FROM THINGS LEFT BEHIND:
A STUDY OF SELECTED FUR TRADE SITES AND ARTIFACTS, VOYAGEURS NATIONAL PARK AND ENVIRONS, 2001-2002.

by

Douglas A. Birk, Senior Archaeologist/Historian
Institute for Minnesota Archaeology
4522 Nokomis Avenue South
Minneapolis, Minnesota 5540

Jeffrey J. Richner, Archeologist
National Park Service
Midwest Archeological Center
Lincoln, Nebraska

Issued jointly as:
MIDWEST ARCHEOLOGICAL CENTER, TECHNICAL REPORT NUMBER 84

and

INSTITUTE FOR MINNESOTA ARCHAEOLOGY, REPORTS OF INVESTIGATIONS NUMBER 606

16 November 2004

This document was prepared for:
Voyageurs National Park
National Park Service
International Falls, Minnesota

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Recommended by: _____
Park Archeology Program Manager, Midwest Archeological Center

Concurred by: _____
Superintendent, Voyageurs National Park

Approved by: _____
Regional Director, Midwest Region

MANAGEMENT SUMMARY

This volume reports on work conducted by the National Park Service (NPS) and the Institute for Minnesota Archaeology (IMA) in 2001-2002 to extend knowledge of historic fur trade resources and activities within the area of Voyageurs National Park (VOYA). The project involved terrestrial and underwater archaeological investigations, archival research, artifact analysis, and informant interviews. Douglas Birk, Senior Archaeologist/Historian of the IMA in Minneapolis Minnesota, and Jeffrey J. Richner, NPS Archeologist with the Midwest Archeological Center in Lincoln Nebraska, served as principal investigators.

This work is part of a broader study. An earlier phase of the study, a literature review completed in 2000, documented the park's environmental history and assembled some historical information relevant to fur trade experiences in the VOYA between 1730 and 1870 (Catton and Montgomery 2000:4).

VOYA is a NPS unit located in the Rainy Lake-area of northern Minnesota. The park incorporates over 217,000 acres and a part of the "Voyageur's Highway," an old mainline fur-trade canoe route extending between Lake Superior and the northwest interior of Canada. Much of the park area is comprised of surface water, now regulated by reservoir dams. While the surface water has influenced local settlement, land use, and transportation since ancient times, it is the historic era of the fur trades that gives VOYA its historical identity and name. The NPS is currently sponsoring programs to locate, identify, evaluate, and protect fur trade resources in the park, and the IMA, through a cooperative agreement with the NPS, is assisting these efforts.

This volume consists of six sections or "chapters," including an introduction, four research papers, and a concluding paper. Each "chapter" has its own list of cited references.

The introduction (Chapter 1) provides background information about VOYA and discusses the general content and goals of this volume.

The first paper (Chapter 2) addresses prior VOYA-related fur trade studies and study results.

The second paper (Chapter 3) reports on small-scale inventory and excavation activities at VOYA sites 21SL173, 21SL191, and 21SL47 and concludes that each of these sites contains a fur trade component likely associated with the Bois Forte Ojibwe.

The third paper (Chapter 4) discusses VOYA's water resources and offshore archaeological potentials, and reports on the 2001 underwater search for possible material evidence of the fur trades at Soldier Point and sites 21SL47, 21SL82, and 21SL212. Despite careful planning and execution, no workable offshore archaeological sites, features, or deposits were identified.

The fourth paper (Chapter 5) is a preliminary report on VOYA-area fur trade artifact collections held by various private parties and by the Koochiching Museums in International Falls. It describes the kinds of fur trade objects observed during the study, explores how and when they were used, and assays their potentials for further research and interpretation.

The final paper (Chapter 6) summarizes what is now known about the park's fur trade history and makes recommendations for future fur trade studies, including continued field and archival research, documentation and analysis of artifact collections, and underwater archaeological surveys.

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1. INTRODUCTION

Douglas A. Birk
Institute for Minnesota Archaeology

In 2001-2002 the National Park Service (NPS) and the Institute for Minnesota Archaeology (IMA) conducted archaeological and documentary research to extend present knowledge of fur trade history and resources at Voyageurs National Park (VOYA). The investigations included terrestrial and underwater field investigations as well as material studies, archival research, and oral interviews. This volume presents the results of that work.

This project is part of a broader two-phase study. The first phase, a literature review, documented the park's environmental history along with changes that have occurred in VOYA-area landscapes since the mid-1800s. Completed in 2000, that initial study resulted in the publication of a *Special History: The Environment and the Fur Trade Experience in Voyageurs National Park, 1730-1870*. The *Special History* includes a digest of Rainy Lake Region fur trade information intended to "assist archaeologists in a new phase of archaeological investigation focused on potential fur trade sites" (Catton and Montgomery 2000:4).

A FUR TRADE LEGACY

VOYA is a water-based NPS unit within the Rainy Lake locale of northern Minnesota (Figures 1.1 and 1.2). The park lies about 150 miles north of Duluth and adjoins the United States-Canadian border just east of Ranier and International Falls. VOYA is a place of rare natural beauty celebrated for its associations with North American Indians and fur traders. Indeed, the park straddles a segment of the old "Voyageur's Highway," a remarkable mainline fur trade canoe route that connects the Great Lakes with the northwest interior of Canada.

The fur trade was a dynamic aspect of early Indian-White relations and Euroamerican colonization that occurred in the Minnesota area from the 17th to the 19th centuries. Beyond the mere swapping of furs and goods, the trade involved an insoluble multicultural exchange of ideas, languages, worldviews, commodities, practices, technologies, diseases, and genes. The level and nature of participation in these exchanges so varied in time and place in North America scholars now say there were *many fur trades*. The era of the fur trades in the Rainy Lake locale gives VOYA its historical identity and name.

VOYA was established in 1975 to protect some of the area, wildness, and legacy of the Voyageur's Highway. The Grand Portage National Monument (GRPO), another NPS unit, occupies a strategic carrying place where that same mainline travel route intersects the North Shore of Lake Superior. VOYA and GRPO have a related geography, history, and purpose. The NPS is currently sponsoring programs at both parks to further identify, evaluate, and protect cultural resources from the era of the fur trades. The IMA, through cooperative agreements with the NPS, is assisting these efforts.

WATER AND ARCHAEOLOGY

With over 217,000 acres, VOYA is the largest NPS unit in Minnesota. It lies in a rugged lake-forest country in a transition zone between deciduous/pine woods to the south and boreal forests to the north. The park's features range from seeping marshes to towering rock escarpments and from open shorelines to remote hinterlands. Included within or abutting its boundaries are all or

Figure 1.1. A map showing old mainline canoe routes connecting Rainy Lake (Lac la Pluie) and Lake of the Woods with Grand Portage and Kaministiquia (Fort William) on the North Shore of Lake Superior (Map developed by Lakehead University, courtesy the National Park Service).

part of five large interconnected lakes (Rainy, Kabetogama, Namakan, Sand Point, and Crane), which drain through the Rainy River to Lake of the Woods and then via Lake Winnipeg to Hudson Bay.

More than one third of the surface area of the park is comprised of open water. Even today, during both winter and summer, the waterways provide the easiest, most direct, and most convenient means of travel within the VOYA. Throughout the era of the fur trades and in prior times, the waterways and portages not only influenced how, where, and when people might travel; they largely defined how people *must* travel. It follows that most early human settlement and land-use activity in that northern environment occurred at locations adjacent to water. The riparian pattern of cultural resources in and around the park has been demonstrated by field surveys and is well known to archaeologists and collectors. Place names within the park (as applied to lakes, islands, reefs, bays, points, peninsulas, narrows, channels, streams, falls, dams, portages, communities, and NPS visitor centers) are also mostly water-related. So are many local cultural traditions, stories, and myths.

Though many intact primary-context cultural deposits are known at VOYA, the shoreline distribution of archaeological sites has done little to advance their preservation. Dams built at the outlets of Namakan and Rainy lakes in the early 1900s raised the levels of those lakes, altering their annual fluctuations and stimulating the erosion of shorelines. The impact of the dams has been nothing short of monumental. In her book, *Rainy Lake Country*, written more than a half-century ago, the historian Grace Nute declared, “All history in the borderlands about Rainy Lake is divided into two eras”: B. D. (Before the Dams) and A. D. (After the Dams) (Nute 1950:88).

Figure 1.2. A map of Voyageurs National Park and the surrounding area on the border between Minnesota and Ontario (Map developed by Lakehead University, Courtesy the National Park Service).

Following construction of the dams (after 1914) many shorelines and islands were modified or flooded (Gibbon 1978; Lynott et al. 1986:12). Terrain between the minimum and maximum pool elevations—the *fluctuation zone*—was hardest hit. Waves, currents, and shifting winter ice assailed archaeological sites within the fluctuation zone. The erosional forces ripped artifacts from their archaeological contexts, moved them around, and exposed them to permanent or periodic immersion. Slumpage, churning, and silting have also disfigured or obscured many natural features that might help to explain site locations, settings, and associations. At the same time, adjacent areas just beyond the new high water mark—the *backshore zone*—were opened to changing land use and recreational activity. Altered water tables and drainage in such areas might impact vegetation and trigger physical and biochemical processes that could adversely affect archaeological materials and the soil environments and stratigraphies in which they occur.

For decades prior to the park's establishment and for sometime thereafter, collectors scoured exposed beaches in and around the reservoir lakes looking for cultural artifacts. This activity usually occurred after the late-winter drawdown of lake levels and prior to the spring rebound. In the 1970s and 1980s, professional archaeologists took advantage of the same conditions to locate and inventory sites (e.g., Lynott et al. 1986:29, 182-183). Today such opportunity is more or less a thing of the past, because the reservoir lakes at the park are now maintained at a more constant "normal" high level throughout the year.

In the A. D. (After Dam) years prior to the more-stringent regulation of water levels, many private collectors amassed sizable artifact collections from the VOYA area. Such cultural materials, often lacking exact provenience data, are nonetheless critical for understanding the era of the fur trades in the area of the park, in the region, and along the Voyageur's Highway. The archaeological record, along with archival documents, oral traditions, and environmental data, enables our ability to profile and explain the human experience in that northern district over time. Every line of evidence is, of course, open to multiple uses and interpretations. A continuing challenge facing researchers is to define the various puzzle parts and then to integrate them in ways that provide informed visions of the past.

CURRENT DIRECTIONS

In this report NPS archaeologist Jeffrey Richner and I examine *things left behind*—cultural artifacts and properties from the 1600s and later—to address basic questions about the temporal, spatial, and cultural aspects of the fur trades in the VOYA area. The results of our investigations are presented here within separate but related papers or "chapters." The chapters are bound together by a quest for knowledge and understanding. Chapter 2 reviews statements and conclusions about regional fur trade history seen in VOYA-area related literature through the year 2000. Chapters 3 through 5 tests certain of these prior findings, and Chapter 6 presents revised views of the VOYA fur trade story and recommendations for the future.

Richner's long experience with the history and archaeology of the VOYA area resulted in his recent completion of a major study entitled *People of the Thick Fir Woods: Two Hundred Years of Bois Forte Chippewa Occupation of the Voyageurs National Park Area* (Richner 2002). In that landmark report Richner employs a range of evidence to show that several archaeological sites within the park result from specific named Bois Forte Ojibwe individuals or families. His paper within the present volume takes that initial study a step further by addressing, in greater depth, the archaeological test results from three VOYA sites with fur trade components (i.e., sites 21SL173, 21SL191, and 21SL47a).

Richner's paper (Chapter 3) provides a chronology and description of local fur trade activities as well as a set of assumptions that anticipates the archaeological record of those activities. Drawing upon his vast knowledge of local history, land ownership records, and archaeology, Richner deduces that most fur trade-related objects from the park are probably associated with American Indian/First Nation site occupations rather than Euroamerican inhabitants. He identifies the Cree, Assiniboine, and Ojibwe as the primary postcontact aboriginal occupants of the VOYA-area, and he determines that the Bois Forte Ojibwe maintained a presence there from the 1730s through 1941. He then describes the fieldwork done at the three multi-component sites, analyzes the fur trade evidence recovered at each site, and discusses criteria for assigning that evidence to a specific Native American/First Nation group. Using his developing criteria, Richner concludes that each of the three sites contains a fur trade component associated with the Bois Forte Ojibwe.

Chapter 4 reports on recent underwater archaeological surveys at VOYA. This fieldwork involved NPS cultural resources personnel from VOYA and GRPO, an experienced boat operator and guide, and a skilled team of SCUBA divers. The surveys sought to explore selected offshore areas for possible material evidence of the fur trades. If fur trade properties were found, the content, identity, integrity, and research potentials of those properties were to be evaluated for future VOYA management and interpretative activities.

Equally important to the surveys was to assess diving conditions in various areas of the park as a means to determine whether underwater investigations should be considered when conducting

work there in the future. Unfortunately, despite careful planning and execution, no workable offshore archaeological sites or deposits were identified during the 2001 underwater surveys. Given the fact that so much of the surface area of the park is comprised of open water, and that the water has influenced local human transportation, settlement, and procurement for thousands of years, the potential for the presence of submerged cultural objects and properties remains high.

Chapter 5 represents a preliminary investigation of VOYA-area fur trade artifacts held by various private collectors and by the Koochiching Museums in International Falls. The study identifies many of the artifacts and discusses the temporal contexts of their use. The study thus provides a basic inventory and general description of selected fur trade materials found in and around the park, and it takes some initial steps towards defining and exploiting their research potentials. To ensure the privacy and trust of the various individual collectors, none, except those persons whose collections are preserved at the Koochiching Museums, are specifically identified within this report.

Finally, Chapter 6 takes a critical new look at some of the earlier fur trade findings reviewed in Chapter 2 and offers revisions. It also presents concluding thoughts, discusses archaeological potentials, and makes recommendations for the future.

The reader may be interested to know that Jeff and I have never actually met. At the beginning of this project, we did not always agree on the details of VOYA area fur trade history. In the long-distance collegial atmosphere in which our work was completed, however, that is hardly a problem. In fact, given the nature and timing of our research, our contradictions have become strengths rather than weaknesses, because they have forced a dialogue that has ultimately provided results of greater breadth and resolution. Now, while Jeff and I still bicker over details, about all that we truly disagree on is the spelling of our chosen profession (that is, archeology vs. archaeology)!

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2. KNOWING THE PAST

Douglas A. Birk
Institute for Minnesota Archaeology

When beginning a new phase of cultural research, like the NPS/IMA fur trade initiative at Voyageurs National Park (VOYA), it is useful to ask: "What is already known about the fur trades there, and how is it that we know what we think we know?" The evidence comes from documents, oral histories, and archaeology. This paper provides background for the current research by assembling findings and interpretations expressed in NPS VOYA-park literature and other related sources through the year 2000. Through the examination and "testing" of prior results the present project seeks to further refine the VOYA-area fur trade story.

SUMMARY REVIEW

At the close of the 20th century much of what was known about the fur trades in the Rainy Lake Country came from the research of Grace Nute (e.g., 1930, 1941a, 1941b, 1950, 1955) and Ted Catton and Marcia Montgomery (2000). Knowledge of the archaeology of the fur trades at VOYA rested primarily on the work of Guy Gibbon (1977, 1978), Mark Lynott, Jeffrey Richner, and Mona Thompson (1986), Jeffrey Richner (1992, 1999, 2002 *draft version*), and Elizabeth Steiner and Robert Clouse (1994). Some of their findings are reiterated below:

- French exploration and fur trade history began in the Rainy Lake area in 1688;
- French presence there between 1688 and the mid-1700s is sparsely documented;
- No documentation has been found to show the kinds of trade goods French colonials introduced in the Rainy Lake (*Lac la Pluie*) area;
- Peak French trade activity occurred in the Rainy Lake area between 1731 and 1736;
- Native peoples identified as Ojibwe (Ojibway, Chippewa, *Anishinaabeg*, etc.) are first recorded at Rainy Lake in 1736;
- The era of French colonial activity ended at Rainy Lake in 1754;
- No British posts were established in the Rainy Lake area until 1787, when the North West Company (NWC) built its *Lac la Pluie* depot on Rainy River just west of Rainy Lake;
- The NWC and Hudson's Bay Company (HBC) vied for control of the local fur trade from 1793 through 1821 and then merged under the HBC banner;
- Independent traders and the American Fur Company competed against the HBC from 1821 through the early 1830s, after which the HBC dominated the local fur trade until 1870;
- All of the major trading companies that operated in the VOYA area had posts at or near the outlet of Rainy Lake, a few miles west of the park. At least one other outpost is reported at Crane Lake, just south of the park;

- Fur traders often traveled through the Rainy Lake area and, by camping, fishing, and hunting or by trading or living for various lengths of time among local native groups, they may have left archaeological evidence of their activities within the present area of the park;

- The era of the fur trades ended in the Rainy Lake locale about 1870;

- No fur trade posts are known to have been located within the present area of the VOYA;

- Most diagnostic fur trade materials from the park date to the period ca. 1780-1835, and

- Nearly all historic sites within the park are located on the shorelines of major waterways.

CURRENT DIRECTIONS

The accuracy and validity of these statements can be explored through continued archaeological studies and through the continued examination and rethinking of the archival record. Indeed, the desire to test the above statements has shaped many of the research questions outlined here and elsewhere in this volume. Because historical research at VOYA is an ongoing endeavor, the database as well as the questions might be expected to change in the future.

When did Rainy Lake-area fur trade history begin? Did it originate with the advent of French presence in the 1680s, or were local American Indian/First Nation peoples already involved in fur trade exchange networks before that time? The waterways between Lake Superior and the Winnipeg (Manitoba)-area formed a natural "migratory corridor" that promoted the east-west movement of people, materials, and ideas in ancient times (e.g., Steinbring 1974:67; Stoltman 1973:112). Such interactions paved the way for later historic systems of trade in the same region, likely beginning with the introduction of French trade goods through "middle-man exchanges" in advance of actual French contact or a French presence. With the absence of written records this protohistoric phase of the fur trades is expected to be evident only through trade goods found on Indian sites. In support of that notion, Canadian archaeologists report a mix of protohistoric and historic cultural materials on a site near Lake of the Woods that may date to the first half of the 17th century (Reid and MacLeod 1980:137). In the same way that the availability of French trade goods preceded the arrival of French traders, HBC trade goods no doubt entered the Rainy Lake area decades before the HBC actually opened its first post there in 1793.

How and how readily did local Indian populations adopt European/Euroamerican goods? This topical area is yet little explored. Contact with outsiders did promote material and technological adaptation along with tribal movements or territorial shifts, but it did not trigger a sudden collapse of Native cultural practices. There are reports of Indian-made Selkirk ceramics in archaeological contexts with early-1700s trade goods on the Rainy River west of Rainy Lake (Arthurs 1980:103) and Sandy Lake ceramics with trade goods in a possible mid-18th century context on the Namakan River east of Namakan Lake (Callaghan 1982:21-22). While ancient cultural deposits in the VOYA area are usually distinguishable from those dating to historic times, it is not always possible to attribute postcontact site components to either solely Indian or Euroamerican occupations based on the archaeological evidence alone (e.g., Lynott et al. 1986:86, 128).

How plenteous are Minnesota-area French records, and do archival records show the kinds of trade goods introduced there by French colonials prior to 1760? The French regime in the Minnesota area lasted one hundred years or more. From an archaeological perspective it can be divided into an initial Contact Phase dating to the mid-and-late 1600s, a period of French colonial

decline and withdrawal between 1702 and 1713, and a renaissance Expansion Phase between 1713 and the 1750s (Birk 1982:118; 1991:240). Documentary evidence for French presence in the Minnesota area is meager and spotty, particularly during the Contact Phase and through the period of Queen Anne's War (1701-1713). In contrast, a relatively large quantity of French records survive to describe the 1730s alliances and activities of trader-explorer, Pierre La Vérendrye, and his sons and associates, along what is now the northern border of Minnesota (Burpee 1968). While the volume and detail of the 1730s records do reflect a high point of French activity in the Rainy Lake area, the apparent paucity of records from earlier and later times does not necessarily or automatically mean an absence of fur trade influence or involvement there.

The extant records suggest French presence was erratic in the Rainy Lake area prior to the late-1710s, after which, into the late 1750s, it appears to have been more extensive and sustained. French activity there began eroding with the start of the great Anglo-French war for empire in North America in 1754. However, archival data suggest that the French "Posts of the Western Sea," of which the Rainy Lake locale was a part, were not fully abandoned by French colonials until sometime between 1757-1759 (Wallace 1954:1-2).

Also, primary documents do survive to identify trade goods introduced into the western Great Lakes region between 1715 and 1760 (e.g., Anderson 1991, 1992, 1994; Hamilton 1995:110; Peyser 1996:13-16). And, contrary to recent claims by historians Catton and Montgomery (2000:58), some of the records do relate specifically to trade operations in the Rainy Lake district.

Were trading houses established within the present area of VOYA? The records that might answer this question are broadly interpreted. Many traders and *coureurs de bois* ("woods-runners") may have operated in the Rainy Lake locale without leaving written accounts. Another conundrum is the interchangeable use of the names Rainy Lake and Rainy River when describing trading post locations. For example, the French entrepreneur, Jacques de Noyon, is said by one historian to have wintered on the Rainy River in 1688 (Nute 1941a:6), while others suggest he wintered at Rainy Lake that year (Russ 1974:493; cf., Catton and Montgomery 2000:10). Yet another historian splits the difference by hinting that Noyon wintered in a small fort at the outlet at "the western end of this lake" (Burpee 1968:6). Likewise, some historians have the French officer, Zacharie Robutel de La Noue, trading near the mouth of the Kaministiquia River, by the North Shore of Lake Superior, in 1717 (e.g., Catton and Montgomery 2000:11), while others have him at Rainy Lake (e.g., Morton 1973:170). In any case, Rainy Lake had become a central place of rendezvous for Indians and *coureurs de bois* by 1720 (Nute 1960:98; Rich 1967:82), and subsequent French, British, and American fur trade activity continued there for another 150 years.

As already noted, two possible loci for sustained trade activity are currently recognized in the VOYA area: one at and below the outlet of Rainy Lake and the other at Crane Lake. With all of the known and suspected trade activity in the park locale and the longevity of that trade, it is possible that temporary wintering houses or forts were built at other nearby locations as well. Given the pattern of site-water relationships at VOYA, if such facilities did exist, their remains should most likely be situated on the banks or shorelines of major waterways.

French cartographers knew the major travel routes radiating from or converging on the Rainy Lake hub before 1700. A 1697 French map, for example, shows a portage route leading south to the Mississippi Headwaters (Wood and Birk 2001:34). The role and importance of that southern route as an axis for interaction between Indians in the Mississippi Headwaters and traders in the Rainy Lake area has been little explored in prior recitations of VOYA-area history. Also little explored is the early economic importance of the Vermilion River-Pike River-St. Louis River connection between VOYA and Fond du Lac, the head of Lake Superior.

Do most diagnostic fur trade materials from the Rainy Lake locale postdate 1780? Were British-era trading houses present in the Rainy Lake area before 1787? British-era trade activity began in the Rainy Lake country just after the French withdrew and more than a quarter-century before the 1787 date commonly associated with the opening of sustained NWC operations there. The British took control of the northern fur trade from the French, but continued to rely on French-Canadian workers for their labor force. Some of the first traders to reach Rainy Lake after the fall of Montreal may have been French-Canadian clerks and interpreters sent to the northwest through Grand Portage in 1761 by the English trader, Alexander Henry. The fur trade historian, Harold Innis, cites "statements with considerable authority" that place French and English traders at Rainy Lake in the period 1761 to 1763. British trade canoes were plundered there in 1765 and 1766, and a trader was licensed to take a canoe to *Lac de Pluie* and Lake Dubois [Lake of the Woods] in 1767 (Innis 1973:188, 190). Also in 1767, the explorer, Jonathan Carver, at Grand Portage, encountered a group of *Lac la Pluie* Indians returning from Fort Michilimackinac, a regional trade depot at the straits of Lake Michigan (Parker 1976:132). Another 1767 record shows that "six small canoes" were actually licensed for "Lake La pluye" that year, while others went further to the northwest (Innis 1973:414). As the Michilimackinac trade expanded, merchants "strove as much as possible to underrate it being fearfull that a tax was intended" (Innis 1973:189n70). Any such operational misrepresentation may have reduced the record of early northwestern British-era trade activities shown in period documents.

By all accounts, the northwest trade continued to thrive during the transitional years leading up to the American Revolution and the emergence of the monopolistic NWC in 1779 (Innis 1973:190-197). The practice of NWC winterers meeting Montreal canoe brigades at Rainy Lake was apparently well established by 1784 (Duckworth 1990:25). Indeed, historians hint that the NWC may have opened its Rainy Lake post as early as 1778 (Catton and Montgomery 2000:17n28), shortly after a syndicate of Montreal Merchants moved their main northwest depot from Michilimackinac to Grand Portage. With all of the British commercial activity in the Rainy Lake locale between 1761 and 1780, more than a few "diagnostic" trade goods from this formative British period must have found their way into VOYA-area archaeological contexts.

Post-1780 fur trade materials are well represented in the VOYA area. The half-century after 1780 witnessed an embedded NWC presence along with episodes of intense NWC-HBC rivalry, competition between the NWC and the XY Company, and opposition between HBC and American traders. Another occurrence that reflects in the archaeological record was the 1816 presence in the Rainy Lake area of troops loyal to the Scotsman, Thomas Douglas, the Fifth Earl of Selkirk, a major stockholder in the HBC (e.g., Nute 1950:20-22).

Are the British and American-era fur trade artifacts found in the VOYA area mostly, or even exclusively, related to transient traders and local native groups like the Bois Forte Ojibwe? Possibly, but again the answer is not altogether clear. Currently, Euroamerican fur traders are anonymous in the archaeological evidence from VOYA and seem "invisible" except for the presence of trade goods on what are perceived to be scattered Indian sites. That condition seems to hold true from the protohistoric era of the early 17th century up to the end of the fur trades in the late 19th century. Because the recovered trade goods are identified as coming from Native cultural contexts, the question becomes one of identifying the Native group or groups involved.

Early records aid this process. Written accounts show the Assiniboine frequented the Rainy Lake area through at least the 1730s. The Assiniboine early participated in the Montreal trade and before 1670—the year the HBC formed—were regular visitors to Lakes Superior and Nipigon. In 1688 Jacques de Noyon called Rainy Lake the *Lac des Cristinaux* (Lake of the Cree), showing

that the Cree were, by then, living at Rainy Lake in harmony with the neighboring Assiniboine (Ray 1974:11-13). According to Ojibwe oral tradition, the Ojibwe arrived at Rainy Lake in the 1730s where they "first came in contact with the Assiniboins" (Warren 1957:84). Thereafter, again according to oral tradition, some Rainy Lake area Ojibwe joined their Cree and Assiniboine friends on annual trips northward to trade with the HBC (Warren 1957:189), even as the La Vérendryes made inroads to cut the flow of furs to Hudson Bay.

Among named traders who entered the Rainy Lake area in the mid-1700s was a Monsieur Boyiz (Parker 1976:191, 191n) and another Frenchman known as François (Innis 1973:188). Coincidentally, in 1772, two brothers, Francis and Mishel Buoy (François and Michel Boyer?), were said to "reside" at "the Rainey Lake, or Lake Liprè [*Lac la Pluie*]" (Wallace 1968:41). The brothers could have been related to Charles Boyer who oversaw the NWC's Rainy Lake post from 1793 to 1795 (Duckworth 1990:139) and to Pierre and Charles Boyer who supplied goods to the Rainy Lake area during the 1740s (Anderson 1992:65). In any case, as early as 1772, the Buoy brothers were identified as "old standing Traders to the Southward" of Rainy Lake who had "great Command over the Indians" (Wallace 1968:41). This could be taken to mean that they resided at Rainy Lake, while their trade interests and influence extended among Ojibwe groups in the Mississippi Headwaters and at Lake Vermilion, perhaps as far south as Fond du Lac. The exact location of the Buoy brothers' post is presently unknown. However, if it and later Rainy Lake-area forts attracted Ojibwe from the Mississippi Headwaters, then at least some post-1760 Native American archaeological deposits in the Rainy Lake locale might be attributed to Ojibwe bands other than just the Bois Forte. Indeed, the Leech Lake Ojibwe remained actively pro-British well into the 19th century and regularly traveled to the Rainy Lake country to trade.

According to the Ojibwe historian William Warren, the first Rainy Lake Ojibwe were known as the *Kojeje-wininewug*. These people may have often gathered at the *Kojeje* or *Couchiching* (the outlet of Rainy Lake) and the nearby falls on Rainy River, but they are also associated with the many bent and crooked border lakes and rivers to the north and east. Interestingly, Warren differentiates the *Kojeje-wininewug* from their westward cousins, the Musk-keeg-oes, and the *Sug-waun-dug-ah-wininewug*, the "Men of the Thick Fir Woods" (the Bois Forte), who he placed on and inland from the north coast of Lake Superior (Warren 1957:39, 45; Winchell 1911:583). The *Kojeje-wininewug* still retained their separate name and identity in the mid-1800s (Warren 1957:84), so seemingly they too could have contributed to postcontact archaeological deposits in the Rainy Lake locale.

More research is obviously needed to untangle, amplify, or defuse these ideas. Because material and documentary evidences present different realities of the past, "fur trade archaeology" must necessarily strive to integrate and reconcile archaeological findings with archival records and oral testimony. Such an approach is the foundation of the present studies.

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3. ARCHEOLOGICAL TEST EXCAVATIONS AT THREE SITES WITH FUR-TRADE COMPONENTS IN VOYAGEURS NATIONAL PARK, ST. LOUIS COUNTY, MINNESOTA

Jeffrey J. Richner
National Park Service
Midwest Archeological Center

This report summarizes small-scale archeological inventory and test excavation activities at three sites (21SL173, 21SL191, and 21SL47a) at Voyageurs National Park (VOYA). Although these sites, like most sites at the park, are multi-component, emphasis is placed on evidence for fur trade-era use of each site. They are among about four dozen sites within the park that contain what I interpret to be historic, Native American site components. That interpretation is supported by the historic record as well the character and content of the sites. Most, if not all, of these site components appear to result from Ojibwe (synonymous with Chippewa) occupation of the park. Ethnohistorical research further suggests that groups now subsumed under the Bois Forte Chippewa of the Nett Lake Reservation in Minnesota were the most likely occupants of these sites, although other Chippewa groups as well as other tribes are known to have traded at the various Rainy Lake area posts through time (Richner 2002). Evidence for assigning the three site components described here to Bois Forte occupation is one of the topics to be discussed in this report.

SUMMARY OF THE LOCAL FUR TRADE

An overview of what was known about the key points of fur trade history in the VOYA area prior to this study is presented in Douglas Birk's Chapter 2 of this report. That section also raises questions about the accuracy of previous syntheses. Based upon research conducted for the present project, Birk and I present a brief, but revised, view of local fur trade history in the concluding section of this report. It should be recognized that the discussions here reflect the perspective of the Hudson's Bay Company, since that company's records are by far the most extensive that are available for the project area.

TYPES OF FUR-TRADE ERA SITES EXPECTED AT VOYA

The historical summary in Chapter 2 and additional research conducted for this project (see Chapter 6), show that major fur trade posts and smaller outposts were present in relatively close proximity to the current boundaries of VOYA. The primary posts were located at the outlet of Rainy Lake; near Chaudiere Falls on the Rainy River; and at various locations on the Rainy River west to Lake of the Woods. The outlet of Rainy Lake is about seven miles west of VOYA's western edge, while Chaudiere Falls is about three miles farther west. The longest occupation was at the falls where the towns of Fort Frances and International Falls developed after the "heyday" of the fur trade. Small outposts directly associated with the main posts are historically documented on Basswood Lake east of the Voyageurs area, at multiple locations on Lake of the Woods and near the mouth of the Rainy River west of Voyageurs, and at Vermilion Lake to the south (Thiessen 1997). They comprised secondary, smaller-scale trading centers managed by personnel from the primary posts.

Given the relationship of these posts and outposts to the current park boundaries and the information available in extensive historic literature, there is little reason to expect that currently undocumented major posts or even smaller outposts would occur within the park boundaries. In fact, since the park is so close to the major posts, there are relatively limited expectations for the presence of Euro- or Anglo-American fur trade sites within the park. Trading parties would have had relatively little need to stop within the park when traveling to or from the posts, since the entire park area could be traversed in a single day, even by a small group in a single canoe (Brown 1893:25). Despite this, there are several kinds of sites that could occur in the park. Camps, "watching tents," fishing sites, stopping places, haying fields, and other

temporary, small-scale sites could occur within the park (Catton and Montgomery 2000; and Thiessen 1997). These would include areas where the traders sent out a very small number of employees and/or a man with his immediate family to watch for and meet Indians and try to steer them to the company's post, or to directly collect the Indians' trading debts. These temporary camps, typically consisting of a tent, rather that a permanent structure, were usually under the direction of a company interpreter. Many of the interpreters were local people, usually of Ojibwe and French Canadian ancestry, like Vincent Roy (II) (Thiessen 1997). The Hudson's Bay Company post journals, especially those of the 1820s and 1830s era, include numerous references to such temporary sites, which were typically placed along strategic travel corridors such as at the mouths of rivers where they empty into major lake systems. The mouth of the Rainy River at Lake of the Woods, the mouth of the Namakan River at the eastern end of Namakan Lake, and the mouth of the Drag Net (Seine) River at the east end of Rainy Lake are the locations most frequently mentioned, although others are also referenced. None of these locations is known to have been within the current park boundaries, although, like the primary posts and a few of the outposts, some (i.e., the Namakan location) are not far distant from current park boundaries.

Special use sites such as temporary fishing camps and similar subsistence-related sites may occur within the park. Fishing was very important in provisioning the posts, each of which was responsible for its own food collection and production, and there are numerous mentions of fishery activities in the Hudson's Bay post journals (Thiessen 1997). Locations for this activity are often provided in the journals, and although none of the primary ones is known to be within the park, others may have been. Overnight stopping places may also occur, despite the close geographic association of the park to the posts. There may have been occasions when weather or other factors forced trading parties to stay overnight within the park. Sudden storms on the park's chain of lakes would have occasionally made canoe travel impractical or even impossible (Coues 1965,1:18-19; Gough 1988, 1:10-11). In fact, such conditions may have led to the sinking of canoes or loss of cargo at certain treacherous locations such as Brule Narrows on Rainy Lake. This would create an additional kind of fur trade archeological site.

Prior to 2001, no archeological sites clearly matching any of these Euro- or Anglo-American fur trade site types had been identified within the park. However, fur trade-era site components are present in small numbers and are thought to reflect Native, rather than Euro-American, site use.

While they have not been the primary focus for historical fur trade research to date, several sites ascribed to Native-American use in the park contain fur trade materials (Richner 2002). These sites have been investigated through small-scale efforts as part of compliance-related archeological fieldwork and other research-related ethnohistorical and archeological studies (Lynott et al. 1986; Richner 1992, 1999, and 2002). Fur trade-era artifacts could be expected to occur at "village" or other primary occupation sites, and at a variety of subsistence-related sites such as resource extraction (hunting, fishing, collecting) and other special use sites. Fur trade artifacts have been recovered from several sites by archeologists, commercial fishermen, artifact collectors, and other non-archeologists over many years. Most of the materials collected by non-archeologists derive from the shoreline fluctuation zone. While all of the discoveries made by archeologists appear to be from Native American sites, the character and association for the other finds are largely unknown.

Since a variety of historic Bois Forte Ojibwe sites, ranging from villages and other permanent or semi-permanent settlements to special use locales are known to span about 1736-1940 within the park, it is to be expected that fur trade artifacts would occur on a sample of these sites. Of the circa 50 sites ascribed to Bois Forte occupation recorded within the park to date, most of which are habitation sites, many span the primary fur trade era. Metal, glass, and chert (European-made gun flints) fur trade materials have been collected via professional archeological fieldwork from 23 sites currently recorded within the park. Most of these sites and materials are summarized in a recent synthesis of Bois Forte use of the park over a span

of 200+ years (Richner 2002). Among the fur-trade related objects found via limited archeological fieldwork at these sites to date are:

- knives (including a French clasp knife, a crooked knife, and a brass quillon or crossguard),
- offset awls,
- an 18th century English razor,
- axes (including two with maker's marks),
- a kettle lug cut from a kettle and numerous cut scraps from kettles,
- tinkling cone blanks and completed tinkling cones made from cut kettle fragments,
- brass and white metal (pewter?) buttons,
- gun parts (e.g., frizzen, lock plate, trigger guard, trigger, serpent side plate, butt plate, ramrod guide),
- lead shot and sprue,
- percussion caps and an English percussion cap box lid,
- Gunflints made of European and local cherts,
- brass rings,
- a brass bracelet,
- silver ear ornaments,
- a brass arrow point made from a cut kettle fragment, and
- a variety of glass beads.

Information about these objects is summarized in three reports (Lynott, Richner and Thompson 1986; Richner 1999; and Richner 2002:Tables 4 and 5). Numerous other metal fur trade objects occur in local artifact collections, and it is known that at least some of the collections came from currently unrecorded archeological sites within the park. Objects from several of these collections are analyzed by Birk in Chapter 5 of this study.

Land ownership data, the considerable time depth and multi-component character of the sites, and the kinds of artifacts (including the numerous modified kettle fragments, a metal arrow point, and association with black and red pipestone tobacco pipes and pipe manufacturing debris) strongly suggest that the fur trade objects recovered to date are associated with Native American, rather than Euro- or Anglo-American site occupations. If this association is accurate, what groups were responsible for the objects' use and subsequent loss or discard? The issue of the identity of post-contact Native American occupants of the VOYA area has recently been reviewed in considerable detail (Richner 1999, 2002) and will be briefly summarized here. There are historical references to use of the area by three groups. These are the Cree, the Assiniboine, and the Ojibwe. At least some archeological evidence, although occasionally indirect in character, seems to match the expectations from the historic literature.

EVIDENCE FOR THE CREE AT VOYA

The Cree are Algonkian speakers who are subdivided into multiple groups that inhabited vast areas of Canada from about 400 miles east of Hudson and James bays, south from Hudson Bay to the Lake of the Woods area, and west into north central Alberta (Preston 1981:196, Figure 1; Smith 1981:257, Figure 1). In the 18th century, the Western Woods Cree inhabited the boreal forests north of the Voyageurs project area. The Cree were referred to in the early historic literature as the Christinaux or Kilistinon or some variant spelling, later shortened to Cree (Bishop 1981:158). Examination of the historic record by various researchers has lead to divergent views on the affiliation of several boreal forest and boundary waters groups alternately identified as Cree or Ojibwe, as well as definition of their historical territories and the details of group movement or expansion (Bishop 2002; Greenberg and Morrison 1982). The subject is too complex to be thoroughly considered here. Regardless of the nuances of group identities through the fur

trade era considered in this report, it is reasonable to assume that Cree territory extended into or very near the project area in the first half of the 18th century, if not earlier. However, there is no historical evidence for Cree presence in the project area, even on a transitory basis, after about 1770.

The Cree presence in the Voyageurs area is usually mentioned in connection with the Assiniboine (see below) who were their allies during portions of the middle 18th century. There are indications that the Cree were in the Rainy River/Rainy Lake area as early as 1695, and there are continuing, if brief, mentions of their presence there into the 1740s era.

The Selkirk Composite, which is defined largely by diagnostic Selkirk ceramic wares, has usually been associated with the Cree (Dawson 1987:165; MacNeish 1958). This ware's distribution overlaps extensive portions of the known early historic territory of the Cree. Attempts to associate pre-contact pottery wares with modern tribal groups are certainly difficult to successfully accomplish and any such linkages should be viewed with considerable skepticism. Still, the identification of the Cree as the makers of Selkirk wares is as reasonable as any such linkage that has been suggested to date. At VOYA, Selkirk ceramic sherds have been dated through thermoluminescence back into the middle AD 1400s era (Lynott et al. 1986). These lines of evidence combine to suggest that Cree groups may have been present in the area for several hundred years, spanning the late pre-contact and early contact eras. Even if one rejects the Cree/Selkirk pottery association, the historic literature appears to indicate Cree presence during the French period at VOYA. However, given the broader issue of “naming” and genesis of historic groups, even the identification of the Cree of the historic literature as synonymous with the modern Cree is uncertain. For example, did the Ojibwe move into the area after 1731 (Bishop 1970, 1974, 1976, 2002; Hickerson 1967, 1974; and Warren 1974) or did local groups, perhaps even some referred to as the Cree in historic literature, merely become known as the Ojibwe at that time (Dawson 1987; Greenberg and Morrison 1982)? Despite these problems, available information suggests that the Cree may have been in the VOYA area for a considerable period of time, including the French post-contact era.

To date, diagnostic Selkirk pottery vessel rims have been recorded at a minimum of 10 sites within VOYA. At least one of those sites, 21KC13, has yielded a small sample of fur trade era artifacts (Richner 1999). However, no Selkirk sherds have been found in direct association with fur trade objects or any other historic-era artifacts at 21KC13 or elsewhere within the park to date.

EVIDENCE FOR THE ASSINIBOINE AT VOYA

The Assiniboine speak a Siouan language and they are believed to have separated from the Wazikute band of Yanktonai (a “middle” Sioux group) in the 16th century (Jenks 1900:1055; McNeish 1958; Swanton 1953:388). Hodge (1912:102), as edited by James Mooney and Cyrus Thomas, indicates that this split occurred before A.D. 1640. The name Assiniboine was thought to be an Ojibwe term meaning “one who cooks by use of stones” (Hodge 1912:102; Swanton 1953:387). However, Jenks (1900:1054) believed the name translates as “warriors of the rocks” in reference to their occupation of Lake of the Woods after their split from the Yanktonai. De Mallie and Miller (2001:590) specifically reject the meaning of Assiniboine as derived from cooking with stones and indicate the name is from the Ojibwe term for "stone enemy."

There are various views on the original territory and distribution of the Assiniboine, with some authors suggesting Assiniboine occupancy of the project area, while others indicate that they always lived further west. Swanton (1953) and Hodge (1912:102) report that during early contact with Euro-Americans the Assiniboine lived about Rainy Lake and Lake of the Woods, but from about AD 1675 on were on the Assiniboine and Saskatchewan rivers west of Lake Winnipeg. Others report their presence in the Rainy Lake and Lake of the Woods area, and in southern Manitoba, in the 1680s based upon their interpretations of historic accounts (Ray 1974:11). Hickerson (1967:61) interprets the historic literature to indicate that the Assiniboine and Cree were at Rainy Lake and areas to the west at about A.D. 1695. Some authors

place them at Rainy Lake circa 1703 (Hodge 1912:102). From about 1729-1736, just before the peace between the Ojibwe and Sioux ended, Hickerson (1974:40) reported that the Cree and Assiniboine were still occupying the area near Rainy Lake, Lake of the Woods, and Lake Winnipeg. Perhaps as early as the 1740s, and certainly by 1766, the Ojibwe occupied the Rainy Lake area, with the Cree and Assiniboine located further to the west. However, those two groups continued to traverse the old fur trade route, traveling to Grand Portage to trade as late as 1766-1767 (Hickerson 1974:49-50). During the 1736-1766 era they were allied with the Ojibwe against the Sioux, and would have easily passed through the new Ojibwe territory, that was largely uninhabited, to reach Grand Portage.

Other researchers have re-interpreted the historic records to indicate that neither the Rainy Lake nor the broader Border Lakes area was ever the primary homeland for the Assiniboine. Instead, they interpret the literature to indicate that the Assiniboine were in the Border Lakes and Western Lake Superior areas in association with fur trading activities (Christianson, Noble, and Waisberg 1984:84; Wheeler 1977). In this view, the same records used by other researchers as evidence for occupation of the Border Lakes by the Assiniboine are interpreted as placing the Assiniboine west of Lake Winnipeg (Wheeler 1977:119). Ray (1974:16) claimed that the Assiniboine occupied eastern Manitoba as late as 1737, but Wheeler (1977:121) interprets the data to indicate that the Assiniboine actually lived much further west and were present in the area "solely for the purpose of trade with the French." Wheeler (1977) concludes his reappraisal of the historic literature to indicate that the late 17th and early 18th century Assiniboine did not occupy the Lake Forest or Southern Boreal Forest zones of Lake Superior and southern Ontario and Manitoba, but instead were present in these areas through travel from their homeland for purposes of trade. He places their actual occupation area further west in the parkland ecozone in what is now Saskatchewan during that time frame. However, he clearly notes that the Assiniboine continued to pass through the Border Lakes to Lake Superior as late as 1768 (Wheeler 1977:122). In this interpretation, their homeland was well west of Rainy Lake, but they were present at various times in the Rainy Lake area in the late 17th and early-to-middle 18th centuries for purposes of trade.

More recently, De Mallie and Miller (2001:573) suggest that at the time of first direct contact with Europeans in the 1680s, Rainy Lake was at the southeast edge of Assiniboine territory. As their important role in the fur trade developed, they expanded west into the woodlands and parklands of what is now Saskatchewan. However, their trading activities took them to Hudson Bay and Lake Superior through the late 17th into the middle 18th centuries.

Unlike the other Woodland pottery types that cannot be tied to particular modern groups with any degree of confidence, it is likely that Sandy Lake sherds found in the VOYA area are associated with the historic Assiniboine (Dawson 1987; Participants of the Lake Superior Basin Workshop 1988). These vessels may have been in use after their split from their Siouan relatives perhaps in the 16th century A.D. Sandy Lake sherds have been dated through absolute means to the late 17th and early 18th centuries in the region. A mixed Sandy Lake and Selkirk level at the Long Sault Site on Rainy River west of VOYA yielded a single C14 date of A.D. 1750 +/- 100 (Arthurs 1986:223). Arthurs' description of these Sandy Lake sherds and vessels precisely matches the examples from 21KC13 and other sites within VOYA. A Sandy Lake vessel from the Morty site (47AS40) on Stockton Island at Apostle Islands National Lakeshore on Lake Superior to the southeast of VOYA has been dated through thermoluminescence at A.D. 1685 +/- 53 (Richner 1987:14). The Long Sault and Morty site dates provide reasonable estimates for the probable age of Sandy Lake material at various sites within VOYA. To date, Sandy Lake sherds are recorded at 17 sites within VOYA.

The chronology presented above for Sandy Lake ceramic vessels and the apparent transient use of the Border Lakes area by the Assiniboine as documented by Wheeler (1977), Christianson, Noble, and Waisberg (1984:83-84), De Mallie and Miller (2001) and others appear to match rather well with the scattered and apparently very late occurrence of Sandy Lake sherds in the Rainy Lake and Rainy River

area. Perhaps the strongest connection for Sandy Lake vessels with the Assiniboine is at 21KC13 where shell tempered Sandy Lake pottery was recovered (Richner 1999). Use of shell temper is certainly more tied to "Mississippian" rather than Algonkian traditions, and would suggest expansion or movement from further south in Minnesota where shell tempering in Sandy Lake ware is more common. The low numbers of vessels and their apparently late association would match rather well with documented Assiniboine movement through the Rainy Lake area into the A.D. 1760s era. Although I am not aware of any direct evidence for the Assiniboine making Sandy Lake pottery, I will assume that connection is accurate, and that the Assiniboine made the Sandy Lake vessels at VOYA in the early historic period. It is also likely that pottery making was becoming less important for all the regional Native American groups by the middle 18th century, if not earlier (Richner 1989). Given this background, I would assume that the Sandy Lake sherds and vessels from VOYA date after about A.D. 1550, and possibly to the more restricted period of about A.D. 1650 - 1770. However, none of the Sandy Lake vessels or sherds from the park has been found in direct association with trade goods. The sherds occur on a few sites containing trade goods (e.g. 21SL82 and 21KC13), but those sites span much of the Archaic through late historic periods and none of the trade goods are in deposits associated with any aboriginal pottery or chipped stone technologies. Like the Cree, the Assiniboine appear to have been in the VOYA area primarily within the French fur trade era, but as described in Chapter 6, would have also had direct access to English fur trade goods beginning in the 1670s. While it is likely that at least some, if not most or even all, of the 17 sites at VOYA known to have yielded diagnostic Sandy Lake rim sherds are of 17th or 18th century age, they are not included in the count of circa 50 historic Native American site components mentioned above since none have actually been dated through absolute methods, specific historic references, or association with historic trade goods.

EVIDENCE FOR THE OJIBWE AT VOYA

The Ojibwe are Algonkian speakers whose early 17th century homeland was in the region around the falls of the St. Marys River at the junction of lakes Huron and Superior (Cleland 1992:86). Ojibwe tribal structure results from coalescence of several formerly autonomous, but similar, groups living in this area in the middle-late 17th century. All these groups were named for various animals including Amikwa (beaver), Oumisagia (eagle), Noquet (bear), Marameg (catfish), Outchibou (crane people), and others (Cleland 1992:95, 102). Hickerson (1988) hypothesized that as these groups were reduced by disease and joined together for defense and support into new and larger villages, former village or band identities became genealogical totems. It appears that the name (Outchibou) of one of these groups that lived at the falls of the St. Marys River later identified the newly coalesced tribal entity in the form Ojibwe, or the similar word, Chippewa. Nearly 100 different spellings of this name can be found in historic literature. The original Outchibou group, also known as Paouit in wach Irini, "the people of the falls," formed the core of the new tribe in the form of the crane clan, one of five original Ojibwe clans. The totemic band structure of these Ojibwe is a very important characteristic that helps distinguish them from the Cree (Bishop 2002). As this tribal coalescence was occurring, and for many years afterward, the Ojibwe greatly expanded their territory north and west of their original homeland, participating directly in the fur trade of the French, British, and American eras.

While the Ojibwe presence in the Voyageurs area has been attributed to movement and expansion from their eastern homeland by many (Bishop 1970, 1974, 1976, 2002; Hickerson 1967, 1974; and Warren 1974), others have argued for an in situ development of at least some of the Ojibwe groups north of Lake Superior, particularly the Northern Ojibwe (Dawson 1987; Greenberg and Morrison 1982). However, the Ojibwe who resided in the border lakes Laurentian mixed forest province, including those in the specific Voyageurs area after the early 1700s, were organized in a southwestern Ojibwe structure, rather than in the structure of the Northern Ojibwe (Lovisek 1993; Ritzenthaler 1978; Waisberg 1984). Regardless of the genesis of the local Ojibwe, they were the primary, if not sole, local Native American inhabitants through the later fur trade era into the 20th century.

I have previously suggested that Ojibwe groups now identified as the Bois Forte Band of the Chippewa Tribe of Minnesota were the primary Native American occupants of the VOYA area from the 1730s through about 1940 (Richner 2002). As described above, other tribal groups such as the Cree and Assiniboine may have had a transient presence in the project area during the first few decades of that period, but the Ojibwe were certainly the primary residents. Based upon land ownership data, a variety of tribal records, census lists, extensive oral history data, photographs, and other sources of information, certain Bois Forte bands can be firmly identified as the core of this resident Ojibwe population through most of the 19th century. It is more difficult to determine "within tribe" designations for the earlier portion of the fur trade era. Throughout the British and American eras, the groups trading at the various Rainy Lake/River posts and their outposts were certainly Ojibwe, and Hickerson (1967, 1974) has indicated that the Ojibwe living at or near Vermilion Lake represented a vanguard of Ojibwe expansion into the region from the east coinciding with the primary local French trading presence beginning in the 1730s. The precise affiliation, or association with modern political and group entities, of these 18th and early 19th century Ojibwe is more difficult to determine than for the middle-late 19th and early 20th centuries when an array of historic records all confirm the occupation of the Voyageurs area by Bois Forte bands. I have previously indicated that the earlier Ojibwe occupants were Bois Forte as well (Richner 2002), but as Birk has noted in Chapter 2 of this report, the situation may be more complex than previously reported.

In addition to the Bois Forte, other Ojibwe groups were present in the region at certain times for specific purposes. For example, multiple Ojibwe groups came each spring in the first half of the 19th century to the Chaudiere Falls area near the British and American fur trade posts for Midewiwin gatherings (Lovisek 1993:282). As noted above, this location is about 10 miles west of the western edge of VOYA. In the late 19th century, 600-1000 Ojibwe coalesced farther west on Rainy River to take advantage of the late spring/early summer sturgeon fishery (Holzkamm 1987:157; Holzkamm et al. 1988: 198-199; and Waisberg 1984:132). Ojibwe groups traveled from distant locations to participate in these activities. The coalescence for the sturgeon fishery probably has roots extending well into prehistory.

Numerous small bands from at least as far east as Basswood Lake and Lac des Mille Lacs in present day Ontario, north to Eagle Lake, west through Lake of the Woods to War Road and occasionally to Red Lake, south to Vermilion Lake, and local groups living on the Rainy River and around the Rainy Lake area were the primary fur producers for the Hudson Bay Company's Lac La Pluie post at Chaudiere Falls in the 19th century (Thiessen 1997). About 200 hunters from these bands from both sides of the international border typically "took debt" at the Hudson's Bay post prior to the 1840s. In the early 19th century, these Ojibwe bands, identified in two Hudson's Bay Company annual district reports for the 1820s as "tribes" with animal name designations (i.e. moose, rat, bear, etc.) that almost certainly represented clan affiliation (Lovisek 1993), traded furs and provisions for British and American-made goods and liquor. However, only the latter groups from Rainy Lake, Rainy River, and the Lake Vermilion region resided permanently within the current project area. These people were known generically by the characteristics of their lands as the Sug-waun-dug-ah-wininewug (Men of the Thick Fir Woods, or Bois Forte) and the Kojeje-wininewug (in reference to the straights and bends of their lake and river country) (Warren 1974:39, 84). They appear to form the core of what was later to become the Bois Forte Band of the Chippewa Tribe at Nett Lake and the numerous bands occupying various Ojibwe reserves along the international boundary in Ontario, Canada. Regardless of name, it is these people who are the former occupants of the project area and whom I interpret to be responsible for the 1700s and early 1800s fur trade-era artifact scatters found at several local sites.

Other Ojibwe groups, including people from Leech Lake, also participated in the spring provisioning trade at the Lac La Pluie post as well as the sturgeon fishing and Midewiwin gatherings there or further west at the forks and rapids of the Rainy River. However, these groups were not considered to be attached to the post, did not live or stay in the area beyond their temporary, seasonal visits, and were not "given debt" there (Thiessen 1997). Despite the large annual gathering of people on the Rainy River, consisting

of multiple Ojibwe groups, there is considerable historical evidence that the bands later identified as the Bois Forte Chippewa of Nett Lake were the primary, permanent inhabitants of the Voyageurs area south of the International border through the middle and late 19th century, and probably considerably earlier.

Historic Ojibwe sites postdating about A.D. 1730 are well represented in the park, with about 50 reported to date (Richner 2003). Information on this occupation has recently been synthesized in considerable detail (Richner 2002), so only a very brief summary will be presented here. With one possible exception (21SL137), these site components appear to lack aboriginally made ceramics like those identified above for the Assiniboine, and possibly for the Cree. While the Sandy Lake sherds are widely scattered and appear to reflect temporary and rather ephemeral occupation of the park by the Assiniboine, the Ojibwe sites are more permanent and the later sites often include numerous structures. The Ojibwe occupation of the park is known to have extended until about A.D. 1940 at two locations. Over 150 Bois Forte Ojibwe occupied the current park area on a relatively permanent basis during 1880-1915 and were probably present in even larger numbers in earlier years. Initial occupation is documented in the early or middle 1700s in the park area through historic literature (Richner 2002). By the late 1800s, there is evidence that at least four residential bands of the Bois Forte Ojibwe occupied several areas of the park. Sites and Bois Forte-owned parcels of land are clustered in Black Bay of Rainy Lake, northern Kabetogama Lake, Kettle Falls, Moose Bay on Namakan Lake, and at other areas on Sand Point and Crane Lakes (Richner 2002). In the 1890s, Bois Forte individuals owned over 2000 acres within what is now the park and were occupying the park on an essentially permanent basis.

The 50 sites currently considered to reflect Bois Fort Ojibwe occupation of the park are not a complete inventory, but instead are a sample of the historic Ojibwe sites that once existed, or may still exist, within the park boundaries. Several of these sites can be directly associated with named historic Bois Forte families and individuals, and there are direct genealogical links between these people and modern Bois Forte families.

THE 2001 SITE TESTING PROJECT

Three sites, all of which were previously recorded, were subject to small-scale test excavations in 2001 as part of this project. These sites are 21SL47a located near the eastern end of Kabetogama Lake at the Kabetogama Narrows area west of the junction of Ash River (Sullivan Bay) with the lake, and sites 21SL173 and 21SL191, both of which are positioned on very small islands on Sand Point Lake across from the Canadian landform from which that lake derives its name. As noted above, several other sites have yielded similar kinds of materials, but these three were selected for additional study in 2001 due to their content and logistical issues. They are known to contain temporally and functionally diagnostic fur trade-era artifacts and they are small in size and could be studied via small-scale fieldwork efforts that would not be highly damaging to the resource. Further, they are within areas where other, unrelated Midwest Archeological Center archeological fieldwork efforts were underway. They have been previously studied archeologically but not documented in detail. Finally, although often multi-component, they contain prehistoric components underlying the shallow historic components that are not exceptionally dense and complex and that were not expected to yield extensive collections unrelated to the current research project. Fieldwork was purposefully of very limited scope at each locale, but despite this, each site yielded data relevant to the local fur trade.

All of these sites yielded fur trade items in previous investigations and all yielded additional fur trade materials in 2001. All are multi-component, with pre-contact and post-contact occupations. This multi-component character is typical of the Native-American sites at VOYA. Site distribution is highly patterned. The park's 400+ known sites all occur in a few specific topographic settings along the shorelines of the mainland and islands of the park's major lakes. These prime shoreline locales, which constitute a relatively small percentage of the park's total acreage, were often used repeatedly over rather

long time frames. No occupation sites have been recorded to date in the park's rugged interior upland settings despite relatively extensive and intensive inventories.

SAND POINT LAKE

Eight sites (21SL76, 21SL78, 21SL171, 21SL172, 21SL173, 21SL84, 21SL191, and 21SL893) on the National Park Service portion of Sand Point Lake contain materials that have been attributed to historic Native American occupation (Richner 2002). These materials have been recorded despite the rather small scale of test excavation efforts there to date. At most of the sites, fieldwork has been limited to mapping, interval shovel testing, and excavation of a very small number of formal, 1-x-1-m test units. Some of the sites have received no test excavations, with the materials resulting from very limited shovel testing and/or surface reconnaissance. The majority of the artifacts result from Midwest Archeological Center fieldwork in 1986 and 1987, although subsequent small-scale investigations were also important in identifying additional historic artifacts. Limited additional work was conducted at 21SL173 and 21SL191 as part of the current fur trade study. A Midwest Archeological team under the direction of the author accomplished this field study.

21SL173

Site 21SL173 is located on a small island a short distance west of the international border north of Harrison Narrows on Sand Point Lake. Like most sites in the park with Native American occupations, site 21SL173 is multi-component, with materials from the pre- and post-contact eras. The small island has shallow, sandy soil that quickly gives way to a rocky substrate. Over much of the island, bedrock is very near the surface. In fact, bedrock domes outcrop in the small area where fur trade and prehistoric materials have been recovered to date. Much of the island has little or no soil accumulation, with the deepest soils extending only to about 20 cm below surface. These shallow soils across the park have been subject to considerable post-occupation mixing through bio- and pedoturbation. Pre-contact and post-contact materials occur in the humus and A horizon of this shallow soil profile, often in mixed context. Accordingly, here and elsewhere in the park, it is often difficult or even impossible to identify specific living floors, or to excavate the sites in a manner that separates the multiple occupations that are often present. However, there is at least some suggestion of vertical separation of cultural materials, with the post-contact materials typically limited to about the upper 10 cm of the profile. In fact, at 21SL173, post-contact items such as glass beads have been found on the ground surface in select areas where visitor use has removed the pine needle leaf litter and partially eroded and exposed the very shallow humus zone.

Site 21SL173 was discovered during a park-wide inventory sampling project in 1986 (Richner 1992). Fieldwork at this small site has been very limited in scope. The site covers a portion, probably less than 1125 sq m, of this small, circa 4000 sq m island. The island was certainly larger before Sand Point Lake's summer water levels were raised an average of 3.5 feet by the construction of the Kettle Falls dam on Namakan Lake in 1914. Its pre-1914 configuration is currently unknown. The site deposit coincides with a flat central area of the island where at least some soil is present. The dominant vegetation is pine trees, including numerous jack pines, all of which appear to be of roughly similar age. A small, grassy clearing that may result from modern visitor use occurs in the center of the island. It is in the clearing where the primary soil deposits occur and where archeological investigations have been accomplished (Fig. 3.1).

In 1986, six small shovel tests were placed on the island and a limited surface collection was made from patches of bare ground in the clearing. Depth of the tests reached only about 20 cm due to the rocky character of the soil. The clearing was heavily utilized for non-designated camping activities in the middle and late 1980s. Currently, there is no evidence of such use. Five of the shovel tests contained artifacts in relatively low frequencies. These are dominated by chipped stone debitage, all of which is thought to be

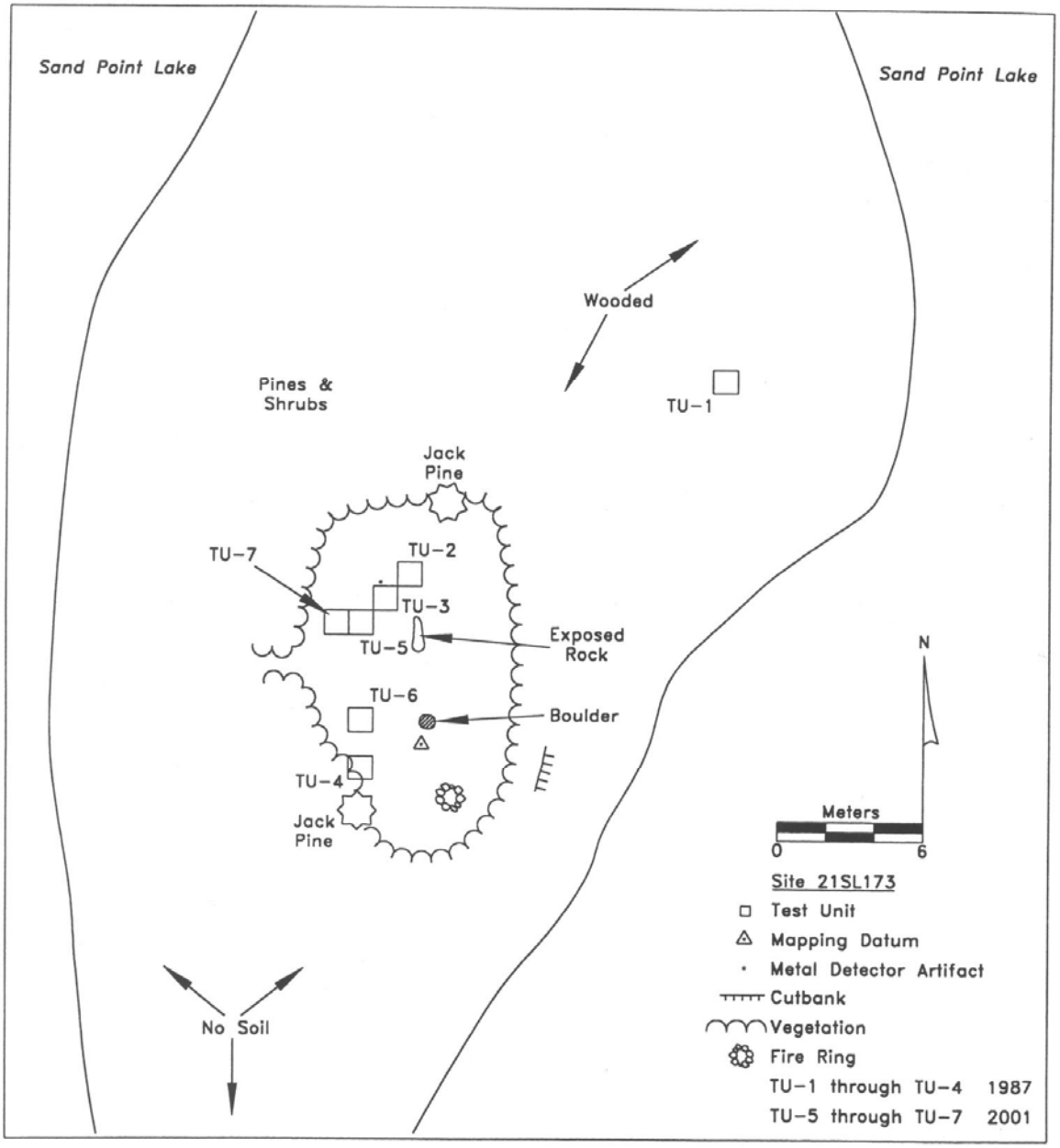

Figure 3.1. Site 21SL173.

of pre-contact age. The sixteen complete flakes derive from late stages of knapping activities. A biface was also recovered in 1986.

In 1987, the MWAC team returned to the site and conducted additional surface reconnaissance and excavated four 1-x-1-m test units (Fig. 3.1). Two-hundred-ninety-four pieces of debitage dominate the assemblage from test excavations, although chipped stone tools, and one modified copper "lump" were also recovered. The lithic artifacts reflect raw material types (Jasper Taconite, Gunflint Silica, Hudson Bay Lowland Chert, quartz, rhyolite, siltstone and Hudson Bay Chalcedony) that are common on nearly all pre-contact sites at VOYA. Other chipped stone objects include 3 quartz cores, 1 projectile point, and

11 other tools, including scrapers, bifaces and retouched pieces. Most (8) are unifacial tools made on small flakes.

A very brief reconnaissance of the site in 1988 yielded a small sample of prehistoric pottery sherds from the shoreline fluctuation zone at the edge of the island. The few sherds (n = 17) from this small collection appear to be of Blackduck association with cord impressed decoration on a single specimen. Two smooth surfaced sherds are probably of Laurel association, while the association of the others is unknown. These materials are not directly associated with the other pre-contact and post-contact items described below and are from a normally inundated beach context.

In 2001 a small MWAC team returned to the site and conducted additional small-scale test excavation in the form of three 1-x-1-m units (Fig. 3.1). These units were placed in the clearing where Test Units 2-4 were excavated in 1987. This work yielded an additional 85 pieces of chipped stone debitage, 1 scraper, and 1 retouched piece. Both of the formal tools were recovered from Test Unit 6. The majority of the chipped stone items were collected from the 10-20 cm zone below surface, although several items were also collected from 0-10 cm below surface. Eighteen faunal elements of uncertain age were also collected. No pottery was collected from the site in 2001.

Historic artifacts, many of which are clearly associated with the fur trade era, were collected during each of the limited field efforts at the site except for 1988. Essentially all of those artifacts were recovered from the ground surface or from the upper 10 cm of the soil profile. The artifacts are clustered in the small clearing at the center of the island where Test Units 2-7 have been excavated. All have been recovered from an area no larger than 10 x 15 m.

The fur trade era artifacts recovered in 1986 and 1987 have been reported elsewhere (Richner 1992, Richner 2002: Tables 4 and 5, Figures 16-19). These include lead shot, a brass button, an iron muskrat spear (Richner 2002:Figure 20c), two white metal (pewter?) buttons (Richner 2002:Figure 16g, h), and a cut brass kettle fragment. Other historic items such as purple tint bottle glass (circa 1880-1914), a headstamped cartridge case, a cut nail, and other similar items may reflect either later Native American or Euro-American use of the site. Twenty-three glass beads were also collected from the site in 1986 and 1987 (Richner 2002:Table 5). These were collected from the ground surface and from Test Unit 3. Included are 14 opaque white, 4 translucent blue, 3 translucent pink, and 1 translucent white "seed" or tube manufactured embroidery beads, two black wound opaque, and 1 wound purple translucent "necklace" beads.

Of the items collected in 1987, perhaps the white metal (pewter?) buttons are the best chronological indicators. Although pewter buttons were made in Europe from the early 18th century onward, the two pewter buttons from 21SL173 are of likely late 18th century or slightly later manufacture. One is characterized by the presence of a wire shank pushed into a blob of white metal on the button back (Richner 2002:Figure 16g). Such examples were in use by the British from about the 1760s to the 1800 era (Hughes and Lester 1993:203 221). The second has the wire shank held in a cone of white metal. This manufacturing technique dates to the 18th and early 19th centuries (Hughes and Lester 1993:221). In the United States, this shank type was first produced about 1800. Pewter buttons were surpassed in popularity by brass "gilt" buttons soon after 1830, so regardless of nuances of manufacturing type and probable age, it is very unlikely that the examples from 21SL173 could postdate 1830 by more than a decade or two. Both are of coat, rather than vest or sleeve size. However, they may have been used as decorative items rather than clothing fasteners at 21SL173.

The plain brass button from the site is of a size and form (plain face) that indicate a manufacturing date of about 1800-1830, matching very well with the white metal buttons (Hughes and Lester 1993:216).

A few additional historic artifacts, several of which appear to be fur trade era items, were collected at the site during the small-scale test excavation conducted in 2001. These include a silver ear ornament made from a fragment of a brooch (Fig. 3.2), a cut kettle fragment, and several beads. The beads include a fragmentary black wound specimen that is a perfect match for the two black wound beads recovered in 1987, three faceted (hexagonal), translucent, cloudy gray beads, 9 opaque white and 2 opaque blue tube manufactured (seed) beads. The wound bead, although fragmentary, is 12.5 mm in length, measured parallel with the perforation. Similar examples date to the early-middle 19th century at Fort Union in western North Dakota (Ross 2000), but may have a much wider time span. The faceted beads appear to be manufactured from two layers of glass, the inner zone of which is very thin and a steel blue color. Lengths range from 4.7 to 6.4 mm, while width ranges from 5.3 - 5.7 mm. At Fort Union, an American Fur Company post, similar examples appear to date from the fort's inception (1828) through about the 1850s (Ross 2000). The blue "seed" beads are tiny, with lengths of only .7 and 1.3 mm. The white examples range from about 1.4 to 2.4 mm long and 1.8 to 3.1 mm wide. It is difficult to place these beads in temporal perspective since they were manufactured over a very long time span of the 18th and 19th centuries.

The ear ornament is an interesting specimen that is clearly made from a fragment of a larger artifact, probably a silver brooch or similar trade item. Although a fragmentary pattern of engraved/incised "chevron" decoration occurs on the ear ornament, no particular style or maker of the original artifact could be determined.

In addition to the items discussed above, another class of artifacts from the site also appears to be of historic association. Cut and otherwise shaped and broken pieces of grainy black pipestone, locally known as soapstone, were recovered from the site in 1986, 1987, and 2001. In 1986, 6 pieces weighing 115 grams were collected from the eroded ground surface in the area where the glass beads were collected. In 1987, 76 additional fragments were collected from the ground surface at Test Unit 2, and within the uppermost excavation levels of Units 2, 3, and 4. These fragments, which weigh 349.3 grams, include one rather large blocky fragment that weighs 53.6 grams. In 2001, 18 pieces were recovered from Test Units 5 and 7. While black pipestone has a long use in the region well into the pre-contact era, there are several reasons to suggest that the numerous worked fragments from 21SL173 are of historic age. First, they were recovered from both surface and shallow excavation proveniences in association with glass beads and metal trade goods. Further, similar fragments are known from many of the other historic sites in the park that have been associated with Bois Forte Ojibwe occupation. There is direct evidence to indicate that a few older Bois Forte individuals were still smoking black pipestone tobacco pipes as late as 1936 (Cooper 1936). Finally, several of the specimens from 21SL173 have cut marks and/or parallel striations that appear to be consistent with shaping the stone with metal files or other metal tools.

Although black pipestone probably was available at numerous sources in the Border Lakes Region, one nearby outcrop is documented. This source is on Rainy Lake in Ontario a very short distance east of Fort Frances (Russell Christensen: personal communication 1987). While neither the local archeological specimens nor samples from the Rainy Lake outcrop have been studied relative to their mineralogy or chemistry, the specimens certainly compare favorably visually. The materials are soft and grainy, and can be cut, ground, or filed to shape. They also can take on a very high polish. When dry they appear gray, or even occasionally greenish gray, but when polished and wet or greased, appear black.

The precise character of the historic fur trade era occupation of site 21SL173 cannot be determined with certainty. The very small, relatively diffuse scatter suggests a short term, special use site. Although there is a considerable range of historic items, the site's small size and the kinds of material culture do not suggest long term, relatively permanent site use. If structures were once present, the very small size of the scatter suggests that only one wigwam, tipi or similar aboriginal dwelling would have been occupied.

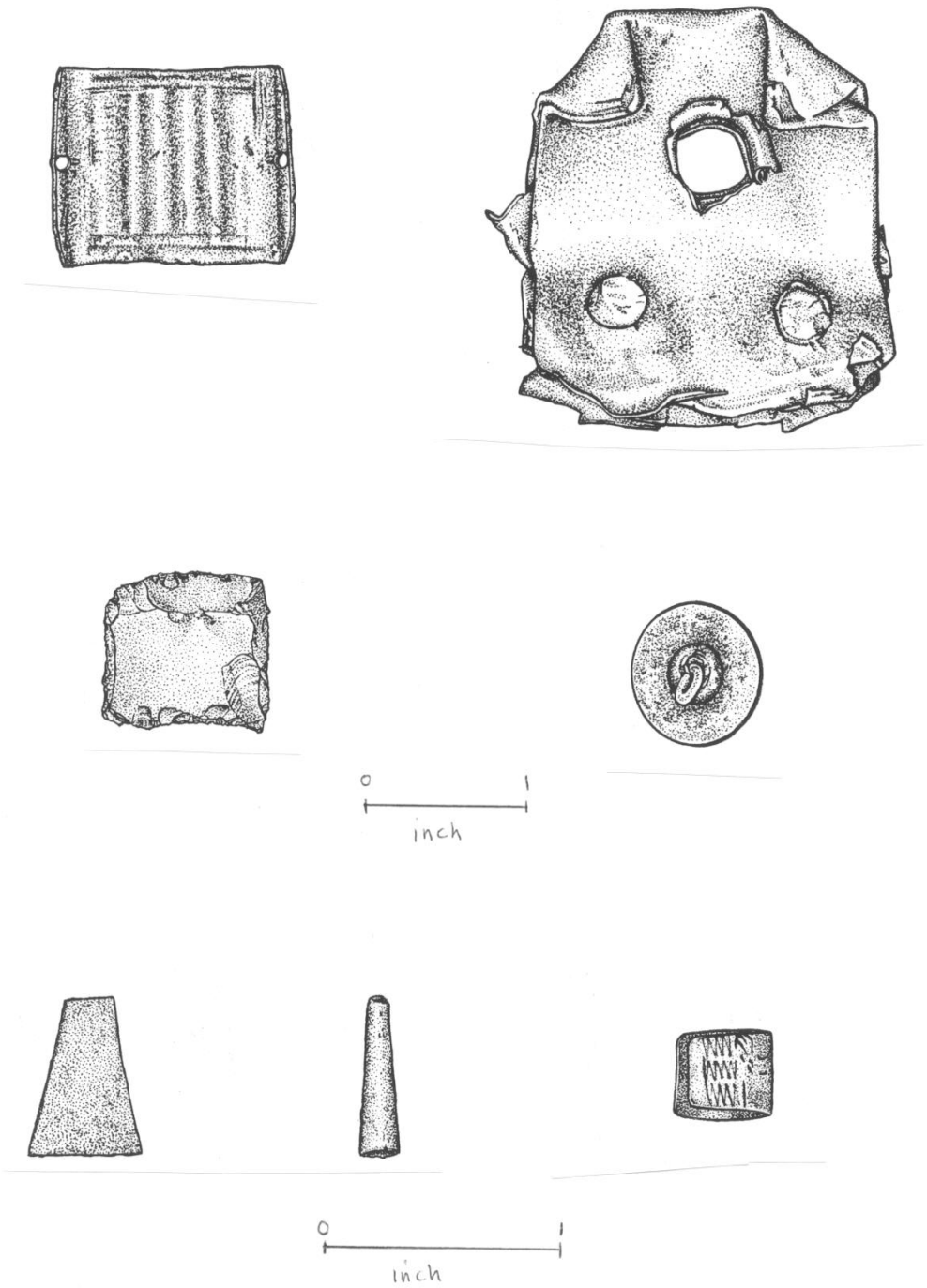

Figure 3.2. Select artifacts from 2001 fieldwork. Top row left, ramrod guide, 21SL191 Shovel Test 7; Top row right, kettle lug, 21SL47, Metal Detector B; Middle row left, gunflint, 21SL191, Shovel Test 4, Middle row right, brass button, 21SL47, Metal Detector E; Bottom row left, tinkling cone blank, 21SL47, Metal Detector G, Bottom row center, tinkling cone, 21SL47, Metal Detector H, Bottom row right, silver ear ornament, 21SL173, Test Unit 5.

There is no evidence for the kinds of early 20th century log cabin occupation seen at many of the other Bois Forte sites in the park. Those sites are characterized by earthen berms that formerly surrounded and insulated the log cabins and typically contain large numbers of artifacts, including many tin cans. Such evidence is absent from 21SL173. The temporally diagnostic items from the site suggest that it may have been occupied sometime in the first half of the 19th century, although multiple, short term occupations over a longer time frame are certainly possible. This places site occupation within the time frame when the VOYA area was the primary territory and occupation area for several related bands of Bois Forte Ojibwe (Richner 2002) and/or other closely related Ojibwe groups.

21SL191

Site 21SL191 is located on a very small island a short distance north from 21SL173 (Fig. 3.3). It appears that this island once formed a point on the larger adjacent island, but became separated due to the impact of managed water levels after 1914. An old metal sign found lying at the edge of the water on the shoreline indicates that the small island on which 21SL191 occurs was once known as “Gull Island.” It is not named on modern maps. Oral history suggests that a Native American cemetery was located near Gull Island (Bowser 1989:3):

> Annie Knox once showed John Bowser a burial ground that had spirit houses on it — just beyond Gull Island (west of Gull Island) on a flat island.

Perhaps this reference refers to the larger island that "Gull" island seems to have formerly been connected to. It is flat and in the appropriate location to match the reference.

Like 21SL173, site 21SL191 was recorded by an MWAC team in 1986 during a park-wide archeological sampling inventory effort. The small island containing the site is now about 1,100 sq m in size, but was certainly considerably larger before water levels were raised on Sand Point Lake in 1914. In 1987, when lake levels were unusually low, an extensive mud flat extended northwest, reconnecting the island to the larger adjacent island. The small "Gull Island" is dominated by a bald rock dome outcrop that forms the eastern third of the island. An embayment and beach are present on the north side of the island and a rocky gravel shore forms the shore on the west. The site is confined to a soil bench along the south and central portion of the island. Although sandy soils are present on the north-central part of the island, no cultural material has been recorded there to date. In fact, the site deposit appears to be confined to an area of less than 200 sq m. The most dense accumulation of artifacts occurs in a very small, flat area immediately west of the south edge of the bedrock dome. The south edge of that flat bench is partially formed by a low cutbank. North of the small flat area, the land slopes up gradually. While a few artifacts have been found there, it is apparent that the smaller flat area, perhaps only about 100 sq m or less in size, contains the great majority of artifacts at the site. It is within that small area that Shovel Test 1-1 and Test Units 1-3 were excavated in 1986 (Fig. 3.3).

Despite the very small size of the site, it has yielded an impressive array of pre- and post-contact artifacts. Chipped stone debitage, numerous prehistoric pottery sherds, faunal remains, and a variety of historic items have been collected in the limited fieldwork conducted at the site.

Nine shovel tests, two 1-x-1-m and one .5-x-1-m test units were opened at the site in 1986 (Fig. 3.3). A surprisingly large number and variety of artifacts were collected from this limited fieldwork effort. Chipped stone debitage numbered 146, of which 51 are complete and proximal flakes. Raw materials (Jasper Taconite, quartz, Hudson Bay Lowland Chert and Chalcedony, and Gunflint Silica) typical of sites in VOYA dominate the lithic assemblage. The flakes are characterized by lipped platforms and other examples that typify late stage (interior) reduction activities. It appears that manufacturing or sharpening of bifaces was a primary reduction activity at the site. However, cores were also reduced at the site, as

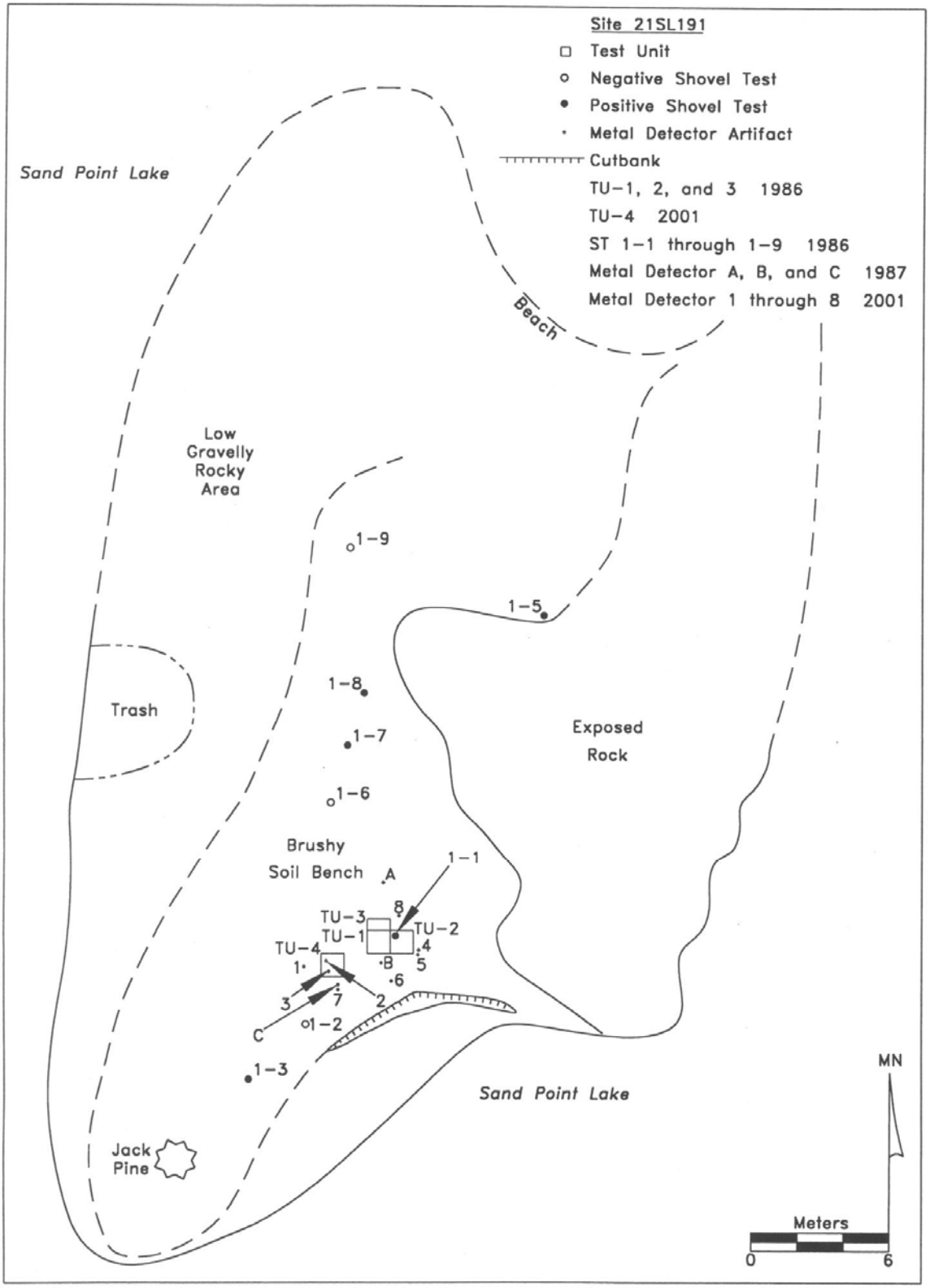

Figure 3.3. Site 21SL191.

seen by the presence of one small Jasper Taconite and two small Gunflint Silica cores. These cores average less than 1 inch in length. Eight small bifaces and unifaces were also recovered from the site in 1986. Pottery sherds are well represented in the three test units from 1986. A total of 99 sherds and small sherdlets, all of which that are large enough for identification appear to be a Laurel association, were collected from this testing effort. These include 3 rim sherds and 6 other decorated sherds, all of which bear Laurel stamped design elements. The sherds, and all of the other artifacts, were recovered from the upper 20 cm of the soil profile.

Numerous small faunal elements, many of which are burned, were recovered from the three 1986 test units at 21SL191. Identified specimens include fish (2), turtle (71), beaver (2), canis (1), bear (8), deer (3), moose (1), and mammal (578) (Colburn 1987:Table 7). It is probable, but not certain, that the faunal remains are associated with the Laurel occupation of the site, since diagnostic Laurel pottery sherds dominate the proveniences containing the faunal elements.

In 1987 a second, brief investigation was made at the site. This included surface collection of the normally inundated mudflat at the northwest end of the island and limited metal detecting near 1986 Test Units 1-3. Interesting historic artifacts were recovered from the 1986 and 1987 fieldwork. These include several fur trade objects (Richner 2002:Table 4). A small brass "hinge" with preserved fabric, 1 flattened brass cylinder of undetermined function, a double wound fragment of brass wire, 2 iron bars, 1 lead sprue, an unidentified brass object, 1 brass, cut kettle fragment, and 6 pieces of glass were collected in 1986. In 1987, very limited metal detecting yielded several diagnostic items (Richner 2002:Table 4). These include ferrous scrap, two forged, square ferrous "bolts," a metal table knife, a brass knife cross guard or "quillon," (Richner 2002:Figure 17e), an offset awl, a white metal (pewter?) button (Richner 2002:Figure 16i), and a glass sherd. Like nearby site 21SL173, worked black pipestone fragments, probably of historic association, were also recovered. These include 10 pieces from Test Units 1 and 2 that weigh 44.2 g. None are tobacco pipes or other finished objects. All are waste products from making other items.

In 2001, additional, very small-scale fieldwork was conducted at the site. A single 1-x-1-m test unit (number 4), was excavated along with limited metal detector investigations. The metal detecting revealed that there is modern camper/fisherman debris buried on the island, especially in the thickly overgrown area immediately north of the area containing Test Units 1-4. Various cans, aluminum foil and other objects are buried or otherwise discarded in this area. All historic metal objects were collected from the same, small flat area that yielded pre-contact and post-contact artifacts in 1986 and 1987.

Test Unit 4 yielded a scraper and a retouched piece along with 21 pieces of chipped stone debitage. The debitage was clustered in the 10-20 cm below surface level. Four pieces of debitage were also recovered from Shovel Test 1 at one of the metal detector find spots. Nine Laurel smooth surface body sherds were collected from Test Unit 4, 11 from Shovel Test 3, and 3 from Shovel Test 7. This discovery is consistent with previous work at the site and suggests that the pre-contact site occupation may be limited to the Middle (Initial) Woodland period. Additional faunal elements, which have not yet been identified, were also collected from the site in 2001. These appear to be associated with the Laurel site occupation.

The 2001 fieldwork also yielded a small, but very impressive collection of historic fur trade-related items. These include a nearly complete Micmac style black pipestone tobacco pipe (Unit 4) (Fig. 3.4), an English blade style gunflint (22.1 x 26.6 x 9.2 mm) (ST 4), a brass trade ring with glass faux gem insets (ST 3) (Fig. 3.4), a flattened brass ramrod guide, probably suspended and used as an ornament (ST 7) (Fig. 3.2), an unidentified rusted item (ST 5), an unidentified metal rectangular object with a small hole in one end, and a piece of lead bent into an oval-shaped "ring." The Micmac tobacco pipe is broken with two fragments present (Fig. 3.4). Only a small portion of the rim is missing. It has a shallow engraved design consisting of 10 fine "dots" around the base of the bowl, longitudinal lines and other similar elements. The brass ramrod guide is probably from a trade gun. The small brass ring features a colorless center

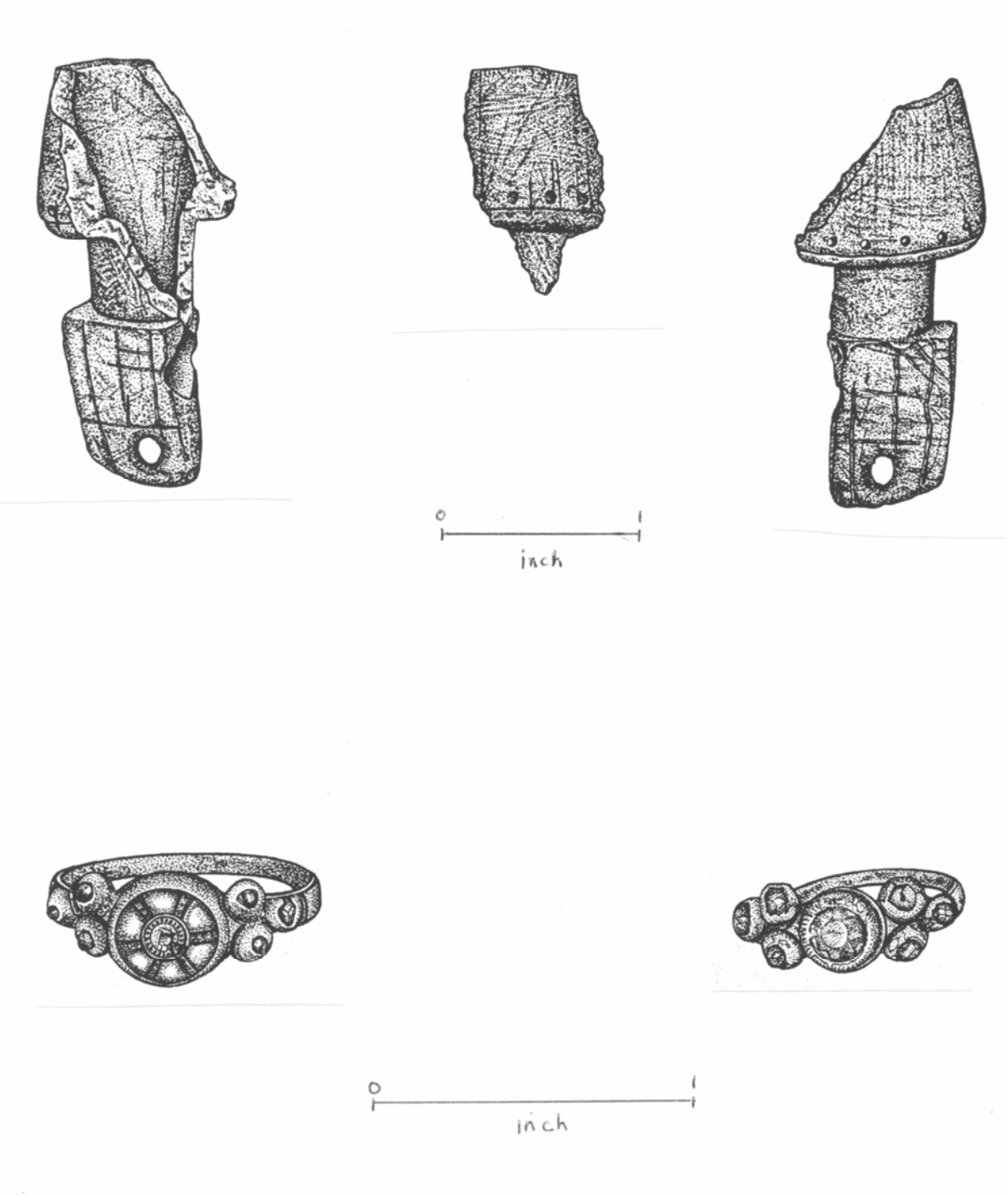

Figure 3.4. Select artifacts from 2001 fieldwork. Top row, black pipestone Micmac pipe, 21SL191 Test Unit 4; Bottom row left, brass ring from 21SL191, Shovel Test 3, center set colorless, other sets cobalt blue; bottom row right, brass ring from 21SL47, Metal Detector I, all sets cobalt blue.

"stone" flanked by three tiny blue glass sets on either side. Very similar, or perhaps identical, rings were collected from Fort Michilimackinac (Stone 1974:123, 126, item B) and from the Lady Rapids Site (DcKc-1) on the Namakan River just east of VOYA (Callaghan 1982:22, Figure 24).

It is difficult to place the historic objects from 21SL191 in a precise temporal perspective. The white metal (pewter?) button (Richner 2002:Figure 16i) is essentially identical to one of the examples from nearby site 21SL173 (Richner 2002:Figure 16g). It is difficult to determine if the shank is the same as the previous example, or if it is what Hughes and Lester (1993:204, 221) term an eye shank embedded in a hump of pewter. If it is of the latter type, the button may date slightly later than the example from 21SL173, but would still predate about 1830. The brass ring with glass insets is difficult to precisely date. Callaghan (1982:22) estimated the age of an historic occupation of the Lady Rapids Site, and by extension the ring similar to the 21SL191 example, to A.D. 1750-1770. He based that narrow range upon reported pre-1770 dating for French spall gun flints, a 1750+/-100 carbon 14 age for a Sandy Lake component from the Long Sault Site on Rainy River, and upon a 1750-1780 time range of similar rings from Fort Michilimackinac. However, Stone (1974) does not offer a particular date range for these rings, and as discussed earlier, such rings appear to have a considerable temporal span. Further, it is known that honey-colored French gun flints were in common use into the 1820s era (Carlson 1979:65, Plate XVIIA, 17-18), so a pre-1770 date does not accurately reflect an upper age limit for such objects. While a 1750-1770 date for Lady Rapids may be accurate, that does not confirm that the ring from 21SL191 dates to that narrow time span.

The Micmac tobacco pipe from 21SL191 is of a style that has very wide geographic and temporal parameters. Roughly similar Micmac tobacco pipes (Mason 1986:Plates 14.5 and 14.6) from the Rock Island Site on Lake Michigan date to the site's 1670-1730 and 1760-1770 occupations (Mason 1986:217-218), but similar pipes were still in use by about 1830. A very similar engraved example from Fort Ouiatenon (12T6) dates to the 18th century (www.gbl.indiana.edu/figures/89/89_4.html). It is likely that the tobacco pipe from 21SL191 dates to the late 18th or early 19th century, but that range should be considered an estimate. The presence of the pipe at the site may be considered to be a good indicator that the occupation was by Native-Americans, rather than Euro-Americans, since clay tobacco pipes were usually favored by Euro-American fur traders. Conservatively, it would appear that the bulk of the historic materials at 21SL191 suggest a pre-1850s era occupation, and it is likely that it dates somewhere closer to 1800.

Although the artifact yields are somewhat divergent, the historic occupations at sites 21SL173 and 21SL191 appear to be essentially equivalent in age and function. It appears that site 21SL191 was the location for a small temporary Ojibwe camp, perhaps where a single wigwam or similar structure formerly stood in the late 18th or early 19th centuries.

SUMMARY OF SITES 21SL173 AND 21SL191

Perhaps the best analogy for the possible function of sites 21SL173 and 21SL191 is offered in the observations of international boundary surveyors Delafield and Bigsby in 1823 or of Alexander Henry (younger) in 1800. Henry observed birchbark canoe manufacture at Sand Point in 1800 (Coues 1965,1:17; Gough 1988:10). I assume he is referring to the Sand Point directly across from sites 21SL173 and 21SL191 in Ontario from which the lake gained its name. Other special use sites were present on Basswood Lake prior to 1803. The purpose of all these sites was to take advantage of opportunities presented by ongoing traversing of the area by fur trade brigades. Ojibwe occupation of the Crane Lake shoreline is reported to date from about A.D. 1736 (Hickerson 1974). That location is a short distance by canoe from sites 21SL173 and 21SL191, so there would have been a long period of time for establishment of special use sites along the fur trade route by the Ojibwe by the time these sites appear to

have been occupied. Further, the sites occur along a very narrow portion of Sand Point Lake. All canoe traffic would have passed directly east of the sites in the narrow channel that now forms the international boundary. The site occupants would have seen all traffic that passed and could have easily engaged any traders or other travelers.

In 1823 American surveyor Major Delafield entered Sand Point Lake, at that time often considered to be part of Namakan Lake, from Little Vermilion Lake after crossing Lac La Croix. He recorded this interaction in his diary entry for July 25, 1823 (McElroy and Riggs 1943:419):

> Islands in all directions obstructed the view, and generally confine it to a mile or so in extent. Several Indians from their wigwams on the islands, aroused by the chant of my lighthearted crew, gave chase in their little canoes. They brought me presents of blueberries, that grow in this country in very great profusion and large, for which I gave some tobacco and leave them.

Delafield engaged in additional trade with these Indians as he moved further down the lake following and mapping the international boundary. He reported this interaction as somewhat of a nuisance and appears to have tried to avoid additional contact. On his return trip to Lac La Croix, he again encountered Indians in "Lac Namecan" and traded tobacco for very large amounts of blueberries. The group that he met at this time included adults as well as children of all ages. Delefield's observations are repeated by his Canadian counterpart, John Bigsby during his survey efforts in the area in 1823 (Bigsby 1969):

> Of Lake Namaycan, I shall only say that it is about twenty-miles long in a northwest direction, singularly broken up into bays and outlets. We were cheered by noticing five wigwams at an open pleasant-looking point.

Even if these observations were not made in the precise area of sites 21SL173 and 21SL191 on Sand Point Lake, they were certainly made in the general area and serve to place sites like 21SL173 and 21SL191 in a plausible temporal and functional perspective. The small size of the sites, their location on very small, rocky islands, the shallow, ephemeral character of the historic artifact deposits, and the range of artifact types combine to suggest that the sites result from short-term, Native American occupations. Use of the sites for short-term, special-use site functions by fur traders, such as for a winter "watching tent," as predicted to occur within the park, is also conceivable, although those sites were typically positioned at the mouths of major rivers. Further, there are no obvious references to such sites in the Sand Point Lake area in the Hudson's Bay Company Lac La Pluie post journals that overlap in time with the probable age of this fur trade site component (Thiessen 1997). The types and range of artifacts (including a black pipestone tobacco pipe and pipe manufacturing debris, beads, an awl, a fragmentary muskrat spear, modified kettle fragments, a purposefully flattened ramrod guide, an ear ornament made from some other larger silver object) present at the sites argue strongly for a Native American site association. This is further supported by the lack of other material culture items that might be anticipated at a Euro-American site (see Chapters 5 and 6). Given the history of extensive and intensive Ojibwe occupation of the area during the late 18th or early 19th centuries when use of the sites is suggested by the few temporally diagnostic artifacts, it is likely that they were the occupants that lost or discarded the historic objects described above. I favor the interpretation that this occurred as part of local activities by a Bois Forte group known to have lived in close proximity to these sites since the 1730s. An alternate interpretation might be that the site component results from a local Ojibwe/French Canadian fur trade company employee (such as an interpreter) stationed at a watching tent waiting to meet his Indian trading partners and collect their debts or encourage them to continue to the main trading post or for some similar trade-related activity. While I strongly favor the former interpretation, the available data are insufficient to absolutely confirm that identification.

21SL47A

This site is located at the Kabetogama Narrows area, west of the junction of Sullivan Bay Narrows and Kabetogama Lake. The site was recorded by Gibbon (1977) and reinvestigated by a Midwest Archeological Center team in 1979 (Lynott et al. 1986). Those research efforts indicated that it was a potentially significant prehistoric site. However, it was not until it was re-examined in 1992 as part of an inventory of a proposed boat launch, road, and parking improvement project that its historical importance was recognized.

Gibbon (1977:101) reported that site 21SL47 occurred on two small peninsulas and the small bay that connects them. It is located near the lodge of the former Meadwood Resort. That building now serves as a National Park Service visitor center. The western point (now designated as site 21SL47b) was the most "productive" area during the University of Minnesota's small-scale site investigation in 1976 (Gibbon 1977:101). One smooth-surfaced body sherd, 1 piece of worked "steatite," 1 quartz knife, and 1 chert flake were reported from a surface collection of the shoreline and a single shovel test on the western point (Gibbon 1977:52). The reported discovery of a five-inch long copper spear point with lateral notching at the site by a park visitor led Gibbon to identify an Archaic occupation in addition to the Woodland occupation (Laurel?) represented by the body sherd (Gibbon 1977:30, 101). While Woodland sites are present at the park in considerable numbers, Archaic occupations are poorly known and recorded in low numbers (Gibbon 1977; Richner 1999, 2003).

A Midwest Archeological Center team conducted interval shovel testing and limited test excavations at the site in 1979 (Lynott, Richner and Thompson 38, 115-120). In contrast to the findings of the University of Minnesota team, the eastern point, designated site 21SL47a by the 1979 team, rather than the western point appeared to represent the core of the site. Shovel tests at the western point, designated site 21SL47b, yielded few artifacts in a shallow setting (Lynott, Richner and Thompson 1986:115). The eastern point, which was investigated through four 1-x-1-m units in addition to shovel testing yielded numerous artifacts including a hammerstone, lithic debitage, chipped stone tools, prehistoric ceramic sherds, and two copper artifacts including a copper crescent. Faunal remains included deer, moose, beaver, and muskrat (Lynott, Richner and Thompson 1986:119). Site age was estimated to be within the Terminal Woodland period. The site was reported to be significant and eligible for the National Register of Historic Places (Lynott, Richner and Thompson 1986:120). While the identification of the Terminal Woodland component is accurate and is based upon discovery of sherds with textile surface treatment, it seems likely that the copper crescent may be additional evidence for Gibbon's original identification of an Archaic site component.

It is interesting to note that two inventories at this relatively small site failed to discover any historic objects, despite the placement of shovel tests in close intervals on both peninsulas. That situation changed when a third, brief fieldwork effort was conducted at the site in 1992. At that time the National Park Service was planning a major improvement to facilities near the former Meadwood Resort. This included improving the access road to the visitor center and constructing a new boat ramp and two relatively large parking areas. Plans were also developed for removing the existing fire cache building and fuel dock at the eastern peninsula of site 21SL47. Consideration was given to developing minor day use facilities at 21SL47a, but those plans were changed during the planning process.

As part of the inventory process for the various improvements, site 21SL47a was revisited in 1992 by a Midwest Archeological Center team. That work consisted of a reconnaissance inventory and limited metal detecting. We believed that there was already enough information to recommend site preservation prior to the 1992 fieldwork. However, that fieldwork, although very limited in scope, added considerable new information suggesting the site is even more important than previously thought. Accordingly, recommendations were made for carefully protecting the site during planned fuel dock removal and

construction of the adjacent parking area (Richner 1992). Planning and construction documents were altered accordingly, and the site area was fenced and protected during all subsequent construction actions.

The brief mapping and metal-detecting effort in 1992 at site 21SL47a yielded a surprising variety of items related to the fur trade (Richner 2002:Table 4, Figures 16, 17, 18, 19, 20). These include: unidentified ferrous fragments, a frizzen (Richner 2002:Figure 18c), a heavily worn and bent lock plate with its tail cut off possibly for refitting to another gun (Richner 2002:Figure 18a) a percussion cap box lid (Richner 2002:Figure 18b), two percussion caps, lead shot (.60-inch diameter), an offset awl (Richner 2002:Figure 17a), two spoons (Richner 2002:Figure 17d), a utensil handle, a nickel-plated ferrous band, 2 cut brass kettle fragments, a brass kettle fragment with tooth-like indentations cut into one end, apparently for use as a pipestone saw (see Douglas Birk, Chapter 5, Collection A elsewhere in this report for a description and illustration of a similar example from the Voyageurs region as well as a summary of examples found at other fur trade sites), a brass tinkling cone blank cut from a kettle, a brass arrow point made from a kettle fragment (Richner 2002:Figure 19b), a ferrous wire bail or handle, a firesteel (Richner 2002:Figure 17b), a muskrat spear (Richner 2002:Figure 20b), a scissors (Richner 2002:Figure 17c), a brass bracelet (Richner 2002:Figure 19a), a white metal button (Richner 2002:Figure 16b), fragments of a red pipestone Micmac style tobacco pipe, and three very small faunal elements.

Most of these artifacts occurred very close to the modern ground surface within the shallow root mat/humus zone. A few were recovered just into the sandy A horizon soil at the base of the humus. Excavations were conducted with trowels by scraping back the pine needle leaf litter and top few cm of the black humus zone. Very little ground disturbance resulted from collection of the artifacts. The artifacts are highly clustered in a small area (about 100 sq m) near the tip of the eastern peninsula at what Lynott et al. called site 21SL47a (Fig. 3.5). The published version and the original field map from the 1979 investigation suggest that shovel testing did not extend into this area of the site, accounting for the failure to discover the historic site component in 1979. It is also conceivable that the historic component would have been missed even if the area had been examined via 5-m interval tests given its small size.

In 2001, a brief visit to the site yielded several additional fur trade items (Richner 2002: Table 4). These include a brass button, two cut brass kettle fragments, an eared lug cut from a brass kettle (Fig. 3.2), three tinkling cone blanks cut from a brass kettle (Fig. 3.2), a tinkling cone made from a cut brass kettle fragment (Fig. 3.2), lead sprue, and a brass trade ring with glass “faux gem” insets (Fig. 3.4).

All of the historic artifacts collected from 21SL47a in 1992 and 2001 occur in a cluster near a large stone that is exposed on the ground surface (Fig. 3.5). A faint depression is also visible in the pine needle forest floor north of the exposed stone. Perhaps the depression marks the former location of a wigwam or similar structure. The small size of the site's historic component would seem to be consistent with occupation of a single structure, if in fact any structures were formerly present.

The red pipestone Micmac style tobacco pipe, tinkling cones, tinkling cone blanks, brass arrow point, brass “saw,” and numerous modified brass objects are consistent with a Native American, rather than Euro-American occupation of the site. While tinkling cones may have been worn as clothing ornaments by the French and British as well as Native Americans, it is likely that Native Americans manufactured tinkling cones from kettle scrap at their occupation sites (Stone 1974:134). The tobacco pipe consists of two relatively large and five tiny fragments from about one-half of a pipebowl. The constricted neck at the base of the fragment is consistent with a Micmac tobacco pipe form. The stone is very light red in color and may have been burned after manufacture since much of the outer bowl surface is blackened. It is very soft and friable and easily leaves a streak when lightly drawn across a sheet of white paper. It should not be assumed that it is made from Catlinite from the famous pipestone quarries of southwestern Minnesota since other sources of red pipestone are documented (Gunderson, Waselkov, and Pollock

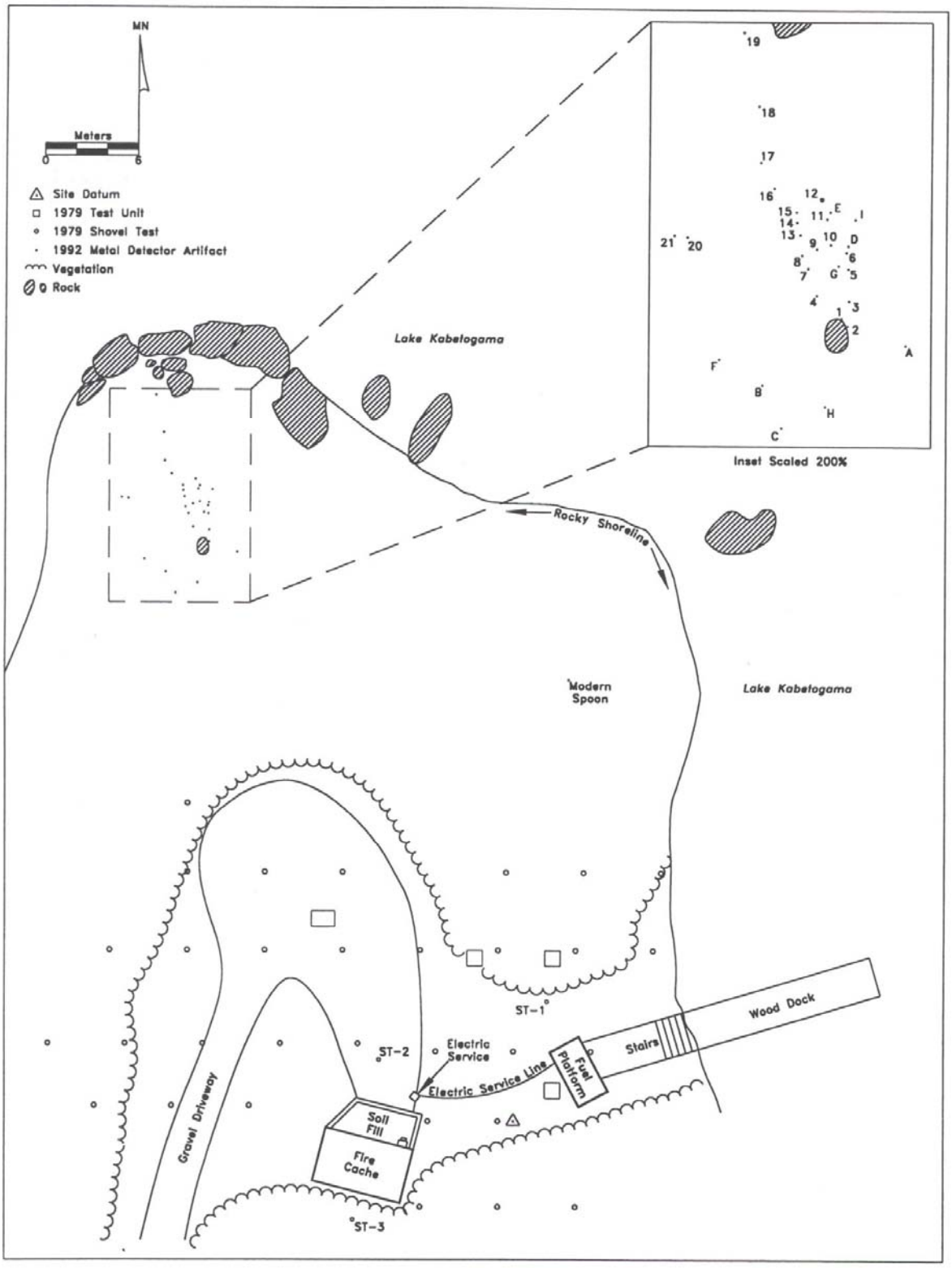

Figure 3.5. Site 21SL47.

2002:105-116). In fact, there is an early reference to the presence of a red pipestone source on Rainy Lake by Sir Alexander Mackenzie (Lamb 1970:105):

> There is a deep bay running North-West on the right, that is not included, and is remarkable for furnishing the natives with a kind of soft, red stone, of which they make their pipes...

Detailed study via X-ray powder diffractometry (or some other analytical technique) of the pipe would be required to determine if it is Catlinite or some other red pipestone, since visual inspection is insufficient for such identifications. As described above for site 21SL191, it is difficult to place this pipe in firm temporal parameters, although similar Micmac tobacco pipes were in widespread use in the 18th century. At least one illustration indicates that they were still in common use by about 1830 (Gilman 1982:Figure 164).

Hand made, "dog-eared" kettle lugs appear to have a long period of use in both the French and English fur trade eras (Stone 1974). The example from 21SL47a, about 50 x 58 mm in size, was attached to the kettle rim and had two rivets for attachment to the kettle's body. Birk, in chapter 5 of this report, Collection A, provides a detailed summary of the manufacture of these lugs and associated kettles and provides numerous citations to similar examples that range in age from about 1680-1820. Despite this long span of use, the specimen from 21SL47a was made prior to the middle 19th century when other manufactured forms of kettles and lugs came into use.

The tinkling cone blanks fit the trapezoidal form described by Stone (1974:131). The rather precise match in size between one of the blanks and a complete example from 21SL47a is shown in Fig. 3.2. These items do not appear to be sensitive chronological indicators (Stone 1974:134), although it has been suggested that the cones become smaller in size through time.

The white metal (pewter?) button from the 1992 site investigation has two spurs in the blob of metal where the eye is attached. According to Hughes and Lester (1993:221) this is an 18th century eye attachment technique. Stone illustrates similar examples and attributes various dates to buttons of this form (1974:53 and Figures 28g, 28h). However, all of the archeological examples he cites appear to predate about 1800. The brass button from 2001 also appears to date to the late 18th or early 19th centuries. However, as with many items found in Native American sites, these items may have been used many years after their original manufacture date. These and the other buttons described in this report may have been used as decorative items, rather than for their original function as clothing fasteners.

The brass ring with stone sets is very similar to an example reported to date between 1770 and 1790 (Wood 1974:Fig. 15a). At Fort Michilimackinac 31 specimens generally similar to the site 21SL47a example were thought to date from about 1750-1780 (Stone 1974:123-125, and Figures 57 and 58). However, other generally similar examples may date to the early 19th century (Gilman 1982:Figure 31) or as early as the 1680s (Robert Birmingham, personal communication 2002). Chronologies are not well developed for these rings.

The presence of the two tiny percussion caps and the percussion cap box lid suggests site use circa 1840 or some time thereafter. Percussion caps were invented about 1820, but did not come into common use until about 1840. Such use extended for many years, so the upper time limit for percussion cap use at the site is not known.

Taken as a group, the artifacts would appear to span the era from the late 18th century through 1840, and probably later. While this may seem to suggest use of the site over several decades, the very small size of the historic site component is consistent with a short-term site occupation. Given the very limited work conducted at the historic component of site 21SL47a in 1992 and 2001, the precise age and character of

that site component cannot be resolved with certainty based upon existing information. Its very small size matches very well with the historic artifact scatters at 21SL173 and 21SL191. The range of artifacts is consistent with a Native American occupation and the time frame is within the period when the Ojibwe were the primary occupants of the park area. Unlike the sites discussed on Sand Point Lake, site 21SL47a is not on a primary fur trade route. Like those sites, it is located along a lake narrows, but its position on southern Kabetogama Lake places it well away from the primary fur trade route that followed the current international boundary. The site is not along the primary voyageurs route to the Rainy River (or Vermilion Lake) fur trade posts and would not appear to be a prime candidate for a Euro-American fur trade era special use site such as a "watching tent" or stopping place. It is, however, on a lake route that the Bois Forte Ojibwe used to travel between their settlements on Black Bay of Rainy Lake, northern Kabetogama Lake, and Moose River of Namakan Lake. It is also very near the narrows where Ash River joins Kabetogama Lake. It is likely, given site age and content, that members of the Bois Forte Ojibwe (Richner 2002) occupied the site and purposefully discarded or lost the objects described here. Perhaps, like the two sites on Sand Point Lake, it was the location of a single wigwam or similar aboriginal structure circa 1840.

SUMMARY

This chapter included an overview of the kinds of fur-trade era sites expected to occur within VOYA, an analysis of the evidence for use of the park area by various Native American groups during the fur trade era, and a summary of the results of limited test excavations at three small, multi-component archeological sites that contain fur trade artifacts. These sites, 21SL173, 21SL191, and 21SL47a, are among nearly two dozen sites within the park currently known to contain fur trade materials. Most of those sites can be historically associated with the Bois Forte Ojibwe and none matches archeological expectations for a fur trade post relative to artifact content, site size, and complexity.

Given the age, artifactual content, location, and character of three sites combined with local fur trade and Native American history, I interpret their fur trade components to be the result of historic Native American activities by members of local Ojibwe (Bois Forte) residential bands. Alternate explanations for the source of the historic artifacts would include activities by other, transient Ojibwe groups present in the area to trade at one or more the various Rainy Lake posts, or as the result of a special-use fur trade company site such as a winter watching tent. It would be difficult, if not impossible, to make an absolutely positive identification of specific Ojibwe group association given a lack of specific historical information for the three site areas. Numerous other sites within the park can be firmly associated with Bois Forte Ojibwe occupation through historic records and genealogical associations, including several with fur-trade components, but those connections are lacking for the three sites considered in this chapter. Since watching tent locations were often under the direction of a fur trade company interpreter who was typically of mixed Ojibwe and French Canadian ancestry (e.g. Vincent Roy II), they might be expected to contain material culture that would be similar to other Native American sites. However, no watching tents are documented in the primary historic literature at the locations of the three sites considered here, and I favor an interpretation that the sites result from the activities of very small numbers (a single family at each site?) of Bois Forte Ojibwe. Multiple Bois Forte bands lived within the project area from the early 18th through middle 19th centuries, making them the primary candidates for the site occupants.

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4. UNDERWATER ARCHAEOLOGICAL SURVEY OF SELECTED OFFSHORE AREAS AT VOYAGEURS NATIONAL PARK, ST. LOUIS COUNTY, MINNESOTA, 2001

Douglas A. Birk
Institute for Minnesota Archaeology

As part of the 2001-2002 fur trade studies conducted by the Institute for Minnesota Archaeology (IMA) for the National Park Service (NPS), a team of SCUBA divers examined several offshore areas within Voyageurs National Park (VOYA) for possible evidence of submerged fur trade sites or deposits with archaeological potential. Among locations initially considered for field investigation during this study were portage termini, narrows, and offshore areas adjacent to known fur trade sites. Final decisions regarding actual investigations were made in consultation with NPS resource personnel. This paper discusses VOYA-area waterways and potentials for finding offshore archaeological loci in the park, as well as the search areas, methods, and results of the 2001 field surveys. Among the specific goals of this work were to:

- explore selected offshore areas for material evidence of the fur trades,
- date and identify the submerged fur trade sites or deposits,
- assess the integrity and the research and interpretive potentials of the sites or deposits,
- make recommendations for future research and management, and
- involve public participation in an NPS-sponsored VOYA field project.

No workable underwater archaeological sites or deposits were identified during the 2001 survey.

BACKGROUND

Surface water has long shaped human travel, settlement and land use practices as well as dietary regimes in the lake-forest areas of northern Minnesota. That is distinctly the case within the rugged, heavily wooded, water-rich environment of VOYA. The myriad waterways there provide drainage, spatial openings, and vistas. They also form thoroughfares and fire breaks, and they contain critical resources and living areas, evoke place names, and help structure “cognitive maps” of routes, territories, boundaries, dangers, and opportunities. The “sky blue waters” have inspired stories and traditions and all manners of art, including advertisements for a well-known regional beer. VOYA-area waters have been used for cooking, bathing, drinking, craftwork, fighting fires, transporting logs, and electrical power generation. People have extracted fish, shellfish, wild rice, beaver, muskrats, otter, and ice from the waters. They have traveled on and portaged between the myriad lakes and streams and have attempted to control them by building dams and dikes. Not surprisingly, most archaeological and historic sites at VOYA are located on the shores of its major waterways.

Surface waters in the park are now part of the Rainy Lake and Namakan Lake reservoirs. The latter flowage includes Namakan, Sand Point, Little Vermilion, Crane, and Kabetogama lakes. It drains into Rainy Lake through channels on the north side of Namakan Lake and through an outlet at Gold Portage that flows from Kabetogama Lake into Black Bay. The Namakan watershed incorporates 7,200 square miles of which 1,000 square miles (14 percent) is surface water. The Rainy Lake watershed above International Falls covers 14,500 square miles also comprised of 14 percent surface water (See: http://lakes.bc.com/watershed_history.htm). In contrast, VOYA contains an area of 217,892 acres of which over one-third is surface water (Lynott et al. 1986:12).

A hydroelectric dam built in 1909 on the Rainy River at International Falls/Fort Frances now controls the water level of Rainy Lake at an average elevation of 1108 feet above mean sea level (amsl). The Namakan Reservoir is maintained by a system of control dams built in 1914 at Kettle Falls and nearby Squirrel Falls. The Namakan flowage, held at an average level of 1118 feet amsl, augments the pool elevation of Rainy Lake.

The International Joint Commission (IJC) regulates the water levels in both reservoir systems within seasonal minimum and maximum limits or "rule curves" (Kitchell and Koshinsky 1996:1; Lynott et al. 1986:12). Actual oversight of the rule curves is delegated by the IJC to the International Rainy Lake Board of Control, a board with both U.S. and Canadian representatives and a technical staff. The IJC introduced the first rule curves in 1949 after detailed formal study and public hearings. Serious floods in 1950 and 1954 led to modification of the rule curves in 1957. Following high and low water events on the lakes from 1957 to 1968, the rule curves were changed again in 1970. The latest revisions to the rule curves occurred in January 2000.

The discharge requirements for the reservoirs are set by the IJC to avoid "emergency conditions." Emergency conditions are declared when the level of Rainy Lake is above 1108.1 feet and that of Namakan Lake is over 1118.6 feet and inflows to the reservoirs exceed the discharge capacity of the reservoir dams. Emergency conditions also occur when Rainy Lake is below 1104.6 feet and Namakan Lake is below 1108.6 feet, and the dams are flowing at a minimum discharge (http://lakes.bc.com/watershed_history.htm).

In the past, the levels of VOYA-area lakes have been both higher and lower than at present. The level of Rainy Lake is now regulated to have "less annual variability than under natural conditions." Since 1970, the maximum annual water level change in that lake is said to have averaged just 3.6 feet. Conversely, the Namakan system, regulated with a "greater annual change than under natural conditions," has had recent maximum annual water level changes averaging 8.9 feet. On the Namakan system the annual water level range is currently about three feet more than that estimated under natural conditions (Kitchell and Koshinsky 1996:1).

The greatest recorded elevation of VOYA lakes may have occurred in 1915 and 1916. During the summer of 1916, for example, rain-swelled waters overtopped the dams at Kettle and Squirrel Falls and breached the dikes at Bear Portage on the north shore of Namakan Lake. At the same time, "raging floodwaters" ripped through the stream at the Gold Portage passage, uprooting trees and scouring the stream valley there so that it "resembled the path of a tornado" (Beatty 1965:63).

Natural lake fluctuations have long exposed beaches in the VOYA lakes area, and the beaches, in turn, have attracted human activity. The famed 1871 painting, *Voyageurs at Dawn*, by Frances Anne Hopkins (Fig. 4.1), shows a fur trade canoe camp on an exposed beach similar in many respects to those seen at VOYA. The illustration, long a favorite among northwoods aficionados, now graces the outer fold of the current "official map and guide" for VOYA park. In addition to showing the nature, size, and configuration of a lake-oriented fur trade canoe camp, the painting also implies human activity in the backshore zone behind the beach—in this case the gathering of firewood for a morning repast. Obviously, if the same stopping place attracted visitors or campers during periods of high water, then the backshore zone would have seen greater and different use. In such areas, where the shoreline gradient is low, or relatively so, the potential for fur trade sites or deposits may lie in areas both above and below the present high water line.

Archaeological sites were known on VOYA area beaches prior to construction of the Rainy-Namakan dams. As noted in the introduction to this volume, after the dams were erected, many of the shoreline sites were flooded, eroded, or destroyed. A focus of archaeological investigations in

Figure 4.1. The Frances Anne Hopkins oil painting, "Voyageurs at Dawn," showing a voyageur canoe camp on a beach exposure within what appears to be a natural shoreline fluctuation zone. This may be the same painting Hopkins once exhibited as "Canadian Voyageurs on Lake Superior starting at Sunrise" (Courtesy National Archives of Canada, C-002773).

the park has been to delimit and evaluate shoreline sites in their entirety. To do so, investigators typically walk and surface-collect exposed beaches and shovel test adjacent backshore areas (Lynott et al. 1986:30-31). This approach has often revealed the presence of stable or "intact" primary cultural deposits and features above the present high water line. It also suggests that some site areas within or below the shoreline fluctuation zone could also possess a high degree of integrity (e.g., Lynott et al. 1986:29, 238; Catton and Montgomery 2000:4).

Many archaeological sites within the area of the park may now lie wholly underwater below the current fluctuation zone. This could include terrestrial sites that were located on exposed shorelines, lake-bottoms, or riverbeds during the Altithermal or other droughty periods of extreme low water. It could also include evidence for winter activity loci, like animal kill and ice-fishing sites that were initially on frozen lake or stream surfaces before sinking into the depths at the time of the spring thaw. Winter accidents, where people, toboggans, dogsleds, logging sleds, and the like have fallen through ice, might also leave an archaeological record. So too might canoe and boating accidents, plane wrecks, log booms and hoists, trestles, old quays and landings, fish weirs, animal trap riggings, duck blinds, jetsam, and activities like offshore dumping or dredging.

The specific types of early Euroamerican sites that might be expected along the Voyageur's Highway and within the VOYA area of northern Minnesota are discussed elsewhere (e.g., Birk 1991; and Jeffrey Richner in Chapter 3, above). Among underwater cultural properties that have

attracted considerable attention in the past are those associated with capsized, damaged, or sunken watercraft. The VOYA lakes are expansive and full of surprises that render them treacherous for bark canoes. Early canoe travelers there often encountered sudden squalls, favorable or contrary winds, or winds and waves so great that they were forced to seek shelter on islands or other landmasses. Deep wave troughs, lake level changes, and wind-driven currents might expose or create other hidden dangers unknown to even the most experienced guides. According to some observers who early passed through Rainy Lake:

> Reef of rocks often occur [there], sometimes rising above the surface of the water and in many places are sunk to a moderate depth below, rendering the navigation hazardous [Long 1978:217].
>
> The strait [today's Brule Narrows] is rock and must be entered with caution. Some of the rocks are hidden [Delafield 1943:421].

Striking a jagged reef with a bark canoe might disembowel the vessel, causing the heavy fraction of cargo to drop out and sink to the bottom while the light cargo and lucky passengers might float away. Lightning was another danger to be feared, for a single strike could instantly maim or kill an entire crew and cause their canoe to fragment, burn, or go adrift.

One way to locate and assess offshore sites is through SCUBA diving. Recreational divers and archaeologists have engaged in underwater explorations at VOYA in the past. Though the intentions and goals of recreational divers are little known, at least one favorite recreational dive site has been among the rocky reefs and channels at Brule Narrows and Soldier Point on Rainy Lake. Numerous successful underwater archaeological searches were conducted along the "Voyageur's Highway" west of Lake Superior in the 1960s and 1970s (e.g., Holmquist and Wheeler 1964; Wheeler and Woolworth 1968; Wheeler 1972, 1973; Wheeler et al. 1975; Birk and Wheeler 1976; Birk 1975, 1979). Archaeologists Dean Anderson, Douglas Birk, and Tom Ellig, also did underwater surveys in the Kettle Falls locale in October 1975. Among findings of the latter expedition were a ceramic platter from the old Kettle Falls Hotel, a large iron anchor (perhaps from a steamboat or log boom), and a submerged wooden boat (Watson et al. 1976). In recent years, despite these previous studies and successes, there are still lingering questions about the feasibility of locating and investigating submerged fur trade sites, deposits, or objects within VOYA waters.

THE 2001 SURVEY

The 2001 IMA/NPS offshore survey was completed in two stages. The first stage, a preliminary field visit, involved a reconnaissance of areas that might contain underwater fur trade sites or deposits. The second stage involved actual underwater investigation of selected areas.

The choice of areas to visit during the initial tour was determined from the results of prior literature and field studies and through consultation with NPS personnel. The latter included Mary Graves (VOYA Cultural Resources Specialist), Jeffrey Richner (Archeologist, Midwest Archeological Center, Lincoln, Nebraska), and David Cooper (Chief of Resource Management at Grand Portage National Monument). Birk, Cooper, and Graves made a preliminary field reconnaissance in July 2001. Richner has conducted archeological research in VOYA for over 20 years. Graves, who also has extensive knowledge of VOYA cultural resources and geography, has long worked with Richner on projects there. Cooper has frequently led or participated in underwater archaeology work and has broad knowledge of search methods, personnel and equipment needs, and tactical and safety considerations. Birk is experienced with fur trade history

and materials and has conducted many land-based and offshore archaeological investigations at fur trade sites. Joe Cayou, a veteran VOYA-lakes area boat operator and former SCUBA diver, guided the inspection team.

Among extant portages within the park that may have potential for some early regular fur trade use are Grassy Portage and Gold Portage. Grassy Portage is a carrying place linking Grassy Bay of Sand Point Lake with the south side of Namakan Lake. Gold Portage is a carrying place between Kabetogama Lake and Black Bay of Rainy Lake. Another possible early portage route that could have been used by traders and voyageurs is over the Rainy Lake peninsula that separates Saginaw and Lost bays, west of Soldier Point.

July 10, the first day of the initial reconnaissance, was given to inspecting areas of Rainy Lake, including Soldier Point and environs and Gold Portage. The second day, July 11, the team visited the Ash River Visitor Center, Namakan Narrows, both ends of Grassy Portage, Crane Lake (including the Vermilion River inlet), various islands and points on Namakan and Kabetogama lakes, and the Kabetogama outlet by Gold Portage. On July 12, the final day, Birk and Cooper met with Edgar Oerichbauer, Director of the Koochiching Museums in International Falls, to discuss regional fur trade artifact collections and to observe artifacts on display at the museum.

Following these initial activities, four offshore areas were selected, on the basis of suspected archaeological potential, for more detailed examination. At the same time, plans were developed to search each area with a dive team. If material evidence of the fur trades was found the physical integrity of the evidence and its research and interpretive potentials were to be evaluated using criteria set forth by the National Register of Historic Places program. In addition to submerged artifacts and artifact scatters, the survey was to search for other cultural representations like rock art, campfire circles, quarries, rock cairns, and canoe accident sites. All materials, unless of exceptional diagnostic quality, were to be left *in situ*.

In the weeks preceding the second stage of the survey, Cooper made equipment and boating recommendations, and he enlisted the help of several volunteer divers from the Great Lakes Shipwreck Preservation Society (GLSPS). The GLSPS volunteers, Steve Daniel, Kenneth Knutson, and Robert Nelson (Fig. 4.2), are all experienced deepwater divers with CPR training and a passion for maritime history and historic shipwreck preservation. Each of the volunteers had their own personal dive gear, including dry suits. They also furnished a large van, numerous dive tanks, underwater flashlights, and a gas-operated air compressor to the project. Birk, who directed the underwater investigations, wore a wetsuit.

UNDERWATER INVESTIGATIONS

Actual field investigations were conducted during the first week of October 2001. The four areas selected for underwater survey were Soldier Point at Brule Narrows on Rainy Lake, Site 21SL82 on the north side of Crane Lake, Site 21SL212 at the Kabetogama outlet near the southern end of Gold Portage, and Site 21SL47 in the area of Kabetogama Narrows. The shoreline characteristics made each of these locations amenable to underwater investigation. Prior discoveries reported by Richner also suggested a good potential for finding additional fur trade-era materials offshore.

The weather was predictably unpredictable throughout the underwater survey. Monday (October 1) was pleasant and clear, Tuesday (October 2) was cool and rainy with a hard east wind, and Wednesday (October 3) was cool in the morning, turned pleasant in the afternoon, and rained in the PM. Thursday (October 4) was cool with high winds. We awoke on Friday (October 5) to

Figure 4.2. The 2001 VOYA underwater survey team at the Kabetogama Lake Visitor Center marina. L-R: Joe Cayou, Ken Knutson, Doug Birk, Steve Daniel, Mary Graves, and Bob Nelson (Photo courtesy Kenneth V. Knutson).

snow showers and up to an inch of accumulated snow on the ground. The snow and a cold, penetrating, northwest wind continued throughout the day.

In addition to the considerable time spent organizing, transporting, preparing, donning, and removing the diving equipment each day, much of the gear had to be dried each night. Also, each night those with dry suits often found it necessary to make repairs to small holes that allowed water to seep in. Another nightly ritual, performed at the NPS headquarters parking lot in International Falls, was recharging the empty dive cylinders with compressed air.

The explorations of October 1 and 2 at Soldier Point were conducted through the Rainy Lake Visitor Center. The work at Site 21SL82 on October 3 was done through the Crane Lake Ranger Station and that done at the Kabetogama outlet on October 4 was done through the Kabetogama Lake Visitor Center. Joe Cayou transported Mary Graves and the dive team in NPS boats during each of these outings. The last dive, on October 5 at Site 21SL47, was made from shore near the Ash River Visitor Center.

Soldier Point. The first two days were spent investigating the offshore margins of Soldier Point, or "Point Observe" as it has been called. The point, a prominent landmark at the narrows or *detroit* between the east and west arms of Rainy Lake, is suitably positioned for use as a camping or resting place for passing fur traders or as a refuge if they were windbound. As a transportation bottleneck, the Brule Narrows by Soldier Point was a good place to meet people and to watch for

approaching watercraft. While historical references to actual use of Soldier Point are rare, some records show that Euroamericans and Indians did frequent its shores. According to diarist, Nicholas Garry, traveling west through the narrows on July 27 1821, his canoe party may have stopped for an hour at Soldier Point to dine. While so engaged, a party of Ojibwe (Sauteux) visited their camp:

> At seven [A.M.] landed to Breakfast on a Point called the Detroit about five Hours paddling from the Fort [at the outlet] of Rainy Lake. A Party of Indians, Sauteux, landed during our Breakfast [Garry 1900:125].

Another possible reference to a camp on the Point is found in a 1793 diary written by the trader, John MacDonell. According to MacDonell, his wintering party consisted of a brigade of fourteen canoes headed from Grand Portage to the Red River. On August 19, 1793, MacDonell wrote:

> Passed the remainder of Lake Miccan [Namakan Lake] with a brisk fair wind. Made the small portages neufs, at 9 A.M. [and] Entered Lake La Pluie [Rainy Lake] at 10½. A fair wind carried us over the Grand Traverse of four leagues and we camped at the petit detroit about three P.M. to wait the canoes behind. [Gates 1965:102-103].

Today, the head of Soldier Point is low and rocky with thick forest cover and ground vegetation. On October 1 the dive team explored areas at the very tip of the point and along its north side as far west as the first cove. The bottom was very rocky with some steep rock drop-offs and some mud, sand, and gravel expanses of low relief. The water was relatively clear and, in places, the underwater visibility ranged up to ten feet or more. Below a depth of about 25 feet, however, particularly off the east end of the point, the sunlight dimmed and visibility dropped to near zero. Very little pre-modern historic cultural debris was encountered. A basal fragment of an ironstone bowl was noted in the shallows on the north side of the point. Other than two unmarked stem fragments from white clay smoking pipes, nothing of possible fur trade origin was found. The pipe stems were found in shallow water close to shore at the tip of the point on the north side.

On October 2 the dive team worked westward along the south side of Soldier Point. The systematic search extended from its tip to a sheltered cove just north of Frank Island. The low-gradient shoreline from near the tip of the point westward to the first rocky reef or projection appears as a field of rock and gravel interspersed with pockets of sand. In that same area, as much as forty feet or more from shore, the water was only about two feet deep. Considerable time was spent looking for glass beads and other small artifacts in these shallows to no avail. At and west of that first rocky reef or projection, numerous large rocks and exposures of schist bedrock were encountered. Much of the rock was covered with a thick organic slime. A stiff east wind kicked up high waves and churned the lake bottom, lifting sediments and limiting underwater visibility. The same wind also created a current that gently carried the dive team along. Nothing of cultural interest was observed.

Site 21SL82. Site 21SL82 sits at the confluence of Crane Lake and King Williams Narrows. This multicomponent site has yielded evidence of human activity from at least 200 B.C. through to the present day. Among materials recovered at the site are Initial and Terminal Woodland ceramics (Laurel, Blackduck, and Sandy Lake), and a broad range of manufactured items dating from the mid-1700s up to the present day. Among the historic artifacts are a sample of French, British, and American trade goods including glass beads, a French clasp knife, a brass looped-shank button, and two trade axes, one marked **GMD** and the other **J. Johnston** (Richner 2002:70 and Figure 21). The site area, encompassing part of a forested rocky elevation, is now partly occupied by a NPS campground. Just east of the campground is a curved sand-gravel beach. To the west is a

marshland. The NPS conducted shoreline and campground stabilization activities at this site in 1988 (Lynott et al. 1986:159-170; Richner 2002:72).

On October 3 the dive team explored the entire offshore area by the site from King Williams Narrows on the east to the marshland on the west. The offshore area fronting the campground is very rocky. Amongst the rocks are some small and scattered sandy exposures. In other areas hardened clay-like sediments were encountered and, farther out, mud flats were seen. Lake-bottom areas to the east and west of the campground have a gentle contour. The east end of the curved sand-gravel beach terminates in a rocky reef at King Williams Narrows. Marine motors had struck the reef, and a mangled outboard-motor propeller was observed amidst the rocks there.

Much of the lake bottom in the survey area was covered with sediments and infested by thick slimy alga. Diving raised clouds of sediments. That, along with other suspended organic particles and the natural dark brown tint of the water, cut underwater visibility to five feet or less in most areas. Other than a small chalcedony flake and a four-hole sew-thru white porcelain button, nothing of cultural significance was observed during the offshore survey.

Site 21SL212. Site 21SL212 is at the Kabetogama outlet above the Gold Portage rapids. The site lies on an inundated mud flat along a shallow margin of the outlet stream. The site is a multicomponent artifact scatter containing prehistoric lithics and ceramics and historic materials. The historic materials, including a serpent sideplate, spent cartridges, a brass thimble, a scissors, a possible lead fishing weight, and an array of apparent household debris, are tentatively attributed to the Bois Forte Ojibwe (Richner 2002:94 and Table 4).

On October 4 the dive team explored the open channel fronting the site. Dense vegetation and soft sediments line the channel margins. The channel bottom contains areas of rock, clay, mud, and sand. Some areas support a luxuriant growth of aquatic weeds. The stream has a considerable current, particularly in mid-channel and most notably in a place at mid-channel where a large natural rock formation has been dynamited. There, the divers had to grasp the rocks to avoid being swept away. There was no danger, just a necessity to hang on. To conduct the survey, the dive team lined up across the channel at the downstream end of the site area and worked upstream to beyond the head of the swift water. Sediments displaced during the dive were washed downstream without limiting underwater visibility upstream.

Prior study of this site by NPS archeologists during a period of low water demonstrated the presence of cultural materials. The underwater survey located a few lithic flakes, some small sherds of grit-tempered pottery, and a spent “UMC .38 CFW” cartridge. None of these materials were collected, and nothing identifiable with the fur trades was found in the open channel. Given the stiff current and the history of catastrophic flooding in the channel, it is very possible the cultural materials could have been displaced from their original archaeological contexts and redistributed. As suggested by prior surface collection, additional cultural materials may lie within the area of the mud flat along the north stream margin. To excavate the mud flat would be a costly undertaking that might also alter the stream flowage, exacerbate erosion, and carry displaced sediments downstream perhaps as far as Black Bay of Rainy Lake.

Site 21SL47. Site 21SL47 is located on two rocky points of land and an intervening bay near the Ash River Visitor Center by Kabetogama Narrows. The site area on the eastern peninsula is designated 21SL47a and that on the west is 21SL47b. An historic component at 21SL47a is confined to a small area that may be associated with a single historic Native structure, such as a wigwam. Jeffrey Richner discusses prior investigations and findings at this site in Chapter 3 of this volume, and elsewhere (Richner 2002). According to Richner, the historic component has

"yielded the largest sample of fur trade items from any site within the park" (Richner 2002:98) and the artifacts suggest the component may date from the late 18th century through 1840 or later.

On October 5 the dive team explored offshore areas around the eastern point as well as nearby sectors in the bay fronting the visitor center. The area around the point was very rocky with exposures of coarse sand, but no aquatic weeds. During the dive, a strong cold northwest wind ran the length of Kabetogama Lake delivering flurries of snow and driving an endless parade of large white-capped waves onto the rocky shores. The turbulence kicked up some bottom sediments. Underwater visibility was quite good, however, excepting in recesses between or under rocks where occasionally it was necessary to use underwater flashlights for illumination. Here, for the first time, the wetsuit diver was envious of those with dry suits.

Among materials observed in the offshore shallows around the head of the eastern point of land by Site 21SL47a were a small ancient grit-tempered ceramic body sherd, some scattered quartz and chert flakes and calcined animal bone, and an array of modern fishing gear and beer bottles. No fur trade materials were encountered.

CONCLUSIONS

Over one third of the area of VOYA is comprised of surface water. For millennia these waters have influenced human transportation, settlement, and land use. Most archaeological evidence from the era of the fur trades is believed to be located along the shorelines of major waterways. Because VOYA-area waters have been both higher and lower than at present, they have inundated some archaeological sites and eroded or altered others. Some fur trade evidence at such sites may lie offshore, either within or below the current shoreline fluctuation zone.

The 2001 underwater survey sought fur trade evidence in four offshore areas at Rainy Lake, Crane Lake, and Kabetogama Lake and Narrows. Despite careful advance planning and systematic searching, no significant offshore cultural features, diagnostic artifacts, or workable archaeological sites or deposits were identified during the survey.

Despite the lack of new fur trade discoveries, the survey amply demonstrates that direct underwater observation is still a viable approach for seeking and locating submerged archaeological materials and sites within the park, and that it is also a cost-effective way to systematically investigate and evaluate such properties.

Underwater survey has other potentials as well. Because cultural deposits or features on submerged landscapes are generally inaccessible, they may be little disturbed by natural events or artifact-collecting activities. Lake bottoms and damp-soil environments are also often well suited for the preservation of bone, leather, wood, bark, fibers, and other organic materials. For example, many organic cultural items like parts of moccasins and canoe paddles have been found in underwater settings along the Voyageur's Highway west of Lake Superior (e.g., Wheeler et al. 1975, Birk 1975, 1979). Likewise, late-18th century woven fibers have been recovered from Site 21SL137 at VOYA (Lynott et al. 1986:201), and there is no doubt potential for other such finds within the park.

On the other hand, underwater research offers special challenges. Diving conditions at VOYA and elsewhere typically vary by location, depth, season, and day-to-day weather conditions. Water temperature, clarity, currents, surface winds, the intensity and angle of the sunlight, aquatic weed growth, ice, thermoclines, and bottom materials (mud, sand, rock, etc.), are just some of the factors that can influence the methods, prosecution, and results of underwater exploration. To

date, underwater surveys at VOYA have been conducted in late fall, after the summer tourists have withdrawn and just prior to the removal of waterborne navigational markers. During the 2001 survey, Crane Lake was found to have the poorest underwater visibility, Soldier Point and the Ash River Visitor Center were subjected to high winds, and Soldier Point and the Lake Kabetogama outlet at Gold Portage had the greatest currents.

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5. VOYAGEURS NATIONAL PARK PRELIMINARY FUR TRADE ARTIFACT STUDY

Douglas A. Birk
Institute for Minnesota Archaeology

As part of the Institute for Minnesota Archaeology's (IMA) 2001-2002 fur trade studies for Voyageurs National Park (VOYA), the author examined several private artifact collections from VOYA and vicinity kept at scattered locations in Minnesota and Wisconsin including the Koochiching Museums in International Falls. Among the goals of this examination were to:

- seek out and identify fur trade artifacts in extant VOYA-area collections,
- determine, if possible, the age, origin, and function of the fur trade artifacts,
- assess the research and interpretive potentials of the fur trade artifacts, and
- promote greater communication between VOYA-area collectors and archaeologists.

STUDY LIMITATIONS

This preliminary study describes privately held VOYA-area fur trade artifact collections accessible to the author in the winter of 2001-2002. At least five other known private collections were not available for study at that time, and others may exist of which the author and the archaeological community are unaware. In deference to professional concerns and to ensure the anonymity and privacy of the various collectors, only those persons whose fur trade collections reside at the Koochiching Museums are named.

The archaeological collections described here are a biased sample that does not fully represent the range of materials or merchandise used in the fur trade. Indeed, many cultural objects from that era were made, modified, or used in ways that make them unique to a time or place. Likewise, many trade goods were organic objects or consumable commodities that seldom if ever survive in archaeological contexts. For example, a recent study of a British-era trading post site in east central Minnesota concluded that of all the types of cultural materials known to be at the fort during the winter of 1804-1805, only about 25% are actually represented in the archaeological record. In large part, the recovered items survive only because they consist of durable materials such as metal, glass, and stone (Birk n.d.).

Among artifacts that survive at VOYA, not all have an equal chance of being found and preserved. Persons walking exposed shorelines gathered most collections viewed during this study. That circumstance may favor the recovery of artifacts associated with only certain types of sites or activities. During shoreline reconnaissance surveys, for example, large items likely have a greater chance of being found than small items. Collectors cannot see or may not recognize all artifacts, and most collectors are also selective in what they will pick up and save. Some use metal detectors, but say they routinely ignore rust-encrusted metal objects. While cupreous (copper-based) metal artifacts and brightly colored glass beads are often well represented in private collections, things like ceramic wares, glassware, flat glass, *bousillage* (daub), nails, and building hardware are uncommon or absent. If architectural debris from old buildings or forts is extant on northern beaches, collectors have not recognized that evidence or they have disregarded it. Finally, over the years, many collections have been depleted through the deterioration, loss, discard, or pilferage of materials. At least one collector (the owner of Collection E) reports his personal habit of giving artifacts to friends and visitors as souvenirs. Missing from Collection E since 1992 are things like smoking pipes, trade axes, a fire steel, and a brass ring. All of the collectors take great pride in their collections and often prominently display them in their homes.

This preliminary report may not contain a complete inventory or compilation of the fur trade materials in each of the observed collections. In addition to trade goods, northern collectors typically look for ancient stone tools, native copper artifacts, and Indian pottery, and they may also gather interesting or unusual objects of more recent origin. The fur trade materials are thus often outnumbered by and co-mingled with ancient and modern artifacts. To segregate the fur trade materials in such cases, it is first necessary to sort through entire collections.

When viewing collections, particular attention was given to recording the recognizably diagnostic fur trade artifacts. Time and circumstances did not allow for the exhaustive sorting, description, or analysis of artifacts during this preliminary phase of investigation. Selected artifacts were traced or sketched and others were photographed under ambient light conditions with a small digital camera. Most artifact illustrations in this report are not shown to actual scale. Future investigation of VOYA-area fur trade materials should involve more refined artifact illustration using a digital camera with macro capabilities and better lighting.

Some of the observed collections have better provenience information than do others. A few collectors have organized their collections by site, and some have even put numbers or labels directly on the artifacts. Usually, however, exact provenience data have not been recorded, and such information is lost as memories fade or when collectors pass away. While many collectors can recall the exact circumstances of their finds, some are unable or unwilling to share such information. Contextual information based on memory alone may also be faulty or incorrect.

STUDY CONSIDERATIONS

VOYA-area collectors generally confine their artifact hunting to certain locales (see provenience discussions on page 108 below). Because their collections are usually site or regional specific, each is discussed here separately. In that way some comparisons can eventually be made on the basis of spatial distribution, like, for example, comparing the collections of known Rainy Lake collectors with those from say, Kabetogama and Crane lakes.

Another basis of comparison is temporal distribution. The period of an item's manufacture and popular use may be called its "date range." Date ranges assigned to artifacts in this paper are largely gleaned from published material studies and reports. In the concluding section of this chapter possible date ranges are also assigned to each of the collections.

Likewise, at the end of this chapter, the artifacts are segregated by "type" and then grouped into functional categories. Such classifications help explain the use and distribution of artifacts while illustrating the diversity of fur trade material culture. Artifact "types" were determined by direct observation and through comparison with materials from other collections or regions.

It should be noted that assigning artifacts to functional groups is a rather arbitrary exercise that reflects their primary use or use-context as perceived by archaeologists. The functional categories used here were proposed by Michigan archaeologist Dean Anderson for analyzing European *trade* goods introduced to the Rainy Lake country (and throughout the western Great Lakes) in the 18th century (Anderson 1991, 1992, 1994). The categories also include *non-trade* items that were carried west as equipment, possessions, or supplies. From details on period invoices Anderson is able to list the functional categories in ranked order of importance to the fur trade. According to Anderson the most important functional groups were Clothing, Hunting, and Adornment, followed by Alcohol Use, Cooking & Eating, and lesser categories. As might be expected, not all of the functional categories defined from written records are represented in the observed VOYA-area artifact collections.

ARTIFACT COLLECTION A (PRIVATE)

Northwest Gun Butt Plates (2)

Two-brass butt plates in Collection A are from Northwest guns. The flat plates have square attachment holes. The top finial of each plate is missing.

Northwest guns were inexpensive single-shot muskets produced for the North American Indian trade. They typically had a short barrel with an octagonal breech and round muzzle, and they were fully stocked. A smooth bore allowed their use as both a "shotgun as well as a big game gun" (Hanson 1987:116). Northwest guns evolved in the early 18th century (Hanson 1987:115) and were a distinctive type by 1761 (Gooding 1960:87, 93-95). Sizable numbers were shipped by the late-1770s, and they were common "from 1775 to 1875" (Hanson 1955:2, 15).

Northwest Gun Butt Plates, Collection A

According to trade-gun expert Charles Hanson, "All Northwest guns had flat butt plates of heavy sheet brass with a short flat top tang. As late as 1826 this plate was fastened on with small square iron spikes" (Hanson 1955:40 and 74, Pl. 18, B). A Northwest gun butt plate with five hand-wrought square nails still attached has been found on a circa 1802-1805 North West Company (NWC) post site on the Yellow River in northwest Wisconsin (Oerichbauer 1982:194-195). Northwest gun butt plates are found wherever British traders penetrated (Hamilton 1980:90).

Other traditional furniture on Northwest guns includes the trademark serpent sideplate, ribbed sheet-brass rampipes (thimbles or guides), and a light iron trigger guard with a large bow. Descriptions vary, but one expert asserts that Northwest fusils were nearly always 24-gauge (about .58 caliber) and smooth-bored for use with either lead shot or a 30 gauge (.546 caliber) patched lead ball (Hanson 1955:2; cf. Schuler 1990:119). Nonetheless, gun barrels found in British-era archaeological contexts range from .53 to .63 inches (Hamilton 1976:6).

The Northwest gun continued to evolve after it was first introduced and named. After 1821, for example, it gradually became more common for Northwest guns to have "forged pans, tumbler and frizzen bridles, and conventional tang screws passing downward from the tang to the trigger plate" (Hanson 1960a:175). Trigger plates were not widely adopted until 1826, about the same

time screws replaced nails for securing the butt plates. Likewise, until the 1860s, breech plug tangs were square at the end and thereafter they were rounded (Hanson 1955:40-41). See further discussion of Northwest gun butt plates under Collections C and E, below.

Northwest Gun Serpent Sideplate Fragments (3)

Two incomplete cast brass serpent or dragon sideplates and the tail loop of a possible third example are in Collection A. Serpent sideplates on Northwest guns evolved in form and detail over time. The Collection A examples are typical of the most recent form used during the late 18th and first three-quarters of the 19th centuries (Hamilton 1980:66, Fig. 37,H), that is, from circa 1775-1875 (Hamilton 1976:14). Archaeologists have suggested the possible ritual significance of dragon sideplates among the Ojibwe (Richner 2002:94, quoting Fox 1992). They note, for example, that the serpent image has visual similarities with the traditional Water Panther (see further discussion of the Water Panther under Collection C, below). In the collector's personal cataloguing system the more complete sideplate is labeled #85. The other example, primarily the dragon's head-end of a sideplate, is labeled #593.

Northwest Gun Serpent Sideplate Fragments, Collection A

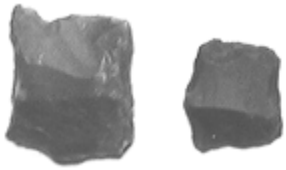
Northwest Gun Rampipe (1)

A front rampipe (thimble, tube, guide, etc.) in Collection A, made of ribbed cupreous sheet metal, is from a Northwest gun. According to Charles Hanson, Jr., rampipes on Northwest guns are "universally of ribbed sheet brass" and are so similar in appearance that it is "very difficult to detect any difference between those made in Lancaster, London, or Liege" (Hanson 1955:41). Because of their extended use from the late 18th century through the late 19th century, these items have little value for fine-grained archaeological dating (Caldwell 1960:184). See further discussion of rampipes under Collection C, below.

Northwest Gun Rampipe, Collection A

Prismatic Gunflints, British (2)

Two prismatic gunflints in Collection A are of British origin. They likely postdate 1775 or 1780, when the British first learned from the French the secrets of making flake-type flints (Hamilton 1980:141). One of the flints is labeled #59 in the collector's personal cataloguing system.



Prismatic Gunflints, Collection A

Miscellaneous Gun Parts and Ammunition

Other trade gun related items in Collection A include:

Gunlock (1) Complete with a goose-necked cock and frizzen. Rusted. No discernible marks.
Gun Cock (1) Goose-necked. Complete with upper jaw. Rusted.
Frizzen (1) From a flintlock. Rusted.
Rear Rampipe Finial (1) A variety of finials are illustrated in Hamilton (1976:16, Pl. 4).
Lead Balls (5) Musket balls. Not measured.

Gunlock with Gooseneck Cock, Collection A

Ax Head (1)

A hand-wrought ax head typical of early trade or "half axes" appears in Collection A. The ax head is rusted and has no discernible marks.

Ax Head, Collection A

Bit or Chuck (1)
A hand-forged drill bit or chuck in Collection A has a variably tapered shaft. The age of this piece is unknown, but it bears some affinities to a much longer bit recovered at the 1715-1781 site of Fort Michilimackinac (Stone 1974:303, Fig. 184, K).

Bit or Chuck, Collection A

Skillet Handle (1)
A wrought iron handle in Collection A is of a type commonly associated with early skillets, frying pans, or "spiders." The handle, made of rectangular iron bar stock, has a loop on its proximal end. It was held to the missing skillet by two rivets. Northwestern fur traders sometimes used skillets, but they did not regularly import them as trade items. Similar skillet handles are seen in New England museum collections (Sonn 1989, III:204-205, Pl. 303; Barnes 1988:90, Item #345), and they have been found archaeologically at a 1731-1764 Tunica Indian village in Louisiana (Brain 1979:140). Most of the Tunica skillets, made of sheet copper with tinned interior surfaces, actually have hollow, round, iron-tube handles (Brain 1979:180-181). Some socketed handles from Fort Michilimackinac may also be from skillets (Stone 1974:189, and 191, Fig. 105), though such devices are seen on kettle lids too (e.g., Kenyon 1986:127-128).

Kettle Lugs, folded sheet metal (2)
Two cupreous sheet kettle lugs (ears, bail ears, etc.) in Collection A have their upper corners bent down or "dog-eared" and hammered flat. Centered near the top of each lug is a punched bail (handle) attachment hole. One lug is secured to part of a rolled rim kettle fragment by two copper rivets. The other lug is labeled #212 in the collector's personal cataloguing system.

A description of folded sheet brass kettle lugs provided by Karlis Karklins from examples found at the Hudson's Bay Company (HBC's) Nottingham House site at Lake Athabasca, may be used in describing most 18th and early 19th century lugs of this type. According to Karklins, the lugs consist of:

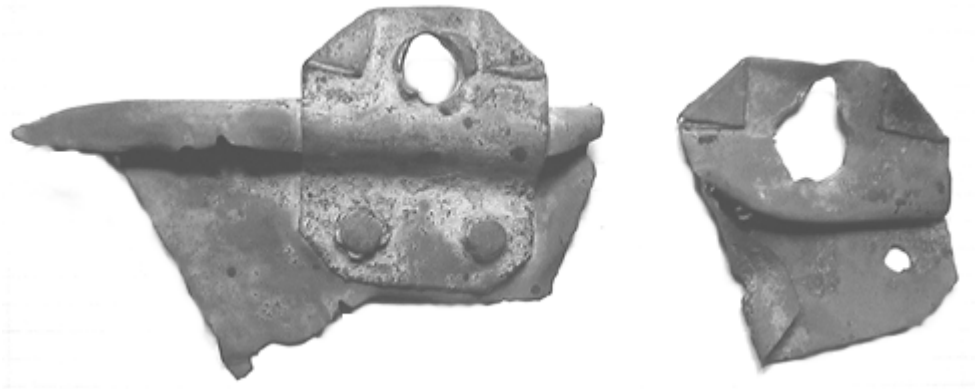
> …rectangular brass sheets folded in half. Their open ends overlap the kettle rim for a distance equal to about half the length of each lug, and they are secured [to the kettle bowl, below the rim] by…cast copper rivets with flat heads... The upper corners of the lugs are bent down onto their outer faces, while the lower corners have been cut off. The [bail] hole in the approximate centre of either lug has been punched (Karklins 1983:118-119).

Folded sheet brass kettle lugs are typically associated with tapered yellow (cupreous) metal kettles. Such kettles often have rolled rims internally reinforced with a ring of iron wire. The rims are usually, but not always, rolled outward. The kettle bails, also made of iron wire or rod, are bent in a semicircular bow. The bail ends are tapered to a sharp or blunt point and looped back. Extended use of a kettle allowed the iron bail to gnaw at the cupreous lugs and cause the round suspension holes to become pear-shaped. Lugs, depending on their size, might be attached to the kettle bowls with from one to three rivets. Copper, brass, and lead rivets are reported. Some of the oldest folded sheet metal lugs were trimmed and filed down at the upper corners, which produced rather sharp and potentially dangerous edges (Kenyon 1982). Some of the early and most of the later examples exhibit bent ears. On dog-eared lugs, all of the sharp or irregular edges, including the rivet ends, folded lug corners, and punched bail holes typically face the outside of the kettle (Stone 1974:173). The tapered kettle bowls themselves were often made by the "battery" method,

which involved hammering and turning the bowls into forms of graduated size. Even when outfitted with folded metal lugs, such kettles can be nested (Wheeler et al. 1975:58; Quimby 1966:72). Indeed, they have been called "nesting pots" (e.g., Sullivan 1986:57, 101). Kettles with dog-eared lugs are widely reported in northern Minnesota. One of the most spectacular and unusual finds is that of a nest of 17 kettles of graduated size recovered by SCUBA divers in 1960 at Horsetail Rapids on the Granite River about 50 miles northwest of Grand Marais (Wheeler et al. 1975:7-8, 57; Gilman 1982:57; Wheeler 1985:59).

Jeffrey Brain defines kettle forms that narrow in diameter from the rim to the base as Type A kettles (Brain 1979:165). His studies show that tapered, Type A, kettles with folded lugs were widely used in France in the 18th century and that they are also common on 18th century French contact sites in North America (Brain 1979:166). Tapered kettles trimmed or dog-eared lugs were recovered from circa 1640-1650 contexts at the Grimsby site in southern Ontario (Kenyon 1982). George Quimby indicates that folded lugs were common in the western Great Lakes region between 1670 and 1760 (Quimby 1966:69, 72). Such lugs are known from the 1732-1750s site of Fort St. Charles on Lake of the Woods (Birk, personal observation), and they appear to have been "in common use" at the 1715-1781 site of Fort Michilimackinac, during both the French and British occupations (Stone 1974:175). A folded lug has been found on a circa-1800 NWC fort site on Whitefish Lake in central Minnesota (Birk, personal observation). Examples reported by Karklins from the HBC Nottingham House at Athabasca date to the period 1802-1806. Alan Woolworth identifies the nest of kettles from Horsetail Rapids as probably being of British manufacture from the period 1785-1820 (Wheeler et al. 1975:58). The Granite River is on the old Grand Portage canoe route that was first opened to French commerce in 1731 and later used by British traders until 1804. More appropriate bracket dates for the Horsetail Rapids find might therefore be 1731-1804, or, if the kettles are indeed of British manufacture, then 1761-1804.

The kettle data suggest that, in the Rainy Lake area, tapered cupreous kettles with folded lugs could date to circa 1680-1820. See further discussion of kettles and kettle lugs under Collection C, below.



Sheet Metal Kettle Lugs, Collection A

Tinkling Cones (2)

Collection A contains at least two conical tinkling cones or "tinklers" fashioned from trapezoidal pieces of sheet brass kettle metal. The larger example is labeled N-37 in the collector's personal cataloguing system.

Tinkling cones are made from trimmed pieces of sheet metal rolled into conical forms with the rolled edges butted or, less often, overlapped. The size and regularity of the cones may vary widely in any given assemblage (Kidd 1970:170). Tinkling cones are typically affixed to buckskin fringes on clothing or pouches. The cones collide when in motion, emitting a tinkling or jingling sound. Kettle-metal tinkling cones are common on postcontact sites in the western Great Lakes Region, but underwent little diachronic change despite their long use (Quimby 1966:72, 76). Indeed, their wide spatial and temporal distribution has made tinkling cones of "little diagnostic value for culture-historical purposes" (Brain 1979:195).

Tinkling Cone (N-37), Collection A

Metal Arrowheads (2)

Two small sheet metal arrow points in Collection A are flat and stemmed with triangular blades. One is labeled #107 in the collector's personal cataloguing system, and the other is labeled #104. Similar points are described under the Collections B and D, below.

Research has shown that the retention rate of bows and arrows, and of "stone projectile points for arrows" varied among Indian peoples after contact with Europeans (Pyszczyk 1999:167). George Quimby indicates that while sheet-brass arrowheads are typical of the entire postcontact era in the western Great Lakes region, they are often "rare or lacking" after 1760 (Quimby 1966:72). At Rock Island on Lake Michigan, cupreous metal arrowheads appear in archaeological contexts dating as late as 1770 (Mason 1986:202-203). In the plains regions of the Dakotas, Saskatchewan, and Alberta, metal projectile points are said to have increased in size between circa 1740 and 1860 (Pyszczyk 1999:163). Likewise, in that same sphere, the ratio of cupreous to ferrous metal points generally decreased over time (Pyszczyk 1999:178). At the circa 1792-1800 site of Fort George, in Alberta, for example, ferrous points outnumber cupreous points (Kidd 1970:76-78).

Sheet Metal Arrowheads (#107 and #104), Collection A

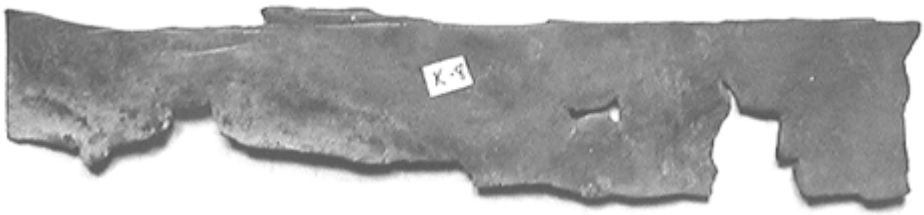
Serrated Knife or Saw (1)

A rectangular piece of cupreous kettle metal in Collection A is finely serrated on one longer margin. Such items have been defined as knife blades or saws. According to Ray Wood, the "thinness" of some examples from the Ponca Fort Site, Nebraska, "would not have permitted these objects to be very effective as heavy-duty cutting implements since very little pressure is needed to bend the blade" (Wood 1993:50 and 55, Fig. 10, B). Charles Brown, of Wisconsin, indicates that kettle-metal saw blades were used for sawing soft stone (Brown 1918:76), and such blades could have been used in the VOYA area for making soft-stone ornaments or smoking pipes. Richner describes a kettle-metal blade with "saw-like teeth" from Site 21SL47 similar to the one in Collection A (Richner 2002:59, Table 4). A sheet-brass "saw" and several unifacially sharpened sheet-brass knives and "chisels" are illustrated in Bray (1978:Figs. 6, 7, and 8).

Serrated Knife, Collection A

Kettle Scrap (1)

A sheet-brass metal kettle scrap in Collection A is labeled K-8 in the collector's personal cataloguing system. Though common on postcontact sites, kettle metal in and of itself is presently of limited diagnostic value.



Kettle Scrap (K-8), Collection A

Kettle Metal Ornament (1)

A cupreous kettle metal ornament in Collection A is cut in the shape of a Thunderbird. This piece, labeled #201 in the collector's personal cataloguing system, has two suspension holes. The Thunderbird is a traditional zoomorphic deity seen among effigy and rock art representations around and northwest of Lake Superior. Fashioning a Thunderbird from kettle metal shows the adaptive reuse of a valued trade commodity. On another level, the same silhouette is a durable iconographic device that exemplifies the postcontact "integration of European goods and materials into Indian mythical, social and material culture" (van Dongen 1995:142). Whether this stylized object of portable art (*art mobiliere*) (Lovis 2001:106) was a secular ornament or whether it was a cosmological figure imbued with special meaning or value is, of course, unknown.

The Thunderbird is a great supernatural creature and archetypal warrior that rules the Sky World and is "able to transform itself into an eagle or a bird-man being" (Bradley 1995:33). The Thunderbird is said to live high in the sky beyond the sight of ordinary people. It reveals its presence by beating its wings to cause thunder and by flinging bolts of lightning (Dewdney and Kidd 1967:172). The flight of the Thunderbird gives rise to powerful stormwinds (Bradley 1995:33). The Thunderbird goes south over winters, but spends springs and summers in the North

(Dewdney 1975:39). Such thunderers could "bestow power" and, among Native peoples, they were respected and feared (Cleland 1992:70-71). Wearing charms, like zoomorphic silhouettes, might also help to assure one's physical, spiritual, and social well-being in matters like courtship, hunting, and war (Bradley 1995:34). Other Thunderbird silhouettes are discussed among the trade silver ornaments from Collection A, and under Collection C, below. Kettle metal and lead thunderbird effigies are reported from a 1670-1700 Huron village site in St. Ignace, Michigan (Dean Anderson, personal communication).

Kettle Metal Thunderbird, Collection A

Trade Silver Ornaments (2)

Two small sheet silver ornaments are in Collection A. One, possibly a small tinkling cone blank or a trapezoidal "pendant" lacking suspension holes, is labeled N50 in the collector's personal cataloguing system. The other piece, shown here, is a cutout of a Thunderbird with single suspension hole.

Trade Silver Thunderbird, Collection A

Clay Pipe Stem, "Henderson" (1)

A stem fragment of a white ball-clay smoking pipe in Collection A is labeled #214 in the collector's personal cataloguing system. The marks **HENDERSON** and **MONTREAL** appear on opposite sides of the stem. The Canadian pipe-making industry began with earnest in the 1840s and continued into the 20th century. Pipes bearing the Henderson/Montreal mark were made during the period 1847-1876 (Reid 1977:62, Table 7; Bradley 2000:117). Pipes bearing this mark are found on sites dating to the late 19th century, including many sites unrelated to the fur trade.

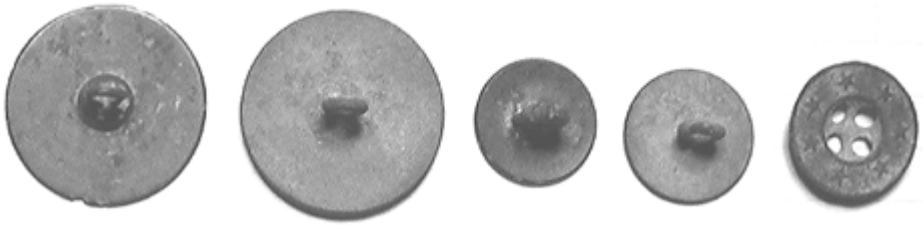
Pipe Stem, Marked "Henderson-Montreal," Collection A

Metal Buttons (5)

Four spun-back buttons and one stamped sew-thru button are in Collection A.

Spun-back (4) Four plain, flat, spun-back buttons have soldered wire eyes and concentric circular striations on their reverse surface around the eye shank. Though often ascribed to the period circa 1750-1800 (Stone 1974:53), undecorated spun back buttons are also known from NWC and HBC sites dating to the opening decade of the 19th century (e.g., Karklins 1983:75; Birk 1980; Woolworth 1975:136). At the 1715-1780 site of Fort Michilimackinac, Lyle Stone notes that spun-back buttons are "not associated with either early French structures or British military structures" (Stone 1974:53). The Rainy Lake area examples might be expected to date from circa 1750 to 1810 or later.

4-Hole Sew-thru (1) A stamped sew-thru metal button has four holes in a central sunken well. On a wide flat border surrounding the well are seven raised and evenly spaced five-point stars. This button, shown here on the far right, probably dates to the 19th century.



Buttons, Collection A

Plain Lead Brooches (Quantity undetermined)

Several cast circular and diamond-shaped lead or pewter brooches with fixed crossbars are in Collection A. None is decorated. Such brooches were made on open-face molds and appear as "half-round castings" (Kenyon 1986:68). They may lack exact symmetry, and their surfaces are unfinished in the sense that they are neither trimmed nor smoothed (Walthall and Benchley 1987:60). Often, a tiny boss appears at the midpoint of the crossbar at the very center of the brooch. Small brooches of this type, like annular brooches with hinged crossbars (see Collection D, below), were fastened to cloth, ribbon, or hair as ornaments. According to Lyle Stone, primitive pewter brooches were "commonly dispersed as trade goods" (Stone 1974:134-135).

Many collections contain cast white-metal brooches with fixed crossbars. Circular and triangular brooches are reported from a 1735-1752 French colonial mission and Cahokia Illini settlement at Monk's Mound near St. Louis (Walthall and Benchley 1987:60-62). Circular examples are reported from circa 1670-1770 archaeological contexts at Rock Island on Lake Michigan (Mason 1986:31:Pl. 3.4), from the circa 1768-1772 François House site on the Saskatchewan River west of Lake Winnipeg (Kehoe 1978:81-82), and from 1760-1780 deposits at Fort Michilimackinac (Stone 1974:135). Circular brooches have been recovered from offshore deposits at Fort Charlotte at the west end of the Grand Portage (Birk and Wheeler 1976:797, Fig. 6, R) and from Oak Point Island on Rainy Lake (Kenyon 1986:68). They are also reported from undated contexts at Big Sandy Lake in Aitkin County, Minnesota (Miner 1941:53), and at 21MO20, a Euroamerican colonial site in Morrison County dated to the third quarter of the 18th century (Birk 1991:262). Cast lead brooches are not reported from post-1790 NWC fur post sites (e.g., Kidd 1970; Birk 1980; Oerichbauer 1982).

Small cast lead or pewter brooches with fixed crossbars appear to have been in use from the late 1600s to about 1780, though later examples are known. Circular lead objects of this type from the 1790-1800 Ponca Fort Site in Nebraska have been uniquely identified there as button weights, "used to weight cloth-wrapped buttons' (Wood 1993:48 and 56, Fig. 10, C). Cast brooches are further discussed with the "stone ornament mold" under Collection D, below.

Plain Lead Brooches, Collection A

Finger Ring w/Multiple Insets (1)
An inset finger ring in Collection A has a central circular bezel flanked on either side by lesser circular bezels. The glass insets or pastes are missing. A sky blue colored glass inset of a size comparable to the central bezel is present in Collection A, but may not belong to the ring. Both the ring and the inset are illustrated here.

Multiple inset rings of this type have been found on sites dating to the period 1750-1814 in New York state (Wood 1974:96-97, 100-101), and they occur at a circa 1802-1832 Arikara village on the Missouri River near Mobridge, South Dakota (Bass et al. 1971:124-125). Similar rings from Fort Michilimackinac date to circa 1750-1780, the late French and British periods of occupation there (Stone 1974:123, 131). Multiple inset rings have also been recovered at Grand Portage bay (Gilman 1982:14, Fig. 31) and at Fort Charlotte at the west end of the Grand Portage (Wheeler et al. 1975:98; Birk and Wheeler 1976:797, Fig. 6, O). Other rings with multiple insets are described under Collections B and D, below. Archeologist Jeffrey Richner reports on brass trade rings with glass faux gem insets in Chapter 3 of this volume, including one example with a colorless center "stone" flanked on either side by three tiny cobalt-blue glass sets, recovered from site 21SL191 within VOYA park. A ring with a clear glass inset and “3 blue insets on each shoulder” is also reported from a circa 1750-1770 deposit at the Lady Rapids Site (DcKc-1) on the Namakan River about three kilometers east of Namakan Lake (Callaghan 1982:17, 22).

Finger Ring and Glass Inset, Collection A

Beads (Quantity undetermined)
Collection A contains an assortment of glass, bone, pipestone, and ceramic beads. Included among the glass beads are wound and drawn types in a variety of forms. The beads range in size from seed (embroidery) beads up to a hefty olive-shaped example. Almost all of the glass beads are monochromatic and of simple construction. Time constraints did not allow for even a cursory examination of the many specimens in this interesting assemblage. Only three glass bead types are discussed here:

Ic’1 Series (1) An opaque-red drawn tube bead, square in cross-section, is twisted to form spiral ridges. Beads of this type (Kidd and Kidd 1970: Type Ic’1) are reported from several sites in Ontario, including a 1624-1636 Huron ossuary site in Simcoe County, a 1639-1649 French mission near Midland, and a 1600-1650 Neutral burial site near Dundas (Quimby 1966:183-184, 188). Based on this evidence, George Quimby early suggested that these beads are diagnostic of the period 1610-1670 (Quimby 1966:84, Fig. 16). More recently, Lyle Stone reports beads of this type from the 1715-1781 site of Fort Michilimackinac. Stone defines these as a Class I, Series A, Type 8, Variety a, beads (Stone 1974:Fig. 48, DD), which he interprets as French, dating to the period 1630-1760 (Stone 1974:96).

WIIf Series (1) A mandrel wound bead with pressed longitudinal facets is of simple construction. The bead is made of translucent deep-aqua colored glass. Beads of this type are known to have five or six facets. They come in a range of colors, including translucent clear,

turquoise, aqua, and amber as well as opaque blue (Good 1972: 1972:105, Types 1-3; Stone 1974:103:Table 23; Lorenzini 1996). Beads of similar construction have been recovered from the 1680-1730 Grand Village of the Meskwaki, now the Bell Site in east central Wisconsin (Lorenzini 1996). They are also known from the 1732-1750s Fort St. Charles site complex on Lake of the Woods (Birk, personal observation), the 18th century Guebert Site in Illinois (Good 1972:105, Types 1-3), and the 1715-1781 site of Fort Michilimackinac. Lyle Stone defines

Glass Beads, Collection A

these as Class II, Series A, Type 3, Variety a, necklace beads (Stone 1974:103, Table 23). In the Rainy Lake country, such necklace beads can be confidently identified with circa 1700-1760 French presence.

<u>WIII Series (1)</u> A white, wound, glass barrel bead has "combed loop" (leafy or "ala-faja") inset designs set parallel to the long axis of the bead. The designs are made of threads of baby blue glass inset in vine-like patterns. Beads of this type date back to the early 1700s (e.g., Lamb and York 1972:112, Pl. 8, A), but they were apparently not introduced to the Great Lakes fur trade until much later. Barrel beads with combed-loop insets applied as equatorial wreathes are perhaps more common on fur trade sites. Collectors sometimes refer to all such beads as "wire laid" (Woodward 1970:20-21).

In 1970 Arthur Woodward (1970:20) indicated that beads with either longitudinal and equatorial combed loop patterns "made their appearance in the early part of the 19th Century" (Woodward 1970:20, caption). These dates are not valid. Even Quimby suggests that beads with equatorial combed loop insets may be diagnostic of a 1790-1820 time frame, or what he refers to as the "latter half" of the Late Historic (1760-1820) period (Quimby 1966:147).

Barrel beads with longitudinal combed loop insets have been recovered from assumed circa 1768-1804 contexts at Grand Portage (Woolworth 1975:134, Fig. 33, 13), and from deposits dated to 1768-1811 at Pine Fort in south central Manitoba (Tottle 1981:27, Fig. 17, A). They have also been found at a circa 1802-1832 Arikara village site on the Missouri River in South Dakota (Bass et al. 1971:Pl. 12, F).

Evidence from Mississippi, suggests barrel beads with circumferent leafy insets may have first appeared there in the late-17th or early 18th century (Herrick 1969:50). Such beads are reported from a 1731-1764 Tunica Indian village in Louisiana (Brain 1979:113), a circa 1768-1772 context on the Saskatchewan River west of Lake Winnipeg (Kehoe 1978:75), and 21MO20, a Euroamerican fort site in central Minnesota believed to date to the third quarter of the 18th century (Birk 1991). Similar beads are also known from NWC sites dating to the period circa 1800-1805 (e.g., Birk 1980; Oerichbauer 1982:205).

In summary, in the western Great Lakes region and adjacent areas to the northwest, combed loop beads seem to be most often reported from sites dating to the British period or later. It is possible that beads with equatorial combed loop insets were introduced to the trade there somewhat earlier that those with longitudinal insets. Neither variety is very common.

ARTIFACT COLLECTION B (ROBERT BOLSTAD COLLECTION, KOOCHICHING MUSEUMS)

Lead Seal (1)

An incomplete bi-lobed lead seal of unknown provenience is in Collection B at the Koochiching Museums. This specimen is of a rivet-type sometimes called Series A (e.g., Stone 1974:281; Adams 1989:1, 18). The numeral 12/235 is inscribed on the seal's reverse surface. An embossed mark on the obverse surface consists, in part, of a cross, connected at its base to what appears to be a pair of Xs. To the right of the vertical bar of the cross is the letter **M**.

Lyle Stone shows what may be the same embossed mark on the face of a more complete Series A lead seal from Fort Michilimackinac (Stone 1974:288, Fig. 176f). According to his illustration and description the obverse mark contains the letters **F** and **M**. A vertical bar passing between these letters "forms a W" at its base. A horizontal bar crosses the vertical bar above the letters. A circular border may enclose the entire design. The numeral 1/22½ is incised on the reverse surface (Stone 1974:287, and 288, Fig. 176f).

Additional illustration of the same seal by Diane Adams indicates that a primary feature of the embossed obverse mark is actually a numeral **4** with an extended vertical bar. At its base, the vertical bar connects with what is probably a pair of Xs rather than a W (Adams 1989:7, Fig. 9, and 19, Fig. 12). As shown by Adams, the seal clearly exhibits cloth impressions on its exposed inner surface. The cloth imprints could result from the use of this item as a cloth seal, or as an identity, security, and inventory tag on a cloth-wrapped bale of trade goods (Endrei and Egan 1982; Adams 1989:7, 40).

Bi-lobed lead seals bearing variations of the **4** mark are known from other archaeological sites. One specimen observed by the author in the collections of the Royal Ontario Museum (ROM #28743) is from a grave on Manitoulin Island. On this example the vertical bar of the **4** stands on a pair of Xs. To the right of the vertical bar is the letter **E**. Any related or corresponding letter that may have appeared to the left of the bar is obscured. On a similar seal found at a British camp in New York City the letters **I** and **E** flank the vertical bar (Calver and Bolton 1950:268 and 269, Pl. 5). A circular border encloses the entire design.

Another bi-lobed Series A lead seal with the **4** mark was recovered by divers from Horsetail Rapids on the Granite River, about 50 miles northwest of Grand Marais, Minnesota (Wheeler et al. 1975:7, 24-25, 62, and Appendix 2). Illustration of the seal shows that the letters **W** and **A** flank the vertical bar of the **4**. The base of the bar connects with trefoiled loops (Wheeler et al. 1975:62; Gilman 1982:32, Fig. 81). A piece of coarse cloth is preserved between the two disk elements of this seal (Wheeler 1985:64). A similar **WA** seal is reported from a pre-1781 context at the site of Fort Michilimackinac (Petersen 1964:63; Stone 1974:287). Seals with the **WA** mark may originate with the packer, William Alchorne, who operated in London in 1778-1779 (Birk 1979:18-19).

The extended numeral **4** common to this set of lead seals is the core element of many old English merchants' marks (e.g., Calver and Bolton 1950:268, 276, No. 8). The element is thought by some researchers to be a symbolic device that developed in medieval times when most trade routes followed inland or coastal waters. For example, the extended vertical bar of the **4** could represent the mast of a ship. The intersecting vertical and horizontal bars form a cross that might "invoke divine protection for the merchants' wares." The numeral **4**, itself, might indicate merchants who traded to the four-corners, perhaps of their region or country, or even the world. To this basic mark were often added a merchant's initials or other embellishments like Xs, ovals, or loops that may represent the cords used in binding bales of cloth or other goods (Evans 1965).

Lead seals of various types were used during the French and British fur trades. Studies at Fort Michilimackinac, where over 250 seals have been recovered, indicate no distinctive temporal associations or spatial patterns for lead seals there (Stone 1974:297) and have also failed to establish a statistically significant relationship between lead seals and other artifacts (Adams 1989:35). According to Adams, "nearly all" of the Michilimackinac seals are cloth marks, which served as indicators of quality, ownership, and taxation of cloth (Adams 1989: Abstract and 43).

Accepting seal marks at face value to identify them as either French or English must be exercised with caution. According to one period report, the French, by the mid-18th century, were actively producing woolens in the *façon d'Angleterre* (the English method of fabrication) and shipping them to foreign markets aboard English ships disguised as English goods. The deception went so far that the bales were actually "marked and numbered, as if they were marked in England" (Postlethwayt 1756:20-23). The apparent fraudulent use of lead seals was widespread in Europe throughout the era of the North American fur trades (Endrei and Egan 1982).

Lead Seal, Collection B

<u>Pipe Tomahawk Blade Fragment (1)</u>

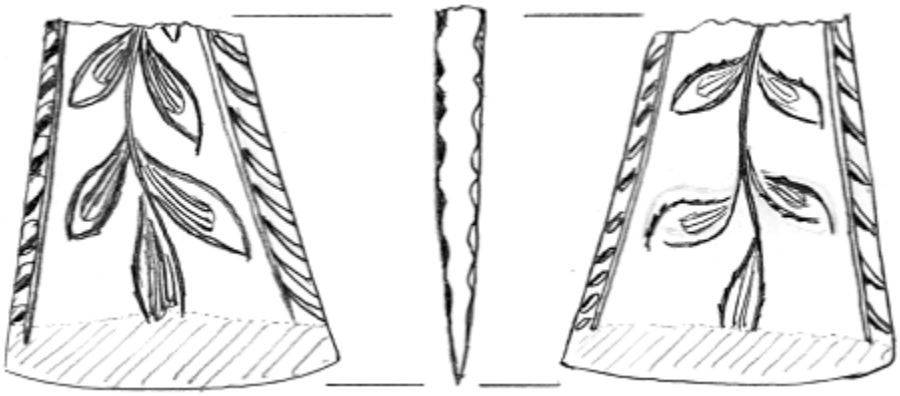
A cast brass pipe tomahawk blade fragment of unknown provenience is in Collection B at the Koochiching Museums. This blade has vine-and-leaf designs on both sides. The lateral edges are bifacially decorated with serial notches bordered by tracery lines. The original cutting edge of this piece is likely broken away. In any case, sharpening or re-sharpening the blade edge has removed part of the floral decorations.

Pipe tomahawks of this type are said to be rather common in the Great Lakes area and so similar in detail as to suggest mass production. Some had steel bits. A complete example from southern Michigan, dated to circa 1805, features a cast brass blade with engraved decoration, an acorn-shaped pipe bowl, and a keyed or dovetailed steel bit (Pohrt 1989:101, Fig. 10). The brass is either cast over the bit to create a firm bond (Pohrt 1989:100), or else the two parts are brazed together (Russell 1967:283 and 277, Fig. 72, D). William Beauchamp, in his study of metallic implements from New York State, clearly illustrates a steel bit on a brass pipe tomahawk (Beauchamp 1902:Pl. 20, Fig. 88). Another complete "bronze" (brass?) pipe tomahawk from Aberdeen, Mississippi apparently lacks a steel bit (Brown 1926:355).

Brass pipe tomahawks are visually interesting but fragile and "easily broken" (Pohrt 1989:100 and 101, Fig. 10). They are not utilitarian tools like steel axes. When found, the cast brass heads are often cracked or severed near the juncture of the pipe bowl and the blade. When this happened, the rough broken edges were sometimes ground down so the bowl might find continued use as a pipe (Woodward 1970:47). As suggested by the example in Collection B, the blade could also be ground down to create a new edge if a steel bit was lost or broken.

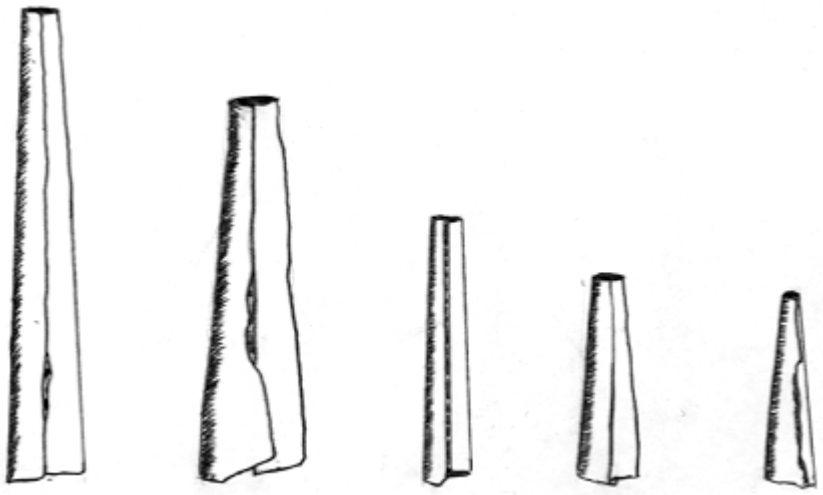
According to Arthur Woodward, the addition of the pipe bowl to the tomahawk was an "American touch, the earliest record of which dates from about 1710" (Woodward 1970:45). A more recent and ongoing study by historian Tim Shannon, places the initial introduction of pipe tomahawks in the 1740s (Tim Shannon, personal communication). In any case, brass pipe tomahawks quickly became popular during the mid-1700s, and by the end of that century they were in demand among the tribes around the Great Lakes, middle Mississippi valley, and on the eastern edge of the plains (Woodward 1970:47). In the western Great Lakes region, according to George Quimby, steel pipe tomahawks (some with elaborately engraved, inlaid, or pierced blades and engraved bowls) are unknown before 1760 (Quimby 1966:71). No pipe tomahawks are presently known from dateable archaeological contexts in Minnesota.

A pipe tomahawk from Ontario, similar to the Collection B fragment, is identified as an "English period ceremonial" piece (Wright 1972:110-111, Pl. 28, Fig. C). Woodward (1970:47) asserts that decorated brass axes were common among the Ojibwe. A late-18th century brass pipe tomahawk with a dovetailed steel bit, acquired among the Ojibwe, is now held by the Museum of the American Indian (Peterson 1971:123, Fig. 210). Another brass pipe tomahawk, acquired "from the Chippewa at White Earth, Minnesota," bears the mark **P.E.B. & Co**. (Russell 1967:414). One of the few ferrous metal pipe tomahawks collected within Minnesota was found in 1915 by a farmer on the north side of Big Pelican Lake in Crow Wing County (Flaskerd 1948).



Pipe Tomahawk Blade Fragment, Collection B

Tinkling Cones (5)
Five conical tinkling cones, fashioned from cupreous kettle metal, are in Collection B at the Koochiching Museums. The largest example is said to be from "Rainy Lake City." The provenience of the other four specimens is unknown.



Tinkling Cones, Collection B

Metal Arrowheads (5)
Five flat, trade metal arrow points in Collection B at the Koochiching Museums include one iron example and four of cupreous kettle metal. The bifacially sharpened iron point is leaf-shaped with a contracting stem or tang and is very rusted. Metal points of this type are reported from circa 1670-1770 deposits at Rock Island (Mason 1986:202-203) and from 1715-1781 deposits at Fort Michilimackinac (Stone 1974:276). According to Lyle Stone, metal points "were more common" at Fort Michilimackinac "during the French period of control" than during the later British period (Stone 1974:277).

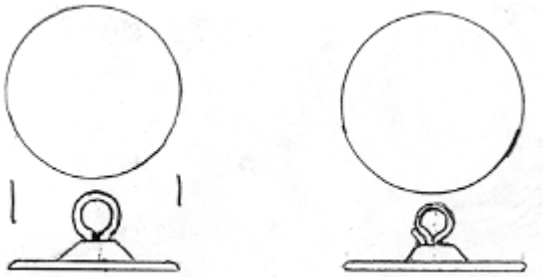
Three of the sheet brass points from Collection B have bifacially sharpened triangular blades with in-stepped rectangular or contracting stems. The fourth brass point is in the form of an isosceles triangle. Its edges are not sharpened. Triangular and triangular stemmed points are probably the most common forms of trade metal points known in Minnesota. A triangular stemmed point has been recovered from the 1732-1750s Fort St. Charles site complex at Lake of the Woods (Gilman 1982:10, Fig. 16 and 95, Fig. 203).

Prismatic Gunflint, British (1)
A gunflint in Collection B at the Koochiching Museums is prismatic style of British origin. This musket-size flint (Woodward 1960:33) probably dates to the period 1775-1830 or later.

Metal Buttons (7)
Seven buttons are in Collection B at the Koochiching Museums.

Spun-back (3) Three plain flat spun-back metal buttons have soldered wire eyes. At least two of the buttons are brass. The buttons are of two general diameters. The eye shanks of the two larger examples are embedded in cone-shaped bosses (i.e., pronounced cones of solder). Undecorated spun-back buttons are reported from Fort Michilimackinac (Stone 1974:50, Fig.

28), the 1792-circa 1800 NWC site of Fort George in Alberta (Kidd 1970:160-161), and the 1802-1806 HBC Nottingham House at Athabasca (Karklins 1983:75). As noted in the discussion of spun-back buttons from Collection A, above, such buttons in the Rainy Lake area may date from 1750 to 1810 or later.



Two Largest Spun-back Buttons, Collection B

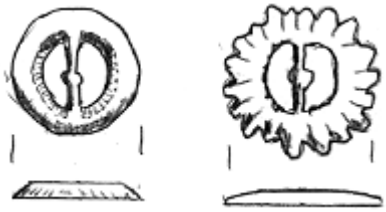
Wedge shank (3) Three single-cast brass buttons with wedge shanks and drilled eyes lack backmarks. One of the buttons is plain. The other two have appliquéd ferrous metal facial decorations; one a pinwheel design and the other a pentagonal arrangement of floral elements surrounding a central star motif. Single-cast metal buttons with wedge shanks date as early as 1700 (Olsen 1963; Quimby 1966:78). Buttons of this type are reported from the 1715-1781 site of Fort Michilimackinac (Stone 1974:46-47), the 1792-circa 1800 NWC site of Fort George in Alberta (Kidd 1970:160), and the 1802-1806 HBC Nottingham House at Athabasca (Karklins 1983:75-76). Tentatively, in the Rainy Lake area, buttons with wedge shanks may date to the period circa 1731 to 1810 or later.

Two Wedge Shank Buttons with Floral Appliqués, Collection B

"Plated" (1) A small, flat, one-piece brass button has a brazed wire eye with an alpha shank. The tin or silver-plated face of the button is undecorated. A circular backmark stamped around the shank consists of a wreath with two branches embracing the word: **PLATED**. Alpha shanks are mostly associated with the 18th century, but buttons of this type, with alpha shanks, may also date to the turn of the 19th century. Omega shanks (those with the ends of the looped wire eye shanks bent outward to form footings) are more commonly identified with machine-made buttons manufactured between circa 1800-1850 (Hunt 1986:6, quoting Luscomb 1967:3, 141). No buttons with backmarks like **PLATED** or **GILT** are reported from the 1792-circa 1800 NWC site of Fort George (Kidd 1970) or the 1792-1800 HBC site of Buckingham House (Nicks 1969). However, such buttons are present at the 1804-1805 site of Sayer's NWC wintering fort in east central Minnesota (Birk 1980:352, Fig. 49) and at circa 1802-1805 NWC and XY Company trading post sites on the Yellow River in northwest Wisconsin (Oerichbauer 1982:206).

Lead Brooches (2)

Collection B contains two small cast circular lead brooches with fixed crossbars. At the midpoint of each crossbar is a tiny boss. One brooch is plain. The outer band of the other has radiating and projecting ridges that give it the appearance of a sunburst with a ragged outer margin. A brooch of similar detail, but with a finished outer edge, is reported from a 1760-1780 context at Fort Michilimackinac (Stone 1974:135, Fig. 63, J). See additional discussion of lead brooches under Collection A above, and Collection D below.

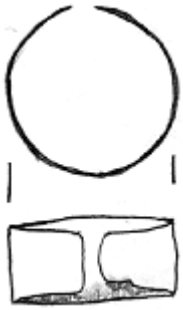


Lead Brooches, Collection B

Finger Rings (4)

Fourteen finger rings appear in Collection B at the Koochiching Museums. Ten are Jesuit-style rings:

"Cigar-band" (1) A plain wide-band ring of cupreous kettle metal looks like a "cigar-band" style finger ring, though it could also be used as an ear or hair clip or for other purposes.



Cupreous "Cigar Band" Ring or Clip, Collection B

Plain Bands (2) Two plain, brass finger rings are of differing size. A study of "wedding band-style" finger rings from western New York state, shows that such bands are found on sites there dating from the early 1600s through 1814 (Wood 1974:99-101). They are reported from the 1715-1781 site of Fort Michilimackinac (Stone 1974:126, Fig. 57, Q-S), and from pre-1770 deposits at Rock Island (Mason 1986:204). Plain bands were recovered from the 1792-circa 1800 NWC site of Fort George in Alberta (Kidd 1970:165, and 182, Fig. 92), and the 1802-1806 HBC Nottingham House site at Athabasca (Karklins 1983:96). Circa 1802-1805 NWC and XYC trading post sites in northwest Wisconsin produced plain bands of different size, perhaps reflecting different sources of supply (Oerichbauer 1982:212, 228-229). Tentatively, plain band brass finger rings in fur trade contexts northwest of Lake Superior may date to the period 1680-1820.

Multiple Insets (1) An inset finger ring has a central circular bezel flanked on either side by three smaller circular bezels. The clear glass inset in the central bezel has a two-tiered design consisting of a raised central dome surrounded by seven sectional lobes (cf. Stone 1974:128, Fig. 58, B). The flanking bezels have sky blue glass insets. Other rings with multiple insets are described in Collection A, above.

Multiple Inset Ring, Collection B

Jesuit Rings (10) Jesuit rings, so-called, are a distinctive grouping of brass finger rings associated with French colonial activities in North America. Such rings are typically found on archaeological sites dating to the period 1645-1760 (Wood 1974:103; Quimby 1966:76). Jesuit rings get their name from the fact that some originally bore religious motifs. The rings changed over time, and scholars continue to explore the nature and sequence of these changes to develop Jesuit-ring chronologies that might be used in identifying or dating archaeological contexts (e.g., Cleland 1972; Stone 1974; Mason 1976; Birk 2002).

One of the most promising avenues of research has been to examine ring decoration techniques, including *engraved, embossed, and impressed*. Further stylistic subdivisions are possible using plaque configuration, decorative content, and the presence, absence, or extent of decorative ridges on ring bands (Wood 1974; Walthall 1993). Formal analysis of Jesuit rings is hampered by the small sample of rings available for study and by the fact that many such rings are recovered as surface finds. Also, because various ring types were introduced or used at different times in different geographical areas, a Jesuit-ring chronology developed in one region might not match that developed in another (Mason 1976:117-118; Walthall 1993:501).

While Jesuit rings initially had religious significance, their growing secular popularity in the fur trade after 1700 may have led to changes in style and manufacture (Cleland 1972). Indeed, the later rings are of “inferior quality and workmanship” that likely “indicate a change to mass production” (Hauser 1982:59-61).

Jesuit rings with ridged bands were more common prior to 1710, or before the period of mass production (Wood 1974:102). None of the Jesuit rings in Collection B have ridged bands and none have embossed plaques. Embossed Jesuit rings do appear in Collections D and G, reviewed below. The author knows of only five Jesuit rings with ridged bands from the Minnesota area, and three of these were recovered from the Wilford Site at Mille Lacs Lake in east central Minnesota (Birk and Johnson 1992:224, and 221, Fig. 8.5, A-C). Only impressed and engraved Jesuit rings have been found at the 1732-1750s site of Fort St. Charles on Lake of the Woods (Birk, personal observation), and all have plain bands (e.g., Gilman 1982:11, Fig. 21; Eccles 1988:330, Fig. 3).

Impressed, Octagonal, Dual Heart Series (1) The octagonal plaque of this ring has a rope-like border enclosing a stamped-impressed heart and circle. Segments of the border also appear as zigzagged-lines or linear series of zipper-like indentations formed by "walking" an engraving tool over the plaque surface (Mason 1976:114). Rocker engraving is also commonly seen on trade silver ornaments (Hamilton 1995:48). The heart and circle design elements are co-mingled with several irregular groupings of incised floral patterns reminiscent of grass stems or sprigs. Rings of this type are dated elsewhere to the period circa 1710-1730 (Wood 1974:94, 100-101; Walthall 1993:503).

Dual Heart Series Jesuit-Style Ring, Collection B

Engraved, Oblong Series (1) The irregular oblong plaque of this ring is narrow in the middle with larger rounded ends. The greater axis of the plaque is aligned with the band. The only decorations are four short irregular engraved lines. A ring of this style is reported from a 1687-1710 site in New York (Wood 1974:94-95, 100-101).

Engraved, Cross Series (1) The oval plaque of this ring has a rope-like border enclosing a possible cross motif made up of zigzagged and engraved lines. Rings of this type in New York have a distinctive engraved cross enclosed within an engraved line that parallels the outer margin of the plaque. They also have oval plaques set perpendicular to the bands, which are ridged (Wood 1974:92-93). In contrast, the band on the Collection B ring is plain, and the oval plaque is aligned with the band. The decorative motif also looks more like an anchor than a cross. For example, it appears to include a stock and pronounced V-shaped flukes. This ring probably dates to the early 18th century.

Engraved, Cross Series Jesuit-Style Ring, Collection B

Engraved, Heart-Shaped, Double-M/Ave Maria Series (1) This ring has a heart-shaped plaque with no border design. The central decorative element is an apparent monogram surrounded by a number of short, single or paired, incised lines. This same monogram has been variously interpreted as a simple IXXI symbol (Quimby 1966:76), as a motif of upright and inverted Ms that "stands for the Latin *MATER MISERICORDIA* (Mother of Mercy)" (Cleland 1971:31), and as an "*M* superimposed over an *A* indicating the Latin *AVE MARIA*" (Cleland 1971:31; Wood 1974:87). In New York State, Ave Maria rings are dated to the period circa 1650-1730 (Wood 1974:100). The same rings appear to postdate 1700 in the western Great Lakes-upper Mississippi Valley regions (Walthall 1993:501).

Engraved, Heart-Shaped, Abstract Series (1) The heart-shaped plaque of this ring has no border design. The central decorative element is what has been called a "bar-ovoid" motif, set within a frame of incised lines. The space within the bar-ovoid design element is hatched with fine horizontal lines. The bar ovoid is flanked within the frame by two short vertical incised lines, and additional short incised lines surround the frame. This same basic decoration is also seen on Jesuit rings with round and oval plaques (e.g., Walthall 1993:501; Stone 1974). In the Rainy Lake Country, these rings may postdate 1700.

Heart-Shaped Abstract Series Jesuit-Style Ring, Collection B

Engraved, Initialed Series (5) The plaques for these five rings are generally ovoid with the greater axes aligned with the bands. The plaques have rope-like or zigzagged-line border designs that enclose block letters or initials. The letters are fairly centered on the plaques, and they dominate the decorative motif. The vertical elements of all of the letters are rendered in the same zigzagged manner as the border design, while the horizontal, diagonal, and curved elements of the letters, as well as the finials, are engraved (incised). Such Jesuit rings in the Rainy Lake area probably date to the early and mid-18th century.

ID Mark. One of the rings, marked **ID**, has ill-defined facets around the outer edge of the plaque that give the mere hint of an intended geometric outline. Irregular engraved lines appear above and below the letters ID and on either side of the letter I.

VI Mark. A ring, marked **VI,** has poorly defined facets and an indented lower margin. Another VI ring is reported from the site of an apparent 18th century French colonial occupation at Trempeleau, Wisconsin (Nienow and Rodell 1996:111).

FI Mark. A ring marked **FI** has a slightly oval plaque with a indent on its upper margin . Other rings with an FI mark have been recovered at Fort Michilimackinac (Stone 1974:130, Fig. 59, J, and 132, Fig. 60, B), at Fort St. Charles on Lake of the Woods, and at Leech Lake in the Mississippi Headwaters (Birk, personal observations).

IL Mark. A ring marked **IL** has no other incised surface decorations.

NN Mark. One ring with a nearly circular plaque is marked **NN**. A wavy incised horizontal decorative line appears beneath the letters. NN, NI, VI, and IN marks may be related. IN by itself could mean Jesus of Nazareth (Wood 1974:92).

Beads (Quantity undetermined)

Collection B contains a limited number of glass beads. Two types are discussed here:

IIa Series A quantity of wound globular beads are similar to what Stone defines as a Class II, Series A, Type 9, Variety a, bead from Fort Michilimackinac (Stone 1974:Fig. 49, UU). The Michilimackinac example is opaque light blue with a highly polished, glossy surface (Stone 1974:103). Those in Collection B are heavily crazed and broken with possible color alteration. The original color appears to have been an opaque robin's egg blue, but several examples are

leached to an almost ivory color. Jeffrey Brain defines examples from a 1731-1764 Tunica Indian village in Louisiana as Variety IIA8 beads of a light powder blue color. According to Brain, the mean date for the use of such beads in North America is 1743 (Brain 1979:103).

IIa Series Glass Bead, Collection B

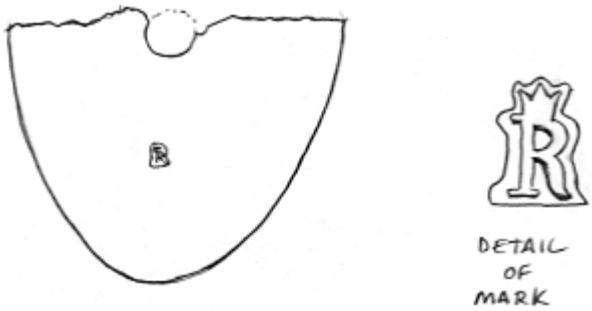
<u>IIb Series (1)</u> An opaque white drawn bead has rounded ends and three colored stripe insets. The stripe insets are longitudinal and straight. Each is composed of a narrow central blue stripe bordered on either side with a red (Munsell 10R 4/6) stripe. Lyle Stone defines this as a Class I, Series C, Type 1, Variety a, bead (Stone 1974:Fig. 48, TT), which, using examples from Fort Michilimackinac, he interprets as French, dating to the period 1700-1750 (Stone 1974:97). Jeffrey Brain reports such beads from a 1731-1764 Tunica Indian village in Louisiana. He defines them as Variety IIB5 (or Kidd:IIbb13) beads. According to Brain, the mean date for the use of such beads in North America is 1747 (Brain 1979:104).

IIb Series Glass Bead, Collection B

ARTIFACT COLLECTION C (DENNIS CHRISTIANSON COLLECTION, KOOCHICHING MUSEUMS)

<u>Gun Butt Plate, Crowned R (1)</u>

A toe fragment from a thin cast brass butt plate is in Collection C at the Koochiching Museums. The fragment is broken transversely through a large round attachment hole. Stamped on the outer face of the butt plate, at the center on the toe below the attachment hole, is a very small **Crowned R** mark. There are two known variations of this mark. Though uncertain, they may represent the acceptance mark of a French armourie or arsenal, or the King's mark (Hamilton 1980:39). The variation of the mark on this butt plate has a crown topped with three sharp points. The same **Crowned R** mark is reported on butt plates from the Gilbert Site in Texas and on sideplates from sites in Missouri, Illinois, and Michigan. The **Crowned R** is also reported on a trigger guard from



Gun Butt Plate Fragment with Crowned R Mark, Collection C

a Tunica Indian village in Louisiana (Brain 1979:215). All such marked specimens are French and may date to the period 1730-1760 (Hamilton 1968:12-13).

Gun Butt Plate Fragment, Engraved (1)

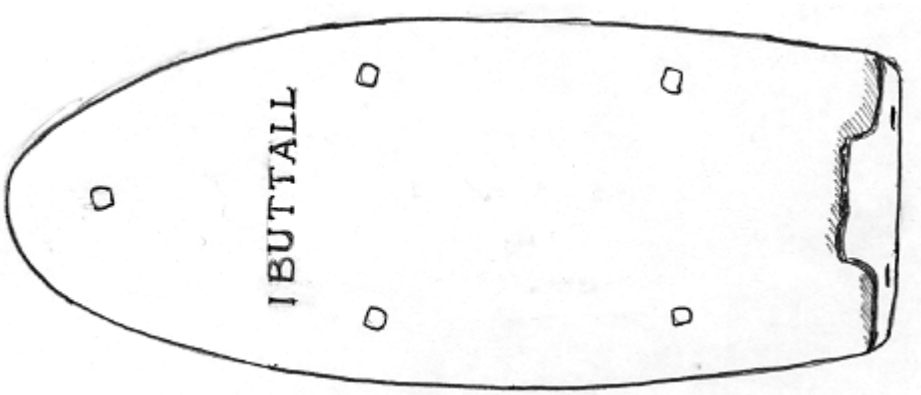
A tang fragment from a cast brass butt plate is in Collection C at the Koochiching Museums. The tang fragment exhibits engraved tracery lines, a heart-shaped half-shell, and an asymmetrical panoply containing a bow and a broad-head arrow. Though reminiscent of a French design, similar examples from dateable archaeological contexts elsewhere suggest this may be part of an early English butt plate dating from the period circa 1760-1780 (Hamilton 1980:76-78). According to Ted Hamilton, "it seems that the English, in consolidating their hold on the Indian trade following the fall of New France, deliberately brought out a gun in immitation [sic] of the popular French pattern" (Hamilton 1980:77).

Gun Butt Plate Fragment, Engraved, Collection C

Northwest Gun Butt Plates (2)

Two brass butt plates from Northwest guns are in Collection C at the Koochiching Museums. Both plates are missing their tangs, but are otherwise complete. Both are thick and heavy and appear to be cast. One unmarked plate has a cluster of three small square attachment holes at its toe and four more evenly spaced holes along its lateral margins.

The second butt plate, of heavy cast, is bent at a right angle at the heel. It also has five square attachment holes, two of which are above the bend of the heel. Stamped on the inner face of this butt plate is the name **I BUTTALL**. A similarly marked butt plate, identified as an "early English" piece, is reported from a collection in Alabama (Hamilton 1980:90, Fig. 50B).



Northwest Gun Butt Plate, Marked I BUTTALL, Collection C

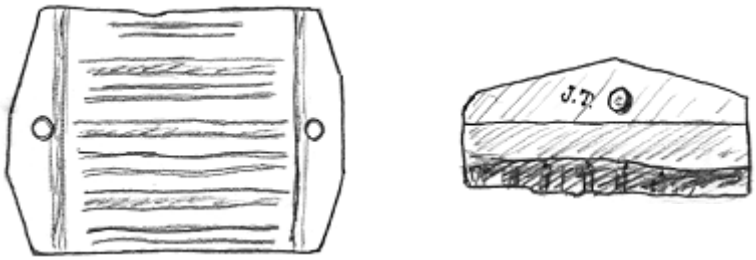
Butt plate marks are not often reported. Because such marks are small and may appear on the inner face, they are easily overlooked. Determining the identity of the marks is another matter. A butt plate marked with the initials **WB**, found on the 1761 wreck of the ship Auguste, may identify a London gunsmith named W. Brander (Bradley et al. 1992:62). A butt plate found at the site of Zebulon Pike's 1805 United States Army wintering fort on the Mississippi River in central Minnesota has the partly obscured and unidentified maker's mark: **W_**
N

Northwest Gun Rampipes (2)

Two ribbed sheet brass front rampipes in Collection C at the Koochiching Museums are from Northwest guns. One of the rampipes has been opened and flattened for possible reuse as a decorative plaque with ready-made suspension holes. Jeffrey Richner reports a similar flattened rampipe from Site 21SL191, in Chapter 3 of this volume. Others are reported from the Fletcher Cemetery Site on the Saginaw River in east central Michigan (Mainfort 1979:394) and elsewhere (e.g., Hamilton 1995:65, 95-98). The Fletcher plaques, made of reworked pieces of trade silver bracelets, are hair or breast ornaments. They are wired together in suspended ladder-like series. The bottommost plaques in the ladder typically have small triangular sheet silver or brass "bangles" or "janglers" attached with wires to their basal margins (Mainfort 1979:396, Fig. 63 and 397, Fig. 64). The Fletcher Site materials date to the period 1750-1765 (Mainfort 1985:558). George Quimby, in a 1966 study, indicates that "composite pendants" of this type are "typical" of the period 1760-1820 in the western Great Lakes region (Quimby 1966:94, Fig. 20).

The cylindrical barrel of the second rampipe in Collection C is crushed. The dorsal flange rises to a point above a single attachment hole. On one side of the flange to the left of the attachment hole are the stamped letters, **J.T.**, probably the initials of the unidentified gun maker.

The author has seen rampipes from two circa 1800-1805 NWC wintering fort sites in central Minnesota that are impressed with Roman numerals. The numerals, **XIII** and **XI** (or **IX**), were probably applied by the gunsmith to distinguish custom manufactured parts from individual firearms; something necessary when producing several handcrafted firearms at the same time. Notches or Roman numeric markings are often reported on gun parts, including serpent sideplates, locks, cocks, barrels, barrel tangs, and rampipes (e.g., Kidd 1970:70-74; Karklins 1983:142; Hamilton 1980:73; Wheeler 1985:68). Though initialed rampipes are rare, they have potential to provide tighter dates if the initials can be identified.



Northwest Gun Rampipes, Flattened (Left) and Stamped JT (Right), Collection C

Gun Barrels (4)

Four sections of ferrous gun barrel in Collection C at the Koochiching Museums are from four separate smoothbore muskets. All represent the proximal ends of barrels. No marks or modifications are evident on these rusted pieces. The approximate length and bore diameter of each of the four barrel fragments is as follows: (1) 8 inches/.50-caliber; (2) 10 inches/.54-caliber;

(3) 11½ inches/.55-caliber; and (4) 15 inches/.60-caliber. Old or damaged gun barrels were sometimes cut into desirable lengths and converted into "various useful articles such as tubes, scrapers, barking tools and pike heads," as well as "pipe tomahawks" (Brown 1918:73, 80).

Miscellaneous Gun Parts and Ammunition

Other trade gun related items in Collection C include:

Gunlocks (2) Ferrous. Very rusted. Poor condition. No discernible mark.
Gun Cock (1) Rusted cap and ball hammer, and lockplate fragment.
Frizzen (1) From a flintlock. Rusted.
Trigger (1)
Trigger Guard Fragments (2) Brass.
Lead Balls (18) Musket balls, thirteen are .51 to .58 caliber, and five are distorted (one up to .72" diameter).

Gunspalls (3)

Three honey-colored gunspalls appear in Collection C at the Koochiching Museums. Gunspalls were first introduced in the mid-1600s and were almost completely supplanted by the conventional prismatic form by 1775 (Hamilton 1960:76; 1964:52). George Quimby, working with artifact collections in the western Great Lakes region, dates the use of spall type flints with rounded heels to 1670-1760, a period that generally defines the era of French colonial presence there (Quimby 1966:75). Both honey-colored gunspalls as well as blade flints have been recovered from the 1732-1750s site of Fort St. Charles on Lake of the Woods.

Prismatic Gunflints, British (11)

Eleven dark brown prismatic or flake-type flints in Collection C at the Koochiching Museums are identified with British activities and probably date to the period 1775-1830 or later.

Ax Heads (4)

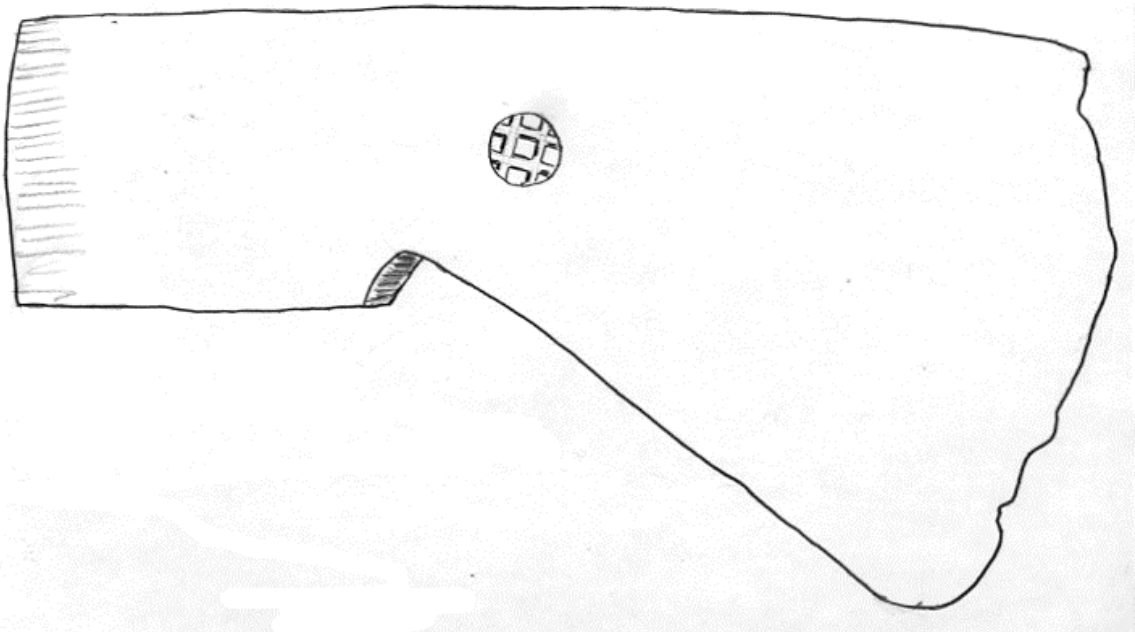
Four hand-wrought iron ax heads, typical of trade axes, appear in Collection C at the Koochiching Museums:

BAR and punctate (1) One small ax head with a teardrop shaped eye opening has an eroded mark on the mark (left) side of the blade. The stamped mark consists of three regularly spaced circular punctuates (punch marks) overlying three larger and irregular indentations. Though illegible, the mark is similar in size, configuration, and placement to the **BAR-and-punctate** mark reported on ax heads from other northern sites, which appear like this:

λ λ λ
B A R

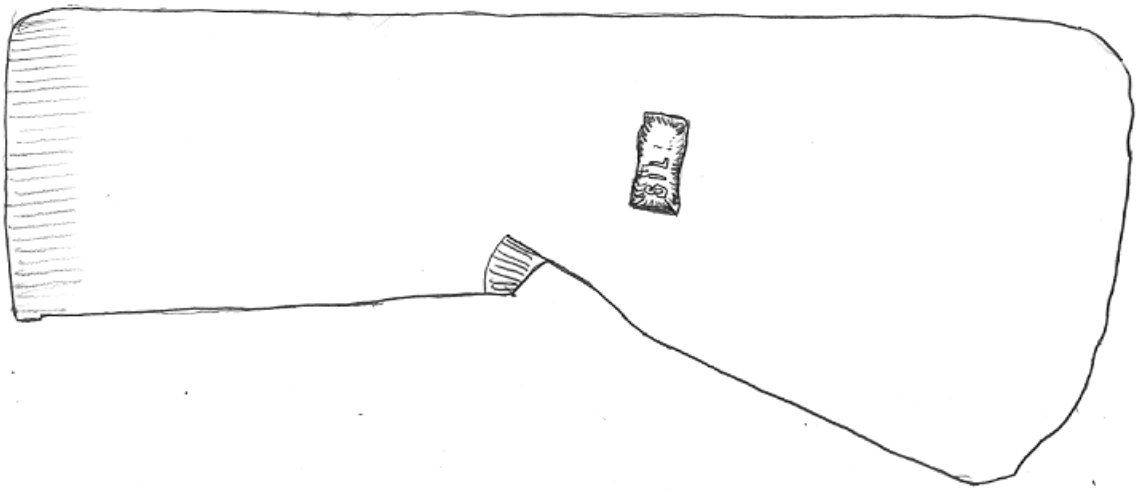
An assemblage of 29 trade ax heads stamped with **BAR-and-punctate** marks was recovered by SCUBA divers at Boundary Falls on the Winnipeg River in western Ontario in 1966. Each of the ax heads in the assemblage exhibits the letters **BAR** and one or three punctuates (Wheeler 1973; Wheeler et al. 1975:27-29, 82, and 104, Table 5; Wheeler 1985:61). An ax head with a **BAR-and-punctate** mark has also been observed in a private collection from Lake Saganaga, northeast of Ely, Minnesota. Both the Winnipeg River and Lake Saganaga are a part of the old Voyageurs Highway canoe route. Archaeologist, Alan Woolworth, suggests that axes marked **B.A.R.** (i.e., with the **BAR-and-punctate** mark) are of British origin and date to the close of the 18th century or the first decade of the 19th century (Wheeler et al. 1975:83). One of the ax heads from the Winnipeg River assemblage viewed by the author at the Royal Ontario Museum is dated in the collections there to the period 1811-1822. The basis for this date is unknown.

Grid in Circle (1) A second ax head has a drooping blade with a ragged bit. The eye opening is in the shape of a teardrop. Each side of the blade has a **circular stamp containing a raised waffle pattern** or "cat-and-mouse" grid. The mark on the right side of the blade is more distinct. An ax head of apparent similar shape and identical marking is reported from a burial at Broughton Hill, Victor, New York (Russell 1967:410-411 Fig. 107, M). Another ax with the same mark was found in the vicinity of Hamilton at the head of Lake Ontario (Russell 1967:409 Fig. 107, H). Probable French-period ax heads with circular marks are also reported from Grand Marais, Minnesota (Russell 1967:409, Fig. 107, A), and from the adjacent Border Lakes country between Lake Superior and Rainy Lake (Russell 1967:412, Fig. 107, T).



Hand-Wrought Iron Ax Head with Grid in Circle Mark, Collection C

SILK (1) A third ax head, recovered in two parts, has been restored by spot-welding the parts together. A smith's mark stamped on the right side of the blade consists of a sunken rectangular



Hand-Wrought Iron Ax Head with SIL_ Mark, Collection C

panel containing the letters **SIL_**, a probable rendering of the name **SILK**, now partially eroded. The letters are raised, and the margins of the sunken panel slope inward. Collection D, below, contains part of an ax head with the same unidentified mark.

Unmarked (1) The fourth ax head in Collection C is unmarked, but retains a part of its original wooden haft. Don ("Buck") Johnson in the late-1960s recovered this item from the "elbow" of Grassy Bay of Sand Point Lake. He accidentally snagged it with a spinner on the muddy lake bottom in 6-8 feet of water and reeled it in. He later gave this piece to Dennis Christianson (Edgar Oerichbauer, quoting Buck Johnson, personal communication).

Rat Spears/Harpoons (4)

Four wrought-iron spear or harpoon heads are among artifacts in Collection C at the Koochiching Museums. The spearheads are made of cylindrical iron rod. All have conical points, while the proximal end of each is bent sharply to form a heel. The heel was used to secure the spearhead onto the side of a wooden shaft. The spearheads range in length from 11.25 to 12.5 inches. One has a single barb and the other three each have two barbs. The barb styles vary. Two of the spearheads, with hooked barbs, are now dually mounted on a new wooden handle for display.

Native peoples used iron spears to spear sturgeon and other large fish as well as muskrats and beaver (Brown 1918:75; Wheeler et al. 1975:73). Iron spearheads were common throughout the fur trade era, and any diachronic changes they may have undergone are yet undetected (Quimby 1966:76). Barbed iron spears, similar to the present examples, are reported from three sites at VOYA (Richner 2002), at South Fowl Lake (Platchek 1965:60 and Pl. 29), and from near Horse Portage on the Basswood River (Wheeler et al. 1975:69, 72-74; Wheeler 1985:66).

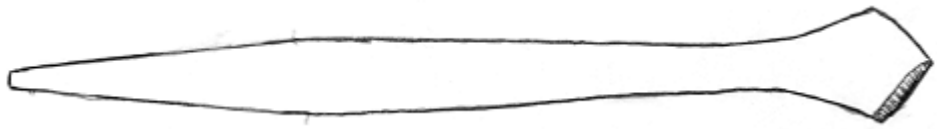
Iron Hoe Blade (1)

A large wrought-iron hoe is in Collection C at the Koochiching Museums. The hoe has an elongated blade with parallel sides and rounded corners. The eye opening is circular. On the curved inner surface of the blade is the unidentified stamped mark: **W.SCO**.

Iron hoes are not often found on archaeological sites in northern Minnesota. An unmarked iron hoe recovered by Walter Kenyon at Oak Point Island near the eastern end of Rainy Lake has a rounded eye and a rather triangular blade (Kenyon 1986:67-68, 129, Pl. 95A). The author has seen an iron hoe with the mark **P.CHOUINARD** from a site at Big Sandy Lake in Aitkin County, Minnesota. Iron hoes marked **W.FOSTE** and **FOSTER** are reported from sites in southern Minnesota (Nystuen and Lindeman 1969:24; Thayer 1944:106). The **W.SCO**, **P.CHOUINARD**, and **W.FOSTE** hoes and other related evidence (e.g., Russell 1967:414-421) indicates that, in the first half of the 19th century, many blacksmiths used marks that consisted of their initials, or their first initial(s) followed by their surname or, possibly, an abbreviation of their surname. For example, **W.SCO** could indicate a smithy with a name like William Scofield or Scoville. Eileen Woodhead, in a compendium of trademarks, shows that SCO, by itself, might be used to indicate a company name, like Spurrier & Company (Woodhead 1991:221, 237).

Bit (1)

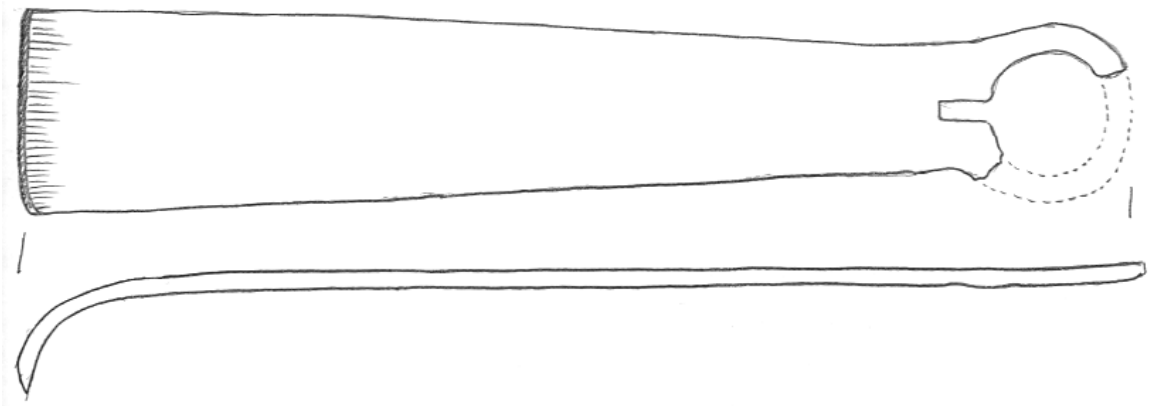
A hand-forged drill bit, designed for use with a brace, is in Collection C at the Koochiching Museums. The unifacially sharpened cutting edges of the bit meet at a central point. The bit is intended to route circular holes of about 0.5-inch diameter. The bit shaft is variably tapered, and throughout most of its length it is square in cross-section. There are no marks to indicate the size of the bit or the identity of the manufacturer. Bits with similar shafts are known from the late 18th and early 19th centuries in North America (e.g., Barnes 1988:187, item #352; Karklins 1983:154).



Drill Bit, Collection C

Fleshers (2)

Two hide scrapers or fleshers appear in Collection C at the Koochiching Museums. One, made from a socketed wood or "forming" chisel, was produced by bending the tip of the chisel blade to an oblique angle. The other example is fashioned from half of a U-shaped spring from a steel leg-hold trap (Gerstell 1985:144). The spring is 19.8 cm long. It is severed at its original flex point, and the resulting transverse edge is sharpened on its outer surface. The circular bow (eye) of the spring is broken. Within the inner arc of the bow is a short narrow slot, aligned with the spring's longitudinal axis. The purpose of the slot is not clear. There are no discernible marks.



Trap Spring Flesher, Collection C

According to trap specialist Richard Gerstell, practically all steel traps used in North America from 1751 through 1850 were handmade devices manufactured by tedious technical processes that limited production (Gerstell 1985: 164, 178-179). Merchants' records that list trade goods sent to the western Great Lakes region between 1715-1760 make no mention of steel traps (Anderson 1991, 1994). The use of steel traps in the Northwest Indian trade may have begun with the British. Small numbers of traps were introduced in the vicinity of Michilimackinac by 1762, and traps were "regularly" traded to Indians there by 1788 (Gerstell 1985:72). An account book kept by the Montreal merchant, Maurice Blondeau, shows that between 1778 and 1785 he sent 129 beaver traps (*piège à castor*) to the Sault Ste, Marie trader Jean-Baptiste Cadotte (or Cadot). Cadotte, in turn, traded the traps into areas south and west of Lake Superior, including what is now the Minnesota country (Gerstell 1985:75). According to David Thompson, steel traps were first introduced on the lower Red River (in present southern Manitoba) in 1797 (Russell 1967:126). That same year, the NWC trader Charles Chaboillez took a "Bale [of] Beaver Traps" to his wintering post at the junction of the Red and Pembina rivers west of Lake-of-the-Woods (Hickerson 1959). A broken trap spring is among artifacts recovered from an 1804-1805 NWC wintering fort on the Snake River in east central Minnesota. In his diary, the chief occupant of that fort, the trader John Sayer, mentioned the use of beaver traps by the local Ojibwe (Birk 1989:47). A circa-1800 NWC fort site at Whitefish Lake in Crow Wing County Minnesota has produced a jaw post from a probable beaver trap.

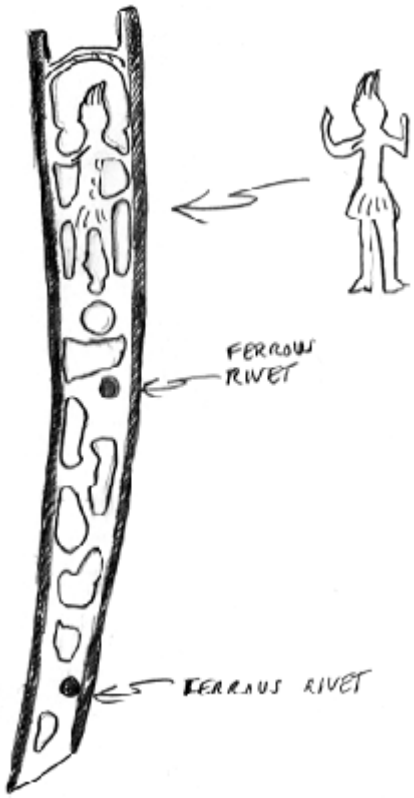
On the frontier, old trap springs, gun barrels, and bastard files were often modified to make fleshing tools similar in form to examples earlier fashioned from the leg bones of elk or bison (e.g., Hanson 1955:33; Nicks 1969:150; Smith 1972:75; Woolworth 1975:109, Fig. 30, 15; Gilman 1982:89, 93). Any marks on the original items can help to date the modified tools. For example, a flesher found by a private collector along Minnesota's northern border is made from a steel trap spring that bears the maker's mark: **M. STANDISH PERRY S^{t} N**. Miles Standish was a noted smithy who specialized in making beaver and muskrat traps. He made traps for the American Fur Company (AFC) at Michilimackinac in 1821-1822 and worked out of Montreal from 1823-1827. He then moved to New York City where, through at least 1846, he continued to produce traps, along with muskrat spears, half-axes, and tomahawks, for the AFC (Gerstell 1985:162-163; Russell 1967:133-134, 140).

Knife Blade (1)

A case, sheath, or butcher knife blade is in Collection C at the Koochiching Museums. The blade and flat shank of the knife are formed of a single piece of metal, 22.1 cm long. The blade is straight-backed and pointed. The narrowed shank has three holes. The handle rivets and grips are missing. The blade is rust-pitted and has no discernible maker's mark.

Knife Handle (1)

A perforated brass handle grip from a folding knife is in Collection C at the Koochiching Museums. This incomplete specimen is slightly curved throughout its length, and it is broken near its distal end. Evidence of ferrous rivets appears near the middle and at the proximal end of the grip. The perforations in the narrow end of the grip appear to have no particular pattern. The cutouts in the distal half of the grip, however, may, in part, form the full-body profile of a



Perforated Knife Handle Grip, showing hypothetical human figure, Collection C

human figure, perhaps with arms raised and flexed, and wearing a feathered headdress. Such grips were backed with leather or possibly an inlay of horn or tortoise shell (e.g., Karklins 1981:241).

The 1715-1781 site of Fort Michilimackinac has produced a pair of similarly perforated brass handles that may be from a pre-1760 French clasp knife (Stone 1974:267 and 268, Fig. 162, M). Like-shaped knife handles have also been recovered from the wreck of the Machault, a French frigate sunk by British naval forces near the mouth of the St. Lawrence River in 1760 (Sullivan 1986:91), and from the 1750-65 Fletcher Site in Michigan (Mainfort 1979:370, Fig. 37, C).

Kettle Lug, cast brass (1)

An incomplete, cloverleaf-shaped, cast brass kettle lug is in Collection C at the Koochiching Museums. This unusually large lug is up to four inches wide. It has three rounded and perforated lobes on its lower half. A perforation central to each lobe was used for attaching the lug to the side of a kettle bowl with brass rivets. The lug is broken transversely through the bail hole, and the top "half" of the lug is missing. The middle of the lug is curved outward to accommodate a wire-reinforced kettle rim.

Lugs of this style are typically associated with kettles that narrow in diameter from the rim to the base (Brain 1979:165). Such tapered kettles were widely used in the western Great Lakes fur trade. They may have been preferred for the trade, in no small part, because they could be nested, one inside of another. Nested kettles saved space and increased the efficiency of canoe shipments while maximizing the stock available for Indian consumers at distant and scattered trading locales (Wheeler et al. 1975:57).

Lugs of a similar shape appear on a kettle found by divers at Little Rock Falls on the Granite River between Gunflint and Saganaga lakes (Wheeler et al. 1975:63). Others are reported from a 1731-1764 Tunica Indian village in Louisiana and the 1740-1770 Gilbert site in Texas. Jeffrey Brain suggests such lugs enjoyed multinational use during a period extending from the mid-18th to the early 20th century (Brain 1979:173). According to Alan Woolworth, the Little Rock Falls kettle with cloverleaf-shaped lugs is of "British manufacture, dating from the late 18th century." That identity is drawn from the kettle's assumed association with a pewter spoon stamped with the touchmark of an English manufacturer who operated between 1744 and 1767 (Wheeler et al. 1975:63-64). See further discussion of kettles and kettle lugs under Collection A, above.

Tinkling Cones (4)

Four small conical tinkling cones, fashioned from cupreous kettle metal, are in Collection C at the Koochiching Museums.

Kettle Metal Ornaments (2)

Two zoomorphic silhouettes, cut from cupreous kettle metal, are in Collection C. Neither effigy has surface decorations nor touch marks. One, cut from rather thin sheet metal, is in the form of a *Mishipishu*—a Water Panther or Great Lynx—thought to be an evil manitou of the subaqueous underworld (van Dongen 1995:142; Lovis 2001:116). The other effigy, cut from comparatively heavy sheet metal, is the silhouette of the archetypal warrior, the Thunderbird. The Thunderbird silhouette has a suspension hole; the Water Panther does not. Though uncertain, these objects were likely made by Native artisans. Their presence together in one collection is intriguing.

Native cosmology divided the world into two sectors, the Sky World and the Under World. The principal manitous of these worlds were the Thunderbird and the Water (or Underwater) Panther. These powerful spirit-beings were relentless foes, and their adversarial relationship "personified

the fundamental dualities that structured the Native World" (Bradley 1995:33). The Water Panther was noted for denning on lake-bottoms, in whirlpools, or among rapids. By thrashing its tail, the Panther could cause violent currents, waves, and storms. The Panther could also move from lake to lake by traveling along underground rivers. Humans dreaded the Panther. To appease this evil and unpredictable water monster, they might conduct protective rituals before embarking on potentially dangerous journeys over water, including during times when lakes and rivers were frozen or almost so (Dewdney 1975:122-124; Cleland 1992:71). The humans "had allies in the thunderbirds," which often flung bolts of lightning at their underworld adversaries (Cleland 1992:71). Whether the silhouettes in Collection C were mere ornaments or whether they were actual cosmological figures or mnemonic devices instilled with special meaning or value is, of course, unknown. Another Thunderbird silhouette is discussed as part of Collection A, above.

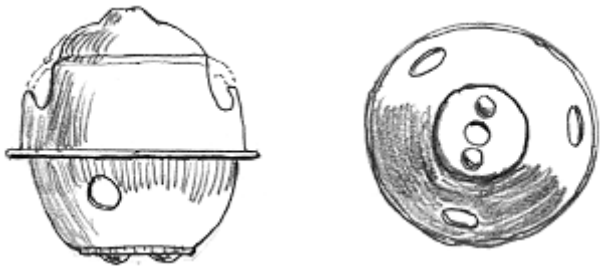
Kettle Metal Effigies, Collection C

Copper Bracelet (1)

A thin C-shaped cupreous bracelet in Collection C at the Koochiching Museums is concavo-convex in cross-section. The band measures .745 inches or about 1.9 cm in width. The ends of the band are rounded like half-circles. There are no touch marks or perforations. The exterior surface exhibits a finely detailed floral lattice decoration composed, in part, of a repetitive series of double-line "Xs" enclosed within double-line borders. A bracelet of strikingly similar construction, having double-line Xs and borders but no floral design elements, is reported from a 1585-1610 Seneca site in New York (Wray et al. 1991:75).

Copper Bracelet, Decoration Detail, Collection C

Saturn Bell (1)
A "jingle bell" in Collection C consists of two hemispheres of unequal size stamped out of thin sheet brass. The hemispheres are joined at a protruding equatorial flange that gives the bell a ringed-Saturn look. Each hemisphere has perforated holes.



Saturn Bell, Side and Bottom Views, Collection C

Buttons (11)
Collection C, at the Koochiching Museums, contains a small but interesting assortment of metal buttons. Three of the buttons, identified with the Earl of Selkirk, were recovered together by the collector at the Little Fork River, southwest of International Falls.

Selkirk Buttons (3) Three brass livery buttons have soldered eyes, stamped backmarks, and raised facial motifs. One button is about 0.6 inch in diameter and the other two are about 1.1 inch in diameter. The backmark stamped on the reverse surface of all three Selkirk buttons gives the manufacturer's name and general street address as:

R. BUSHBY H St MARTIN'S LANE LONDON

Documentary records show that Robert Bushby was a British button maker who operated on St. Martin's Lane in London from circa 1800-1824 (Squire 1976:xxv).

Charles Bradley of Canada has researched these Selkirk buttons. According to Bradley (1997), a heraldic crest on the face of all three buttons is a British coronet of rank. The crest is comprised of a hound crouching on a *chapeau* (cap) of rank amidst "flames of fire" surmounted by a crown-like motif with five pearls raised on tall spikes. An overarching banner contains the motto **JAMAIS ARRIERE**, which translates roughly as "Never Back" or "Never in Arrears." The fact that the motto is in French and not Latin, suggests to Bradley "the family may date its lineage back to the Norman Conquest, or possibly be of Scottish extraction."

The heraldic crest identifies these buttons with Thomas Douglas, 5th Earl of Selkirk. Selkirk may have issued the buttons when providing uniforms for men in his private army, or coats with such buttons may have been gifted or traded to headsmen among American Indian/First Nation peoples (Bradley 1997). Selkirk traveled west from Montreal with his private army in

1816 and quickly captured Fort William, the NWC depot at Rainy Lake, and other outlying NWC posts, including Grand Portage. Selkirk died in 1820, the year before the landmark merger of the NWC and HBC. The introduction of Selkirk buttons in the Rainy Lake country probably dates to the period 1816-1820.

Sketch of Selkirk Button, Obverse and Reverse Views, Collection C

Spun back (6) Six plain, spun-back, white metal buttons have soldered wire eyes. Some eyes are broken. As noted in the discussion of spun-back buttons in Collection A, above, such buttons in the Rainy Lake area may date from 1750 to 1810 or later.

Wedge shank (1) A single-cast ferrous button with a wedge shank and drilled eye lacks a backmark. The facial decoration consists of concentric circular patterns at the center surrounded by a "hatched lobe" border treatment. Tentatively, in the Rainy Lake area, buttons with wedge shanks may date to the period circa 1731 to 1810 or later. See further discussion of single-cast buttons with wedge shanks under Collection B, above.

4-Hole Sew-thru (1) A plain, single-cast, lead or pewter button with a concave face and flat back has four sew-thru holes. Such buttons are identified and dated elsewhere as trouser buttons from the period 1800-circa 1860 (Olsen 1963).

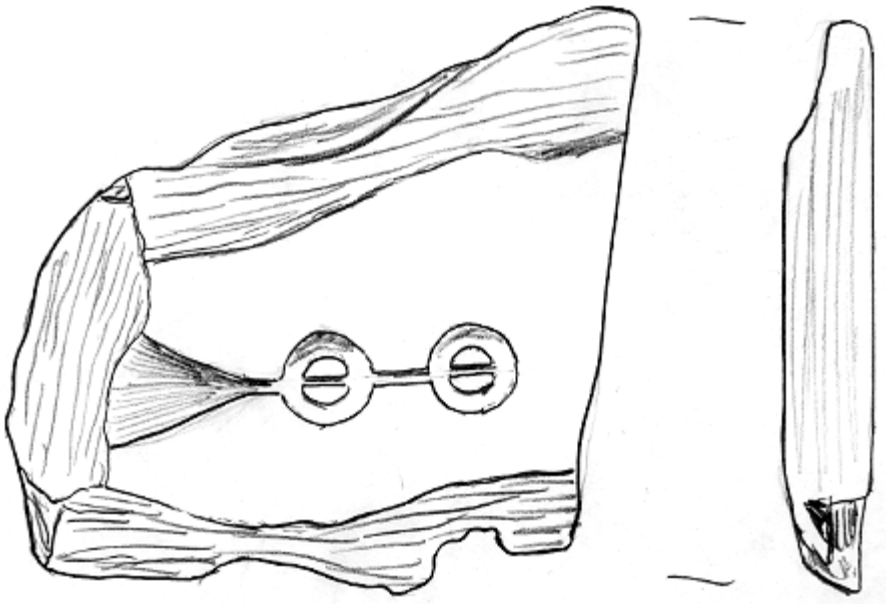
Plain Lead Brooches (Quantity undetermined)

Some small cast lead brooches with fixed crossbars are in Collection C at the Koochiching Museums. Two of the brooches are connected, having been cast in a gang mold designed to accommodate the production of at least two brooches at one time. The connected brooches do not fit the stone brooch mold described below.

Lead Brooches, Connected, Collection C

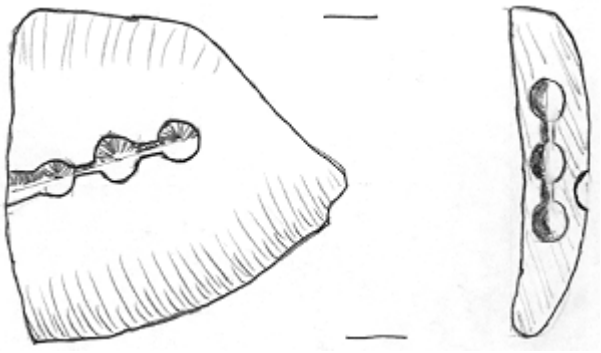
Stone Ornament Molds (2)

The intaglio portions of two stone ornament molds are in Collection C at the Koochiching Museums. Both are likely intended for use in molding small lead or pewter ornaments. One mold, cut into a flat piece of gray schist, has a funnel-shaped pour hole designed for the simultaneous casting of two small circular brooches with fixed-crossbars. The molded brooches would have been similar in appearance to those illustrated above.



Stone Ornament Mold, Collection C

The second example, of grayish soapstone, has two mold patterns cut into its surface; one on the side and one on the end. The mold patterns each consist of three small circular and basin-shaped cavities laid out in linear fashion and connected by a shallow furrow. This mold may have created bossed inlays used to decorate other objects. A cast lead object similar to the pieces that may have been made with this mold is described in Collection D, below.



Stone Ornament Mold, Collection C

It was not unusual for molds to be made from soft workable stone. A stone bullet (musket ball) mold in the collections of the Fur Trade Museum in Chadron, Nebraska, has two halves that are aligned, one to the other, with wooden pins. Linked to each of the rounded mold cavities is a funnel-shaped pour hole (Hanson 1960b:80).

Stone ornament molds have been recovered from the circa 1727-1777 Little Osage Site in Missouri (Walthall and Benchley 1987:60), the 1715-1781 site of Fort Michilimackinac in Michigan (Stone 1974:135, Fig. 63, I), and the 18th century Guebert Site, a Kaskaskia Indian village site in Randolph County, Illinois (Good 1972:87, 91). The ornament mold from the latter site is a red pipestone mold made to cast circular ornaments and crosses (Good 1972:Color Pl. 2,

and 91, Fig. 24). A red pipestone palette found in St. Paul, Minnesota, has mold impressions for making ornaments like round turtles, crosses, and heart, double-heart, and large circular brooches from "lead, pewter, and similar metals which fuse at low temperatures" (Smith 1948, Gilman 1982:87). A small mold from Big Sandy Lake, in Aitkin County, Minnesota, may have been intended to make small circular brooches without crossbars (Miner 1941:49). The molds from the Little Osage Site and Fort Michilimackinac are designed to produce small cast brooches with fixed crossbars. A stone mold somewhat similar to the Collection C examples, reported from the Mohawk Valley, New York, was used for,

> …casting lead or pewter ornaments. It is a flat piece of stone in which three circles have been neatly cut, each with several deeper depressions, to form bosses on the rings. The diameter is about that of a common cent, and there are sloping grooves to carry off the superfluous metal, or to run the metal into the mold, that being covered (Beauchamp 1903:14).

The Collection C ornament molds may date to the period 1730-1780.

Stone "Shot" Mold (1)

A stone mold in Collection C at the Koochiching Museums may have been used for making lead shot. The mold patterns consist of cloverleaf-like series of holes drilled into a flat and heavily striated surface of a soapstone slab. The holes are connected with shallow furrows. A similar mold reported from the 18th century Guebert Site in Illinois is made of catlinite (Good 1972:87 and 91, Fig. 24). A bullet mold made of two pieces of soapstone, with cavities to mold three bullets or balls, is reported from Wisconsin (Brown 1918:71).

Stone "Shot" Mold, Collection C

Trade Silver (2)

Two ribbed sheet silver bracelet fragments are in Collection C at the Koochiching Museums. These unmarked band fragments are 0.68 and 0.76 inches wide, respectively.

Pierced Silver Brooches, CSP (2)

Two wide-ring sheet silver brooches in Collection C were apparently found at the Little Fork River southwest of International Falls. These brooches are about three inches in diameter. They are round in outline and raised in the center. The convex face of each is decorated with a fretwork of concentric piercings in the form of triangles, lenticular ovals, and crescents or half-circles. Each brooch has an enlarged central hole over which was extended a hinged tongue. The tongue on one example is now missing. The example with the tongue has zigzagged lines of rocker engraving between the second and fourth tiers of concentric piercings. The other example has a

single line of rocker engraving between the third and fourth tier of piercings. A tiny touchmark on each brooch consists of the letters **CSP within an oval panel**. The mark appears on the face of each brooch aside the central hole.

According to Martha Hamilton's recent study of silver in the fur trade, CSP is the mark of the American jeweler and silversmith Chauncey S. Payne, who may have produced silver for the trans-Great Lakes trade between 1812 and 1835 (Hamilton 1995:177, 200, 225).

Clay Pipe Stem/Bowl Fragment, "IF" (1)

A stem and bowl fragment of a white ball-clay smoking pipe in Collection C has the letters I and F embossed on opposite sides of the spur. The **IF mark** apparently identifies John Ford and Company. The Collection C pipe fragment likely originated in England in the early to mid-19th century (Brockenshire 1983:217; Bradley 2000:118).

Pipe Bowl Cover (1)

A bowl cover (spark cap, wind cap, etc.) for a smoking pipe is in Collection C at the Koochiching Museums. This item, made of thin sheet brass, was originally round in outline. At the center is a small circular hole surrounded by a series of eight radial keyhole-shaped piercings. A projecting hinge on one edge of the cover appears as a short tongue rolled in the form of a cylinder. The matching collar piece for the cap is missing, as is the clip that probably held the cap in a closed position. Some pipe bowl covers are reported from 1870s-1880s contexts in Lower Fort Garry, Manitoba, and Fort Walsh, Saskatchewan (Bradley 2000:123, Fig. 34). The age of the Collection C bowl cover is uncertain, but it may also date to the late 19th century.

Pipe Bowl Cover, Collection C

Pipestone Beaver Palette (1)

A polished palette of red pipestone, inscribed with the outline of a beaver, is in the in Collection C at the Koochiching Museums. The palette is trapezoidal in outline with rounded corners. Its maximum length and width are 4.5 inches. A beaver with a bloated transparent torso is depicted on one face. The artistic elements that make up the beaver include dots for the nostrils and eyes, a heart line with a triangular heart, a circular anus, and a crosshatched tail. Each of the short legs ends with curved claws. This object is probably of Native manufacture. Its possible association with the fur trade is unknown. According to a 1941 issue of the *Minnesota Archaeologist*, the palette was found in Canada, north of Fort Frances (Fryklund 1941).

Red pipestone (argillite) is found in Kansas, Minnesota, Wisconsin, and other areas of the midcontinent. Knowing how these various materials differ may help to identify the original source of specific red pipestone artifacts as well as the trade networks that may have led to their geographical and cultural dispersion (West 1911:62-63; Hiller 1948; Emerson and Hughes 2001).

Pipestone Beaver Palette, Collection C (image cropped at bottom)

ARTIFACT COLLECTION D (PRIVATE)

Miscellaneous Gun Parts and Ammunition

Trade gun-related items in Collection D include:

Serpent Sideplate (1) Cast. Tail missing. Northwest gun, late 1700s-early 1800s.
Tumbler (1) From a flintlock.
Frizzen (1) Large. From a flintlock.
Trigger (1) From a flintlock
Lead Balls (3) Lead musket balls.
Swan Shot (2) Lead shot.

Serpent Sideplate, Collection D

Silver Gun Escutheon (1)

A delicately engraved, incomplete, silver escutcheon in Collection D has a threaded cylindrical socket soldered on the backside. The face exhibits a plain oval panel surrounded by scrollwork. Generally similar design elements are reported on a German silver gun escutcheon from Fort Michilimackinac (Hamilton 1976:9, Fig. 4, B). Though uncertain, the Collection D escutcheon could be an example of a silver mounting from a fancy "chief's grade" fusil, or what the HBC termed a "fine gun." According to Charles Hanson, Jr., it was common for such guns to have "silver escutcheons for barrel pins and wrist inlays" (Hanson 1955:4). Hanson illustrates the position of a silver wrist medallion on a British Indian presentation gun in his book on *The*

Northwest Gun (1955:83, Pl. 27A). Between 1803 and 1811, an Indian agent at Fort Wayne ordered rifles with "some silver mounting of the best quality" (Hamilton 1995:135). The use of German silver fittings on fine hunting rifles may have continued over the years prior to the American Civil War (Hanson 1960b:87). W. Chance & Son of Birmingham, England, a firm that made thousands of Northwest guns for the western Indian trade, also produced quantities of belt pistols with silver inlays (Hanson 1960b:159-160).

Silver Gun Escutcheon, Collection D

Ax Head (1)

A wrought iron trade ax blade in Collection D is broken at the front of the eye so that the entire back strap is missing. The broken proximal end of the blade is blunted, suggesting its subsequent use as a wedge. A smith's mark stamped on the right side of the blade consists of a sunken rectangular panel in which appears the name **SILK**. The letters are raised, and the margins of the panel slope inward. Collection C, above, contains an ax head with the same unidentified mark.

Clasp Knife Blade (1)

A heavily rusted French clasp knife blade in Collection D is broken and incomplete. Despite its poor condition, remnants of a maker's mark can still be seen on the mark (left) side of the blade. The visible elements of the mark consist of a **reposed fluer-de-lis** and the letters …**OL**. Speculatively, this could be the mark of **JEAN ERIOL** (Quimby 1966:68). Though missing, the tip of this clasp knife blade was probably clipped and sharply pointed.

Clipped or "sword" point clasp knife blades were widely used in the western Great Lakes in the 18th century (Stone 1974:265, and 273, Table 51). Although such blades occasionally appear in archaeological contexts dating back to the 1670s or 1680s, they achieved a greater popularity following the peak use of the "hawkbill" blade varieties (Mason 1986:218). Charles Cleland suspects that sword point forms were essentially "replacing both the Hawk-billed and angular-pointed varieties" very early in the 18th century (Cleland 1971:21; Salzer and Birmingham 1981:239; Birk 1994:20).

Clasp Knife Blade, Marked, Collection D

Kettle Lug, folded sheet metal (1)

A large folded sheet brass kettle lug is in Collection D. The upper corners of the lug are "dog-eared" and flattened. The lug has a punched bail attachment hole and two smaller punched rivet

holes. The rivets are missing, and the lug is unattached. Scored on the outer surface of this lug is a pattern for a small triangular stemmed arrowhead.

Curpeous kettle metal was a highly prized commodity amongst North American Indian peoples and it was widely used ("recycled") by them for making a variety of functional and ornamental objects that ranged from knives, rattles, and combs, to pendants and tinkling cones. The sheet metal was worked "in a number of ways," including "incising, cutting, folding or breaking the metal" (van Dongen 1995:141-142). As exemplified by the Collection D lug, cupreous kettles were a common source of material for producing metal arrowheads during the fur trades. There is some suggestion that sheet metal lugs might be of a heavier gauge material better suited for making projectile points than the metal found in most kettle bowls (e.g., Grumet 1995:43). In the Rainy Lake area, a folded lug bearing the outline of an arrow point might date to the period 1680-1780. For further discussion of folded kettle lugs see Collection A, above.

Metal Arrowheads (4)

Four stemmed arrow points in Collection D are fashioned of sheet brass kettle metal. Two of the points have triangular blades and sharply in-stepped rectangular or contracting stems. The stems on the remaining two points are more inclusive to the original triangular shape, so that one could be described as corner-removed and the other as having basal notches.

Sheet Metal Arrowheads, Collection D

B-Wire Segment (1)

A finely crafted piece of copper-based B-wire in Collection D is about 0.2 cm in diameter and 13.7 cm long. "Butt-convoluted" B-wire is made of "a narrow, flat ribbon of metal with both parallel edges curled toward each other until they meet and turn under" (Bray 1978:33). B-wire is named for its bi-lobed or roughly B-shaped cross-section (Brown 1961:62). A cupreous C-bracelet, made of robust B-wire, is reported from a site at Mille Lacs Lake in east central Minnesota (Birk and Johnson 1992:222-223). Another of similar appearance was found at the circa 1640-1650 Grimsby site near the west end of Lake Ontario (Kenyon 1982:62, Pl. 202). Spring coil ear or hair ornaments made of B-wire are reported from the circa 1683-1692 Zimmerman Site in La Salle County, Illinois and from Oneota sites in Iowa (Brown 1961:62; Brown 1975:32). B-wire artifacts are represented at the circa 1640-1680+ Illiniwek Village Site in Clark County, Missouri, by bracelets, rings, coils, and short and long segments. Analysis shows the B-wire there was rolled in an annealed state (Kathy Ehrhardt, personal communication-email, 2001). B-wire finger rings are also reported from early Indian sites in north central Missouri (Bray 1978:50, Fig. 10). Available evidence suggests B-wire artifacts in the Great Lakes-Upper Mississippi Valley region may date to the earlier years of French colonial presence, between circa 1640-1715.

Tinkling Cones (Quantity undetermined)

A quantity of conical cupreous kettle metal tinkling cones is in Collection D.

Clay Smoking Pipe (1)
An unmarked stem and bowl fragment of a white ball-clay (kaolin) smoking pipe, in Collection D, shows signs of use.

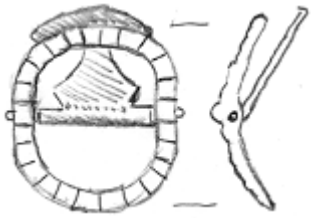
Buttons (2)
Collection D contains two metal buttons, one with a backmark.

Plain, with backmark (1) A flat brass button has an undecorated face and a soldered alpha shank eye. A backmark reads: **DUBBEL VERGULD**, Dutch for "double gilded." Whether this button is actually of Dutch origin is uncertain. Plain gilded buttons may date to the period circa 1800-1830 (Hunt 1986:17).

Wedge shank (1) A single cast brass button with a wedge shank has a drilled eye and no backmark. Facial decoration consists, in part, of a radial series of five identical L-shaped ferrous attachments. In the Rainy Lake area, buttons with wedge shanks may date to the period 1731-1810 or later. See further discussion of single cast buttons with wedge shanks under Collection B, above.

Decorated Wedge Shank Button, Collection D

Garter Buckle (1)
A small, oval, brass, possible garter buckle in Collection D has a solid-cast convex frame with drilled pin terminals and a simple, serially notched, facial decoration. A pin holds the movable or "hinged" T-shaped iron or steel flange in place. The pronged tongue elements are missing.



Oval Brass Buckle, Collection D

In the 18th century, buckles were commonly used as clothing, shoe, spur, belt, and harness fasteners, and they also served to decorate hats (Stone 1974:25-26). Small buckles were used to fasten the knee bands of men's breeches. Garter buckles, smaller than knee buckles, fastened the straps that supported a man's or woman's stockings. A garter buckle with a T-shaped flange is among artifacts recovered from the wreck of the Machault, a French frigate sunk near the mouth of the St. Lawrence River in 1760. In describing the buckle, Catherine Sullivan wrote, "Its T-shaped flange hooked into a buttonhole on the garter, and a tongue…kept the strap tight on the leg" (Sullivan 1986:76). A similar buckle was recovered from the 1758-1772 site of Fort Ligonier

in Pennsylvania (Grimm 1970:60, and Pl.12, No.24), and a "miniature buckle" from Grand Portage may also be of garter size (Woolworth 1975:143). Buckle frames nearly identical to the Collection D example are reported from the 1715-1781 site of Fort Michilimackinac (e.g., Stone 1974:30, Fig. 19, P) and the 1778-1779 site of Fort Laurens in Ohio (Gramly 1978:76, Fig. 11, J).

Brass Wire Fastener (1)

An unusual, cross-shaped, ornamental fastener in Collection D is without known precedence in the Minnesota area. This handsomely crafted item is relatively flat in cross-section and about 3.3 cm in maximum diameter. The fastener is made of multiple strands of thin brass wire that have been shaped to form a cross with four arms of equal length. The four arms, in turn, are tightly wrapped for much of their length with a finer brass wire. The outer end of each of the arms terminates with a central loop or "eye" flanked by two opposing and outwardly coiled spirals or finials. There are eight coiled spirals in all. These elements are sufficiently large that the spirals at the ends of each arm almost touch those of the neighboring arms. The fastener might be described by the French adjective, *moutonné*, meaning that its bars are "curly," like the flanking elements of a fleur-de-lis.

Brass Wire Fastener, Collection D

Items of somewhat similar though simpler construction, identified as cloak fasteners (Noël Hume 1985:85, Fig. 20, Number 8) or possible pendants (Gibson et al. 1980:116), have been found in mid-17th century archaeological contexts along the Eastern Seaboard of the present United States. Eugene Petersen (1964:66) illustrates another apparent fastener in the shape of an equilateral cross from Fort Michilimackinac. A photograph of the latter item suggests that its arms are made of a fine brass wire. At the outer end of each of the arms is a glass "seed" bead and an attachment loop. Petersen presents this item as a crucifix, but that is almost certainly a misidentification. The small-diameter wire utilized in making all of these various pieces is reminiscent of that seen in "hook-and-eye" clothing fasteners still in use today (e.g., Kidd 1949: Pl. 47; Petersen 1964:60; Stone 1974:85; Sullivan 1986:77). Indeed, for the ornamental wire fasteners to function they would necessarily have to be used in combination with wire hooks.

Robert Mainfort reports a wire ear pendant from the 1750-65 Fletcher Cemetery Site in Michigan that is said to consist of "a loop of brass wire, both ends of which have been bent to form spirals" (Mainfort 1979:357). An illustration shows that the wire is actually bent at its midpoint to form a tight curve, not a closed "loop." The outwardly coiled spirals are tightly wound and similar to those on the Collection D fastener (Mainfort 1979: Fig. 25,A). If two such "pendants" are laid one upon the other, so that the tight curve on each is flanked by the spirals of the other, then the resulting piece, if wrapped by a finer piece of wire, would look very much like a cross bar of the Collection D fastener. Other small brass wire coils or pieces of "brass wire…bent to form spirals" are reported from the Fletcher site in contexts suggesting they might be clothing or costume items (e.g., Mainfort 1979:332, 340, 351). A brass wire coil similar in appearance to the finials on the

Collection D and Mainfort examples is also reported from the 1670-1715 Lasenen Site at St. Ignace at the Straits of Mackinac (Cleland 1971:23, Fig. 17, F).

Dating the fastener in Collection D is somewhat problematic, but it is most probably associated with French activities in the period circa 1680s-1760.

Silver Annular Brooches (2)

Collection D contains two unmarked silver annular brooches. One, shown here, has an attached hinged crossbar. Exactly when trade silver was first introduced in the western Great Lakes fur trade is a matter of some speculation. George Quimby's trade-silver chronology concludes that trade silver first appeared after 1760 (Quimby 1966:87-88, 91). However, evidence published since Quimby's pioneering studies suggests silver ornaments like annular brooches and ridged bracelets were being traded through French channels by 1750 or earlier (e.g., Mainfort 1985:557; Mason 1986:152-153; Karklins 1992:228; Hamilton 1995).

Annular Brooch with Hinged Crossbar, Collection D

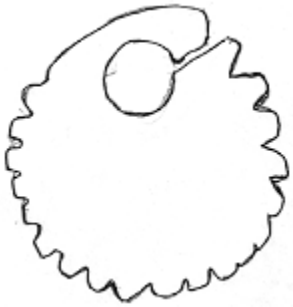
Trade Silver Pendants (2)

Two small, unmarked, sheet silver pendants are in Collection D. One is in the form of an equilateral triangle, and the other is an isosceles triangle. Both have a single suspension hole. The apices by the suspension holes have been sheared to produce more rounded points. Triangular trade silver pendants were commonly used as ear or nose ornaments, and as dangles (Hamilton 1995:65).

Triangular Silver Pendants, Collection D

Ornamental Lead Disc (1)

An ornamental disc made of lead sheet is in Collection D. The disc is 3.5-3.7 cm in diameter. A sizable slotted hole generally divides the oval disc into two sections. The “top” section appears as



Ornamental Lead Disc, Collection D

a curved bow with smooth margins. The larger "bottom" section is serially notched along its outer edge. There are no surface decorations. The general appearance of this piece is reminiscent of a metal nose ring or earring, which, when cut from a single piece of metal, may have a pliant but unhinged bow (e.g., Flaskerd 1940; Hamilton 1995:63, 66).

Lead Ornament (1)

A small ornamented cast lead bar, 3.5 cm in length, is in Collection D. The bar has rounded finials at either end. Between the finials are three raised and evenly spaced oblong bosses that cross the bar at a right angle. This lead bar may be an inlay intended for decorating a stone pipe or other object. A stone mold described in Collection C, above, could have produced bars similar in appearance and purpose.

Lead Bar Ornament, Collection D

Stylized Lead Brooch (1)

Collection D contains a thin circular cast lead brooch with a wavy outer ring and a fixed crossbar. Similar brooches are reported from Fort Michilimackinac (Stone 1974:135, Fig. 63, F), Big Sandy Lake in Aitkin County, Minnesota (Miner 1941:53), and Fort Charlotte at the west end of the Grand Portage (Birk and Wheeler 1976:797, Fig. 6, q). The wavy pattern on the outer ring of these cast brooches mimics that seen on some trade-silver annular (ribbon, ring, etc) brooches (e.g., Beauchamp 1903: Pl. 9; Hamilton 1995:55, 57). Wavy style cast brooches, such as the Collection D example, are tentatively dated to the British period, circa 1760-1812.

Stylized Lead Brooch, Collection D

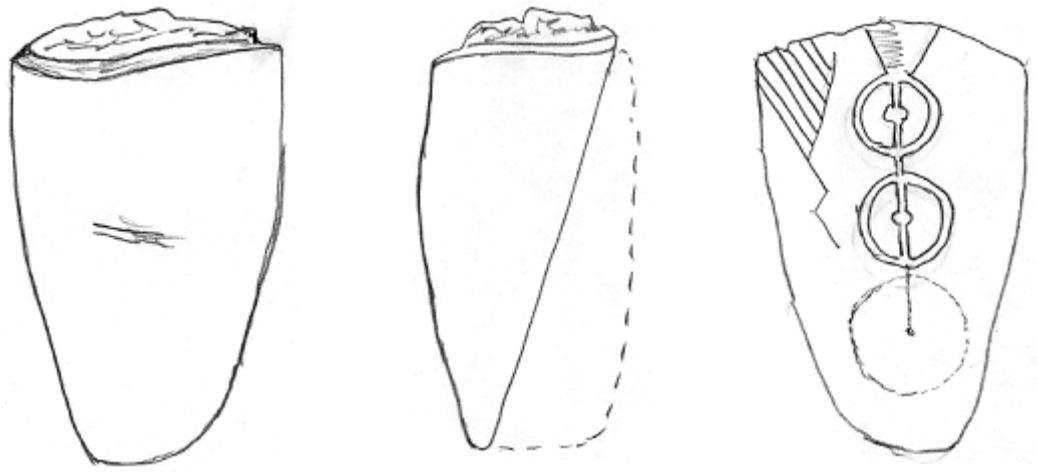
Plain Lead Brooches (9)

Nine small cast lead brooches with fixed crossbars are in Collection D. Six are circular and three are diamond-shaped. All are undecorated and untrimmed or "unfinished." Some of the brooches have a tiny boss at the midpoint of their crossbar. Some of the circular brooches were found at the undisclosed site that yielded the stone mold described below.

Plain Lead Brooches, Collection D

Stone Ornament Mold (1)

A stone ornament mold in Collection D is made from the severed keel of a stone Micmac-style smoking pipe. The keel appears to have broken diagonally on a natural fracture plane. Two interconnected mold cavities and a funnel-shaped pour hole are on the flat interior surface. The mold patterns are designed for the simultaneous casting of two small circular brooches with fixed-crossbars. The same interior surface also has an unidentified design of incised parallel and zigzagged lines, plus the scribed circular outline of a third unexcavated mold cavity.



Stone Ornament Mold Made from Keel Pipe Fragment, Collection D
(Left to Right: Exterior Side View, End View, Interior Side View)

The Collection D mold is made of dark green soapstone, perhaps similar to that seen at Pipestone Portage near Ely, Minnesota (Birk 1996:5). Smoking pipes and pipe fragments made of the stone from Pipestone Portage are found throughout the Boundary Waters Canoe Area Wilderness (Gordon Peters, personal communication). While the antiquity of this use is uncertain it could parallel that of red pipestone, which became widely exploited after 1760 when the growing availability of metal tools may have stimulated production (e.g., Cleland 1971:52; Mason 1986:162-163, 218). Richner, in Chapter 3 of this volume, reports on the Native use of a grainy black pipestone (locally called "soapstone") in the VOYA region from precontact times through to the early 20th century. According to Richner, pieces of this material from Site 21SL173 appear to have been shaped with "metal files or other metal tools." He indicates a source for this material on Rainy Lake just east of Fort Frances, Ontario.

Though uncertain, the mold cavities of the Collection D mold could all have been scribed or excavated with a steel, center bit. A center bit has a sharp projecting center point with cutting wings on either side. Center bits are reported from the 1715-1781 site of Fort Michilimackinac (Stone 1974:303, Fig. 184), and they might be expected at other 18th or early 19th century fur trade sites as well. Bone, stone, and metal artifacts are reported in the literature that could have been decorated with the use of center bits (e.g., Kidd 1970:179, Fig. 89, q-t, and 195, Fig. 99, g; Kehoe 1978:162, Pl. 51, e; Paper 1988: Pl. 7, No. 26). Because, in the French language, a "centre-bit" is now called a *mèche anglaise*, it is possible that the center bit was an English invention or a tool popularized or perfected by English craftsmen and introduced to fur trade channels under British auspices. If so, then it is possible that artifacts that appear to been formed, cut, or scored or in any way shaped by the use of a center bit may be more common in some areas after 1760. Such a supposition is in need of further testing. According to Lyle Stone, circular cast pewter brooches at Fort Michilimackinac date to the period 1760-1780 (Stone 1974:135).

Finger Ring w/Inset (1)
A finger ring in Collection D has a central circular bezel with a large clear molded glass inset. The band is broken. Rings of this type may have first appeared during the last quarter of the 17th century (Wood 1974:103; cf. Brain 1979:192). An identical ring is reported from Fort Michilimackinac (Stone 1974:126, Fig. 57, I). A similar ring with a "pale-green cut glass" inset was recovered at Oak Point Island on Rainy Lake (Kenyon 1986:126, Pl. 85, B).

Finger Ring with Glass Inset, Collection D

Jesuit Rings (4)
Collection D contains four brass Jesuit-style finger rings. All have oval plaques and plain bands.

Embossed, King Louis Series (1). This ring has an oval plaque set perpendicular to the band. On the plaque is a stamped-embossed frontal bust of a man (King Louis?) wearing a crown and an ornately trimmed cape. The yoke on the cape is very apparent. The crown is decorated with a central oblong boss flanked by two circular bosses on either side. Unlike King Louis rings reported elsewhere (e.g., Wood 1974:93), these elements do not form a fleur-de-lis. Another departure is that the man does not have long hair. At the man's right is a scepter, topped by a fleur-de-lis. There is a hint of a rope-like border design at the outer edge of the plaque. King Louis rings may date to the period 1675-1710 (Wood 1974:100-101, 103).

Embossed, King Louis Series Jesuit-style Ring, Collection D
(Photo courtesy Paul and Sarah Tufte)

Engraved, Initialed Series (3). These rings have oval plaques, which are aligned on their longer axes with the ring bands. Like similar examples in Collection B, above, the plaques all have rope or zipper-like border designs. Block letters or initials are fairly centered on the plaques, and they dominate the decorative motif. The vertical elements of all of the letters are rendered as zigzagged or zipper-like lines, while the horizontal, diagonal, and curved elements of the letters are engraved (incised). Engraved, initialed Jesuit rings in the Rainy Lake Country probably date from the early to mid-18th century.

A Mark. A ring marked **A** has a slight indent on the lower margin of its plaque.

IN Mark. Another ring, marked **IN,** has an irregular incised horizontal line over the letters.

DI Mark. An eroded ring marked **DI** has a slight indent on the top plaque margin.

Beads (Quantity undetermined)

Collection D contains an interesting assemblage of wound and drawn glass beads. Included are white, pink, opaque violet, sky and baby blue, turquoise, and cornalene d'allepo seed beads; white, turquoise, and translucent red wound barrel beads; and two short hexagonal drawn beads (one clear and the other opaque violet). Only some of the more readily diagnostic types are discussed here, including the three large W-Series beads shown in the top row of the photograph.

WIb Series (1) A globular mandrel wound necklace bead of simple construction is made of milky white glass. Elizabeth Good reports such beads to be "somewhat translucent" with a pale bluish hue, or with an amber hue when held to a light (Good 1972:113). Beads of this type have been recovered from the 1680-1730 Bell Site in Wisconsin (Lorenzini 1996), the 18th century Guebert Site in Illinois (Good 1972:113, Type 55), and a 1731-1764 Tunica Indian village in Louisiana. Jeffrey Brain defines such beads from as Variety WIA5 (Kidd and Kidd: Wib2) and notes that the mean date for the use of such beads in North America is 1752 (Brain 1979:108).

WId Series (1) A doughnut-shaped mandrel wound bead of simple construction is made of translucent amber-colored glass. Beads of this type have been recovered from the 1680-1730 Bell Site in Wisconsin (Lorenzini 1996), the 1732-1750s Fort St. Charles site complex on Lake of the Woods (Birk, personal observation), the 18th century Guebert Site in Illinois (Good 1972:112, Type 45), and Fort Michilimackinac (Stone 1974:110, Fig. 50, D). Lyle Stone defines these as Class II, Series A, Type 11, Variety c, beads and identifies them with circa 1700-1760 French presence at Fort Michilimackinac (Stone 1974:105 and 106, Table 24). Jeffrey Brain defines such beads from a 1731-1764 Tunica Indian village in Louisiana as Variety WIB3 (Kidd: WId1). According to Brain, the mean date for the use of such beads in North America is 1762 (Brain 1979:108).

WIIc Series (1) A spheroidal mandrel wound bead with pressed facets is made of translucent sky blue colored glass. Beads of this type also appear in translucent or semi-translucent clear, blue-green, and amber glass. The pressed facets on the ends of the beads join at the center to form an apex or a line of maximum circumference (Stone 1974:101). Sky Blue beads of this type have been recovered from a large number of sites in North America, including the 1680-1730 Bell Site in Wisconsin (Lorenzini 1996), the 18th century Guebert Site in Illinois (Good 1972:106, Type 7) and Fort Michilimackinac. Lyle Stone defines these as Class II, Series A, Type 1, Variety a, necklace beads at Fort Michilimackinac. He identifies them with circa 1730-1760 French presence or possibly as late as 1780 in French contexts there (Stone 1974:101 and Table 21). Jeffrey Brain defines such beads as Variety WIIA3 (Kidd: WIIc12) and notes that the mean date for the use of such beads in North America is 1739 (Brain 1979:110).

Ia Series (3) Of three robust drawn tube beads of simple construction, one is translucent navy blue and the other two are opaque white. The blue example is similar to what Ron Mason identifies as Ia19/20 type beads from circa 1641-1770 archaeological contexts at Rock Island on Lake Michigan (Mason 1986:188, 191, and Color Pl. 1, no. 5). Similar blue beads have also been reported from the 1802-1806 HBC Nottingham House Site at Athabasca (Karklins 1983:82, and 83, Fig.46, b). White Ia Series beads also appear in later contexts.

IIa Series (13) A small sample of drawn oval Type IIa beads are made of a glossy, opaque, milk-white glass. Beads of this type are of simple construction and are usually irregular in size

and shape. Many have ragged ends or spurs which is evidence of their having been finished in a furnace using the *a speo* method (Karklins 1993). David Brose early noted that these beads are absent from New York sites, which may indicate their "distribution via French sources" (Brose 1970:20). This supposition is supported by evidence from elsewhere. These beads were in use at Rock Island between 1641-1770 (Mason 1986:189), at the Bell Site during the period 1680-1730 (Lorenzini 1996), and at Fort Michilimackinac from 1715 to 1750 (Stone 1974:90). They appear at the 1732-1750s Fort St. Charles site complex on Lake of the Woods (Birk, personal observation) and at a suspected 1750s French fort site at Lake Pepin (Birk 1994: Fig. 32). The same beads are also reported at the Summer Island, Birch Island Cemetery, Lasenen, Gros Cap, Guebert, and Marina sites (Brose 1970:20; Salzer and Birmingham 1981:82; Lorenzini 1996). Jeffrey Brain notes that these beads had a temporal range of 1600-1836, with a mean date of 1739 (Brain 1979:101). These beads have not been found in British archaeological contexts in Minnesota.

A Sample of Glass Beads and a Pendant, Collection D

Glass Pendant (1)

A small thin glass pendant in Collection D, probably formed of crushed and remelted glass beads, is triangular in outline with a rounded apex and a slightly convex basal margin. Centered within

the curve of the apex is a tapered suspension hole. The translucent glass is dark sky blue in color and has air bubble inclusions. The pendant is broken diagonally, but both parts are present.

Glass pendants of probable Native manufacture enjoy wide geographical distribution in the midcontinent. Examples are reported from circa 1670-1770 deposits at Rock Island on Lake Michigan (Mason 1986:203-204) and the circa 1683-1692 Zimmerman Site in La Salle County, Illinois (Brown 1975:32). Others have been recovered from the 1732-1750s Fort St. Charles site complex at Lake of the Woods (Birk, personal observation), a 1735-1752 French colonial mission at Monks Mound (Walthall and Benchley 1987:44-45), and the circa 1750-1765 Fletcher Site in Michigan (Mainfort 1979:388). Thirty-six locally made glass pendants are reported from a circa 1802-1832 Arikara village on the Missouri River north of Mobridge, South Dakota (Bass et al. 1971:118 and Pl. XIII).

ARTIFACT COLLECTION E (PRIVATE)

Gun Butt Plates, Ornamented Crown Brooch, Fire Steel, Jaw Harp Frame, Serpent Sideplates, and Glass Beads (with US25¢ piece for scale), Collection E

Gun Butt Plate Fragments (2)

Parts of two brass butt plates appear in Collection E (see color plate above).

Northwest Gun Butt Plate (1) A plain Northwest gun butt plate has a broken finial and toe. Four square attachment holes remain intact. Northwest guns were in common use from 1775 to 1875.

Gun Butt Plate, Engraved (1) A brass butt plate, broken transversely through a chamfered upper attachment hole, is missing its top finial. Engravings include marginal tracery lines. Above the broken attachment hole is a faint panoply exhibiting an arrow with an oversized head and other

design elements. This specimen, similar in shape and design to two English butt plates found on archaeological sites in Illinois (Hamilton 1980:93, Fig. 53, B), may date to the late 18th century.

Northwest Gun Serpent Sideplates (2)

Collection E contains two cast brass serpent sideplates, one complete and the other represented by a torso fragment. Both examples are typical of serpent sideplates from Northwest guns and likely date to the period circa 1775-1885.

Ax Heads (5)

Among five hand-wrought trade ax heads in Collection E are two with marks. Only the two marked ax heads are discussed here.

Heart and Crown (1) One small, lightweight ax head has an oval eye opening and a drooping upper margin. A stamped circular maker's mark appears on the mark side of the ax head. The embossed elements of the mark include a plump or robust **heart beneath a crown**. The heart is in the center of the mark. To the right of the heart is what appears to be the **raised letter D or O**. The ax head is rusted, and other possible letters or design elements of the mark that may have been set below or to the left of the heart are obscured. The mark is not identified. British manufacturers sometimes used marks combining a heart and crown. Many such marks show a heart in an inverted position with lettering below. This specimen of French or Biscayne style may be of late-18th century British origin.

Heart and Crown Ax Head, Collection E
(Left to Right: Top View and Sketch of Heart Beneath a Crown Mark)

Heart and Crown Ax Head, Side View, Collection E

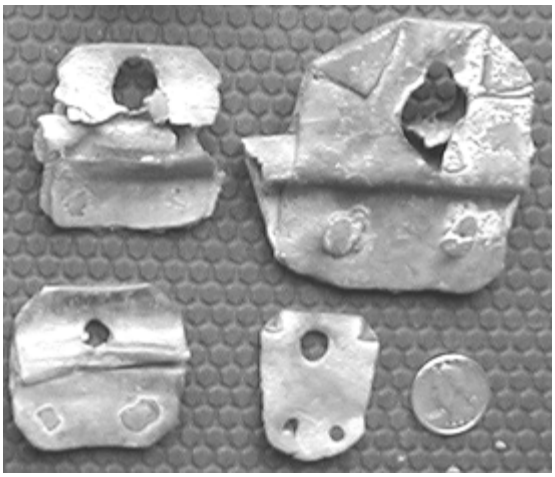
W. JOHNSTON (1) Another ax head has the mark **W. JOHNSTON** boldly stamped on the right side of the blade. For further discussion of this mark see Collection H, below.

Trade Ax Head with W. JOHNSTON Mark, Collection E

Fire Steel (1)
A flat oval fire steel in Collection E has no visible maker's mark (see color plate above). For further discussion of fire steels see Collection G, below.

Jaw Harp Frame (1)
A brass jaw harp ("jew's harp") frame with a rounded head is in Collection E (see color plate above). The ferrous vibrator is missing. Brass jaw harps are known in western Great Lakes fur trade contexts as early as the 1730s (Stone 1974:145).

Kettle Lugs, folded sheet metal (4)
Four cupreous sheet kettle lugs in Collection E have "dog-eared" top corners. Centered near the top of each lug is a punched bail attachment hole. Each lug has provision for two rivets.



Sheet Metal Kettle Lugs (with US25¢ piece for scale), Collection E

Ornamented Crown Brooch (1)
A bi-lobed crown brooch in Collection E is not further identified (see color plate above).

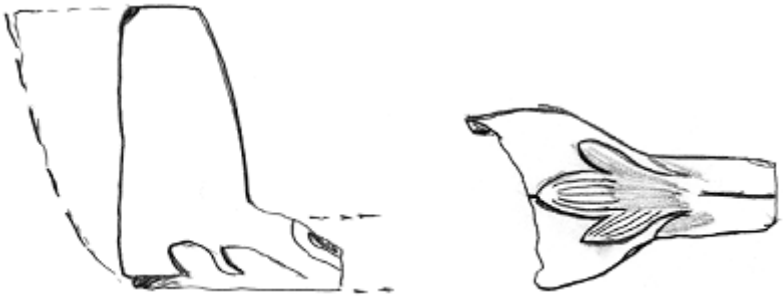
Beads (Quantity undetermined)
A small bead assemblage in Collection E consists primarily of monochromatic wound and drawn glass beads (see color plate above). None have been closely examined or analyzed.

ARTIFACT COLLECTION F (PRIVATE)

Smoking Pipe parts (2)
Two smoking pipe fragments in Collection F were gathered at Crane Lake. One is a steatite bowl fragment from a keel or Micmac-style pipe. It has a polished exterior incised with zigzagged lines.

Steatitie Keel Pipe Bowl Fragment, Side View, Collection F

The other, part of a white ball-clay pipe bowl, has vertical burnish marks on its exterior surface and evidence of a mold seam at the base of the bowl and stem. There is no evidence of a heel. On the bottom exterior of the bowl and extending onto the lower margin of the stem is a raised floral pattern or vine with parallel-veined leaves. Elsewhere this general pattern has been called a fluer-de-lis. A pipe stem with a very similar decoration is reported from the 1828-1867 site of Fort Union on the Upper Missouri River (De Vore and Hunt 1993:140, Fig. 12, e).



Ball-Clay Pipe Bowl Fragment with Raised Floral Pattern, Collection F
(Left to Right: Side View and Bottom View)

Beads (9)
Collection F contains nine glass beads from Crane Lake representing two types. Both types are discussed here (see photograph below).

WIa Series (1) A large mandrel-wound globular bead of a clear translucent glass has numerous trapped air bubbles and a smoky blue-gray hue. The bead has a large perforation and a glossy

finish. Though not a perfect match, this bead seems similar to what Jeffrey Brain reports as WIA7 beads from a 1731-1764 Tunica Indian village in Louisiana. According to Brain, the mean date for such beads in North America is 1741 (Brain 1979:108).

IIa Series (8) The remaining eight beads are drawn oval Type IIa beads made of a glossy, opaque, milk-white glass. Seven of the beads are intact, and one is broken and incomplete. As discussed under Collection D, above, these beads are typically irregular in size and shape and show evidence of having been finished by the *a speo* method. The eight beads were all found together and at the same time on a muddy shoreline near the mouth of the Vermilion River. According to the collector, when found, the beads were strung together with a fragile organic fiber, now missing. The circumstances of discovery suggest the beads may have found lingering use as heirlooms and were perhaps deposited in their final resting spot long after their period of initial popularity.

Crane Lake Artifacts, Collection F.
(Left to Right: Glass beads, IIa and WIa Series, and Pipe Bowl Fragments)

ARTIFACT COLLECTION G (PRIVATE)

Fire Steel (1)

An oval, flat, ferrous fire steel (striker or strike-a-lite) in Collection G is from Crane Lake. It bears the stamped maker's mark: **WILD** The fire steel is heavily rusted, and the "L" in WILD is thin. Speculatively, a reposing heart may lie to the left, thusly: ∞ **WILD**

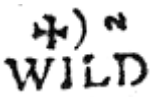
Fire steels are common on early postcontact Indian and Euroamerican sites in the western Great Lakes Region (e.g., Brown 1931), but specific diachronic changes among fire steels forms there have not been detected (Quimby 1966:76). Oval fire steels, for example, are known from late 17th and early 18th century French period sites, and they continued in use until at least the 1840s (Russell 1967:349-350). Ovoid fire steels from 1650-1770 archaeological contexts at Rock Island on Lake Michigan range from parallel-sided, round-ended, forms to true ovals (Mason 1986:203). A rectangular fire steel is reported from Site 21SL47 at the Kabetogama Narrows (Richner 2002:98 and Fig. 17). Three heavily eroded oval steels are among artifacts recovered at Oak Point Island near the eastern end of Rainy Lake (Kenyon 1986:67-68, 129, Pl. 84F). Rectangular (D-

shaped) and oval fire steels have been found at Grand Portage (Woolworth 1967:12-13; 1975:124-125, Fig. 32), and circular examples are reported elsewhere. All of these various types are associated with French and British contexts at the 1715-1781 site of Fort Michilimackinac (Stone 1974:186-187, 189).

Marked fire steels are rather uncommon and, because maker's marks on such ferrous artifacts are easily lost or obscured by surface corrosion, the marks may be difficult to read and hard to identify. An oval striker from Cut Foot Sioux Lake in northern Minnesota is stamped **WALDON** (Gordon Peters, personal communication). A rusted oval steel from Grand Portage bears the letters **GRE** or **GAE** (Gilman 1982:16, Fig. 36), perhaps part of the name GREEN, which could identify the steel as one made in Sheffield in the late 1790s. An oval fire steel from the French River in Ontario is stamped with two identical side-by-side marks of a left facing **rampant lion** (Gilman 1982:13, Fig. 26). A rampant lion is one, usually shown in profile, that is rearing up on its hind legs with one forepaw raised above the other.

Two oval fire steels marked **WILD** appear in a private collection in east central Minnesota (Birk, personal observation). The context of their recovery is unknown. Another **WILD** fire steel is reported from a circa 1790-1810 Hudson's Bay Company site (H1Lv 5) on Big Sand Lake in northwestern Manitoba (Riddle 1987).

WILD is a British mark likely dating to the last quarter of the 18th century and the opening decade of the 19th century. Research shows that, in 1774 a Joseph Wilde and Son were edge tool and shear makers at Churchlane in Sheffield and used the mark: **WILDE** (Sketchley 1774:22). The 1797 Sheffield Directory lists a James Wild at 74 Pea-croft as a table knife maker with the mark, **WILD** (Robinson 1797:180), and a James Wilde at 74 Pea-croft as a pen and pocket knife cutler with the mark, **WILDE** (Robinson 1797:154). Given the similarity of names and common address, James Wild and James Wilde could well be one and the same or else two like-named members of the same family. This supposition is further supported by the fact that, in 1797, at least, the marks **WILD** and **WILDE** were also both accompanied by the same leading line of symbols consisting of a Maltese cross, a crescent, and a reposing numeral 2, thusly (Also see: Woodhead 1991:274):



<u>Case Knife Blade (1)</u>

A case, sheath, or butcher knife blade in Collection G is from Crane Lake. The blade and flat narrowed shank of the knife are formed of a single piece of metal. The blade is pointed. The shank has two rivet holes. The handle grips are missing. A maker's mark appears on the mark side of the blade. The mark consists of a three-leaf clover (♦) set in a reposing position with the stem to the left, followed by:

CLAVDE♥
GIRODIER

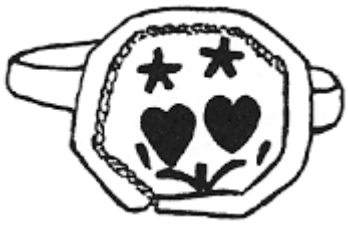
This mark is identified with knife-maker Claude Girodier. George Quimby dates the Claude Girodier mark as applied to clasp knives to the period 1670-1760 (Quimby 1966:68). Lyle Stone reports an apparent Claude Girodier case knife from the site of Fort Michilimackinac (Stone 1974: 275, Fig. 166, X). According to Stone, case knives at Fort Michilimackinac cannot be assigned to different time periods on the basis of formal distinctions, although they appear to have

been more frequent after circa 1740-1745 (Stone 1974:273). The Claude Girodier case knife from Crane Lake is of French origin and may date to the period circa 1730-1760.

Jesuit Rings (2)
Two brass Jesuit-style finger rings in Collection G are from Crane Lake. Both rings have plain bands.

Embossed, Unidentified (1) One ring has a roughly circular plaque with a stamped-embossed rope-like border. Within the border is a raised but eroded and indistinct bust of a human figure, perhaps facing to its right. Rings of this style and manufacture likely date to the late 17th century.

Impressed, Octagonal, Dual Heart Series (1) The second ring has an octagonal plaque with a stamped-impressed and incised motif. Facial decoration consists of a rope-like border enclosing two small sunken hearts, each of which is surmounted by a five-pointed sunken star or "asterisk." Below the hearts is an irregular arrangement of incised "grass stem" elements. Dual-heart rings with octagonal plaques are dated elsewhere to the period circa 1710-1730 (Wood 1974:94, 100-101; Walthall 1993:503).



Dual Heart Series Jesuit-Style Ring, Collection B (Illustration from: Birk 2002)

ARTIFACT COLLECTION H (SELECT OBJECTS HELD BY THE NATIONAL PARK SERVICE)

National Park Service (NPS) collections include a French clasp knife, English razor, buttons, tinkling cones, brass kettle fragments, trade gun fragments, gunflints, trade rings, brooches, ear ornaments, a variety of beads and other fur trade-era objects collected from a number of sites throughout the park (Richner 2002, Lynott et al. 1986). Two NPS-owned trade ax heads from VOYA are discussed here to provide additional information or commentary.

Ax Heads (2)
Jeffrey Richner reports two hand-wrought trade ax heads from Site 21SL82 on Crane Lake. One has a maker's mark, **J. JOHNSTON,** stamped on the right side of the blade at its narrow end, near the cleft. The mark lies at an angle of 45-degrees in relation to the top margin of the ax head (Richner 2002: Fig. 21 and page 62, Table 4).

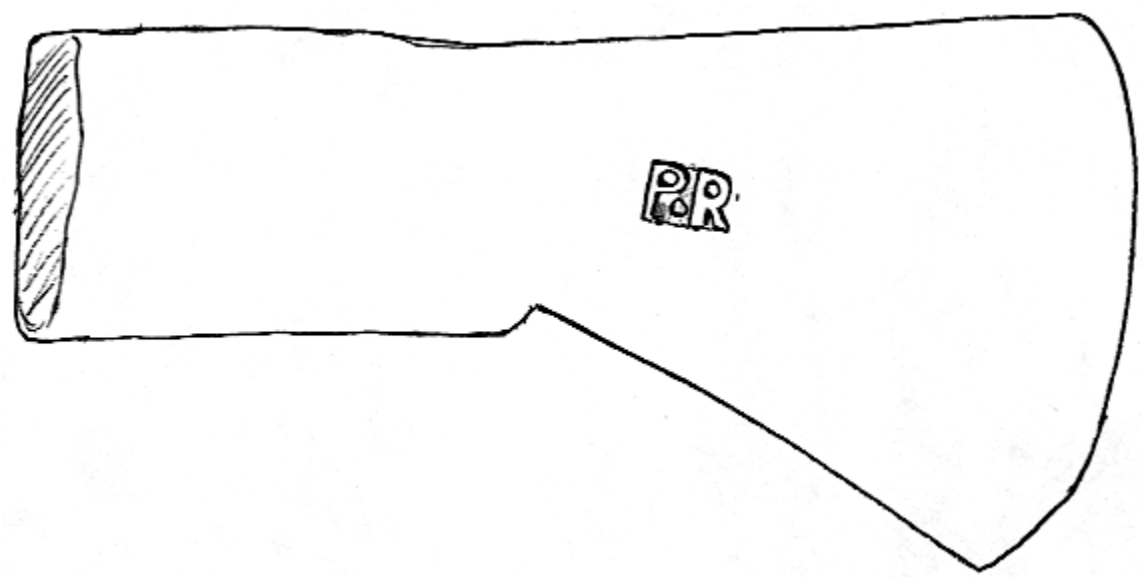
An ax head of near identical outline, and with a similarly placed and slanted mark, is discussed in Collection E, above. The stamped mark on the latter example, however, reads: **W. JOHNSTON**. The **J. JOHNSTON** and **W. JOHNSTON** marks have not been further identified. A family with the Johnston surname played an active role in the Lake Superior area fur trade after 1790, and the family members did include men with the given names John and William. While neither of these men are known to have labored as blacksmiths, such work could have been hired out so that their names could appear on ordered manufactured ironworks.

The second ax head from Site 21SL82 has the maker's mark, **GMD**, stamped in large bold letters on the right side of the blade (Richner 2002: Fig. 21). This same mark, seen by the author on an ax head (ROM #31939) at the Royal Ontario Museum, is not further identified.

ARTIFACT COLLECTION I (MISCELLANEOUS COLLECTIONS)

Ax Head, PR (1)

A small hand-wrought trade ax head of unknown provenience was given to the Koochiching Museums by a Mrs. A. Olson. The eye opening is teardrop shaped. Use of the ax for hammering has blunted the back of the eye strap. A well-defined smith's mark stamped on the right side of the ax head consists of the letters PR with a dot between the letters (that is: **P·R**). The mark is unidentified. An ax head in a collection in east central Minnesota bears a stamped mark: **RS**, of similar size and appearance as the **P·R** example, but lacking the intervening dot. Another central Minnesota ax is stamped with the unidentified mark, **P.S** (Birk, personal observations).

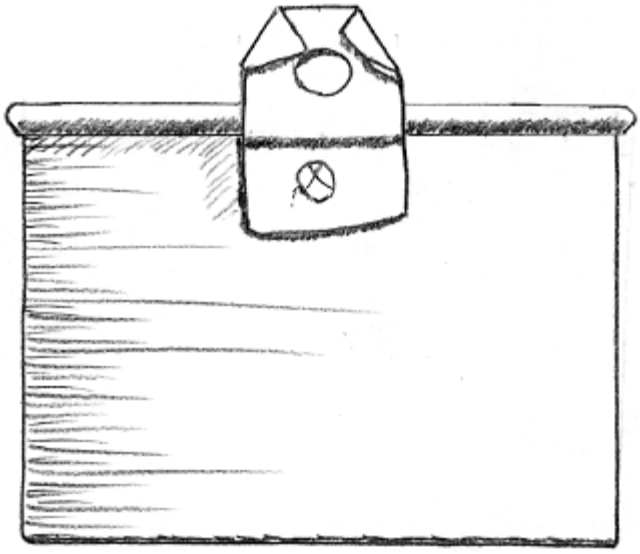


Ax Head, Marked P·R, Collection I

Copper Kettle (1)

A small copper trade kettle of unknown provenience is on loan to the Koochiching Museums. The kettle (Cat. No. Eils-1, E127) is quite mangled. It has a rolled rim. It retains but one lug; a folded and dog-eared lug secured at the rim of the kettle bowl by a single rivet. The original shape of the kettle bowl is uncertain, but it was either cylindrical or slightly conical. The capacity of this small kettle could not be more than a cup or so.

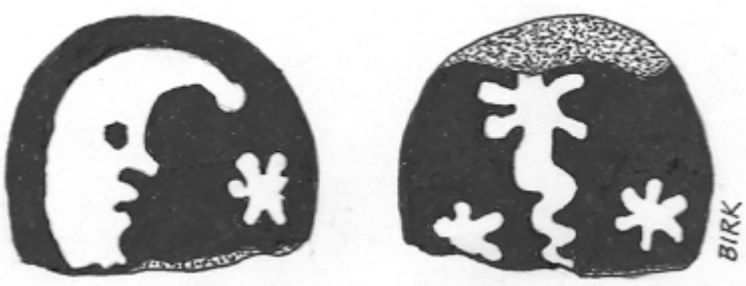
Gertrude Nicks, in her archaeological study of two Hudson's Bay Company (HBC) fort sites on the North Saskatchewan River, shows that the HBC, in 1791, traded kettles ranging from one-half pint and one pint capacity up to six gallons in size (Nicks 1969:246, Appendix VI). Among four copper kettles reported from Oak Point Island near the eastern end of Rainy Lake, one has a conical bowl (measuring 17 cm in diameter and 8 cm high) and folded and dog-eared lugs attached by single rivets (Kenyon 1986:66, and 124, Pl. 83). Similar small kettles are also reported from Rock Island on Lake Michigan (Mason 1986:140, Pl. 13.16) and from the French River in Ontario (Gilman 1982:14, Fig.32).



Small Brass Kettle (Bowl Shape is Hypothetical), Collection I

Man in the Moon Bead (1)

Sometime before April 1983 a private collector reported finding a man-in-the-moon bead at Crane Lake (Gordon Peters, personal communication, 1983). Man-in-the-moon beads have a distinctive disc or tabular form. They are made of wound cobalt-blue glass. Before the glass hardened it was pressed flat and inset with applied decorations of white glass (Lorenzini and Karklins 2001:39). Man-in-the-moon beads are associated with French colonial presence. George Quimby (1966) attributes them to what he calls the Middle Historic Period (1670-1760). More recent research by Michelle Lorenzini and Karlis Karklins (2001) indicates, "The core period for man-in-the-moon beads was between 1700 and 1750…with a modal date of 1720." The drawing here shows the Collection F bead at an enlarged scale.



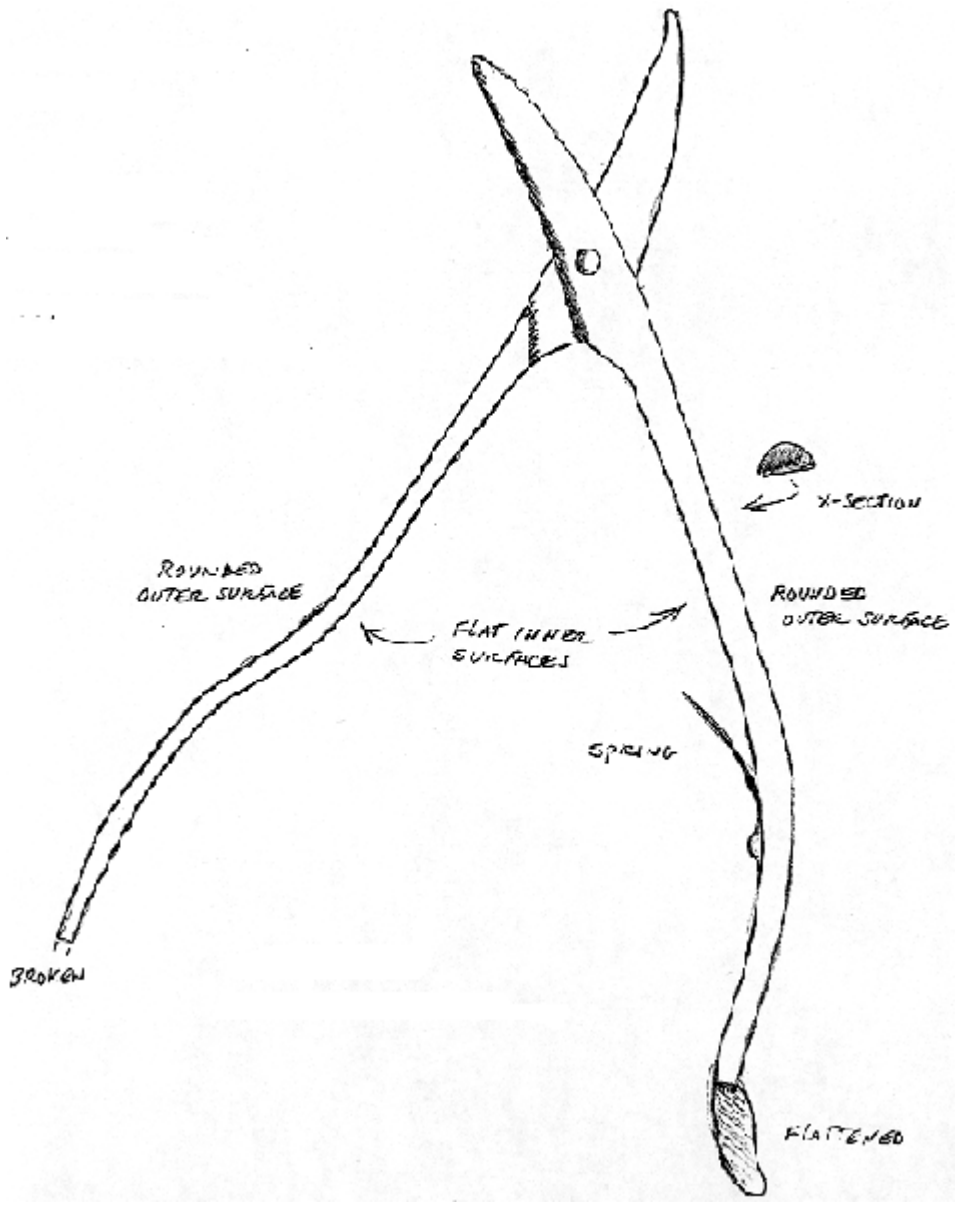
Man-in-the-Moon Bead, Collection I (Drawing courtesy Douglas Birk)

Scissors (1)

Some years ago, a collector from Hibbing, Minnesota, found a pair of rusted scissors on a beach at Crane Lake. During the present study, he agreed to donate the scissors to the National Park Service. The scissors have long handles and short blades. The cutting edges of the blades curve in opposite directions, which is to say that one cutting edge is slightly concave and the other convex. An incomplete leaf spring is attached to the inner surface of one of the handles. The proximal ends of the handles are missing. The shape of the scissors and presence of a spring suggests to the finder that these are surgical scissors. The collector speculates they might have once belonged to

Dr. John McLoughlin, a fur trader partner and medical doctor who spent twelve years in the Lac La Pluie (Rainy Lake) District (Nute 1950:19; Campbell 1976:28).

A visually similar though less complete pair of scissors is reported from the circa 1798-1812 site of Fort St. Joseph near Sault Ste. Marie, Ontario (Emerson et al. 1977: 252, Fig. 106, Number 2). Somewhat similar items found in fur trade archaeological contexts are “scissor-action wick trimmers” or candle snuffers. These typically had short curved blades (e.g., Barnes 1988:129, Item #350). Scissor-action candle snuffers are reported from Grand Portage (Woolworth 1975:178, Fig. 38, Items 1 and 11) and a site on South Fowl Lake just west of Grand Portage (Platchek 1965:Pl. 28).



Scissors, Collection I

CONCLUSIONS

The foregoing discussions result from a preliminary examination of selected fur trade artifacts from VOYA and the surrounding area. The discussions focus on identifying the observed artifacts and determining their use and the general dates of their origin and popularity. This concluding section provides further analysis of the assembled data.

Table 5.1 (appended) presents a basic inventory of the fur trade materials within each collection. Where the actual number of objects is uncertain, an "X" or the abbreviation "Qty" (to signify an undetermined *quantity*) indicates the presence of such objects. Though an exact count is unavailable, well over 300 fur trade items were observed or handled during the present study. Ranking the collections from the one with the greatest number of fur trade artifacts to that with the least reveals that Collection C, the Dennis Christianson Collection at the Koochiching Museums, with 93+ objects, is the largest. Following in ranked order are Collection D with 65+ objects, Collection A with 41+ objects, and Collection B (the Robert Bolstad Collection at the Koochiching Museums) with 37+ objects. Collections E, F, and G each contain 16 or fewer fur trade objects. Collection H represents selected items held by the NPS, and Collection I contains an assortment of miscellaneous artifacts assembled from various sources.

Table 5.2 (appended) condenses the information reflected in Table 5.1 by defining the artifacts in each collection by "type" and function. As noted at the beginning of this paper, the functional categories reflected here are those previously used for analyzing Euroamerican goods introduced at Rainy Lake and other areas of the western Great Lakes during the 18th century (Anderson 1994). As in all categorical systems of this nature, some materials can fit under multiple categories. Gun parts, for example, could easily relate to both hunting and weapons.

Under the Collection category of Table 5.2, an "X" indicates the occurrence of a certain artifact type in a particular collection. The number of "Xs" following each artifact type is tallied in the right-hand column. This simple exercise shows that iron trade axes and glass trade beads are present in six of the nine observed collections. Conversely, artifacts like pipe bowl covers and fire steels were only seen in one or two of the collections. Summing the number of "Xs" within each collection shows that the collections still appear in the same ranked order when considering the diversity of artifact types. That is, Collection C, the Dennis Christianson Collection, with 22 artifact types, is the most diverse. Collections D, A, B, E, F, and G follow. Collections H and I, as presented here, are highly selective, hodge-podge assemblages and can be ignored in this regard.

Table 5.3 (appended) lists the artifact types by functional category and also shows their representation (presence or absence) among the various observed collections. The data imply the diversity and abundance of certain artifact groups based on assigned functions. For example, objects of personal adornment appear with considerable frequency in the observed collections, while items related to cultivation, amusements, weapons, fishing, grooming, maintenance, and alcohol-use are either scarce or absent.

Further insight is gained through comparing the ranked order of importance of the functional categories of artifacts to those defined from early fur trade invoices (Table 5.4, below). The seven highest-ranked functional categories reflected in these documents, in order of importance, are: Clothing, Hunting, Adornment, Alcohol Use, Cooking & Eating, Woodworking, and Tobacco Use. As discussed in the introduction to this paper, materials or commodities like cloth, leather, wood, paper, and alcoholic beverages seldom survive in terrestrial archaeological contexts and are therefore usually missing or vastly under-represented in artifact collections. Nonetheless, there is an expected correlation between the types of durable fur trade materials recovered in the

Table 5.4. This table illustrates the ranked order of importance for various functional groupings of fur trade materials as derived from 18th century invoices (left) and through the study of VOYA-area artifact collections (right). The interconnecting lines show the high level of correspondence among the most prominent categories of the two datasets.

Period Invoices	***VOYA-Area Collections***
Clothing	Adornment
Hunting	Hunting
Adornment	Cooking & Eating
Alcohol Use	Woodworking
Cooking & Eating	Clothing
Woodworking	Tobacco Use
Tobacco Use	Digging/Cultivation
Grooming	Amusements
Weapons	Weapons
Fishing	Fishing
Digging/Cultivation	Grooming
Maintenance	Maintenance
Amusements	Alcohol Use

field and those documented by fur traders for the same region. In that regard, it is interesting to note that the top six functional categories of the observed artifacts are among the top seven functional categories defined from period records. Thus, on a certain level, the extant fur trade materials in the VOYA-park locale collections do seem to accurately reflect some documented aspects of early Indian-Euroamerican exchanges.

Lacking or poorly represented in the observed collections are architectural materials (like nails, *bousillage*, flat glass, and pintles), construction tools (like adzes, saw blades, and froes), and status objects (keys, glassware, shoe buckle frames, etc.) that might be expected on early Euroamerican trading house or fort sites. Indeed, the artifact profile shown in Table 5.3 suggests the fur trade materials in VOYA-area collections could relate primarily to Native American/First Nation occupations and *not* Euroamerican trading establishments or occupations at all. Interpretations built on this idea--and supported, in part, by documentary evidence--have already been proposed by archaeologists and historians (e.g., Gibbon 1977:7; Catton and Montgomery 2000:1-2, 76; Richner 2002, and Chapter 3, above). Caution must be exercised before embracing such assumptions, however, for differentiating postcontact archaeological materials left by Indians or Euroamericans is not always self evident or even possible.

Temporary Euroamerican campsites might be expected on major waterways within the park area as a result of transient fur trade activities. Such activities might include planned or conditional travel stops, dining, exploration, procurement, canoe repair, and *en derouine* trading. Outsiders who early entered the Rainy Lake country often tell of Native peoples visiting their camps whenever and wherever the travelers happened to stop. Except perhaps when groups of soldiers passed through, the majority of Euroamericans in such camps were labor-class voyageurs or low-level clerks with limited need for personal property and limited access to status-related objects or materials. The range of activities performed by Euroamericans on such sites was also limited, thereby resulting in few material outputs. Any material expression left by these individuals on campsites that were also frequented or occupied by Native peoples might blend in and become

archaeologically indistinguishable. Thus, at VOYA, artifacts alone may not be enough to declare a site, a site component, or a feature to be exclusively non-Euroamerican.

Except in areas like traditional fisheries, trading grounds, and canoe-building sites, fur trade era Indian camps in the VOYA-area were probably small, scattered, and impermanent. A little known reference from 1798 reveals that sixty local Ojibwe men were then trading through the NWC's Rainy Lake House on Rainy River (Glover 1962:186). On average, each man was said to head a "family of seven souls," thus indicating about 420 Ojibwe in all. According to the NWC surveyor-explorer, David Thompson, each family unit had 150 to 180 square miles of hunting ground (equivalent to about four to five modern townships). Thompson also reported a scarcity of game animals and other food resources in the region. For the resident Ojibwe such conditions promoted seasonal population dispersion and a nomadic lifestyle. As noted by Jeffrey Richner in Chapter 3 of this volume, the small groups and their frequent movements, in turn, favor the occurrence of transient Indian campsites containing only sparse representations of historic trade materials.

To make confident evaluations based solely on material remains the researcher must exploit all lines of evidence, including observations relating to the nature, diversity, age, contexts, and associations of artifacts and artifact assemblages. The same data should then be compared, contrasted, or integrated with evidence derived from other sources, including documentary records and oral accounts. This course is hardly revolutionary. Such an approach is already well known and astutely practiced by NPS archeologists at VOYA (e.g., Richner 2002:5, 9).

Table 5.5 (appended) shows date ranges for the most temporally diagnostic artifacts identified during the present study. The table graphically illustrates the suspected time of origin of the various artifacts and the assumed period of their greatest use or popularity in the Rainy Lake Locale. For purposes of discussion, selected eras or events subdivide the timeline for each collection. The Roman numeral I on Table 5.5 references the period 1731-1736, the years of supposed peak French colonial trade activity in the Rainy Lake area (see Chapter 2, above). The numeral II indicates the transitional period (1760-1780) between French capitulation and the emergence of the monopolistic British NWC. The numeral III marks the year 1821, when the NWC and the HBC merged, and IV indicates the year 1870 which saw an ending of the old fur trade and "expanded use of the region by Anglo-Americans via the Dawson Trail" (Richner 2002:8).

The artifacts in Table 5.5 are arranged in chronological order based on the suspected time of their initial origin. Thus, under Collection A, an Ic'1 series glass bead that may have originated before 1660 is listed first, and a 19th century *Henderson* clay pipe is listed last. In some cases, a horizontal dashed line is inserted to divide the artifacts of each collection into two temporal groupings. The placement of the horizontal lines is determined by the suspected median dates of the artifacts within each collection. Each of the artifacts above the dashed line has a median date that falls before 1760, and those below the line have a median date later than 1760. Though somewhat arbitrary, this exercise does show that all of the private artifact collections observed during this study do contain a sample of assumed pre-1760 French colonial materials.

Table 5.6 (appended) provides the same information in condensed form. A "possible date range" for each collection is shown in the upper half of the chart. For example, the extreme dates for the popularity of items within Collection D suggests a temporal span for those artifacts from 1660 through to the 1870s. The lower half of Table 5.6 gives a more conservative temporal span for each collection, a range extending from the median date of the oldest artifacts through to the median date of the most recent artifacts. The "median date range" for Collection D, for example,

is defined by the early 1670s median date for B-wire and the circa 1825 median date for Northwest gun serpent sideplates. This exercise clearly shows that all of the observed collections contain French colonial materials. Indeed, each of the collections above the dashed lines in Table 5.6 has a median date that falls before 1760 (that is, Collections G, D, and B).

The data provide other insights regarding French presence in the VOYA area. For example, the pre-1730 median dates for many of the artifacts implies a significant French interaction or presence in what is now the VOYA-area prior to the arrival of the La Vérendryes. Four of the collections (A, B, C, and D) contain artifacts that could well pre-date 1679, the time of Daniel Duluth's celebrated arrival at Mille Lacs Lake in east central Minnesota (Birk and Johnson 1992).

The data also call into question the prior assumption (noted in Chapter 2, above) that diagnostic fur trade materials from the park area mostly date to the period circa 1780-1835. While this may be true for some collections, it does not accurately reflect the aggregated contents of all of the collections. Also, the developing material evidence does not provide sufficient grounds to dismiss the occurrence of significant Montreal-based British trade activities in the VOYA area during the transitional period, 1760-1780.

Less certain are inferences based on provenience. With some notable exceptions, present knowledge of exactly where or on which waterways the observed private collections were gathered is weak or unavailable. Greater detail regarding collection areas may make it possible to determine which waterways, locales, or sites in and around the park have produced the most artifacts of any particular type, style, function, material, time period, affiliation, etc. A significant number and variety of French colonial-era artifacts are known to appear in collections gathered on lakes in the southeastern periphery of the park. Among assemblages from that area are Collections D, F, and G, and the man-in-the-moon bead from Collection I. Of all of the collections observed during the present study, Collection D contains the greatest number of pre-1760 artifact types. The nine types of possible pre-1760 artifacts within Collection D are B-wire, finger rings, glass beads, a glass pendant, metal arrowheads, and lead brooches, along with dog-eared kettle lugs, a French clasp knife, and a wire fastener (Table 5.5). Though preliminary, the developing material evidence appears to support written documentation fingering the Crane-Sand Point-Namakan lakes vicinity as a locus of considerable sustained early French colonial trade activity.

Collections A, B, and C, which may come primarily from Rainy Lake, each contain four to six pre-1760 artifact types. In comparison to Collection D from the southeastern periphery of the park, Collection C from the northwestern periphery has a much stronger representation of British fur trade materials. Many of the British materials could date to the transitional years between French capitulation and the American Revolution or they may be contemporaneous with later NWC and HBC occupations at the outlet of Rainy Lake.

Given the notable value of artifacts for interpreting the history and archaeology of VOYA, and the receptive cooperation demonstrated by local collectors and the Koochiching Museums during the present preliminary investigations, it is recommended that this study of private collections be expanded and refined.

Table 5.1. Itemized inventory of observed fur trade artifact collections.

OBSERVED ARTIFACTS	***QUANTITY BY COLLECTION***									***TOTAL (n)***
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	
Gun butt plate, Crowned R			1							*1*
Gun butt plate, engraved			1		1					*2*
Northwest gun butt plates	2		2		1					*5*
Northwest gun serpent sideplates	3			1	2					*6*
Northwest gun rampipes	1		2							*3*
Rear Rampipe finial	1									*1*
Gun barrel, parts			4							*4*
Gunlocks	1		2							*3*
Gun cock	1		1							*2*
Frizzen	1		1	1						*3*
Trigger			1	1						*2*
Trigger guard fragments			2							*2*
Tumbler				1						*1*
Silver gun escutcheon				1						*1*
Lead balls	5		18	3						*26*
Lead shot				2						*2*
Gunspalls			3							*3*
Prismatic gunflints, British	2	1	11							*14*
Firesteel, oval, unmarked					1					*1*
Firesteel, oval, WILD							1			*1*
Ax head, unmarked	1		1		3					*5*
Ax head, BAR and Punctate			1							*1*
Ax head, Grid in Circle			1							*1*
Ax head, SILK			1	1						*2*
Ax head, Heart and Crown					1					*1*
Ax head, W. JOHNSTON					1					*1*
Ax head, J. JOHNSTON								1		*1*
Ax head, GMD								1		*1*
Ax head, PR									1	*1*
Pipe tomahawk fragment		1								*1*
Bit or Chuck	1		1							*2*
Scissors									1	*1*
Rat spears/harpoons			4							*4*
Iron hoe blade			1							*1*
Fleshers			2							*2*
Clasp knife blade				1			1			*2*
Knife blade			1							*1*
Knife handle			1							*1*
Skillet handle	1									*1*
Kettle, Copper									1	*1*
Kettle lugs, folded sheet metal	2			1	4					*7*
Kettle lug, cast			1							*1*
Kettle scrap	1									*1*

Table 5.1. Itemized inventory of observed fur trade artifact collections (cont'd).

OBSERVED ARTIFACTS	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	***TOTAL (n)***
Metal arrowheads, stemmed	2	3		2						*7*
Metal arrowhead, triangular		1								*1*
Metal arrowhead, corner removed				1						*1*
Metal arrowhead, basal notched				1						*1*
Metal arrowhead, leaf-shaped (iron)		1								*1*
Serrated knife or saw	1									*1*
Kettle metal ornament, Panther			1							*1*
Kettle metal ornaments, Thunderbird	1		1							*2*
Tinkling cones	2	5	4	X						*Qty*
B-wire segment				1						*1*
Copper bracelet			1							*1*
Saturn bell			1							*1*
Jaw harp frame					1					*1*
Trade silver, triangular pendants				2						*2*
Trade silver, trapezoidal pendant	1									*1*
Trade silver, ribbed cutouts			2							*2*
Trade silver, Thunderbird	1									*1*
Trade silver, annular brooches				2						*2*
Trade silver, pierced brooches, CSP			2							*2*
Lead seal		1								*1*
Lead brooches, cast, wavy border				1						*1*
Lead brooches, cast, diamond-shaped	X			3						*Qty*
Lead brooches, cast, circular, plain	X	1	X	6						*Qty*
Lead brooches, cast, circular, sunburst		1								*1*
Ornamented lead disc				1						*1*
Ornamented lead bar				1						*1*
Stone ornament molds			2	1						*3*
Stone "shot" mold			1							*1*
Pipestone palette, w/beaver motif			1							*1*
Buttons, spun-back, plain	4	3	6							*13*
Buttons, sew thru	1		1							*2*
Buttons, wedge shank		3	1	1						*5*
Buttons w/stamped backmark		1		1						*2*
Buttons, Selkirk			3							*3*
Garter Buckle				1						*1*
Ornamented crown brooch					1					*1*
Brass wire fastener				1						*1*

Table 5.1. Itemized inventory of observed fur trade artifact collections (cont'd).

OBSERVED ARTIFACTS	***QUANTITY BY COLLECTION***									***TOTAL (n)***
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	
Finger ring, cigar band-style		1								*1*
Finger rings, plain ("wedding") band		2								*2*
Finger rings, single and multiple insets	1	1		1				X		*Qty*
Finger Rings, Jesuit										
Embossed, King Louis				1						*1*
Embossed unidentified							1			*1*
Impressed, octagonal, dual-heart		1					1			*2*
Engraved, oblong series		1								*1*
Engraved, cross series		1								*1*
Engraved, heart-shaped, Ave Maria		1								*1*
Engraved, heart-shaped, abstract		1								*1*
Engraved, initialed series										
ID mark		1								*1*
DI mark				1						*1*
VI mark		1								*1*
FI mark		1								*1*
IL mark		1								*1*
IN mark				1						*1*
NN mark		1								*1*
A mark				1						*1*
Glass beads, selected										
Ia Series				3						*3*
Ic' 1 Series	1									*1*
IIa Series		Qty		13		8				*Qty*
IIb Series		1								*1*
WIa Series						1				*1*
WIb Series				1						*1*
WId Series				1						*1*
WIIc Series				1						*1*
WIIf Series	1									*1*
WIII Series	1									*1*
Man-in-the-moon									1	*1*
Glass pendant				1						*1*
Clay smoking pipe, umarked				1						*1*
Clay smoking pipe, decorated						1				*1*
Clay smoking pipe, "IF" spur			1							*1*
Clay smoking pipe, HENDERSON	1									*1*
Stone smoking pipe (Steatite?)						1				*1*
Pipe bowl cover			1							*1*

Table 5.2. List of observed artifacts by function and by frequency of occurrence.

ARTIFACT TYPE	***FUNCTIONAL CATEGORY***	***COLLECTION***									**TOTAL (n)**
		A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	
Axes	*Woodworking*	X		X	X	X			X	X	*6*
Beads (glass)	*Adornment*	X	X		X	X	X			X	*6*
Kettles	*Cooking & Eating*	X		X	X	X				X	*5*
Brooches	*Adornment*	X	X	X	X	X					*5*
Clay smoking pipe parts	*Tobacco Use*	X		X	X		X				*4*
Gun parts	*Hunting*	X		X	X	X					*4*
Buttons	*Clothing*	X	X	X	X						*4*
Finger rings	*Adornment*	X	X		X			X			*4*
Tinkling cones	*Adornment*	X	X	X	X						*4*
Gunspalls/gunflints	*Hunting*	X	X	X							*3*
Lead (musket) balls	*Hunting*	X		X	X						*3*
Metal arrowheads	*Hunting*	X	X		X						*3*
Knifes	*Cooking & Eating*			X	X			X			*3*
Trade silver ornaments	*Adornment*	X		X	X						*3*
Bit or chuck	*Woodworking*	X		X							*2*
Stone ornament molds	*Miscellaneous*			X	X						*2*
Firesteels	*Cooking & Eating*					X		X			*2*
Kettle metal ornaments	*Adornment*	X		X							*2*
Pipe bowl cover	*Tobacco Use*			X							*1*
Stone smoking pipe	*Tobacco Use*						X				*1*
Stone shot mold	*Miscellaneous*			X							*1*
Serrated knife or "saw"	*Miscellaneous*	X									*1*
Lead seal	*Miscellaneous*		X								*1*
Pipe tomahawk blade	*Miscellaneous*		X								*1*
Fleshers	*Miscellaneous*			X							*1*
Pipestone beaver palette	*Miscellaneous*			X							*1*
B-wire segment	*Miscellaneous*				X						*1*
Rat spears	*Hunting*			X							*1*
Lead shot	*Hunting*				X						*1*
Hoe	*Digging/Cultivation*			X							*1*
Skillet handle	*Cooking & Eating*	X									*1*
Buckle	*Clothing*				X						*1*
Fastener	*Clothing*				X						*1*
Scissors	*Clothing*									X	*1*
Jaw harp	*Amusements*					X					*1*
Pendant (glass)	*Adornment*				X						*1*
Bracelet	*Adornment*			X							*1*
Saturn (hawk) bell	*Adornment*			X							*1*
Misc. lead ornaments	*Adornment*				X						*1*
	Alcohol Use										
	Grooming										
	Weapons										
	Fishing										
	Maintenance										
TOTAL (n):		*17*	*9*	*22*	*20*	*7*	*3*	*3*	*1*	*4*	86

Table 5.3. Functional classification of observed artifacts.

FUNCTIONAL CATEGORY	**ARTIFACT TYPE**	***COLLECTION***									**TOTAL (n)**
		A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	
Adornment	Beads (glass)	X	X		X	X	X			X	*28*
	Pendant (glass)				X						
	Bracelet			X							
	Brooches	X	X	X	X	X					
	Finger rings	X	X		X			X			
	Saturn (hawk) bell			X							
	Tinkling cones	X	X	X	X						
	Kettle metal ornaments	X		X							
	Trade silver ornaments	X		X	X						
	Misc. lead ornaments				X						
Hunting	Rat spears			X							*15*
	Gun parts	X		X	X	X					
	Gunspalls/gunflints	X	X	X							
	Lead (musket) balls	X		X	X						
	Lead shot				X						
	Metal arrowheads	X	X		X						
Cooking & Eating	Firesteels					X		X			*11*
	Kettles	X		X	X	X				X	
	Knifes			X	X			X			
	Skillet handle	X									
Miscellaneous	Stone shot mold			X							*9*
	Serrated knife or "saw"	X									
	Lead seal		X								
	Fleshers			X							
	Pipestone beaver palette			X							
	B-wire segment				X						
Woodworking	Axes	X		X	X	X			X	X	*8*
	Bit or chuck	X		X							
Clothing	Buckle				X						*7*
	Buttons	X	X	X	X						
	Fastener				X						
	Scissors									X	
Tobacco Use	Clay smoking pipe parts	X		X	X		X				*6*
	Stone smoking pipe						X				
	Pipe bowl cover			X							
Digging/Cultivation	Hoe			X							*1*
Amusements	Jaw harp					X					*1*
Weapons											
Fishing											
Grooming											
Maintenance											
Alcohol Use											
TOTAL (n):		*17*	*9*	*22*	*20*	*7*	*3*	*3*	*1*	*4*	86

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Table 5.5. VOYA artifact study, relative dates

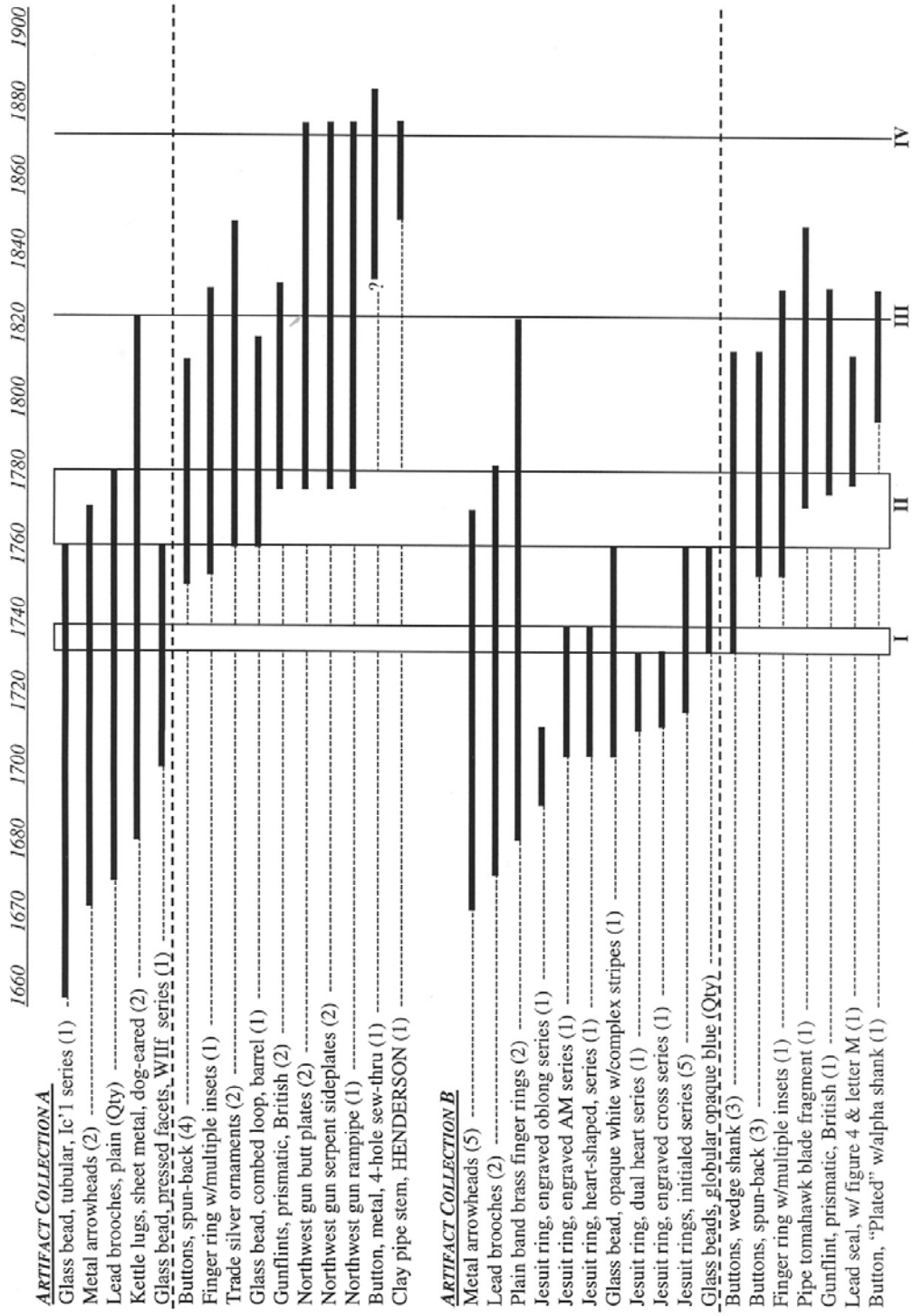


Table 5.5. VOYA artifact study, relative dates (cont'd)

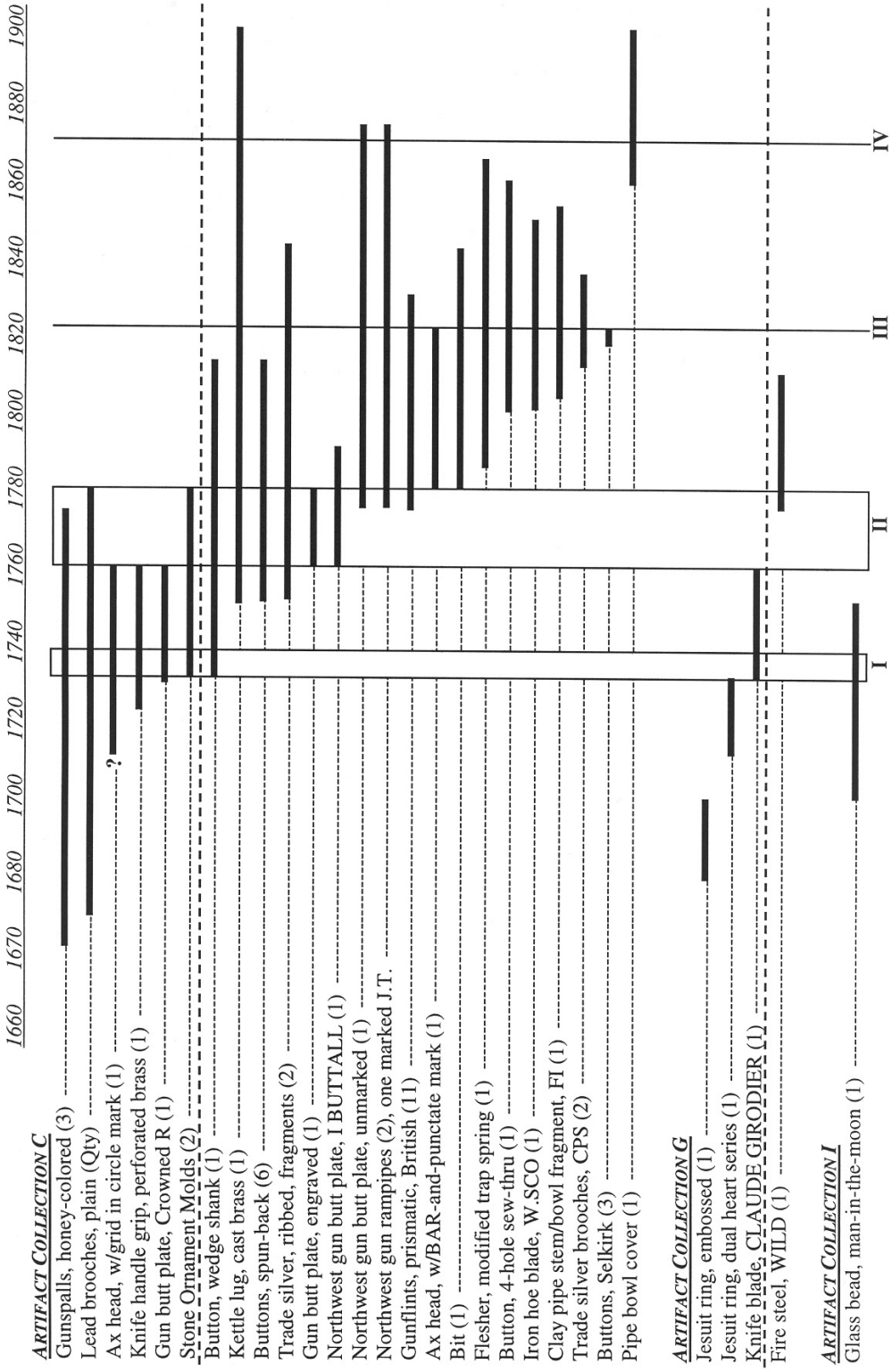


Table 5.5. VOYA artifact study, relative dates (cont'd)

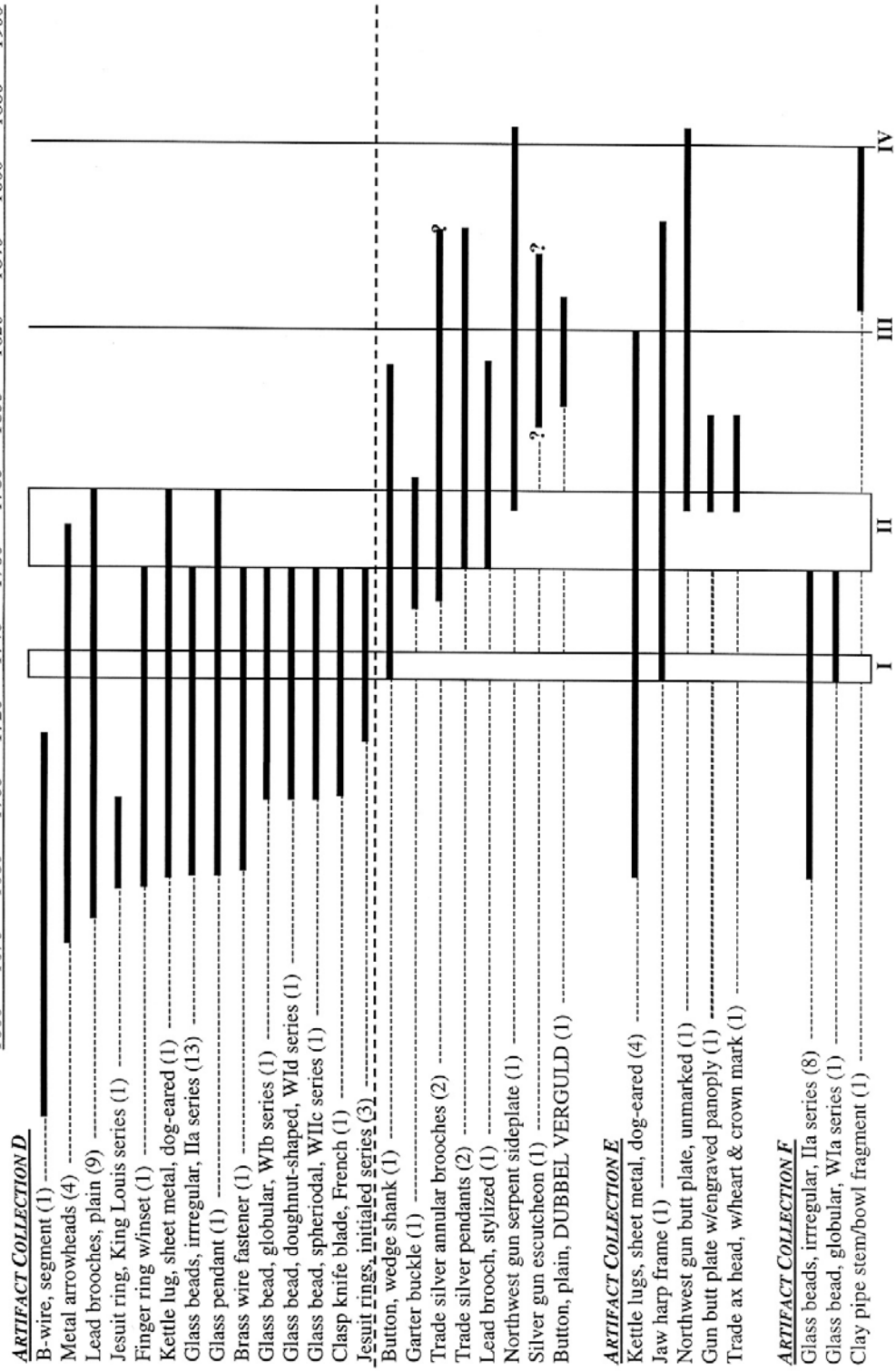
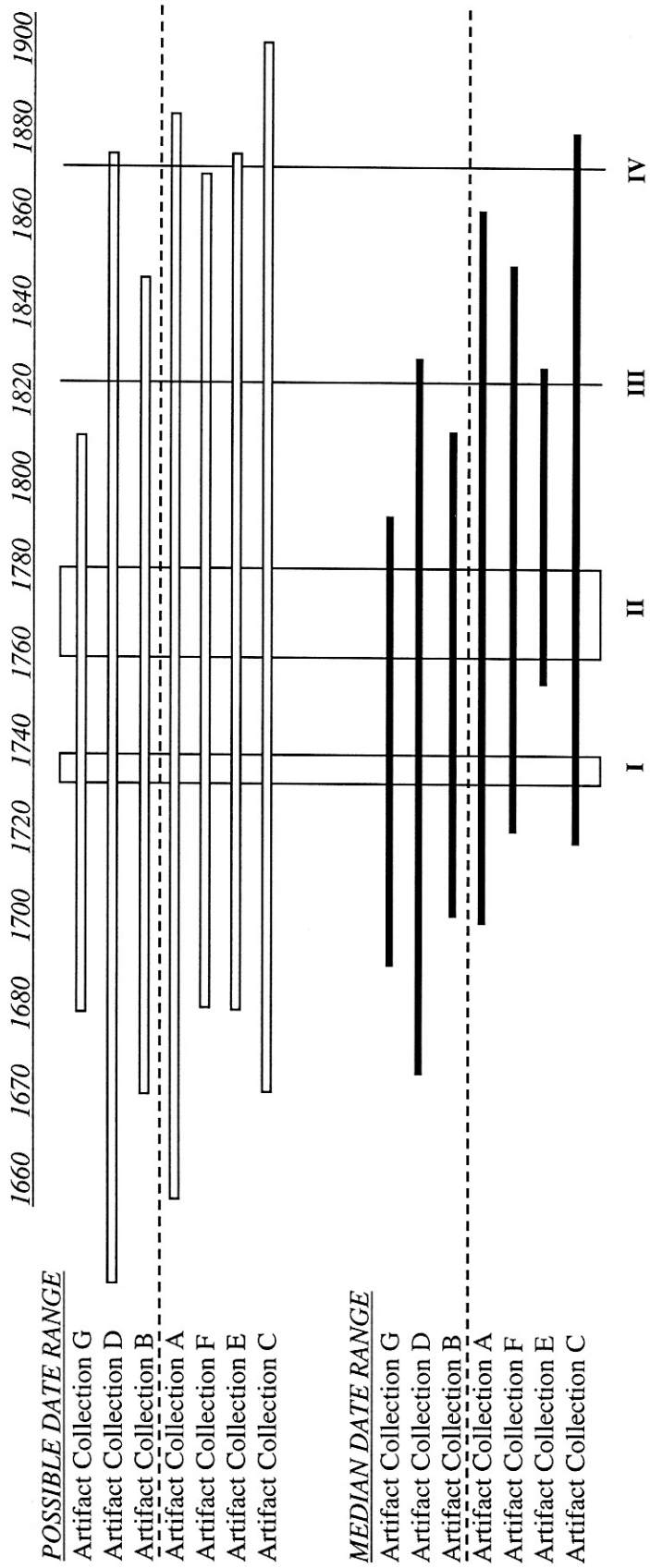


Table 5.6. VOYA artifact collections, bracketing dates



6. POTENTIALS AND RECOMMENDATIONS

Douglas A. Birk
Institute for Minnesota Archaeology

and

Jeffrey J. Richner
National Park Service
Midwest Archeological Center

The reports in this volume have examined cultural artifacts and properties from the 1600s and later—the *things left behind*—to form and address basic questions about the temporal, spatial, and cultural aspects of the fur trades in the Voyageurs National Park (VOYA) area. Combining field and archival studies to document and decode past events, behaviors, and lifeways is central to this work. For example, in Chapter 3, Jeffrey Richner identified former Native American/First Nation occupants of the park so that, in part, their heritage and their role in the fur trades can be better understood. In Chapters 2, 4, and 5, Douglas Birk generally emphasized the Euroamerican side of the trade equation.

In this chapter, the authors recommend that fur trade research at VOYA be continued through an enduring program of field and archival research including advanced artifact studies, underwater archaeological surveys, and the further sharing of information. They also review current knowledge of the VOYA-area fur trades.

OFFSHORE ARCHAEOLOGY

Much of the VOYA locale is comprised of open and interconnected waterways. The level of these waterways has shifted over time causing some areas to be available for human occupancy or use in the past that are now underwater. Chapters 3 and 4 outline a number of site types, many of which may now lie on VOYA-area lake bottoms. Today, despite the difficulties of underwater research, the potential for finding submerged cultural properties and materials at VOYA remains high.

There are several obvious ways to narrow the search for submerged fur trade objects or properties in the park. One is to project the demonstrated potentials for fur trade archaeology from known or suspected dry land sites into adjacent offshore areas. That is essentially the approach taken in 2001 and discussed in Chapter 4 of this report.

Another is to define site-landform and site-water relationships for known fur trade sites on extant shorelines and to then project that information to submerged areas offshore. By integrating site location data and lake bottom contour data in computer simulations, it may be possible to predict where former usable landscapes (beaches, islands, points, etc.), hazards (rapids, reefs, etc.), harbors, fisheries, wild rice beds, and portages might be at diverse water levels. For example how might local landscapes appear if, say, ten feet of water were removed from VOYA-area reservoir lakes. Where are the site potentials if greater volumes of water, like 15, 20, or 25 feet, are removed? Obviously, this same exercise could also be used to develop models for precontact site and resource distributions in the park area.

Yet another approach is to study natural features and conditions that may have shaped how and when early fur traders used local waterways and portages. Beyond enhancing present knowledge of preferred and conditional travel routes, such investigation could help to determine where fur traders were most susceptible to accidents, storms, or confrontation. Those same areas might have higher probability for containing sunken fur trade materials.

An ultimate goal of these various approaches is to define specific places or locales within the park with a potential for submerged cultural resources related to the fur trades. If fur trade properties are found, they should be evaluated to determine their content, integrity, and study and interpretative potentials. One locale that might be further inspected for offshore potentials is Brule Narrows on Rainy Lake.

MATERIAL STUDIES AND COLLECTOR INTERVIEWS

The study of artifacts is crucial for understanding the early fur trades at VOYA. Chapter 5 reports on the preliminary examination of some area artifact collections to gather information about the various types of observed objects, their intended or apparent use, and the dates of their origin and popularity. Time and budget constraints did not allow the study of all artifacts or artifact collections and resulted in material descriptions that lack a consistency of detail. Generally missing, for example, are provenience data, a record of certain formal attributes (like overall dimensions, weight measurements, and Munsell color values), and a portfolio of high-quality artifact illustrations.

Future artifact studies should extend and refine the research outlined in Chapters 3 and 5. Future analysis should also address other basic questions about the nature and intensity of the local fur trades and the impacts of those endeavors on Native/Euroamerican cultures as well as local environments. We are reminded that fur trade artifacts are

> not just diagnostic items indicative of a certain period or time. They are also not just something that ‘primitive’ Indians adopted and that are reflective of advanced White civilization… Artifacts are documents in themselves, reasonable reflections of historical events, cultures, values, and social and economic changes [Lohse 1988:403].

If trading posts sites are present in and around VOYA, such occurrence should reflect in local artifact collections. The archaeological record for trading posts should include evidence of former buildings, storage pits, fireplaces, and possible fortified enclosures. Associated debris fields should contain faunal remains, concentrations of wood ash and *bousillage* (daub) and materials like nails, building hardware, window glass, and household and personal objects. If such sites do exist, collectors probably know of them. It should be emphasized that, after 25 years of intensive archeological investigation in the park (including the majority of the shoreline), no former trading post sites or features have been found.

The occurrence of trading posts might also be revealed by an increase in the number and diversity of trade materials or possible shifts in Native settlement or subsistence practices. Archaeologist, Dean Anderson, through studying trade good inventories from the period 1715-1760, has defined the types and relative importance of imported materials sent to the Rainy Lake country during the French Expansion Phase (Anderson 1994:107). As shown by Anderson’s work and the analysis in Chapter 5, above, such records have many uses. For example, the inventory data might assist

Figure 6.1. Life-long resident authorities on Rainy Lake and its environs, Don "Buck" Johnson (left) and Lauren Erickson (right), are seen here at Erickson's lake home on 15 December 2001. Lauren, a retired commercial fisherman and boat captain, grew up at Ranier and early took to the hobby of artifact collecting. Like other individuals visited during the present study, Buck and Lauren graciously shared their knowledge and memories. Underscoring the urgency for interviewing aging area collectors is the fact that Lauren passed away on January 3, 2002, just a few weeks after this picture was taken. (Photograph by Douglas Birk)

studies that seek to determine how Native peoples adapted to or reinterpreted Euroamerican material culture and ideas. The same data may also be used in determining how trade good inventories from the period 1715-1760 may have differed from those of earlier and later times. Important too is to define and explain any disparities between the types and quantities of materials noted in the inventories and the types and abundance of coeval materials seen in extant artifact collections.

Chapter 5 provides an abundance of information gained with the assistance of area collectors. Some of the collectors are aging or deceased. Certainly, crucial information will be lost if steps are not taken now to conduct further interviews with surviving old-time collectors. A collaborative approach among NPS and non-NPS researchers and area historical societies might work best to continue the studying of collections and taking oral testimony. The preliminary artifact study was greatly assisted by the participation of Edgar Oerichbauer, Director of the Koochiching County Historical Society in International Falls. Oerichbauer is acquainted with many collectors in the Border Lakes Region, and he offered the Koochiching Museums as a secure and neutral location within the community for collection studies.

In most cases only the collectors know the source or context of their collected materials. Where Chapter 5 focused on discussing the chronology of artifacts, future studies should seek out information regarding the sites or locales from which the observed collections were procured. Knowing the provenience of artifacts and artifact collections might reveal meaningful patterns of distribution for various types of cultural materials within the study area. For example, perhaps French-period artifacts are more common on sites at the east end of the park, while most British period materials are found on sites at the west end of Rainy Lake or along the traditional mainline canoe route, etc.

Fur trade artifacts can help to identify historic site locations and define how and when the sites were used. They are also important ingredients for interpretive exhibits. Some fur trade objects are presently displayed at VOYA visitor's centers and others at the Koochiching Museums. The widespread local interest in the history of the fur trades could, with mutual effort, lead to a greater NPS-local community partnership for heritage tourism. Individuals at Crane Lake have also expressed an interest in having a community center where they might permanently display and interpret archaeological materials found over the years in the eastern periphery of the park.

SHARING INFORMATION

The developing information on the fur trades at VOYA can be disseminated to the public through articles, reports, lectures, educational programs or curricula, and websites. Eventually, sufficient data will be assembled to foster new exhibits and books on the history and archaeology of the fur trades there. The new information can also enhance boat and sled or canoe and ski tours at VOYA that focus on the historical aspects of the fur trades or other human experiences in the park.

An envisioned outcome of the present work is a published volume that illustrates, analyzes, and discusses all the artifact types available in extant local collections. Other illustrated volumes could further relate the story of the Bois Forte Ojibwe as told through artifacts, photographs, maps, land records, and other paper and material evidence. Lesser papers could focus on selected outdoor traditions in the park area as reflected by artifact classes like gun parts, knives and axes, fishing paraphernalia, cooking equipment, and the like. Exhibits, publications, websites, and tours are also ways for the NPS to give something back to those individuals and families who so openly shared their collections and knowledge for this project. Maintaining contacts with local collectors and history buffs might also lead to greater public cooperation in preserving sites, materials, and stories from the past.

ARCHIVAL RESEARCH AND INFORMANT INTERVIEWS

As revealed throughout this report, many aspects of park area history might benefit from further archival research. Information presented in Chapters 3 and 5 for example, suggests the need for more fine-grained chronological reconstruction of the fur trades in the VOYA area. Such research should synthesize current knowledge about the protohistoric period, the initial contacts of the 17th century, and the subsequent ebb and flow of Native/Euroamerican interactions through the 19th century. Among other things, better temporal controls can help to date archaeological materials and sites and provide useful contexts for interpretation.

Future archival research should extend to site files and reports generated through regional archaeological activities on the Canadian side of the international border, and in adjacent areas of the Superior National Forest. A broader knowledge of the location, condition, and content of fur trade sites in contiguous areas could help to locate and identify fur trade sites or site components at VOYA.

Another suggested avenue of archival research is to more carefully define the early systems and practices of traveling within the VOYA area. Beyond enhancing present knowledge of preferred and conditional historic travel routes, such investigation could help to determine where fur traders traditionally stopped to rest or trade, where they were most susceptible to accidents and storms, where they were most likely to become windbound or icebound, etc.

The primary study area for this research should extend through the VOYA area from International Falls to eastern entry points at the Namakan, Loon, and Vermilion Rivers. Comparative data regarding the early systems and practices of travel on inland waters might also be assembled for similar and related lake-area environments, like Saganaga, Basswood, Lac la Croix, and Lake-of-the-Woods (all on the Grand Portage mainline route east and west of VOYA), and at Lake Vermilion to the south.

This line of research should document routes, places, strategies, and tactics used by fur traders when moving through the study area. At the same time evidence should be assembled to document Euroamerican or Indian trading activities at specific places or locales. Among questions that could be addressed are: Where did trading parties, canoe brigades, etc. travel, stop, camp, or portage within the study area? Did traders travel routes other than the traditional mainline corridor through the study area (for example, is there documented fur trade use of Gold or Grassy portages)? What affect did water-level fluctuations, high winds, or other circumstances have on canoe travel, including route preferences, in the study area? What affect did deep snows, extreme cold, mild winters, freezing and thawing, or other natural conditions have on winter travel, including route preferences? What can be learned from early VOYA-area place names?

Any such investigation should consider oral interviews with guides, resort owners, members of Indian communities, and others who have a practical knowledge of local lakes and lake-area conditions. Just traveling through the VOYA lakes today via boat or on the winter ice gives the modern visitor a whole new appreciation for those hardy souls who plied these waterscapes in earlier times. The Bois Fort Ojibwe and other Indian groups may also be able to provide added information and perspective on the fur trades at VOYA and surrounding areas.

As noted in Chapter 1, there are great parallels between ongoing IMA/NPS investigations at VOYA and those at Grand Portage National Monument (GRPO). The research initiative at GRPO seeks to locate physical evidence of the old Grand Portage trail and other archeological loci along the trail that have potential to inform how the portage and the system of portaging there developed or changed over time. A goal is to define and evaluate the material remains of old encampments, watering stations, and resting places along the trail (Birk and Cooper 2001; Birk 2002). The study results at either park unit could help to guide future research methods and goals at both. The outcomes of these NPS-sponsored studies will also assist public understanding of the fur trades all along the Voyageur's Highway.

ONGOING RESEARCH: CURRENT THOUGHTS

The NPS/IMA research initiative has sufficiently advanced our knowledge of the VOYA area fur trades to warrant a new review of current thoughts. More work lies ahead, and the authors fully expect to see new discoveries, shifting scholarly interests, and revisions of details in the future. Indeed, a lesson of history is that the methods, goals, and results of historical recall are dynamic.

Early historic documentation for the VOYA area is sufficiently vague to support a range of notions regarding the particulars of initial French presence. While some scholars say the fur trade

began at Rainy Lake in 1688 when the Frenchman, Jacques de Noyon, passed the winter there, others insist de Noyon did not travel west of Lake Superior. Even the generally accepted 1688 date for de Noyon's supposed Rainy Lake adventure is uncertain, and the likelihood that he was illiterate until after 1700 casts doubt on his ability to accurately describe or even report his travels (Noble 1984:44).

Likewise, in 1717, not long after the French lost their hold on Hudson Bay, Zacharie Robutel de la Noue was instructed to build interior posts at Kaministiquia, Rainy Lake, and Lake of the Woods. The Rainy Lake area was then a reservoir for fine beaver and martin furs, and the French hoped to traffic those furs through the Great Lakes and St. Lawrence to keep them from British traders at Hudson Bay (Brebner 1955:242-243, 297; Innis 1956:90). De la Noue did build at Kaministiquia, but there is little assurance that he established the other posts (Christianson 1984:99; Peyser 1996:131). Lingering Indian hostilities in areas northwest of Lake Superior may have derailed his plans (Brebner 1955:297-298; Peyser 1996:131). Whether the French were able to open posts west of Kaministiquia and Grand Portage prior to 1731 is yet uncertain (Birk 1982).

Regardless of the precise date of establishment of the first trading post in the Rainy Lake area, French fur trade goods undoubtedly reached there prior to actual French penetration through Native American "middle-man" exchanges. Research at Knife River Indian Villages National Historic Site in North Dakota shows that trade goods were introduced there over 100 years prior to direct local contact with Euroamerican traders (Ahler and Drybread 1993:290, 329; Ahler et al. 1991:70-71; Thiessen 1993). French trade goods likely entered the Rainy River area through native middlemen traders during the first half of the 17th century, with the period of indirect contact with French traders extending for 50 years through the late 1680s or early 1690s (e.g., Christianson 1984:93, 96). The spread of direct French trade connections in the Rainy Lake country tapped into preexisting Native American trade networks (e.g., Birk 1982:116). These interpretations are consistent with the archaeological evidence presented in this report.

Other sources of trade goods may have also been available prior to the documented period of French presence in the VOYA area. For example, for a quarter century after about 1673, trade goods from HBC posts on and near Hudson Bay could have entered the Rainy Lake area with the Cree and Assiniboine (Christianson 1984:97) or through middleman groups like the Nippising, Ottawa, Ojibwe, and others (Bishop 2002:46). By 1672, several hundred *coureurs du bois* (largely anonymous and unlicensed traders) were also operating in the "western country" (Eccles 1969:110), and some of these men could have been a direct or indirect source for trade goods in the Rainy Lake area. The number of *coureurs du bois* increased dramatically in the 1680s, probably making trade goods even more widely available.

Cree and Assiniboine were among Indian groups that traveled great distances to Fort Albany on James Bay to trade directly with the HBC from 1676-1686 (Bishop 2002:46). Although some researchers doubt that the Assiniboine actually lived within the boundary waters area (Wheeler 1977), they did pass through the area for trading purposes into the late 1760s (Hickerson 1974:49-50; Wheeler 1977:122). Along with the Cree, then, the Assiniboine and other groups could have introduced trade goods to the project area as much as a century before the later and better-documented 1731-1750s period of French presence.

Little came of French efforts to extend its Montreal-based trade northwest of Lake Superior in the years after Queen Anne's War (1702-1713). French activity in the Mississippi Headwaters Region was also relatively isolated from that in the Rainy Lake country by the extensive boglands and closed forests of northern Minnesota (Birk 1991:243). In 1731, Christophe Dufrost de la Jemeraye, under the leadership of Pierre Gaultier de Varennes, Sieur de la Vérendrye, led a party

of voyageurs and soldiers west of Grand Portage to build a post at Rainy Lake. This post, Fort St. Pierre, apparently sat on a point of land at the outlet of the lake, the source of the Rainy River, about 10 miles from what is now the western edge of VOYA (Coues 1965, I:20fn24). Now called Pither's Point, this landform was strategically located on primary transportation routes to points farther west and northwest and to Hudson Bay on the north. Fort St. Pierre was the first in a series of French posts on the primary trade route northwest from Lake Superior.

A French trading outpost was reportedly established in 1736 on Crane Lake at the mouth of the Vermilion River. Several maps depict the post near the river's mouth, but the scale of the maps and the depicted configuration of the lakes and rivers are difficult to equate with the modern landscape. Convincing archeological evidence for this post has yet to be found. The suspected site location is about two miles from the southern boundary of VOYA. French traders Bourassa and Eustache under the command of Pierre La Vérendrye built and manned this temporary post. English and American traders may have operated at this location after 1736 (Steiner and Clouse 1994). Interpretations placing trading posts on Crane Lake are often questioned because they rely on the possibly faulty assumption that Crane Lake was known as Vermilion Lake through much of the historic period (see extended discussion in the following section of this report).

The French experienced a setback in 1736 when over 20 of La Vérendrye's associates were killed in a violent encounter with the Sioux on Lake of the Woods. While the brief period from 1731-1736 is the most amply documented era of French presence near VOYA, Fort St. Pierre (or some other little known French outposts at Rainy Lake) remained in operation through the 1750s. Evidence for such activity is seen in period trade invoices (Anderson 1992, 1994) and other sources (e.g., Voorhis 1930:3, 157-158; Christianson 1984:102; Peyser 1996:180). French operations in the Rainy Lake area declined after 1754 when the French abandoned many of their forts west to Saskatchewan. By 1763 France surrendered its entire claim to North America. For the VOYA area, the best-documented era of French presence was from 1731 to the mid-1750s. However, as inferred from archaeological evidence and noted above, French trade goods were available to local Indians over a much longer time beginning in the early or middle 1600s.

Research by Dean Anderson, cited elsewhere this report, shows the kinds and range of French trade goods being sent to Rainy Lake via Montreal merchants during the period, 1741-1746 (Anderson 1992:57, and Table 2). By studying trade invoices for assorted <u>outfits</u> (goods delivered to diverse locations in a single year), Anderson has identified the types and intended function of trade goods listed on invoices for six different Rainy Lake outfits (Anderson 1994:Tables 1, 2, and 4). The value of these goods (in *livers*) was greater than that of goods shipped to six of the other seven destinations studied by Anderson (including Detroit and Michilimackinac) between 1715 and 1758 (Anderson 1992: Table 3). These goods were taken to the Rainy Lake post by the partnership of Jean Giasson and Louis Chappeau in 1741, by Jean Giasson and his brother Jacques in 1742 and 1743, and by the partnership of Pierre and Charles Boyer and Charles Lulie Chevalier in 1744, 1745, and 1746 (Anderson 1992:65). The lists compiled by Anderson provide a good indication of the kinds of goods that were available at or near Rainy Lake during much of the French period and likely in later years as well (see Chapter 5, Conclusions, above).

Scholars still remain somewhat divided on how to portray the transition between French and British era fur trade activities in the Rainy Lake country. Some envision a relatively seamless continuity of trade operations during the transition, while others point to a distinct hiatus. There is no doubt that British traders entered or passed through the region beginning in the early 1760s (Innis 1956:188, 190), yet there is no firm evidence for the establishment of local posts until the 1780s (Catton and Montgomery 2000:17). As already noted, some Native Americans from the region traded directly with the HBC as early as the 1670s, so British goods may have been in

local use as much as 100 years prior to actual British penetration. In 1787 the North West Company (NWC) established an advance depot on the Rainy River about one mile west of Chaudière Falls and about 3.5 miles below the outlet of Rainy Lake the site of the earlier French post, Fort St. Pierre. The 1787 post was on the mainline "Voyageurs Highway" trade route that ran east to the company's main depot at Grand Portage on Lake Superior. This location allowed NWC traders to press their operations deep into the northwestern interior since it eliminated the need for them to annually travel east from Rainy Lake to Lake Superior to exchange their furs for fresh supplies. In turn, canoes were sent from Grand Portage with goods and supplies to outfit NWC winterers who rendezvoused at the Rainy River post. Over the years, the latter outpost grew to include gardens, cultivated fields, and facilities for keeping domestic animals.

The HBC established its first post in the area in 1793 on the Rainy River about midway between Rainy Lake and Lake of the Woods at what are now known as the Manitou Rapids (Thiessen 1997; Henry 2000). Establishment of the HBC post was part of a deliberate strategy to interdict the NWC's northern supply line and trading operations (Duckworth 1988:29-30; Jackson 1992:37-38). The HBC expansion to the interior may also have partially resulted from competition with free traders such as Boyer, who traded in the Rainy River area since 1744 (Christianson 1984:103; Parker 1976:191). In 1792, HBC agent Donald Mackay marked a spot near the NWC post for a new HBC post. John MacKay, arriving the next year, found the location unsuitable due to lack of wood for construction (Duckworth 1988:33) and instead chose the Manitou Rapids location. In 1795 a more substantial HBC post was built at the entrance of Rainy River at Lake of the Woods (Thiessen 1997).[1]

From 1793 to 1821, the NWC and HBC vied for control of the local fur trade from their various posts along the Rainy River. Shortly after the HBC abandoned its trading house in the Rainy Lake area about 1797, the NWC faced competition from the newly formed XY Company (XYC). In 1817, following turmoil of the Red River, the HBC reestablished a post on the Rainy River within sight of Chaudière Falls, on a high bank about a mile east of the NWC fort (Coues 1965,I:20fn24). This may be the same fort location used for then defunct XYC (Ahrens 2002, 2003). All of the posts were positioned on the north side of the river. For the next few years, the NWC and HBC posts were again in direct and spirited competition for the local trade. The merger of these two firms in 1821 ended decades of strife, but it did not end fur trade competition in the region. After 1821, the HBC post lost its role as a major transportation and provisioning depot, but remained an important supply center and base for local trading activities (Christianson 1984:94, 106-107). The HBC post, renamed Fort Frances in 1830, remained an important feature of the local landscape until 1903 (Ahrens 2003).

WEIGHING THE EVIDENCE

There are many ways data imbedded within the primary literature might be used, alone or in conjunction with archaeological evidence, to address fur trade topics in the Rainy Lake area and to correct or expand previously published works. It is neither possible nor practical to apply this

[1] Historian Barry Gough, in his edited version of the journal of Alexander Henry the Younger (1988:11-12, footnotes 25 and 26), incorrectly reinterprets Henry's identification of the old HBC post at Manitou Rapids as Pointe au Fortre on the lower Winnipeg River. He further misidentifies Henry's mention of the former HBC post at the mouth of the Rainy River as the 1730s French post, Maurepas, located at the mouth of the Winnipeg River. Henry's journal entries leave no doubt that he correctly identified the then-abandoned 1790s era Rainy River HBC posts on August 4th, 1800, as he traveled down the Rainy River on his way to Lake of the Woods (Gough 1988:11). He passed Rat Portage at the north end of that lake on August 7, 1800 and did not reach the mouth of the Winnipeg River until August 14, 1800 (Gough 1988:12-15).

level of scrutiny to all existing fur trade interpretations, but the detailed consideration of a single topic here, by Jeffrey Richner, indicates possibilities for similar research in the future. Determining who was where and when could also spawn a new set of expectations about the resulting archaeological record.

Independent traders and the American Fur Company (AFC) were the chief rivals of the HBC after 1821. Historian Arnold Bolz reported that independent trader George Johnston of Sault Ste. Marie established a post on Crane Lake near the current southern boundary of VOYA in 1822. Bolz (1960:155) claims that Johnston, trading there with ten men, attempted to seize the HBC's buildings by force, but was driven from the area. Later historians (Catton and Montgomery 2000:23-24) report that Johnston established a post on Mille Lacs in British territory under Joseph Cadotte and at Little Vermilion Lake (which the authors equate with Crane Lake) under Paul and Bazil Beaulieu in 1821. They further state (2000:24) that, after Indians drove Cadotte from Mille Lacs, Johnston abandoned the post on the American side of the border by 1824.

The discussions by Bolz and Catton and Montgomery on this topic appear to be generally based on an earlier article by historian J. S. Galbraith (1959:242-245). Galbraith specifically places the 1822-23 George Johnston post (under one of the Beaulieus) at the source of the Vermilion River on Vermilion Lake, rather than at Crane Lake, which he interprets to be the location for the 1821-1822 post under the Beaulieus. He also reports that Joseph Cadotte attempted to seize the HBC's buildings at Crane Lake in early 1822, but was unsuccessful (Galbraith 1959:243). In any case, all of these interpretations, while partially accurate, do not precisely match the details available from the extensive HBC post journals and district reports (Thiessen 1997), the first-hand 1822-1823 diary accounts of trader Youngs Morgan (Headline and Gallop 1962, 1963a, 1963b, 1963c, and 1963d), or other sources (White 1987:100-101). The latter sources suggest that the primary independent trader's name, the post locations, and other details of these trading activities may need to be reconsidered.

Joseph Cadotte, a former NWC employee, was reported supported by John (rather than George) Johnston in a small trading effort at Mille Lacs and at a larger post at Crane Lake in 1821-1822 (White 1987:100-101). Historian-anthropologist Bruce White also reports that Indians killed two of Johnston's men, causing the abandonment of the Mille Lacs post as indicated by Galbraith (1959) and Catton and Montgomery (2000). There is no available HBC Lac La Pluie journal for 1821-1822, but a later journal appears to confirm the Mille Lacs Cadotte post's presence by indicating that a man identified only as "Cadotte" was trading about one and one-half day's winter "march" from Mille Lacs in 1821-1822 in competition with the HBC (Thiessen 1997). While the 1821-1822 Johnston/Cadotte/Beaulieu Crane Lake post is not mentioned in the primary references to local fur trading activities available to the authors, those sources confirm that the AFC and John Johnston's traders constructed two new posts on Vermilion Lake during the winter of 1822-1823. That information is further discussed below.

Youngs Morgan was a clerk for John Johnston of Sault Ste. Marie during the 1822-1823 trading season (Headline and Gallop 1962:304). Johnston, a well-known trader and gentleman, was also Henry Schoolcraft's father in law. Morgan's diary details Johnston's independent trading operation at Vermilion Lake and his interactions with rival AFC and HBC traders. Morgan makes no mention of an 1821-1822 Johnston/Cadotte/Beaulieu post on Crane Lake (or elsewhere). Morrison, Fairbanks, and Black, all clerks, are the only AFC employees named by Morgan. However, Joseph Cadotte was employed by the AFC after his dismissal from the NWC following the HBC-NWC merger in 1821 and, in 1822, he helped establish the AFC's new post at Chaudière Falls across the Rainy River from the HBC's Lac La Pluie post (White 1987:101; Thiessen 1997). The two Beaulieus mentioned by Catton and Montgomery (2000:24) were

among Johnston's 1822-1823 Vermilion Lake ten-man trading party along with Morgan and several others (Headline and Gallop 1962:305). They constructed a new post on an island in Vermilion Lake, apparently adjacent to a new AFC post also constructed that winter (Headline and Gallop 1963a:34-36).

Dr. John McLoughlin, in charge of the HBC's Lac La Pluie post in 1822, reluctantly sent Simon McGillivray to Vermilion Lake to compete with the AFC and Johnston establishments there (Thiessen 1997). McLoughlin and McGillivray abandoned plans to operate a post on Vermilion Lake in the winter of 1822-23 primarily because the lake was in American territory and, therefore, legally off limits to the HBC. That geographic and legal situation led McLoughlin to further express concerns that Johnston's men and the AFC employees might join forces and seize McGillivray's property, a loss that he did not want to risk (Thiessen 1997). The Hudson's Bay traders also felt there were not adequate furs in the Vermilion area to support the two existing posts, and certainly not three. Finally, food was expected to be in short supply since the wild rice crop had failed across the region, and the traders expected severe food shortages. Morgan's journal and the HBC accounts for 1822-1823 are replete with stories of starvation due to the failure of the rice crop. For these reasons, McLoughlin chose instead to have McGillivray establish a new wintering post on the British side of Basswood (Bois Blanc) Lake.

It was Joseph Cadotte, rather than George Johnston, who apparently threatened to seize property and damage the HBC's post at Lac La Pluie, possibly over his anger at being dismissed following the 1821 merger (White 1987:101). There are no specific mentions of attempts to drive Johnston from the area in the HBC journal and district reports for 1822-1824 (Thiessen 1997), nor in Morgan's journal (Headline and Gallop 1962, 1963a, 1963b, 1963c, 1963d), although as always, competition was intense and calculated. The HBC did attempt to block Johnston's clerks' efforts to establish a post in 1822-23 on Basswood Lake, since the rude log building they erected was in British territory and therefore off limits to American traders (Headline and Gallop 1963a:38; Thiessen 1997). Morgan and his small group were soon forced to abandon the trading house at Basswood Lake due to lack of food, and underwent extreme privation on their winter walk back to their main post at Vermilion Lake (Headline and Gallop 1963b:113-116).

The HBC journals and reports for 1822-1824 make no specific mention of George Johnston, or of any trading posts of any company on Crane Lake or Little Vermilion Lakes in those or previous years (Thiessen 1997). Conversely, numerous mentions are made regarding Vermilion Lake and the trading activities there. However, George Johnston was John Johnston's son and is known to have been an AFC trader in the 1820s prior to his appointment by Thomas McKenney as the subagent at the La Pointe subagency on Madeline Island, Lake Superior (Lavender 1964:376). While it is conceivable he had some role in the 1822 AFC post on Vermilion Lake, such a position would have placed him in direct competition with his father, John Johnston.

Considering the great detail of most of the primary sources and the traders' almost fanatical obsession with their competitors, it seems unlikely that a post on Crane Lake in the 1821-1824 era would have escaped their mention. George Johnson may have been confused with John Johnston by Galbraith (1959), with that error repeated by Bolz (1960), Steiner and Clouse (1994), and Catton and Montgomery (2000). Also, Galbraith and others may have wrongly identified Vermilion Lake as modern day Crane Lake. One difficulty in considering the location for the 1821-1822 Johnston and other posts is that Crane Lake is not mentioned by name in the available early 1820s accounts. It's (or Little Vermilion Lake's) identification by various researchers as the modern name for the Vermilion Lake, and therefore the location for some of the Vermilion Lake posts, is open to multiple interpretations. The HBC journals and district reports for this era make many references to Vermilion Lake, including measurements of its length and width, its location

relative to American and British territory, as well as to a history of about two decades of trading activities there. Morgan's journals document the movements of Johnston's employees across a large lake with trips to and from Fond du Lac and Sandy Lake from their post that appear to have been made from modern-day Vermilion Lake, rather than from Crane and/or Little Vermilion Lakes. These sources combine to indicate that the Vermilion Lake of the 1820s accounts is a large lake with numerous islands that was wholly within American territory. These descriptions do not match well with the small size and shape of Crane Lake, even if it were combined with what is now identified as the southern portion of Sand Point Lake under the name Vermilion Lake as suggested by Steiner and Clouse (1994). Additional research is needed to more adequately consider the relationship of the modern lakes and the historical names applied to them as well as for considering the locations of the various Vermilion Lake posts mentioned in the literature.

After 1821, the AFC was a formidable rival to British traders, although the AFC's returns from their main post at Chaudière Falls and their various outposts (including Vermilion Lake) were relatively small in contrast to the returns of the HBC post and its satellite outposts (Thiessen 1997). The AFC established local posts at Rainy Lake and Vermilion Lake within its Fond du Lac Department in 1822 and 1823. While these posts were in U.S. territory, the international boundary was not officially surveyed until 1823. Despite U.S. law, what is now the VOYA area was still considered to be within the sphere of British trade even after the boundary survey. The AFC post on Rainy River was reportedly built on the south bank of the river above Chaudière Falls and within sight of the HBC post (Ahrens 2002; Coues 1965,1:20, footnote 24;). This location is clearly confirmed in the HBC post journals of this era (Thiessen 1997). AFC posts, or posts operated by American traders "on their own account" were at Vermilion Lake for most, if not all, of the period from 1822 through 1833 (Thiessen 1997).

In 1833, the AFC reached an agreement with the HBC to abandon its posts along the international border in lieu of payment of 300 pounds sterling per year. This again provided the HBC with a local fur trade monopoly, except for possible competition with free traders or other small trading concerns. After the 1842 failure of the AFC, the Upper Mississippi Outfit had loosely organized traders in the area of what is now northern Minnesota. There is considerable evidence to indicate that individuals "trading on their own account" and other trading firms operated a post or posts at Vermilion Lake from the early 1830s well into the 1880s, and although these operations did not extend north to the border, they did impact the HBC, which counted the Bois Forte Ojibwe at Vermilion Lake among their most important and productive hunters. The Americans were never again to establish posts directly on the international border after their 1833 withdrawal.

The HBC dominated the local trade through 1870, when the Dawson Trail was constructed. Some researchers view this as the demise of the wilderness (e.g., Catton and Montgomery 2000:29). However, it has been demonstrated elsewhere (Richner 2002) that the Bois Forte Ojibwe, primary producers for the local fur trade, continued their traditional subsistence pursuits and lifestyles, including occupation of formally ceded lands, into the early decades of the 20th century. Further, the HBC's trading activities at Fort Frances extended well past the 1870s, with several of the early buildings surviving until a 1903 fire and loss of profitability ended their local trading (Ahrens 2003:iii). Other small posts or stores at locations such as Kettle Falls, Ranier, Harding, and elsewhere around the Rainy Lake area supplanted the large trading houses during this period. After 1866, the local Bois Forte Ojibwe had small amounts of cash from treaty annuities that they spent at these small stores. They also continued to trade blueberries and other goods for various supplies and trade goods at these stores and posts (Bahr nd; Erickson 1938, 1980a, 1980b). The availability of even limited amounts of cash among the Bois Forte caused a departure from the old credit system by which the trading posts provided goods to the Ojibwe with the expectation that they would later repay the debt with furs or Ojibwe-produced food products.

REVISITING CHAPTER TWO

In Chapter 2, the senior author presented a list of observations that summarized what was known about the local fur trade at the initiation of this study, and offered initial clarifications and revisions of some of those points. Throughout the text of the succeeding chapters, we have provided additional information that expands upon, or in some cases revises or even refutes, that baseline information. We have also demonstrated through presentation of a few specific examples the breadth and depth of data that can be developed through the analysis of primary fur trade documents pertinent to the project area. Finally, we have presented information dealing with topics other than those in the initial bulleted list. In the brief summary below, we revisit the bulleted list from Chapter 2 and provide an update for what is known about those topics at the conclusion of this study verses what was thought to be true at its inception.

- French exploration and fur trade history began in the Rainy Lake area in 1688.

Evidence for the reported 1688 date for the beginning of direct French contact in the Rainy Lake area is weak and ambiguous. While a precise date for initial French presence within the project area may never be known, it is likely that the impact of the French fur trade predates the actual arrival of French traders in the Rainy Lake area. Following a pattern identified in other geographic areas, we expect that French trade goods entered the Rainy Lake area in advance of French traders through Native middleman exchanges. Despite uncertainties surrounding the 1688 date, we anticipate that a period of indirect, middleman exchange may have begun in the area as early as AD 1640.

- French presence there between 1688 and the mid-1700s is sparsely documented.

Documentation for early French presence, while at times subject to multiple interpretations, is more extensive than had been previously thought. Historic records as well as archaeological evidence (largely in the form of French-era materials), reveal that French trade activities were more intensive than previously reported.

- No documentation has been found to show the kinds of trade goods French colonials introduced in the Rainy Lake (*Lac la Pluie*) area.

This observation is inaccurate. As already noted, Anderson (1992, 1994) has specifically documented several French outfits that were sent from Montreal to Rainy Lake during the period 1741-1746. The lists compiled by Anderson provide a good indication of the range of goods that would have been available at Rainy Lake through much of the French fur trade era. The amount and value of goods in these Lac La Pluie outfits exceed the value of contemporary outfits sent to better-known locations such as Detroit and Michilimackinac. Further, French trade goods have been identified from the Rainy Lake area in local private artifact collections and from at least one professionally excavated site within the park (Site 21SL82). These items provide additional evidence of the variety of French goods introduced into the project area.

- Peak French trade activity occurred in the Rainy Lake area between 1731 and 1736.

This observation is now considered to be an oversimplification of the actual situation. It is more accurate to state that this brief period in the early 1730s is the best known or most thoroughly documented portion of the French era, but that considerable data are available for examining local French trading activities over a much wider time frame.

- Native peoples identified as Ojibwe (Ojibway, Chippewa, *Anishinaabeg*, etc.) are first recorded at Rainy Lake in 1736.

While this statement remains essentially accurate, we have provided considerable new information in this report to identify who these Ojibwe were, and we have also examined evidence for the probable local presence in this general time frame of other groups, specifically the Assiniboine and Cree.

- The era of French colonial activity ended at Rainy Lake in 1754.

Identifying the end date of French colonial presence in the area is not a clear and simple task. A French post reported at the outlet of Rainy Lake may have been destroyed by 1756 (Voorhis 1930:158), but that date does not necessarily mark the end of French colonial activity at Rainy Lake. Even the official end of French control in the region after 1763 does not equate with the end of local French trading efforts. French traders, working independently or under the auspices of British merchants, likely continued trading at Rainy Lake after France officially relinquished this territory to the British.

- No British posts were established in the Rainy Lake area until 1787, when the North West Company (NWC) built its *Lac la Pluie* depot on Rainy River just west of Rainy Lake.

Historical evidence confirms the establishment of a NWC post by 1787, yet it is conceivable that this or another British post was present earlier in the Rainy Lake area. One local researcher believes that the British established their post prior to the cited 1787 date at the former location of a post operated by Boyer, probably one of the traders known to have sent French outfits to Rainy Lake from Montreal in 1744-1746 (Ahrens: personal communication 2004). We have provided other data to indicate that, just like the French era that preceded it, the British era has considerable time depth at Rainy Lake. There are several avenues for British goods to have reached Rainy Lake as much as a century before 1787, through Native middleman exchanges and through the activities of unlicensed *coureurs du bois*.

- The NWC and Hudson’s Bay Company (HBC) vied for control of the local fur trade from 1793 through 1821 and then merged under the HBC banner.

This statement is correct. The HBC’s Lac la Pluie post journals and other related documents are an invaluable source for examining the details of this competition.

- Independent traders and the American Fur Company competed against the HBC from 1821 through the early 1830s, after which the HBC dominated the local fur trade until 1870.

This observation is essentially accurate, although the actual situation is not quite so clear-cut. The HBC's domination of the local fur trade persisted for 30 years past 1870. Even after the AFC closed its border posts south of the international border, competition continued throughout the 19th century at Vermilion Lake, and other locations in assumed United States territory through various American firms and individuals trading on "their own account." Such trade persisted at Vermilion Lake and other locations throughout the late-19th century. Vermilion Lake was long considered prime hunting territory for the Ojibwe who traded with the British, and competition for furs from that location continued long after the AFC closed its posts along the international border in 1833.

- All of the major trading companies that operated in the VOYA area had posts at or near the outlet of Rainy Lake, a few miles west of the park. At least one other outpost is reported at Crane Lake, just south of the park.

There is ample evidence to support the first part of this statement. There is considerable documentation for the presence of primary French, British, and American posts all located west of the current National Park at the outlet of Rainy Lake and west from there to the mouth of the Rainy River. The issue of location of outposts is more complex than suggested above. While a short-lived French outpost has been reported at Crane Lake, the remains of the post have not been identified archaeologically. Fur trade documents, especially the HBC Lac la Pluie post journals from the 1810s through 1830s contain numerous references to smaller scale posts such as wintering posts (often referred to as outposts) and watching tents that were run by personnel employed by the primary post. References to HBC and AFC (1820s to 1833) outposts are numerous in these post journals in such locations as: Shoal Lake (west side of Lake of the Woods; Whitefish Lake (an eastern Bay of Lake of the Woods); mouth of the Rainy River (Hungry Hall); War Road; Rat Portage; Basswood Lake; and Vermilion Lake. The NWC also had outposts at some of these locations. None of the outposts mentioned in these journals were located within what is now Voyageurs National Park.

- Fur traders often traveled through the Rainy Lake area and, by camping, fishing, and hunting or by trading or living for various lengths of time among local native groups, they may have left archaeological evidence of their activities within the present area of the park.

We assume that this observation is correct, although we have yet to positively identify any specific sites or deposits that result from these kinds of activities. We have noted, however, that it may be difficult to discriminate between certain of these kinds of sites and contemporary Native American sites. We anticipate that such short-term or special use sites will be identified as VOYA area fur trade research is expanded.

- The era of the fur trades ended in the Rainy Lake locale about 1870.

We have shown that this date is much too early to mark the end of trading activities within the project area. While the date has been used by some to indicate a symbolic end of the "wilderness" era and the start of an era of Euro American settlement, fur trading continued for several decades after this date in one form or another. The HBC post at Fort Frances remained a viable trading concern until a fire destroyed the remaining buildings in 1903, ending the post's profitability. Smaller local stores and/or trading posts at Ray, Ericksburg, Ranier, Vermilion Lake, Kettle Falls, and other locations near or adjacent to Voyageurs National Park traded with the local Ojibwe for furs and products like blueberries into the 1930s. While this trade was of a different scale and form than that of the French and British eras, it reflects a continuity of trading activities that began several centuries earlier and extended 60 years past the supposed end of the fur trade era.

- No fur trade posts are known to have been located within the present area of the VOYA.

This observation remains accurate. No historical documentation or archaeological evidence was found during the current project to suggest otherwise.

- Most diagnostic fur trade materials from the park date to the period ca. 1780-1835.

While some artifact collections, including those from the three sites considered in Chapter 3, do follow this basic pattern, some do not. For example, the collections documented in Chapter 5 include many artifacts that predate the 1780s era. We have little doubt that, as more fur trade materials are professionally retrieved from within the park, or identified within private collections, a wider temporal range of trade goods will continue to be identified.

- Nearly all historic sites within the park are located on the shorelines of major waterways.

The only exceptions to this statement are a small number of early 20th century logging camps positioned on lakes near the center of the Kabetogama Peninsula. Otherwise, all of the 400+ known historic and prehistoric sites within the park are positioned on the shorelines of Rainy, Kabetogama, Namakan, Sand Point, and Crane Lakes.

RECOMMENDATIONS FOR FUTURE RESEARCH

In addition to revision and expansion of information presented above, the study has also demonstrated the potential for additional archival, fieldwork, and collections studies of a variety of fur trade topics spanning the mid-17th through early 20th centuries. While the following list is not comprehensive, it includes a series of related tasks that should be conducted in the future as funding permits:

1. Utilize primary fur trade documents, such as but not limited to the HBC Lac la Pluie post journals, to address a variety of topics including:
    a. the chronologies and locations of outposts, watching tents, fishing locations, and other special use sites,
    b. the organization, names, practices, and distribution of the Native hunters who "took" debt at the posts;
    c. post subsistence, with consideration of fluctuations in availability of food resources through time;
    d. the names of the traders and employees with emphasis on preliminary genealogical aspects of the traders (e.g. many of the HBC traders were married local Ojibwe women, creating links to the Bois Forte and possibly other groups); and
    e. study of local and regional place names.

2. Continue and expand the study of local private artifact collections and re-examine all fur trade-era materials in VOYA collections;

3. Conduct additional small-scale terrestrial and underwater archeological site studies; and

4. Expand the research presented in this report to more fully document and interpret the cultural and historical aspects of the fur trades that span circa 1640-1930.

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