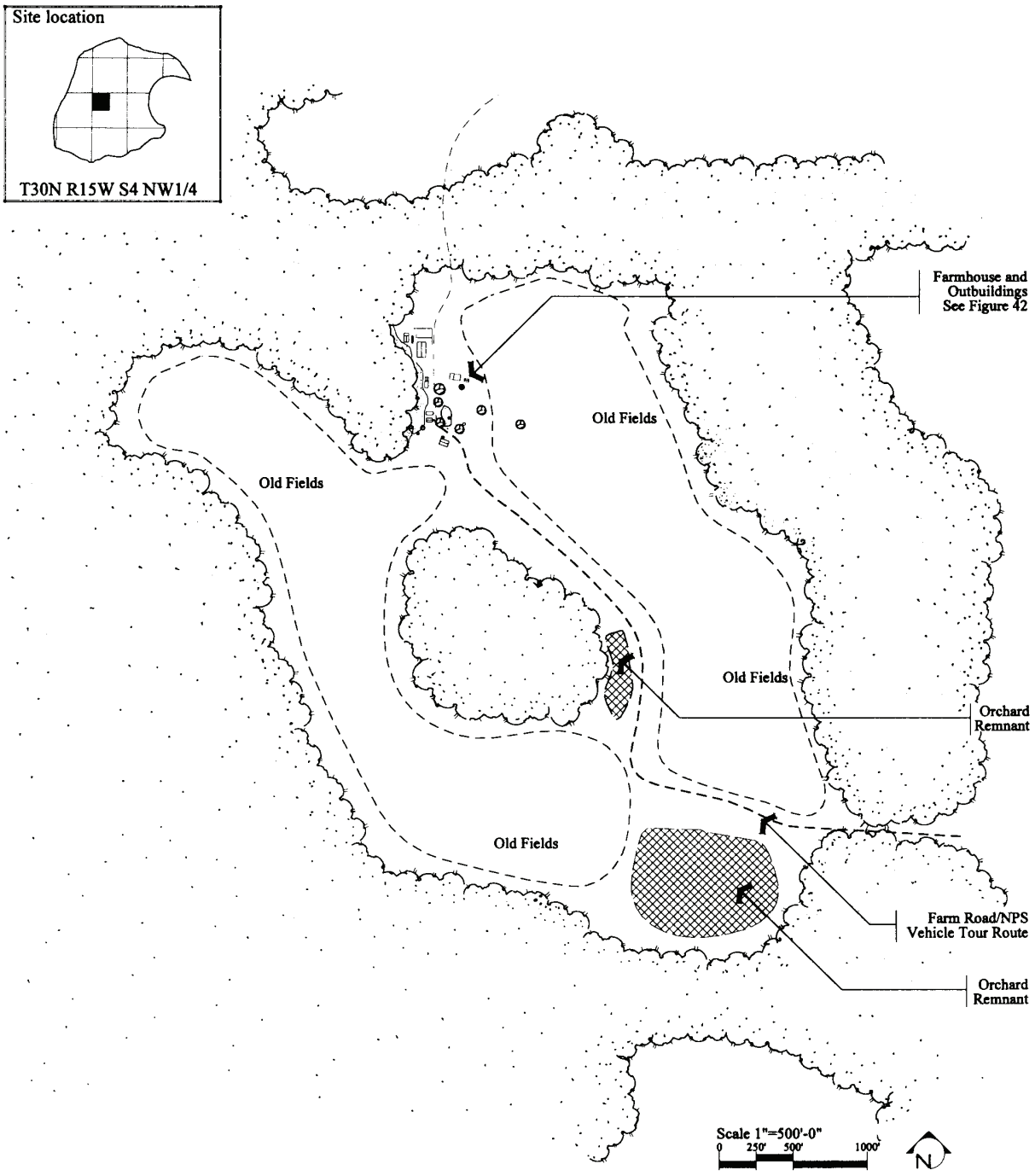

FIGURE 43
PLAN OF THE GEORGE CONRAD & MARY ANN HUTZLER FARM

**Figure 44. George Conrad & Mary Ann Hutzler/
George & Josephine Hutzler/Louis and Lois Hutzler Farm (1994)**

**Figure 45. George Conrad & Mary Ann Hutzler/
George & Josephine Hutzler/Louis and Lois Hutzler Farm (1974)**

Location

This farm is located at the interior of the island along the "loop road" used for vehicular tours. Traveling counter-clockwise on this loop road, the farm can be found at about nine o'clock. Its former agricultural fields are enclosed by woodlands, giving the location an isolated, yet peaceful character. Part of the site's landscape has been incorporated into the NPS Open Field Management Plan. This has helped preserve the character and extent of the field patterns that existed during the period of active farming.

Landscape Setting

Approaching from the north (as the vehicle tour does), the narrow road is enclosed by a hardwood forest (Beech-Maple-Yellow Birch-Hemlock community). The trail bends slightly and presents a first glimpse of the farm. The openness of the field contrasts with the denseness of the forest. The opening in the woods is quite dramatic, revealing hints of several buildings that are partially hidden by the vegetation and rolling

terrain. On a sunny day reflections from the roofs clearly indicate the presence of several farm buildings. From this vantage point, the field ahead inclines gradually, but declines once again and only the roofs of the buildings located farther down the road appear over the top of the slope. Behind the buildings a hill rises approximately fifty feet, enclosing the site and creating a backdrop for the farm setting; it also encloses the site.

Cultural Landscape Elements

The most powerful domestic landscape feature at this farm--the old fields--defines the site's overall character. They provide a dramatic contrast to the surrounding forests and offer clues to previous agricultural activities. They are categorized in the 1983 vegetation survey as "Low Juniper," indicating an early stage of succession.[26] Woody species such as Juniperus communis, Juniperus horizontalis, Prunus sp. and Rosa sp. scattered throughout the fields, provide a constant challenge to the NPS "open field management plan."

In late summer, the Centaurea (Knapweed) dominates the northeastern field at this farm, creating a sea of pink that many visitors find appealing. In addition, other wildflower species such as Saucus carota, (Queen Anne's lace), Solidago sp. (Goldenrod), Achillea sp. (Yarrow), Potentilla sp. (Cinquefoil), and Rudbeckia hirta (Black-eyed susan) provide limited diversity, but also offer a visually interesting array of colors and textures. Grass species are limited and consist of Agropyron repens, Bromus inermis, and Poa sp. In addition to these fields, an old apple orchard exists south of the building complex. This area has more Juniperus sp., which is growing in dense clumps.

Individual plants near the building complex include several apple trees by the house, a Betula (White Birch) and two Fraxinus (Ash) along the farm road, and a Abies balsamea (Balsam Fir) near the garage. The apple trees in this area are spaced generously in a meandering pattern located northeast of the house. Some previous island residents indicated that the road to this farm formerly came over the hill from the Beck place, and then cut through the northeastern field toward the house. It is possible that these apples were once planted to create a pleasing visual entry to the farm. Inspection of an aerial photograph taken in 1938 reveals that these are the last of a double row of

[26] Hazlett, accompanying map titled, "Vegetation of South Manitou Island."

trees that existed on the farm. There also are red tulips situated close to the apple tree located most proximate to the house. It is impossible to tell how old they are, and whether the Rikers, Hutzlers, or someone else planted them.

A White Birch is situated on the eastern side of the road, southeast of the chicken coop. This multistem tree has two major stems that are 6" in diameter. It probably is too mature to have been established after farming ended on the island; therefore, the Rikers might have transplanted the tree from another location on the island. The tree could have been planted to provide visual interest in an open area, but it also could have volunteered; if so, however, the family would have had to make a decision to let it grow at the location. The two Fraxinus sp. (Ash) trees each have trunks that are 24" in diameter and stand approximately forty to fifty-feet high. Spaced approximately seventy-feet apart, both are next to the road and form a line that runs north-south. Their presence on the eastern side of the road reinforces the linearity of the farm buildings on the western side of the road.

The Balsam Fir, situated east of the other trees, is located south of the garage and shed. It stands approximately fifty-feet high. All three of these trees seem to have been used for their aesthetic qualities, and perhaps provided shade in the summer. The apple trees provide an example of plants being used for their visual qualities and ability to provide fruit. Some of the former island residents also indicated that blackberry bushes are found along the slope located west of the barn and chicken coop.

Buildings and Objects

As one approaches the buildings, several additional structures can be observed. Most of these are arranged in a north-south direction on the west side of the road. This linear pattern is broken on the right side of the road by the corncrib and granary. The barn is the largest structure (30' x 53'), and is the first building situated proximate to the road *(see site plan)*. The corncrib (5'-6" x 25'-6") is located just northwest of the barn, while the granary (16'-6"x 31') is just west of the corncrib. These three structures are sited parallel to one another, while the granary and corncrib align with the northern end of the barn. This arrangement creates an enclosed area to the west of the barn that is reinforced by the gentle slope rising just west of the enclosed area. An old combine is located northwest of the granary.

The remains of a fence that once enclosed a livestock pen are located north of the barn and northeast of the corncrib and granary. The fence is becoming difficult to distinguish through the shrubs and grasses. A few pieces of farm equipment are situated in the field near the road; the Park Service moved them here after finding the equipment on the farm.

Approximately fifty feet south of the barn are two buildings close to, and situated along, the west side of the road. They are parallel to the road and oriented in a north-south direction. There also are two buildings to the east which, unlike most of the others, run at an angle other than north-south (they are situated at a southeastern angle from the farm road). The buildings on the west include a small gable roof structure that is labeled on the plan as a chicken coop (10'-6" x 14'-6"). Adjacent to this structure is a shed roof building (22' x 12'-6") that probably was a later addition. There is a gap of about one and one-half feet between these two buildings, but openings in each indicate that animals could have moved from one structure to the other.

To the left is a large garage (21' x 36'-6"), which probably was built by the Rikers sometime between 1950 and 1970. It has a metal gable roof that stands out from the others, as does its lower slope. The other structures have roofs covered with wood shingles, asphalt shingles, or tar paper. Southeast of the garage is a shed (10'-6" x 16') with a gable roof covered by wooden shingles, and horizontal shiplapped board siding. It is interesting to note that this is the oldest structure on the site not oriented in a north-south direction.

Continuing southward along the farm road, the next structure is a stone foundation, labeled on the drawing as a storage cellar. Many farms had separate root cellars where they kept produce in the winter for protection from freezing and where products could be kept cool during the summer. This structure may have been used for that purpose, or possibly to store ice in the summer.

About ten feet south of the cellar is another outbuilding (13'-6" x 20'-6"); with a wood shingled gable roof and board and batten siding. Southeast of this building is the residence (20'-6" x 30'-6" with a 10' x 9'-6" addition), which is oriented in a southeasterly/northwesterly angle and is offset from the other buildings. This is a second, or possibly a third generation structure, but the site is probably proximate to what was the original residence. The residence has a gable roof covered with hexagonal cement tiles, while the building itself has clapboard siding.

Southwest of the southernmost outbuilding are the ruins of two small structures. One appears to have been a shed, the other a privy. These are at the base of the slope rising to the west of the row of buildings. Northwest of these ruins, at the top of the slope, is the site of George Conrad Hutzler's grave. Oral history indicates that he was buried at this site so his grave would overlook the farm. Presently, the hill is covered with dense vegetation, and the gravesite is tightly enclosed. The maintenance crew mows a narrow path to and around the grave, but because of the height of the intervening vegetation it is no longer possible to view the farm from this site.

Three other objects are located at this farmstead. Northeast of the residence, on the other side of the road, is a water spigot with a hand pump. North of the spigot are the remains of an object that probably was a pump. Southeast of the hand pump, near the closest apple tree, is a small pen. There is also a steel watering trough located in the woods on a slope northwest of the farm buildings.

Figure 46. Lola Hutzler with a prize cow (ca. 1922-1946)

Contributing Structures
HOUSE
Structure Number: HS 50103A
Dimensions 20’-6” x 30’-6,” with 9’-6” x 10’ addition; L-shaped, one and one-half story;
Foundation: Concrete;
Sidings: Clapboard;
Roof: Gable with hexagonal cement tiles;
Interior: Plaster walls.

SHED
Structure Number: HS 50103D
Dimensions: 13’-6” x 20’-6” with 4’ x 8’ sloped cellar doors;
Siding: Board and batten;
Roof: Gable with wooden shingles.

SHED
Structure Number: HS 50103H
Dimensions: 21’ x 36’-6”;
Siding: Vertical board;
Foundation: Wood;
Roof: Gable with asphalt shingles.

SHED
Structure Number: HS 50103I
Dimensions: 10’-6” x 16’;
Siding: Horizontal shiplapped boards;
Roof: Gable with wood shingles.

CHICKEN COOP
Structure Number: HS 50103J
Dimensions: Two adjacent buildings (northern building--10’-6” x 14’-6”; southern building -- 12’-6” x 22’);
Siding: Northern building--vertical boards with a wood foundation;
Roof: Northern building--gable with asphalt roll roofing, southern building--shed with asphalt roll roofing.

BARN
Structure Number: HS 50103K
Dimensions: 30’x 53’;
Siding: Vertical board;
Foundation: Wood;
Roof: Gable with wood shingles.

GRANARY
Structure Number: HS 50103L
Dimensions: 16’-6” x 31’;
Siding: Board and batten;
Foundation: Wood;
Roof: Gable with wood shingles.

CORNCRIB
Structure Number: Listed with granary as HS 50103L
Dimensions: 5’-6” x 25’-6”;
Siding: Lattice;
Roof: Gable.

SMOKEHOUSE (HS 50103C)
STORAGE CELLAR FOUNDATION (HS 50103W)
WATERING TROUGH

Contributing Landscape Components
GRAVE SITE (HS 50103X)
OLD FIELDS
APPLE TREES NEAR HOUSE
WHITE BIRCH
TWO ASH
BALSAM FIR NEAR GARAGE
FORMER ORCHARD SITE
BERRY BUSHES
FENCE (HS 50103M)
PUMP (HS 50103B)
PRIVY RUINS (HS 50103F)

Figure 47. Rye Field at the Hutzler Farm (ca. 1920-1940)

Figure 48. Lola Hutzler in the Garden (ca. 1922-1946)

The Beck Family -- Christoph and Catharine Beck

Family History and Agricultural Data

Christoph Beck filed a homestead claim for an island property on 25 February 1863. When the final proof to this claim was filed on 26 August 1868, the witnesses noted that he and his wife (Catherine) were industrious farmers who were establishing themselves on South Manitou Island.[27] By 1870, there were two Beck households on the island, but only one farm[28] One of the households, headed by Aldolphias (age 58), included his wife Dorothea (56), and their children: Theodore (29), Albert (25), and Augustine (17). The other household included Gustaff (50) and Cathanne (55) Beck.[29]

Gustoff Beck is the sole Beck enumerated on the 1870 Agricultural Census as an owner/operator of a South Manitou farm. The farm contained 12 acres of improved land and 148 acres of unimproved woodland. The livestock included four milk cows, seven other cattle, and two swine. The crops raised during the previous year included 18 bushels of spring wheat, 26 bushels of rye, 25 bushels of Indian corn, 10 bushels of barley, 100 bushels of Irish potatoes, 300 pounds of butter, and one ton of hay. The total value of the farm was $335.[30] It seems likely that the other Becks were helping to work this farm.

According to the 1880 Federal Population Census, Theodore Beck (38) was the head of a household where he lived with his brother, Albert (35), and mother, Dorothea (64). Christopher Beck (59) was the head of a family that included his wife, Catherine (65), whereas August Beck (27) was the head of a household that included his wife,

[27] Homestead Application No. 153, Traverse City Land Office, National Archives and Records Administration, Washington, D.C. On 25 February 1863, Christoph Beck paid twelve dollars to file a homestead claim for 160 acres described as the Southwest quarter of Section 33 in Township 31 North of Range 15 West. On 26 August 1868, Beck applied for the patent to the property, stating that he had resided on the property from 25 February 1863 to the present time. On the same day, Richard Kitchen and George Haas signed a statement stating that they had known Christoph Beck for five years, and that he was a married man without any children. They also stated that he had built a house that measured 14'x 18'; it had a board roof and floor and a door and window(s). He had also plowed, fenced, and cultivated about ten acres of land, built a barn, planted two dozen apple trees, and dug a well.

[28] Manuscript schedules for the Federal Population and Agricultural Censuses, 1870.

[29] Manuscript schedules for the Federal Population Census, 1870. It is likely that Gustaff was the same person who filed the 1863 homestead claim (Christoph).

[30] Manuscript schedules for the Federal Agricultural Census, 1870.

Elizabeth (24), and their children: Mary (6), Jerimiah (3), Allivei (2), and Armid (6 months).[31]

The 1880 Agricultural Census indicates that the three Beck families were operating separate farms.[32] Eventually, the original homestead site became known as the August Beck farm, while the property on the southern end of the island became known as the Theodore Beck farm; they are referenced in this report by those names. Since August Beck was so closely associated with the original homestead, his story and the connections between his homestead and Christoph's will be discussed together.

August and Elizabeth Beck Farm (Christoph Beck Homestead) and the August Beck Homestead

Farmstead History and Agricultural Data

According to the manuscript schedules for the 1880 Agricultural Census, August Beck owned/operated a farm that included 20 acres of tilled land, 3 acres of meadow or orchard, and 57 acres of woodland. The livestock owned by Beck included one milk cow and two swine. His farm produced 100 pounds of butter in 1879. The crops grown included 2 acres of barley producing 40 bushels; 3 acres of Indian corn (150 bushels); 3 acres of oats (100 bushels); 3 acres of rye (100 bushels); 3 acres of wheat (60 bushels); 4 acres of Irish potatoes (400 bushels); and 16 bushels of Canadian peas.[33]

In 1880, Christopher Beck also operated a farm that included 16 acres of tilled land, 3 acres of permanent meadow or orchard, and 64 acres of woodland or forest. He owned 3 swine, 4 milk cows, and 11 other cows, and produced 100 pounds of butter during 1879. The crops raised in 1879 included 2 acres of barley (40 bushels); 2 acres of Indian corn (80 bushels); 4 acres of oats (70 bushels); 2 acres of rye (40 bushels); 2 acres of wheat (30 bushels); and 2 acres of potatoes (120 bushels) He also owned 16 apple trees that produced 6 bushels of fruit.[34]

[31] Manuscript schedules for the Federal Population Census, 1880.
[32] Manuscript schedules for the Federal Agricultural Census, 1880.
[33] Ibid.
[34] Ibid.

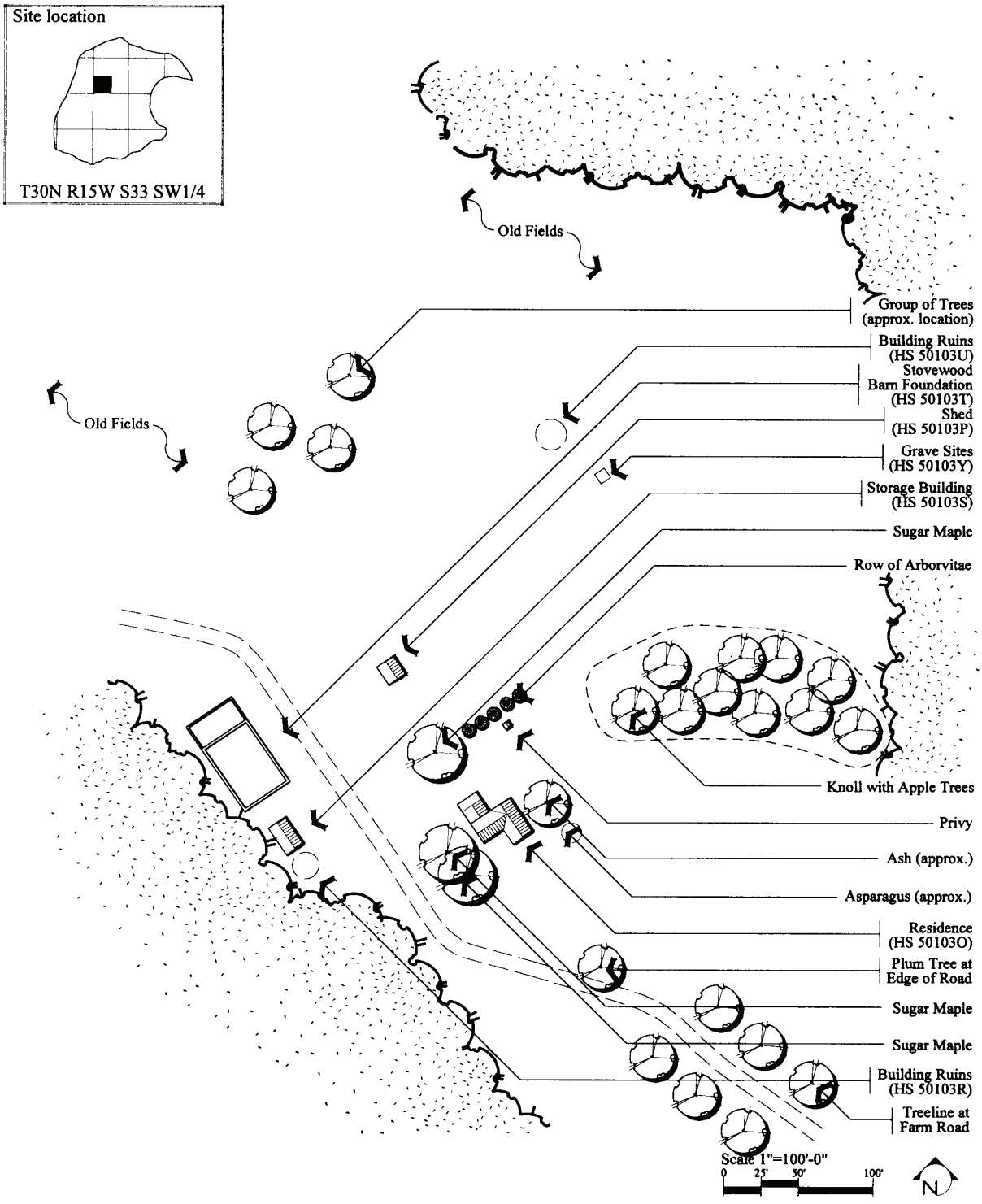

FIGURE 49
PLAN OF THE AUGUST & ELIZABETH BECK FARM (1994)

August Beck and his wife Elizabeth eventually took over Christoph and Christina Beck's farm.[35] In 1908 they acquired an additional parcel adjacent to this property (the Southern one-half of the Southeast quarter of Section 32 in Township 31 of Range 15) through the homesteading process. In the 1908 final proof, improvements to the originally claimed land are described. Beck stated that he had settled on the adjoining farm and had cultivated and resided on that property since 25 May 1876.[36]

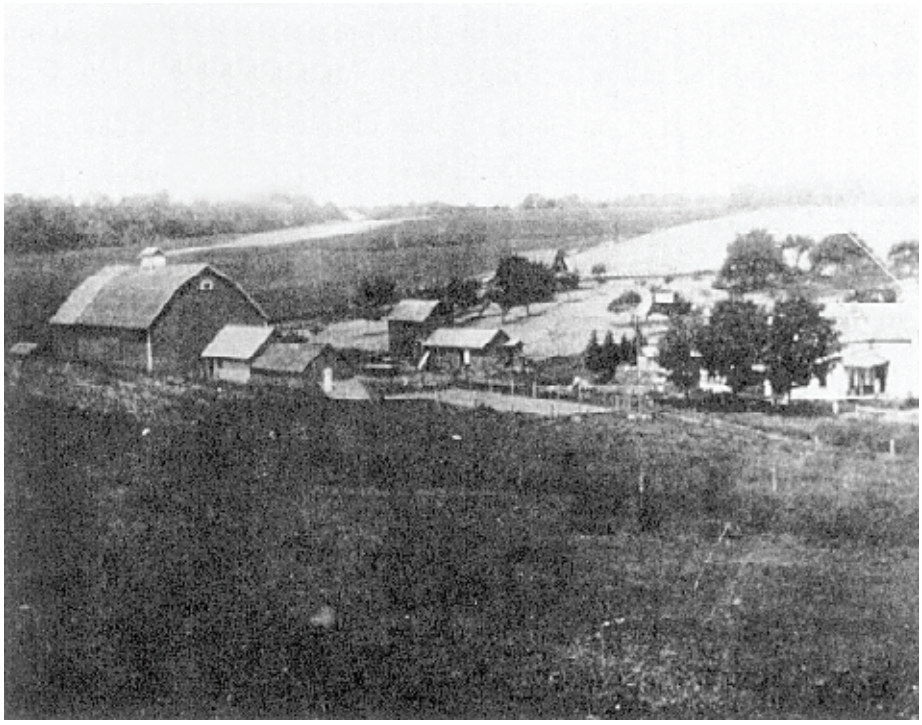

Figure 50. The August and Elizabeth Beck Farm (date unknown)

In his testimony, August Beck stated he was 55 years old and a naturalized citizen of the United States. The document indicates that he established residence on the property in November of 1903, but had been a resident of the adjoining farm during the

[35] Homestead Application No.11109, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.; Henry, "The Beck Family," and "The August and Elizabeth Beck Farm."
[36] Homestead Application No. 11109, Traverse City Land Office, National Archives and Records Administration, Washington, D.C

previous 32 years. Improvements to the land included the clearing and cultivating of an orchard with 29 peach and 130 apple trees for five seasons. He also stated that the land was: "fifty acres of sand bluffs and thirty acres cedar and hardwood timber and most valuable for orchard and pasture"; and that he owned horses, cattle, and farm machinery on the adjoining farm.[37]

Also on 25 July 1908, Irwin Beck's testimony of witness for the August Beck claim was filed. In it, Irwin stated that he was 21 years old. He indicated that August Beck settled upon the adjoining land before he (Irwin) was born. Irwin Beck noted that August's family had "built wire fence around five acres of orchard cleared the five acres for orchard and made road. Value of all improvements one hundred and thirty dollars." Oswald Furst also filled out a testimony of witness. In it, he stated that he was 68 years old. His testimony supported that of Irwin Beck and added details indicating that the roads were made around the autumn of 1903, and a number of trees were cleared during that year. Rolland Shank and Thomas Thompson were also named as witnesses.[38]

The Becks were successful farmers: August Beck was the "… King of South Manitou as he was always the person that was called upon should a cattle buyer or salesman come to the island, also he was the first one to get a grain cutter and binder, and instrumental in getting the threshing machine."[39]

Around 1927 Elizabeth Beck died in an accident; her husband continued to live alone on the farm where he did all of the domestic and field chores. Shortly thereafter, his daughter Mary and her husband, Sam Morris, brought their daughter, Louise, to live on the island.[40] They stayed several years, but were frustrated by the difficulty of making a living as island farmers.[41] According to Henry, after they left, August continued to run the farm until December 1941, when he left the island due to poor health. The next owner of the property was Irwin Beck, who sold it to Paul Humphreys, who eventually sold the property to William Boales, who retained the farm until selling it to the Park Service in the 1970's.[42]

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[37] Ibid.
[38] Ibid.
[39] Anderson, 98; also cited in Henry, "The August and Elizabeth Beck Farm."
[40] Henry, "The August and Elizabeth Beck Farm;" the information was also confirmed by the interview with Louise Oligney.
[41] Louise Oligney interview.
[42] Henry, "The August and Elizabeth Beck Farm"; and "National Park Service Land Title Transfer Map."

Location

The property homesteaded by Christoph and Catherine Beck (the southeast quarter of Section 33, Township 31 North, Range 15 West) was known on the island as the August Beck farm. It is on the vehicular tour, and can be found by following Chicago Road west from its intersection with Ohio Road. Traveling west, the Anderson farm is to the north of the road, and the Foster farm is to the south. After passing these sites, the road becomes enclosed by forest (Beech-Maple-Yellow Birch-Hemlock community). As one approaches the farm, an opening can be seen to the right. While still shrouded in the forest, it is possible to glimpse the distant open fields.

Landscape Setting and Cultural Landscape Elements

The road bends to the left, and is lined on the right by a row of unevenly spaced trees. On the right are Acer saccharum (Sugar maple), about 30 to 40 feet tall with trunks measuring 8 to 10 inches in diameter. This line of trees stretches for about 120 feet. On the other side of the road, the dense woods create a naturalistic contrast with the treeline's repetitive pattern. At the edge of these trees along the road is another row of Sugar maples that are parallel to the ones just described; however, they are not as obvious. These are much larger (20 to 30 inches in diameter), but are spaced less consistently. It is difficult to determine if the trees along the road were planted or if they were volunteers. As the treeline ends, the road bends to the right, away from the woods, providing a direct view of the farmhouse and its setting.

From this vantage point, one can observe the front of the house, several hundred yards away. The other farm buildings cannot yet be seen, however, and the overall scene provides an idyllic pastoral setting. An open field between this point and the house, as well as a plum tree (about 20 feet high and multi-stemmed) that bears fruit in the summer is situated along the edge of the road. To the east, a knoll that is dotted with apple trees (with diameters ranging from ten to twelve inches) borders the field, which also bear fruit. Approximately 80 feet northeast of the residence is a Fraxinus sp. (Ash); with a 16-inch diameter trunk. Under its canopy is a small patch of asparagus.

Twenty-four feet from the south wall of the house, and parallel to it, stand two Acer saccharum (Sugar maple) trees. Spaced just over 15 feet from each other; the

Figure 51. Treeline at the Entrance to the August & Elizabeth Beck Farm (1994)

diameters of the trunks are 24 inches. Located between the house and farm road, they provide shade, and cool the house and adjacent area

When comparing a historic photograph of the farm with one taken in 1994, changes in the landscape scene are apparent. In the historic photograph, all of the farm buildings can be seen from the road at the entrance to the farm. Currently, only the house is viewed from this vantage point and the other buildings can not be seen until one is at the farmhouse.

Behind the house, a row of eight Thuja occidentalis (Arborvitae) and one Sugar maple create a backdrop which, together with the two Sugar Maples on the south side of the farmhouse, frame the scene. Seven of the Arborvitae are aligned at an angle running roughly northeast-southwest. These have trunk diameters of approximately 12 inches and are spaced about eight to ten feet apart. The eighth Arborvitae is set out of line from the others, east of the northeastern end of the line; it is much larger, with a trunk diameter of 32 inches. This tree is adjacent to the privy. At the other end of the row of Arborvitae, and aligned with them, the Sugar maple has a 24 inch diameter trunk.

The other farm buildings begin to come into view when one is almost at the house. All of them are oriented at the same angle as the house (roughly northwest-southeast). They are clustered close to the house, in a roughly linear pattern, on both sides of the farm road. Their setting is tucked into a low area between two small hills toward the southwest and the northeast.

The hill on the southwest is covered with dense vegetation categorized as low juniper in the 1983 survey, but which is currently more representative of the "past juniper" category. A historic photograph of this farm reveals that this hill was once an integral part of the farm operation. The photograph displays several fenced areas that were being cultivated, and a windmill. Louise Oligney remembers that vegetables were grown within one of the fenced areas. For many years, South Manitou's farmers allowed their cattle to roam free on the island. Cultivated fields were fenced in to keep livestock away from the crops.[43]

The windmill is an interesting item that some past island residents remember as an element that had been present on many island farms. The one in the photograph was constructed of a simple metal frame, and appears to have been located at the intersection of a right angle drawn southwest from the house and southeast from the stovewood barn foundation. According to Louise Oligney, when she and her parents lived on the farm both the house and the barn were supplied with running water by a pump powered by this windmill.[44]

The hill to the northeast rolls up gently from the area where the buildings are located. This is the first in a series of rolling hills and old fields that can be viewed in this direction. Climbing the first one behind the northwestern-most farm building, a corridor measuring approximately 27' x 180', is mowed by Park Service maintenance staff; it creates a path to the gravesite of Elizabeth and David Beck. This corridor is edged on the northwest by a loosely clustered group of apple trees. From the gravesite, one has a view of the farm buildings to the south and the fields to the north, but the view to the house is obstructed by the line of Arborvitae and the knoll.

[43] Louise Oligney interview.
[44] Ibid.

The fields past the gravesite were categorized as medium juniper in the 1983 vegetation survey, and still contain a large proportion of forbs. Centaurea (Knapweed) are very prevalent; when they are blooming the hills are covered with a purple-pink wash of color. There are also Saucus carota (Queen Anne's lace), Asclepias sp. (Milkweed), Ferns, and Rudbeckia hirta (Black-eyed Susan), among others. Grasses include Poa sp. and Bromus inermis. Woody species such as Juniperus sp., Rhus typhina, and Rosa sp. dot the fields; some jut out vertically in patches, for example: Prunus.sp. and Fraxinus.sp. There also are large areas covered by Rhus radicans (Poison ivy). Many of these plants occur in patches rather than being mixed evenly together.

After hiking up these fields, a view of the farm to the south is offset by a glimpse of Lake Michigan and the mainland dunes to the east. This area represents the largest expanse of open fields on the island; part of it has been incorporated into the open field management plan for the National Lakeshore.

Buildings and Objects

The farmhouse was being restored during the summer of 1994 when initial site visits were conducted for this project. The park has extensive drawings and photodocumentation of this structure prior, during, and after this work was completed. It is a two-story dwelling measuring approximately 30' x 50' with two added screened porches on the northwestern side. It has gable roofs, clapboard siding, and a concrete block foundation.

Just past the house on the south side of the road a tall building with wooden siding and a gable roof is the first feature that comes into view. It has three tall narrow windows in the upper level and a concrete vault in the lower floor. It may have been used as a granary at one time. Louise Oligney remembers that when she lived there it was used to store meat in the winter, and perhaps ice in the summer.[45] Upon closer inspection, the ruins of another structure were discovered adjacent to the southeastern end of this building. Very little remains of this structure, and it is difficult to determine the original use.

[45] Ibid.

Figure 52. The August and Elizabeth Beck Farm (date Unknown)

Figure 53. The August and Elizabeth Beck Farm (ca. 1920-1930)

Figure 54. The August and Elizabeth Beck Farm (1976)

Figure 55. The August and Elizabeth Beck Farm (1994)

About ten feet northwest of the tall building the remains of one of the most intriguing farm buildings on the island can be seen. The building was a large barn (37' x 62' and two full stories when standing); although only parts of the foundation remain, the remnants reveal the stovewood construction technique that was used to build the barn. The stovewood foundation consists of logs laid in mortar. The ends of the logs are visible from the inside and outside of the structure. The building was probably constructed when most of the island's very large trees had already been cut (the huge hewn beams used in the Hutzler pig barn, for example, were worth more for cash than for construction on the island). Stovewood was plentiful and was produced in great quantities for consumption by passing steamers.

Historic photographs and Park Service records indicate that the barn had a wooden frame and a gable roof. The walls of the lower portion of the first floor were constructed of hewn logs covered by shiplapped horizontal board siding; the roof structure utilized unhewn pine log rafters covered with wood shingles. The barn, used for livestock and hay, was built into a hillside to allow access to either story. it had running water, which was pumped by the windmill.[46]

Stovewood buildings can be found in other locations in the western Upper Peninsula of Michigan and northern Wisconsin. They are associated with areas that were cut over before immigrant families attempted to farm the land. "These farmers could not afford the high-quality timber needed to build a traditional barn, and since most farms had no suitable rock, they opted for what was on hand--wooden blocks."[47] It is unclear whether the stovewood barns in Michigan were built based on tradition, imitation, or invention. While the building type is found in several countries, none has a large concentration of stovewood structures. In Michigan's Upper Peninsula, stovewood barns are abundant in areas that have large Finnish populations. In Door County, Wisconsin, German immigrants built several stovewood structures. In other parts of the country stovewood buildings can be found that were built by Polish immigrants, New Englanders, and Canadians. Buildings of this type can also be found in Finland, Siberia, Greece, Canada, Norway and Sweden.[48] It is difficult to discern the

[46] Louise Oligney interview.
[47] Robert Stratton, "Stovewood Barns," Michigan History (January 1990), 41.
[48] Ibid., 41-44.

origins of the Beck barn. Since the family was of German heritage, it is feasible that the tradition was brought from that country. However, it is also possible that this stovewood building is a vernacular structure born simply of necessity, available materials, and ingenuity.

On the other side of the road (the northeastern side), are two additional buildings. The first, a 5' x 5' privy, is behind and north of the house against the treeline. On the other side of the treeline is a shed (14' x 16'), which was restored by the Park Service in the summer of 1994 for use as a pumphouse. It now has wooden shingle siding and a gable roof covered by wooden shingles. Previous island residents who were interviewed could not say exactly what its original use was, but several thought it may have been a pumphouse or a storage shed.

To the northeast of the shed, on a rise, are the graves of Elizabeth and David Beck. They are marked with gravestones, and a picket fence (8' x 8') that was constructed by members of the South Manitou Island Memorial Society. Slightly northwest of this grave site are the ruins of a building that, according to the 1988 List of Classified Structures, was 20' x 44' and collapsed with some roof sections intact. It is now difficult to identify any structural elements.

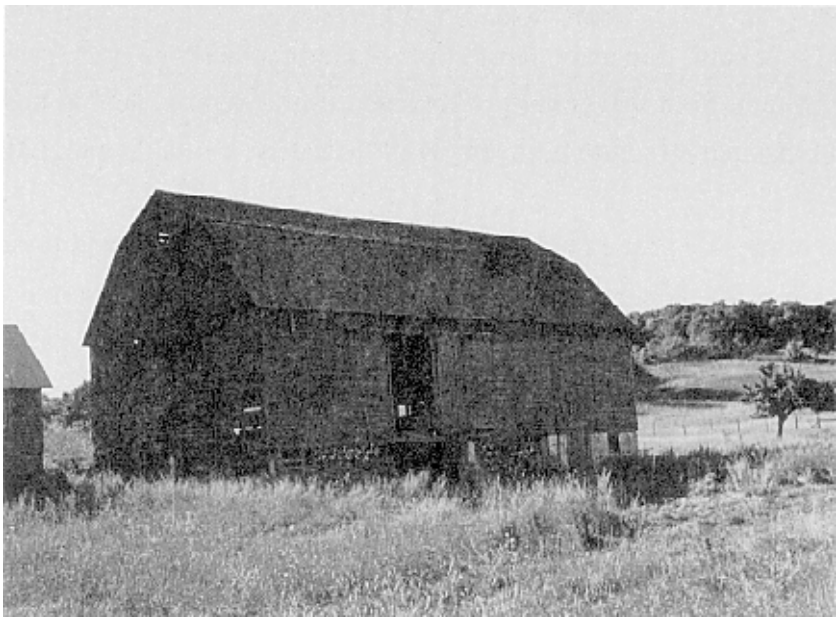

Figure 56. Stovewood Barn (1976)

Figure 57. Stovewood Barn Detail (1976)

Figure 58. Farm Buildings and the Stovewood Barn Remains (1994)

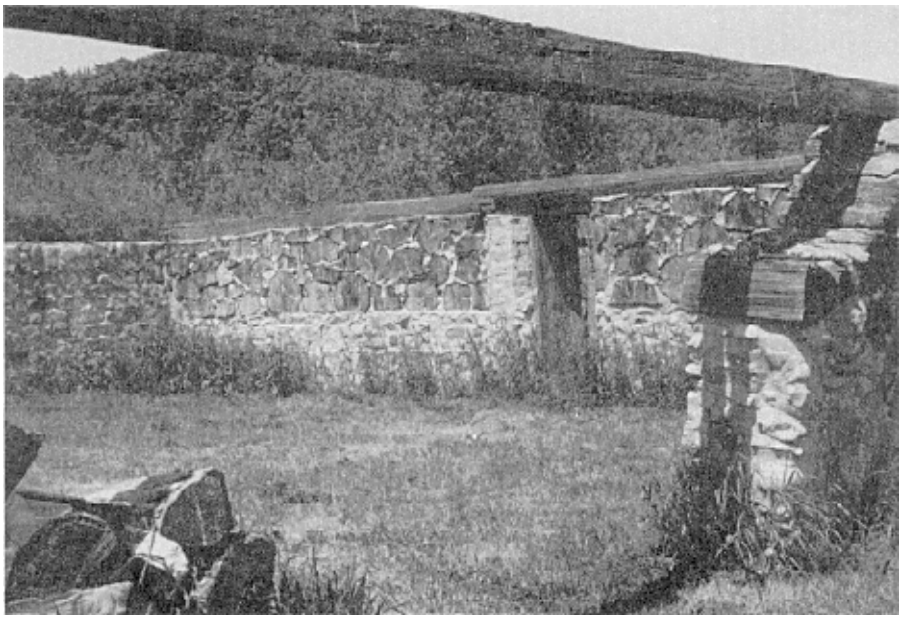

Figure 59. Stovewood Barn Foundation (1994)

Contributing Structures:
FARMHOUSE
Structure Number: HS 50103O
Dimensions: 30’ x 50’; two-story; with two added screened porches;
Foundation: Concrete block;
Siding: Clapboard;
Roof: Gable with wood shingles.

STORAGE BUILDING
Structure Number HS 50103S
Dimensions: 14’x22’;
Foundation: Concrete;
Siding: Wood;
Roof. Gable with asphalt roll.

STOVEWOOD BARN FOUNDATION
Structure Number: HS 50103T
Dimensions: 37’x 65’;
Foundation: Stovewood and cement with hewn logs.

SHED
Structure Number: HS 50103P
Dimensions: 14’x 16’;
Siding: Wood shingle;
Roof: Gable, wood shingle.

PRIVY (HS 50103Z)

Contributing Landscape Components
GRAVE SITES (HS 50103Y)
TREELINE AT FARM ROAD
PLUM TREE AT EDGE OF ROAD
OLD FIELDS
KNOLL WITH APPLE TREES
ASH NORTHEAST OF THE HOUSE
ASPARAGUS PATCH
SUGAR MAPLES NEAR THE HOUSE
ROW OF ARBORVITAE BEHIND THE HOUSE
GROUP OF APPLE TREES
RUTh4S OF BUILDING (HS 50103U)

Theodore and Alvina Beck Farm

Farmstead History and Agricultural Data

The manuscript schedules for the Federal Population Census of 1870 indicate that Theodore Beck (29) was living with his parents and two brothers.[49] In 1880 he was the head of a household where he lived with his mother and brother, Albert.[50]

According to the manuscript schedules for the 1880 Agricultural Census, Theodore Beck was the owner/operator of a farm that included 25 acres of tilled land; 3 acres of permanent meadow, pasture or orchard; 60 acres of woodland; and 72 acres of unimproved land. He owned 6 milk cows, 19 other cattle, and 4 swine. The farm produced 280 pounds of butter in 1879. The crops that were grown included 3 acres of barley that produced 75 bushels; 5 acres of oats (150 bushels); 2 acres of rye (60 bushels); 2 acres of wheat (40 bushels); and 3 acres of Irish potatoes (400 bushels). He also had 6 apple trees that produced 3 bushels of apples during 1879.[51]

The Federal Population Census manuscripts for 1900 indicate that Theodore was married to Alvina (30) and they had three children: Minnie (7), William (5), and Ida (4). His brother Albert (55) was also living with them.[52] By 1910 they had two additional children, Alma (4) and Arthur (2).[53] After Theodore Beck died in 1910 Alvina continued to farm their land and eventually married Benth (Ben) Johnson. However, they maintained separate households, and Alvina continued to operate the Beck farm.[54]

After Alvina died the farm was sold to J. Lee Barrett (1947). Barrett, a developer from Detroit, intended to develop the island as a resort community. His company advertised South Manitou Island as "Lee Island," and Alvina Beck's farmhouse was called the "Lee Island Club House." Although the anticipated development never materialized,

[49] Manuscript schedules for the Federal Population Census, 1870.
[50] Manuscript schedules for the Federal Population Census, 1880; also cited in Henry, "Theodore and Alvina Beck Farm."
[51] Manuscript schedules for the Federal Agricultural Census, 1880.
[52] Manuscript schedules for the Federal Population Census, 1900.
[53] Manuscript schedules for the Federal Population Census, 1910.
[54] Anderson, 86; cited in Henry, "The Theodore and Alvina Beck Farm." Anderson indicated that the marriage occurred in 1920, while Henry indicates the date was 11 August 1915. Henry provides an interesting discussion of Alvina and her relationship with Benth.

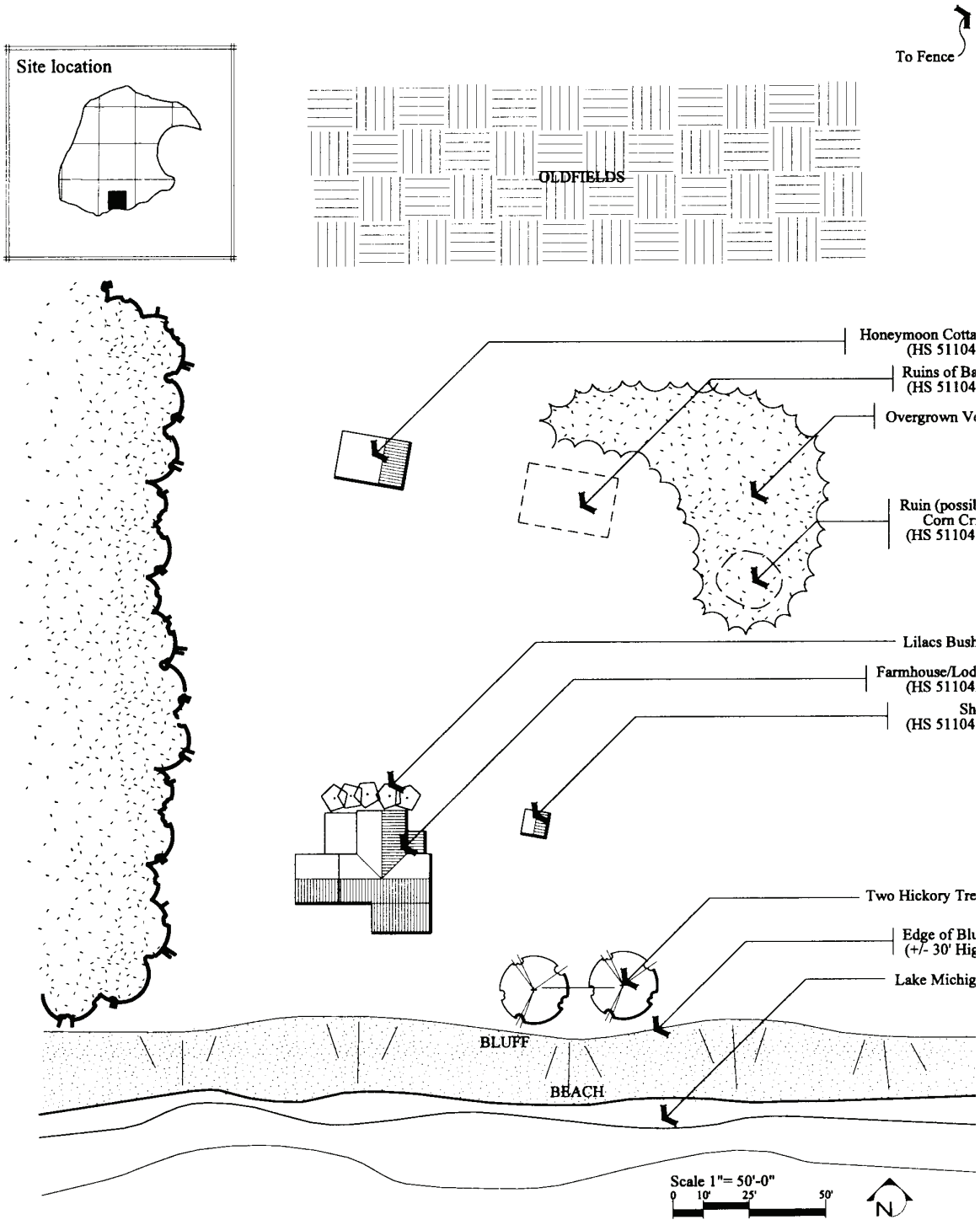

FIGURE 60
PLAN OF THE THEODORE & ALVINA BECK FARM (1994)

rooms in Alvina's house were rented to vacationers and the farmhouse came to be known as "The Lodge." The Lee Island Company sold the property to the Park Service around 1970.[55]

Location

This farm is located on the southern end of the island. To find the farmstead, it is necessary to take one of the trails leading to the southern tip of Florence Lake. At the intersection of the trail that runs from north to south on the western side of Florence Lake, and the trail that runs east-west past the southern tip of the lake, it is necessary to travel west slowly and look for an old, overgrown farm road. This road leads south toward the farm site.

Landscape Setting and Cultural Landscape Elements

Upon approaching the farm site, the remnants of previous fields can be detected adjacent to the road. After passing across them, the residence can be seen in the distance, although it is partially hidden by plants. When approaching the house, the ruins of several other buildings become obvious. Upon reaching the residence, a breathtaking view is provided of Lake Michigan and Sleeping Bear Point on the mainland. The house is sited at the edge of a bluff; a thirty-foot vertical drop from the bluff ends at a white sand beach. The house has many windows that provide views of the lake and the mainland dunes. The beautiful setting makes it easy to understand why the residence was chosen for conversion into a tourist lodge.

Two hickory trees stand to the southeast of the house. Their trunk diameters range from 25 to 35 inches. It is likely that they were planted by one of the past residents of this farm for their nut-bearing potential. Behind the house (on its northern side) is a large clump of Syrnga vulgaris (Lilac).

The landscape elements on this site are difficult to categorize, since they have been altered several times. The use of the site for tourist operations prior to the time the Park Service took over its management led to alterations in the cultural landscape that are difficult to define.

[55] Henry, "The Theodore and Alvina Beck Farm"; also, undated newspaper clippings and brochures found in the Betty Kramer Collection, on file in the Leelanau Historical Museum, Leland, Michigan.

Buildings and Objects

The buildings remaining on this site are the house, a shed northeast of the house, the ruins of the "honeymoon cottage" north of the house, and the remains of a barn situated northeast of the house and east of the latter building. All of the buildings are oriented at the same angle, about ten degrees west of due north. The 1977 architectural survey indicated that there were several more buildings at this site, but in 1994 no traces could be found other than the four already mentioned.[56] An extremely dense patch of vegetation stretches west and north of the barn ruins, but it is in this area that many of the buildings were once located. The density of this vegetation made it impossible to determine whether ruins are still present. It is also difficult to determine whether any particular pattern of spatial organization defined the farmstead buildings because so many structures are no longer present. The orientation of the buildings at the same angle is a characteristic common to many of the island's farms.

The buildings at this site have deteriorated significantly since the last architectural survey for the listing of classified structures was done in 1988.[57] The house is still in salvageable condition, but will not be for a much longer period of time unless it is protected it from the elements. The windows have no glass and are not boarded up; therefore, rain, snow, and wind are harming the building. This structure is two full stories high, with a small cellar and many additions. The original structure is of very early construction (perhaps 1870s). The exterior dimensions are roughly 30' x 45'. The building has gable roofs, a porch with a shed roof, and clapboard siding that was painted white. The trim was painted a teal green.

The shed behind the house (8'-6" x 8'-6") has a gable roof, shiplapped siding, double doors, and a window. It is difficult to approach because of the shrubs that are growing up around it. The back wall of the honeymoon cottage (16' x 23') has fallen in, and the building is not safe to enter. It had two stories with a gable roof and a porch addition on the front.

[56] Shunichi Hagiwara, "Building-Structure Inventory for South Manitou Island," 1977, on file in Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.

[57] National Park Service, Park Historic Architecture Division, "List of Classified Structures for Sleeping Bear Dunes National Lakeshore," 1988; on file in Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.

Contributing Structures
FARMHOUSE/LODGE
Structure Number: HS 51104A
Dimensions: 30’ x 45’ (see plans for more details);
Siding: Clapboard;
Roof: Gable.

SHED
Structure Number: HS 51104D
Dimensions: 8’-6” x 8’-6”;
Siding: Shiplapped;
Roof: Gable.

HONEYMOON COTTAGE
Structure Number: LH 51104C
Dimensions: 16’ X 23’;
Roof: Gable.

Contributing Landscape Components
OLD FIELDS
RUINS OF BARN (HS 51104B)
TWO HICKORY TREES NEAR THE HOUSE
LILAC BUSHES BEHIND THE HOUSE
BLUFF AND BEACH
FENCE (HS 51104H)
RUIN (POSSIBLY CORN CRIB) (HS 51104G)

Figure 61. View of the Farmhouse Facing West (1994)

Figure 62. View of the Farmhouse Facing South (1994)

Figure 63. The Honeymoon Cottage (1994)

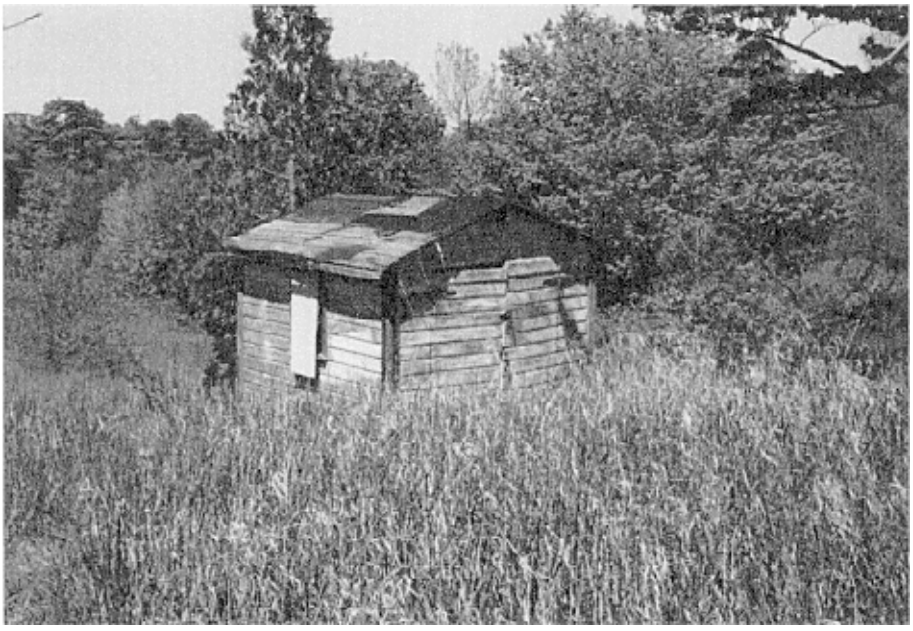

Figure 64. Shed (1994)

The James Sheridan/Aaron and Julia Sheridan/Henry and Maggie Haas Farm
Farmstead History and Agricultural Data

Aaron Sheridan was appointed keeper of the South Manitou Island Lighthouse on 21 July 1866.[58] On 2 April 1868, his father, James A. Sheridan, filed Homestead Application Number 2937 for 130 acres of land on the island, described as Section 4, Township 30 North, Range 15 West, Lots One, Two, Three, and Four. He paid a $13.25 filing fee.[59] The manuscript schedules for the 1870 Population Census indicate that James Sheridan was residing with his son, Aaron, and his family. The household consisted of Aaron (age 35), Julia (25), Levi (4), George (2), and James (69).[60]

The manuscript schedules for the 1870 Agricultural Census lists Aaron Sheridan as the agent/owner/manager of a farm that included 6 acres of improved land and 74 acres of unimproved woodland. The cash value of the farm was recorded as $200. Sheridan had three milk cows, four other cattle, and three swine, with a total value of $350. During the year that ended on 1 June 1870, the farm had produced 100 bushels of Indian corn, 200 bushels of Irish potatoes, and 200 pounds of butter; the Sheridans had slaughtered or sold for slaughter $65 worth of animals. The estimated value of total farm production, including betterments and additions to their stock, was recorded as $315.[61]

Aaron Sheridan filed a patent for the homestead claim on 9 April 1874. On the same day, August Beck and Eber Goin witnessed a proof stating that James Sheridan had settled on the property on 15 August 1867. The improvements included a log house that was one and one-half stories high with board floors, a shingle roof, one door, and two windows. Beck and Goin stated that James' son, Aaron, continued to live in the house after his father's death. The Sheridans had cultivated about 12 acres of land, "chopped" 7 additional acres, built a frame barn, and planted 40 apple trees and 25 currant bushes.[62]

[58] Vent, 93.
[59] Homestead Application No. 2937, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.
[60] Manuscript schedules for the Federal Population Census, 1870.
[61] Manuscript schedules for the Federal Agricultural Census, 1870.
[62] Homestead Application No. 2937, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.

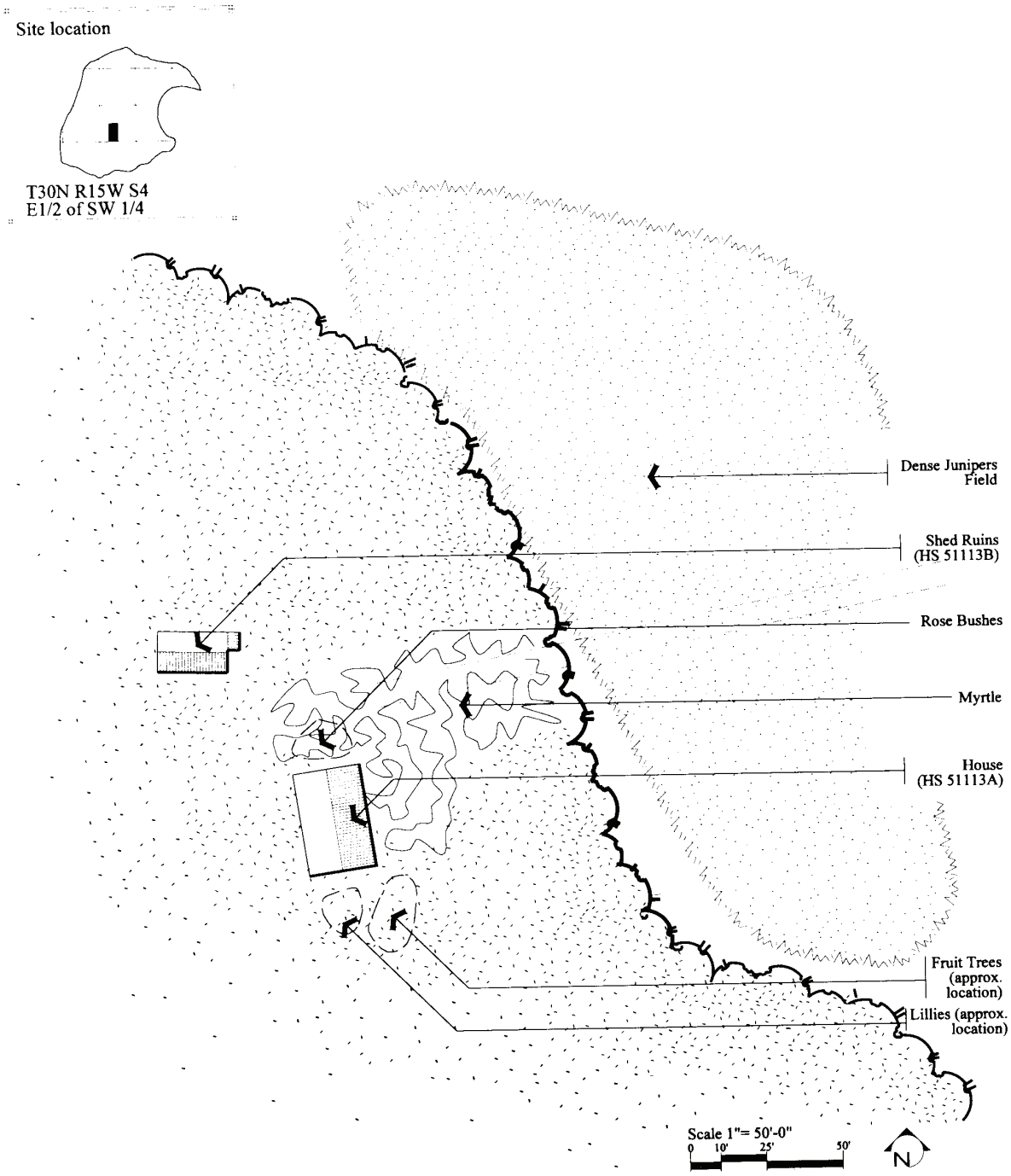

FIGURE 65
PLAN OF THE HENRY & MAGGIE HAAS FARM (1994)

Aaron Sheridan continued as the lighthouse keeper, and his wife the assistant keeper (she was appointed to this position on 9 September 1872), until 1878. In 1878, Aaron, Julia, and their child, Robert, were drowned in a boating accident.[63]

In 1883 George Haas purchased the property. The land was not farmed between the time of the Sheridans' deaths and the purchase of the property by George Haas.[64] Henry Haas married Maggie Hutzler and the Sheridan homestead became their farm.[65] They raised a variety of crops and had a "Ginseng shed," which according to Anderson consisted of "two-inch strips of lumber, from the local mill two inches apart so the plants could get partial sun." In addition, they grew Michelite beans, saving the "best from their seeds by picking out the best during the winter months," and made maple syrup. Henry Haas was known as the island dentist and also shoed horses, using shoes his brother, Bill, had made.[66] In 1947 Henry Haas died and in 1953 Maggie Haas died. They are both buried in the South Manitou Island cemetery.[67] The National Park Service purchased the property from Joseph W. Harrold, et al., in the 1970's.[68]

Location

This property is located at the northern end of Florence Lake; the remaining buildings lie just west of the lake. The site can be found by heading west from a marker on the trail that runs north-south along the western edge of the lake. The marker lies slightly north of the spot where a trail heads east around the tip of the lake.

Landscape Setting wad Cultural Landscape Elements

The site is difficult to approach due to very dense juniper and sumac clumps. Eventually the mid-story vegetation thins out, and one enters a wooded area. These woods have a dense groundcover of Vinca minor (Myrtle); the buildings can be seen not

[63] Vent, 50, 93; also cited in Henry, "The Sheridans/Henry and Maggie Haas Farm.

[64] Henry, "The Sheridans/Henry and Maggie Haas Farm"; and manuscript schedules for the Federal Agricultural Census, 1870 and 1880. Neither the Sheridan nor Haas names are listed in the manuscript schedules for the 1880 Agricultural Census. While George Haas does appear, the area of land that he owned had increased by only five acres since the 1870 Agriculture Census; therefore, it does not appear that he was farming the Sheridan property in 1880.

[65] Anderson, 89-91; cited in Henry, "The Sheridans/Henry and Maggie Haas Farm"

[66] Anderson, 91.

[67] Henry, "The Sheridans/Henry and Maggie Haas Farm"

[68] National Park Service Land Title Transfer Map.

far from the edge of the woods. They are surrounded by vegetation, which grows up to, and against the building walls. Near the house are rose bushes, poison ivy, lilies, and fruit trees. Apparently Maggie Haas had a very beautiful flower garden near the house.

Buildings and Objects

The house (22'-6" x 34'-6") is a one and one-half story building with a basement. It has a gable roof and shiplapped siding. The interior includes detailed molding, linoleum, and wallpaper, indicating that the house was quite fancy, at least by island standards. It is now in poor condition, and the windows and doors are not boarded-up, allowing the elements and animals to enter and weaken the structure.

The other structure on the site is a shed, which measures approximately 12' x 25'. The building had a gable roof and board and batten siding, but it is now in ruins.

Contributing Structures:

HOUSE
Structure Number: HS 51113A
Dimensions: 22'-6" X 34'-6";
Siding: Shiplapped;
Roof: Gable.

SHED RUNS

Contributing Landscape Components

MYRTLE
ROSE BUSHES NEAR THE HOUSE
LILLLES NEAR THE HOUSE
FRUIT TREES NEAR THE HOUSE

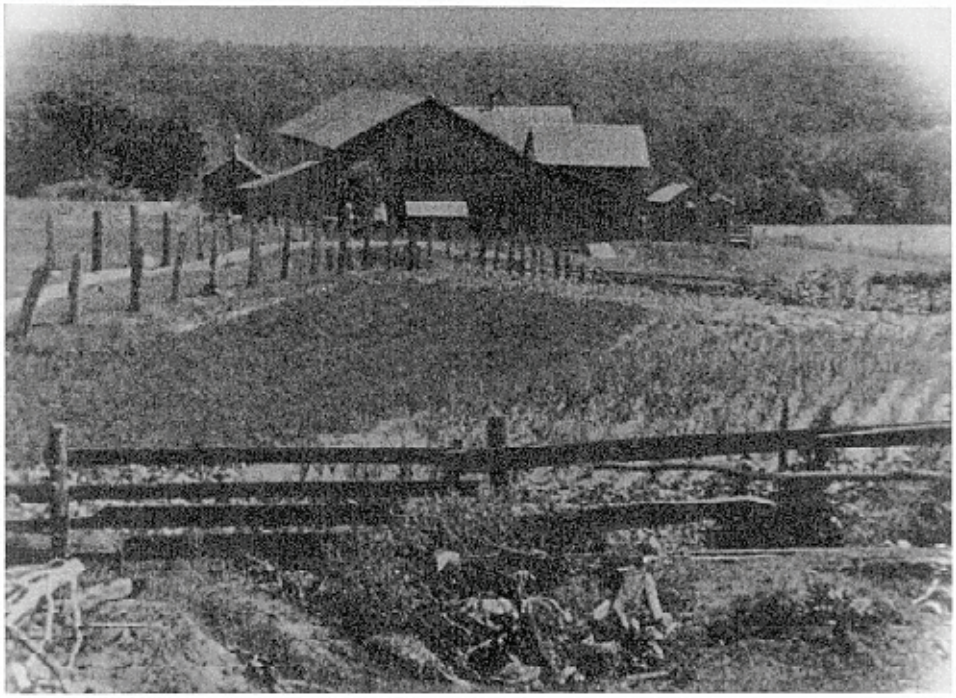

Figure 66. The Henry and Maggie Haas Farm (date unknown)

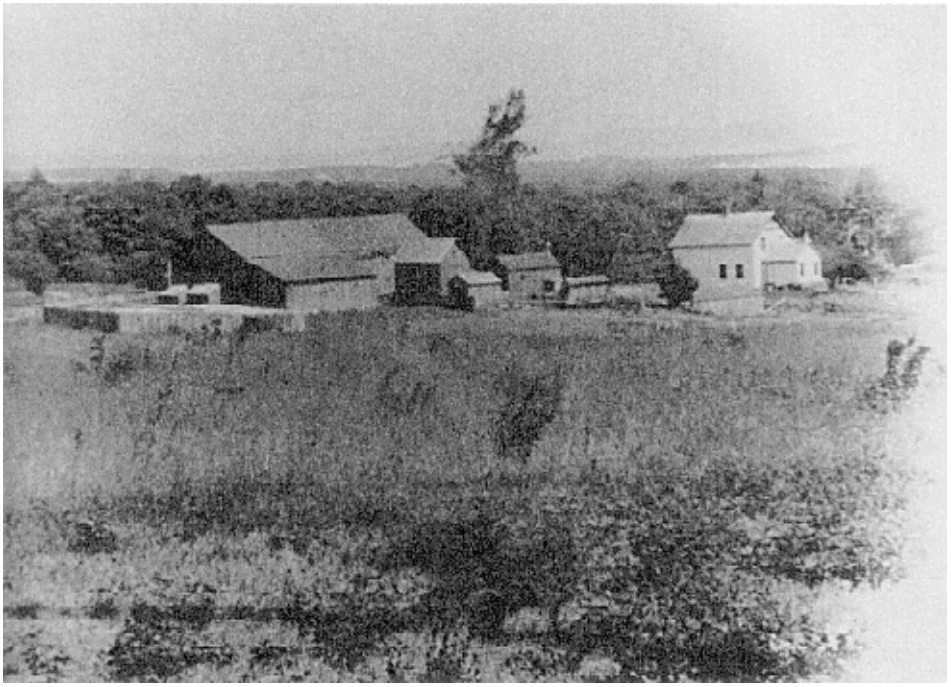

Figure 67. The Henry and Maggie Haas Farm (date unknown)

Figure 68. Shed (1994)

Figure 69. Interior of Farmhouse (1994)

Farms with structural ruins

Thomas & Mary Kitchen/Mary (Kitchen) Price & Thomas Price/ Andrew and Sarah Burdick Farm

Farmstead History and Agricultural Data

The manuscript schedules for the 1860 Federal Population Census indicate that Thomas Kitchen (age 25) was a South Manitou farmer and that he was married to Helen (23) and had two children, Thomas (6) and Mary (3).[69] On 31 January 1863, Thomas Kitchen filed a homestead claim for 160 acres of land on South Manitou Island (T31N, R15W, S33, SE 1/4). He died by drowning a year later on 24 January 1864 leaving his wife, Mary, to run the farm. On 17 June 1868 Mary filed a proof for the homestead claim. In it she stated that she had been living on the property since 15 July 1863. In an accompanying document, Christoph Beck and Richard Kitchen stated that Mary Kitchen was the head of a household that included three children. They stated that the property included a 14' x 20' house with a board floor and roof, two doors, and three windows. The farm included about seven acres of cultivated land and several apple and plum trees. There was also a barn, a stable, and a dry well.[70]

The manuscript schedules for the 1870 Federal Population Census indicate that Mary (age 37) had married Thomas Price (35) and her three children were living with them (William Kitchen, age 15; Sarah Kitchen, age 12; and Thomas Kitchen, age 6).[71] By 1880 the household included only Mary and the two boys. Sarah continued to live on the island. She married Andrew Burdick and was the mother of three children, James (3), Ann (1), and Jane (4 months).[72]

[69] Manuscript schedules for the Federal Population Census, 1860. These names and ages are not consistent with the census schedules for ensuing years. Since the 1860 Federal Population Census is infamous for its inaccuracies it is likely that Helen is actually Mary Kitchen (whose name appears in the later census schedules).

[70] Homestead Application No. 133, Traverse City Land Office, National Archives and Records Service, Washington, D.C.

[71] Manuscript schedules for the Federal Population Census, 1870. These names are confusing when they are compared to the 1860 census information, but the discrepancy is most likely due to the illegibility and inaccuracy of the 1860 census manuscripts. It is interesting that while Mary apparently ran the farm for several years, in the 1870 census manuscripts her occupation is "keeping house," while Thomas Price is indicated to be a "farmer."

[72] Manuscript schedules for the Federal Population Census, 1880.

According to Henry, Andrew and Sarah Burdick purchased a 40-acre parcel of land in 1878 that was a portion of the Thomas and Mary Kitchen homestead. Thomas and Mary Price maintained ownership of the rest of the farm until 1913 when they sold it to Charles and Molly Anderson. The portion of the farm that was purchased by the Andersons is described in the section labeled, "Thomas and Mary Kitchen/Mary (Kitchen) Price and Thomas Price/Charles and Mollie Anderson Farm."

After Andrew and Sarah died, two of their daughters, Anna and Carrie ran the farm. They farmed the land through the majority of their adulthood. In the late 1920's, they were no longer living at the farm when the house was badly vandalized.[73] Ruth M. Kelly owned the land in 1971 when the Lakeshore was established.[74]

Location

The property is hidden deep in the woods, past dense areas of juniper and poison ivy. It is difficult to approach, but there are conspicuous remains of buildings once one gets to the location. To find the site, it is necessary to start at the island cemetery and head north on the trail that leads to the Popple Campground. If one looks carefully to the left (west), an old, deteriorating barbed wire fence running in an east-west direction may be seen. One must then follow the fence into the woods until it ends near the base of a hill that rises to the west. After turning left and heading due south the ruins of several buildings are visible.

Landscape Setting and Cultural Landscape Elements

The buildings are surrounded by a dense Beech-Maple woods; furthermore, the understory of saplings makes it difficult to get a clear view from one building to the other. The long time period since the farm was actively used (it was abandoned in the late 1920's) has allowed the native plant communities to overtake the area, leaving little indication of the historic cultural landscape. The dense mat of Vinca minor (Myrtle) that spreads for 80 to 100 feet near the ruins of the house is the lone vegetative reminder of the previous human manipulation that occurred at this site.

[73] Henry, "The Andrew and Sarah Burdick Farm."
[74] National Park Service, "Land Status Map" (Washington, D C United States Department of the Interior, Office of Land Aquisition and Water Resources, 1970).

According to Shunichi Hagiwara, in 1977 the remains of an old apple orchard were identifiable about twenty yards away from the site of the buildings.[75] The seedlings for these trees were reportedly brought from Ireland.[76]

Buildings and Objects

All of the structures found at this site are in very poor condition and can best be described as "ruins." There are remains of two sheds--measuring approximately 4' x 8'--that were sided with horizontal boards.[77] There is also a house that has fallen down; it once measured approximately 22' x 30', and had clapboard siding and a shingled gable roof.[78] This dwelling, probably constructed sometime between 1853 and 1860, may have been the oldest standing building on the island. Fred Burdick's father, James, was born there in l877.[79]

Contributing Landscape Components

MYRTLE
RUINS OF TWO SHEDS (HS 50101B & HS 50101C)
RUINS OF HOUSE (HS 50101A)
PRIVY (HS 50101D)
RUINS OF SHED (HS 50101E)

[75] Hagiwara, 1977.
[76] Oral interview with Fred Burdick and Marie Smith in August 1977, conducted by Shunichi Hagiwara; notes regarding this interview are found in his "Building - Structure Inventory," on file in Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.
[77] National Park Service, Park Historic Architecture Division, "List of Classified Structures for South Manitou Island," 1988, on file at Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.
[78] Ibid.
[79] Oral interview with Fred Burdick and Marie Smith in August 1977, conducted by Shunichi Hagiwara; notes regarding this interview are found in his "Building-Structure Inventory."

Figure 70. Ruins of shed at the Burdick Farm (1994)

George and Maria Haas/Willie (Bill) Haas Farm

Farmstead History and Agricultural Data

George and Maria Haas met the Hutzlers in Buffalo, New York. Eventually, the Hutzlers convinced the Haases to come to South Manitou to live.[80] The Haases appear, for the first time, on the 1870 Federal Population Census. Eventually, George and Maria had five children: Joseph (b. 1853), John (b. 1855), Elizabeth (b. 1856), William (b. 1888), and Henry (b. 1890).[81]

On 25 February 1863, George Haas paid $12 to file Homestead Application Number 154 for the northwest quarter of Section 33 in Township 31N of Range 15W. Five and one-half years later, on 26 August 1868, he paid two dollars for the "final receiver's receipt" for that property. In the required affidavit Haas stated that he had resided on the land from August 1863 to the current date. Christoph Beck and George Hutzler signed proofs verifying this fact. Haas had built a 20' x 24' house with a shingle roof, board floor, two outside doors, and four windows. The proofs also stated that he had plowed, fenced, and cultivated about twelve acres of land; built two barns; constructed a dry well; and planted a number of apple and peach trees.[82]

The manuscript schedules for the 1870 Federal Agriculture Census indicate that George Haas operated a farm with 15 acres of improved land. The farm livestock included four milk cows, two working oxen, nineteen other cows, and six pigs. During 1879, the farm produced 6 bushels of spring wheat, 60 bushels of rye, 20 bushels of Indian corn, 15 bushels of oats, 2 bushels of peas and beans, and 300 bushels of potatoes. The farm also produced one ton of hay, and the Haas family had churned 15 pounds of butter.[83]

The 1880 Agricultural Census indicates the area of the farm expanded to include 35 acres of tilled land and 5 acres of permanent pasture, meadow, or orchard. The family owned three milk cows, two other cows, and six pigs. The farm produced 200 pounds of

[80] Myron Vent, South Manitou Island From Pioneer Community to National Park (Washington, D.C.: Eastern National Park and Monument Association, 1973), 34; also cited in Henry, "George and Maria Haas/Willie Haas Farm."

[81] Manuscript schedules for the Federal Population Censuses, 1860, 1870; also cited in Henry, "George and Maria Haas/Willie Haas Farm."

[82] Homestead Application No. 154, Traverse City Land Office, National Archives and Records Service, Washington, D.C.

[83] Manuscript schedules, Federal Agricultural Census, 1870.

butter in 1879. The crops grown in 1879 included: 1 acre of barley producing 30 bushels; 2 acres of Indian corn (60 bushels); 3 acres of oats (100 bushels); 4 acres of rye (100 bushels); 2 acres of wheat (16 bushels); 16 bushels of peas; and 4 acres of potatoes (500 bushels). It also included 25 bearing apple trees and 2 peach trees.[84]

John and William Haas took over the farm operations from their parents.[85] William was a blacksmith and provided this much-appreciated service to the other islanders until his shop burned.[86] The Haas family was known for the home brew they produced on the island, and stories indicate that the brewing activity was exciting and sometimes even dangerous.[87] The brothers continued to live on the farm until their deaths--John's in 1924, and William's in 1937.[88] The Kilwy family owned the site when the Park Service purchased it.[89]

The farm is currently very difficult to approach because of thick clumps of sumac, juniper, and poison ivy. The only identifiable structures at the site are in ruins, and are surrounded by dense vegetation that has closed in so tightly around the buildings that it is hard to tell where they formerly began and ended. There also is a pipe at a spring near the building locations. Fruit trees near the buildings (apple and plum) still bear fruit. The ruins are located on a high point, and the site provides a magnificent view of North Manitou Island and Lake Michigan to the north.[90] According to Henry, the graves of George and Maria Haas are located on the site.[91]

Cultural Landscape Components
BUILDING RUINS
PIPE AT THE SPRING
FRUIT TREES
GRAVES

[84] Manuscript schedules, Federal Agricultural Census, 1880.
[85] Henry, "George and Maria Haas/Willie (Bill) Haas Farm."
[86] Charles M. Anderson, Isle of View: A History of South Manitou Island (Frankfort, Michigan: J.B. Publications, 1979), 101; cited in Henry, "George and Maria Haas/Willie Haas Farm."
[87] Interview with Glenn Furst, conducted 17 September 1994, by Brenda Williams; transcript on file at Sleeping Bear Dunes National Lakeshore Headquarters, Empire, Michigan.
[88] Henry, "George and Maria Haas/Willie Haas Farm."
[89] Ibid.; National Park Service, "Land Status Map" (Washington, D.C.: United States Department of the Interior, Office of Land Acquisition and Water Resources, 1970).
[90] Fieldwork at South Manitou Island conducted in July 1994 by Brenda Williams.
[91] Henry, "George and Maria Haas/Willie (Bill) Haas Farm."

Farms with cultural landscape remnants

Thomas and Mary Kitchen/Mary (Kitchen) Price & Thomas Price/ Charles and Mollie Anderson Farm

Farmstead History and Agricultural Data

Charles and Mollie Anderson and their family moved to South Manitou Island during the summer of 1913 when they purchased the farm from Thomas and Mary Price. The Anderson's had six children: Charles, Jr., Magdalean, Cecelia, Albany, Haakon, and John. Charles, Sr., was a trader, and had worked around the islands for a few years before deciding a South Manitou farm would be a good place for his family. He was away from home quite often, tending to his boat and hauling supplies to the islands and transporting island products to other ports.[92] According to the manuscript schedules for the 1920 Federal Population Census, Charles Anderson immigrated from Norway in 1894 and was a steamer captain. Mollie was born in Wisconsin, as were the nine children enumerated on the 1920 census manuscripts.[93] Eventually, there were twelve children in the family.

Apparently the other island farmers did not accept the Andersons for the first couple of years. In one account, Charles, Jr., said that "they were all of German descent and the Andersons were of Scandinavian descent." Mr. Anderson was a sailor and had a hired hand to help operate the farm.[94]

The Andersons raised beef cattle, and Charles' book contains many interesting and amusing stories about the herd. They also had a variety of fruit trees, including black cherries, red plums, apples, pears, and prunes. These were planted in the fields with other crops. At plowing time, the children would pull the small trees over so the harness from the horses would not chip off the bark.[95]

[92] Anderson, 45
[93] Manuscript schedules for the Federal Population Census, 1920.
[94] Anderson, 47.
[95] Ibid., 57.

Location

This site is located northwest of the intersection of Chicago and Ohio Roads. The southeastern corner of the property is the site of an interpretive sign that the Park Service installed, which provides a brief overview of farming on the island.

Landscape Setting and Cultural Landscape Elements

The landscape at this site is relatively flat, sloping gently upward toward the northwestern corner of the property. This old field was categorized as medium juniper in the 1983 vegetation survey.[96] Several landscape elements associated with the site. At the site's southeastern corner, the remains of a stone marker are situated near the interpretive sign. The marker indicates the property boundary. Northwest of this corner the old fields are dotted with apple trees, roses, and grapevines. Along the southern property boundary, just before the woods begin on the west, one can find the remains of the farm's stone entry walls. These were once two walls with stone pillars; one was located on either side of the farm road that continued north until it reached the farm buildings at the northwestern corner of the site. The old roadbed is lined with fruit trees and roses. The foundations of two structures can be detected at the former building site, but their dimensions are difficult to determine due to the dense vegetation that has grown over and around them. From this site, views of the harbor and North Manitou Island are evident to the southeast and east.

Contributing Landscape Components

OLD FIELDS
STONE MARKER
APPLE TREES
ROSES
RUINS OF STONE WALLS
ROAD BED
BUILDING FOUNDATIONS

[96] Hazlett, 1983.

Alfred and Hannah Evans/Thomas and Estelle Foster Farm and Sawmill

Farmstead History and Agricultural Data

On 11 July 1863, Alfred Evans paid twelve dollars to the Receiver's Office in Traverse City as his filing fee for a homestead claim that included the northeastern quarter of Section four in Township thirty North of Range fifteen West. Seven years later, on 9 July 1870, he filed an affidavit for the same property. Witnesses Christopher Beck and Conrad "Hutzler" stated that they had known Alfred Evans for seven years and that he had a wife and four children. They also stated that he made settlement upon the property on 10 September 1863, and had built a log house with a shingle roof, board floor, three windows, and two doors. There also was a frame addition to the house. The family moved into the house on 12 November 1863. Since the time of settlement they had plowed, fenced, and cultivated about 24 acres of land and had built an 18' X 24' log barn and other buildings. They also had "chopped" six acres of land and planted fruit trees and berry bushes.[97]

The 1870 census lists Alfred Evans (age 36) as the head of a household that included his wife, Hannah (39), and their children: Albert (11), Fanny (8), Thomas Foster (13), and William Foster (11). In 1880 Hannah is enumerated as the head of the household that includes her stepson, Albert (21), two sons, William and Thomas Foster, and a boarder, John Ehle.[98]

The 1900 census lists Thomas Foster (age 42) as the head of a household that included his wife Estella (39) and six children: Fanny (18), Evaline (17), Gertie (15), Emma (14), Henry (11), and Charles (6).[99]

Thomas Foster was the island's postmaster from 3 October 1889 to 1 August 1907.[100] He also had a sawmill on the island. Eventually a total of three sawmills were built on the Foster property. The first one appeared in the 1890's, the second was built in 1906 and operated until 1910, and the third was constructed about 1910 and operated

[97] Homestead Application No. 427, Traverse City Land Office. National Archives and Records Service, Washington, D.C.

[98] Manuscript schedules for the Federal Population Censuses, 1870 and 1880.

[99] Manuscript schedules for the Federal Population Census, 1900. Henry, In "Alfred and Hannah Evans/Thomas and Estelle Foster Farm and Sawmill," ties together the various families with this property.

[100] Vent, p.92; cited in Henry, "Alfred and Hannah Evans/Thomas and Estelle Foster Farm and Sawmill."

until 1917. At least one, and perhaps all, were shingle mills that contributed to the aesthetic character of most of the shingle roofed buildings on the island.[101]

Cultural Landscape Components
LILAC BUSHES
RHUBARB PLANT
BUILDING FOUNDATION
ORCHARD REMNANTS
WATER PUMP
SUGAR MAPLES
REMNANTS OF LUMBER MILL (HS 51117)

Figure 71. The Foster Orchard (date unknown)

[101] Edmund Littell, 100 Years in Leelanau 19; also cited in Henry, "Alfred and Hannah Evans/Thomas and Estelle Foster Farm and Sawmill."

Figure 72. Remnants of the Sawmill (1994)

Figure 73. Building Foundation (1994)

Farms with no extant features

The following section includes properties that were originally obtained through the Homestead Act, but have no extant features.

Andrew and Ulrica Erickson Homestead

Andrew Erickson filed a homestead claim on 23 August 1890 for 129.7 acres of land located on the northern tip of the island (T31N, R15W, S28, Lots 1, 2, and 3). The final proof for this property was filed on 8 September 1897.[102]

According to Linda Henry, Andrew Erickson was a fisherman. The Ericksons, both of whom were born in Sweden, arrived on the island around 1882.[103] The 1900 census lists Andrew (70) and Ulrica (74) as residents of South Manitou Island. Henry states that two of their children, Selma and Leonard, lived on the island. [104] When his father died, Leonard inherited the homestead property. He retained title to this property until 14 July 1911, when he sold it to Allen Kent.[105] Currently, the property consists of forest but it is still possible to find old fruit trees and lilac bushes growing in the area.[106]

Richard and Sarah Kitchen Homestead

The 1860 Federal Population Census enumerates Richard Kitchen (21), his wife, Sarah (19), and their son, Henry (8 months), as residents of South Manitou Island. Sometime in 1863, Richard Kitchen filed a homestead claim for the southwest quarter of T31N, R15W, S34. His proof was filed on 26 August 1868.[107]

The Kitchens did not operate an extensive farm. The property includes soils that are sub-marginal for agriculture, and the 1870 Agricultural Census does not include the Kitchens. The 1870 Federal Population Census indicates that Richard was a retail grocer.

[102] Homestead application list compiled by Susan O. Haswell from information in the archives of the Michigan History Division (Lansing, Michigan). The National Archives and Records Administration was unable to locate the Homestead Application for this property.
[103] Henry "The Andrew and Ulrica Erickson Property."
[104] Ibid., manuscript schedules for the 1900 and 1910 Federal Population Census. In 1900, Selma was already married to George Hutzler, and had six children.
[105] Henry, "The Andrew and Ulrica Erickson Property."
[106] Ibid.
[107] Manuscript schedules, Federal Population Census, 1860; Homestead application list compiled by Susan O. Haswell. The National Archives and Records Administration was unable to locate the Homestead application for this property.

The manuscript schedules for the 1880 Agricultural Census list Richard Kitchen, but the data contained therein are confusing. They indicate that Kitchen had 191 acres of improved and four acres of unimproved land (he is known to have owned 160 acres). Of this, 166 acres were supposedly tilled, but the total crops listed for 1879 included only three acres of potatoes, which produced 200 bushels. The Kitchens also had four apple trees, six milk cows, six other cows, and four pigs. The farm produced 150 pounds of butter in 1879.[108] For purposes of this report, it will be assumed that 28 acres of land were improved on this farm in 1880 (this number represents the 25 acres listed as permanent meadows, and the 3 acres of potatoes). The 1900 Federal Population Census does not enumerate the Kitchens as residents of South Manitou Island.[109]

Roland Shank Homestead

The Conrad Hutzler family is listed for the first time in the 1870 Federal Population Census, which indicates that Roland Shank (age 13) was residing with the family. The 1880 Population Census indicates that Roland was a farm laborer, and still a member of the Conrad Hutzler household. By the time of the 1900 Population Census, Conrad and Mary Ann Hutzler no longer appear, and George Hutzler headed the household.[110]

On 14 August 1903, Roland Shank filed Homestead Application Number 11128 for ninety acres of land on South Manitou Island, which was described as T30N, R15W, S5, Lot I and the Southeast quarter of the Northwest quarter of T30N, R15W, S5. The final affidavit for this transaction was filed by Shank on 26 July 1910, with George C Hutzler, Irwin Beck, Henry Haas, and William Haas serving as witnesses. The testimonies of Beck, Hutzler, and Shank provide some details as to the latter's use of the property. Beck stated that Shank settled on the property in the latter part of April 1904, and that he had resided continuously on the property since that time. Beck indicated that about two acres had been cleared and were occupied by a 12' x 14' building (built of rough boards and one and one-half stories high), and that some apple trees were enclosed

[108] Manuscript schedules, Federal Agricultural Census, 1870 and 1880, manuscript schedules, Federal Population Census, 1870.
[109] Manuscript schedules, Federal Population Census, 1900.
[110] Manuscript schedules, Federal Population Censuses, 1870, 1880, and 1900.

by a pole fence. Hutzler confirmed Beck's statements. Roland Shank stated that none of the land had been cultivated, but that he had planted 27 fruit trees which had not yet borne fruit, and that two acres of land had been cleared and were being used for buildings and the fruit trees. In all of these testimonies, the land is described primarily as sand dunes, with only about four acres being cultivable.[111] By the time the Lakeshore was established, the land was owned by the State of Michigan.[112]

Figure 74. Roland Shanks Place (date unknown)

[111] Homestead Application No. 11128, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.
[112] National Park Service, "Land Status Map, Townships 30, 31 North, Range 15 West, July 1971" (Washington, DC: Office of Land Acquisition and Water Resources, United States Department of the Interior, 1971).

James and Elizabeth Miller Homestead

The Miller family first appears in the Federal Population Census of 1880, which lists James Miller (age 36), his wife Elizabeth (40), and four children: Sarah Jane (9), Edward (7), Alexander (5), and Isabella (1). [113]

James Miller filed Homestead Application Number 6467 on 20 February 1875 for Lot Number One of Section 9, and the northern half of the Northwest quarter of T30N, R15W, S10. On 25 July 1881, he filed a final proof for the property, stating that a house (16' x 23' with two doors and five windows) had been built in May 1875--the time when his family established residence on the property. At the time the family consisted of James and Elizabeth Miller and their five children. Also, in May 1875, a log barn measuring 18' x 24' was constructed. By the time the proof was submitted, ten acres had been cleared and five acres were chopped. The ten cleared acres had been in cultivation for four seasons. William and Thomas Kitchen testified as witnesses; their statements agreed with those of Miller.[114]

James Miller's name also appears on the 1880 Federal Agricultural Census, which indicates that his farm included eight acres of tilled land and a one-acre meadow. The family owned two milk cows and four pigs, and had produced 200 pounds of butter in 1879. They also had raised four acres of rye that produced 48 bushels, two acres of wheat (20 bushels), and two acres of potatoes (200 bushels). One apple tree had produced one bushel of fruit in 1879.[115]

Ben Johnson had a farm at this site around the turn of the century.[116] Fred Burdick owned the property in 1971 when the Lakeshore was established.[117]

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[113] Manuscript schedules, Federal Population Census, 1880.

[114] Homestead Application No. 6467, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.

[115] Manuscript schedules, Federal Agricultural Census, 1880.

[116] Fred Burdick interview, 1994. Also, the map in Figure 76--which was drawn by a former islander--indicates that this was Johnson's farm.

[117] National Park Service, "Land Status Map, Townships 30, 31 North, Range 15 West, July 1971" (Washington, DC: Office of Land Acquisition

Figure 75. A Gathering at Ben Johnson's Farm (ca. 1904)

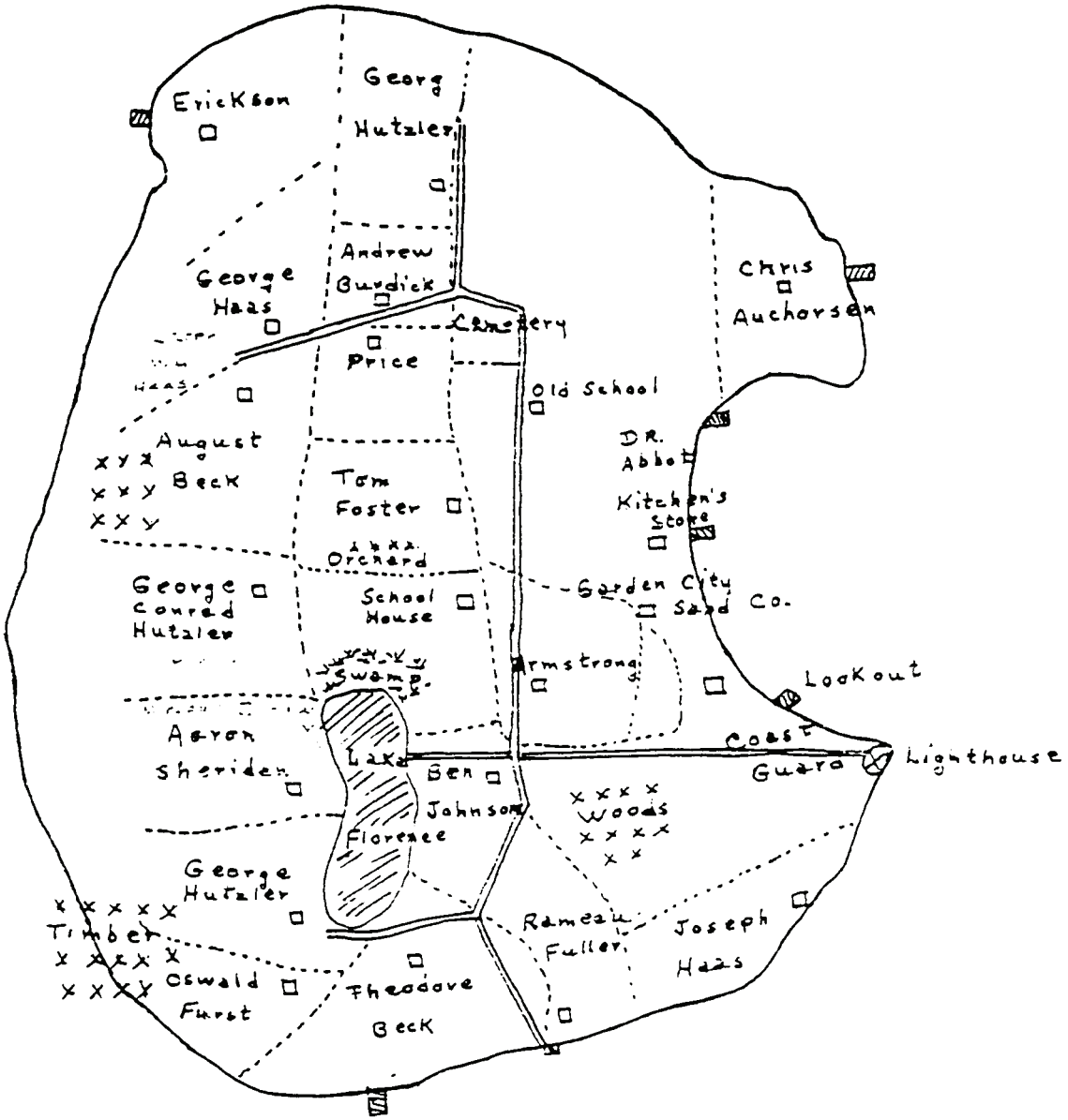


FIGURE 76
A MAP OF ISLAND FARMS (date unknown)

Thomas and Margaret Armstrong Homestead

The Federal Population Census of 1870 indicates that Thomas Armstrong (age 34) was the head of a South Manitou Island household that included his wife, Margaret (27), and their children: James (9), Emma (8), Thomas (5), and Mary (2).[118]

Armstrong filed Homestead Application Number 3006 on 2 May 1868 for 160 acres of land that included the west half of the Northwest quarter and the west half of the Southwest quarter of T30N, R15W, S3. He paid a $14 registration fee. The final proof for this property was filed on 7 October 1874. This document states that he had a wife and six children. They had settled on the land on 5 May 1868, and had built a one and one-half story log house that included a board floor, a shingle roof, two doors, and four windows. The family had lived in the house since 20 May 1868. By 1868, a total of 17 acres of land had been plowed, fenced, and cultivated, and 12 acres had been chopped. A log barn had been built, and 35 fruit trees, 100 currant bushes, and 500 strawberry plants were planted. Andrew Burdick and William Kitchen were the witnesses for this proof.[119]

The Agricultural Census for 1870 indicates that the Armstrong farm included ten acres of improved and 150 acres of unimproved land. It also indicates that the farm had two milk cows, five other cattle, and four pigs. In the year ending 1 June 1870, the farm produced 100 bushels of potatoes and 150 pounds of butter. Also, thirty dollars worth of forest products were sold.[120]

The Population Census for 1880 indicates that the family was still present on the island, and that three more children had been born: William (age 8), Alfred (5), and Anne (3). The Agricultural Census for the same year indicates that the farm included 15 acres of tilled land, five milk cows, five other cows, three sheep, and five pigs. In 1879, the farm produced 300 pounds of butter, 100 bushels of oats (planted on six acres), 150 bushels of rye (planted on six acres), and 250 bushels of potatoes (planted on three acres). There were also four apple-bearing trees on the farm during that year.[121]

[118] Manuscript schedules, Federal Population Census, 1870.
[119] Homestead Application No. 3006, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.
[120] Manuscript schedules, Federal Agricultural Census, 1870.
[121] Manuscript schedules, Federal Population Census, 1880; manuscript schedules, Federal Agricultural Census, 1880.

The property was purchased from Thomas and Margaret Armstrong by the Garden City Sand Company on 30 December 1890.[122] According to Henry, the Burgess family lived in the house until sometime after 1920.[123]

Joseph & Florence Haas Homestead

On 19 March 1883 Joseph Haas filed a homestead application for approximately 148 acres of land on South Manitou Island (T30N, R15W, S10, Lots 1, 2, and 3). On 14 July 1891 George Hutzler and William Kitchen testified that Haas established residence on the property in August 1882. They also stated that the farm included ten acres of cultivated land, a house, a barn, fences, and fruit trees. Haas lived on the farm with his wife, Florence Raimau Haas, and three children.[124]

On 16 November 1898 the original patent was canceled and a new patent was issued. This was done because the original patent erroneously included a tract that had been reserved for Lighthouse purposes.[125]

Both Joseph and Florence Haas were postmasters for South Manitou Island. Because of her role in delivering mail Florence Haas is cited in Michigan Women: Firsts and Founders. She was granted a pilot's license to operate a motor launch in 1911, making her one of the first women to achieve this status on the Great Lakes. She was also the first woman postmaster to carry the mail between the island and Glen Haven, beginning in 1912.[126] Florence Haas was also a midwife and she delivered many of the island children.

[122] Henry, "Thomas and Margaret Armstrong Family Farm."
[123] Ibid.,
[124] Homestead Application No. 8490, Traverse City Land Office, National Archives and Records Administration, Washington, D.C.
[125] Ibid.,
[126] Rachel Brett Harley and Betty MacDowell, Michigan Women: Firsts and Founders (Lansing, Michigan: Michigan Women's Studies Association, Inc., 1992), 31.

Figure 77. Florence Haas and Archie Roy (ca. 1923)

Ray Kent Homestead

On 24 June 1915, Ray Kent filed a homestead application for eighty acres described as the northern half of the Northeastern quarter of Section 34 in Township 31 North, Range 15 West. On 20 May 1921 Kent filed a proof for the claim, stating that there were five acres of land cultivated in 1916, eleven acres cultivated in 1917, and that he was absent in the Army for portions of 1918 and 1919. He served in the 57th Engineers and was discharged at Camp Sherman 19 July 1919. The land was not cultivated during the years of 1918 through 1921, due to his absence while in the Army and a "lack of money to live and make improvements on the homestead." During 1919 Kent spent three months in the Coast Guard and in 1920 he sailed during the "season of navigation" and worked in the woods in the winter. He moved permanently onto the homestead on 15 April 1921. By the time he filed the proof, he had built a one-story frame house that measured 16' x 20'; a barn that measured 16' x 24'; and a 10' x 16' lean-to. He also had dug a well and fenced 16 acres of land. Charles Anderson, James A. Burdick, Theodore Thompson, and Ray Robinette served as witnesses to the proof. On 27 April 1923 the Final Certificate completed the transaction.[127]

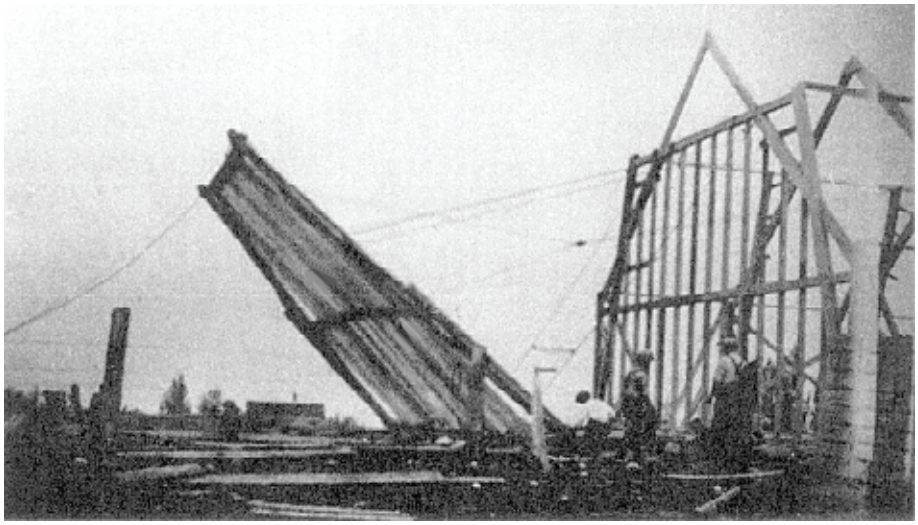


Figure 78. A Barn Raising at a South Manitou Farm (date unknown)

[127] Homestead Application No. 03761, Marquette, Michigan Land Office, National Archives and Records Administration, Washington, D.C.

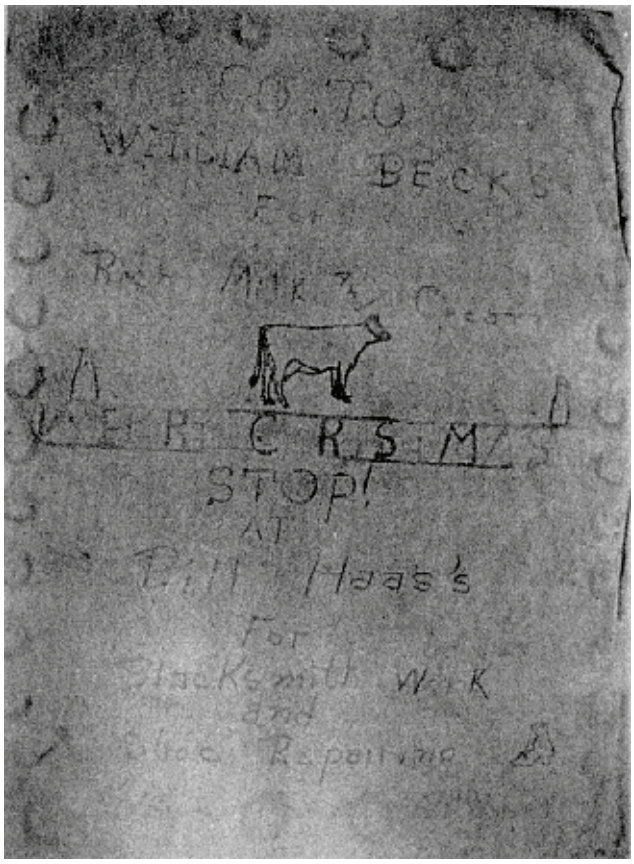


Figure 79. A Page from the School Newspaper
The students at the South Manitou Island School prepared a newspaper that included advertisements for farm products and services. This one includes "Come to William Beck's for Rich Milk and Cream." And "STOP! at Bill Haas's for Blacksmith Work and Shoe repairing."

Other Properties Related to the Agricultural Community

Schoolhouse Site

The schoolhouse is located on Ohio Road in the midst of the island farms and between the old dock and the village. It was originally one-room, and was built to provide education for the island children. It was used until 1927. It also served as a social gathering place.

Contributing Buildings

a) Schoolhouse (HS 51110A)

The one-story, one-room schoolhouse has a wood shingle gable roof with enclosed rafter tails. It has shiplapped siding and corner boards. There is a brick chimney. It has a shed addition along the eastern side. The addition includes two latrines and a cloakroom. There is a small bell tower with a gabled roof on the eastern end of the roof

b) Flagpole (HS 511l0B)

The wood pole is approximately forty feet high and tapers at the top. It is anchored by two shorter poles.

c) Well/Cistern (HS 51110D)

The circular concrete cap has an iron ring in the center and is located at the southeastern corner of the schoolhouse.

Figure 80. The South Manitou Island Schoolhouse (1994)

Roads and Trails (HS 49-102)

The three main island roads--Chicago, Ohio, and State Award (or Burdick)--continue to provide primary transportation routes for island hikers and the vehicle tour. Island farmers used these roads, as well as other secondary farm roads, to transport goods and equipment to and from the dock. They also provided routes for communication and trade between all islanders. Their locations create boundaries between island farms by defining property edges.

Figure 81. The intersection of Ohio and Chicago Roads (1994)

The Island Cemetery (HS 50-102)

The cemetery includes 48 markers, 36 of which are inscribed. It is enclosed on three sides by a wood board and wire mesh fence that was reconstructed in 1995. On the eastern side there is a fence with wood posts and wood planks. The island cemetery provides tangible links to the island's human past. The cemetery includes the graves of many of the island's previous residents and is located in the heart of the farming district.

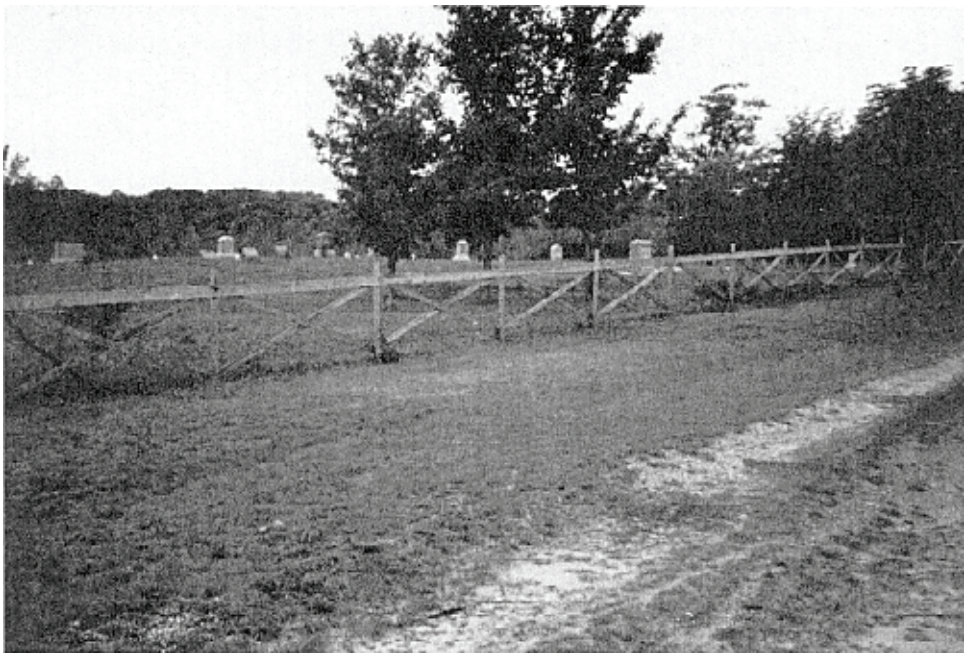
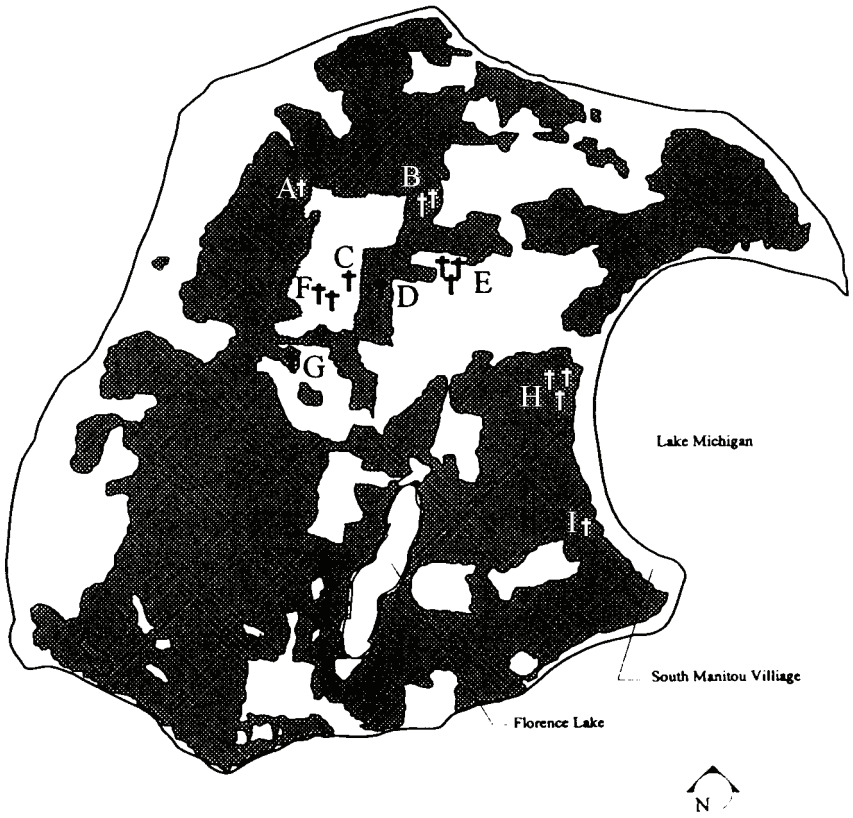


Figure 82. The South Manitou Island Cemetery (1994)

Grave Sites

Individual gravesites throughout the island represent the time before the island cemetery was established. Islanders would be buried near their homes, often on a hill that overlooked their farm (as is the case with the Becks and George Conrad Hutzler). There are individual gravesites scattered throughout the island. The South Manitou Island Memorial Society has made efforts to locate gravesites on the island, providing simple vertical white cross markers and an ornamental picket fence around several of them.



Legend

A George and Maria Haas
B George J Hutzler and Peth
C Elizabeth Shoemaker
D Price --Girls
E Main Island Cemetery
F David and Elizabeth Beck
G George Conrad Hutzler
H Small Cemetery near the old dock
I Mass grave site

FIGURE 83
SOUTH MANITOU ISLAND BURIAL LOCATIONS

The "Old Dock" Site (HS 51-159)

Burton's wharf, or the "old dock," as it became known in later years, was the heart of the island in early years. Burton was the island's first settler. The dock he built served as a point of trade and service between islanders and Great Lakes steamers beginning in the 1840's. Lumber was brought to this location to sell to steamer captains for fuel. Farm products were also sold from this point.

Figure 84. The "Old Dock" Site (1994)

Site of the Historic Railroad Track

Orange Risdon documented the island's railroad track in his survey of 1847. It was used to transport lumber to the dock. The sandy soil near the dock made it difficult to pull heavy loads in wagons and the track eliminated the problem. The track was used as a trail between the old dock and schoolhouse in later years.

Chapter 6
ASSESSMENT OF LANDSCAPE CHARACTERISTICS

Island-Scale Landscape Components

Mary Hufford has stated that "the past is abundantly stored in material remains on the land."[1] According to National Register Bulletin #30, landscape characteristics are the "tangible evidence of the activities and habits of the people who occupied, developed, used and shaped the landscape to serve human needs; they may reflect the beliefs, attitudes, traditions, and values of these people."[2] The bulletin describes eleven characteristics that are typically associated with rural historic landscapes. Several of these characteristics are relevant to South Manitou Island's historic agricultural landscapes. The extant landscape characteristics that relate to the historical significance of the island's agricultural areas include: land uses and activities; patterns of spatial organization, circulation networks and boundary demarcations; responses to the natural environment; cultural traditions; and vegetation related to land use. The following section provides an assessment of the characteristics and their relationship to island agriculture.

Land Uses and Activities

Farming activities, including the production of grain crops, fruits, and vegetables, and the raising of livestock, were prevalent on the island for about eighty years (circa 1860 to 1940), and farming was present until the Lakeshore was established in 1970. These activities involved direct manipulation of land, and they left long-term imprints. Several landscape characteristics are associated with land uses and activities important to the island's farming history. They include fields, pastures, orchards, grazing areas, and cemeteries, and sites associated with wooding businesses.

Early cultivated fields were located in areas cleared of lumber and stumps by logging activities. These supported a variety of crops, most notably Rosen rye and Michelite beans. The crops were located in the central portions of the island, where soils and slopes were more suitable for agricultural use. The old fields on the island are small compared to fields on the mainland. Most of them are defined by forest at their edges,

[1] Mary Hufford, One Space Many Places: Folklife and Land Use in New Jersey's Pinelands National Reserve (Washington, D.C.: American Folklife Center, Library of Congress, 1986), 69.
[2] Linda Flint McClelland, et al., Guidelines for Evaluating and Documenting Rural Historic Landscapes National Register Bulletin #30 (Washington, D.C.: National Park Service), 15.

creating a sense of isolation and enclosure. The most extensive old fields on the island are located at the intersection of Chicago and Ohio Roads.

Remnant orchards also represent a historic land use on the island. The orchard remnants typically include three to eight apple trees. In several cases, a grid pattern can be clearly distinguished in their arrangement. These orchard remnants represent the early periods of farming on the island, when fruit was grown and sold to the captains of passing steamships. Also, the establishment of orchards was a main component in the homestead applications of islanders.

Cutting lumber was an early land-use activity that had a lasting effect on the island's landscape. The removal of timber opened up areas for agricultural use. Also, in the early subsistence years, many island farmers cut wood to supplement their income -- selling it to the passing steamer captains. This activity set the stage for agriculture on the island.

These land uses are described below in association with the periods of significance when they were present on the island.

Early Settlement Period (1835-1863): Land Uses and Activities

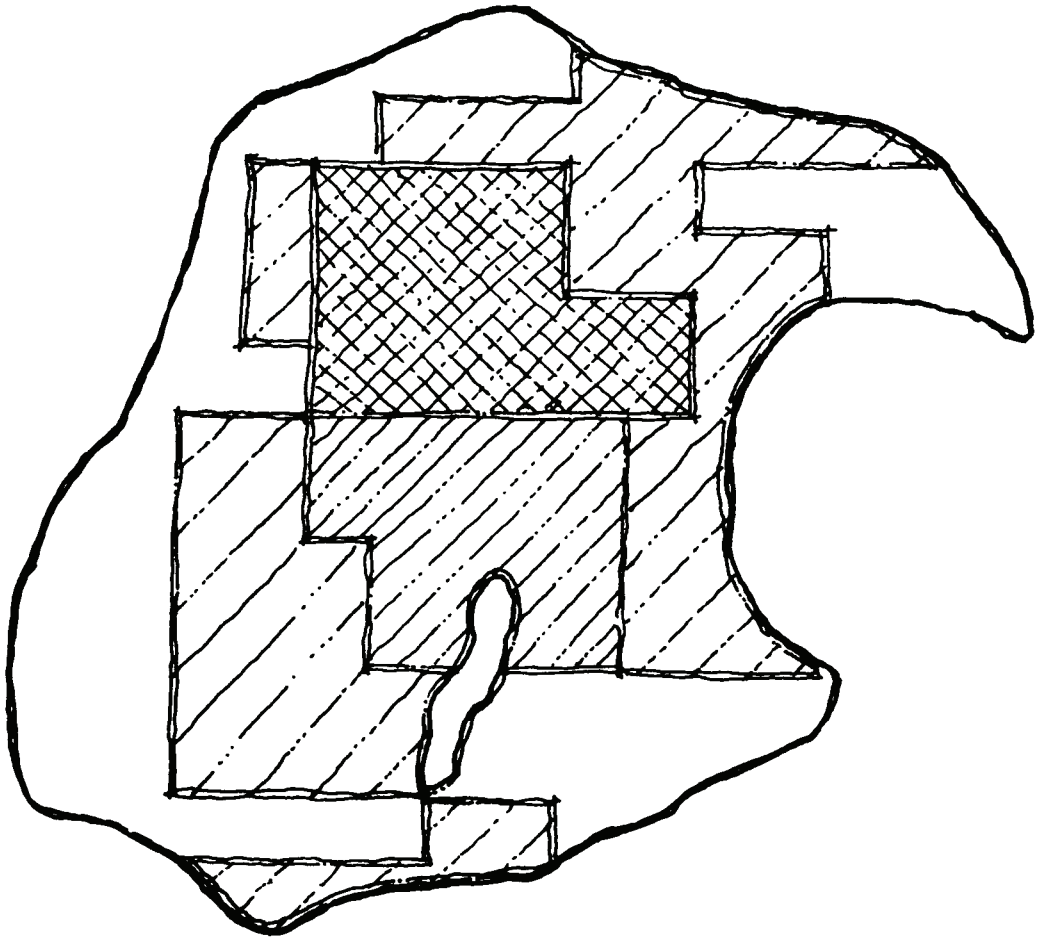
During this period, the predominant land-use activity on the island was logging. William Burton and his family arrived around 1835 and began cutting wood to supply the passing steamers. According to Margaret Fuller's 1843 account, the only people living on the island were "woodcutter for the steamboats."[3] The 1847 land survey of the island indicates that a good portion of the timber already had been cut by this time. It also indicates that agriculture was underway, with 15 to 20 acres of "improved" land being situated in the east-central portion of the island. A short railroad track ran from the east-central part of the island to the eastern shore at the harbor. It was constructed to provide easier access from the inland wooded areas to the dock.

Between 1835 and 1863, many settlers arrived on the island and began to establish family farms. It was during this period that the first purchase of title to a tract of land was made; William N. Burton undertook this in 1849. George Hutzler's family arrived on the island around 1856; Hutzler made the first homestead claim for an island property in January 1863.

[3] Margaret Fuller, Summer On the Lakes 1843 (Urbana and Chicago: University of Illinois Press, reprint of the original version, 1991), 17-19.

Land Uses and Activities during the Eotechnic Agricultural Period (1847-1868)

It is evident that several families were already living and farming on the island before 1863 when the first five homestead claims were made. Altogether, fifteen homestead claims were made for island property, with nine filed by the end of 1868. Figure 85 illustrates which homesteaded properties were claimed, and which were "proven up" by the end of 1870. It also shows land purchased with cash by the end of this period. Table 5 provides information regarding the amount of cultivated land that was "proofed" for four of the farms during this period. (The homestead documents for the fifth, Richard Kitchen, could not be located in the Bureau of Land Management or National Archives and Records Administration.) In addition to farming, logging continued during this period. Many of the farmers supplemented their income by cutting wood for sale.



Legend

Homestead proof filed before the end of the period.

Original Homestead claim filed before the end of the period.

Land purchased with cash before the end of the period.

FIGURE 85
ORIGINAL LAND OWNERSHIP & CULTIVATION THROUGH 1870

TABLE 5
LAND CULTIVATED IN 1868 ACCORDING TO HOMESTEAD PROOFS

Owner	Improved Land	Size of Improved Land
Thomas Price/Mary Kitchen	7 Acres	
Gustoff/Christoph Beck	10 Acres	
George Haas	12 Acres	
George Hutzler	15 Acres	

Tables 5 through 8 contain graphic representations of the quantities of improved land at the same scale as the diagrams in Figures 85 and 86. Figure 9, and Tables 1 through 4 (found on pages 33 through 36) provide additional information regarding homestead claims made for island properties.

TABLE 6
LAND IMPROVED ACCORDING TO THE 1870 AGRICULTURAL CENSUS

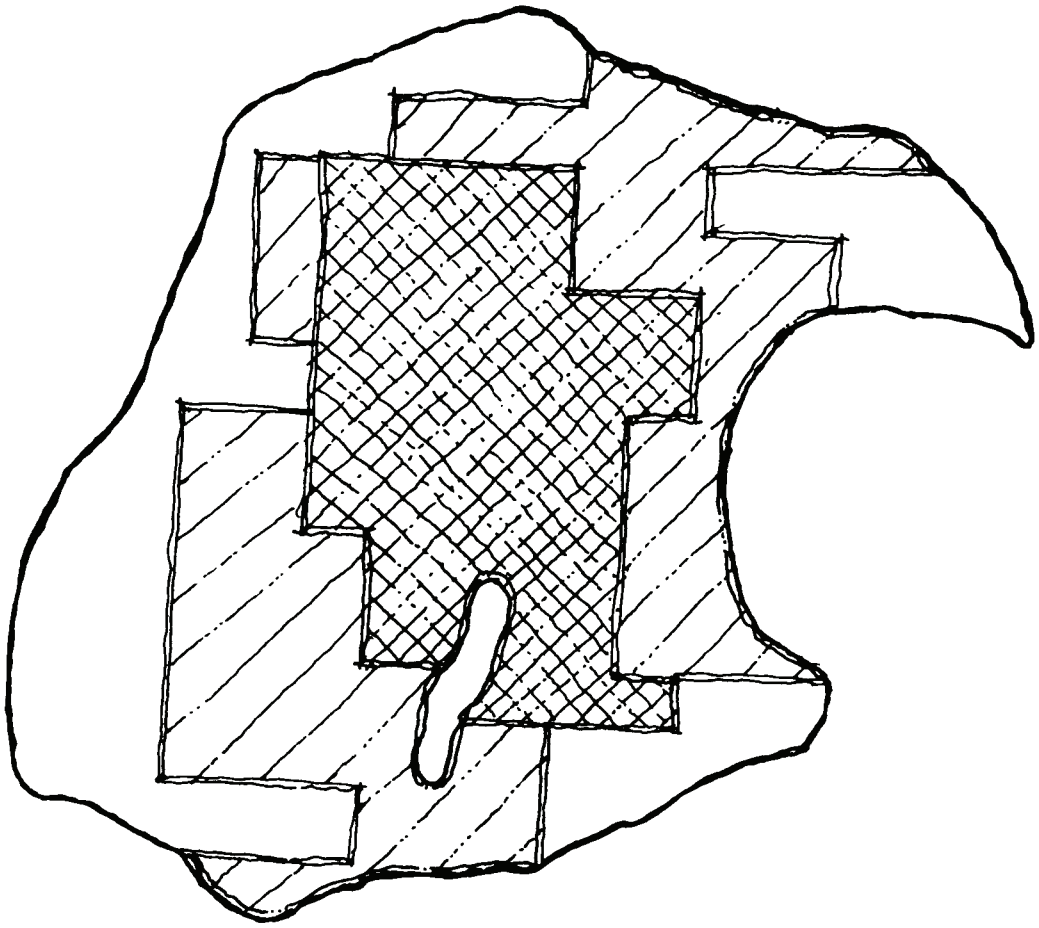
Owner	Improved Land	Size of Improved Land
Putnam Burdick	30 Acres	
William Smith	20 Acres	
Thomas Armstrong	10 Acres	
Aaron Sheridan	6 Acres	
Alfred Evans	24 Acres	
Thomas Price	16 Acres	
Gustoff/Christoph Beck	12 Acres	
George Haas	15 Acres	
George Hutzler	40 Acres	

Tables 5 through 8 contain graphic representations of the quantities of improved land at the same scale as the diagrams in Figures 85 and 86. Figure 9, and Tables 1 through 4 (found on pages 33 through 36) provide additional information regarding homestead claims made for island properties.

Land Uses and Activities during the Paleotechnic Agricultural Period (1868-1918)

Island farming became well established during the period of paleotechnic agriculture. The 1870 Agricultural Census indicates that there were nine island farmers, and that 173 acres of land were actively used for agriculture. Table 6 provides diagrams that illustrate the extent of these areas of improved land. The cleared areas can be compared to the amount of land owned by each individual as shown in Figures 85 and 86. Of the nine farm owners identified in the manuscript schedules for the 1870 Agricultural Census, seven claimed land through the homestead process. The homestead parcels accounted for 123 of the 173 improved acres represented in the Census.

Figure 86 indicates that by 1880 the majority of the land suitable for agriculture had been "proofed." The significance of the Homestead Act in the establishment of the island farming is obvious during this period. The 1880 Agricultural Census indicates that altogether, twelve island farmers had "improved" 313 acres of land. Of the twelve farmers listed, only one, Andrew Burdick, did not acquire land through the homestead process. His farm had the smallest quantity of improved land, 7 acres. Hence, of the 313 improved acres, 306 were on homestead land. Tables 7 and 8 illustrate the sizes of improved land for each farmer, and can be compared to Figure 86, which indicates the parcels of land owned by each individual in 1880. A comparison of Figures 85 and 86 shows that the same families continued to operate most of the homesteaded farms. During this period, orchards matured and began producing surplus quantities of fruit that could be sold to outside markets. Island farms were multifaceted and self-sufficient, and produced a wide range of products that served local needs.



Legend

Homestead proof filed before the end of the period.

Land purchased with cash before the end of the period.

FIGURE 86
ORIGINAL LAND OWNERSHIP & CULTIVATION (1870-1880)

TABLE 7
AMOUNT OF LAND IMPROVED ACCORDING
TO THE 1880 AGRICULTURAL CENSUS

Owner	Improved Land	Size of Improved Land
Thomas Armstrong	15 Acres	
August Beck	23 Acres	
Christopher Beck	19 Acres	
Theodore Beck	28 Acres	
Andrew P Burdick	7 Acres	
Thomas Foster	40 Acres	
George Haas	40 Acres	
Conrad Hutzler	24 Acres	
George Hutzler	64 Acres	
Richard Kitchen	28 Acres	
James Miller	9 Acres	
Thomas Price	16 Acres	

Tables 5 through 8 contain graphic representations of the quantities of improved land at the same scale as the diagrams in Figures 85 and 86. Figure 9, and Tables 1 through 4 (found on pages 33 through 36) provide additional information regarding homestead claims made for island properties.

TABLE 8
AMOUNT OF LAND CULTIVATED
ACCORDING TO HOMESTEAD PROOF (1870-1874)

Owner	Improved Land	Size of Improved Land
Thomas Armstrong	25 Acres	
Alfred Evans	24 Acres	
Conrad Hutzler	24 Acres	
Aaron Sheridan	12 Acres	

Tables 5 through 8 contain graphic representations of the quantities of improved land at the same scale as the diagrams in Figures 85 and 86. Figure 9, and Tables 1 through 4 (found on pages 33 through 36) provide additional information regarding homestead claims made for island properties.

While no data are available to describe the amount of cultivated land that existed on the island for 1900 and 1910, the consistency displayed by the small farming community is apparent from oral history reports (see the farmstead history section of this report). Also, the enduring presence of the same families who claimed farming as their principal occupations indicates the continuation of traditional agricultural land uses. A map prepared by the U.S. Army Corps of Engineers in 1902 is presented in Figure 87. It illustrates that Chicago and Ohio roads were in place as was the railroad track that ran from the old dock in a southwesterly direction. The map indicates that the focus for island activities and development was in the general area of the old dock and Chicago and Ohio roads. The U.S. Life Saving Station, Lighthouse, and fog whistle appear to be somewhat isolated at the southeastern tip of the island. On the southern shore of the island one can make out a dock and two agricultural areas that correspond with the Theodore and Alvina Beck farm and the Joseph and Florence Haas homestead.

During this period (c. 1905) a sawmill was set up on the island by F. E. Fisher and B. J. Morgan, which employed over 50 timber workers.[4] The logging operations dramatically changed the character of the native plant communities as large areas of the island were transformed from lush forests to cut over landscape. These cut over areas provided opportunities for settlers to establish their cropland and orchards quickly; this was done by planting between the stumps or by removing the stumps altogether.

[4] Vent, 41.

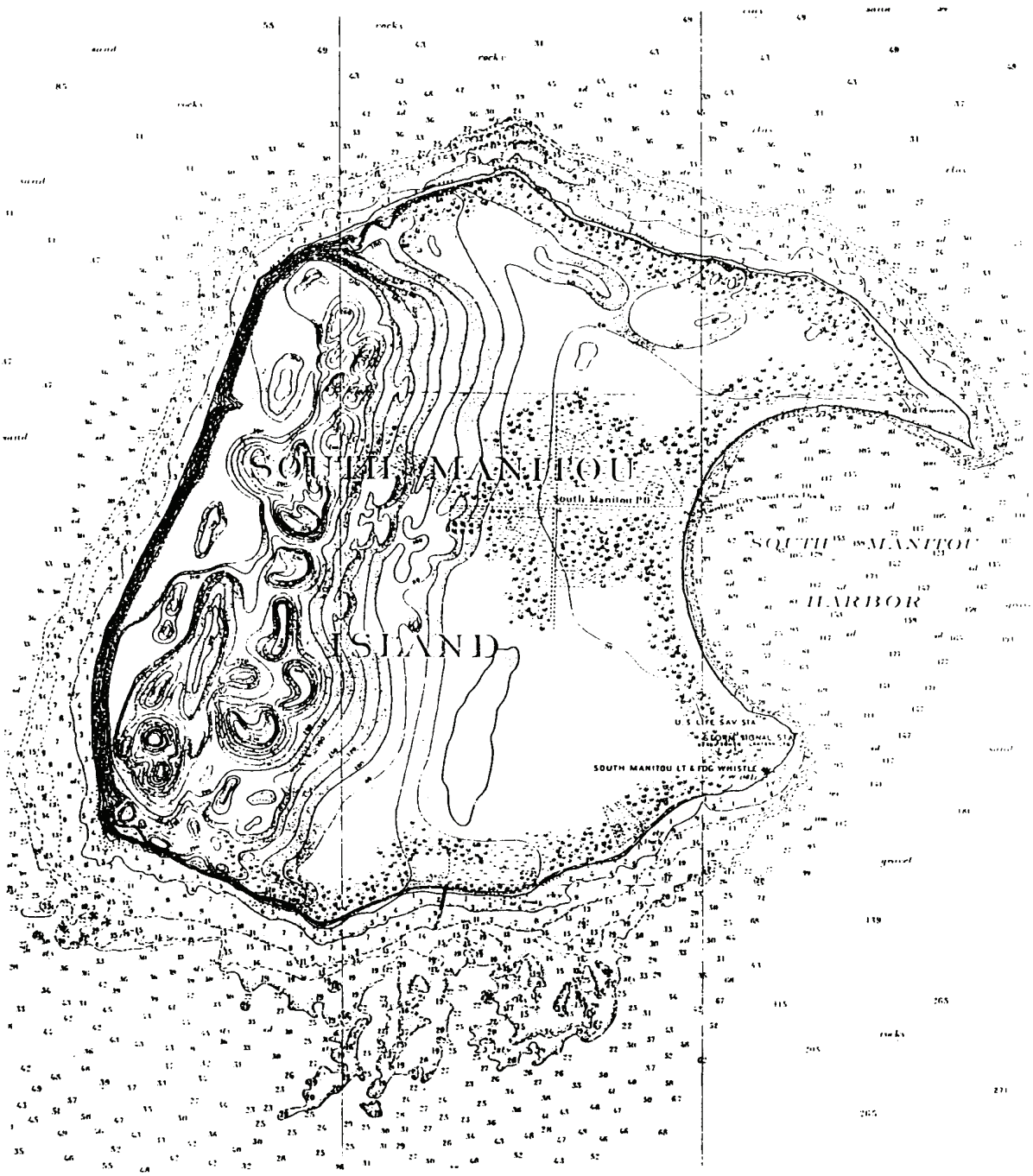
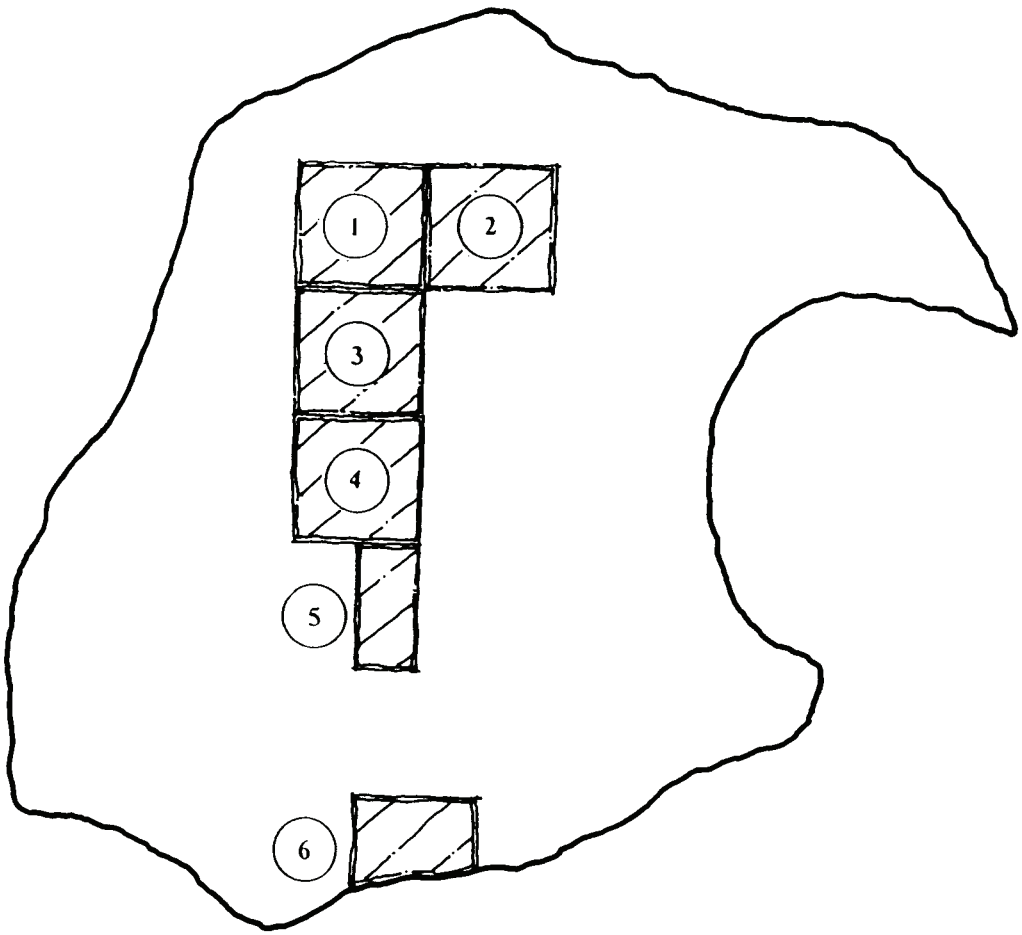


FIGURE 87
U.S. ARMY CHRPS OF ENGINEERS MAP
OF SOUTH MANITOU ISLAND (1902)

Land Uses and Activities during the Neotechnic Agricultural Period (1918-1940)

Overall land use during this period is similar to that of the previous era, although a greater variety of activities occurred throughout the island. This is the period when Rosen rye was grown. Even though the acreage devoted to Rosen rye was never extensive, the importance of this crop spread the name of South Manitou Island throughout the state and even the nation. Figure 88 illustrates the island properties that generally were associated with the growing of this crop. The Conrad Hutzler farm was particularly important in this regard.

The farmers continued small-scale, self-reliant operations, and maintained orchards, gardens, livestock and other grains. Island residents also gathered various wild resources, including maple syrup, berries, and ginseng. According to the 1920 Federal Population Census, eleven farms were present on the island; Figure 89 portrays the properties associated with these farmers. The first aerial photograph was taken of the island in 1938; it is provided in Figure 90. From it one can clearly identify open fields in the central area of the island. Figure 91 reveals a conceptual diagram of open field locations on the island in 1938. Figure 91 was created by digitizing the open areas from the aerial view into a CADD program and overlaying them on a base map of the island.



OWNERS OF PROPERTIES ASSOCIATED WITH ROSEN RYE

1 George & Maria Haas/
Willie (William) Haas Farm

2 George Johann & Margaretha Hutzler/
John Hutzler Farm

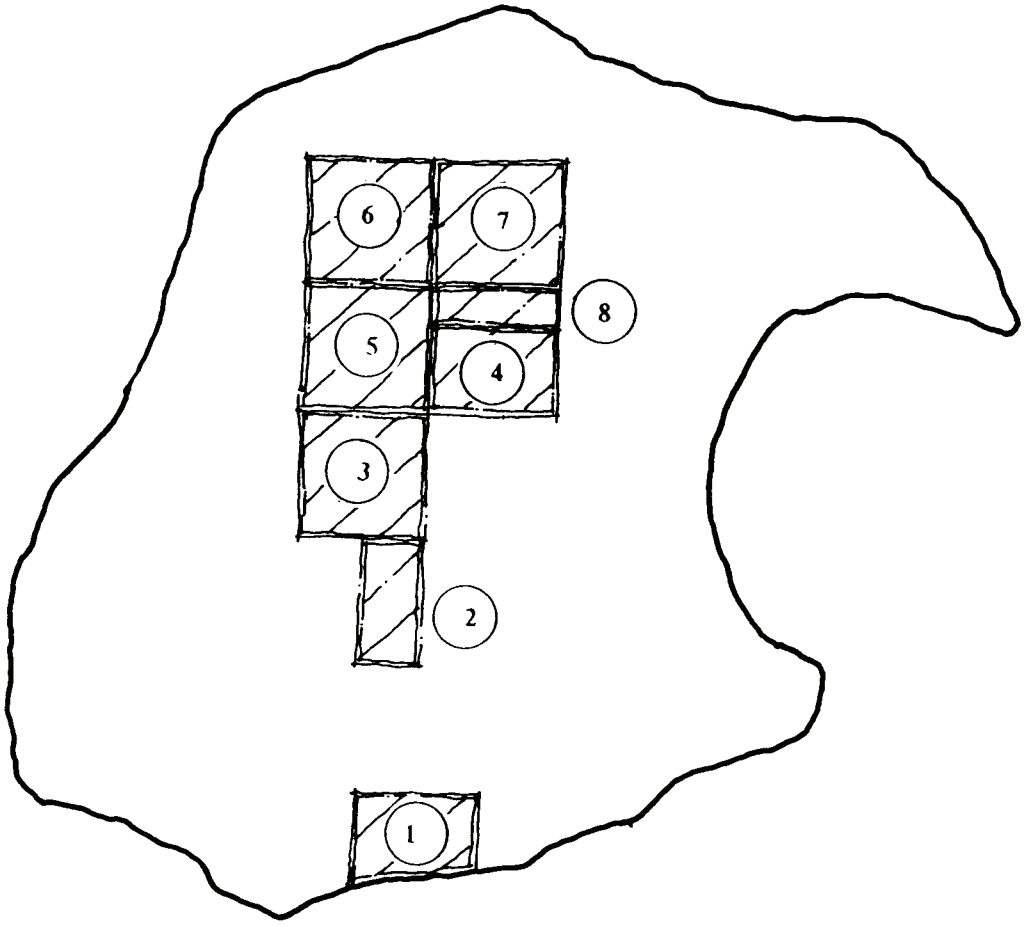
3 Christoph & Catharine Beck/
August & Elizabeth Beck Farm

4 George Conrad & Mary Ann Hutzler/
George & Josephine Hutzler/
Louis & Lois (Lola) Hutzler Farm

5 James Sheridan/
Aaron & Julia Sheridan/
Henry & Maggie Haas Farm

6 Theodore & Alvina Beck Farm

FIGURE 88
ISLAND PROPERTIES ASSOCIATED WITH ROSEN RYE



FARMERS LISTED ON 1920 FEDERAL POPULATION CENSUS MANUSCRIPTS

1 Alvina Johnson (formerly Alvina Beck)
2 Henry Haas
3 George (Conrad) Hutzler
4 Albany Anderson
5 George (Conrad) Hutzler
6 William Haas
7 John Hutzler
8 Sarah Burdick
9 John Tobin

FIGURE 89
PROPERTIES ASSOCIATED WITH FARMING IN 1920

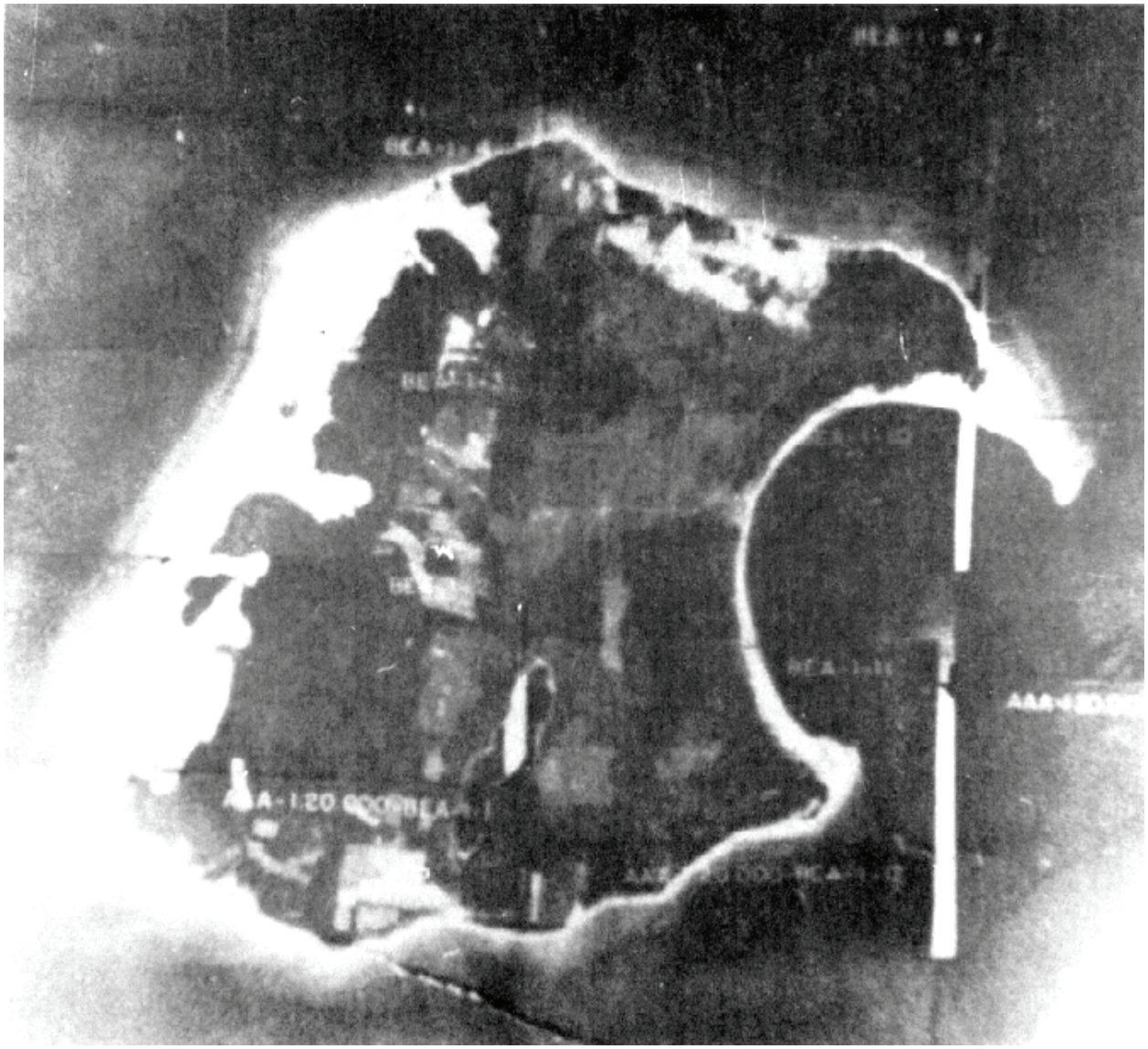
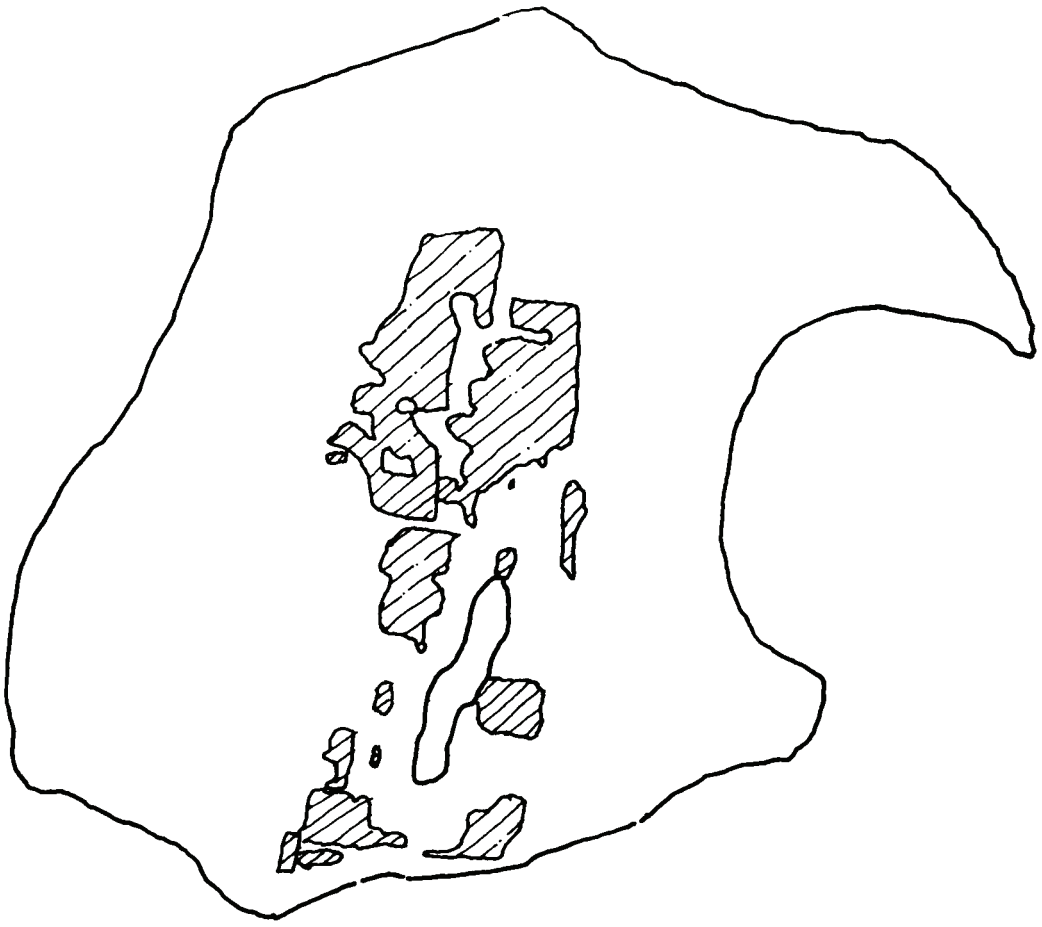


FIGURE 90
1938 AERIAL OF THE ISLAND



Legend

Locations of open fields in 1938
(Open field locations were digitized from the 1938 aerial into a CADD program then overlayed onto a base map of the island.)

FIGURE 91
OPEN FIELDS IN 1938

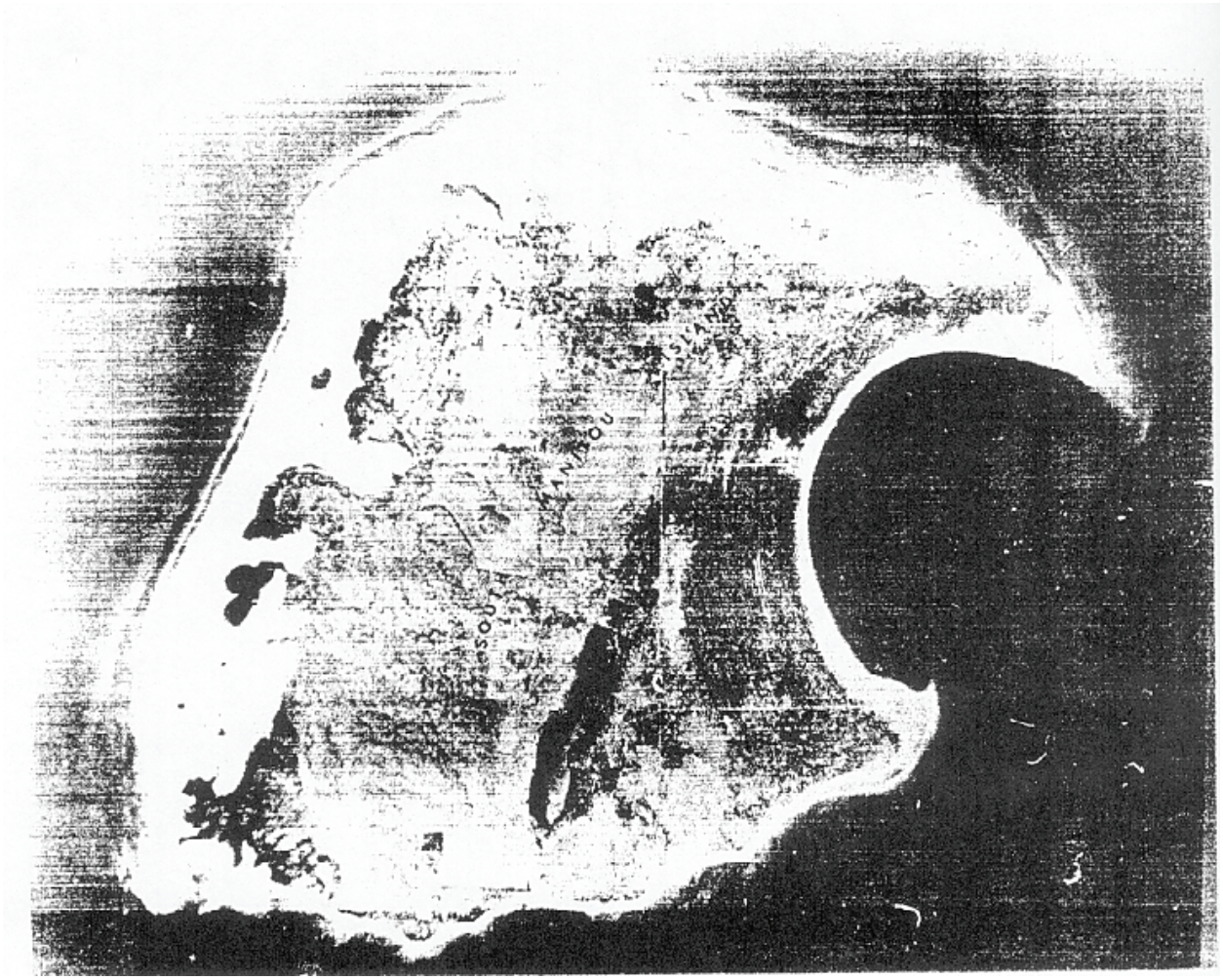
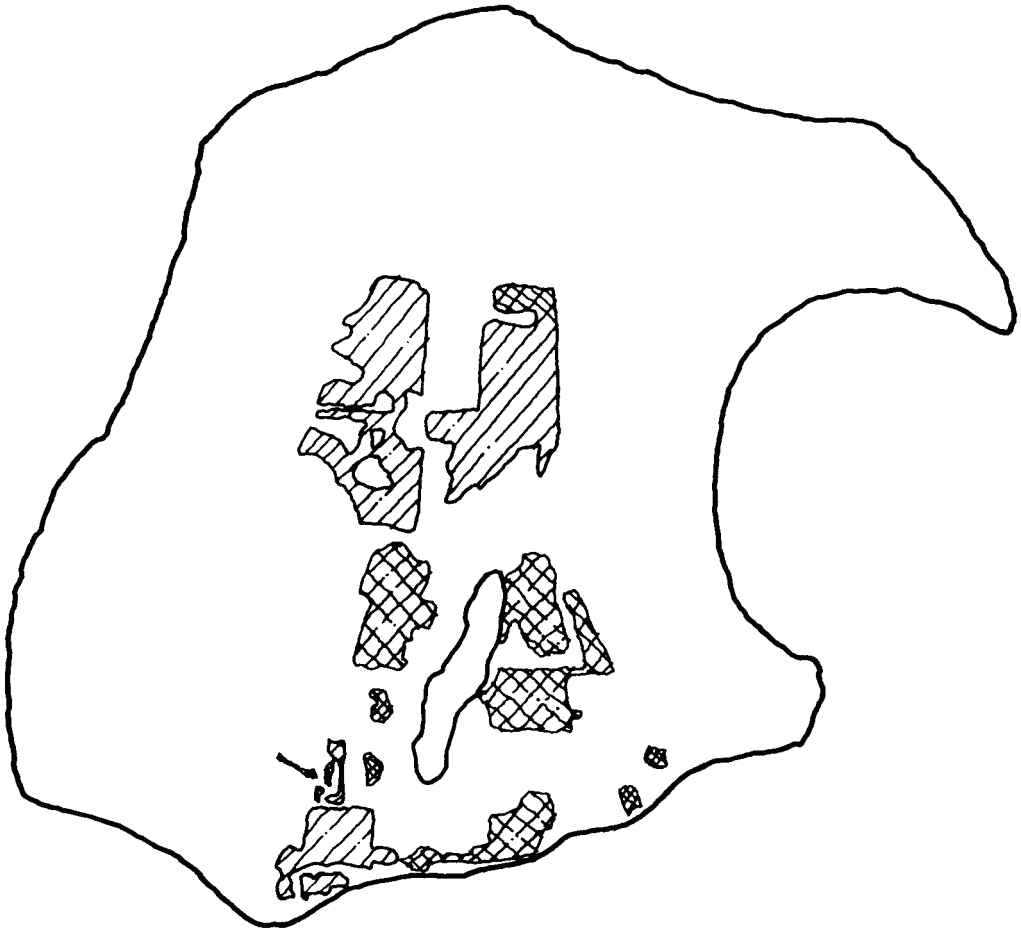


FIGURE 92
1970 ARIAL OF THE ISLAND

Land Uses and Activities during Agricultural Decline: The Early Tourism and Recreation Period (1940-1970)

During the 1940 - 1970 interim, agricultural land use declined and recreational activities became more frequently associated with the island. Land ownership began to be dominated by outside owners to a greater extent (including developers and summer residents). Development proposals materialized, including ideas for resort communities on the island. The number of year-round residents dwindled. George Hutzler, for example, worked his farm until he died in 1944. In 1948, Louis Hutzler sold his property to William Boales. This property, as well as the former August Beck farm, was leased to a family of tenant farmers, the Rikers (Figure 93). The Rikers continued to raise cattle on the island until they left in 1974.

An aerial photograph taken in 1970 (Figure 92) was examined to determine the locations and extent of open fields. Figure 93 is a conceptual representation of the locations of the openings seen in the 1970 aerial. It is clear that the shapes of many of the fields in 1938 (as seen in Figure 91) were still intact in 1970 (Figure 93). Since the aerials are not corrected for scale, a comparison of field sizes is not possible; nevertheless, the distinct forms indicate that the historic agricultural patterns still lingered on the island's landscape in 1970.



Legend

Locations of clearly defined open fields in 1970

Locations of fields with scrub vegetation in 1970

(Open field locations were digitized from the 1970 aerial into a CADD program then overlayed onto a base map of the island.)

FIGURE 93
OPEN FIELDS IN 1970

Land Uses and Activities during the National Park Era (1970 - present)

With the establishment of Sleeping Bear Dunes National Lakeshore in 1970, South Manitou Island came under the domain of the National Park Service. The entire island is currently managed by the NPS. Several inholders were allowed to retain rights to use their properties for limited periods of time, but the majority of these rights have now expired. Recreation and the preservation of natural resources currently dominate land use on the island.

Figure 94 shows the general locations of the management zones defined for the island in the General Management Plan for the Lakeshore. Of particular interest to this study is the 145-acre historic zone referred to as an "exclusion to the wilderness" in the wilderness recommendation.[5] Within that zone, 82 acres are now part of the Lakeshore's Open Field Management Plan. These are the only landscapes on the island that continue to be actively managed to preserve the historic agricultural character. A comparison of these patterns to the fields that were present when the Lakeshore was established indicates that a large quantity of historically significant old fields are in danger of being engulfed by forest. The loss of these old field patterns could dramatically impact the overall integrity of the historic agricultural landscapes on the island.

[5] National Park Service, Sleeping Bear Dunes National Lakeshore General Management Plan (Empire, MI: Sleeping Bear Dunes National Lakeshore, 1979), n.p.

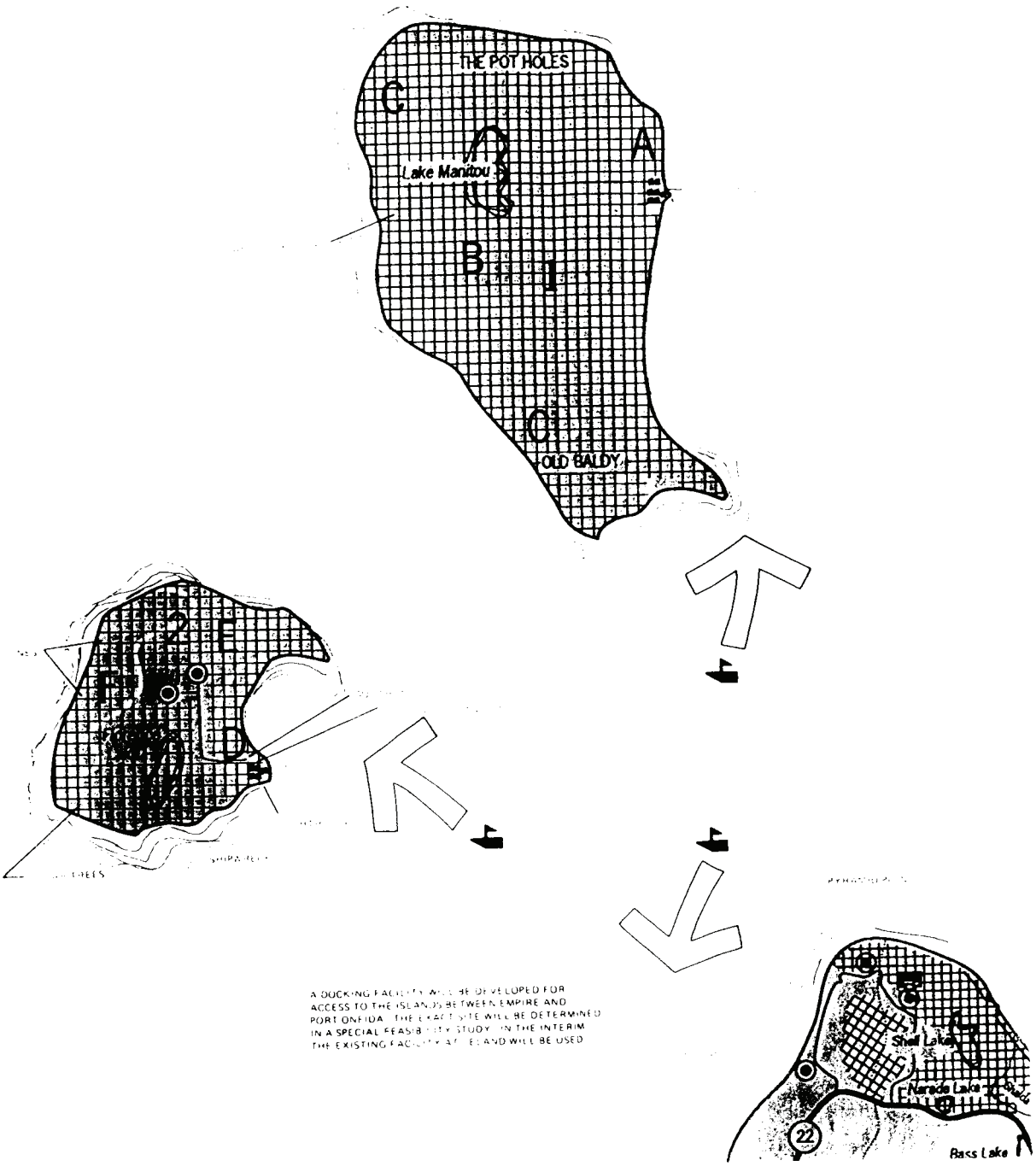


FIGURE 94
GENERAL MANAGEMENT PLAN FOR SOUTH MANITOU ISLAND

Patterns of Spatial Organization, Circulation Networks, and Boundary Demarcations

Historical patterns of spatial organization can provide insights into the requirements and activities of the former occupants at a site. These patterns include overall circulation networks (e.g., footpaths, roads, the railroad track, docks), areas of land use, natural features, clusters of structures, and property division (the latter often are visible in boundary demarcations, marked by fences, walls, land uses, vegetation, roadways, and water bodies).

The Exploration and Settlement Period (1835-1863)

At the time of the 1847 survey, the spatial arrangement of activities on South Manitou Island was organized according to utilitarian purposes. Natural features played a major role in determining pattern that developed through human manipulation of the land. Lumbering activities were prevalent, and undoubtedly cutting locations were determined according to where the best timber was, and how easily it could be transported to "market" (i.e., the natural harbor where steamers anchored).

The nature of the sandy soils near the harbor dictated that a railroad track be built through this area to enable the transportation of heavy lumber.[6] The railroad corridor was located south of Burton's wharf, running roughly in a east-west direction. The slightly askew angle indicates that it was constructed before the grid pattern guided the organization of land on the island. The corridor divided the cut areas almost in half, indicating that either the location was chosen to bisect the good timber lands and minimize the distance for hauling timber, or that the timber was cut in close proximity to tracks. It is curious, however, that the track did not terminate at the wharf. The survey did not indicate a dock at this location, but hauling wood from the eastern end of the track up to wharf would have been extremely difficult on this sandy beach. The survey notes describe the railroad tracks as though they were adjacent to the wharf, and indicate that the track ran roughly southwesterly for about three to four miles.[7] This description seems to correspond with discussions conducted among previous island residents who recall that the track ran from the "old dock" to a location near the schoolhouse.[8]

[6] Risdon, 1847 Survey (sketch map).
[7] Ibid., notes.
[8] Interview with Fred Burdick, 2 September 1994, conducted by Brenda Williams; transcript on file at Sleeping Bear Dunes National Lakeshore, Empire, MI. These observations were also substantiated in discussions with previous island residents who visited the South Manitou Island schoolhouse on 1 September 1994.

Northwest of Burton's wharf were 15 to 20 acres of land labeled as "improvement."[9] This area indicates where agriculture began on the way of logging activities since it was surrounded by land "already cut over." When considering the soils map, this was one of the closest sites to the wharf suitable for agricultural use. The improved area was more or less bisected by the north-south section line separating Sections 33 and 34; this indicates that before the survey was completed, land was used as needed, rather than being defined by the federal government's land survey.

The "shanties" or houses located near the harbor provided access to the steamers and commercial operations, as well as to fishing opportunities. Two residential structures were also located near "South Manitou Lake" (Lake Florence); the lake would have provided water, perhaps fish, and closer access to logging sites, since by this time timber to the east of South Manitou Lake was "all chopped off".[10] These shanties were clustered in small, loose linear groups, in the manner of a temporary logging camp.

The locations and arrangements of all elements were based on the opportunities and constraints inherent in the natural landscape, as well as the needs of people residing on the island at the time. The 1847 survey played a dramatic role in changing this approach since subsequent spatial arrangements reflected the grid that the survey imposed on the landscape.

The Eotechnic Period (1847-1868)

The beginning of this period is marked by the first survey of the island in 1847. As early as November 1849, William Burton's purchase of several parcels of land indicated and imposition of the conceptual grid as defined by the survey of the island. Subsequent land claims ensured that the organization of transportation networks between the parcels would be defined according to the grid. Even so, this conceptual geometric structure was probably not visually apparent on the island until Chicago and Ohio roads became the primary land transportation routes.

[9] Risdon, 1847 Survey.
[10] Ibid.

The Paleotechnic (1868-1918) and Neotechnic Periods (1918-1940)

Since the paleotechnic periods overlap and have no distinct differences as far as spatial organization, circulation patterns, and boundary demarcations are concerned, they will be discussed jointly.

By the beginning of this period, a large proportion of land on the island had been claimed or purchased. The transportation networks linking the properties served to reinforce the grid; by 1902 Chicago and Ohio Roads are clearly apparent on the U.S. Army Corps of Engineers map (Figure 87). Spatial organization and transportation networks on the island were no longer based solely on natural features and the needs of inhabitants; some were guided by the conceptual grid used for land division purposes.

Land ownership boundaries did not create a visual grid on the land, but they did guide the locations for designated transportation routes, which in some cases may have influenced building and crop arrangements. It is interesting that the majority of the older buildings surveyed on the island were orientated north-south and east-west. This occurred regardless of how close to a road or property line they were. It is difficult to know if the grid pattern that defined property ownership affected the way in which farmers arranged their buildings.

For the most part the smaller scale elements--trails, farm field locations, farm building locations, and other agriculturally-related spatial arrangement--were still organized largely according to physiographic conditions (slope, soils, etc.), cultural modifications (land already cut over was the first to be converted to agriculture), and other needs that did not conform to the grid. As revealed by Figures 90 through 93, the patterns of the open fields were amorphous and did not reflect the grid form.

Transportation between the island and beyond (e.g., Chicago, Buffalo, Europe) was excellent for the time. Since many steamers that were transporting goods and people between Chicago and Buffalo (as well as other Great Lakes destinations) passed the island daily, a large number stopped to refuel or seek shelter from stormy waters. Likewise, islanders were also able to make passage to other areas by boarding one of these steamers.

Toward the end of this period, transportation between the island and mainland (as well as other areas) became more difficult. Changes in Lake Michigan transportation and the development of better networks on the mainland made the island's formerly ideal "hub" location obsolete. Now, farmers had to coordinate their efforts and make special arrangements to transport goods for sale on the mainland. This was both expensive and difficult.

The Period of Agricultural Decline, Early Tourism, and Recreational Development (1940-1970)

During the 1940's, several island farms were sold to developers. These developers purchased the land with the idea of creating resort communities for summer visitors. A development map prepared for Lee Island (South Manitou) provides one example of this (Figure 32). A few of the farms were leased to farmers for the intended "interim" period: both the August Beck and Conrad Hutzler farms were leased to the Riker family and used as a general farm and beef cattle operation (Figure 93). The use of the fields for pasture helped to maintain their shape and character until the time these residents left the island.

Many dwellings in the village were used as vacation homes, and additional "cottages" were built in the village and near Lake Florence for the same purpose. The house at the Theodore Beck farm was renovated and rooms were rented to visitors in what became known as "the lodge."

Vehicular circulation patterns on the island remained almost the same as they had during the time when agriculture was pursued. The same roads were used to a great extent, although pedestrian circulation changed somewhat. When the farms were active on the island, local residents would not wander onto another person's property to gather berries or to eat fruit from the trees. When a person went to visit one of the farms, she or he would approach the house or barn and visit with the owners--but would not traverse the property.[11] When recreation became more prevalent and farms were no longer operating, visitors began to roam the island freely.

The National Park Era (1970-present)

Circulation patterns during the National Park era have been guided to a great extent by the historic cultural patterns on the island. An emphasis on wilderness management has eliminated the addition of new roads, trails, and use areas for the most part. In order to minimize the impacts of recreational use, several existing roads and trails on the island have been carefully selected to provide access to various island areas. Other historic circulation routes have been closed by the Park Service to protect key natural features.

While the circulation patterns reflect the historic cultural organization of the island, the spatial arrangement of the landscape is changing. The NPS "hands-off"

[11] Ethel Furst made this observation to Brenda Williams while they were exploring the island farm sites, looking at nearby features and picking berries and fruit in 1994.

management approach that considers the majority of the island as "wilderness" ensures that patterns of historic agricultural land organization will slowly disappear. It is important, therefore, that the management of the open fields maintains some semblance of their original farmstead character; otherwise they will eventually provide visitors with impressions of small, very isolated, wilderness farms. Most certainly, they will not reflect the active farming community of which they were once a part.

Response to the Natural Environment

The farms on South Manitou are clustered at the island's interior creating a band that stretches all the way to its southern border. The locations of agricultural activities may be seen as a response to natural features and conditions. The beaches and dunes, which are not suitable for agriculture, surround the island's perimeter and create thick bands of non-agricultural land that stretches along the western and eastern borders of the island. In addition, large portions of the northern and western areas of the island have steep slopes and provide very limited potential for farming. The soils on the island also played an important role in designating where productive farming could occur. The central band of land contains the only soil suitable for agriculture on the island.

The actual location and isolated nature of the island's environment also played a major role in its agricultural history. During the early twentieth century, the island was selected as an ideal location for the growing of Rosen rye seed because the cross-pollination of plants--a major concern at most mainland sites--could be reduced considerably, if not eliminated.

In addition to these large-scale responses, the development of individual farms responded to natural features. Many of the building groups are clustered closely at the southern base of a slope (the Conrad Hutzler, August Beck, and Henry Haas farms are examples). It is possible that this was a deliberate attempt to protect the buildings from intense winter winds and utilize a somewhat warmer microclimate. This practice would have been especially important during the early homestead years when the island's wooded area were greatly cut-over. In later years, the woodland grew up around many of the farms, establishing their protected and enclosed characteristics.

Cultural Traditions

The cultural traditions relating to island agriculture include community organization and/or cooperation that was expressed in a variety of ways, including: transportation; communication with outside world; livestock breeding; threshing; medical needs; transporting goods to market; and the cooperative efforts involved in growing prize-winning Rosen rye and other specialized crops. (Each of these factors has been discussed in the General History section of this report.) The island's farmers could not have survived without their neighbor's help, and the assistance provided by other non-farm island residents. When the size of the overall island community began to dwindle, the farming community followed closely.

It is important that the island be remembered and interpreted as a community, rather than being represented as the domain of a few significant individuals. One important way to achieve such a purpose is to recognize, to the extent possible, the people who formerly were part of this community. Mary Hufford has aptly stated the significance of such contributions in her description of New Jersey's Pinelands:

> A critical balance between past and present is maintained when young generations have access to the elders. It is that vital interaction that keeps the pumps to the collective memory primed, for the deepest places in this vast reservoir are in the minds of old-timers. Their memories can have an important and unforeseen impact on young people. When a very old person describes something he heard from his grandfather to a grandchild, the listening child can be touched by two hundred years of history, in a way not provided by books.[12]

The memories and stories told by people who lived South Manitou Island can play a vital and most important role in building an understanding of the activities associated with its history.[13]

[12] Hufford, 103.

[13] The South Manitou Island Memorial Society is to be commended for efforts being made to ensure the continued existence of the spirit of the island community. The Society's yearly meetings, activities, and newsletters, ensure that collective memories of life on the island are kept alive. The contributions of several of the groups members greatly enhanced the development of this report.

Small-Scale Landscape Components

Cultural landscape components include those elements that still remain on the island and reflect previous uses associated with the farms. Most of the specific elements are described and discussed in the "Farmstead Inventory and Evaluation" section of this report. A chart that summarizes the level of integrity of each individual cultural landscape component is included in Appendix B. They are reviewed here, in a general sense, to provide an overall context for their significance.

Vegetation Related to Land Use

There are many examples of plants on the island that were brought, arranged, or manipulated by the residents. Many of these plants, or their distinctive arrangements, remain recognizable as reflections of previous cultural activities on the island. They were planted for various reasons, two of which stand out: 1) for aesthetic purposes--that is, to provide beauty and comfort, and 2) for residents' diet. In some cases, plants were used for both of these purposes.

Plants used for aesthetic purposes were sometimes brought form other places; examples include lilacs, roses, periwinkle, and tulips. Sometimes they were simply manipulated to produce a desired effect: an example is the tree lined entrance at the August Beck farm. These plants serve the contemporary visitor as well. Lilacs bloom profusely in the spring, and act as landmarks that identify the sites of hard-to-find former farmsteads. Fence-row vegetation that exists in a north-south or east-west direction slashes through old fields, indicating the edges of former fields and property boundaries. Periwinkle that grows in densely-wooded areas alerts the visitor that a home was once there, and someone who formerly lived on the site made an attempt to create beauty. Treelines, tulips, daffodils, and roses represent attempts by island inhabitants to make the land around them more like the home that they envisioned.

Plants used for practical purposes include the following: agricultural crops, none of which are currently present, even though the field patterns provide a glimpse of the character that once existed; fruit trees, many of which still product fruit that is gathered and used by island visitors each summer; garden plants, most of which no longer exist, although occasional patches of asparagus and rhubarb may be found and harvested; and many berry bushes that still produce delicious fruit.

The fields on South Manitou Island are remnants of the original forested land that was cleared farms. Historically, the fields have been used for cultivation, grazing, and orchards. The most commonly planted fruit tree was the apple. Solitary fruit trees included apricot, pear, plum, cherry, and peach specimens.

Cattle grazing was the last commercial agricultural enterprise to occur on the island. The Rikers (tenant farmers for William Boales) maintained a large beef cattle herd from the 1950's until 1974. The grassy fields that currently exist on the island were last used as part of that beef cattle operation. According to Hazlett, fences began to be erected around 1960 to confine the animals' grazing range to lands proximate to the George Conrad Hutzler and August Beck farms. Before that, cattle were allowed to roam freely almost anywhere on the island, including the wooded areas.[14]

[14] Brian T. Hazlett, The Terrestrial Vegetation and Flora of North and South Manitou Islands, Sleeping Bear Dunes Naional Lakeshore, Technical Report No. 11 (Douglas Lake: University of Michigan Biological Station, 1983), 124.

Chapter 7
EVALUATION OF THE STUDY AREA

The proposed *South Manitou Island Historic Agricultural District* is nationally significant according to Criterion A because of its association with the transformation of rural agriculture in America from "general farming" to scientific agriculture spanning a period from 1838 to 1940. A portion of the district is also being considered for National Historic Landmark status.

The District is uniquely situated to represent these events because of the large number of extant landscape components that contribute to high levels of integrity in location, setting, feeling, and association. In addition, several sites include a number of features that possess high to moderate integrity in design, materials, and workmanship. The George Johann and Margaretha Hutzler Farm, the George Conrad and Mary Ann Hutzler Farm, and the August and Elizabeth Beck Farm include extant farmhouses, barns, sheds, privies, graves, remnant orchards, field patterns, and other landscape characteristics resulting in a high degree of integrity for each of these historic farmsteads. In addition, a number of sites include numerous historic landscape components that add to a cohesive setting, representing the period of significance in the overall district. These sites include: several farmsteads, a schoolhouse, roads and trails, two cemeteries, the site of a historic railroad track, the "old dock" site, grave sites, and the site of a sawmill. A chart that summarizes the levels of significance and integrity for individual properties is included as Appendix B.

As a result of the transformation of American agriculture, farmers across the country became less focused on supplying their family's needs from the products of the farm. Instead, they endeavored to grow and market cash crops. The proceeds could then be used to buy food, clothing, machinery, and other items that the family wanted.[1] To do this, farmers gradually became reliant on the advice and information of scientists. In the United States, the agricultural transformation was initiated and nurtured by a movement toward formal agricultural education and experimentation.

[1] Willis F. Dunbar, "The Transformation of Rural Life in Michigan Since 1865," Papers of the Michigan Academy of Science Arts and Letters, Eugene S. McCartney and Henry Van Der Schalie, eds. XXIX (1943), 485.

The historic agricultural landscape district at South Manitou Island provides an exciting link to this aspect of American agricultural history. The island farming community played an active role in early experiments done with field crops by researchers at Michigan State College (now University). Michigan State College opened in 1857 and it is the oldest state agricultural college in the nation. Since 1875 the college has brought information to farms through extension programs. These programs included experimentation with and the development of new strains of crops.[2] The involvement of South Manitou Island farmers in these programs led them to fame in the international agricultural community due to the their production of prize winning "Rosen rye" seed.

While many farming communities nation-wide were involved in extension programs and experiments, the story of South Manitou's involvement enjoys three uncommon assets: *the participation of the island in agricultural experimentation is well documented, the island contains numerous extant resources that represent the period of significance, and the island is owned and managed by the National Park Service*. These three result in a superior opportunity to preserve and interpret a representative of this important event in the nation's history.

In addition to the nationally significant district, several island landscapes possess potential for providing information that could contribute to an understanding of the human history of the island and region in relation to the transformation of rural agriculture. This proposed archeological district is eligible for nomination to the National Register according to Criterion D.

The island also includes resources associated with maritime history and early tourism that are already listed on the National Register. These resources, a U.S. Coast Guard Station, the island village, and lighthouse complex, are included within the South Manitou Island lighthouse complex and lifesaving station Historic District. In addition, the pig barn at the George Johann Hutzler farm is listed based on its association with early settlement and agriculture on the island. The George Conrad Hutzler farmstead is listed because "events that took place on the farm influenced the course of agricultural history."[3]

[2] Dunbar, 486.
[3] National Register Nomination, George Conrad Hutzler Farm, approved and listed 5/3/91.

Periods of Significance

There are three distinct phases that characterize the development of the agricultural landscapes at South Manitou Island. The phases have been previously defined in an agricultural history report prepared for the Sleeping Bear Dunes National Lakeshore region.[4] Overall, the *agricultural* use of the land on South Manitou occurred from approximately 1850 through the early 1970's. The significant nature of this use related most directly to three periods: 1850 through 1868, the sustenance or early *eotechnic* era; 1868 through 1940, the *paleotechnic* era; and 1918 through 1940, the *neotechnic* era (also referred to as the period of scientific agriculture). *Exploration and settlement* use occurred from approximately 1838 through the 1860's.

The historic agricultural landscapes of South Manitou Island represent a unique link to the transformation of rural agriculture in Michigan from "general farming" to scientific agriculture spanning a period from 1865 to 1940.[5] As a result of this transformation, farmers across the country became less interested in supplying their family's needs from the products of the farm. Instead, they endeavored to grow and market cash crops, the proceeds from which could then be used to buy food, clothing, machinery, and other items that the family wanted.[6] To do this, farmers gradually became reliant on the advice and information of scientists. Michigan State College (now Michigan State University) played a primary role in this phase of rural change. The school opened in 1857 and is one of the oldest state agricultural colleges in the nation. Since 1875 the college has brought information to farms through extension programs. These programs included experimentation with and the development of new strains of crops. Also, beginning in 1885, the extension service published bulletins that provided advice to farmers related to a wide range of agricultural practices. The bulletins provided a means for relaying information regarding new strains of crops to farmers. According to one source, it was the Agricultural College that "made available and stimulated interest in new and better grains such as American Banner wheat, Rosen rye, Markton oats, and Spartan barley."[7]

[4] Susan Olsen Haswell and Arnold R Alanen, A Garden Apart: An Agricultural and Settlement History of Michigan's Sleeping Bear Dunes National Lakeshore Region (Omaha, Nebraska, and Lansing, Michigan: Midwest Regional Office, National Park Service and State Historic Preservation Office, Michigan Bureau of History, 1994).
[5] Dunbar, 485.
[6] Ibid.
[7] Ibid., 486.

As work with field crops progressed, several states initiated Crop Improvement Associations. Each developed an approach for field inspection with their own methods, standards, and nomenclature. For example, inspected seed was referred to by some states as "inspected," some as "registered," and as "certified" by others. This led to difficulties when attempting to compare one to the other. The first meeting of the International Crop Improvement Association was held in St. Paul, Minnesota, on 11 July 1919 to address the need for consistency in seed inspection approaches.[8] Representatives from six associations attended, representing Michigan, Minnesota, North Dakota, Canada, South Dakota, and Wisconsin. The representative from Michigan was John W. Nicholson.[9] Since its establishment the organization has "served as a clearing house for the most constructive leadership regarding seed improvement."[10] In America, the Crop Improvement Associations, agricultural colleges, and Agricultural Extension Service offices have provided the driving force behind the movement toward scientific agriculture.

A wealth of documentation indicates that South Manitou Island played a significant role in the production of Rosen rye seed as a superior variety that was developed by Michigan Agricultural College researchers for Michigan farmers. In fact, the island was identified by College scientists as a potentially ideal location for growing this crop as early as 1918. The island possessed several characteristics that led to this conclusion. Its location in Lake Michigan guaranteed that it would be free from airborne pollens of strains of rye grown elsewhere. This was a primary consideration because rye cross-pollinates easily and the productivity of Rosen rye was known to decrease with cross-pollination. Also, the island's close-knit community of farmers enabled the establishment of an agreement that no other strains of rye would be grown on the island (thereby eliminating the cross-pollination problem). In addition, the cooperation of the community led to the joint purchase of a threshing machine, as well as the coordination of seasonal activities including threshing and shipping farm products to market. Eventually the unique environmental conditions on the island and the rigorous

[8] J.C. Hackleman, ed. History: International Crop Improvement Association 1919-1961 (Gaithersburg, Maryland: The Association, 1961), 6-7.
[9] Ibid., 7-8.
[10] Ibid., 33.

methods employed by its farmers enabled the production of seed of the highest excellence in the state, national, and even international agricultural communities. This superiority brought attention to the strain and eventually lead to the distribution of Rosen rye seed nationally for experimentation.[11]

The island's farmers were also involved in another aspect of scientific agriculture, the propagation of "Michelite" beans, a strain of pea bean. In 1931, Michigan produced one-third of the nation's bean crop, including 90 per cent of all pea beans and 50 per cent of all red kidney beans.[12] In 1946, it was estimated that at least 80 percent of all pea beans grown in the United States were of the Michelite variety. A newspaper article indicated that, "as one of the basic items of food for our service men, millions of bags of beans were shipped to the battlefront from farm marketing points during the war."[13]

Development and change on the island were generally limited. Because of the environmental limitations native to the island, and the difficulties involved in transporting materials and equipment from the mainland, it was difficult to clear land, obtain materials to construct new buildings, and change land use. Therefore, existing resources were always utilized whenever possible. Buildings and other landscape elements were added when absolutely necessary, with their locations being determined by proximity to existing activities. The island farms were small, and few in number, making it difficult for the farmers to afford new equipment or apply techniques developed for larger scale farms.

Areas of Signiflcance

Three areas of significance have strong relations to the island's agricultural landscapes: agriculture, exploration and settlement, and science. Agriculture is important when considering the island because of the importance that agriculture played in community life from the early 1860's until about 1940. Exploration and settlement are reflected in the isolated nature of South Manitou Island. Its distance from the mainland

[11] Joseph F. Cox. Crop Production and Soil Management (New York: John Wiley & Sons, Inc., 1925), 287.
[12] H.R. Pettigrove and C.R. Oviatt, Producing Beans in Michigan Extension Bulletin No 116 (East Lansing: Michigan State College of Agriculture and Applied Science, Extension Division, 1931), 3.
[13] Guardians: From Lonely Manitou Island Come Nation's Blueblood Seeds," State Journal (Lansing, Michigan: 29 September 1946); Madison Kuhn, Michigan State: The First Hundred Years (East Lansing: Michigan State University Press, 1955), 382-3.

has prevented major changes from occurring in many landscape areas. The isolated character of the island provides visitors with a chance to experience a type of feeling that may be somewhat similar to that of early settlers. The growing of Rosen rye seed on the island is well documented and provides a potential nationally and even internationally significant aspect of the island's agricultural activities that forms a basis for consideration of significance under the science criterion.

Changes in American Agriculture: 1850 to 1940

Between 1850 and 1940 American farming was "transformed from a simple, pioneer, self-sufficient operation into a modern business organized on a commercial basis and utilizing the tools of new scientific advancements." As the transformation progressed, farmers concentrated on increased production of crops, often specializing in strains particularly well suited to local conditions. This specialization resulted in many farmers becoming dependent upon others for food, clothing, and implements, which formerly would have been produced at home. In addition, farmers became reliant on scientific information that was provided to them by researchers. In this way economic interdependence replaced self-sufficiency for a growing number of American farmers.[14]

The American way of life both on the farm and in the city was experiencing major changes as a result of the Industrial Revolution. Changes in manufacturing industries resulted in the replacement of hand labor with machine production. Also, increased transportation opportunities led a movement from local markets to national and international trade. The impact of these changes "had a profound effect on the direction of American history in the years that followed." The three were interrelated, and their cumulative impact was extensive.[15] More people living and working in cities--and not growing their own food--meant that fewer farmers had to supply produce for a greater number of people.[16]

[14] Dunbar, 486.
[15] Edward C. Hampe, Jr, and Marie Wittenberg. The Lifeline of America: Development of the Food Industry (New York: McGraw-Hill Book Company, 1964), 46.
[16] Ibid., 93.

Scientific Agriculture and Agricultural Education

In order to address the need for greater production, agricultural researchers bred specialized strains that yielded greater quantities with less labor. As a result, farmers needed to keep up-to-date with the latest research findings to compete in the market. As knowledge increased through research and application, communication and education played an increasingly important role in the lives of American farmers. Greater awareness of this need led to the development of a network of educational opportunities available to farmers. Farmers who participated in education programs were encouraged to use improved agricultural methods resulting in a new generation of American farmers.[17] This new type of farmer was a "college-trained" specialist, familiar with science and economics, a far cry from the Western pioneer whose limited knowledge and skill resulted in his skimming the soil's fertility and then moving on to fresh lands.[18]

The movement toward formal agricultural training in America was guided by agricultural societies and organizations, the U.S. Department of Agriculture, the land-grant Colleges, and the agricultural experiment stations. Michigan Agricultural College (now Michigan State University) played an important role as a leader in the inspiration, early development, and continued growth, of these organizations.

Michigan State College & the National Movement toward Scientific Agriculture & Agricultural Education

Beginning in 1817 the University of Michigan provided education in nearly every field, but "there was one important omission--that omission was the scientific teaching of agriculture in Michigan."[19] In order to alleviate this deficit the State Agricultural Society was formed in 1849. This was the first organization of its kind in the nation, and by petitioning the State Legislature for an agricultural college in 1850 they laid the groundwork for a national precedent. In response to the Society's petition, the Legislature appealed to the U.S. Congress for a grant to establish an agricultural college, arguing that it would "provide a pattern for a national educational revolution and

[17] Ibid., 63-65.
[18] Ibid., 66.
[19] Lyle Blair and Madison Kuhn. A Short History of Michigan State (East Lansing: Michigan State College Press, 1955), 5.

therefore deserved assistance from the federal government."[20] This was an important event for two reasons; it was the first petition for a land grant made by a legislative body, and it was the first step in developing a national system for agricultural education.

Prior to 1850, each new state was provided with a land grant for supporting education for the "learned professions," but no such support had been provided for the education of farmers. On 12 February 1855, the Governor signed the law founding The Agricultural College of Michigan, "and thus initiated an institution which ever since has played a major part in the development of the agricultural sciences throughout the United States of America."[21] As the first agricultural college in the United States, Michigan State College incorporated the idea of formal education for farmers. Within seven years, the idea was spread throughout the Union through the establishment of the Morrill Act in 1862 by President Lincoln.[22]

The United States Department of Agriculture was created on 15 May 1862, when President Lincoln signed into law the act creating the department. Since that time, the department has taken the lead in helping to improve farming methods in the United States through broad-ranging activities. Two have played a dramatic role in the story of South Manitou's agricultural history, including the supervision of the Agricultural Extension Service and agricultural research programs. One aspect of agricultural research has included the introduction and development of new plants.[23]

> Highly trained investigators were sent to Russia, China, North Africa, South America, India, and other parts of the world. They not only brought back more hardy and productive varieties of plants already grown in this country but also introduced new plants that added many millions of dollars to the nation's agricultural wealth.
>
> Concurrently, the Department, in cooperation with the state experiment stations, undertook extensive research in plant breeding to adapt the foreign plants to domestic soil and weather

[20] Ibid., 6-7.
[21] Ibid., 7-8.
[22] James B. Conant, "An Old Tradition in a New World,"(President-Emeritus of Harvard University and U.S. High Commissioner For Germany), 17-18 in Convocation Commemorating The One Hundredth Anniversary of the Founding of Michigan State College (East Lansing: Michigan State College Press, 1955).
[23] Hampe and Wittenberg, 64.

> conditions. Before World War I, the Department's efforts had established the navel orange from Brazil in the orchards of southern California, covered the dry farm lands of the Dakotas and Nebraska with durum wheat brought from Russia, and persuaded the farmers of Arizona to plant Egyptian long-staple cotton.24

The Morrill Act

In 1862 President Lincoln signed the Morrill Act granting "federal lands or land scrip to each of the states to finance colleges which would … teach such branches of learning as are related to agriculture and the mechanic arts in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."[25] By the time the Morrill Act was signed Michigan State College had been operating for seven years and, according to Blair & Kuhn, "the College was well in the forefront of his [Morrill's] mind when he proposed his legislation. It was logical that Michigan State should become a beneficiary of the federal land-grant system, and therefore it can in many ways count itself the first of the land-grant Colleges and Universities as we know them." As other states founded similar institutions, they "borrowed from the philosophy, the curriculum, and even the staff and alumni of Michigan State."[26]

Early research done at the College set precedents in modern agricultural sciences by conducting "carefully controlled experiments" as compared to the "old-fashioned trial and error method." These experiments, including those of forerunners like William J. Beal who "discovered the secret of modern hybrid corn," have had "far-reaching influences on the life of the nation" and in "molding the character of a university."[27]

The Cooperative Extension Service

Beal and his colleagues laid the groundwork for the development of the extension service at Michigan State College. According to Blair and Kuhn, "as they conducted their research they were going out among the farmers of the state, teaching, talking, and writing in an effort to increase and apply their knowledge to the betterment of

[24] Ibid., 64.
[25] Blair and Kuhn, 12.
[26] Blair and Kuhn, 13.
[27] Ibid., 14.

farming."[28] In 1887, under pressure from the Association of American Agricultural Colleges and Experiment Stations & the National Grange, Congress passed the Hatch Bill, "which authorized a national system of agricultural experiment stations, the first system of its kind in the world."[29]

> Each station specializes in research on the crops and livestock in its area--including detailed scientific research into soil, plant life, animals, and the effects of growing conditions. Farmers consult with experiment station experts; field men explore answers to problems; and bulletins offer aid and advice to farmers, farmers' wives, and farm children.[30]

Frank Spragg, a plant breeder at Michigan State University, was one of these experts. Through his encouragement, South Manitou Island farmers became the beneficiaries of work conducted to develop field crops for Michigan. In his comprehensive history of the first hundred years of Michigan State, Madison Kuhn describes Spragg's involvement in the research efforts at the college:

> An effective extension program required a vigorous research staff actively seeking new remedies, new crops, and new techniques. Among the men who composed the experiment station force, few found such immediate acceptance for their discoveries as did Frank A. Spragg. He had followed Shaw here from Montana, receiving in 1906 a master's degree and appointment as the first full-time plant breeder in an American college. To secure superior parent stocks, Spragg collected grain from many sources, grew it in separate hills, selected the most productive heads, and sowed each in a distinct plot. A single kernel multiplied through several seasons provided seed for the long, narrow test plots in which Spragg compared yields. One such red kernel, picked from a sample of white Plymouth Rock wheat and planted in the fall of 1908, yielded well. Spragg named it Red Rock, gave a peck to

[28] Blair and Kuhn, 14.
[29] Hampe and Wittenburg, 66.
[30] Ibid., 67.

each county agent for distribution in 1913, and saw it become a leading variety because it out-produced others by five to ten bushels per acre.

His most famous introduction was selected from a sample of rye that Joseph A. Rosen, '08, found on an old Russian estate and sent to Spragg in 1909. Rosen rye yielded twice as well as did common varieties and therefore became the leading variety in Michigan. Rye is easily inter-mixed through wind-blown pollen and Rosen would have lost its distinctive virtues if Spragg had not fostered an organization that grew into the Michigan Crop Improvement Association in 1917. The association staff inspected and approved the fields of members who sold certified seed. To maintain a pure strain for members who grew Rosen seed, A. L. Bibbins persuaded farmers on South Manitou Island to raise Rosen exclusively. There, ten miles off the Leelanau shore, Spragg's rye was safe from deterioration.

Red Rock wheat and Rosen Rye, which earned Spragg the title of "Rock and Rye," were but two of many introductions. His "third R" was Robust, which helped to make Michigan the leading producer of navy beans. His Wolverine oats descended from a kernel found back of the timbering in a boxcar that had carried shingles from the Pacific coast. To produce another innovation Spragg had six thousand alfalfa plants threshed by hand, their coefficients of yield calculated, and from them he selected a variety capable of surviving cold winters. Its name Hardy Michigan became Hardigan. Spragg's work was meticulous and year-consuming.[31]

A wealth of documentation indicates that South Manitou Island played a significant role in the production of Rosen rye seed as a superior variety that was developed by Michigan Agricultural College researchers for Michigan farmers. In fact, Spragg identified the island as a potentially ideal location for growing this crop as early as 1918.[32] The island possessed several characteristics that led to this conclusion. Its location in Lake Michigan guaranteed that it would be free from air-borne pollens of

[31] Madison Kuhn. Michigan State: The First Hundred Years (East Lansing: The Michigan State University Press, 1955), 243-244.
[32] Frank A. Spragg, Rosen Rye, Bulletin No. 9, (East Lansing: Michigan Agricultural College, Extension Division, 1917), n.p.

strains of rye grown elsewhere. This was a primary consideration because rye cross-pollinates easily and the productivity of Rosen rye was known to decrease with cross-pollination.[33] Also, the island's close-knit community of farmers enabled the establishment of an agreement that no other strains of rye would be grown on the island (thereby eliminating the cross-pollination problem). In addition, the cooperation of the community led to the joint purchase of a threshing machine, as well as the coordination of seasonal activities including threshing and shipping farm products to market. Eventually the unique environmental conditions on the island and the rigorous methods employed by its farmers enabled the production of seed of the highest excellence in the state, national, and even international agricultural communities. This superiority brought attention to the strain and eventually led to the distribution of Rosen rye seed nationally for experimentation.[34]

The island's farmers were also involved in another aspect of scientific agriculture, including the propagation of "Michelite" beans, a strain of pea bean. In 1931, Michigan produced one-third of the nation's bean crop, including 90 percent of all pea beans and 50 percent of all red kidney beans.[35] In 1946, it was estimated that at least 80 percent of all pea beans grown in the United States were of the Michelite variety. A newspaper article indicated that, "as one of the basic items of food for our service men, millions of bags of beans were shipped to the battlefront from farm marketing points during the war."[36]

In the years following the height of agricultural production at South Manitou Island, difficulties involved in transporting equipment and produce to and from the island led to the gradual decline of farming. During the 1940s the families who had constituted the backbone of the island farming community for practically a decade began to leave, and with them the tradition of owner-occupied family farms disappeared.

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[33] State Board of Agriculture of the State of Michigan, Annual Report of the Secretary of the State Board of Agriculture of the State Board of Michigan for the year 1917. (Lansing: State Board of Agriculture, 1917), 221.
[34] Ibid.
[35] H.R. Pettigrove and C.R. Oviatt, Producing Beans in Michigan, Extension Bulletin No 116 (East Lansing: Michigan State College of Agriculture and Applied Science, Extension Division, 1931), 3.
[36] Guardians: From Lonely Manitou Island Come Nation's Blueblood Seeds," State Journal (Lansing, Michigan: 29 September 1946); Kuhn, 1955, 382-3.

Cultural Landscape Sites

The island is included within the boundaries of Sleeping Bear Dunes National Lakeshore and includes resources associated with maritime history, early settlement, commerce and transportation, that are already listed on the National Register. These resources--a U.S. Coastguard Station, the island village, and Lighthouse Complex--are included within the South Manitou Island lighthouse complex and Lifesaving Station Historic District. In addition, the pig barn at the George Johann Hutzler farm is listed based on its association with early settlement and agriculture on the island. The George Conrad Hutzler farmstead is listed based on its relation to the growing of Rosen rye on the island.

The sites related to aspects of the island's historical significance related to agriculture include three proposed districts: a nationally significant Historic Agricultural District, a National Historic Landmark District, and an Archeological District. The following section describes the properties included in the proposed districts. Appendix B provides a chart that summarizes the levels of integrity for each site and the justification used to determine its significance.

Potential National Register Rural Historic Landscape

Recommendation for Nomination

National Register Bulletin #30 provides guidelines for defining the boundaries of historic properties for nomination to the National Register. In that bulletin, a historic property is defined as: "the unit of land actively managed, occupied, settled, or manipulated during the historic period for purposes related to significance." In order to select the boundaries for a rural historic landscape it is necessary to determine the extent to which properties at the smallest scale, such as a single farm, are intact and form larger properties that may be listed as large and cohesive historic districts. A farm may have significance on its own, but it may also be part of a significant collection of neighboring farms or an entire community, thereby forming a larger historic district.[37]

[37] McClelland, et al., 25.

The traditional understanding of historic districts has implied a clearly defined group of structures, tied together by landscape features. In the case of rural historic landscapes, this understanding is not always useful. A rural historic landscape may be made up of broad landscape patterns, with only a few buildings and objects loosely sprinkled throughout the area. In this case, it is the *landscape* itself that contains significance and integrity in its ability to represent historic patterns, actions, and relationships.

For South Manitou Island, it is recommended that a group of properties be nominated, as a *rural historic landscape*, to the National Register based on their local significance. The descriptions below provide the rationale behind this recommendation.

In addition, it is recommended that selected properties be nominated as a National Historic Landmark. The eligible farms are associated with the growing of specialized seed crops and are linked to the development of scientific agriculture in the United States. The impact of this movement has been extensive--changing the physical landscape as well as social and economic trends--in this country. The South Manitou sites are uniquely situated to represent an early phase of the scientific agriculture movement.

Inclusion of land within the *historic landscape* boundaries does not imply that a particular management approach should be used. A separate section of this document outlines management alternatives for the district. These alternatives include a "hands-off" approach, as well as more active approaches to landscape management. The boundary descriptions are meant to distinguish the areas that fulfill the qualifications for nomination to the National Register and the separate nomination of a National Historic Landmark.

Potential National Register District

Historically, the location of intensive agricultural land use on South Manitou Island covered about one-third of the landscape, stretching in a broad band through the central portion in a north-south orientation. Detailed analysis of the individual farm sites, including historical ownership, land use, spatial arrangements, and activities, provided a basis for determining the significance and integrity of these landscapes.

Which properties, or portions of properties, to include as parts of the potential National Register *historic landscape* was determined based on a combination of

techniques. A property was considered based on its ability to meet the following criteria: 1) the property was originally acquired via the Homestead Act; 2) it was continuously owned and farmed by members or descendants of the original homesteader's family during the periods of significance (from 1870 through 1940); 3) the property was not an agricultural site, but it functioned to support the agricultural community; 4) the extant landscape characteristics associated with the property display a high level of integrity and represent historic landscape patterns.

The Christoph and Catharine Beck homestead and the George Conrad and Mary Ann Hutzler homestead both fulfill requirements one, two, and four. Therefore, both of these properties are included in their entirety.

The Alfred and Hannah Evans/Thomas and Estell Foster farm fulfills the first criterion above, and partially fulfills the second and third. With regard to the second criterion, the farm was continuously owned and farmed by descendants of the original homesteader's family from 1863 until some time between 1889 and 1910. The use of the property after 1910 is unclear. However, several historic characteristics associated with the property continue to represent its former appearance and character. A large portion of the site is open field, with small orchard remnants located near the former farmhouse. The farm buildings are no longer present, but the foundation for one of them can be found in the western portion of the site. In the same general location, plants associated with the historic farm use include lilac bushes, individual fruit trees, and rhubarb. The island sawmills (a total of three) were located in the northeastern corner of this property, and remnants are still present. Also, the island schoolhouse is located in the southeastern corner of the site. The eastern edge of the property is bounded by Ohio Road, its northern edge by Chicago Road. The continuance of these roads as edges reinforces the grid-like shape of this edge of the property, and helps maintain the spatial pattern of the open area. These characteristics are traces of the island's historic agricultural landscapes that create an identifiable *historic landscape* when combined with the components of the adjacent properties.

The Thomas and Mary Kitchen/Thomas and Mary Price/Charles and Mollie Anderson farm fulfills first criterion listed above. Homesteaded by the Kitchens, Mary Kitchen later married Thomas Price and remained on the farm. Since the Andersons purchased the farm in 1913 from the Prices, its original owners probably farmed it until that time. The island cemetery site was originally part of the Kitchen

homestead. The cemetery site was divided from the parcel some time before the Andersons purchased the property. The farmstead property does not include any extant buildings, but it does contain several landscape components that represent the historic use. These include the remains of a stone property marker, old fields dotted with apple trees, roses, grape vines, and the remains of the Anderson's stone entry walls. Also, the foundations of two structures can be detected in the northwestern portion of the site. In addition, the island cemetery is located on this property.

One additional property is included in its entirety: the George Johann and Margaretha Hutzler homestead. A high degree of historical significance and continuity of ownership and land use are used as the justification for including it in its entirety--despite the moderately low level of integrity displayed by the extant landscape characteristics. There are also several structures associated with the site that are of interest, including the Hutzler pig barn, which is listed on the National Register of Historic Places. Also, a grave site, traces of an old orchard in the woods, ruins of structures in the woods, and old fields are discernible on the property. The Hutzlers were the first island settlers to pursue agriculture, and this property was the first on the island to be acquired via the 1862 Homestead Act. The land remained in the Hutzler family (it was owned and operated by the Hutzler's son, Johnny) until 1944 when Johnny Hutzler died.

The next area included in the recommended district is a portion of the George and Maria Haas homestead, which is to the west and adjacent to the Hutzler site. This farm was originally acquired in 1863, and was owned and operated by the family until 1937. All of the buildings are currently in ruins and difficult to locate due to encroaching vegetation. The southeastern corner of the property contains some old fields that are adjacent to those on the Christopher and Catherine Beck property. The northern and western edges of the area to be included in the district have been defined according to the locations of the old fields as they were identified in the 1983 vegetation survey of the island.

The next portion of the potential district edge defines a corridor south of the George Conrad and Mary Ann Hutzler farm, stretching north/south along the western shore of Florence Lake. The corridor includes portions of the Aaron and Julia Sheridan homestead (also known as the Henry and Maggie Haas farm) and property that was owned and farmed by the Theodore and Alvina Becks. The edges have been designated

to include open fields that appeared on both the 1938 aerial of the island and the 1983 vegetation survey. This portion also includes two orchard remnants, and areas where there are ruins of buildings.

Other Significant Sites Related to Agriculture

In addition to the sites described above, four other areas are included. The site of the "old dock," or Burton's wharf (the first island village), is included because of the crucial role of this site related to island agriculture. The dock was the center of trade for the island. The early settlers disembarked at this site to begin their lives on the island and the island's first village was located in this area. Lumber and agricultural products were sold at the dock and necessary supplies and mail were delivered at the location. In the island's early years, this site was the heart of island commerce, communication, and transportation with the outside world.

While the site of the old dock represents linkages between the island and other areas, the transportation system on the island played an important role in local transportation and communication. The roads, footpaths, and railroad tracks enabled farmers and loggers to transport their goods to the dock--thereby allowing their access to trade with the steamer captains. They also provided a means for trade among islanders--for instance, the lumber that was cut by farmers for the fog signal was transported along early island roads. Also, the threshing machine was moved from farm to farm in the fall season by way of the road system. The footpaths and roads were also used for communication between farm, Coast Guard Station, lighthouse, school, and village, residents. These were the means by which people on the island gained access to each other, for social, medical, commercial, and educational, purposes. The roads and paths that remain in use today, as well as the traces of historic transportation routes, are therefore included in the potential district boundary.

Also included in the potential *rural historic landscape* are the Coast Guard station, lighthouse, and village. Portions of this area are already listed on the National Register due to their association with maritime history. Inclusion of them in the *rural historic landscape* boundaries indicates the close association of all of the island's people and activities with each other. The *landscape* is an inclusive district, reflecting the significance of historic island agriculture and the interrelations of farmers with each other and other island activities.

The potential historic agricultural district on South Manitou Island has been defined through evaluations of the historical significance and integrity of the sites. It indicates areas where interpretation of the island's agricultural history should occur, and locations where management decisions regarding cultural and natural landscapes should be integrated. Since all of the island people and activities were closely interrelated, the interpretation of island history should focus on these interrelations.

Potential National Historic Landmark

In addition to the above-described, potential National Register district, three properties on the island are closely related to the transformation of rural agriculture in this country from subsistence farming to scientific agriculture. Numerous forms of documentation have linked the George Conrad and Mary Ann Hutzler farm and the August and Elizabeth Beck farm to that movement. These families are both descendants of the two earliest farming families on the island and both were leaders in the island agricultural community. The Hutzlers received numerous citations and awards for their work with Rosen rye. The Becks grew specialized pea-beans, and probably grew Rosen rye. The George Johann and Margaretha Hutzler farm was the first homestead established on the island and was operated continuously by members of this family until the 1940s. The early establishment of this farm, its continued operation throughout the period of significance, and the close ties that the family had to the overall island farming community indicate that it played an important role in the island agricultural community. The properties associated with these farms contain extensive extant buildings and cultural landscape features that display a moderate to high level of integrity. Because of the important role that South Manitou Island played in the early development of scientific agriculture in this country, these three historic farmsteads should be considered for nomination as a National Historic Landmark.

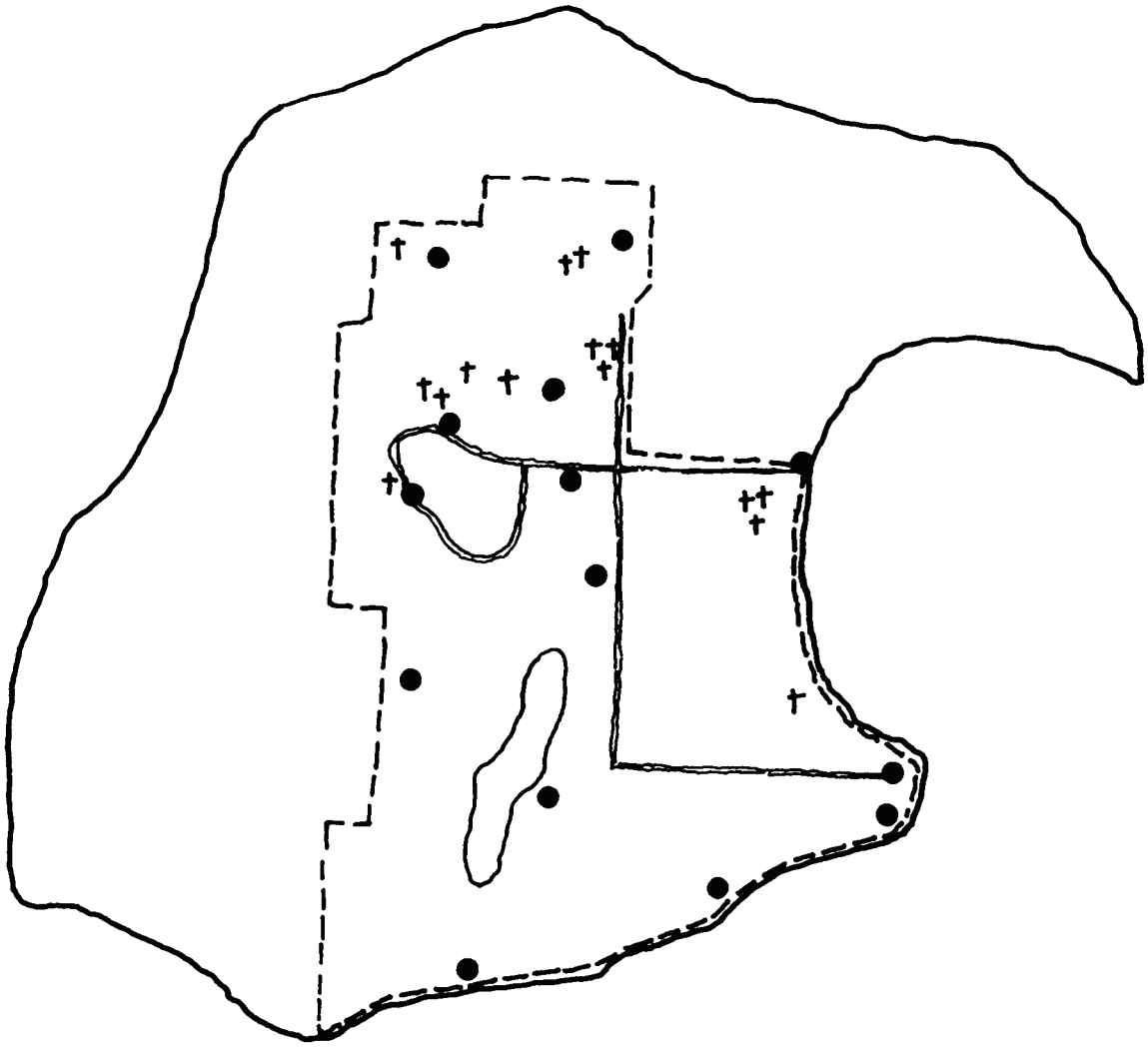


FIGURE 95
SOUTH MANITOU ISLAND
POTENTIAL HISTORIC AGRICULTURAL LANDSCAPE DISTRICT

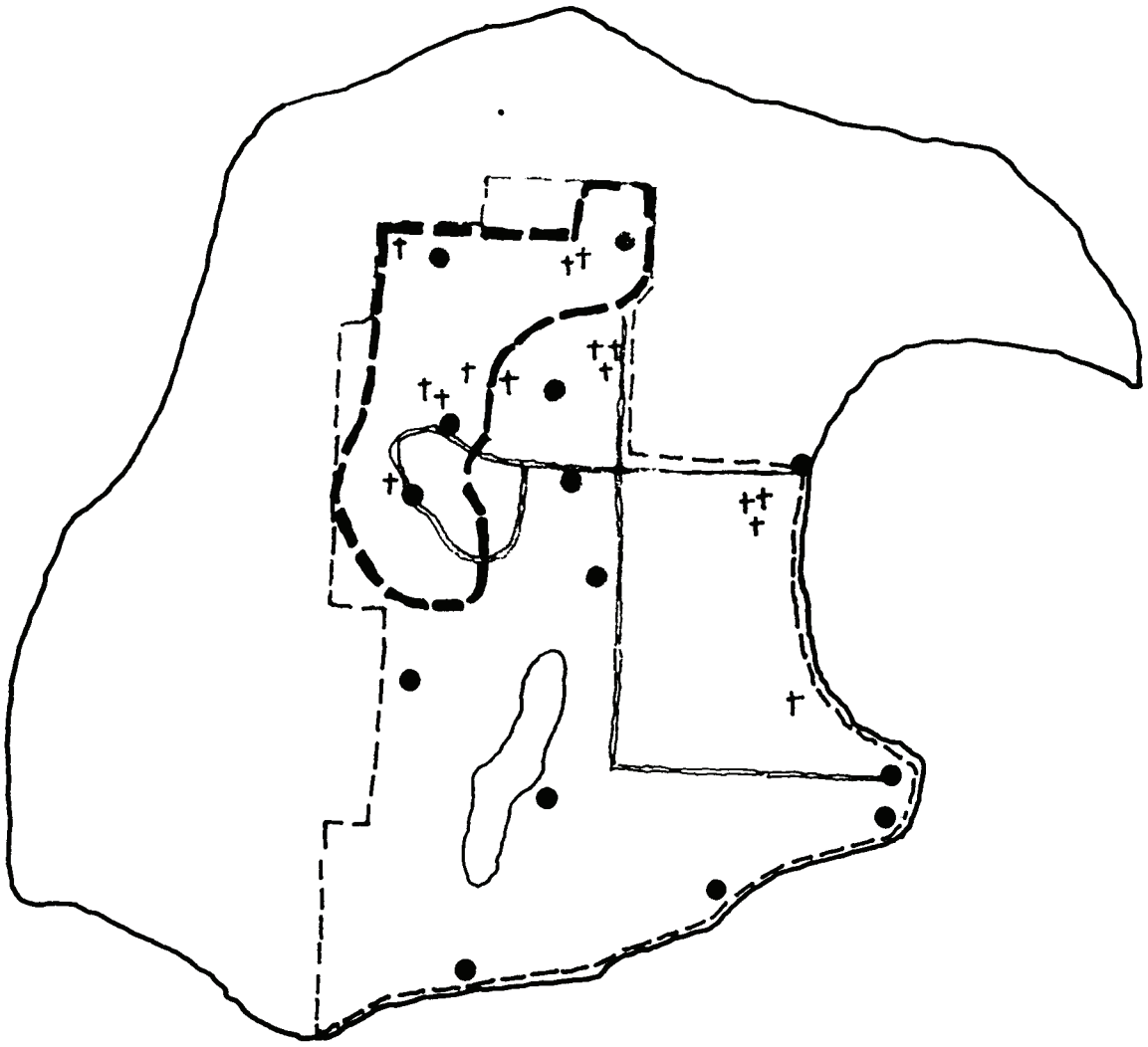
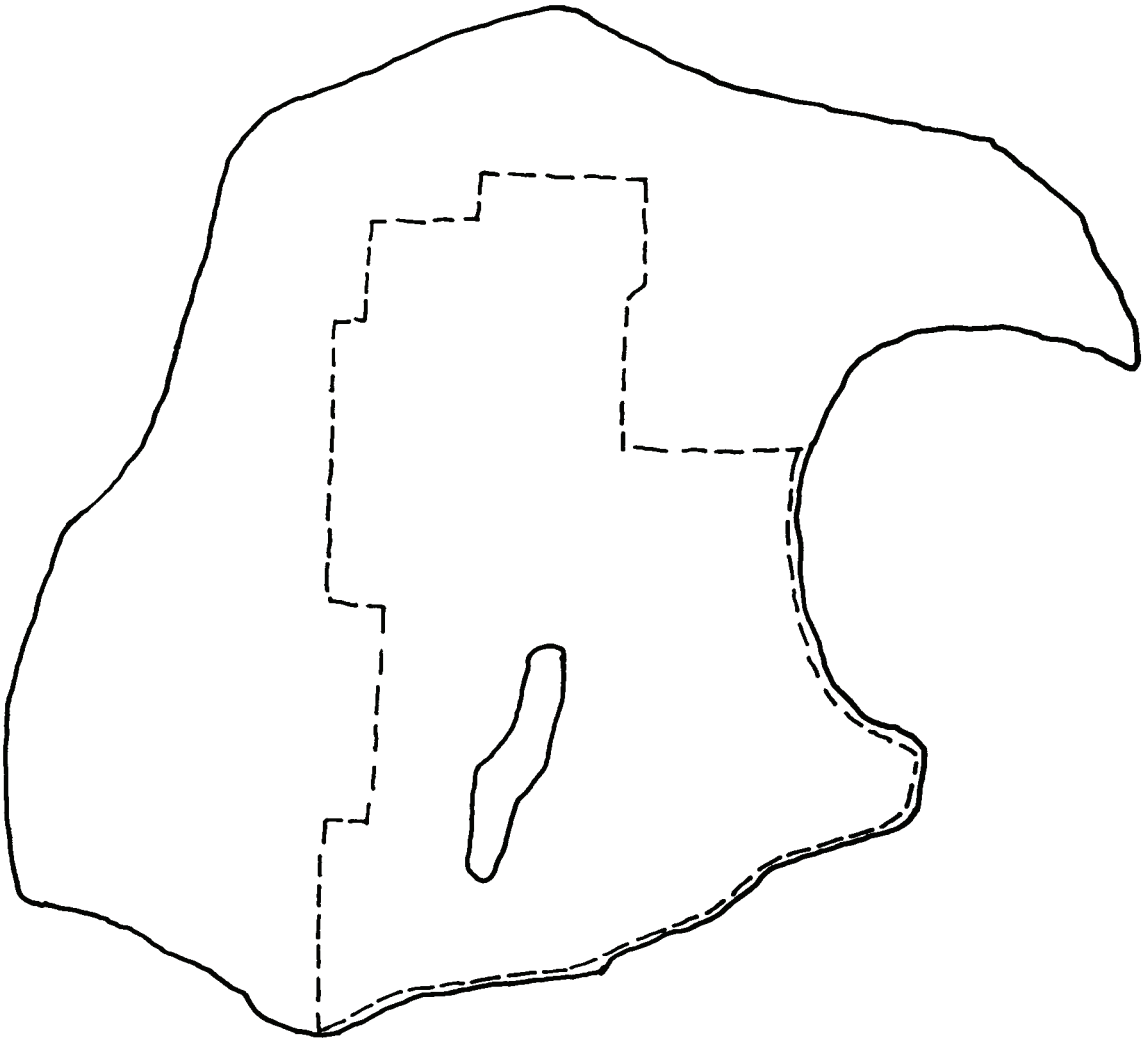


FIGURE 96
SOUTH MANITOU ISLAND
POTENTIAL NATIONAL HISTORIC LANDMARK DISTRICT



Legend
– – – Boundary of Potential Archeological District

FIGURE 97
SOUTH MANITOU ISLAND
POTENTIAL ARCHEOLOGICAL DISTRICT

Figure 98. Ladyslipper Orchids at South Manitou Island (1994)

Figure 99. Old Fields at a South Manitou Island Farm (1994)

Chapter 8
LANDSCAPE MANAGEMENT ALTERNATIVES FOR THE STUDY AREA

Resource Management Options

Several historic agricultural landscapes at South Manitou Island have been identified where conservation of both natural and cultural resources is desirable. In an attempt to consider both the natural and cultural landscape management concerns integratively within the potential historic district, several policies and their predicted results have been considered. The options represent a spectrum of resource preservation values for the historic agricultural sites on the island. The first one described places the greatest emphasis on natural resource preservation, with minor concentration given to the preservation of historic cultural landscape features. In each consecutive option, emphasis on the historic landscape gradually increases, with the final option stressing maximum conservation of historic landscapes. After a brief description of the desired future conditions for each policy, the positive and negative impacts that each policy could have on natural and cultural resources is discussed. These options are presented as examples of potential approaches, and for all of them careful consideration and research should be conducted before decisions are made that would impact the resources.

Because management programs for the Village, Lifesaving Station, and Lighthouse, are not directly related to the management of the agricultural resources, that collection of historic resources was not addressed in this report. However, all management options presented assume the continued or a higher level of protection will be applied to those resources. In addition, the wilderness designation will require any option selected to be carefully assessed to determine its impact upon the wilderness character or value.

Old Field Management Concerns

Goals and approaches for the management of significant historic features and native plant communities sometime conflict. This is especially evident in the issue of how to manage the old fields on the island. These fields occur in areas where Northern hardwoods--the largest forest association on South Manitou--were once present. On the

island the dominant species of this community are Acer saccharum (sugar maple) and Fagus grandifolia (beech). In general, the Northern hardwoods community is a very stable forest because it is at the climax stage of successional development. Its major dominants include Acer saccharnm (sugar maple), Tsuga canadensis (hemlock), Eagus grandfolia (beech), Betula lutea (Yellow birch), and Tilia americana (basswood).[38]

The Northern hardwoods within the potential historic agricultural district are currently the most fragmented representatives of this community on the island. Lumbering activities, beginning in the mid-1800s, disturbed the majority, if not all, of the pre-settlement hardwoods forests on the island. A sizable portion of the potential historic district was already cut in 1847 when the General Land Office Survey was conducted.[39] In areas where farming was not established, or was short lived, the hardwoods have reestablished themselves. In the areas where farming was long-lived and only recently abandoned, succession to forest is in its early stages and is referred to as "old fields."[40] These old fields represent a management dilemma. They can be viewed as disturbance patches within the forest and managed in a way that would decrease this disturbance eventually increasing the overall coverage of the forest. Alternatively, they can be viewed as cultural landscape remnants and managed in a way that would preserve or restore their "settlement" integrity, thereby allowing them to serve as reminders of previous human-land relationships. The options described in this section provide examples of approaches for management of old fields, and the effects they could have on both natural and cultural resources.

Interpretation of Agricultural History

Each of the landscape management policies presented here is coupled with a policy for interpreting the island's agricultural history. The means by which the interpretative policy could be implemented would vary based on the landscape management approach that is applied; this is the case since the ability of historic

[38] John T. Curtis, The Vegetation of Wisconsin (Madison, Wisconsin: University of Wisconsin Press, 1959), 185.
[39] Orange Risdon, original surveyor's notes and sketch map of South Manitou Island, 1847 (on file in the State Archives of Michigan, Bureau of History, Lansing).
[40] Brian T. Hazelett, The Terrestrial Vegetation and Flora of North and South Manitou islands Sleeping Bear Dunes National Lakeshore, Technical Report No. 11 (Douglas Lake: University of Michigan Biological Station, 1983).

landscapes to represent the island's agricultural history will vary as a result of the application of different policies. If the historic landscapes become barely apparent, or are visible only as small representatives of the island's past, then the interpretation program would need to be more detailed and descriptive. However, in scenarios where the historic landscapes are preserved in a more historically representative form, the interpretation program could be less intensive. Concerns for interpreting agricultural history will be discussed with the cultural resource concerns for each landscape. The overall objective of an interpretative program for the island's historic cultural landscapes is to *communicate the significance and extent of the island's agricultural history to visitors*. An attempt to include the concerns for interpretation has been made when presenting the following options. The Lakeshore's interpretative experts should be included in the planning process in order to ensure the integration of their knowledge into the cultural landscape management plan.

OPTION A: Restoration Towards Pre-Settlement Plant Communities

Policy: Restore vestiges of pre-European settlement conditions on the island which represent the settlement challenges faced by pioneers (in particular a vegetation complex made up of plant communities that are representative of those present before European settlement occurred).

Desired Future Condition: This option would have its greatest effect on the existing open fields and the Northern hardwoods forests: over time the fields would be eliminated and replaced by the hardwoods. In this option the historic landscape components would be allowed to degrade and eventually disappear.

- The Northern hardwood forest would increase in overall cover, and decrease in fragmentation.
- Eventually, the entire area encompassed in the district would be forested.

Effects on Natural Resources

This policy would result in the development of a more contiguous, and less patchy, Northern hardwood forest community than currently exists on the island. The community would, therefore, have a better ability to evolve into core areas that have high integrity, potentially providing increased opportunities for native species habitat (i.e., eagles are currently nesting on North Manitou and could come to South if the woodlands were more extensive).[41] Fragmentation would be minimized, and the landscape complex might approach a representation of pre-European settlement conditions.

While possibly increasing the potential for native species habitat, this option could decrease or eliminate habitat opportunities for edge and grassland species (i.e., migratory birds like the geese that come in the fall, rabbits, and foxes). Open fields have existed on the island since the mid-1800's. These currently provide habitat for native and non-native species of plants, birds, and insects.

Effects on Cultural Resources

The implementation of this policy would result in the loss of a major portion of the historic landscape features now present on the island. While this report has determined an association with significance that indicates a need to communicate the islands agricultural history to visitors, implementation of the landscape management policy in Option A would eliminate the most meaningful tool for accomplishing this--namely, the historic landscape features. The historic landscape patterns, structures, and elements would slowly disappear, giving way to forest succession. It would be difficult to communicate to visitors the extent of the agricultural activities that occurred on the island.

Nevertheless, the regenerated forest would create a general character reflective of that which was evident during the early exploration period. In its "natural" state, the island would portray the characteristics present when Europeans first arrived. Meanwhile, the interpretation program would need to be highly sophisticated in order to communicate the significance and extent of the island's agricultural history.

[41] Steve Yancho, Acting Chief Ranger, Sleeping Bear Dunes National Lakeshore, telephone conversation with Brenda Williams, June 1995.

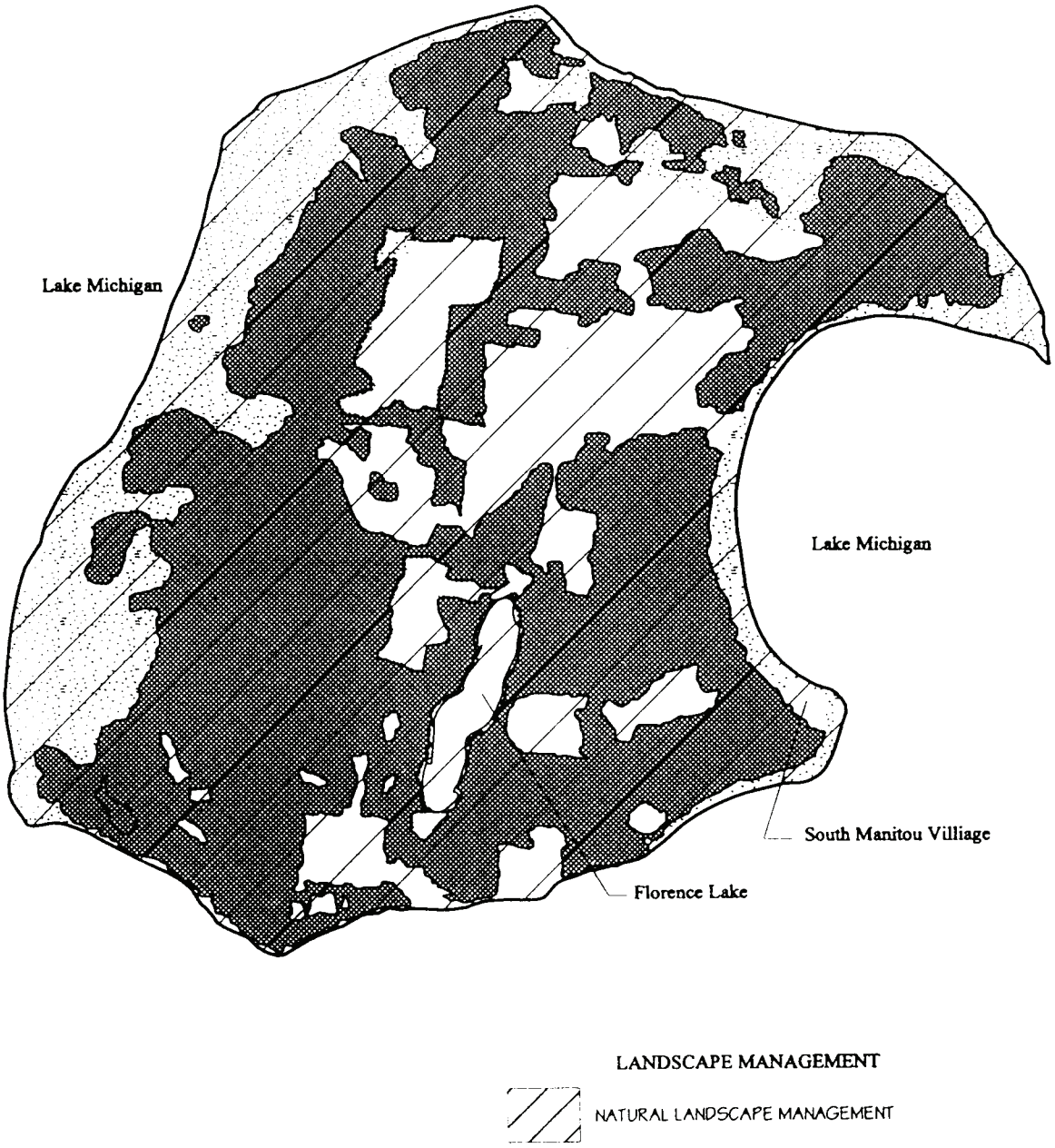


FIGURE 100
MANAGEMENT ALTERNATIVE – OPTION A

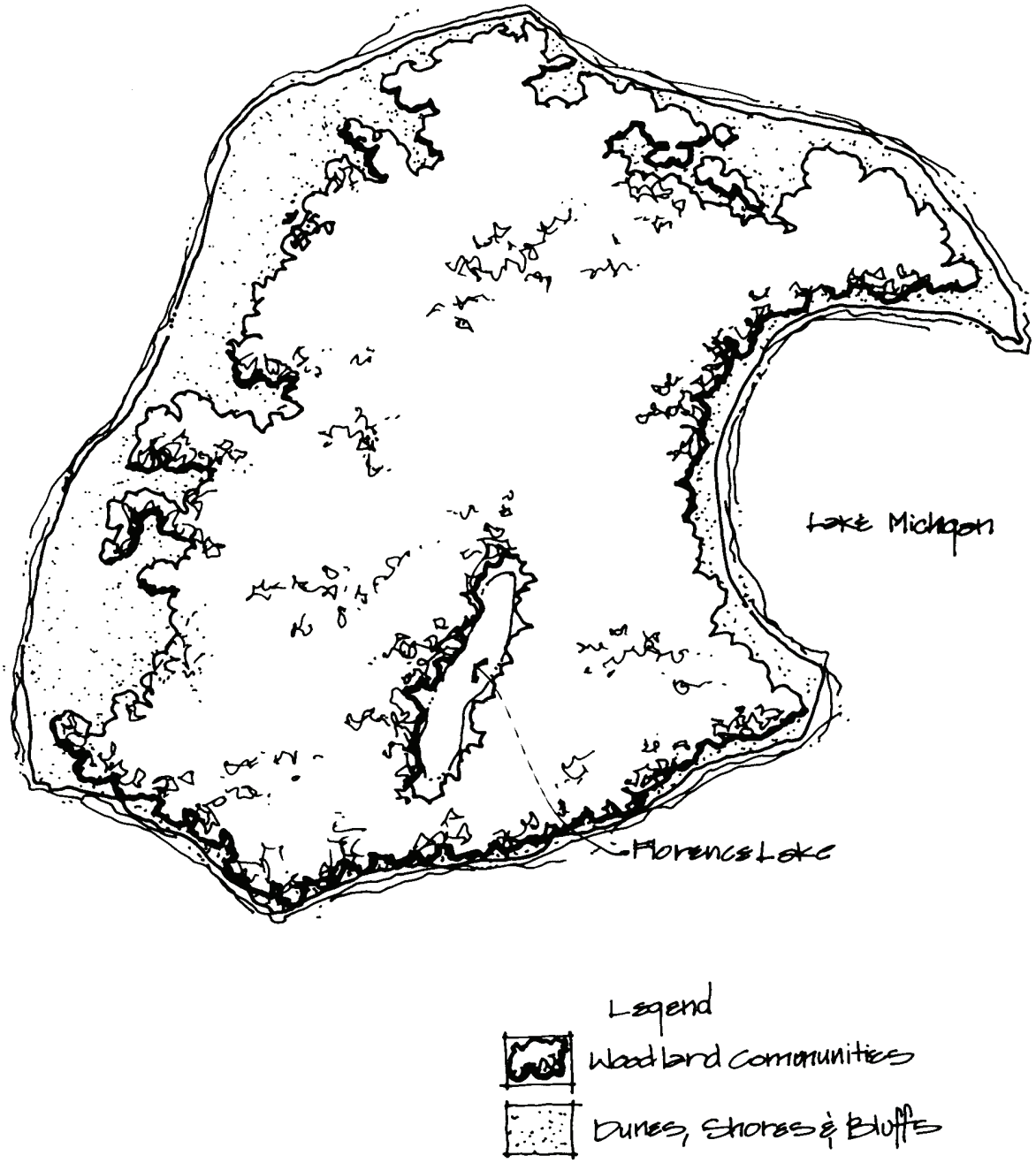


FIGURE 101
MANAGEMENT ALTERNATIVE – OPTION A
SCHEMATIC REPRESENTATION OF DESIRED FUTURE CONDITIONS

OPTION B: Current Park Policy

Policy: Preserve the character of a small portion of the island's historic agricultural landscapes and, in all other areas, restore a vegetation complex made up of plant communities that are representative of those present on the island before European settlement. This option represents the current NPS policy for SMI.

Desired Future Condition: This plan would have an end result similar to that described in Option A, but would also preserve the following cultural features:

- The Hutzler pig barn would be preserved, due to its listing on the National Register (this would include the management of approximately one-quarter acre of land);
- The island cemetery would be preserved (approximately two acres);
- Graves located outside of the cemetery would be preserved;
- The schoolhouse would be preserved (including approximately one-half acre of land),
- Eighty-two acres of old fields at the August and Elizabeth Beck and Conrad and Mary Ann Hutzler farms would be preserved.
- Several of the historic structures and cultural landscape components associated with the two farms would be preserved (land included in the 82 acres above):
  - August and Elizabeth Beck farm: farmhouse, farm building, stovewood barn foundation, shed, grave site, tree line, knoll with apple trees, sugar maples and ash trees near house, asparagus patch, line of Arborvitae behind house;
  - Conrad and Mary Ann Hutzler farm: farmhouse, three sheds, chicken coop, barn, granary, corn crib, grave, apple trees near house, birch, ash and fir trees near buildings, scattered fruit trees, berry bushes.
  - The remainder of the historic agricultural landscape features would be allowed to deteriorate and disappear.

Effects on Natural Resources

As in Option A, this policy would result in the development of more contiguous, and less fragmented, Northern hardwoods communities within the historic agricultural district. These communities would have an increased ability to develop core areas of high integrity, potentially providing opportunities for native species habitat. Eventually, the entire area encompassed in the district, with the exception of the 82 acres managed as open fields and the sites of preserved elements, would develop into woodland. The 82 acres that make up portions of the August Beck and Conrad Hutzler farms would be managed according to an Open Field Management Plan, and would provide habitat opportunities for both edge and grassland species. The existing old fields currently provide habitat for native and non-native species of plants, birds, and insects. In Option B, this habitat would be reduced compared to its current coverage. The resulting small size and isolated environment might eliminate its utility as habitat for some species.

Effects on Cultural Resources

With time, the implementation of this policy would lead to the deterioration of several significant historic landscape features. A minute portion of the historic landscape would represent the island's agricultural history. Interpretation would play a crucial role in the communication of the island's agricultural history, and emphasis would need to be given to explanations that the extant agricultural features are small pieces of a once much more extensive community.

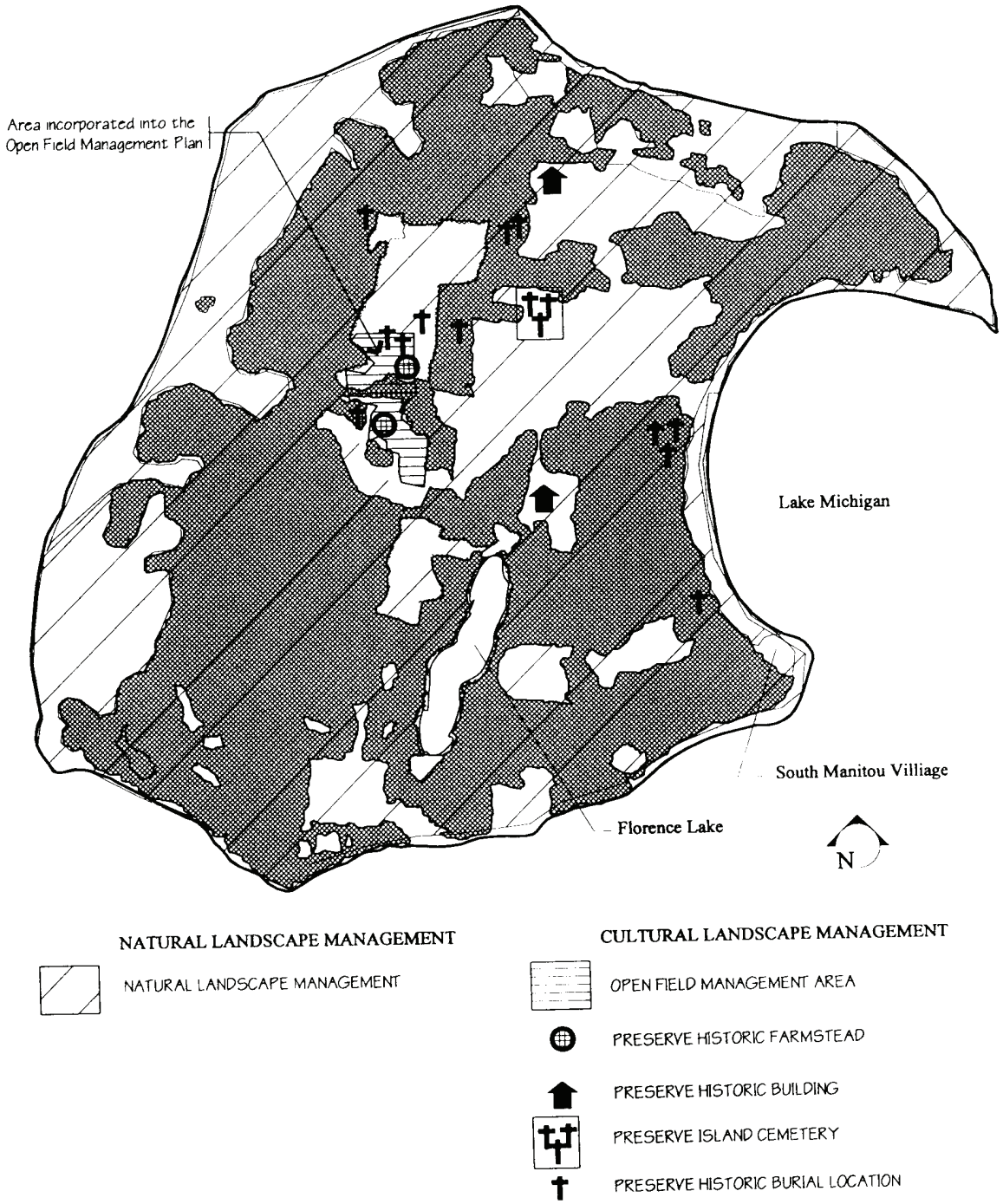


FIGURE 102
MANAGEMENT ALTERNATIVE – OPTION B

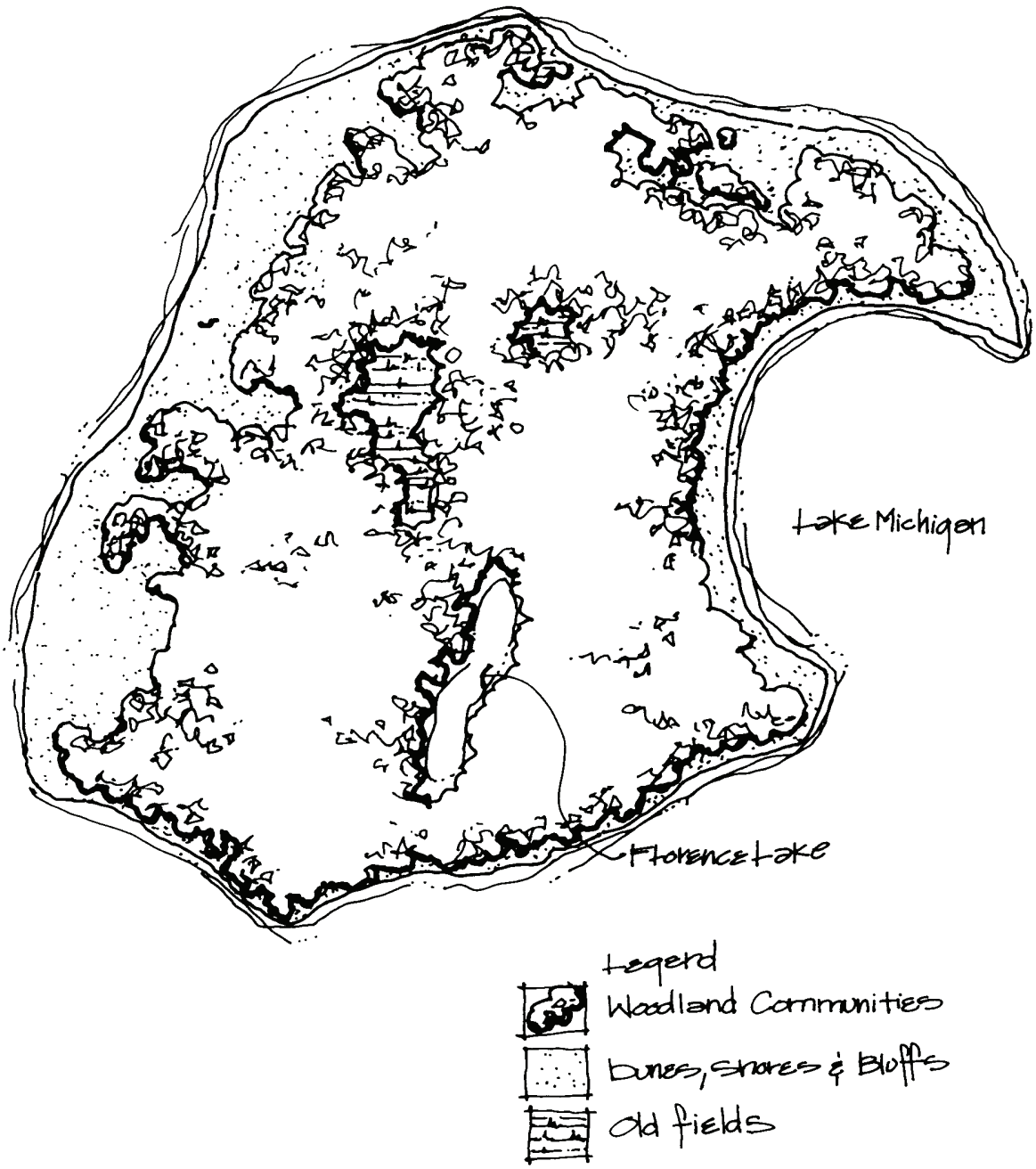


FIGURE 103
MANAGEMENT ALTERNATIVE – OPTION B
SCHEMATIC REPRESENTATION OF DESIRED FUTURE CONDITIONS

OPTION C: Preserve the significant historic landscape features located within the potential National Historic Landmark district

Policy: Preserve the contributing features of the historic agricultural landscapes located in the potential National Historic Landmark district; and in all other areas restore a vegetational complex made up of plant communities that are representative of those present on the island before European settlement.

Desired Future Condition: This plan is similar to Option B but it moderately expands the preservation of historic landscape features and reduces the overall area devoted to plant community restoration. In addition to those historic elements addressed in Option B, this scenario includes the following:

- The contributing structures and landscape characteristics associated with the George Johann Hutzler farm would be preserved (including two acres of land).
  - Farmhouse, grave sites, apple tree near farmhouse, carnage house ruins, privy, shed ruins, shack ruins.

Effects on Natural Resources

As in Option B, this policy would result in the development of more contiguous, and less fragmented, Northern hardwoods communities within the historic agricultural district. These communities would have an increased ability to develop core areas of high integrity, potentially providing opportunities for native species habitat. Eventually, the area encompassed in the district, with the exception of the resources associated with the potential National Historic Landmark district, would develop into woodland. The fields within the potential NHL would be managed according to an Open Field Management Plan, and would provide habitat opportunities for both edge and grassland species. The existing old fields currently provide habitat for native and non-native species of plants, birds, and insects. In Option C, this habitat would be reduced compared to its current coverage. The resulting small size and isolated environment might eliminate its utility as habitat for some species.

Effects on Cultural Resources

The implementation of this policy would ensure the preservation of the island's significant, extant historic landscape features within the potential National Historic Landmark district. However, several significant historic landscape features associated with the potential National Register district would deteriorate as a result of this policy. A small portion of the existing historic landscape would represent the island's agricultural history. Interpretation would play an important role in the communication of the island's agricultural history; and emphasis would need to be given to explanations that the preserved agricultural features represent only a portion of the previous agricultural landscape components.

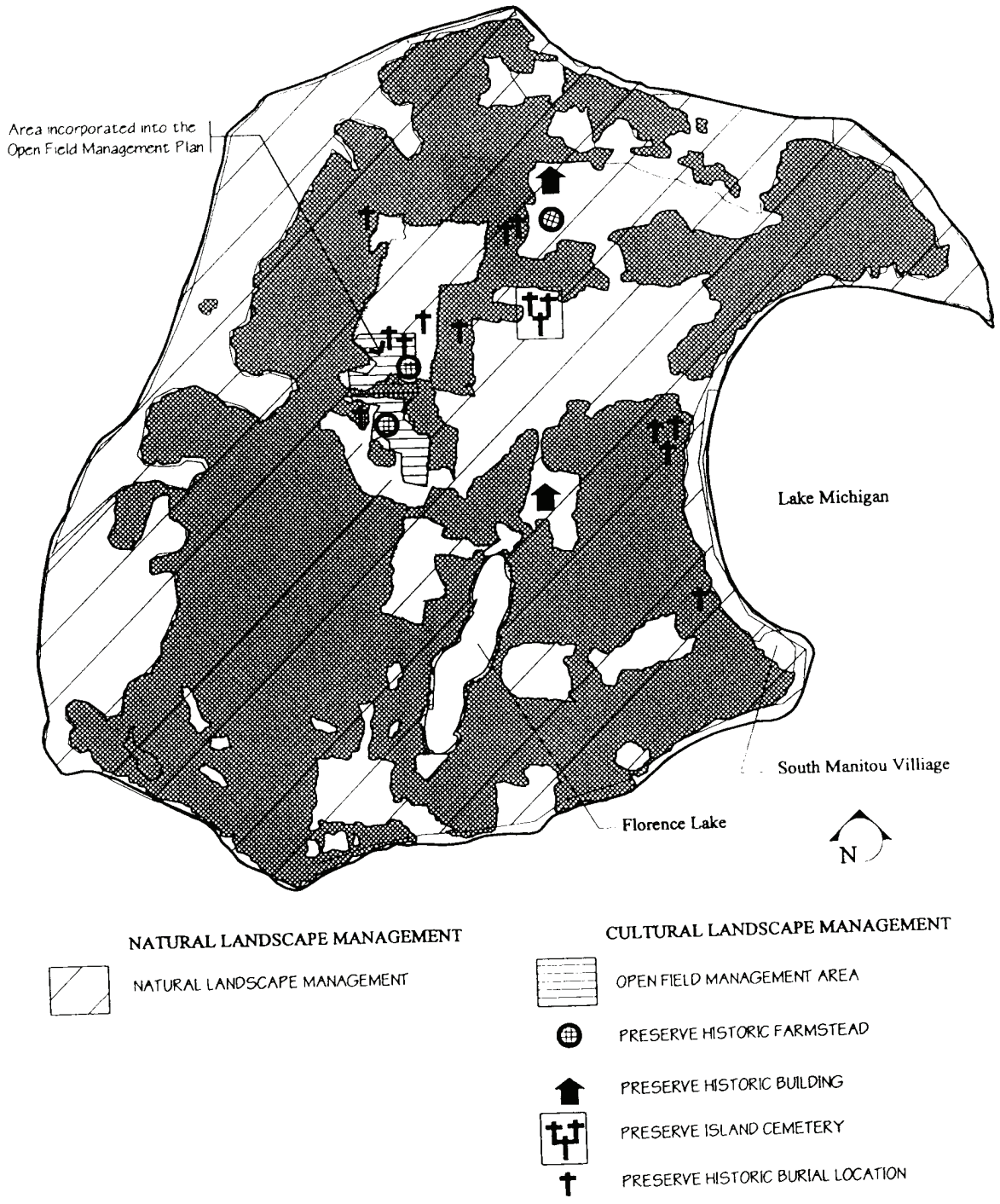


FIGURE 104
MANAGEMENT ALTERNATIVE – OPTION C

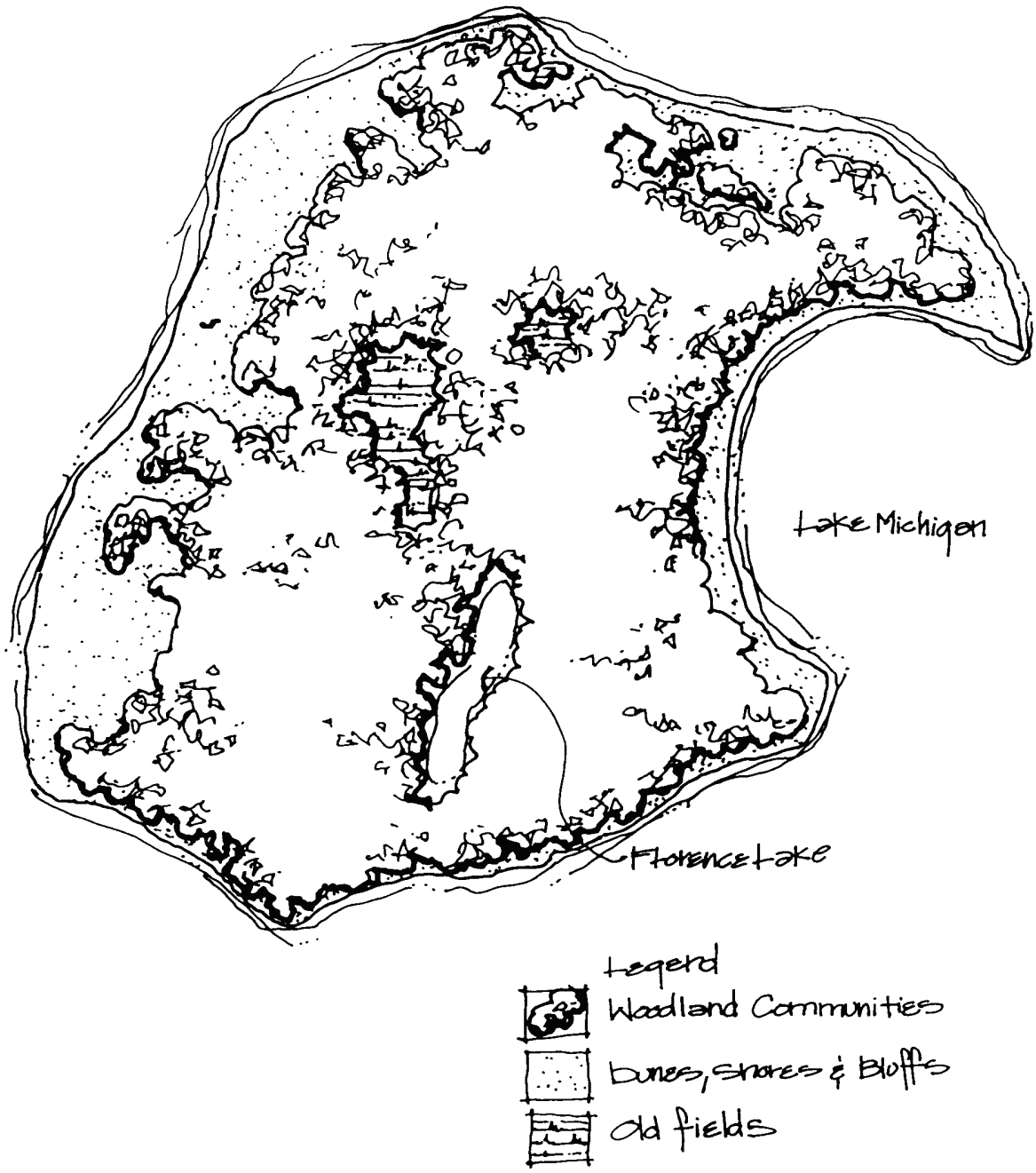


FIGURE 105
MANAGEMENT ALTERNATIVE – OPTION C
SCHEMATIC REPRESENTATION OF DESIRED FUTURE CONDITIONS

OPTION D: Preserve the significant historic landscape features located within the potential National Historic Landmark and some adjacent fields

Policy: Preserve the contributing features of the historic agricultural landscapes located within the potential National Historic Landmark and some adjacent fields; and in all other areas restore a vegetational complex made up of plant communities that are representative of those present on the island before European settlement.

Desired Future Condition: This plan is similar to Option C, but it moderately expands the preservation of historic landscape features and reduces the overall area devoted to plant community restoration. In addition to those historic elements addressed in Option C, this scenario includes the following:

- The open fields and orchards at the Foster (approximately 68 acres) and W. Haas (approximately 36 acres) farms, the fields on the property adjacent to the W. Haas farm--the southwestern corner of the G.J. Hutzler property (approximately 26 acres), and the Anderson farms (approximately 83 acres), would be preserved;
- Also, the open field management at the August Beck and Conrad Hutzler farms would be extended (81 acres at the Beck farm and 72 acres at the Hutzler farm)

Effects on Natural Resources

With a few exceptions, this plan allows for the maintenance of the majority of the current landscape matrix in relation to land cover types. The majority of the old fields located outside of the potential National Historic Landmark district would eventually generate into hardwoods.

Effects on Cultural Resources

The implementation of this policy would ensure the preservation of the island's significant, extant historic landscape features within the potential National Historic Landmark. This would be enhanced by the preservation of old fields on adjacent sites. The preserved old fields would provide a context in which visitors could more readily understand the extent of island agriculture. Interpretation would play an important role in the communication of the island's agricultural history, emphasizing that the extant agricultural features represent the remains of an active farming community.

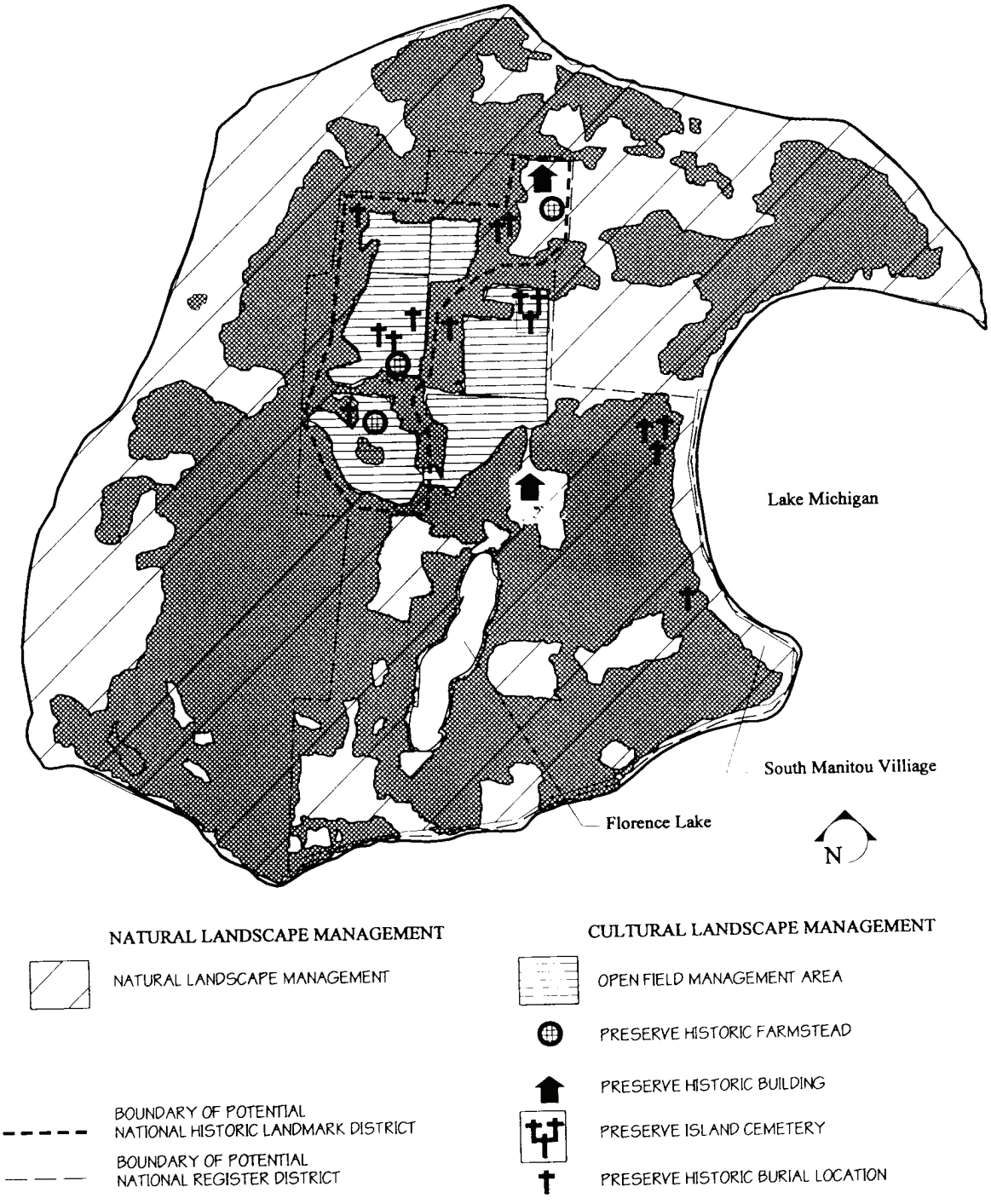


FIGURE 106
MANAGEMENT ALTERNATIVE – OPTION D

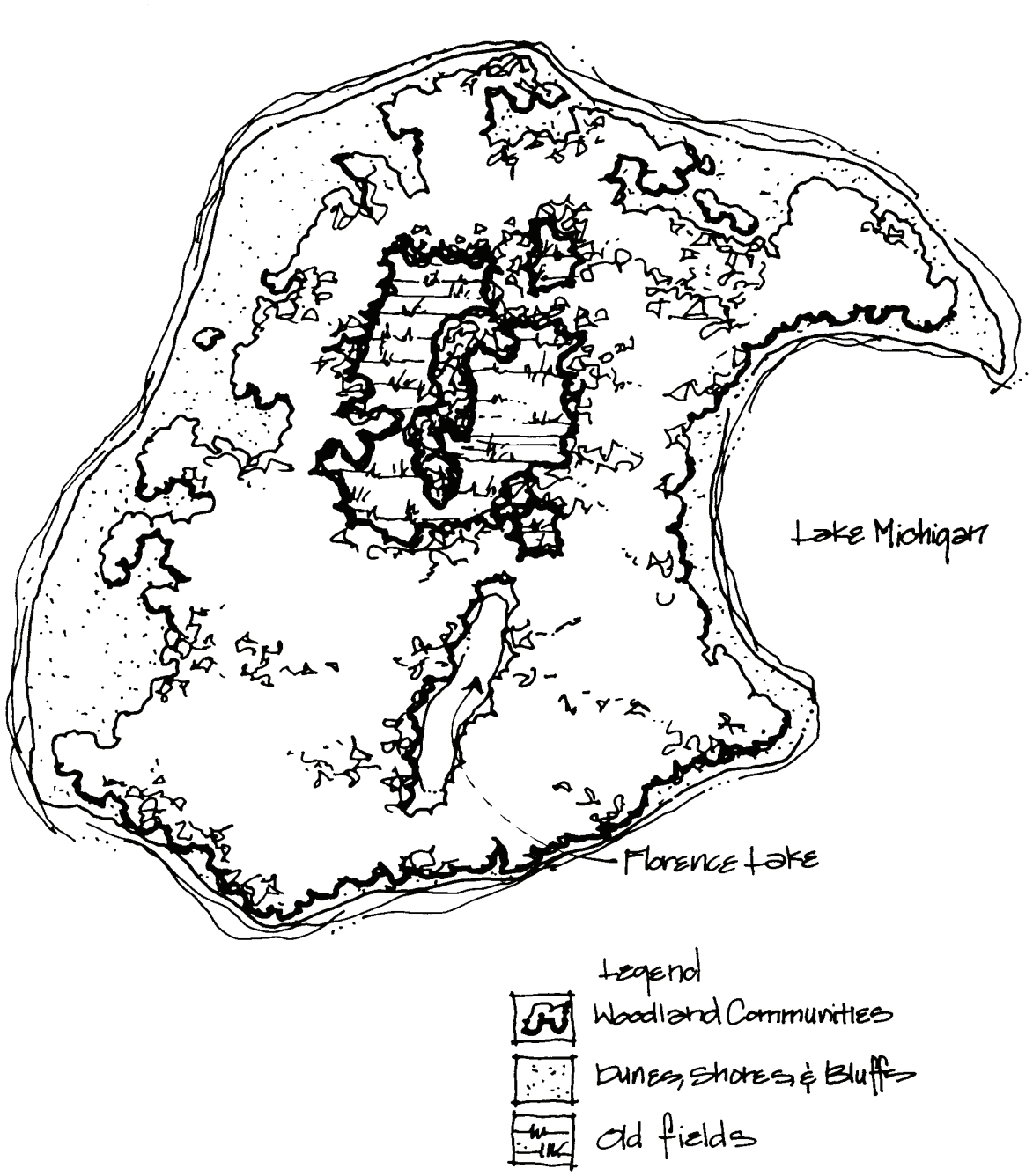


FIGURE 107
MANAGEMENT ALTERNATIVE – OPTION D
SCHEMATIC REPRESENTATION OF DESIRED FUTURE

OPTION E: Preserve and rehabilitate the significant historic landscape features located within and adjacent to the potential National Historic Landmark district

Policy: Preserve the significant historic agricultural landscape features located within and adjacent to the potential National Historic Landmark district and rehabilitate selected historic structures to allow contemporary use. In all other areas restore a vegetation complex made up of plant communities that are representative of those present on the island before European settlement

Design Description: This plan includes the preservation and rehabilitation of all the historic landscape features included in Option D, and also includes the rehabilitation of several historic structures so that they may be used for Park Service activities including:

- The residences at the George Johann Hutzler, and August Beck farms would be rehabilitated to enable their use for group camping, interpretative programs, or housing for volunteers in the park;
- The shed and the granary at the August Beck farm would be rehabilitated to enable their use for storage, or interpretative programs;
- The barns and sheds at the George Conrad Hutzler farm would be rehabilitated to enable their use for storage, or interpretative programs.

The option also includes the restoration of two landscapes that have historic significance:

- Restore the spatial and visual character of the hill northwest of the George Conrad Hutzler farmhouse, where Conrad Hutzler's grave is located, so that the farm may be viewed from the grave site (approximately two and one-half acres).
- Restore the spatial and visual character of the hill south of the August Beck stovewood barn foundation, thereby re-establishing the farm setting as indicated in historic photographs (approximately three and one-half acres).

Effects on Natural Resources

The implementation of this policy would have the same natural resource concerns as those outlined for Option D, as well as some additional concerns. The cover type of the two areas that are to be restored to their historic cultural condition would change from their current early-successional woodland status and be maintained as a grass/forb complex. Care should be taken to ensure minimum impact on nesting birds and other wildlife use of the fields. Mowing should not occur before the fifteenth of August in any year. Also, the rehabilitation and reuse of structures would lead to more intensive use of the areas near them, creating impacts related to waste disposal and trampling.

Effects on Cultural Resources

The implementation of this policy would have a similar effect on cultural resources as Option D, but in this scenario the rehabilitation of several of the structures associated with the farms would result in their active inclusion in the island's contemporary use. This could have both positive and negative impacts in relation to the interpretation of the historic sites. Because people would have greater access to the sites, and be able to stay overnight in these locations, they could gain an increased understanding of what it was like to live on these farms. On the other hand, the increased number of people and use at these sites would reduce the striking sense of history that one feels when visiting the farm sites. On-going use could make them seem more closely associated with contemporary use than with previous activities that no longer exist.

Also, the restoration of the two small areas, from early successional forest to open fields, would increase the ability of the two farms to represent the island's significant agricultural history.

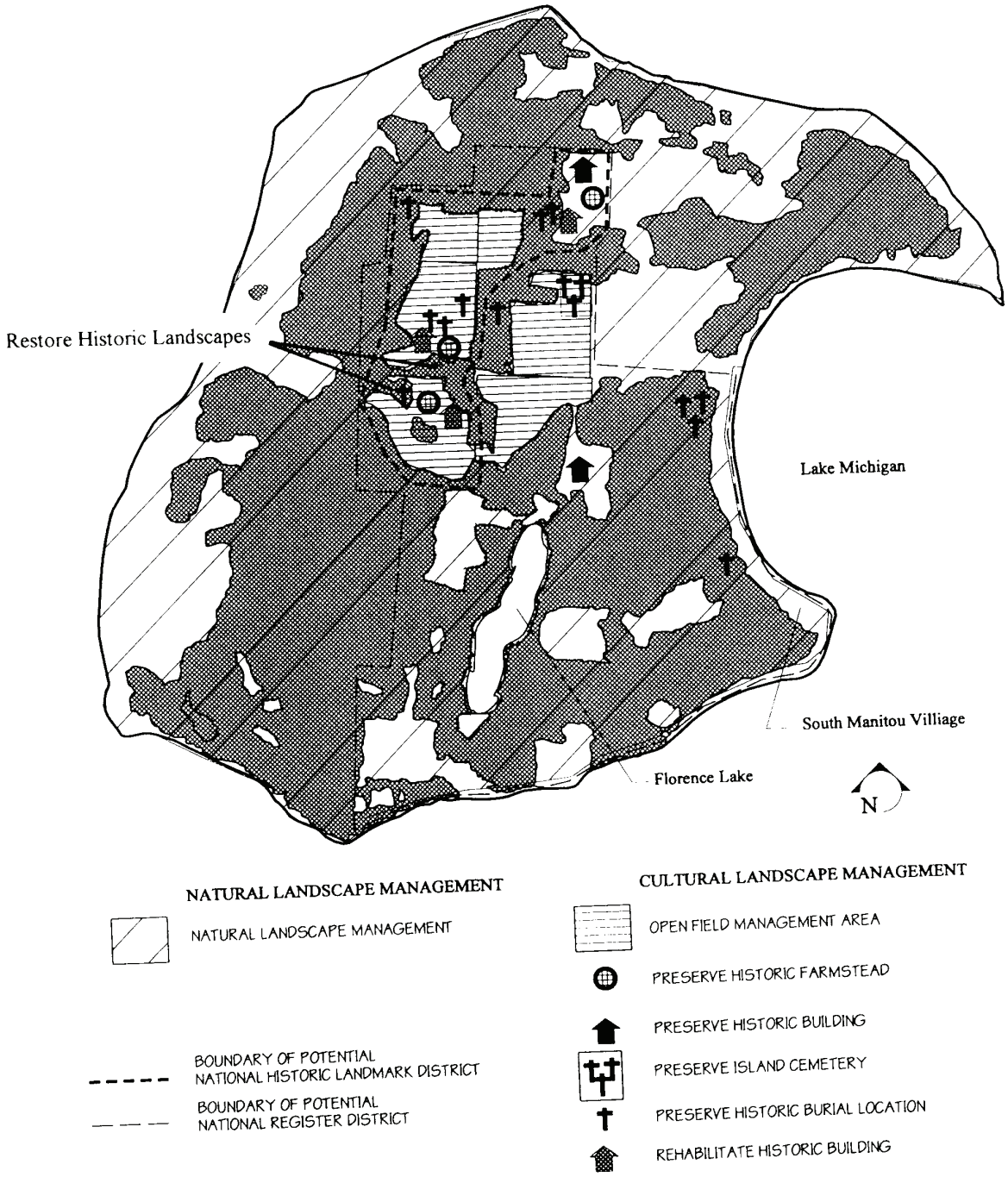


FIGURE 108
MANAGEMENT ALTERNATIVE – OPTION E

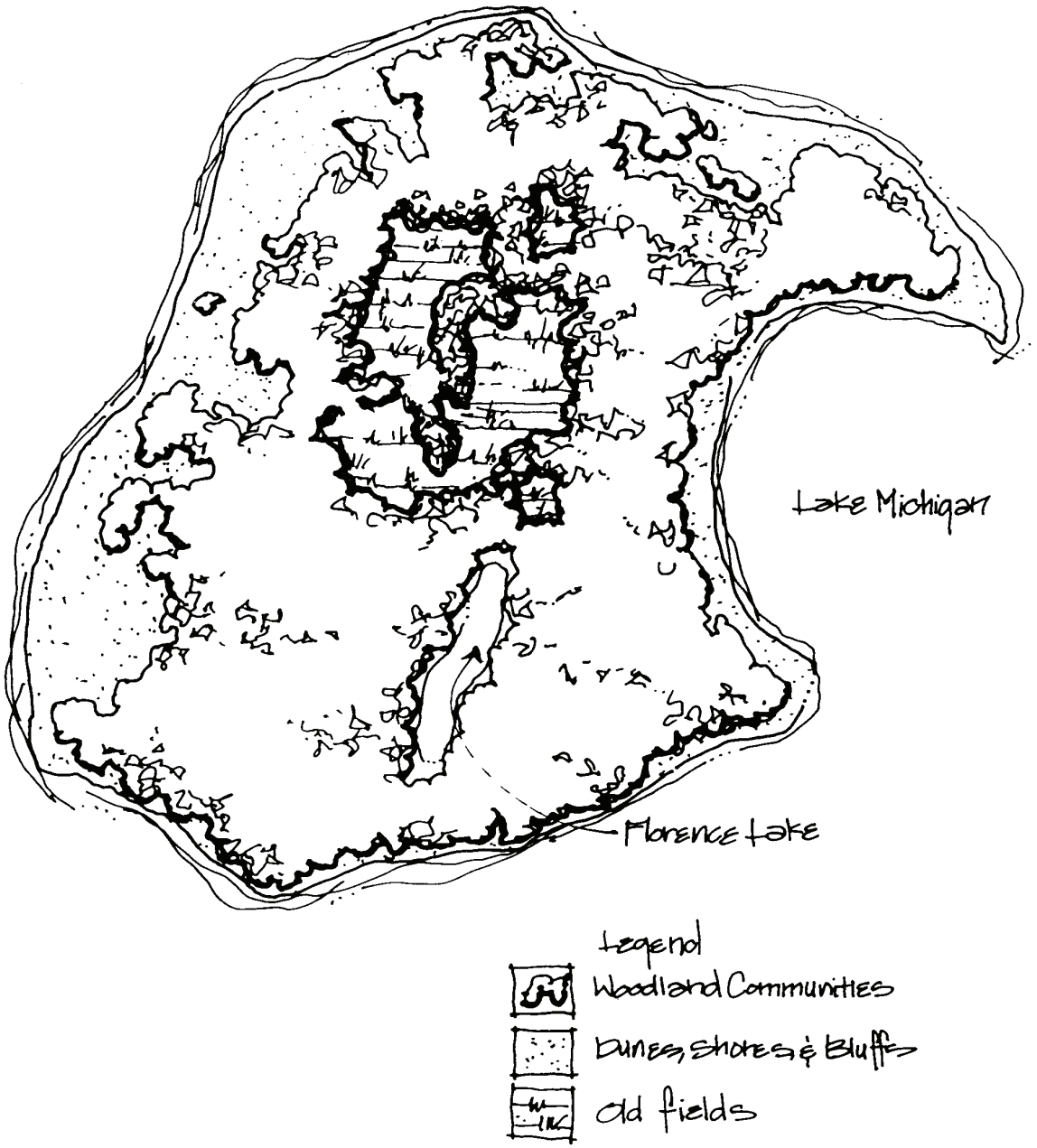


FIGURE 109
MANAGEMENT ALTERNATIVE – OPTION E
SCHEMATIC REPRESENTATION OF DESIRED FUTURE CONDITIONS

OPTION F: Preserve. rehabilitate, and reconstruct the significant historic agricultural landscape components located within the potential National Register District

Policy: Preserve the significant historic agricultural landscape components on the island. Rehabilitate portions or features of the sites to allow contemporary use, and reconstruct selected sites to a state that is visually and functionally representative of the period of significance. Restore a vegetation complex made up of plant communities that are representative of those present on the island before European settlement.

Desired Future Condition: This plan includes the preservation and rehabilitation of all historic landscape features included in Option E, and also includes the preservation of additional historic landscape features located in the southern portion of the island:

- The significant open fields and orchards located along the path on the west side of Florence Lake would be preserved (approximately 52 acres);
- The open fields associated with the Theodore Beck farm would be preserved (approximately 27 acres); The residence at the Theodore Beck farm would be stabilized so it will remain a visual part of the farmstead;
- Selected buildings or ruins of buildings would be included in the interpretive program for the sites, acting as "discovery sites."

It also includes the reconstruction of several landscapes and structures that have historic significance, including the following:

- The stovewood barn and windmill at the August and Elizabeth Beck farm should be reconstructed to allow them to be used for interpretive programs;
- The fields associated with the August and Elizabeth Beck and the Conrad and Mary Ann Hutzler farms should be reconstructed to their cultivated state to represent historic land use and allow for use in interpretive programs;
- The residence at the Henry and Maggie Hans farm should be preserved.

Effects on Natural Resources

Raising crops in the fields would eliminate opportunities for some of the plant and animal species that currently use the old fields. The activities associated with growing the crops, such as irrigation and pest control, could also negatively impact the natural areas on the island by causing increased disturbance. In addition, the increased area preserved as old fields would minimize the opportunities for the development of core areas of hardwood forest. This may reduce the chances that some wildlife species that require a large continuous area of habitat, such as the eagle, would survive.

Effects on Cultural Resources

The inclusion of the fields in the southern portion of the potential district would result in the preservation of many of the significant landscape components currently present on the island. In addition, by attempting to restore land-use conditions reflective of the island's past, this would increase the ability of the island's historic landscapes to communicate the extent of the agricultural practices, but it would also reduce the representation of change over time. It would be very labor-intensive, and complicated by the difficulties involved with getting supplies to the island from the mainland.

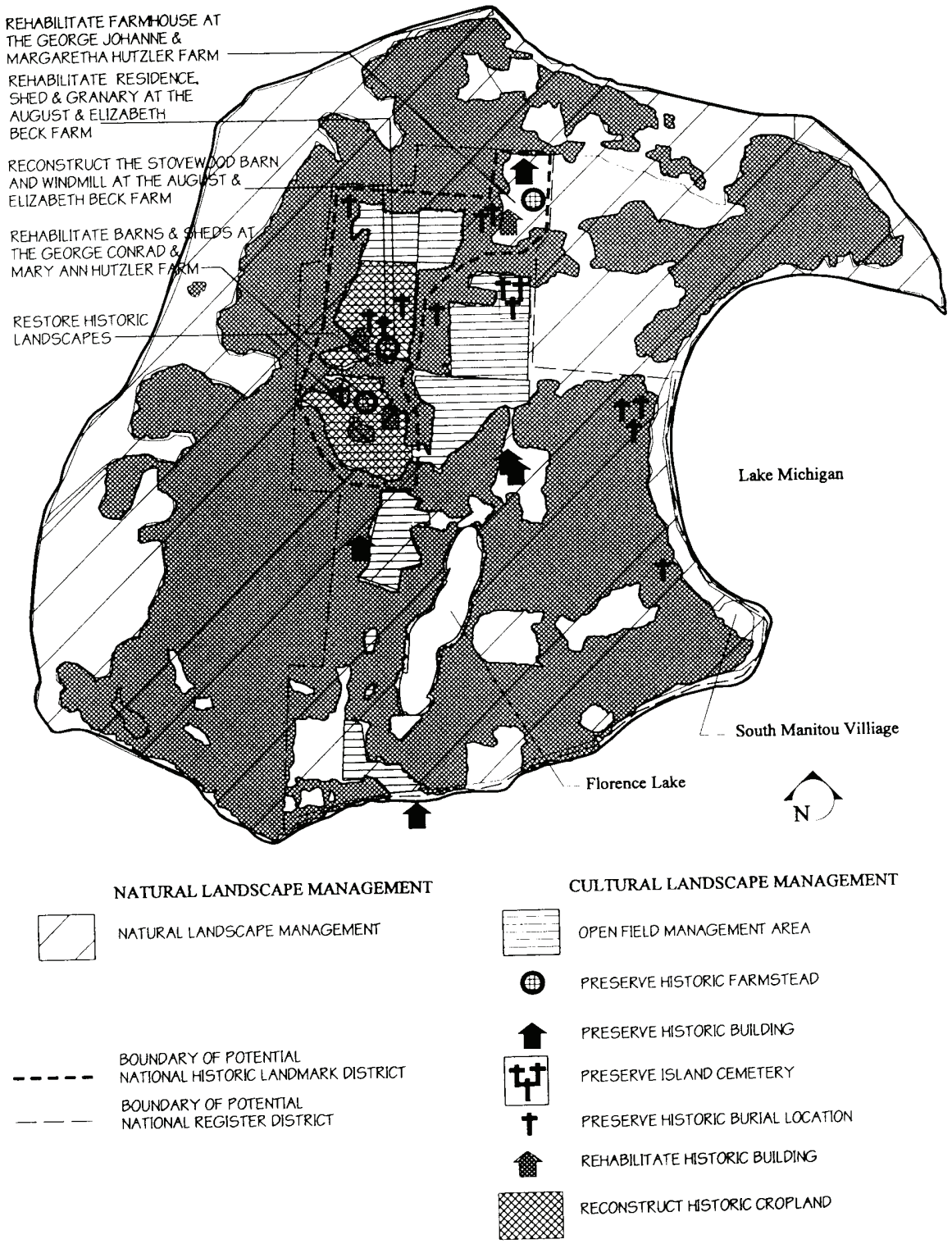


FIGURE 110
MANAGEMENT ALTERNATIVE – OPTION F

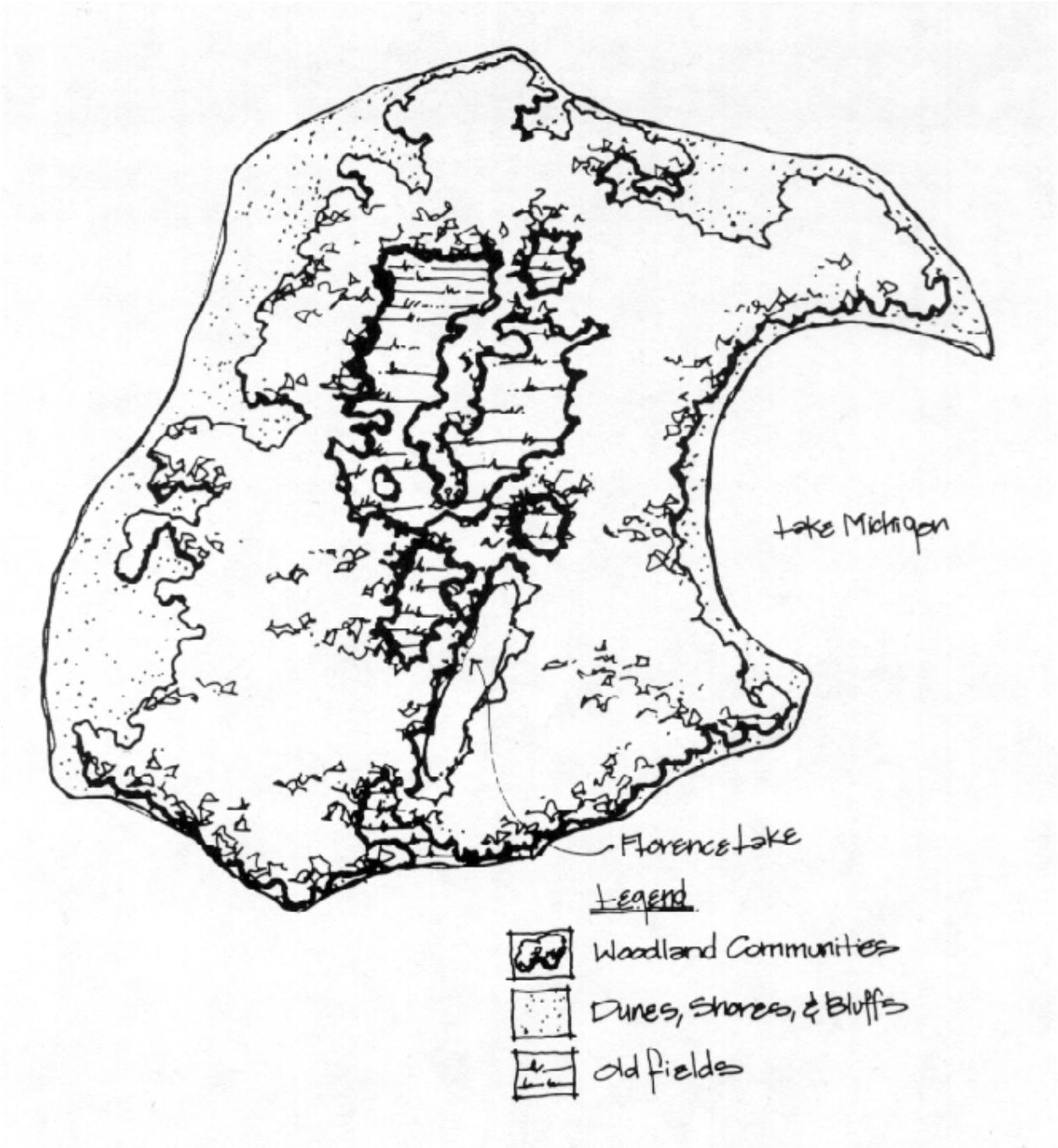


FIGURE 111
MANAGEMENT ALTERNATIVE – OPTION F
SCHEMATIC REPRESENTATION OF DESIRED FUTURE CONDITIONS

Summary and Recommendation

Considering a range of possible management approaches for the historic agricultural landscapes at South Manitou Island has resulted in giving consideration to the positive and negative impacts that they would have on both natural and cultural resources. Only a few of the large number of possible options have been presented, but these demonstrate a range of policies that attempt to represent the views of those individuals who are concerned with both natural and cultural resources. When reviewing the options, the following observations were noted regarding their appropriateness for application.

Option A

Recent documentation of South Manitou's agricultural history indicates that the island's agricultural landscapes are significant in relation to three National Register criteria: exploration and settlement, agriculture, and science. In light of this evidence, the policy stated for Option A is inappropriate, since it does not recognize a significant resource that exists and should be preserved.

While the interpretation goals indicate the need to communicate the island's agricultural history to visitors, implementation of the landscape management policy in Option A would eliminate the most meaningful tool for accomplishing this--namely, the historic landscape features. Now that the evaluation of these resources has been completed, it is no longer an acceptable option to allow them to disappear due to neglect. Their significance has been documented, and their importance as existing resources is clear. The value of *potential* resources that *might* develop, given the implementation of Option A, is unclear. If it is determined that these potential resources may be significant, an in-depth study that documents their significance, and the degree to which success can be predicted, should be conducted. Once that is complete, resource managers with in depth knowledge of both issues (the cultural landscape and natural resource issues) should plan together to determine the most beneficial policy and management approaches.

Option B

The implementation of this policy would eventually lead to the deterioration of several significant historic landscape features. It preserves a small portion of the significant historic agricultural landscapes, but focuses on them as individual artifacts rather than as parts of an overall community. The relationships between the preserved properties and the significance of the island's history could be easily lost through the misunderstanding of what visitors see or hear. Therefore, to portray the significance of the island's agricultural history appropriately, the interpretative approach would need to be much more detailed than it is currently. This program should focus on both the interpretation of the islander's day-to-day activities, and the explanation of the previous physical character of the island's landscapes.

Option C

The implementation of this policy would preserve a portion of the significant historic agricultural landscapes, but focuses on them as individual artifacts rather than as parts of an overall community. The relationships between the preserved properties and the significance of the island's history could be lost through the misunderstanding of what visitors see or hear. Therefore, to portray the significance of the island's agricultural history appropriately, the interpretative approach would need to be much more detailed than it is currently. This program should focus on both the interpretation of the islander's day-to-day activities, and the explanation of the previous physical character of the island's landscapes.

Option D

This option preserves the remaining significant historic agricultural landscapes located in the potential National Historic Landmark district, treating them as representatives of the previous community and its activities. The scope of the remaining open fields, while not as extensive as they once were, would indicate to the visitor that the previous residents of the island manipulated the landscape broadly.

The interpretation program could be less complex than it would need to be with Options A, B, and C, since the landscape remnants would have a greater ability to remind visitors of the physical characteristics of the island's agricultural history. As a result,

interpretation could focus on the details of the islander's day-to-day activities and provide an overall introduction to help visitors read the landscape.

Option E

This option also focuses on the resources associated with the potential National Historic Landmark district--preserving existing landscape characteristics--while rehabilitating selected structures and restoring two significant landscapes. The adaptive approach used for Option E allows some historic structures to continue to contribute to life on the island, rather than simply acting as a backdrop and reminder of previous activities. In this scenario, selected structures are treated in an "island way," and reused at their highest potential to serve the needs of current islanders. In addition, the option recommends that two landscapes be restored to a condition representative of the period of significance. This restoration would result in a higher level of integrity at the two farmsteads. The sites, as whole *landscapes*, would more effectively illustrate the historic setting and relationships that exist between the components on the sites.

Option F

This option represents the most extensive proposal for management of the island's historic agricultural landscapes. Adoption of this option would result in the preservation of many of the existing old fields. This would add to the ability of the landscapes to represent the island's agricultural history (in comparison to options A through E). Maintaining the fields south of the core area would require active management in what currently is a potential wilderness area, requiring that revisions be made to the General Management plan for the island.

In addition, this option recommends preserving the farmhouse at the Theodore Beck farm, due to its relationship to historic agriculture and its representation of early construction techniques. Also, it recommends that several sites where historic landscape components exist be interpreted as discovery sites. The characteristic features would decompose naturally, thereby presenting tangible examples of the landscape processes that slowly cause change over time. The combination of these discovery sites with preserved historic agricultural landscapes would provide island visitors with

opportunities to compare and contrast the situations and help to stimulate consideration of the activities and processes that have occurred.

The cultivation of fields for crops at the August and Elizabeth Beck and Conrad and Mary Ann Hutzler farms would increase the ability of the island's historic landscapes to communicate such character, but this practice would also reduce the representation of change over time. The island's landscapes have evolved since the heyday of farming, and this evolution is now part of the story. The landscape is a matrix, including representatives of all the time periods through which it has evolved. Freezing the landscape at one representative point in time would create an artificial character that would reduce its ability to help people recognize and understand the intertwining of historic cultural and natural processes as they have occurred and are still occurring on this island.

Options Considered. but Rejected

In addition to the options listed above, several other possibilities were considered. An example included conducting restoration activities at some open field sites; this would increase visual diversity by utilizing native plant species. In such a plan, the old field sites would increase, including a greater variety of plant visual diversity of forms, colors, and textures. This would be achieved by limiting opportunities for undesirable species and increasing opportunities for desirable species. This policy would create a different structural makeup for the old fields in the district. Since there is no evidence that the island ever supported native grassland communities in the area encompassed by the potential district, this scheme would result in the creation of a new plant community on the island, and not the restoration of an indigenous community. Like the existing old fields, this created community would always require management or disturbance in order to prevent the encroachment of native woodlands. Because this policy would support neither the significant cultural nor natural resources on the island, it was eliminated from consideration as an inappropriate option.

Recommended landscape management approach

The recommended landscape management approach for the potential historic district includes a combination of preservation, restoration, and rehabilitation of both natural and cultural landscape features. Given the current condition of the resources, and the joint goals for management of the island's landscapes, Option E represents the most appropriate alternative for the land within the potential historic agricultural district. In addition to those presented in Option E, landscape management recommendations include stabilizing the farmhouse at the Theodore and Alvina Beck farm, and interpreting historic ruins and discovery sites, as listed in Option F.

The above recommendation provides for the preservation of the existing contributing landscape components within the potential National Register district, and restoration of two significant sites, as well as the interpretation of ruins and discovery sites. This combination creates a range of representative cultural and natural landscapes, thereby enabling comprehensive interpretation of the island's agricultural history.

RECOMMENDED OPTION: Preserve and rehabilitate the significant historic landscape features located within the potential National Register District

Policy: Preserve the significant historic agricultural landscape features located within the potential National Register District and rehabilitate selected historic structures to allow contemporary use; in all other areas restore a vegetation complex made up of plant communities that are representative of those present on the island before European settlement.

Design Description: This plan includes the preservation and rehabilitation of the historic landscape features located within the potential National Register District:

- The Hutzler pig barn would be preserved (this would include the management of approximately one-quarter acre of land);
- The island cemetery would be preserved;
- The schoolhouse would be preserved (including approximately one-half acre of land);
- The historic structures and cultural landscape components associated with the following farms would be preserved:
  - August and Elizabeth Beck farm: farmhouse, farm building, stovewood barn foundation, shed, grave site, tree line, knoll with apple trees, sugar maples and ash trees near house, asparagus path, line of arborvitae behind house;
  - Conrad and Mary Ann Hutzler farm: farmhouse, three sheds, chicken coop, barn, granary, corn crib, grave, apple trees near house, birch, ash and fir trees near buildings, scattered fruit trees, berry bushes;
  - George Johann Hutzler farm: farmhouse, grave sites, apple tree near farmhouse, carriage house ruins, privy, shed ruins, shack ruins;
- The open fields and orchards at the Foster (approximately 68 acres) and W. Haas (approximately 36 acres) farms, the fields on the property adjacent to the W. Haas farm--the southwestern corner of the G.J. Hutzler property (approximately 26 acres), and the Anderson farms (approximately 83 acres), would be preserved;
- The old fields at the August Beck (approximately 81 acres) and Conrad Hutzler (approximately 72 acres) farms would be preserved;
- The significant open fields and orchards located along the path on the west side of Florence Lake would be preserved (approximately 52 acres);
- The open fields associated with the Theodore Beck farm would be preserved (approximately 27 acres); The residence at the Theodore Beck farm would be stabilized so it will remain a visual part of the farmstead;
- The residences at the George Johann Hutzler, and August Beck farms would be rehabilitated to enable their use for group camping, interpretative programs, or housing for volunteers in the park. The shed and the granary at the August Beck farm would be rehabilitated to enable their use for storage, or interpretative programs;
- The barns and sheds at the George Conrad Hutzler farm would be rehabilitated to enable their use for storage, or interpretative programs.

The option also includes the restoration of two landscapes that have historic significance:

- Restore the spatial and visual character of the hill northwest of the George Conrad Hutzler farmhouse, where Conrad Hutzler's grave is located, so that the farm may be viewed from the grave site (approximately two and one-half acres).
- Restore the spatial and visual character of the hill south of the August Beck stovewood barn foundation, thereby re-establishing the farm setting as indicated in historic photographs (approximately three and one-half acres).
- Selected buildings or ruins of buildings would be included in the interpretive program for the sites, acting as "discovery sites."

Effects on Natural Resources

The implementation of this policy allows for the maintenance of the majority of the current landscape matrix in relation to land cover types. The majority of the old fields located outside of the potential National Register district would eventually generate into hardwoods. The cover type of the two areas that are to be restored to their historic cultural condition would change from their current early-successional woodland status and be maintained as a grass/forb complex. Care should be taken to ensure minimum impact on nesting birds and other wildlife use of the fields. Mowing should not occur before the fifteenth of August in any year. Also, the rehabilitation and reuse of structures would lead to more intensive use of the areas near them, creating impacts related to waste disposal and trampling.

Effects on Cultural Resources

The implementation of this policy would ensure the preservation of the island's significant, extant historic landscape features within the potential National Register district. The rehabilitation of several of the structures associated with the farms would result in their active inclusion in the island's contemporary use. This could have both positive and negative impacts in relation to the interpretation of the historic sites. Because people would have greater access to the sites, and be able to stay overnight in these locations, they could gain an increased understanding of what it was like to live on these farms. On the other hand, the increased number of people and use at these sites would reduce the striking sense of history that one feels when visiting the farm sites. On-going use could make them seem more closely associated with contemporary use than with previous activities that no longer exist.

The preservation of old fields and other cultural landscape features would provide a context in which visitors could readily understand the extent of island agriculture. Also, the restoration of the two small areas, from early successional forest to open fields, would increase the ability of the two farms to represent the island's significant agricultural history. Interpretation would play an important role in the communication of the island's agricultural history, emphasizing that the extant agricultural features represent the remains of an active farming community.

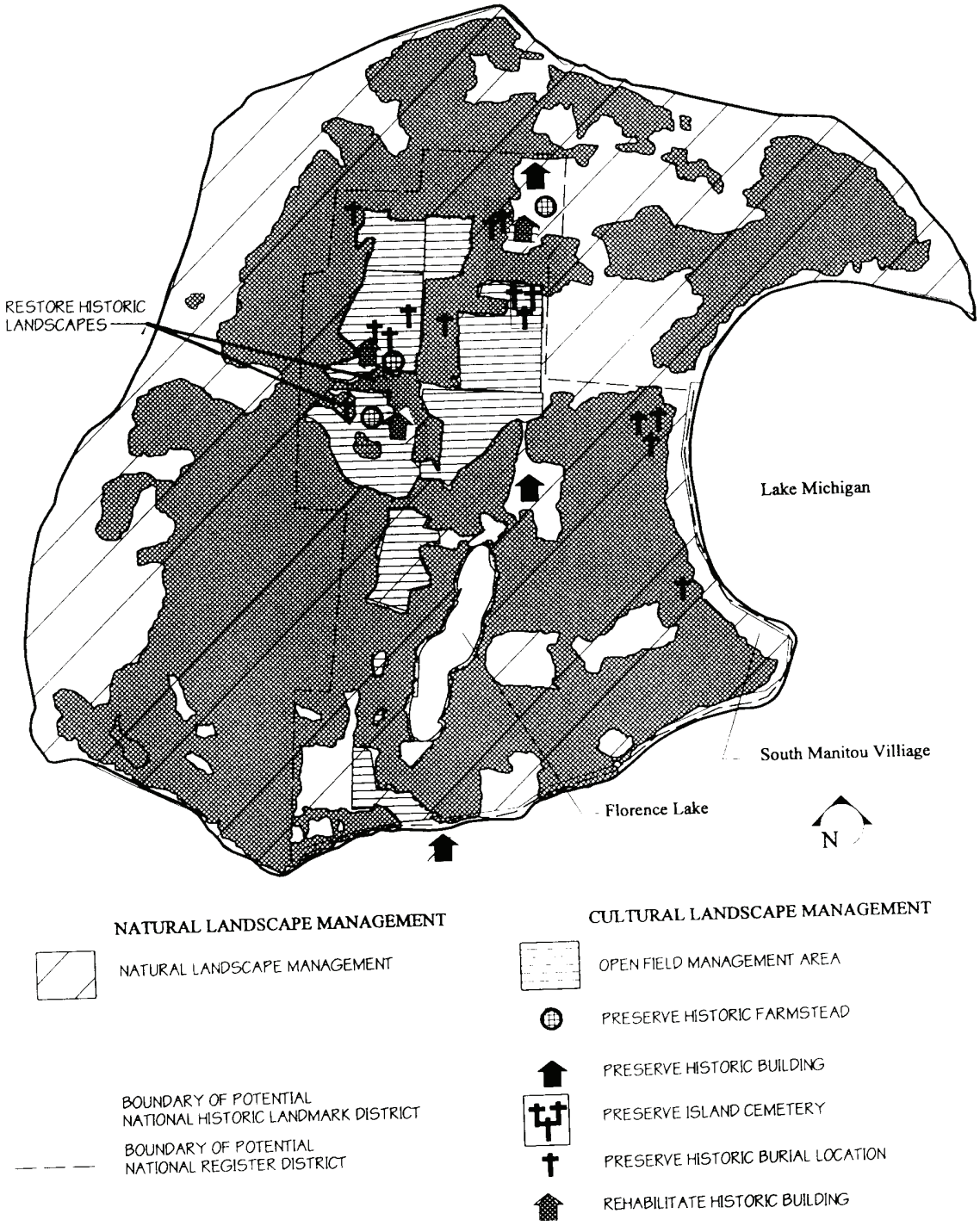


FIGURE 112
RECOMMENDED MANAGEMENT

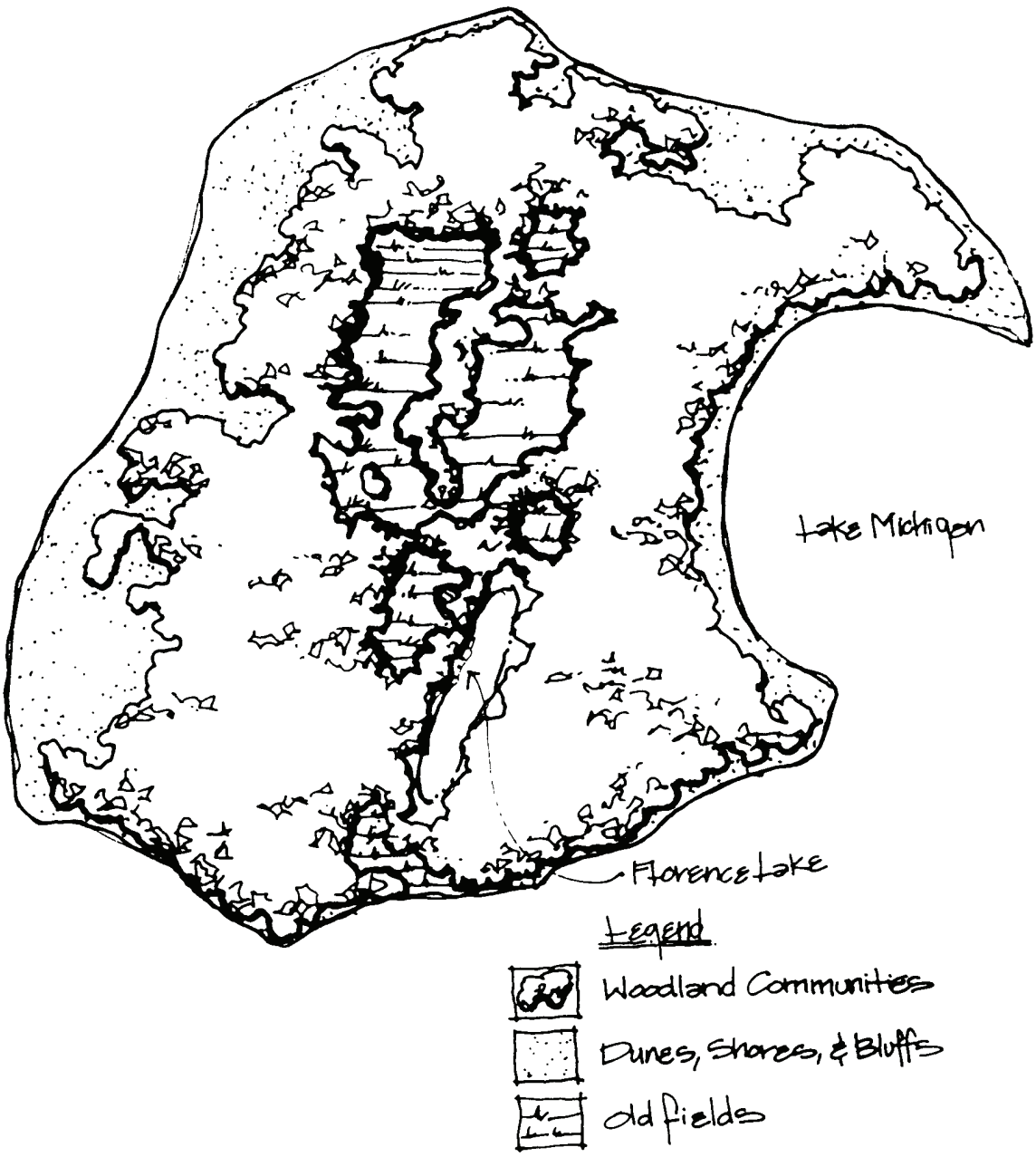


FIGURE 111
RECOMMENDED OPTION
SCHEMATIC REPRESENTATION OF DESIRED FUTURE CONDITIONS

Appendix

Appendix A
Definitions of Landscape Management Terms

1. DEFINITIONS BY RESTORATION ECOLOGISTS

(Note: The definitions in this section are from Howell and Harrington, 1993, unless noted otherwise.[1])

GENERAL TERMS

Native Plants: Species that were in the area prior to European settlement, and evolved in the absence of the influences of "modern" civilization.

Exotic Plants: "Species from other places (Europe, Asia, other parts of the New World), brought here after European settlement."

Pests: "Plants that "interfere" with the growth of desired species. May be native or exotics."

Forb: "A non-grass-like flowering plant."

Plant Community Succession: "An orderly process of change in composition, structure, and/or processes."

LANDSCAPE TREATMENTS:

Conservation: A set of activities "undertaken to ensure the continuance of natural selection and its products."[2]

Preservation: Conservation activities applied in situations in which most of the desired products are present.[3]

Ecological Restoration: Conservation activities applied in situations in which most of the desired products are missing.[4]

[1] Evelyn Howell and John Harrington, 'Selected Definitions,' class handout in LA 666 Design and Management: Native Plant Communities (University of Wisconsin, Department of Landscape Architecture, Fall, 1993).
[2] Evelyn Howell, "The Role of Restoration in Conservation Biology," in Endangered Species Update (Vol. 5 No.3 & 4), 1.
[3] Ibid.
[4] Ibid.

Vegetation Management: "The determination of strategies and the implementation of techniques that influence or direct change in the portion of the landscape dominated by plants."

VEGETATION MANAGEMENT TERMS

Hands-off Approach - No active management of plant communities. This approach allows the plant communities to develop without interference. It is important to recognize that this approach does not necessarily lead to the second development of a former community. In many cases the invasion of exotic species and the extinction of native species have removed the possibility of recreating a former community. Managers should recognize and accept this and understand that the approach allows for the generation of a new community. On South Manitou Island, the isolation of the plant communities from mainland communities (to a great extent) could provide a very good opportunity to study the effects of hands-off restoration management if research is conducted that focuses on the structures and functions of the island communities and their development over time.

Eliminate or Discourage Undesirable Species - Remove competition by plants. In some cases, removal of undesirable plants may be absolutely necessary in order for the desired species to establish. In other situations, their removal may not be necessary but would serve to accelerate the establishment of desired plant communities. Generally, the more a non-native species shares adaptive traits with the natives, the more likely it will have to be removed to achieve the desired effects.

- By hand
- Mechanical
- Chemical
- Fire

Encourage desirable species

- Mimic "natural" disturbances
- Improve soil conditions
- Add desirable species
- Control-monitor disease
- Fire

Add Desired Species

- Preparation of a good planting medium.
- Amelioration of site conditions.
- Planting.
  - By hand (seed, seedlings, transplants, sod, etc.)
  - With mechanical equipment (seed drill or mechanical planters, seed spreaders, hydroseed.)

Control Disease

- Monitor plants that are susceptible to damaging diseases and pests.
- When disease or pests are identified as a problem, address them on a case by case basis to determine whether elimination or hands-off approaches are most appropriate.

DEFINITIONS BY CULTURAL LANDSCAPE SPECIALISTS

GENERAL TERMS:

Biotic cultural resources: "Communities of plants and animals associated with human settlement and land use in historic districts. Because these biotic features are products of land use and management, they are cultural resources; they are distinct from the native vegetation and wildlife of a historic district, which are natural resources."[5]

Historic character: "The physical appearance of a property as it has evolved over time, i.e. the original configuration together with losses and later changes."[6]

Historic landscape: "A geographic area, including both historic and natural features, associated with an event, person, activity, or design style that is significant in American history."[7]

[5] Ian J.W. Firth, Biotic Cultural Resources Management Considerations for Historic Districts in the National Park System. Southeast Region (Atlanta, Georgia: U. S. Department of the Interior, National Park Service, Southeast Regional Office, 1985), 1.
[6] National Park Service, Draft Guidelines for the Treatment of Historic Landscapes. (Washington, D.C.: U.S. Department of the Interior, NPS, Preservation Assistance Division, Technical Preservation Services Branch, 1992), 4
[7] Ibid.

Historic vernacular landscape: "A landscape whose use, construction, or physical layout reflects endemic traditions, customs, beliefs or values; in which the expression of cultural values, social behavior, and individual actions over time is manifested in the physical features and materials and their interrelationships, including patterns of spatial organization, land use, circulation, vegetation, structures, and objects; in which the physical biological, and cultural features reflect the customs and everyday lives of people."[8]

Historic rural landscape: "A geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features."[9]

Historic significance: "The importance for such a property has been evaluated and found to meet the National Register criteria."[10]

Integrity: "The authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period. The seven qualities of integrity are location, setting, feeling, association, design, workmanship, and materials."[11]

Period of significance: "The span of time when a property was associated with important events, activities, persons, cultural groups, and land uses or attained important physical qualities or characteristics."[12]

[8] Ibid.
[9] Linda Flint McClelland, 1. Timothy Keller, Genevieve P. Keller, Robert Z. Melnick, National Register Bulletin 30 Guidelines for Evaluating and Documenting Rural Historic Landscapes (Washington, D C U S Department of the Interior, NPS, Interagency Resources Division, 1990), 1-2.
[10] National Park Service, National Register Bulletin 16: How to Complete the National Register Registration Form (Washington, D.C.: U.S. Department of the Interior, National Park Service, Interagency Resources Division, 1991).
[11] Ibid.
[12] McClelland Keller, Keller, Melnick, 21.

LANDSCAPE TREATMENTS:

Protection: "The act or process of applying measures necessary to safeguard the historic character of a property by defending or guarding it from further deterioration, loss, or attack, or to shield it from danger or injury. In the case of buildings, structures, objects, or landscapes, such treatment is generally of a temporary nature and anticipates future historic preservation treatment."[13]

Stabilization: "The act or process of applying measures to re-establish the stability of a unsafe, damaged or deteriorated property while retaining the essential form as it exists at present."[14]

Preservation: "The act or process of applying measures to sustain the existing terrain and vegetative cover of a site and the existing form, integrity, and material of an object or structure. It includes initial stabilization work, where necessary, as well as ongoing maintenance."[15]

Rehabilitation: "The act or process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical and cultural values."[16]

Restoration: "The act or process of recovering the general historic appearance of a site or the form and details of an object or structure, by the removal of incompatible natural or human caused accretions and the replacement of missing elements. Restoration can be for exteriors and interiors, and may be partial or complete."[17]

Reconstruction: "Accurately recreating a (cultural resource) which no longer exists to its original appearance or to its appearance at a given point in its history. Reconstruction can be full or partial."[18] This approach is not endorsed by the NPS except in special cases.

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[13] National Park Service, The Secretary of the Interior's Standards for Historic Preservation Projects, (Washington, D.C.: U.S. Department of the Interior, NPS, Preservation Assistance Division, 1985). The rehabilitation standards were revised in 1990; the other standards are currently being revised.
[14] Ibid.
[15] National Park Service, NPS 28: Cultural Resource Guidelines (Washington, D C U S Department of the Interior, NPS, History Division, draft Release No. 4, 1991), 12.
[16] National Park Service, The Secretary of the Interior's Standards for Historic Preservation Projects.
[17] National Park Service, NPS 28: Cultural Resource Guidelines (Washington, D.C.: U.S. Department of the Interior, NPS, History Division, draft Release No. 4, 1991), 13.
[18] Ibid., 13.

VEGETATION MANAGEMENT

Vegetation management around historic buildings

- Remove herbaceous species from within 50 feet of the building by mowing a 50-foot wide swath around the building on a regular schedule.
- Remove undesirable woody species from within 50-feet of the building by hand pulling and cutting.

Vegetation management at historic sites

- Mow and trim around historic objects on a regular schedule.
- Remove undesirable woody species that pose a threat to the integrity, or visual character of the historic objects by hand pulling and cutting with non-power tools.
- Release the vegetation (hands-off).

Management of historic vegetation - trees

- Pull and cut undesired woody species from under and around the historic trees.
- Mow and trim under and around historic trees.
- Prune trees when weak branches threaten to damage them.
- Release the vegetation (hands-off).

Management of historic vegetation - fields

- Establish set boundaries of the old fields to be maintained by choosing edge of field management locations according to the historic landscape evaluation (using historic and contemporary aerial photographs), locating these places in the field through surveying methods, and setting permanent markers in the field that can be easily located by maintenance staff, but are not visually distracting.
- Mow a 50-foot wide swath along the permanent old field boundaries.
- Mow a 50-foot wide swath around the fields where the existing forest edge meets the field.
- Pull and cut by hand undesirable woody plant species located inside the old fields.
- Mow the old fields on a regular schedule.
- Burn the old fields on a regular schedule.

Management of landscape objects

- Preserve landscape objects by mowing, cutting and pulling undesirable plants that are growing up and around them.

Appendix B
Federal Population Census Tabulations for South Manitou Island[19]

[19] These tables were prepared by using the manuscript schedules for the Federal Population Census. In some cases the manuscript schedules are not legible, or information from one period to the next does not agree. Discrepancies found in the manuscripts are noted on each page.

South Manitou Island, 1860

Name	Sex	Age	Place of Birth	Occupation	Value of Real Estate	Value of Personal Estate
?, Frances	M	32	Norway?	Day Laborer	$0	$120
?	F	24	Norway?			
?	F	8?	Norway?			
?	F	8?	Norway?			
?, John	M	32	?	?	?	?
?, Katherine	F	?	?			
?	M	?	?			
?, Edgar	M	?	?			
?	?	2	?			
Blanket, John	M	55	Norway	Day Laborer	$0	$150
Blanket, Harriet	F	31	Norway			
Blanket, Jane	F	7	New York?			
Blanket, Mary	F	5	New York			
Blanket, Alm	M	10 Mo	Michigan			

Appendix B-1
Federal Population Census, 1860: South Manitou Island[20]

[20] The manuscript copy for the 1860 Federal Population Census available in the library of the State Historical Society of Wisconsin contains a number of entries that are not legible. These have been indicated on the tables with a question mark (?).

South Manitou Island, 1860 (continued)

Name	Sex	Age	Place of Birth	Occupation	Value of Real Estate	Value of Personal Estate
Burdick, Putnam	M	52	New York	Farmer	$1,400	$200
Burdick, Mellissa	F	31	Ohio			
Burdick, Ann	F	18	Michigan			
Burdick, Mary	F	16	Michigan			
Burdick, Andrew	M	14	Michigan			
Burdick, George	M	12	Michigan			
Burdick, Fanny	F	2	Michigan			
Burdick, Frank	M	1	Michigan			
Burton, Covel	M	27	Ohio	Day Laborer	$0	$150
?	F	22	England			
Burton, Elely	M	37	Ohio	Day Laborer	$0	$100
Burton, Ann	F	33	Ireland			
Burton, Kate	F	13	Ohio			
Burton, Mate	M	10	Ohio			
Burton, Frances	F	8	Michigan			
Burton, William	M	5	Ohio			
Burton, William	M	65	Vermont	Farmer	$2,000	$558
Burton, Marett?	F	60				

- In the 1870 census, Putnam Burdick is age 55, born in New York, a Farmer, a Farmer, VRE=3750. VPE=725.
- In the 1870 census, Mellissa Burdick is age 52. born in Badin. Keeping House
- In the 1880 census, Andrew Burdick is age 28, born in Michigan. Fathers POB Michigan, Mother's POB Germany. Farmer. In the 1900 census, Andrew Burdick is age 53, POB New York, Father's POB New York, Mother's POB Germany. Farmer.
- In the 1870 census, Fanny Burdick is age 11, born in Michigan.
- In the 1870 census, Frank Burdick is age 17, born in Michigan.
- In the 1870 census, Ann Burton is Anna Burton, is age 47, born in New York.
- In the 1870 census. Frances Burton is Francis Burton, age 18, born in Michigan.

Appendix B-1 (continued)

South Manitou Island, 1860 (continued)

Name	Sex	Age	Place of Birth	Occupation	Value of Real Estate	Value of Personal Estate
Fritz, William	M	30	Denmark	?	?	$125
Fritz, Orgent	F	20	?			
Fritz, Charles	M	1 Mo	Michigan			
Glenn, Patrick	M	30	Ireland	Light Keeper	?	$100
Glenn, Mary	F	28	Ireland			
Glenn, John	M	8	Ohio			
Glenn, William	M	4	Ohio			
Hoolster, James	M	40	Bavary	Farmer	$200	$450
Hoolster, Rosa	F	40	?			
Hoolster, Elizabeth	F	19	?			
Hoolster, Margaret	F	15	?			
Hoolster, Louis	M	7	?			
Hoolster, Ann	F	6	?			
Hoolster, James	M	3	Michigan			
Hoolster, Edward B.	M	11 Mo	Michigan			
Kitchen, Richard	M	21	England	Farmer	$150	$50
Kitchen, Bridget	F	19	England			
Kitchen, Henry	M	8 Mo	Michigan			

- In the 1870 census, Richard Kitchen, age 37, born in England, Retail Grocer. In the 1880 census, Richard Kitchen is age 47, born in England, Father's POB England, Mother's POB England, Farmer.

Appendix B-1 (continued)

South Manitou Island, 1860 (continued)

Name	Sex	Age	Place of Birth	Occupation	Value of Real Estate	Value of Personal Estate
Kitchen, Thomas	M	25	England	Farmer	$100	$50
Kitchen, Hellen	F	23	England			
Kitchen, Thomas	M	6	Ohio			
Kitchen, Mary	F	3	Michigan			
Marsden, Moris	M	28	Ohio	Day Laborer	?	?
Marsden, Anne	F	30	Ohio			
Rockwell, James	M	30	New York	Day Laborer	$100	$25
Rockwell, Hellen	F	27	Michigan			
Rockwell, William	M	7	Michigan			
Rockwell, Flora	F	5	Michigan			
Rockwell, Albert	M	3	Michigan			
Rockwell, Mary	F	10 Mo	Michigan			
Saley, K. ?	M	31	Denmark	Day Laborer	$0	$125
Saley, Loita?	F	28	Denmark			
Saley, ?	M	7	Denmark			
Saley, Margaret?	F	4	Michigan			
Saley, Julia?	F	3 Mo	Michigan			

Appendix B-1 (continued)

South Manitou Island, 1860 (continued)

Name	Sex	Age	Place of Birth	Occupation	Value of Real Estate	Value of Personal Estate
Shoemaker, John	M	40	Norway	Shoe Maker	$0	$100
Shoemaker, Elizabeth	F	30	Norway			
Trisday, William	M	30	Pennsylvania	Day Laborer	$0	$140
Hersler, John	M	21	Holland	?	?	?
Graham, Hiram	M	60	New York	?	?	?
Birmsted, Henry	M	21	Holland	?	?	?
Kolway, Christ	M	25	Holland	?	?	?

Appendix B-1 (continued)

South Manitou Island, 1870

Name	Sex	Age	Place of Birth	Father Foreign Born?	Mother Foreign Born?	Occupation	Value of Real Estate	Value of Personal Estate
Abbot, Leland	M	24	New York	N	N	Framer	$2,000	$1,000
Abbot, Lois	F	21	New York	N	N	Keeping House		
Abbot, Archie	M	1	New York	N	N	At Home		
Abbot, Lydia	F	50	New York	N	N	Living w/daughter		
Armstrong, Thomas	M	34	Ireland	Y	Y	Farmer	$300	$260
Armstrong, Margaret	F	27	Ireland	Y	Y	Keeping House		
Armstrong, James	M	9	New York	Y	Y	At Home		
Armstrong, Emma	F	8	New York	Y	Y	At Home		
Armstrong, Thomas	M	5	Michigan	Y	Y	At Home		
Armstrong, Mary	F	2	Michigan	Y	Y	At Home		
Beck, Adolphias	M	58	Brunswick	Y	Y	Farmer	$400	$300
Beck, Dorothea	F	56	Prussia	Y	Y	Keeping House		
Beck, Theodore	M	29	Brunswick	Y	Y	Laborer		
Beck, Albert	M	25	Brunswick	Y	Y	Laborer		
Beck, Augustine	M	17	Brunswick	Y	Y	At Home		
Beck, Gustaff	M	50	Brunswick	Y	Y	Farmer	$600	$400
Beck, Catherine	F	55	Prussia	Y	Y	Keeping House		

- In the 1880 census, Thomas Armstrong is age 51, born in Ireland, Father POB Ireland, Mother's POB Ireland, Farmer.
- In the 1880 census, Margaret Armstrong is age 44, born in Ireland, Father's POB Ireland, Mother's POB Ireland, Keeping House.
- In the 1880 census, Thomas Armstrong is age 13, born in Michigan, Father's POB Ireland. Mother's POB Ireland, Farmer. In the 1900 census, Thomas Armstrong is age 34, born in Michigan, Father's POB Ireland, Mother's POB Ireland, Light Keeper.
- In the 1880 census, James Armstrong is age 18, born in New York, Father's POB Ireland, Mother's POB Ireland, Farmer.
- In the 1880 census, Mary Armstrong is age 11, born in Michigan, Father's POB Ireland, Mother's POB Ireland.
- In the 1880 census, Emma Armstrong is age 17, born in New York, Father's POB Ireland, Mother's POB Ireland.

Appendix B-2
Federal Population Census, 1870: South Manitou Island

South Manitou Island, 1870 (continued)

Name	Sex	Age	Place of Birth	Father Foreign Born?	Mother Foreign Born?	Occupation	Value of Real Estate	Value of Personal Estate
Burdick, Putnam	M	55	New York	N	N	Farmer	$3,750	$725
Burdick, Melissa	F	52	Badin	Y	Y	Keeping House		
Burdick, Frank	M	17	Michigan	N	Y	At Home		
Burdick, Fanny	F	11	Michigan	N	Y	At Home		
Burton, Ellison	M	51	Vermont	N	N	Wood Merchant	$8,000	$5,000
Burton, Anna	F	47	New York	N	N	Keeping House		
Burton, Mary	F	19	Michigan	N	N	At Home		
Burton, Frances	F	18	Michigan	N	N	At Home		
Burton, Willis	M	15	Ohio	N	N	At Home		
Burton, Alfred	M	12	Michigan	N	N	At Home		
Burton, Jessie	F	9	Michigan	N	N	At Home		
Burton, Carrie	F	4	Illinois	N	N	At Home		
Evans, Alfred	M	36	England	Y	Y	Farmer	$600	$510
Evans, Hannah	F	39	England	Y	Y	Keeping House		
Evans, Albert	M	11	Wisconsin	Y	Y	At Home		
Evans, Fanny	F	8	Wisconsin	Y	Y	At Home		
Foster, Thomas	M	13	Michigan	Y	Y	At Home		
Foster, William	M	11	Michigan	Y	Y	At Home		

- In the 1860 census. Putnam Burdick is age 52, born in New York, Farmer, VRE 1400 VPE 200.
- In the 1860 census, Mellissa Burdick is age 31, born in Ohio.
- In the 1860 census, Fanny Burdick is age 2, born in Michigan.
- In the 1860 census, Frank Burdick is age 1, born in Michigan.
- In the 1860 census, Anna Burton is Ann Burton, age 33, born in Ireland.
- In the 1860 census, Francis Burton is Frances Burton, age 8, born in Michigan.

Appendix B-2 (continued)

South Manitou Island, 1870 (continued)

Name	Sex	Age	Place of Birth	Father Foreign Born?	Mother Foreign Born?	Occupation	Value of Real Estate	Value of Personal Estate
Haas, George	M	42	Bavaria	Y	Y	Farmer		
Haas, Mary	F	45	Bavaria	Y	Y	Keeping House		
Haas, Elizabeth	F	14	New York	Y	Y	At Home		
Haas, Joseph	M	17	Bavaria	Y	Y	At Home		
Haas, John	M	15	Bavaria	Y	Y	At Home		
Haas, Henry	M	10	Michigan	Y	Y	At Home		
Haas, William	M	12	Michigan	Y	Y	At Home		
Hutzler, Conrad	M	49	Bavaria	Y	Y	Farmer		
Hutzler, Christina	F	34	Saxony	Y	Y	Keeping House		
Hutzler, Mary Ann	F	8	Pennsylvania	Y	Y	At Home		
Hutzler, Catherine	F	4	New York	Y	Y	At Home		
Hutzler, Margaret	F	1	Michigan	Y	Y	At Home		
Hutzler, Roland*	M	13	Pennsylvania	Y	Y	At Home		
Hutzler, George	M	56	Bavaria	Y	Y	Farmer	$600	$1,100
Hutzler, Martha	F	50	Bavaria	Y	Y	Keeping House		
Hutzler, Ania	F	22	Bavaria	Y	Y	At Home		
Hutzler, George	M	15	New York	Y	Y	At Home		
Hutzler, Catharine	F	9	Michigan	Y	Y	At Home		
Hutzler, John	M	7	Michigan	Y	Y	At Home		
Hutzler, Ludwig	M	4	Michigan	Y	Y	At Home		
Hutzler, Louisa	F	1	Michigan	Y	Y	At Home		

* Actually Roland Shank, stepson

Appendix B-2 (continued)

South Manitou Island, 1870 (continued)

Name	Sex	Age	Place of Birth	Father Foreign Born?	Mother Foreign Born?	Occupation	Value of Real Estate	Value of Personal Estate
Kitchen, Richard	M	37	England	Y	Y	Retail Grocer	$800	$600
Kitchen, Sarah	F	37	England	Y	Y	Keeping House		
Kitchen, Mary	F	11	Michigan	Y	Y	At Home		
Kitchen, Elizabeth	F	9	Michigan	Y	Y	At Home		
Kitchen, Melissa	F	7	Michigan	Y	Y	At Home		
Kitchen, Martha	F	3	Michigan	Y	Y	At Home		
Kitchen, Clara	F	1	Michigan	Y	Y	At Home		
Price, Thomas	M	35	Badin	Y	Y	Farmer	$800	$396
Price, Mary	F	37	Ireland	Y	Y	Keeping House		
Kitchen, William	M	15	Ohio	Y	Y	At Home		
Kitchen, Sarah	F	12	Michigan	Y	Y	At Home		
Kitchen, Thomas	M	6	Michigan	Y	Y	At Home		
Sheridan, Aaron	M	35	New York	N	N	Farmer	$200	$600
Sheridan, Julia	F	25	New York	N	N	Keeping House		
Sheridan, Levi	M	?	Michigan	N	N	At Home		
Sheridan, George	M	2	Michigan	N	N	At Home		
Sheridan, James	M	69	Rhode Island	N	N	Laborer		
Smith, William	M	29	Pennsylvania	N	N	Farmer	$0	$200
Smith, Jane	F	26	Michigan	N	Y	Keeping House		
Smith, Kate	F	2	Michigan	N	N	At Home		

- In the 1860 census, Richard Kitchen is age 21, born in England, Farmer, VRE 150, VPE 50. In the 1880 census, Richard Kitchen is age 47, born in England, Father's POB England, Mother's POB England, Farmer.

Appendix B-2 (continued)

South Manitou Island, 1880

Name	Relationship	Sex	Age	Marital Status	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Occupation
Abbot, George	Head	M	31	M	New York	New York	New York	No Occupation
Abbot, Louise	Wife	F	29	M	New York	New York	New York	Keeping House
Abbot, Archibald	Son	M	11	S	New York	New York	New York	At Home
Abbot, Lillian	Daughter	F	8	S	Michigan	New York	New York	At Home
Abbot, Robert	Son	M	5	S	Michigan	New York	New York	At Home
Abbot, George	Son	M	1	S	Michigan	New York	New York	At Home
Ankerson, ?	Head	M	33	M	Denmark	Denmark	Denmark	Fisherman
Ankerson, Cena	Wife	F	26	M	Denmark	Denmark	Denmark	Keeping House
Armstrong, Thomas	Head	M	51	M	Ireland	Ireland	Ireland	Farmer
Armstrong, Margaret	Wife	F	44	M	Ireland	Ireland	Ireland	Keeping House
Armstrong, James	Son	M	18	S	New York	Ireland	Ireland	Farmer
Armstrong, Emma	Daughter	F	17	S	New York	Ireland	Ireland	At Home
Armstrong, Thomas	Son	M	13	S	Michigan	Ireland	Ireland	Farmer
Armstrong, Mary	Daughter	F	11	S	Michigan	Ireland	Ireland	At Home
Armstrong, William	Son	M	8	S	Michigan	Ireland	Ireland	At Home
Armstrong, Alfred	Son	M	5	S	Michigan	Ireland	Ireland	At Home
Armstrong, Ann	Daughter	F	3	S	Michigan	Ireland	Ireland	At Home

- In the 1870 census, Thomas Armstrong is age 34, born in Ireland, Farmer. VRE 300, VPE 260.
- In the 1870 census, Margaret Armstrong is age 21, born in Ireland, Keeping House.
- In the 1870 census, Thomas Armstrong is age 5, born in Michigan. In the 1900 census, he is age 34, born in Michigan, Father's P0B Ireland, Mother's P0B Ireland, Light Keeper.
- In the 1870 census, James Armstrong is age 9, born in New York..
- In the 1870 census, Mary Armstrong is age 2, born in Michigan.
- In the 1870 census, Emma Armstrong is age 8, born in New York.

Appendix B-3
Federal Population Census, 1880: South Manitou Island

South Manitou Island, 1880 (continued)

Name	Relationship	Sex	Age	Marital Status	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Occupation
Beck, August	Head	M	27	M	Brunswick	Brunswick	Prussia	Farmer
Beck, Elizabeth	Wife	F	24	M	New York	Baer	Baer	Keeping House
Beck, Mary	Daughter	F	6	S	Michigan	Brunswick	New York	At Home
Beck, Jemimah	Daughter	F	3	S	Michigan	Brunswick	New York	At Home
Beck, Allivei	Daughter	F	2	S	Michigan	Brunswick	New York	At Home
Beck, Armid	Son	M	6 Mo	S	Michigan	Brunswick	New York	At Home
Beck, Christopher	Head	M	59	M	Brunswick	Brunswick	Brunswick	Farmer
Beck, Catherine	Wife	F	65	M	Prussia	Prussia	Prussia	Keeping House
Beck, Theodore	Head	M	38	S	Brunswick	Brunswick	Prussia	Farmer
Beck, Albert	Brother	M	35	S	Brunswick	Brunswick	Prussia	Farmer
Beck, Dorothea	Mother	F	64	Widowed	?	Prussia	Prussia	Sick-Rheumatism
Burdick, Andrew	Head	M	28	M	Michigan	Michigan	Germany	Farmer
Burdick, Sarah	Wife	F	23	M	Michigan	England	Ireland	Keeping House
Burdick, James	Son	M	3	S	Michigan	Michigan	Michigan	At Home
Burdick, Ann	Daughter	F	1	S	Michigan	Michigan	Michigan	At Home
Burdick, Jane	Daughter	F	4 Mo	S	Michigan	Michigan	Michigan	At Home
Burton, E.E.	Head	M	61	M	Vermont	Vermont	Bermand	Wood Merchant

- In the 1900 census, August Beck is age 47 born in Germany, Fathers P08 Germany, Mothers P08 Germany, Year of Imm. 1869, Farmer. In the 1910 census, August Beck is age 57, born in Germany, Father's P0B Germany, Mother's P0B Germany, Year of Imm. 1869, Farmer. In the 1920 census, August Beck is age 67, born in Brunswick/German, Father's P0B Brunswick/German, Mother's POB Brunswick/German, Year of Imm. 1869.
- In the 1900 census. Elizabeth Beck is age 44, born in New York, Father's P0B Germany, Mother's POB Germany. In the 1910 census, Elizabeth is Lizzie Beck, age 54, born in New York, Father's P0B Germany. Mother's P0B Germany. In the 1920 census, Elizabeth is Lizzie Beck, age 64, born in New York, Fathers P0B Beier/German, Mother's POB Beier/German.
- In the 1900 census, Theodore Beck is age 58, born in Germany, Fathers P0B Germany, Mother's P0B Germany, Farmer. In the 1910 census, Theodore Beck is age 66 born in Germany, Father's P0B Germany, Mother's P0B Germany, Farmer.
- In the 1860 census, Andrew Burdick is age 14, born in Michigan.

Appendix B-3 (continued)

South Manitou Island, 1880 (continued)

Name	Relationship	Sex	Age	Marital Status	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Occupation
Evans, Hannah	Head	F	46	Widowed	England	England	England	Keeping House
Evans, Albert	Step-son	M	21	S	Wisconsin	England	England	Farmer
Foster, Thomas	Son	M	22	S	Michigan	England	England	Farmer
Foster, William	Son	M	21	S	Michigan	England	England	Farmer
Ehle, John	Boarder	M	31	S	New York	New York	New York	Fisherman
Frederickson, Henry	Head	M	30	S	Denmark	Denmark	Denmark	Fisherman
Frederickson, Peter	Brother	M	22	S	Denmark	Denmark	Denmark	Fisherman
Furst, Oswald	Head	M	35	M	Baden	Witchen	Rippleson	Book Binder
Furst, Dorridea	Wife	F	32	M	Brunswick	Brunswick	Prussia	Keeping House
Furst, Pauline	Daughter	F	2	S	Michigan	Witchen	Brunswick	At Home
Haas, George	Head	M	48	M	Baer	Baer	Baer	Farmer
Haas, Mary	Wife	M	55	M	Baer	Baer	Baer	Keeping House
Haas, William	Son	M	21	S	Michigan	Baer	Baer	Farmer
Haas, Henry	Son	M	19	S	Michigan	Baer	Baer	Farmer
Haas, Joseph	Head	M	24	M	Baer	Baer	Baer	Farm Laborer
Haas, Florence	Wife	F	17	M	Wisconsin	Canada	Canada	Keeping House
Haas, Isaac	Son	M	2 Mo	S	Michigan	Baer	Wisconsin	At Home

- In the 1900 census, Thomas Foster is age 42, born in Michigan, Father's POB England, Mother's FOB England, Farmer.
- In the 1900 census, Oswald Furst is age 60, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1874, Farm laborer. In the 1910 census, Oswald Furst is age 69, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1874, Farmer.
- In the 1900 census, Dorridea is Dora Furst, age 49, born in Germany, Father's POB Germany, Mother's POB Germany, year of Imm. 1874. In the 1910 census, Dorridea is Dora Furst, age 69, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1874.
- In the 1900 census, William Haas is age 32, born in Michigan, Father POB Germany, Mother POB Germany, Farm laborer.
- In the 1900 census, Henry Haas is age 39, is born in Michigan, Father's POB Germany, Mother's POB Germany, Farm laborer. In the 1910 census. Henry Haas is age 49, born in Michigan, Father's POB Germany, Mother's POB Germany, Farmer.

Appendix B-3 (continued)

South Manitou Island, 1880 (continued)

Name	Relationship	Sex	Age	Marital Status	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Occupation
Hutzler, Conrad	Head	M	58	M	Baer	Baer	Baer	Farmer
Hutzler, Mary Ann	Wife	F	45	M	Saxony	Saxony	Saxony	Keeping House
Hutzler, Catherine	Daughter	F	14	S	Michigan	Baer	Saxony	At Home
Hutzler, Margaret	Daughter	F	11	S	Michigan	Baer	Saxony	At Home
Hutzler, George	Son	M	8	S	Michigan	Baer	Saxony	At Home
Shank, Roland	Step-son	M	24	S	Pennsylvania	Saxony	Saxony	Farm Laborer
Hutzler, George	Head	M	66	M	Baer	Baer	Baer	Farmer
Hutzler, Margaret	Wife	F	60	M	Baer	Baer	Baer	Keeping House
Hutzler, George	Son	M	25	S	New York	Baer	Baer	Farmer
Hutzler, Catherine	Daughter	F	20	S	Michigan	Baer	Baer	No Occupation
Hutzler, John	Son	M	14	S	Michigan	Baer	Baer	Farmer
Hutzler, Louis	Son	M	13	S	Michigan	Baer	Baer	Farmer
Hutzler, Louisa	Daughter	F	11	S	Michigan	Baer	Baer	At Home
Hoef, (Kitty) Catherine	Grandchild	F	13	S	Michigan	Mecklenburg	Baer	At Home
Kitchen, Richard	Head	M	47	M	England	England	England	Farmer
Kitchen, Sarah	Wife	F	46	M	England	England	England	Keeping House
Kitchen, Martha	Daughter	F	13	S	Michigan	England	England	At Home
Kitchen, Alice	Daughter	F	10	S	Michigan	England	England	At Home
Kitchen, Jessie	Daughter	F	8	S	Michigan	England	England	At Home
Kitchen, Oscar	Son	M	5	S	Michigan	England	England	At Home

- In the 1900 census, George Hutzler is age 46, born in New York. Father's P0B Germany, Mother's P0B Germany, Farmer.
- In the 1900 census, Roland Shank is age 44, born in Penn., Father's P0B Germany, Mother's P0B Germany, Farm laborer. In the 1910 census, Roland Shank is age 53, born in Penn, Father's P0B Germany, Mother's P0B Germany, laborer.
- In the 1900 census, John Hutzler is age 36, born in Michigan, Father's POB Germany, Mother's P0B Germany, Farmer. In the 1910 census, John Hutzler is age 46, born in Michigan, Father's POB Germany, Mother's POB Germany, Farmer. In the 1920 census, John Hutzler is age 57. born in Michigan, Father's P0B Bavaria/German, Mother's P0B Bavaria/German, Farmer.
- In the 1860 census, Richard Kitchen is age 21, born in England, Farmer, VRE 150, VPE 50. In the 1870 census, Richard Kitchen is age 37, born in England, Retail Grocer, VRE 300, VPE 600.

Appendix B-3 (continued)

South Manitou Island, 1880 (continued)

Name	Relationship	Sex	Age	Marital Status	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Occupation
Miller, James	Head	M	36	M	Ireland	Ireland	Ireland	Farmer
Miller, Elizabeth	Wife	F	40	M	Ireland	Ireland	Ireland	Keeping House
Miller, Sarah Jane	Daughter	F	9	S	England	Ireland	Ireland	At Home
Miller, Edward	Son	M	7	S	Ireland	Ireland	Ireland	At Home
Miller, Alexander	Son	M	5	S	Michigan	Ireland	Ireland	At Home
Miller, Isabella	Daughter	F	1	S	Michigan	Ireland	Ireland	At Home
Price, Thomas	Head	M	44	M	Badin	Badin	Badin	Farmer
Price, Mary	Wife	F	53	M	Ireland	Ireland	Ireland	Keeping House
Kitchen, William	Step-son	M	25	S	Ohio	England	Ireland	Farmer
Kitchen, Thomas	Step-son	M	16	S	Michigan	England	Ireland	Farmer
Raimow, Issac	Head	M	40	M	Canada	Canada	Canada	Sailor
Raimow, Isabella	Wife	F	35	M	Canada	Canada	Canada	Keeping House
Raimow, Estella	Daughter	F	19	S	Wisconsin	Canada	Canada	No Occupation
Raimow, Mima	Daughter	F	13	S	Canada	Canada	Canada	At Home
Raimow, Emeline	Daughter	F	10	S	Canada	Canada	Canada	At Home
Raimow, Charles	Son	M	8	S	Michigan	Canada	Canada	At Home
Raimow, Adella	Daughter	F	6	S	Michigan	Canada	Canada	At Home
Raimow, Evelyne	Daughter	F	4	S	Michigan	Canada	Canada	At Home
Raimow, Eugene	Son	M	7 Mo	S	Michigan	Canada	Canada	At Home

Appendix B-3 (continued)

South Manitou Island, 1880

Name	Relationship	Sex	Age	Marital Status	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Occupation
Sheridan, Lyman	Head	M	43	M	New York	New York	New York	Lighthouse Keeper
Sheridan, Mary	Wife	F	35	M	New York	Scotland	Scotland	Keeping House
Sheridan, Phillip	Son	M	15	S	Michigan	New York	New York	At Home
Sheridan, Lilla	Daughter	F	9	S	Michigan	New York	New York	At Home
Sheridan, Francis	Son	M	7	S	Michigan	New York	New York	At Home
Sheridan, Frederick	Son	M	3	S	Michigan	New York	New York	At Home
Becker, Jeremiah	Boarder	M	55	M	New York	New York	New York	Light Keeper
Thompson, Alexander	Boarder	M	15	M	Scotland	Scotland	Scotland	Light Keeper

Appendix B-3 (continued)

South Manitou Island, 1900

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
Burdick, Andrew	Head	M	53	M	25	New York	New York	Germany		Farmer
Burdick, Ellen	Wife	F	43	M	25	Michigan	England	Ireland		
Burdick, James	Son	M	23	S		Michigan	New York	Michigan		Farm Laborer
Burdick, Anna	Daughter	F	21	S		Michigan	New York	Michigan		
Burdick, Caroline	Daughter	F	20	S		Michigan	New York	Michigan		
Burdick, William	Son	M	18	S		Michigan	New York	Michigan		Farm Laborer
Burdick, Andrew	Son	M	10	S		Michigan	New York	Michigan		At School
Erickson, Andrew	Head	M	70	M	30	Sweden	Sweden	Sweden	1868	Farmer
Erickson, Ulrica	Wife	F	74	M	30	Sweden	Sweden	Sweden	1882	
Hutzler, John	Head	M	36	M	7	Michigan	Germany	Germany		Farmer
Hutzler, Bertha	Wife	F	27	M	7	Germany	Germany	Germany	1880	
Hutzler, Stanley	Son	M	10 Mo	S		Michigan	Michigan	Germany		
Hutzler, Margaret	Head	F	79	W		Germany	Germany	Germany	1854	
Beck, August	Head	M	47	M	27	Germany	Germany	Germany	1869	Farmer
Beck, Elizabeth	Wife	F	44	M	27	New York	Germany	Germany		
Beck, Hattie	Daughter	F	16	S		Michigan	Germany	New York		At School
Beck, Erwin	Son	M	12	S		Michigan	Germany	New York		At School
Beck, Charles	Son	M	4	S		Michigan	Germany	New York		At School

(*) Marital Status: M=married, S=single, W=widowed

- In the 1860 census, Andrew Burdick is age 14, born in Michigan. In the 1880 census. Andrew Burdick is age 28, born in Michigan, Father's POB Michigan, Mother's POB Germany, Farmer.
- In the 1880 census, August Beck is age 27, born in Brunswick, Father's POB Brunswick, Mother's POB Prussia, Farmer. In the 1910 census, August Beck is age 57, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1869, Farmer. In the 1920 census, August Beck is age 67, born in Brunswick/German, Father's POB Brunswick/German, Mother POB Brunswick/German, Year of Imm. 1869.
- In the 1880 census, Elizabeth Beck is age 24, born in New York, Father's POB Baer, Mother's POB Baer.
- In the 1910 census, Erwin is Irwin Beck is age 22, born in Michigan, Father's POB Germany, Mother's POB New York, Laborer.
- In the 1910 census, Andrew Burdick is age 10, born in Michigan, Father's POB New York, Mother POB Michigan, Laborer.

Appendix B-4
Federal Population Census, 1900: South Manitou Island

South Manitou Island, 1900 (continued)

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
Hutzler, George	Head	M	27	M	7	Michigan	Germany	Germany		Farmer
Hutzler, Josephine	Wife	F	23	M	7	Michigan	Germany	New York		
Hutzler, Lewis	Son	M	4	S		Michigan	Michigan	Michigan		
Shank, Roland	Boarder	M	44	S		Pennsylvania	Germany	Germany		Farm Laborer
Price, Thomas	Head	M	67	M	31	Germany	Germany	Germany	1838	Farmer
Price, Mary	Wife	F	76	M	31	Ireland	Ireland	Ireland	1849	
Haas, Henry	Head	M	39	M	14	Michigan	Germany	Germany		Farm Laborer
Haas, Maggie	Wife	F	31	M	14	Michigan	Germany	Germany		
Haas, Rosa	Daughter	F	13	S		Michigan	Michigan	Michigan		At School
Haas, Harison	Son	M	10	S		Michigan	Michigan	Michigan		At School
Haas, John	Brother	M	40	W		Germany	Germany	Germany		Farm Laborer
Haas, William	Brother	M	32	S		Michigan	Germany	Germany		Farm Laborer
Hutzler, George	Head	M	46	M	17	New York	Germany	Germany		Farmer
Hutzler, Selma	Wife	F	33	M	17	Sweden	Sweden	Sweden	1882	
Hutzler, Ernest	Son	M	15	S		Michigan	New York	Sweden		At School
Hutzler, Lulu	Daughter	F	13	S		Michigan	New York	Sweden		At School
Hutzler, Lotta	Daughter	F	10	S		Michigan	New York	Sweden		At School
Hutzler, Blanche	Daughter	F	8	S		Michigan	New York	Sweden		At School
Hutzler, Violet	Daughter	F	6	S		Michigan	New York	Sweden		At School
Hutzler, Walter	Son	M	2	S		Michigan	New York	Sweden		

(*) Marital Status: M=married, S=single, W=widowed

Appendix B-4 (continued)

South Manitou Island, 1900 (continued)

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
Beck, Theodore	Head	M	58	M	8	Germany	Germany	Germany	1867	Farmer
Beck, Alvena	Wife	F	30	M	8	Germany	Germany	Germany	1888	
Beck, Minnie	Daughter	F	7	S		Michigan	Germany	Germany		At School
Beck, William	Son	M	5	S		Michigan	Germany	Germany		
Beck, Ida	Daughter	F	4	S		Michigan	Germany	Germany		
Beck, Albert	Brother	M	55	S		Germany	Germany	Germany	1868	Farm Laborer
Furst, Oswald	Head	M	60	M	23	Germany	Germany	Germany	1874	Farm Laborer
Furst, Dora	Wife	F	49	M	23	Germany	Germany	Germany	1874	
Furst, David	Son	M	15	S		Michigan	Germany	Germany		At School
Furst, Paulinea	Daughter	F	22	S		Michigan	Germany	Germany		
Haas, Joseph	Head	M	46	M	21	Germany	Germany	Germany	1854	Fisherman
Haas, Florence	Wife	F	37	M	21	Wisconsin	Canada	Canada		
Haas, Lawrence	Son	M	14	S		Michigan	Germany	Wisconsin		At School
Johnson, Thomas	Head	M	21	S		Norway	Norway	Norway	1887	Farmer
Johnson, Seyual	Brother	M	13	S		Michigan	Norway	Norway		At School
Johnson, Gustoff	Brother	M	12	S		Michigan	Norway	Norway		At School
Johnson, George	Brother	M	11	S		Michigan	Norway	Norway		At School
Johnson, Bessie	Sister	F	9	S		Michigan	Norway	Norway		At School
Johnson, Jessie	Sister	F	8	S		Michigan	Norway	Norway		At School

(*) Marital Status: M=married, S=single, W=widowed

- In the 1880 census, Theodore Beck is age 38, born in Brunswick, Father's POB Brunswick, Mother's POB Prussia, Farmer. In the 1910 census, Theodore Beck is age 66, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1884, Farmer.
- In the 1880 census, Oswald Furst is age 35, born in Baden, Father's POB Witchen, Mother's POB Rippleson, Book Binder. In the 1910 census, Oswald Furst is age 69, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1867, Farmer.
- In the 1880 census, Dora is Dorridea Furst is age 32, born in Brunswick, Father's POB Brunswick, Mother's POB Prussia, Keeping House. In the 1910 census, Dora Furst is age 61, born in Germany, Father's P0B Germany, Mother's P0B Germany, Year of Imm. 1867.

Appendix B-4 (continued)

South Manitou Island, 1900 (continued)

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
McCauley, Patrick	Head	M	32	M	8	Michigan	Ireland	Ireland		Mail Carrier
McCauley, Della	Wife	F	26	M	8	Michigan	Fr Canada	Fr Canada		
McCauley, Peter	Son	M	6	S		Michigan	Michigan	Michigan		
McCauley, Rodolph	Son	M	4	S		Michigan	Michigan	Michigan		
McCauley, Charles	Son	M	2	S		Michigan	Michigan	Michigan		
Foster, Thomas	Head	M	42	M	20	Michigan	England	England		Farmer
Foster, Estella	Wife	F	39	M	20	Wisconsin	Fr Canada	Fr Canada		
Foster, Fanny	Daughter	F	18	S		Michigan	Michigan	Wisconsin		
Foster, Eveline	Daughter	F	17	S		Michigan	Michigan	Wisconsin		At School
Foster, Gertie	Daughter	F	15	S		Michigan	Michigan	Wisconsin		At School
Foster, Emma	Daughter	F	14	S		Michigan	Michigan	Wisconsin		At School
Foster, Henry	Son	M	11	S		Michigan	Michigan	Wisconsin		At School
Foster, Charles	Son	M	6	S		Michigan	Michigan	Wisconsin		At School
Armstrong, Thomas	Head	M	34	M	5	Michigan	Ireland	Ireland		Light Keeper
Armstrong, Jessie	Wife	F	29	M	5	Michigan	England	England		
Gosen, Bertnard	Head	M	40	M	12	Michigan	Michigan	Michigan		US Light
Gosen, Mary	Wife	F	31	M	12	Michigan	Ireland	Ireland		
Gosen, Lotta	Daughter	F	11	S		Michigan	Michigan	Michigan		At School
Gosen, Jessie	Daughter	F	9	S		Michigan	Michigan	Michigan		At School
Stevenson, Guy	Boarder	M	22	S		Wisconsin	New York	New York		US Light

(*) Marital Status: M=married, S=single, W=widowed

- In the 1870 census, Thomas Armstrong is age 5, born in Michigan. In the 1880 census, Thomas Armstrong is age 13, born in Michigan.
- In the 1880 census, Thomas Foster is age 22, born in Michigan, Father's POB England, Mother's POB England, Farmer.

Appendix B-4 (continued)

South Manitou Island, 1910

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
Johnson, Bernt	Head	M	62	W		Norway	Norway	Norway	1884	Farmer
Beck, Theodore	Head	M	66	M	18	Germany	Germany	Germany	1867	Farmer
Beck, Alvina	Wife	F	39	M	18	Germany	Germany	Germany	1889	
Beck, William	Son	M	16	S		Michigan	Germany	Germany		Farm Laborer
Beck, Alma	Daughter	F	4	S		Michigan	Germany	Germany		
Beck, Arthur	Son	M	2	S		Michigan	Germany	Germany		
Beck, Albert	Brother	M	62	S		Germany	Germany	Germany	1866	
Furst, Oswald	Head	M	69	M	33	Germany	Germany	Germany	1867	Farmer
Furst, Dora	Wife	F	61	M	33	Germany	Germany	Germany	1867	
Haas, Henry	Head	M	49	M	24	Michigan	Germany	Germany		Farmer
Haas, Maggie	Wife	F	41	M	24	Michigan	Germany	Germany		
Hutzler, George	Head	M	37	M	16	Michigan	Germany	Germany		Farmer
Hutzler, Josie	Wife	F	33	M	16	Michigan	Germany	New York		
Hutzler, Lewis	Son	M	14	S		Michigan	Michigan	Michigan		

(*) Marital Status: M=married, S=single, W=widowed

- In the 1880 census, Theodore Beck is age 38, born in Brunswick, Father's POB Brunswick, Mother's POB Prussia, Farmer. In the 1900 census, Theodore Beck is age 58, born in Germany, Father's POB Germany, Mother's POB Germany, Year on Imm. 1867, Farmer.
- In the 1880 census, Albert Beck is age 55, Year of Imm. 1868. In the 1920 census, Albert Beck is 74, Year of Imm. 1869.
- In the 1880 census, Oswald Furst is age 35, born in Baden, Father's POB Witchen, Mother's POB Rippleson, Book Binder. In the 1900 census, Oswald Furst is age 60, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1874, Farm Laborer.
- In the 1880 census, Dora is Dorridea Furst is age 32, born in Brunswick, Father's POB Brunswick, Mother's POB Prussia, Keeping House. In the 1900 census, Dora is Dorridea Furst is age 49, born in Germany, Father's P0B Germany, Mother's P0B Germany, Year of Imm. 1874.

Appendix B-5
Federal Population Census, 1910: South Manitou Island

South Manitou Island, 1910 (continued)

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
Beck, August	Head	M	57	M	36	Germany	Germany	Germany	1869	Farmer
Beck, Lizzie	Wife	F	54	M	36	New York	Germany	Germany		
Beck, Irwin	Son	M	22	S		Michigan	Germany	New York		Laborer
Beck, Harly	Son	M	14	S		Michigan	Germany	New York		
Burdick, Andrew	Head	M	63	M	35	Michigan	New York	Germany		Farmer
Burdick, Sarah	Wife	F	52	M	35	Michigan	England	Ireland		
Burdick, Andrew	Son	M	20	S		Michigan	Michigan	Michigan		Laborer
Biesie, Loyd	Head	M	29	M	12	Indiana	Indiana	Indiana		Farmer
Biesie, Clara	Wife	F	24	M	12	Indiana	Indiana	Indiana		
Biesie, Raymond	Son	M	10	S		Indiana	Indiana	Indiana		
Biesie, Waine	Son	M	8	S		Indiana	Indiana	Indiana		
Biesie, Clarence	Son	M	7	S		Indiana	Indiana	Indiana		
Hutzler, John	Head	M	46	W		Michigan	Germany	Germany		Farmer
Hap, William	Head	M	52	S		Michigan	Germany	Germany		Farmer
Hap, John	Brother	M	59	W		Germany	Germany	Germany	1870	Farmer
Shank, Roland	Head	M	53	S		Pennsylvania	Germany	Germany		Laborer

(*) Marital Status: M=married, S=single, W=widowed

- In the 1900 census, Andrew Burdick is age 10, born in Michigan, Father's POB New York, Mother's POB Michigan.
- In the 1860 census, Andrew Burdick is age 14, born in Michigan. In 1880 census, Andrew Burdick is age 28, born in Michigan, Father's POB Michigan, Mother's POB Germany, Farmer. In the 1900 census, Andrew Burdick is age 53, born in New York, Father's POB New York, Mother's POB Germany, Farmer.
- In the 1880 census, August Beck is age 27, born in Brunswick, Father's POB Germany, Mother's POB Prussia, Farmer. In the 1900 census, August is age 47, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1869, Farmer. In the 1920 census, August Beck is age 67, born in Brunswick/German, Father's POB Brunswick/German, Mother's Brunswick/German.
- In the 1880 census, Lizzie is Elizabeth Beck is age 24, born in New York, Father's POB Baer, Mother's POB Baer, Keeping House. In the 1900 census. Elizabeth Beck is age 44, born in New York, Father's POB Baer, Mother's POB Baer.
- In the 1900 census, Irwin is Erwin Beck is age 12, born in Michigan, Father's POB Germany, Mother's POB New York.
- In the 1880 census, Roland Shank is age 24, born in Penn, Father's POB Saxony, Mother's POB Saxony, Farm Laborer. In the 1900 census, Roland Shank is age 44, born Penn, Father's POB Germany, Mother's POB Germany, Farm Laborer.
- In the 1880 census, John Hutzler is age 14, born in Michigan, Father's POB Baer, Mother's POB Baer. In the 1900 census, John Hutzler is age 36, born in Michigan, Father's POB Germany, Mother's POB Germany, Farmer. In the 1920 census, John Hutzler is age 57, born in Michigan, Father's POB Bavaria/German, Mother's POB Bavaria/German, Farmer.

Appendix B-5 (continued)

South Manitou Island, 1910 (continued)

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
Burdick, James	Head	M	33	M	0	Michigan	Michigan	Michigan		Light Keeper
Burdick, Lillian	Wife	F	25	M	0	Illinois	Germany	England		
McKillop, Robert	Head	M	32	M	7	Scotland	Scotland	Scotland	1878	Light Keeper
McKillop, Julia	Wife	F	29	M	7	Michigan	Norway	Norway		
Hutzler, Ernest	Helper	M	25	S		Michigan	New York	Sweden		Light Keeper
Hutzler, Selma	Head	F	45	W		Sweden	Sweden	Sweden	?	Merchant
Hutzler, Blanch	Daughter	F	18	S		Michigan	New York	Sweden		
Hutzler, Violet	Daughter	F	16	S		Michigan	New York	Sweden		
Hutzler, Walter	Son	M	12	S		Michigan	New York	Sweden		
Erickson, Leonard	Head	M	41	D		Sweden	Sweden	Sweden	1882	Merchant
Pugh. Elie	Head	M	46	M	23	Michigan	Ohio	Ohio		Cpt. Life Saver
Pugh, Clara	Wife	F	45	M	23	Michigan	New York	New York		
Kelderhouse, George	Head	M	32	M	6	Michigan	New York	Canada		Life Saver
Kelderhouse, Cora	Wife	F	25	M	6	Michigan	Germany	Bohemia		
Kelderhouse, Elnora	Daughter	F	5	S		Michigan	Michigan	Michigan		
Kelderhouse, Cordlia	Daughter	F	4	S		Michigan	Michigan	Michigan		
Kelderhouse, John	Son	M	2	S		Michigan	Michigan	Michigan		

(*) Marital Status: D=divorced, M=married, S=single, W=widowed

Appendix B-5 (continued)

South Manitou Island, 1910 (continued)

Name	Relationship	Sex	Age	Marital Status*	Years Married	Place of Birth	Father's Place of Birth	Mother's Place of Birth	Year of Immigration	Occupation
Furst, Martin	Head	M	28	M	4	Michigan	Germany	Germany		Life Saver
Furst, Zella	Wife	F	24	M	4	Michigan	Michigan	England		
Furst, Ether	Daughter	F	3	S		Michigan	Michigan	Michigan		
Furst, Norman	Son	M	1	S		Michigan	Michigan	Michigan		
Thompson, Theadore	Head	M	29	M	10	Norway	Norway	Norway	1890	Life Saver
Thompson, Matilda	Wife	F	28	M	10	Michigan	Germany	New York		
Thompson, Ralph	Son	M	9	S		Michigan	Germany	Michigan		
Thompson, Irne	Daughter	F	7	S		Michigan	Germany	Michigan		
Thompson, Floyd	Son	M	2	S		Michigan	Germany	Michigan		
Thompson, Clara Bell	Daughter	F	4 Mo	S		Michigan	Germany	Michigan		
Tobin, John	Head	M	25	M	3	Michigan	Ireland	Wisconsin		Life Saver
Tobin, Lottie	Wife	F	20	M	3	Michigan	New York	Sweden		
Tobin, Harold	Son	M	2			Michigan	Michigan	Michigan		
Tobin, Edna	Daughter	F	1			Michigan	Michigan	Michigan		
Thompson, Thomas	Head	M	31	M	9	Norway	Norway	Norway	1887	Mail Carrier
Thompson, Hattie	Wife	F	26	M	9	Michigan	Germany	New York		
Thompson, Beatrice	Daughter	F	5			Michigan	Norway	Michigan		
Thompson, George	Son	M	3			Michigan	Norway	Michigan		
Nelson, Nels	Boarder	M	25			Michigan	Sweden	Norway		Life Saver
Barnhart, William	Boarder	M	24			Michigan	Michigan	Germany		Life Saver
Wheeler, William	Boarder	M	21			Michigan	Canada	Michigan		Life Saver

(*) Marital Status: M=married, S=single, W=widowed

Appendix B-5 (continued)

South Manitou Island, 1920

Name	Relationship	Sex	Age	Marital Status*	Place of Birth	Father's P.O.B./ Language	Mother's P.O.B./ Language	Year of Immigration	Occupation
Tobin, John	Head	M	35	M	Michigan	Canada/Irish	Wisconsin/Scottish		Farmer
Tobin, Lottie	Wife	F	30	M	Michigan				
Tobin, Harold	Son	M	12	S	Michigan				
Tobin, Edna	Daughter	F	11	S	Michigan				
Tobin, Edward	Son	M	9	S	Michigan				
Tobin, Mary	Daughter	F	6	S	Michigan				
Tobin, George	Son	M	3 Mo	S	Michigan				
Johnson, Benjamin	Head	M	59	M	Norway/Norwegian	Norway/Norwegian	Norway/Norwegian	1884	Fisherman
Johnson, Alvina	Wife	F	49	M	H Pomeran/German	H Pomeran/German	H Pomeran/German	1890	Farmer
Beck, William	Son	M	26	S	Michigan	H Pomeran/German	H Pomeran/German		Farmer
Beck, Alma	Daughter	F	13	S	Michigan	H Pomeran/German	H Pomeran/German		
Beck, Arthur	Son	M	12	S	Michigan	H Pomeran/German	H Pomeran/German		
Beck, Albert	Brother-in-Law	M	74	S	Brunswick/German	Brunswick/German	Prussia/German	1869	
Haas, Henry	Head	M	58	M	Michigan	Bavaria/German	Bavaria/German		Farmer
Haas, Margaret	Wife	F	50	M	Michigan	Bavaria/German	Pennsylvania		
Hutzler, George	Head	M	47	W	Michigan	Beier/German	Pennsylvania		Farmer
Hutzler, Louis	Son	M	23	S	Michigan	Michigan	Michigan		Farm Laborer
Beck, Harley	Head	M	23	M	Michigan	Brunswick/German	New York		Farmer
Beck, Grace	Wife	F	22	M	Illinois	Pennsylvania	Iowa		
Beck, Harley	Son	M	2 Mo	S	Indiana	Michigan	Illinois		

(*) Marital Status: D=divorced, M=married, S=single, W=widowed

Appendix B-6
Federal Population Census, 1920: South Manitou Island

South Manitou Island, 1920 (continued)

Name	Relationship	Sex	Age	Marital Status*	Place of Birth	Father's P.O.B./ Language	Mother's P.O.B./ Language	Year of Immigration	Occupation
Beck, August	Head	M	67	M	Brunswick/German	Brunswick/German	Brunswick/German	1869	
Beck, Lizzie	Wife	F	65	M	New York	Beier/German	Beier/German		
Haas, William	Head	M	60	S	Michigan	Beier/German	Beier/German	1854	Farmer
Haas, John	Brother	M	69	W	Beier/German	Beier/German	Beier/German		Farm Laborer
Hutzler, John	Head	M	57	D	Michigan	Bavaria/German	Bavaria/German		Farmer
Welch, Albert	Head	M	57	M	Michigan	Michigan	New York		Carpenter
Welch, Rosetta	Wife	F	21	M	Michigan	New York	Michigan		
Burgess, James	Head	M	25	M	Michigan	Michigan	Michigan		Farm Laborer
Burgess, Viola	Wife	F	26	M	Michigan	New York	Michigan		
Welch, Harold	Nephew	M	12	S	Michigan	Michigan	Michigan		
Welch, Phyllis	Niece	F	10	S	Michigan	Michigan	Michigan		
Savoje, John	Nephew	M	9	S	Michigan	Michigan	Michigan		
Burgess, James	Nephew	M	11 Mo	S	Michigan	Michigan	Michigan		
Burdick, Sarah	Head	F	62	W	Michigan	England/English	Ireland/Irish		Farmer
Burdick, Anna	Daughter	F	41	S	Michigan	Michigan	Michigan		Governess
Burdick, Carrie	Daughter	F	39	S	Michigan	Michigan	Michigan		Cook

(*) Marital Status: D=divorced, M=married, S=single, W=widowed

- In the 1880 census, August Beck is age 27, born in Brunswick, Father's POB Brunswick, Mother's POB Prussia, Farmer. In the 1900 census, August Beck is age 47, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1869, Farmer. In the 1910 census, August Beck is age 57, born in Germany, Father's POB Germany, Mother's POB Germany, Year of Imm. 1869, Farmer.
- In the 1880 census, Elizabeth Beck is age 24, born in New York, Father's POB Baer, Mother's POB Baer, Keeping House. In the 1900 census, Elizabeth Beck is age 44, born in New York, Father's POB Germany, Mother's POB Germany. In the 1910, Elizabeth Beck is age 54, born in New York, Father's POB Germany, Mother's POB Germany.
- In the 1880 census, John Hutzler is age 14, born in Michigan, Father's POB Baer, Mother's POB Baer. In the 1900 census, John Hutzler is age 36, born in Michigan, Father's POB Germany, Mother's POB Germany, Farmer. In the 1910 census, John Hutzler is age 46, born in Michigan, Father's POB Germany, Mother's POB Germany, Farmer.

Appendix B-6 (continued)

South Manitou Island, 1920 (continued)

Name	Relationship	Sex	Age	Marital Status*	Place of Birth	Father's P.O.B./ Language	Mother's P.O.B./ Language	Year of Immigration	Occupation
Anderson, Charles	Head	M	44	M	Norway/Norwegian	Norway/Norwegian	Norway/Norwegian	1894	Cpt. Steamer
Anderson, Mollie	Wife	F	42	M	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, Albany	Son	M	20	S	Wisconsin	Norway/Norwegian	Wisconsin		Farm Laborer
Anderson, Maddaleon	Daughter	F	16	S	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, Celia	Daughter	F	13	S	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, Charles	Son	M	11	S	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, Haakon	Son	M	9	S	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, John	Son	M	7	S	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, Annabelle	Daughter	F	4	S	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, Carol	Daughter	F	2	S	Wisconsin	Norway/Norwegian	Wisconsin		
Anderson, Arno	Son	M	9 Mo	S	Wisconsin	Norway/Norwegian	Wisconsin		
Meengo, George	Head	M	40	M	Michigan	Holland/Dutch	Michigan		Asst Lt Keeper
Meengo, Jennie	Wife	F	36	M	Holland/Dutch	Holland/Dutch	Holland/Dutch	1886	
Meengo, Raymond	Son	M	7	S	Michigan	Michigan	Holland/Dutch		

(*) Marital Status: D=divorced, M=married, S=single, W=widowed

Appendix B-6 (continued)

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Figures 88-89. Illustrations by Brenda Williams.
Figure 90. Sleeping Bear Dunes, aerial photograph file.
Figure 91. Illustration by Brenda Williams.
Figure 92. Sleeping Bear Dunes, aerial photograph file.
Figure 93. Illustration by Brenda Williams.
Figure 94. Sleeping Bear Dunes General Management Plan.
Figures 95-97. Illustrations by Brenda Williams.
Figures 98-99. Personal photographic file of Brenda Williams.
Figures 100-113. Illustrations by Brenda Williams.