

Investigation of the Old Cumberland House Trading Post (FIMn-8):

An Analysis of the Artifact and Faunal Assemblages

A Thesis

Submitted to the College of Graduate Studies and Research

In Partial Fulfillment of the Requirements

For the Degree of

Masters of Arts

In the Department of Anthropology and Archaeology

by

Laurie L. Froehlich

Spring, 2001

© Laurie L. Froehlich, 2001. All rights reserved.

Permission to Use

In presenting this thesis in partial fulfillment of the requirements for a Postgraduate degree from the University of Saskatchewan, I agree that the Libraries of this University may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by the professor or professors who supervised my thesis work or, in their absence, by the Head of the Department or the Dean of the College in which my thesis work was done. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use which may be made of any material in this thesis.

Requests for permission to copy or to make use of material in this thesis in whole or in part should be addressed to:

Head of the Department of Anthropology and Archaeology
55 Campus Drive
University of Saskatchewan
Saskatoon, Saskatchewan
S7N 5B1

Abstract

The Old Cumberland House site (FIMn-8) is a fur trading post site located in the vicinity of the Cumberland House settlement in east central Saskatchewan. This site contains the remains of the first Hudson's Bay Company western inland trading post. In the fall of 1774, Samuel Hearne established this post on the southern shore of Cumberland Lake. This post remained in use until 1794 when operations were moved 1.5 km northwest to the location of the (New) Cumberland House fur trade post.

Old Cumberland house was excavated during the field seasons of 1991, 1992, and 1994 in an effort to establish whether it was the true location of the Hudson's Bay Company post. This project was a joint effort between the Department of Anthropology and Archaeology at the University of Saskatchewan and the Cumberland House Historical Society. Funding was provided by the Access to Archaeology Program of the Department of Communications, the Cumberland House Development Corporation, and the Saskatchewan Heritage Foundation. Excavations at the Old Cumberland House site focused on existing features.

The excavation of this site provides the opportunity for analysis of the physical layout of the first Hudson's Bay Company western inland trading post as no maps exist. Information obtained during excavation will be compared with historical textual documents. An in depth analysis of the Cumberland House journals provides a more complete picture of the structural and functional components of the post. The presence or absence of specific faunal and artifact materials in each area will help to deduce the function of each structure. Finally, an examination of faunal materials

from the Old Cumberland House site and information from the Cumberland House journals will provide evidence to suggest that a diverse array of local resources was available to the occupants of Old Cumberland House.

Acknowledgments

A number of people have contributed to the completion of this research endeavor. I must begin by thanking my advisor, Dr. Margaret Kennedy for her time, insight, and encouragement. She was a pivotal force for developing and establishing my interest in historic archaeology and for this I am grateful. I would like to take this opportunity to thank a member of my thesis committee, Dr. David Meyer. Dr. Meyer encouraged me to examine the archaeological material from the Old Cumberland House site and he has been a tremendous help throughout the analysis of the materials. My deepest appreciation must be extended to Dr. Ernest Walker for providing guidance and information regarding analysis of faunal materials from the Old Cumberland House site.

This project would not have been possible without the support of a number of groups and individuals. I would like to thank the members of the Cumberland House Historical Society for their initial interest in their fur trade heritage, particularly the president, Virginia McKay. I would also like to thank the Access to Archaeology Program of the Department of Communications, the Cumberland House Development Corporation, and the Saskatchewan Heritage Foundation for providing funding for the Old Cumberland House excavations. A sincere thank you is extended to those who gave their time to the excavation and initial analysis of the Old Cumberland House site and materials. These individuals include: Virginia McKay, Marilyn Laliberte, Eddy Thomas, Jerry Bloomfield, Angus Carriere, Bertha McKay, Lester Laliberte, Jordi Arneson, Linda St. Denice, Robert Laliberte, Karen Gibb, Arther Carrier, Judelene Bloomfield, Shelia Deschambault, Olga Klimko, Dianne Wilson-Meyer, John Brandon,

Andree Blais, Grant Clarke, Roger Herman, Marcel Corbeil, Benjamin Hjermstad, Jill Musser, Patrick Young, Rob Wondrasek, Geoff Robinson, and Todd Paquin. I would like to thank Valendie Lathlin-buck for providing me with an extensive tour of Cumberland House.

I would like to extend an expression of gratitude to Mrs. Carlotta Card and her family. Mrs. Card has been responsible for the proofreading of all my compilations throughout my undergraduate and graduate academic career. She and her family (Jennipher, Annika, and Catrina) have shown me kindness beyond measure. Thank you for your time, your interest, and your hospitality. A special thanks to Annika for providing transportation to retrieve artifacts from Cumberland House.

My time at university has provided me with the opportunity to meet and establish friendships that will last a lifetime. I would like to acknowledge all my fellow students, both undergraduate and graduate, who have provided advice, laughter, and good times. A special thank you to Tomasin, Annika, Laureen, Lis, Vince, Peter, Sharon, Jill, Kristi, Deb, and Sarah for your support and friendship. I would like to acknowledge Sean Webster for consulting on faunal analysis issues, Chris Roberts for saving my computer from virus hell, Naomi Darragh for supplying important information, and Kim Weinbender for providing her computer expertise. Thank you to our department secretaries, Shannon Unruh and Ada Anholt for their encouragement and support.

This thesis is dedicated to my family: Gerry, Yvonne, Tracy, Elwood, Fred, Shae, Rebecca, Jeffrey, the Froehlich's, Taffy, and Pepper. Without your help, my quest for higher learning would not have been possible. Thank you for all the support and your patience throughout the years. And finally to Jeffrey, thank you for believing in me and providing encouragement when I needed it.

Preface

The analysis of the Old Cumberland House collection provides a unique inquiry into the author's own fur trade heritage. My maternal grandparents were products of the union of fur traders and native women and a number of my relatives resided at the Old Cumberland House post (Harper n.d.). This academic endeavor is not only an investigation of Canadian fur trade history but also an exploration of one's family history.

Table of Contents

Permission to Use	i
Abstract	ii
Acknowledgments	iv
Preface	vi
List of Figures	xi
List of Tables	xiii
Appendix 1 - List of Tables	xvi
Chapter 1. Introduction	1
1.1 Introduction	1
Chapter 2. Historical Background	5
2.1 The Early Fur Trade	5
2.2 The French Fur Trade Industry	6
2.3 Formulation and Chartering of the Hudson's Bay Company	8
2.4 The Establishment of the Post at the Bay and the Fall of the French	9
2.5 The Rise of the Montreal Traders – New Implications for the Hudson's Bay Company	12
2.6 Old Cumberland House – 1774-1794	14
2.7 Reaction to the Establishment of Old Cumberland House	18
2.8 The Importance of Old Cumberland House	21
Chapter 3. Introduction of the Old Cumberland House Site	23
3.1 Physical Setting	23
3.2 Climate	24
3.3 Drainage Systems	24
3.4 Flora	25
3.5 Fauna	27
3.5.1 Mammalian Fauna	27
3.5.2 Avian Fauna	28
3.5.3 Fish	29
3.5.4 Reptiles and Amphibians	29
3.5.5 Molluscs	30
Chapter 4. Site Background	31
4.1 Previous Archaeological Investigations in the Cumberland House Area	31
4.2 Anthony Ranere's 1967 Survey – Testing at the Old Cumberland House Site	34
4.3 The Old Cumberland House Site Revisited – Archaeological Excavation in the 1990s	39
Chapter 5. Methodology, Procedures, and Analysis	43
5.1 Introduction	43

5.2 Excavation Methodology and Procedures	43
5.3 Laboratory Procedures and Analysis	45
5.3.1 Qualitative and Quantitative Analysis of Faunal Materials	46
5.3.2 Qualitative and Quantitative Analysis of Artifact Materials	48
5.4 A Descriptive View of Old Cumberland House	49
Chapter 6. South Chimney Feature – Structural, Artifact, and Faunal Analysis	51
6.1 Introduction	51
6.2 19 th and 20 th Century Component - Artifacts	55
6.3 19 th and 20 th Century Component – Fauna	58
6.3.1 Mammals	59
6.3.2 Birds	63
6.3.3 Fish	64
6.3.4 Size classification	64
6.4 Cultivated Component – Artifacts	66
6.5 Cultivated Component – Fauna	70
6.5.1 Mammals	71
6.5.2 Birds	75
6.5.3 Fish	77
6.5.4 Size classification	78
6.6 18 th Century Fur Trade Component – Artifacts	80
6.7 18 th Century Fur Trade Component – Fauna	83
6.7.1 Mammals	84
6.7.2 Birds	88
6.7.3 Fish	91
6.7.4 Size classification	92
6.8 Discussion	94
Chapter 7. Northwest Room Feature – Structural, Artifact, and Faunal Analysis	102
7.1 Introduction	102
7.2 19 th and 20 th Century Component - Artifacts	103
7.3 19 th and 20 th Century Component - Fauna	104
7.3.1 Mammals	105
7.3.2 Birds	106
7.3.3 Fish	107
7.3.4 Size classification	108
7.4 Cultivated Component - Artifacts	109
7.5 Cultivated Component – Fauna	110
7.5.1 Mammals	111
7.5.2 Birds	111
7.5.3 Fish	112
7.5.4 Size classification	112
7.6 18 th Century Fur Trade Component – Artifacts	112
7.7 18 th Century Fur Trade Component – Fauna	113
7.7.1 Mammals	114
7.7.2 Birds	116
7.7.3 Fish	118
7.7.4 Size classification	119
7.8 Discussion	120

Chapter 8. North Chimney Feature – Structural, Artifact, and Faunal Analysis	127
8.1 Introduction	127
8.2 19 th and 20 th Century Component - Artifacts	127
8.3 19 th and 20 th Century Component - Fauna	128
8.3.1 Mammals	129
8.3.2 Birds	130
8.3.3 Fish	130
8.3.4 Size classification	131
8.4 Cultivated Component – Artifacts	131
8.5 Cultivated Component – Fauna	132
8.5.1 Mammals	133
8.5.2 Fish	133
8.5.3 Size classification	134
8.6 Discussion	134
Chapter 9. North Cellar Feature – Structural, Artifact, and Faunal Analysis	137
9.1 Introduction	137
9.2 19 th and 20 th Century Component – Artifacts	139
9.3 19 th and 20 th Century Component – Fauna	140
9.3.1 Mammals	141
9.3.2 Birds	141
9.3.3 Fish	142
9.3.4 Size classification	143
9.4 Cultivated Component – Artifacts	143
9.5 Cultivated Component – Fauna	145
9.5.1 Mammals	146
9.5.2 Birds	147
9.5.3 Fish	148
9.5.4 Size classification	149
9.6 Disturbed North Cellar Soil – Artifacts	150
9.7 Disturbed North Cellar Soil – Fauna	152
9.7.1 Mammals	153
9.7.2 Birds	155
9.7.3 Fish	156
9.7.4 Size classification	157
9.8 Discussion	157
Chapter 10. Stockade Feature – Structural, Artifact, and Faunal Analysis	165
10.1 Introduction	165
10.2 19 th and 20 th Century Component – Artifacts	167
10.3 19 th and 20 th Century Component – Fauna	170
10.3.1 Mammals	171
10.3.2 Birds	173
10.3.3 Fish	173
10.3.4 Size classification	174
10.4 Cultivated Component – Artifacts	175
10.5 Cultivated Component – Fauna	176
10.5.1 Mammals	177

10.5.2 Birds	178
10.5.3 Fish	180
10.5.4 Size classification	180
10.6 18 th Century Fur Trade Component – Artifacts	181
10.7 18 th Century Fur Trade Component – Fauna	184
10.7.1 Mammals	185
10.7.2 Birds	190
10.7.3 Fish	194
10.7.4 Size classification	196
10.8 Discussion	198
Chapter 11. Comparison of Old Cumberland House and Hudson House	202
11.1 Introduction	202
11.2 The Physical Layout of Old Cumberland House	203
11.3 The Physical Layout of Hudson House	209
11.4 Discussion	212
Chapter 12. Environmental Resources at Old Cumberland House	216
12.1 Introduction	216
12.2 The Cumberland House Journals	218
12.3 Intra-site Comparison	220
12.4 Discussion	223
Chapter 13. Conclusions	225
References Cited	231
Appendix 1. Flora and Fauna from the Cumberland House Area	240

List of Figures

2.1	A map of the Cumberland House area indicating the locations of the two Hudson's Bay Company posts (computer generation courtesy of Kim Weinbender).	17
3.1	A map showing the location of Cumberland House in east central Saskatchewan (Meyer 1996:2).	23
4.1	A map of archaeological sites found in the Cumberland House area (computer generation courtesy of Kim Weinbender).	32
4.2	Ranere's 1967 site survey of the Old Cumberland House shoreline (Ranere 1967:4).	35
4.3	A sketch map of site location #8 indicating the position of test pits (Ranere 1967:13).	36
4.4	A planview of test pit#3 indicating the presence of wood plank flooring and possible floor joist (computer generation of Ranere's 1967 hand drawn planview courtesy of Kim Weinbender).	38
4.5	A map of the Old Cumberland House site displaying surface features and stockade structure (computer generation by Kim Weinbender after Meyer 1996:14).	40
4.6	The west wall profile of Unit 194N196E illustrating the presence of a cultivated matrix situated underneath a layer of yellow silt (Meyer 1996:23).	41
4.7	The north wall profile of Unit 199N197E showing an intact 18 th century fur trade component situated underneath a layer of yellow sandy silt (Meyer 1996:23).	42
5.1	A portion of the Peter Fidler's 1792 map of the Cumberland House area, indicating the presence of the Old Cumberland House trading post on the south shoreline of Cumberland Lake (Tyrrell 1934:486).	44
5.2	A portion of Peter Fidler's 1798 map illustrating the location of the Old Cumberland House trading post (HBC Archives E.3/2 fo. 103, Meyer 1996:12).	44
6.1	Planview of the North chimney feature, the Northwest room and the South chimney area (computer generation by Kim Weinbender after Meyer 1996:36).	52
6.2	The South chimney feature, looking east. Note the flagstone spark catchers located in front of the fireplace.	53
6.3	A profile of the South wall of Unit 193N199E indicating two flooding episodes in the area of the South Chimney mound (Meyer 1996:25).	55
6.4	Artifacts from the Old Cumberland House site. Clockwise: a ring, a HBC button, the proximal portion of a metal projectile point, a wire wound bead, and a tinkling cone.	69

10.1	A planview of rotted bases of posts along the west wall of the stockade feature (Meyer 1996:30)	165
10.2	Level four of Unit 217N220E showing the remains of six rotted wooden stockade uprights.	166
10.3	A dark stained posthole exhibiting gatepost remains (Meyer 1996:32).	167
10.4	A map of the features, excavation units and stockade structure of the Old Cumberland House site (Meyer 1996:33).	168
10.5	A reconstructed marten skull, left femur, right ilium, and left calcaneous.	187
11.1	A map of excavated units, surface features and structures of the Hudson House site, 1779-1789 (map by Kim Weinbender after Clark 1969:8).	211

List of Tables

5.1	Size classification system of the Old Cumberland House faunal collection (Mammal classes from Dyck and Morlan 1995:140, avian classes from Webster 1999:40).	46
6.1	Number of artifacts present in the 19 th and 20 th century component of the South chimney feature.	56
6.2	Nail typology for the 19 th and 20 th century component of the South chimney feature.	57
6.3	Identified taxa for the 19 th and 20 th component for the South chimney feature.	59
6.4	Skeletal representation of Snowshoe hare in the 19 th and 20 th century component of the South chimney feature.	60
6.5	Representation (NISP, MNI, MNE, and MAU) of beaver in the upper component of the South chimney feature.	61
6.6	Number of artifacts present in the 19 th and 20 th century component of the South chimney feature.	66
6.7	Nail typology for the mixed component of the South chimney feature.	67
6.8	Identifiable fauna for the mixed component of the South chimney feature.	70
6.9	Quantified values for NISP, MNI, MNE, and MAU of <i>Castor canadensis</i> for the mixed component of the South chimney feature.	72
6.10	Number of artifacts present in the intact 18 th century component of the South Chimney feature.	80
6.11	Nail typology for the 18 th century component of the South chimney feature.	81
6.12	Identified taxa for the 18 th century component of the South chimney feature.	83
6.13	Quantitative values of NISP, MNI, MNE, and MAU for <i>Castor canadensis</i> of the 18 th century fur trade component.	85
6.14	Quantified values of NISP, MNI, MNE, and MAU for geese in the Old Cumberland House 18 th century fur trade component.	90
7.1	Number of artifacts present in the 19 th and 20 th century component of the Northwest room feature.	103
7.2	Identifiable taxa for the 19 th and 20 th century component of the Northwest room feature.	105
7.3	Quantifiable values of skeletal elements of the beaver for the 19 th and 20 th century of the Northwest room feature.	106
7.4	Number of artifacts in the cultivated component of the Northwest room feature.	109
7.5	Identifiable taxa for the cultivated component of the Northwest room feature.	110
7.6	Number of artifacts present in the 18 th century fur trade component of the Northwest room feature	113

7.7	Identifiable taxa for the 18 th century fur trade component of the Northwest room feature.	114
7.8	Quantitative representation of <i>Castor canadensis</i> remains in the 18 th century component of the North cellar feature.	115
8.1	Number of artifacts present in the 19 th and 20 th century component of the North chimney feature.	128
8.2	Identifiable taxa for the 19 th and 20 th century component of the North chimney feature.	129
8.3	Number of artifacts present in the cultivated component of the North chimney feature.	132
8.4	Bead classification for the North chimney feature.	132
8.5	List of taxa and size classes present in the mixed cultivated component of the North chimney feature.	133
9.1	Number of artifacts present in the 19 th and 20 th century component of the North cellar feature.	139
9.2	Identifiable taxa for the 19 th and 20 th century component of the North cellar feature.	140
9.3	Number of artifacts present in the cultivated component of the North cellar feature.	144
9.4	Nail typology for the cultivated component of the North cellar feature.	144
9.5	Identifiable taxa for the mixed component of the North cellar feature.	145
9.6	Quantifiable values of skeletal elements of the beaver for the mixed component of the North cellar feature.	147
9.7	Number of artifacts present in the disturbed soils from the North cellar feature.	151
9.8	Typology of nails present in the disturbed soils of the North cellar feature.	152
9.9	Identifiable taxa from the disturbed soil in the North cellar feature.	153
10.1	Number of artifacts present in the 19 th and 20 th century component of the stockade feature.	167
10.2	Nail typology for the 19 th and 20 th century component of the stockade feature.	169
10.3	Identified taxa for the 19 th and 20 th century component of the stockade feature.	170
10.4	Representation (NISP, MNI, MNE, and MAU) of beaver in the upper component of the stockade feature.	171
10.5	Number of artifacts present in the cultivated component of the stockade feature.	175
10.6	Identified fauna for the mixed component of the stockade feature.	177
10.7	Quantified values for NISP, MNI, MNE, and MAU of <i>Castor canadensis</i> for the cultivated component of the stockade feature.	178
10.8	Number of artifacts present in the intact 18 th century component of the stockade feature.	181
10.9	Nail typology for the fur trade component of the stockade feature.	183
10.10	Identified taxa for the 18 th century component of the stockade feature.	184
10.11	Quantitative values of NISP, MNI, MNE, and MAU for <i>Castor canadensis</i> of the 18 th century fur trade component.	188

12.1 Identified taxa and size classifications for the 18th century component of the Old Cumberland House site.

220

Appendix 1 – List of Tables

Table 1. Flora species of the Cumberland House area in the Saskatchewan River Delta.	241
Table 2. Mammalian species of the Cumberland House area.	248
Table 3. Avian species of the Cumberland House area.	250
Table 4. Fish of the Cumberland House area.	256
Table 5. Amphibians and reptiles of the Cumberland House area.	258
Table 6. Freshwater molluscs of the Cumberland House area.	259

Chapter 1

Introduction

1.1 Introduction

The expansion of the fur trade into the western regions of Canada resulted in an intense competition between the Hudson's Bay Company and the independent traders. The increase of traders in the interior areas and the resulting interference of trade forced the Hudson's Bay Company to alter its business plan. In 1774, the Hudson's Bay Company decided to expand its immediate trading territory beyond the Bay. Samuel Hearne and a crew of men was sent into the western interior of Canada for the purpose of finding an appropriate location for the construction of an inland trading post. Hearne arrived at Cumberland Lake and chose an area on the southern shore as a suitable location. Seasonal conditions forced these men to build a log tent in which they spent the winter. That spring, construction began on the trading post, which would become Old Cumberland House.

The depletion of wood resources and the potential for flooding forced the company to move operations to a new location in 1794. Journal references note the decaying state of buildings at Old Cumberland House and the fact that there were no decent wood products to repair the dilapidated structures. The second post, (New) Cumberland House, was located 1.5 km northwest of the original post site.

With the abandonment of Old Cumberland House, structural remains at the site decayed and subsequent flooding and vegetation eventually covered the occupation area. The presence of the post was masked by activities associated with

site abandonment. An Anglican Mission in 1876 and a 20th century cabin were situated in close proximity to the site. A number of archaeological surveys were conducted in the Cumberland House area during the 1960s and 1970s to establish the location of the old post. In 1991, Dr. David Meyer and crew began excavations at a previously tested area that contained three chimney features and two cellar depressions. Excavations revealed structural remains and material culture that indicated that it was the original post.

The excavation of this site provides the author with the opportunity to examine the physical layout of the Old Cumberland House post as no maps exist. Structural remains and material culture are used as a primary source of information for the reconstruction of post buildings and their associated functions. Historical documentation from journal entries and first-hand accounts are compared to information obtained during archaeological excavation for the purpose of creating a more complete picture of the structural and functional components of this site.

Faunal materials from the Old Cumberland House post and information from the Cumberland House journals will provide evidence for the presence of a diverse array of faunal resources for the occupants of this post. Faunal materials from the Old Cumberland House site should support journal information and indicate a varied and substantial diet.

The analysis of this information provides a baseline for future studies focusing on the issue of resource depletion in the Cumberland House area. As trading competition increased a number of posts were constructed in close proximity and employees were sent further inland for the purpose of securing trade with native groups and to establish posts in other areas. These actions not only had an impact on native peoples but also on the environment. The presence of more traders and

native peoples in an area would deplete local resources, thus affecting the provisions acquired by the forts.

Three seasons of excavation at the Old Cumberland House site produced 33,816 faunal materials and 9,746 artifacts. These materials have been analyzed, catalogued and interpreted by the author and are presented in the remainder of this thesis. Chapter 2 provides the reader with information regarding the historical background of the fur trade. A number of topics are explored including the initial contact between the French and native populations in Canada in the 1500s, the formation of the Hudson's Bay Company, the penetration of the western interior by fur traders, and the establishment of Cumberland House and the resulting consequences.

An introduction to the Old Cumberland House site encompasses Chapter 3. The reader is introduced to the physical environment of the Cumberland House area. Topics regarding climate, drainage systems, flora, and fauna are discussed.

Chapter 4 presents information on the background of the Old Cumberland House site. Previous and recent archaeological investigations of the area are examined. A discussion of Anthony Ranere's survey is provided in addition to the results of the reanalysis of the 1967 archaeological materials. Issues regarding excavation methodology, laboratory procedures, and faunal and artifact analysis are explored in Chapter 5.

Chapters 6 through 10 introduce each of the Old Cumberland House features. Evidence of structural remains, stratigraphic variations, and associated faunal and artifact materials are presented. Archaeological materials and historical textual documentation are compared for the purpose of defining the physical layout of this post.

A comparison of the physical layout of Old Cumberland House to that of Hudson House is provided in Chapter 11. Summaries of the Old Cumberland House features and their functions are provided and compared to those of Hudson House. I suspect that the posts were constructed in a similar fashion because William Tomison, a resident and chief trader of Cumberland House, was responsible for the construction of Hudson House.

The issue of resource abundance will be examined in Chapter 12. Old Cumberland House is located in an area which exhibits a diverse ecological environment that supports an array of wildlife. An examination of the post journals and faunal materials from the Old Cumberland House post should indicate that a variety of species were available for consumption by the fort occupants.

A summary of the Old Cumberland House site will be provided for the reader in Chapter 13. The importance of the physical layout of the post will be presented and the issue of resource abundance will be discussed. Issues regarding analysis potential for the Old Cumberland House trading post will also be stated.

Chapter 2

Historical Background

2.1 The Early Fur Trade

European contact and trading relations with Canadian inhabitants were initiated through the search for the Northwest Passage. In 1534, Jacques Cartier embarked on his epic voyage into Chaleur Bay where he interacted with native populations in the area. Cartier made subsequent journeys down the St. Lawrence in 1535 and 1541 to the present day sites of Quebec and Montreal. During the latter part of the 1500s, trans-Atlantic voyages became common place and fishermen began to utilize the Grand Banks area of Newfoundland for its cod supplies. It was during this time that native groups became familiarized with and accustomed to European trade:

As many as three hundred ships a year habitually made the voyage, and as the fisherman landed to tend their ships, dry their fish, and mend their nets, they met Indians and traded furs for small European articles, especially for clothing and for ironware (Rich 1967:7).

The furs acquired through this contact also had an affect on the European markets, increasing the demand for such products. In the late sixteenth century, beaver pelts began to arrive regularly in western Europe thus sparking a demand for the fashionable beaver felt hat.

The French realized that the fur trade was a very lucrative industry and the need for expansion was evident. The Maritime region lacked the adequate hinterland to support vast beaver populations and the small drainage systems had become

overhunted by native residents (Innis 1999:28). The Gulf of the St. Lawrence and the associated rivers became the focus of attention, thus centering the majority of the French fur trade action in Eastern Canada (Ray and Freeman 1978:22, Rich 1967:8).

2.2 The French Fur Trade Industry

At its peak, the French fur trading area encompassed all of the eastern Great Lakes area and the north shore of the St. Lawrence. Initially the Algonquian groups occupied the middlemen trading position for the French, but were eventually replaced by the Huron in the 1600s. A number of reasons contributed to the succession of the Huron as middlemen. These included a large population base, agricultural stability, inter-tribal connections, and their ability to keep their fur trade routes a secret. The Ottawa and Ojibwa groups replaced the Huron's role as middlemen by 1649. Factors contributing to the Huron downfall included warring with the Iroquois League and an epidemic of smallpox which greatly decimated the Huron population (Heindenreich and Ray 1976:12).

With the destruction of the Huron, the French were now faced with the problem of making direct contact with new middlemen groups from the Great Lakes area. They began sending men inland to live with these native populations, to learn the language, and induce them to bring their trade to the St. Lawrence settlements. In 1654 Medard Chouart, Sieur des Groseilliers was dispatched into the interior to establish a relationship with the western groups and convince them to come to the settlements on the St. Lawrence to trade their furs. During his stay with these people, Groseilliers became familiar with the Northern Cree who resided around the south western Hudson Bay area and planned a subsequent journey to this region a few years later. Groseilliers' endeavor into the Great Lakes district was a success as he returned two

years later with a significant quantity of furs and a large number of trading partners (Ray and Freeman 1978:23).

In 1659, Groseilliers and Pierre Esprit Radisson headed into the interior again with the purpose of traveling to the Hudson Bay area and establishing trading relations with the Cree populations that resided there. They wintered with the Sioux in Wisconsin and then met the Cree in the Lake Superior region in the spring of 1659. It was from this point that the men claimed to have proceeded with the Cree to Hudson Bay. Although Arthur J. Ray and Donald Freeman (1978) and E. E. Rich (1967) suggest that such a trip would not be possible due to time constraints, they do comment that Groseilliers and Radisson firmly believed that a connection between the Lake Superior and Hudson Bay trade regions could be prosperous:

A Hudson Bay oriented network would offer the advantage of shorter overland access to the primary fur source areas, would make it possible to bypass Ottawa and Ojibwa middlemen, and would be safe from the threats of the Iroquois (Ray and Freeman 1978:24).
...they ascertained that the Bay of the North was the great emporium of the fur trade. Moreover, they concluded that although an overland journey would be possible...it would be so dangerous and take so much time that access from the sea would be infinitely preferable (Rich 1967:20).

Rich (1967:21) acknowledges that most of Groseilliers and Radisson's views were based on previous information gleaned from other expeditions that had been seeking the Northwest Passage. The seventeenth century was a time of great exploration and people like George Weymouth, Henry Hudson, Thomas Button, Thomas James, and Luke Fox conducted seafaring adventures in search of this passage. These men did not reach their desired destination, but instead ended up in Hudson Bay exploring and noting the shoreline, bays, and tributaries.

Armed with their ideas and a large quantity of furs, Groseilliers and Radisson returned to Montreal in the summer of 1660 only to find themselves charged with the illegal act of trading with Indians in their habitations. They were fined heavily on all the furs they had accumulated during their journey. The treatment they received at the hands of the French-Canadians left the two men with little hope that the Canadians would embrace their idea of opening up trade at Hudson Bay. They traveled to France with the optimistic view that the French government would rally support for their cause. Contrary to their initial belief, the French government disagreed with their ideas and turned them away. Groseilliers and Radisson then tried to persuade the New Englanders of Boston to undertake their mission. They managed to procure a ship in 1663, but the captain would not continue the voyage for fear of having to winter in the Bay. A second expedition was in the works when they came into contact with English boundary commissioners who took an active interest in the men's plan. They presented the Hudson Bay post concept to the English Crown and Prince Rupert's support was gained (Ray and Freeman 1978:24, Rich 1967:23).

2.3 Formulation and Chartering of the Hudson's Bay Company

In 1667, planning for the first English fur trade excursion to Hudson Bay was formulated but subsequently abandoned due to the poor condition of the ship that would have been used for such a journey. A second planned departure occurred in June of 1668 and two ships were dispatched from England, the *Eaglet* ketch and the *Nonsuch* ketch.

Rich (1967:26) notes that neither of the ships were built for such an expedition and the *Eaglet* had to return to Plymouth as she couldn't withstand the violent storms while at sea. The *Nonsuch*, with Groseilliers on board, managed to survive the journey and reach Hudson Bay in the late summer. The ship and crew wintered in James Bay

near the mouth of the Rupert River where they traded with the local native peoples. The *Nonsuch* returned to England with her precious cargo of furs the following summer. Rich (1967:29) states that the trip was so successful that "...even the seamen who had 'carried out no trade' had made considerable sums by exchanging their spare clothing, knives, and needles for furs...".

The importance of the Hudson Bay region as a fur trading center was finally realized and on May 2, 1670 a charter was granted that established the present day Hudson's Bay Company. The land was chartered by the Crown but the Company was privately financed and held as a joint-stock trading enterprise (Ruggles 1991:259). The charter stipulated that the Hudson's Bay Company was granted exclusive rights to

...those Seas Streights Bayes Lakes Creekes and Soundes in whatsoever Latitude they shall bee that lye within the entrance of the Streights commonly called Hudson's Streights together with all the Landes and Territoryes upon the Countryes Coastes and confynes of the Seas Bayes Lakes Rivers Creekes and Soundes aforesaid that are not actually possessed by or granted to any our Subjectes or possessed by the Subjectes of any other Christian Prince or State (Rich 1967:30).

It must be noted here that even though the Hudson's Bay Company posts were English in orientation, the trading experiences and practices of the French were firmly incorporated in the Hudson's Bay system of fur exchange due to the primary involvement of Groseilliers and Radisson (Ray and Freeman 1978:25).

2.4 The Establishment of Posts at the Bay and the Fall of the French

The Hudson's Bay Company did not deploy any instructions or materials for construction of permanent trading venues at the Bay until 1672. Until that time, the Company had managed to establish trading connections on a single voyage basis. The move to produce forts and garrisons helped to consolidate the Company's position as a

viable venture. Three ships under the direction of Charles Bayly left England in 1672 loaded with building materials and trade goods. The supplies were used to assemble two posts and a warehouse on the Bay. Moose Factory and Albany House were constructed at the base of the Moose and Albany Rivers while a warehouse was erected on Charlton Island (Williams 1983:6). By 1682, a number of Hudson's Bay posts had been built and included Rupert's House, Moose Factory, Albany House, and Fort Nelson/York Fort (Kavanagh 1967:37, Williams 1983:7).

The establishment of these Bay posts caused growing concern among the French and in 1671, the first French interior expedition was made via the Saguenay River and Lake Mistassini. Williams (1983:7) notes that the French made two more journeys in the years of 1674 and 1679 where they undermined the English by trading with the native peoples in their own territories. In 1683, open hostilities between the French and English erupted at the Bay when the vulnerability of the posts' defense systems was detected. Williams (1983:7) notes that a 30-year period of constant warring occurred in this region and possession of the forts changed hands numerous times. It wasn't until the 1713 Treaty of Utrecht that peace was restored and the English dominated the Bay and its territory again.

The French still continued to jeopardize the trading relations of the Hudson's Bay Company with that of its hinterland. In the 1720s, they persuaded the Sioux to raid the hinterlands of York Factory, thus driving the Fort's trading partners further north. In the 1720s and 1730s, La Verendrye developed posts in the hinterland of York Factory and Fort Albany for the purpose of intercepting native traders on their way to the posts on the Bay (Heindenreich and Ray 1976:41, Kavanagh 1967:59, Ray 1974:52-53).

Continuing into the 1730s and 1740s, the French penetrated further inland and expanded their trading network by establishing posts along areas in southern and

central Manitoba and the lower Saskatchewan River. It must be noted here that the Company had manage to establish one outpost, Henley House, 160 miles above Albany Fort in 1743, but its primary purpose was to provide protection for the Albany trading region and not to further westward progression. Ironically, the Hudson's Bay Company did not make any other attempts to counteract the French advancements (Ray and Freeman 1978:35).

Initially the Hudson's Bay Company was only interested in the fur trade itself. They took no part in native disputes, bringing Christianity to the native peoples, or developing agricultural-based communities. They relied on the Cree and Assiniboine to act as middlemen in the fur trade process and sent only a few men into the western interior to interact with and reside among the native groups.

Reasons for insufficient advancement into the west included the Company's belief that the boreal forest environment was inhospitable and could not support posts and trading brigades as well as large native populations. The Company also faced other obstacles such as inexperienced inland traveling employees. They were able to hire physically reliable Orkney men, but it took time for these individuals to gain experience in wilderness travel and most were called upon for duty in the Royal Navy during the time of French unrest. Also, the lack of raw materials, such as birch bark, in the York Factory area hindered the construction of proper canoes for making such ventures (Glover 1951:4-6).

The limitations that brought the Hudson's Bay Company's westward expansions to a standstill were the driving force behind the French traders' success. R. Glover (1951:4-6) states that the French could find an abundance of skilled craftsmen, materials for canoe construction, and able-bodied canoemen in the St. Lawrence area. As for provisioning, the traders could acquire goods and staples from the native peoples

residing in the St. Lawrence and Great Lakes regions. Finally, the French were based out of the St. Lawrence; a natural port where goods could easily be imported and furs sent back to Europe.

The intrusion of the French into the interior regions by 1730 caused the Hudson's Bay Company to change its policy of 'sleeping by the frozen sea' (Rich 1967:118). It appeared that the Company would have to start sending its men into the interior to establish trading relations with native groups and to stop the illicit trade (Heidenreich and Ray 1976:35, Ray and Freeman 1978:35). Paul Thistle (1986:23) notes that after 1755, it became common practice for the Hudson's Bay Company to send servants inland almost every year.

In the late 1750s hostilities broke out between France and England which resulted in the British gaining control of the fur trade in the St. Lawrence region. The Seven Year War ended with the signing of the 1763 Treaty of Paris. This treaty extinguished all French claims in Canada, eventually forcing the French to abandon their inland posts. The quest for western expansion had come to an abrupt halt and the Hudson's Bay Company enjoyed a very short lived monopoly in the subarctic fur trade (Ray 1974:125, Ray and Freeman 1978:36, Schilz 1984:98).

2.5 The Rise of the Montreal Traders - New Implications for the Hudson's Bay Company

After the fall of Quebec in 1759, a new era of westward expansion and trade competition began. Scottish and French Canadian traders from Montreal initiated the race to open the interior and re-established La Verendrye's old trails in the northwest. Once again the very existence of the Hudson's Bay Company was endangered and decisive moves were necessary to secure trading relations with native populations (Moodie 1987:360-361, Ray 1974:125-126).

On a positive note, the Hudson's Bay Company did possess two assets in this new round of competition. Through their struggles with the French, the Company had gained a small group of veterans, experienced in interior travel. Some of these distinguished servants included Anthony Henday, Samuel Hearne, Matthew Cocking, Philip Turnor, Peter Fidler, and William Tomison. These men could be counted on to lead the expeditions and provide the junior employees with sound advice and competent leadership. Secondly, the Company had managed to maintain a good relationship with their native customers who continued to utilize the posts at the Bay. The Company could purchase space on their canoes for the transportation of men and goods into the west (Glover 1951:6-7).

The possibility of effectively challenging the Montreal traders in the interior was now a reality. In the summer of 1774, Samuel Hearne was sent into western Canada to find a suitable location for the Company's first inland post (Tyrrell 1934:29). Ruggles (1991:44) refers to the fact that the Hudson's Bay Company had long been considering the possibility of and the need for an inland trading post. A number of appeals to the Hudson's Bay Company committee had been made by the Factors at the Bay posts since the late 1760s due to the decreasing amounts of furs being brought to the forts.

Recommendations for several sites were suggested by employees who had traveled into the interior, two in particular were at Basquiau (the Pas) and the Grand Rapids near the mouth of the Saskatchewan River at Lake Winnipeg. On the contrary, Hearne and Matthew Cocking believed Cumberland House (formerly Pine Island Lake), rather than Basquiau or the Grand Rapids, to be the best location to establish a trading house (Ruggles 1991:44). Cumberland Lake formed a junction between three main routes of travel. These include the Saskatchewan River, the Sturgeon-Weir River, and the Grass River. The native inhabitants suggested that a post, built in the vicinity of this

lake, would allow the Hudson's Bay Company to tap into the trade of the Upper Saskatchewan River area, the southern prairies, and the Churchill country (Bicentennial Committee of Cumberland House 1974:4, Peel 1950:68, Ruggles 1991:44, Tyrrell 1934:113).

Hearne left York Factory on June 23, 1774 taking a minimal amount of trade goods and dried provisions with him because of limited transportation space. According to his journal entry, Hearne reached The Pas on the 19th of August, 1774. He surveyed the area for a possible location to set up his facility but declined after he witnessed the state of the environment. Canadian traders had previously occupied the area and the scanty vegetation could not support Hearne and his companions. Hearne continued to explore the Saskatchewan River and finally chose Cumberland Lake, some sixty miles (97 km) above the Pas, as a suitable locale to establish his post (The Beaver 1974:24, Tyrrell 1934:97-114). Cocking was sent to assist Hearne in the establishment of the post and to carry supplies but did not make it to the Cumberland House area that year (Tyrrell 1934:25-31).

2.6 Old Cumberland House 1774-1794

After much deliberation and consultation with local Cree chiefs and his own men, Hearne finalized his decision regarding a site location in a bay on the south side of Cumberland Lake. In this September 3, 1774 passage Hearne describes the site and reasoning for his choice as follows:

The Spot I Propose to build the Proper house on is fine and Levle, and tho not very high has seldom or Ever ben known to overflow by any of the Indians in Company. The Ground is stoney intermix'd with stiff Clay, the Woods on Each side about one forth of a mile is fine Strait Pine intermix'd with Poplars and small Birch, but farther Backwards the woods are mostly Poplar, it has a Commanding view of Pine Island Lake for several miles Each way and is said to

have some good fishing Places near, also plenty of grass, Spring and Fall (Tyrrell 1934:114-115).

Hearne and his men set to work on September 5, 1774 and managed to erect a log tent with an associated warehouse over the next four days. They would reside in this structure until the fall of 1775 when the construction of a “proper” house (Old Cumberland House) was finally completed.

Over the next twenty years, Old Cumberland House would undergo a number of transformations. The original house was extended and new structures were built to compensate for the post’s growth. In November of 1775, Matthew Cocking ordered his men to begin construction of a stockade that would provide the inhabitants with a sense of security. Plans to enlarge this structure were initiated in 1779 for the purpose of canoe storage in the winter and gardening expansion in the summer (HBCA B.49/a/7).

By the spring of 1775, Old Cumberland House had become a food redistribution centre in addition to being a congregating place for native groups. Hearne and Cocking noted the presence and duration of native tents on the fort’s “plantation” (Rich and Johnson 1951, Tyrrell 1934). They also mention that some groups established winter camps in the vicinity of the fort. These people were paid for services such as hunting, canoe making and repair, as well as snowshoe preparation (HBCA B.49/a/3, Tyrrell 1924:125).

In August of 1776, Cocking noticed a need for a victual or provisioning shed and the men began to fabricate such a structure. This building contained a wooden floor with a cellar beneath it and was rebuilt in July of 1778. Large amounts of provisions were being received and stored at Old Cumberland House and the older structure could not maintain the quality of the food surplus. Reasons for such an abundance of food included the fact that Hearne and Cocking encouraged native groups to bring only

provisions to Old Cumberland House. They also tried to motivate all groups to trap and hunt for the House throughout the year by presenting them with small token trade items upon their visits (HBCA B.49/a/3, HBCA B.49/a/4).

The post served as refuge for the victims of the 1782 smallpox epidemic. The Factor during this period, William Tomison, ordered the employees to bring the infected individuals into the stockade of the fort and supplied medical help to these individuals. Mary Richards (1974:109) states that the post supplied provisions to many of the survivors as they could not fend for themselves. Cumberland House employees were also sent to retrieve furs and fur clothing from the tents and bodies of the dead (Thistle 1986:62).

Old Cumberland House remained in operation until 1794, but as early as 1788 the Hudson's Bay Company was already formulating a plan for the construction and ensuing movement of operations to a location 1.5 km northwest (Figure 2.1). Journal entries (HBCA B.49/a/20) indicate that during the occupation of the old post most of the firewood sources were depleted and the site was subject to periodic flooding. The new house would be located on higher ground with more resources at its disposal. Construction of the main house of the new post was finished on April 12, 1794 (HBCA B.49/a/25^a). This post was also dubbed Cumberland House and is part of the present day village of Cumberland House (Meyer 1996:11).

The North West Company constructed a post, called the 'The Depot', close by (New) Cumberland House in 1793. This post was primarily used for the storage of pemmican for the fur brigades traveling into the interior. The two posts were described as sturdily built log structures, surrounded by stockades and bastions (Peel 1950:71).

Initially, Cumberland House prospered in this environment and Governor Williams

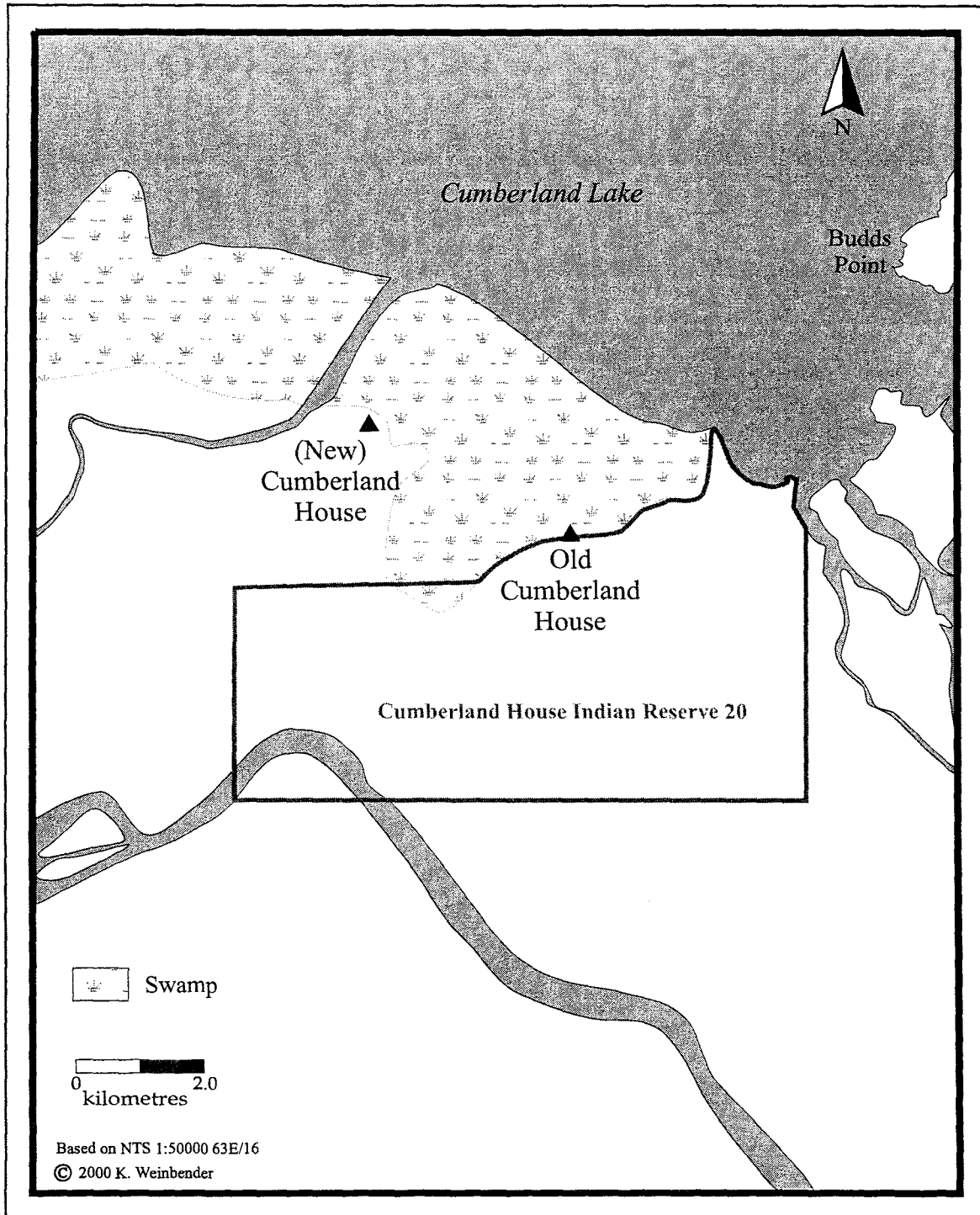


Figure 2.1 A map of the Cumberland House area indicating the locations of the two Hudson's Bay Company posts (computer generation courtesy of Kim Weinbender).

expanded some of the property into a farm. Livestock and gardens were maintained at the site in addition to the cultivation and harvesting of barley and wheat crops during the late 1800s. The designation of main depot for the region was moved to Norway House in 1821 and (New) Cumberland House declined in importance. Although the post was now like any other settlement located on the forest fringe, Terrence Smythe indicates the significance of Cumberland House as an historic monument in Canadian history in the following quotation:

Cumberland House is still in operation, one of the most historic posts in the country. It lacks reliable land access, which probably precludes immediate consideration for historic site development, but its intrinsic importance in the history of the western fur trade merits investigation for future development (Smythe 1968:173).

2.7 Reaction to the Establishment of Cumberland House

The independent Montreal traders responded to the Hudson's Bay Company's interior advancement by creating stronger partnerships with one another and continuing to expand into the Athabasca and northwest areas:

They gave a broader front, of several traders perhaps covering the trade of several districts, and so they required more capital resources whilst at the same time they offered better security for investment (Rich 1959:67).

Rich (1959:67) notes that as early as 1776 the independents started using the term North West Company when referring to themselves.

The North West Company quickly surrounded Cumberland House on all four sides with the Frobisher brothers retaining a presence in the area to the north at Beaver Lake and Frog Portage. Peter Pangman was stationed in the eastern region two miles above The Pas while Francois (Franceway) Leblanc, Charles Paterson, and William Holmes established Fort à la Corne. This fort was located 150 miles above Cumberland

House on the Saskatchewan River. Finally, a contingent was sent to the south-east to occupy the areas of Cedar Lake and Lake Winnipegosis. William Bruce, Barthelemi Blondeau, and James Tute took active roles in founding forts in this domain. Peter Pond eventually surpassed this southern located collective and wintered in the district of Mossy Lake and Lake Dauphin (Rich 1959:68).

The kind of pressure that the Canadian traders asserted on Cumberland House was extensive and can be witnessed in the dismal numbers of furs that were brought to the fort in the first year of operation. In 1775, Matthew Cocking relieved Hearne of his duties as Master at the post and took measures to disrupt the Canadian traders trade. During the next couple of years Cocking sent men past the North West Company settlements to intercept native peoples travelling down the river routes. His men were equipped with provisions and trade goods for the purpose of establishing relations with the native groups, enticing them to trade and to come to Cumberland House to exchange their furs for English trade goods. Cocking notes in his journal entries that this tactic was successful at times but a wasted effort at others. He attributes the unsuccessful attempts to the desire of the native peoples for alcohol and the unscrupulous dealings of the Montreal traders (HBCA B.49/a/3).

A fervent plea for the establishment of a post towards the Athabasca region was sounded by Cocking as early as 1775. He believed this was the only measure to take against the North West Company, who had since gathered more forces and completely surrounded Old Cumberland House in every direction. Rich (1959:73) states that Humphrey Marten, the Chief at York Factory, issued an order for the founding of an outpost from Old Cumberland House. He stipulated that the temporary post be established near the buffalo-hunting grounds to prevent the native groups from going down to trade at the independent trader's settlements. In 1779 William Tomison, then

Master of Old Cumberland House, set out from the post and built Hudson House on the lower North Saskatchewan River, above the independent trader's settlement which was near present day Prince Albert. Arthur S. Morton notes the success of the Hudson and Cumberland Houses for that year:

What with the English coming on the ground before the Pedlars, and occupying a site apart from them, and enjoying the good will of Indians as a whole, Hudson House was doing well. So also was Cumberland House. The returns for this year were 6,887, made beaver, from the former and 8,445 from the latter, making 15,332, made beaver, from the Inland Posts (Morton 1973:331).

And so began the Hudson's Bay Company's quest for fur trade domination. This action was matched with the North West Company's drive to locate new trading regions and a number of small, temporary posts were established throughout the Canadian interior.

This kind of rivalry can be expressed as a game of leap frog where one company builds a post in an area only to be challenge by the other company's presence. Throughout this competition many posts were established, named, abandoned, and then reoccupied and consequently renamed. Resources in these areas were stressed and most of the fur bearing regions were quickly exhausted of their natural resources. Yet with all this destruction and the unstable nature of their futures, the companies proceeded to push into the Athabasca and Churchill regions (Williams 1983:38-40).

During the early 1800s the North West Company began to suffer from internal stresses. A group of individuals broke away from the main core and formed an independent contingent, calling themselves the XY Company. This separation only lasted for a period four years ending in the reintegration of this group into the parent company (Williams 1983:42-43).

In 1821, the structurally and financially weakened companies decided to amalgamate their forces into a remodeled version of the old Hudson's Bay Company. Two important features of the North West Company's organization were implemented in this new fur trade system; "the formal financial partnership of the traders and the regular participation of these partners in the management of commercial operations" (Williams 1983:50).

One of the main priorities of this new company was to restore peace and order to the Canadian interior. They initiated this process by restructuring the trading post systems, setting efficient trade standards, and regulating trapping methods to ensure the success and expansion of the western regions. Overall, this efficient coalition resulted in a period of prosperity for the company with all shareholders and officers sharing in plentiful dividends. The Hudson's Bay Company had now achieved the standards of trade that it had always striven to attain (Williams 1983:51-61).

2.8 The Importance of Old Cumberland House

The Cumberland House expedition of 1774 can be viewed as both problematic and successful. Areas of hindrance to Hearne and his men included the small size of the canoes, the fickleness of the native peoples, and the lack of supplies. Hearne had to leave behind a number of trade goods and dry provisions at York Factory during the initial journey to Cumberland Lake due to the size of the native canoes. Hearne and his men were now limited in the amount of trade that could be conducted and the surplus of food for the trip. Another downfall of having to rely on their native companions for transportation occurred when three parties and their associated goods never reached their final destination. This once again restricted Hearne in the areas of food supply and trade expectations (Glover 1951:7).

Despite all these hindrances, one could also view the expedition as prosperous. Hearne and company had erected a log tent, survived the winter, had nearly completed a “proper” house and store by the following summer, and had established the Hudson’s Bay Company’s presence in the area. Hearne also managed to acquire two canoes in his first year but acknowledges that he would have been more successful in his endeavors if his supply of brandy had been larger (Glover 1951:7).

The timely decision to build an inland post helped to solidify the Hudson’s Bay Company’s future. They could now survive in a competitive fur trading market as they had gained knowledge of the interior, acquired proper equipment to conduct voyages, and had experienced servants who could be sent into the west to secure trading relationships with other native groups. Above all, they now possessed the ability to progress in the westward expansion for the purpose of establishing other trading posts (Glover 1951:4).

As of 1773, the Hudson’s Bay Company only had six posts under its jurisdiction but by 1821, the Company had expanded and controlled a large number of posts stretching from the St. Lawrence to British Columbia (Glover 1951:4). Glover (1951) best sums up the competition for westward expansion and fur trade supremacy through the following quotation:

In the course of the struggle the Hudson’s Bay Company expanded its own operations enormously. At the end it absorbed the posts, personnel and trade of its rivals, the famous North West Company (Glover 1951:4).

Chapter 3

Introduction to the Old Cumberland House Site

3.1 Physical Environment

The Old Cumberland House site is located on the southern shore of Cumberland Lake. It is situated in the immediate vicinity of the Cumberland Reserve and the village of Cumberland House in east central Saskatchewan (Figure 3.1). The Cumberland House area occupies a position in the western half of the Saskatchewan River Delta of the Mid-Boreal Lowland Ecoregion (Acton *et.al.* 1998:97, Fung *et.al.* 1999:162).

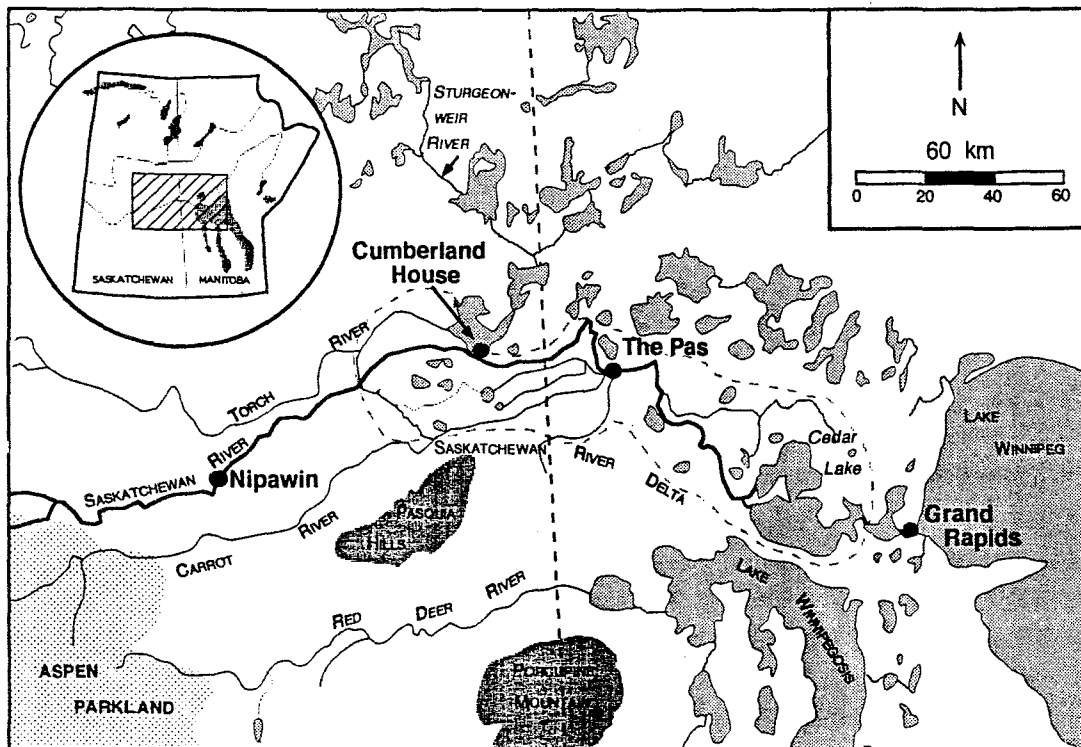


Figure 3.1. A map showing the location of Cumberland House in east central Saskatchewan (Meyer 1996:2).

The Cumberland House area is located in an alluvial-lacustrine plain, part of the bed of former Glacial Lake Agassiz and is less than 400 metres above sea level. The past and present activities of rivers have created a mosaic of ecologically diverse leveed streams and rivers, lakes, and a variety of marsh environments (Acton *et al.* 1998:97, Dirschl and Dabbs 1969:212).

Bedrock, comprised of sands, silts, and clays, is present throughout the Mid-Boreal Lowland Ecoregion. Limestone and dolomite occur exclusively in the northern and eastern areas. Soils in the Cumberland House area are characterized as organic and are predominantly gleysolic (wet, poorly drained) with a mixed clay and loamy texture (Acton *et al.* 1998:97-98).

3.2 Climate

The climatic regime of the Mid-Boreal Lowland Ecoregion is described by Koppen's classification system as a transitional variance between the Arctic climate of the northern areas and the humid climate of the areas to the south (Acton *et al.* 1998:98, Lundqvist 1999:118). The mean annual daily temperature of this ecoregion is -0.3°C . The mean annual temperatures recorded for January and July are -21.4°C and 17.7°C respectively (Acton *et al.* 1998:98). Precipitation is most abundant through the period of May to September with 282 mm accumulating out of a mean annual total of 452 mm. The summer months are described as short and cool while winters are long and cold (Acton *et al.* 1998:98, Lundqvist 1999:118).

3.3 Drainage Systems

Cumberland Lake, a remnant of former Glacial Lake Agassiz, has been subjected to a number of major avulsions. The last major avulsion occurred in 1875 and may have been caused by a spring ice jam. The ice jam forced the Saskatchewan River to overflow its banks into the Torch River. This inundation created a new channel resulting in the abandonment of the old river system. Smith

et.al. (1998:454) state that over 500 km² of floodplain, adjacent to the western end of Cumberland Lake, was converted to a maze of new channels. They believe that this area will revert to fewer channels and eventually reestablish a single dominant channel.

Before the major 1870s avulsion, the Torch, the Grassberry, and the Mossy rivers fed Cumberland Lake from the northwest. Water exited Cumberland Lake to the Saskatchewan River via the Bigstone and Tearing rivers. Based on the direction of this water flow, Willard *et. al.* (1978:4) believe that Cumberland Lake possessed the characteristics of a northern freshwater lake. After the 1870s avulsion, the new maze of channels supplied water to Cumberland Lake from the Saskatchewan River. Erosion from these newly cut channels added heavy silt to the water. Prior to the late 1800s, Cumberland Lake had an average depth of 20 feet but constant avulsion activity has reduced the lake depth to an average of six feet or less (Willard *et. al.* 1978:4-6).

The 1870s avulsion also resulted in changes to the outlet area of Cumberland Lake. The Bigstone and Tearing rivers were unable to handle the increase in water flow from the Saskatchewan River. This overflow culminated in the formation of a new outlet, the Bigstone Cutoff. This new channel joins the southernmost branch of the Torch channel system thus increasing the discharge from Cumberland Lake. This increase in discharge, coupled with an addition of silt deposition has resulted in an overall decrease in the level of Cumberland Lake (Smith *et.al.* 1998:454, Willard *et.al.* 1978:6).

3.4 Flora

The Saskatchewan River Delta of the Mid-Boreal Lowlands exhibits a mosaic of diverse ecological environments including leaved streams and rivers, lakes, marshes, and bogs. These areas not only support an abundance of wildlife but also

exhibit a diverse array of vegetation (see Appendix 1, Table 1). Major plant communities are divided into four categories according to physical environment. These categories include: levee communities, lake margin communities, aquatic communities, and bog communities (Dirschl and Dabbs 1969:215-220).

The highest and best-drained levee communities represent the most productive forest areas in Saskatchewan. A mixture of hardwoods, spruce, pine, and fir forests dominate this terrain with an understory comprised of speckled alder (*Alnus rugosa*), high-bush cranberry (*Viburnum trilobum*), pin cherry (*Prunus pennsylvanicus*), willows (*Salix* spp.), and red-osier dogwood (*Cornus stolonifera*) shrubs. Lush ground vegetation is represented by saxifrage species (*Ribes* spp.), prickly rose (*Rosa acicularis*), wild mint (*Mentha arvensis*), wild sarsaparilla (*Aralia nudicaluis*), meadow horsetail (*Equisetum pratense*), and ostrich fern (*Matteuccia struthiopteris*) (Acton *et.al.* 1998:99, Dirschl and Dabbs 1969:215, Dirschl and Goodman 1967).

Lake margin communities are comprised of large portions of peat substrate, measuring to various depths. Dirschl and Dabbs (1969:216) note that this peat mat is formed from "...partially decomposed sedges and aquatic plants". Other vegetation present in the lake margin area includes: willow fens (*Salix* spp.), sedge fens (*Carex* spp.), and common reed grass (*Phragmites communis*) (Dirschl and Dabbs 1969:216, Dirschl and Goodman 1967).

Aquatic communities include floating vegetation and those that grow along the edges of shallow lakes, stream banks, and edges of stream channels. Common floating aquatic communities include various species of pondweed (*Potamogeton* spp.), yellow water-lilies (*Nuphar variegatum*), water-milfoil (*Myriophyllum exalbescens*), horwort (*Ceratophyllum demersum*), and stinging nettle (*Utricularia* spp.). Bank, stream, and lake edge vegetation is comprised of various species of

bulrushes (*Scirpus sp.*), bur reeds (*Sparganium sp.*), and sweet flag (Dirschl and Dabbs 1969:216).

Dirschl and Dabbs (1969:216) characterize areas of closed drainage (i.e. bog communities) as floristically distinctive. Black spruce (*Picea mariana*) and tamarack (*Larix laricina*) grow in bog areas dominated by *Sphagnum* peat. Ground cover is comprised of Labrador tea (*Ledum groenlandicum*), leatherleaf (*Chamedaphne calyculata*), pale laurel (*Kalmia polifora*), cloudberry (*Rubus chamaemorus*), and swamp cranberry (*Oxycoccus gquadripetalus*). Swamp birch (*Betula glandulifera*) communities also inhabit poorly drained areas and are usually found in close proximity to *Picea mariana* – *Larix laricina* bogs. Characteristic vegetation associated with *Betula glandulifera* communities includes sweet gale (*Myrica gale*) and various species of willows (*Salix sp.*).

3.5 Fauna

3.5.1 Mammalian Fauna

Distribution of mammal species varies across the different ecological regions found within Saskatchewan. These ecological niches are influenced by factors such as climate and physical environment. The Boreal forest region is inhabited by 11 species of mammals while the Prairie region accommodates 17 species. Twelve species of mammals are known to have province-wide distribution based on the fact that they can occupy a diverse range of ecological niches (Waple 1999:142).

The Cumberland House area provides productive habitat for 49 mammalian species comprising 15 families (see Appendix 1, Table 2). Rodents, represented by 20 species, are the most abundant mammal in the Cumberland House area, followed by carnivores (15 species), insectivores (6 species), ungulates (6 species), and lagamorphs (1 species).

Ungulate populations at Cumberland House are represented by moose (*Alces alces*), woodland caribou (*Rangifer tarandus*), elk (*Cervus elaphus*), white-tailed deer (*Odocoileus virginianus*), and mule deer (*Odocoileus hemionus*). Occasional bison (*Bison bison*) were found in this area during prehistoric and early historic time periods but are no longer present. The importance of these species as a food source is noted in the Cumberland House journal. Populations of fur bearing animals, such as beavers (*Castor canadensis*), muskrats (*Ondatra zibethicus*), snowshoe hare (*Lepus americanus*), bears (*Ursus sp.*), mustelids, and canids were not only of monetary importance but they also served as a food and clothing source for the fur traders.

3.5.2 Avian Fauna

Samuel Hearne, founder of Old Cumberland House, was the first European to make written observations of avian populations in Saskatchewan. J.B. Gollop (1969:90) notes that since Hearne's observations in the late 1700s, 325 additional avian species have been identified in Saskatchewan, bringing the total to 414 species. Saskatchewan is not only a primary residence for many of these species, but also serves as a breeding area and migratory route. Bird populations are affected by factors such as: climate, food resources, habitat, water, and the presence of other animals in the area (Gollop 1969:90, Smith 1999:150).

Avian populations at Cumberland House are represented by 212 species, encompassing 40 families (see Appendix 1, Table 3). The diverse environmental niches present in the Saskatchewan River Delta, in particular the Cumberland House area, provide abundant habitat resources for avian fauna. The floodplain of the Cumberland marshes and surrounding region provide a natural environment for numerous species of waterfowl, gamebirds, small birds, and colonial nesters (Dirshchl and Goodman 1967, Jonker 1999:164, Willard *et. al.* 1978:48-53). The Cumberland House area is also used by a large number of migratory species during certain

periods of the year. Thomas Wright Blakiston, a member of the Palliser Expedition, noted the presence of large populations of White-Fronted geese (*Anser albifrons*) in the low marshy areas around Cumberland House during the spring and autumn months (Houston and Street 1959:45).

A variety of avian species were hunted and used as a food resource by the fur traders and native peoples. There are numerous journal references to the hunting of ducks, geese, swans, partridges, and pigeons. Hearne observed that the native populations frequently hunted and ate young pelicans. These young pelicans were very fat, and the native peoples would preserve the melted fat for winter use (Houston and Street 1959:38). Avian populations were not only used as a food source but parts of their body may have served other practical purposes. Hearne notes that swan quills and down were procured in great quantities during his initial occupation of Old Cumberland House (Houston and Street 1959:42). Quills were traded to the Hudson's Bay Company and swan down may have been used to make bedding.

3.5.3 Fish

A number of fish species are present in and around the Cumberland Lake area. The prevalence of fish remains in the Old Cumberland House site and the references in the journal materials suggests that fish played a primary role in the diet of the posts inhabitants (Rich 1976:45). The most common species for this area include Northern pike (*Esox lucius*), walleye (*Stizostedion vitreum*), Lake whitefish (*Coregonus clupeaformis*), and Lake sturgeon (*Acipenser fulvenscens*). For a complete list of fish for Cumberland Lake refer to Appendix 1, Table 4.

3.5.4 Reptiles and Amphibians

The Mid-Boreal Lowland ecoregion is inhabited by five species of reptiles and amphibians. One species of reptile, the red-sided garter snake (*Thamnophis sirtalis*) resides in this area while amphibian populations are represented by four taxa (Acton

et. al. 1998:101, Didiuk 1999:144, Richards and Fung 1969:83). A complete list of reptiles and amphibians in the Cumberland House area can be found in Appendix 1, Table 5.

3.5.5 Molluscs

Seven families encompassing 51 species (Appendix 1, Table 6) represent molluscs populations at Cumberland House. An analysis of the limnology and fisheries of the Cumberland and Namew Lakes was conducted by E.B. Reed for the Department of Natural Resources in 1959 (Willard *et.al.* 1978:12). Reed's analysis of 62 dredge samples from the lake bottom was composed of a large percentage of three genera, *Margaritifera* sp. and two types of fingernail clams, *Sphaerium* and *Pisidium*. The possibility of molluscs being used as a food resource by the inhabitants of Old Cumberland House should be considered. There is no historical textual information to support such a view but the presence of burned/calced shells may provide direct evidence of consumption.

Chapter 4

Site Background

4.1 Previous Archaeological Investigations in the Cumberland House Area

A number of archaeological surveys have been conducted in and around the vicinity of Cumberland House (Figure 4.1). As a result of these surveys, three archaeological sites have been identified in the community of Cumberland House. FIMn-5 (Cumberland House), located in NW/NE-29-57-2W2M, on the south shore of Cumberland Lake, consists of a number of multiple features and an artifact scatter. Pat Froese (1984) indicated the presence of multiple depressions, a stone powder magazine, and remains of the first sternwheeler to travel the Saskatchewan River, the Northcote. Cultural affiliation was noted as historic European, dating to 1793 –1966. Other collections related to this site include numerous ammunition shells that have been collected by a Cumberland House resident (Froese 1984).

A burial site (FIMn-6) is identified in close proximity to FIMn-5. A third site, FIMn-7, is located in the center of NW-29-57-2W2M and was recorded by Kit Krozser in September of 1988. Krozser did not give a name for this site, opting to use the SARR designation as a site name. This site contains the beached remains of the Northcote, consisting of timber and metal hardware.

In 1960, Rev. and Mrs. C. J. Parker of Cumberland House recorded the location of FIMn-3, a contemporary campsite of Cree affiliation. The site is located in SE/NE-27-57-2W2M on a low rocky point along the shoreline of Cumberland Lake. It was noted during the survey that this was a good fishing locale; the smell of rotting fish indicated that the area appeared to still be used (Brown 1960b).

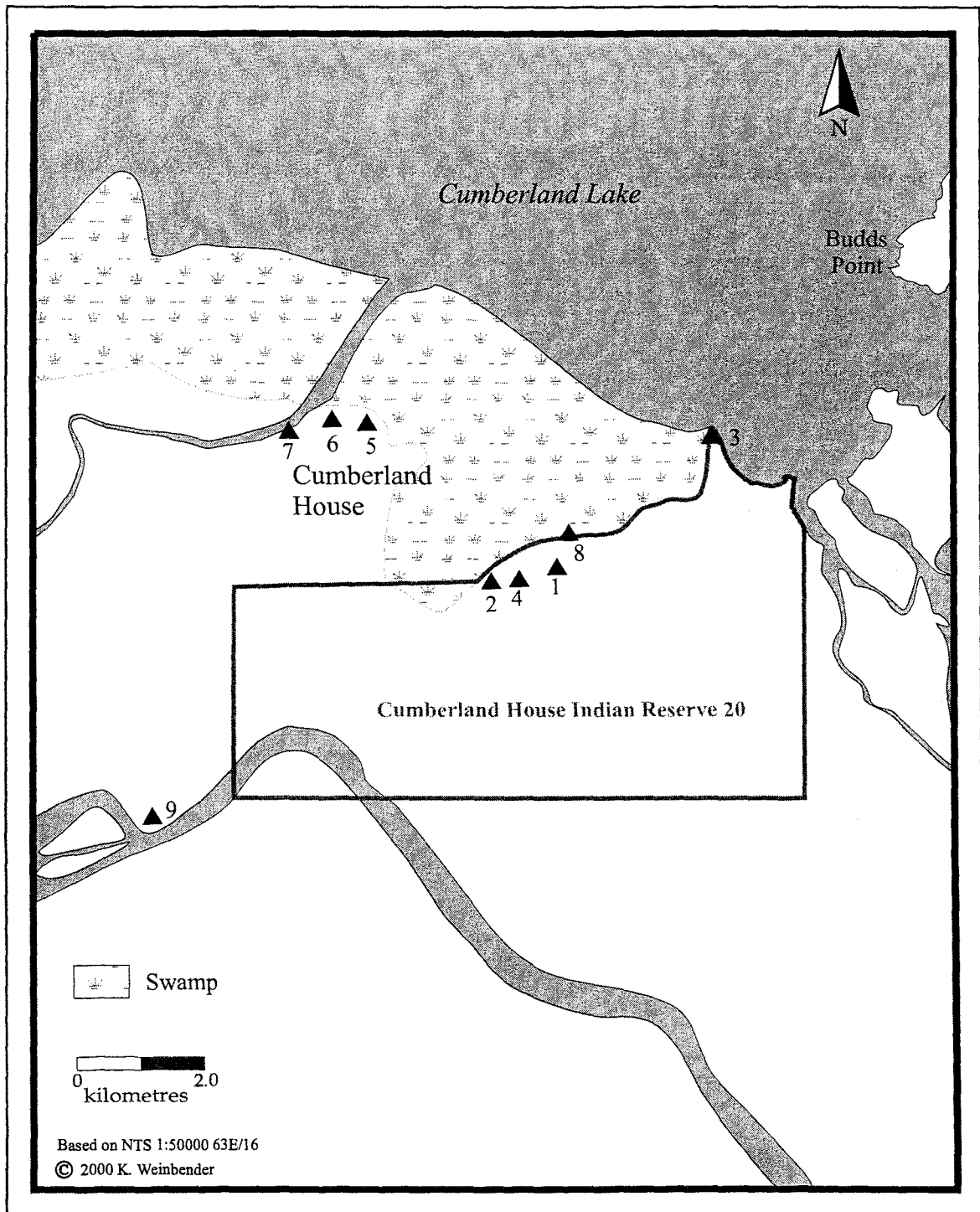


Figure 4.1 A map of archaeological sites found in the Cumberland House area (computer generation courtesy of Kim Weinbender).

Three archaeological sites are located in close proximity to the Old Cumberland House site (FIMn-8). FIMn-1, a historic and contemporary site is situated south of FIMn-8. The site consists of a number of house cellars, which date from the early historic period to the present (Brown 1960a). These series of cellars are positioned on a high till and gravel bar along the old shoreline of Cumberland Lake. The old Anglican Mission is also located in the vicinity of the old fur trading post site (Brown 1960a).

The second site, FIMn-4, is represented by a number of burials. The final site in close proximity to FIMn-8 is identified as a historic post (FIMn-2). Features associated with this site consist of the remains of cellars and chimneys. S. McIntyre (1980) indicates that these features represent a trading post called Moose Lake House. McIntyre states that Arthur Morton believed that this post was probably established as early as 1792 and was called Moose Lake House at the time of amalgamation between the North West Company and the Hudson's Bay Company in 1821.

In 1994, Leslie Amundson and John Brandon completed a heritage resource impact assessment in the Cumberland House area for SaskTel's Nipawin Fibre Optics project. A historic Cree or Metis affiliated site, FIMn-9, was identified in SW/SW-18-57-2W2M of the Pemmican Portage area. Brandon and Amundson (1994) noted the presence of a historic cellar depression, several privy holes, a number of historic artifacts (Pampers, an amber flask flat panel, approximately 12 immature medium mammal bones, one phonograph record fragment, food can cartons, groupings of hay bales, tin cans, and a metal stove), and culturally-modified maple trees that had been flagged and cored for gathering sap. Meyer (2000, personal communication) indicates that the sap gathering activity was part of an experiment.

4.2 Anthony Ranere's 1967 Survey – Testing at the Old Cumberland House site

Anthony Ranere surveyed the Cumberland House area in June of 1967. Ranere was conducting surveys for the Historic Sites Division of the Department of Natural Resources with the objective of locating and recording the Old Cumberland House archaeological site. Upon inspection, Ranere encountered a number of culturally sensitive areas along the old bay shoreline. Ranere relied on information from the previous 1964 historic sites survey conducted by John Nicks and Merv Baker, Samuel Hearne's journals, aerial photographs, and community involvement to locate features associated with the post. Wayne Breadner, a community development officer, and Harold Stromm, a conservation officer, provided assistance by leading the survey team along the shoreline, pointing out various features and places of interest. Ranere surveyed, tested, and recorded possible site locations (Ranere 1967). Figure 4.2 illustrates the various site locations found during the 1967 survey.

Of particular interest to Ranere and crew was site location #8 (Figure 4.3). Ranere felt that the position of the site correlated with the description given in Hearne's journal. Ranere noted the presence of two depressions, two stone piles, and three rock ridges (Figure 4.3). Ranere and crew placed three test pits in and around features to possibly determine the date of the site.

The first test pit (#1) was located on the western border of the larger cellar depression (Figure 4.3). Ranere (1967:14) hypothesized that the cellar had been recently disturbed based on the presence of a small hole in the center of the depression. Cultural materials found within the depression included cobble-sized stones, a piece of tin, and a fragment of glass. A section of cribbing log was

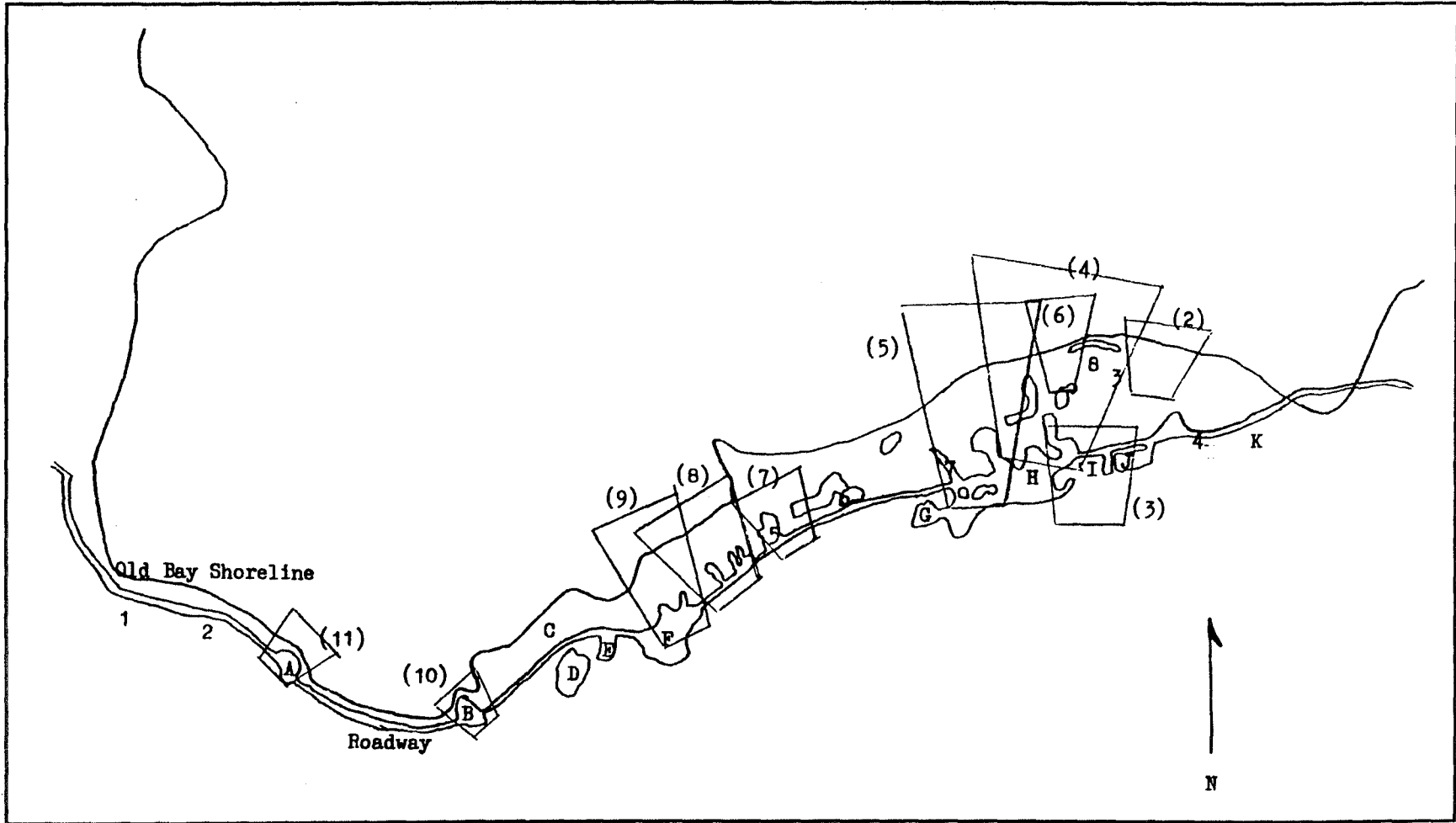


Figure 4.2 Ranere's 1967 site survey of the Old Cumberland House shoreline (Ranere 1967:4).

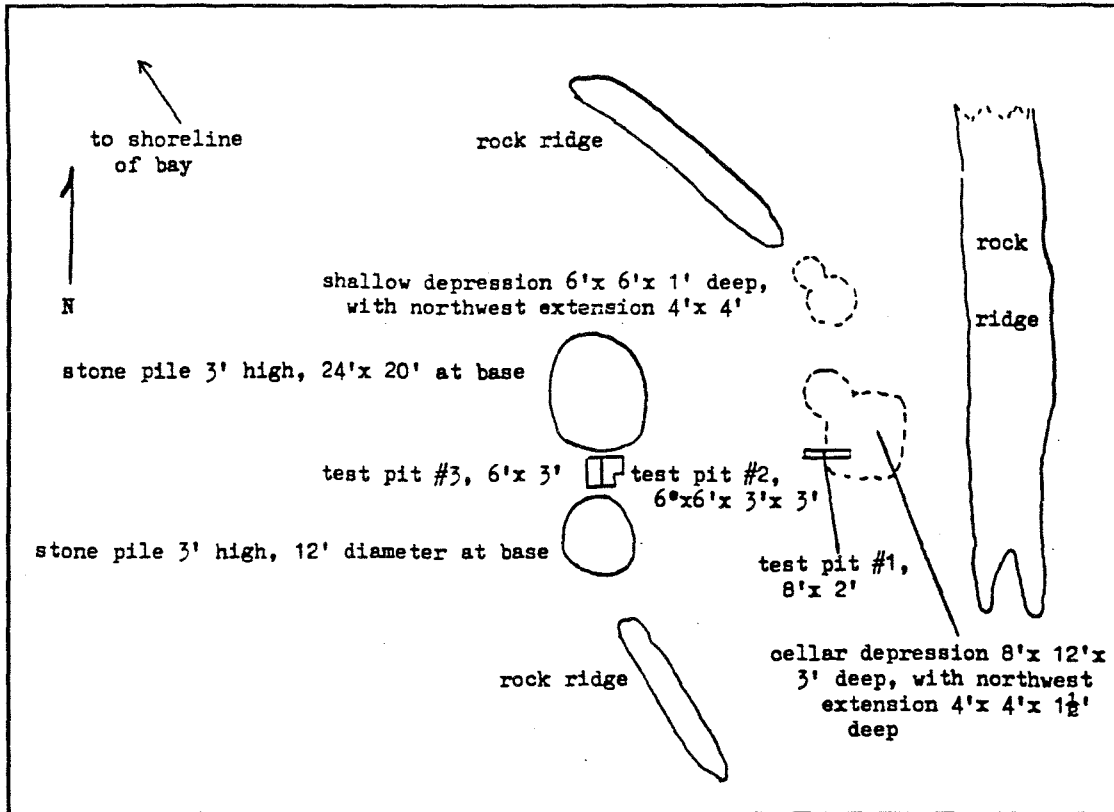


Figure 4.3 A sketch map of site location #8 indicating the position of test pits (Ranere 1967:13).

uncovered during the course of excavation but the heavy overburden hindered any further examination.

On the western edge of the cellar, Ranere and crew found a very thin occupational horizon that was sterile (Ranere 1967:14). No faunal or cultural materials were found for this test pit during the reanalysis of the 1967 survey archaeological materials.

A second test pit (#2) placed between the two stone piles contained an occupation layer 6 inches below ground surface. Ranere (1967:14) noted that it varied from 3 to 6 inches in depth and contained faunal and cultural materials. Fish, avian, beaver, and ungulate bones were collected. Artifact materials were

represented by five nail fragments (two cut and one round nail), five clay pipe fragments, two ceramic sherds, and one brass wire fragment.

Artifact materials for test pit #2 were not present in the 1967 survey materials obtained by the author from the Royal Saskatchewan Museum, but a total of 187 faunal remains were present. A majority of the faunal collection is represented by unburned specimens (97.9%) as compared to 2.1% burned/calced specimens. Fish remains (31.0%) comprise the largest percentage of the faunal materials, followed by medium-sized mammals (23.6%), avian (17.7%), large-sized (SC6) ungulates (14.4%), large-sized mammals (8.6%), and unidentifiable specimens (4.8%). A total of five taxa are represented in the faunal materials from test pit #2 - Lake sturgeon (*Acipenser fulvescens*), Canada goose (*Branta canadensis*), snow goose (*Anser caerulescens*), beaver (*Castor canadensis*), woodland caribou (*Rangifer tarandus*), and moose (*Alces alces*).

A third test pit (#3) measuring 6.5 feet by 2.5 feet was placed immediately west of the second test pit. Wooden floor planking, oriented in a somewhat north-south fashion, with a possible west-east oriented floor joist fragment was uncovered at a depth of 0.7 to 1.0 inches (Figure 4.4). Ranere (1967:16) notes the presence of four cut nails, "...two of which were *in situ*".

Reanalysis of the third test pit cultural materials indicate the presence of a total of nine artifacts. Unfortunately two of the nails mentioned in the site report are not present in the 1967 survey artifact collection. Chinking (66.7%) composes a majority of the existing artifact collection, followed by cut nails (22.2%), and curved green tinted glass (11.1%).

Faunal materials from the third test pit are represented by 102 specimens including molluscs, avian, fish, and mammals. A large percentage of the faunal remains consist of unburned specimens (90.2%) while burned/calced remains

comprise 9.8% of the test pit materials. Large-sized mammals (31.4%) encompass most of the faunal materials followed by fish (24.5%), avian (22.6%), medium-sized mammals (10.8%), large-sized ungulates (4.9%), unidentifiable specimens (4.9%), and molluscs (1.0%). Five taxa are represented in test pit #3; these include Lake sturgeon (*Acipenser fulvescens*), ducks and geese (Indeterminate Anatidae sp.), beaver (*Castor canadensis*), wolverine (*Gulo gulo*), moose (*Alces alces*), and bison (*Bison bison*).

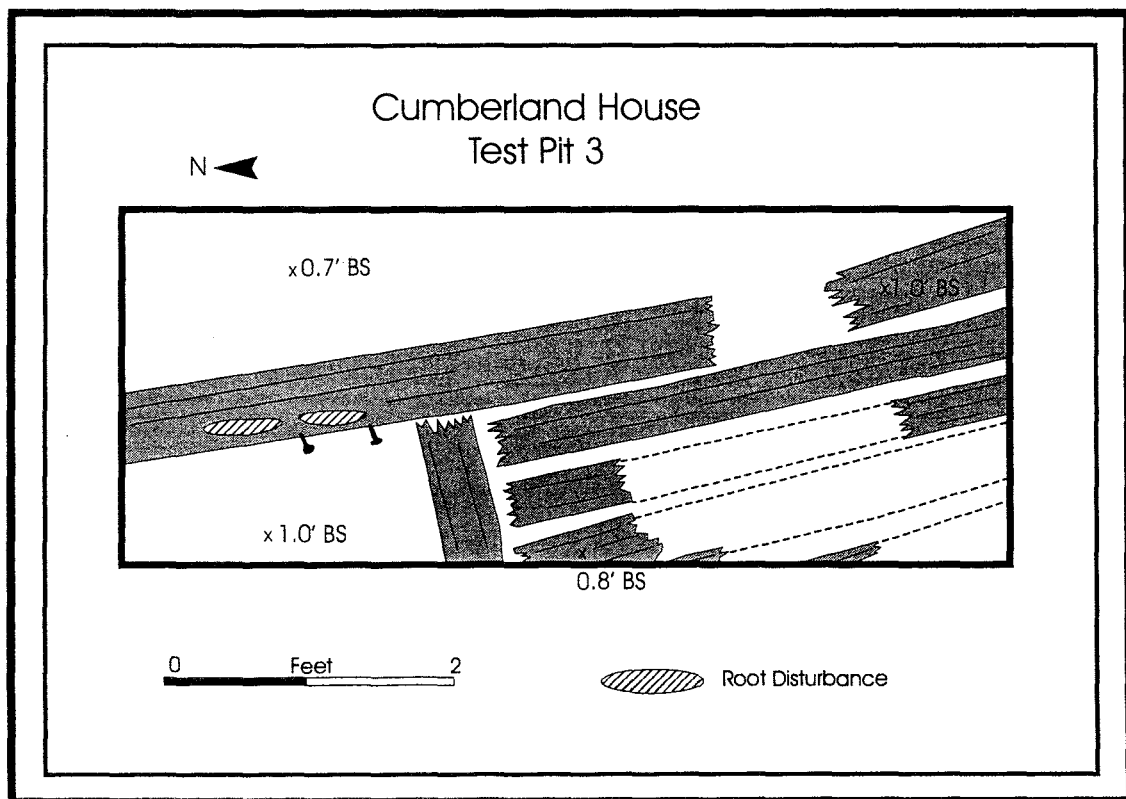


Figure 4.4 A planview of test pit #3 indicating the presence of wood plank flooring and possible floor joist (computer generation of Ranere's 1967 hand drawn planview courtesy of Kim Weinbender).

Ranere concluded the 1967 survey report by postulating that this site was not that of Old Cumberland House based on the ca. 1850 date of the artifact assemblage. He stressed the importance of Samuel Hearne's journal description of the site area

and the resemblance to the environmental setting of this locale. Ranere (1967:16-17) did feel that site location #8 deserved further archaeological investigation. He believed that later cultural occupations (i.e. the Anglican Mission) in the immediate vicinity could have masked the presence of collapsed chimney mounds and cellar depressions associated with a fur trading post.

4.3 The Old Cumberland House Site Revisited – Archaeological Excavation in the 1990s

Archaeological fieldwork was conducted during the summers of 1991, 1992, and 1994 in the Cumberland House area. Dr. David Meyer of the Department of Anthropology and Archaeology at the University of Saskatchewan reinvestigated site location 8, which had previously been identified and tested during the 1967 survey.

Meyer (1996:18) believed that site location #8 might contain the remnants of Old Cumberland House. The site was mapped (Figure 4.5), contemporary surface features were excavated, and the perimeter of the site was investigated to identify the presence of a stockade structure. This thesis examines the archaeological materials that were uncovered during the three field seasons.

The sites true nature remained an enigma during the 1991 field season. Was it the remains of Old Cumberland House or that of an Anglican mission established in the same area, by Reverend Benjamin MacKenzie in 1876? Reasons for this uncertainty stemmed from the recovery of a large number of 19th century artifacts in addition to others dating to the period of fur trade occupation. What factors contributed to the mixing of this material culture?

Meyer (1996:22) indicates that the stratigraphy of the site is not uniform. In 1992 it was realized that an extensive portion of the site had been cultivated for gardening purposes. Surely such activity would have disturbed the occupation levels

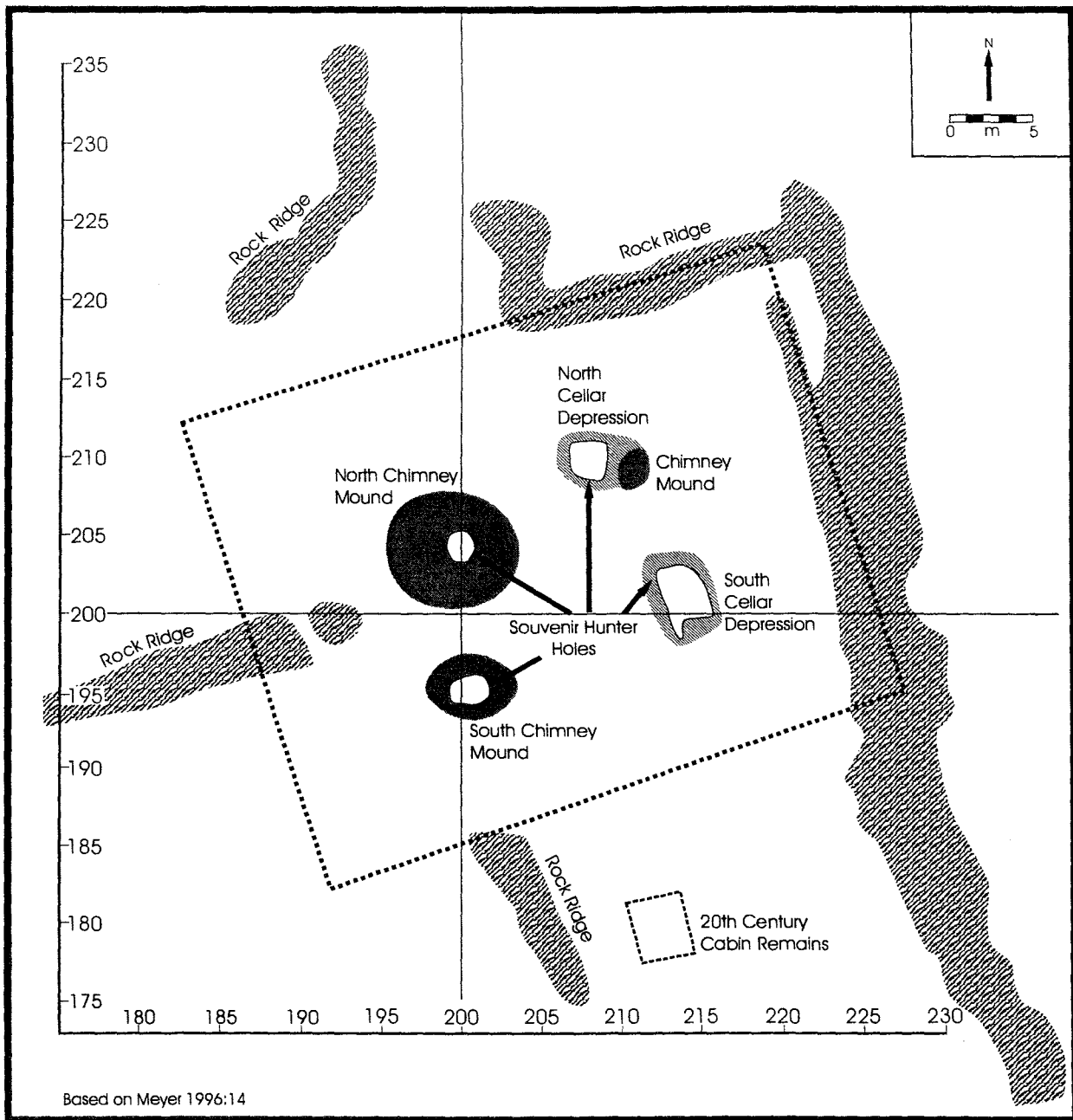


Figure 4.5 A map of the Old Cumberland House site displaying surface features and stockade structure (computer generation by Kim Weinbender after Meyer 1996:14).

of the site leading to the mixture of 18th century fur trade related items and 19th century mission artifacts. Cultivation activities were indicated by the presence of a grey, friable sandy clay horizon (Figure 4.6). Hudson's Bay Company journals note that gardening was a common practice at trading posts and clearly Cumberland House was no exception. Journal entries as well as notes from the 1819-1820 Franklin polar expedition indicate that Cumberland House servants were sent back to the abandoned post site to plant and tend gardens (Meyer 1996:48).

The presence of long rows of rock piles are believed to be a result of clearing and garden preparation. Rock ridges at the site follow the palisade line, leading Meyer (1996:48) to believe that the palisades were present during the initial cultivation of this site, allowing the gardeners to pile their rocks against this structure.



Figure 4.6 The west wall profile of Unit 194N196E illustrating the presence of a cultivated matrix situated underneath a layer of yellow silt (Meyer 1996:23).

Other areas of the site show no evidence of gardening activities. For example, the area between the two chimney mounds has been unaltered, leaving the 18th century occupation intact (Figure 4.7). This occupation level was also covered by yellow sandy silt. Meyer (1996:22-26) states that this yellow sandy silt is indicative of flooding and there appears to have been two observable episodes of flooding in certain areas of the site while only one episode is suggested in others. Meyer (1996:24) suggests that one flood occurred before a spring planting session and was spaded away while the latter flooding event took place after all gardening activities had ceased, thus covering the whole site with the yellow sandy silt.



Figure 4.7 The north wall profile of Unit 199N197E showing an intact 18th century fur trade component situated underneath a layer of yellow sandy silt (Meyer 1996:23).

Chapter 5

Methodology, Procedures, and Analysis

5.1 Introduction

During the field seasons of 1991, 1992, and 1994 the Cumberland House area was reinvestigated to establish the location of the first Hudson's Bay Company western inland trading post. This was a joint effort between the Department of Anthropology and Archaeology at the University of Saskatchewan and the Cumberland House Historical Society. Funds were supplied by the Access to Archaeology Program of the Department of Communications, the Cumberland House Development Corporation, and the Saskatchewan Heritage Foundation. At various times, housing and office space was supplied by the Cumberland Indian Reserve, while administrative, pay roll, and accounting services were provided by the Cumberland House Development Corporation. Survey and excavation crews were comprised of University students, volunteers from the Saskatoon area, and individuals from Cumberland House (Meyer 1996:3-6).

5.2 Excavation Methodology and Procedures

Equipped with Peter Fidler's maps showing the location of Old Cumberland House (Figures 5.1 and 5.2), data from previous archaeological surveys, and local oral information, Meyer and crew began excavating a site that contained several features. These features appeared to be the remains of three chimneys and two cellars surrounded by a number of rock ridges. These same features had been noted and tested in the 1967 survey by Anthony Ranere (location #8 on Figure 4.3), but he

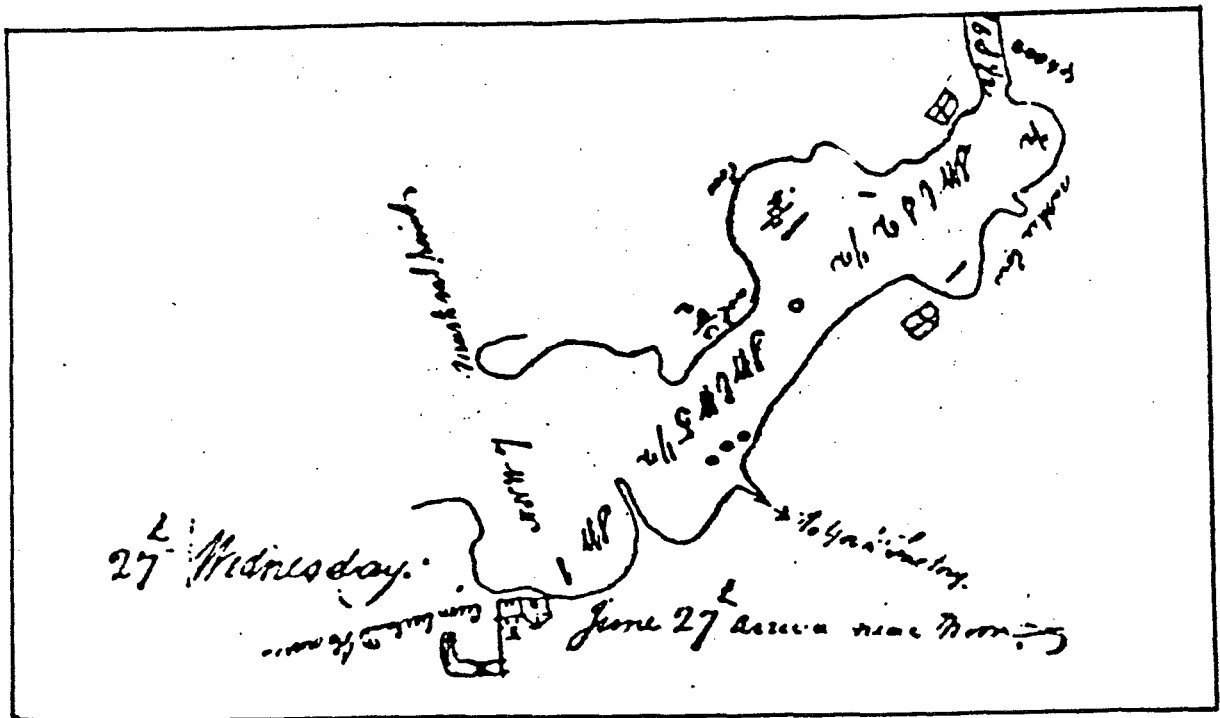


Figure 5.1. A portion of Peter Fidler's 1792 map of the Cumberland House area, indicating the presence of the Old Cumberland House trading post on the south shoreline of Cumberland Lake (Tyrrell 1934:486).

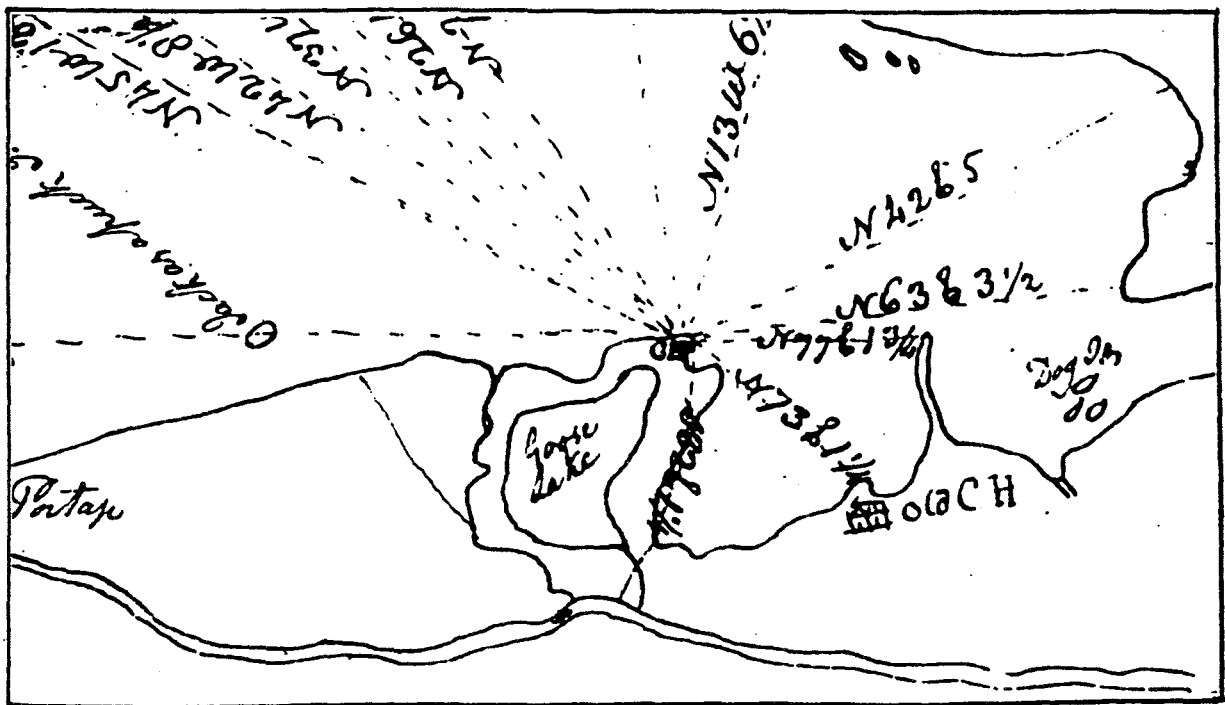


Figure 5.2. A portion of Peter Fidler's 1798 map illustrating the location of the Old Cumberland House trading post (HBCA E.3/2 fo.103, Meyer 1996:12).

thought that the artifact assemblage uncovered dated to the 1850s and that the stone piles were too large to be remnants of chimneys.

Meyer and crew located Ranere's original test units and established a datum point at 200N200E. This point was at, or very close to the northwestern corner of Ranere's Test Pit #3, and a north-south line was established based on the western edge of Ranere's test pit. Units were identified from the coordinates of their southwest corners. Meyer (1996:20) notes that the Old Cumberland House site was excavated using trowels and brushes and the backdirt was screened through 6 mm (1/4 inch) mesh. An attempt was made to use 1/8 inch mesh screens, but unfortunately, the nature of the stoney clay soil made it impossible to pass through such a fine grid. Meyer (1996:20) indicates that the site was excavated in "natural levels and ceased when sterile subsoil had been reached, generally at 30 cm below the surface". Provenience of artifacts was maintained by 50x50 cm quadrants in 1x1 m units. Meyer (1996:20) states that planviews of each level were drawn and photographed while wall profiles of most units were also recorded.

5.3 Laboratory Procedures and Analysis

Artifacts from the 1991 and 1992 field seasons were washed and sorted on location. These artifacts were brought back to the Department of Anthropology and Archaeology at the University of Saskatchewan where two students were employed for identification and cataloguing duties. The 1994 materials were washed, sorted, and catalogued at the University of Saskatchewan facilities by the author. The author reanalyzed the 1991 and 1992 archaeological materials and corrections were made to the existing database.

All faunal materials and artifacts were identified and catalogued using the MacAdem 10.6.1 database and management program (Gibson 1991). The MacAdem database allows an individual to deal with prehistoric and historic artifact

and faunal assemblages. Information regarding material and faunal type can be recorded in addition to three-dimensional provenience, weight, and numbers.

5.3.1 Qualitative and Quantitative Analysis of Faunal Materials

Qualitative analysis of the Old Cumberland House faunal material was conducted by the author with the use of the Department of Archaeology and Anthropology faunal collection and a number of illustrative identification sources. Sources used for faunal identification purposes included: Casteel (1976), Clarke (1981), Cohen and Serjeantson (1996), Glass (1951), Gilbert *et.al.* (1985), Hillson (1986), Magee (1996), Olsen (1964, 1985), and Wheeler and Jones (1989).

Faunal materials were initially categorized as identifiable and unidentifiable specimens. Element, portion, and taxonomic designation or size class affiliation was assigned to identifiable specimens. A size classification system (Table 5.1) for mammals and birds was utilized during the qualitative analysis of the Old Cumberland House faunal assemblage to appoint faunal materials to a size class that could not be assigned to a definite taxonomic level.

Size class	Weight	Associated terms	Examples
SC6	200 – 700 kg	Very large mammal	Elk, bison, moose
SC5	25 – 200 kg	Large mammal	Deer, caribou, wolf
SC4	5 – 25 kg	Medium mammal	Beaver, coyote, river otter
SC3	700 – 5000 g	Small-medium mammal	Hares, fox, marten, muskrat
SC2	100 – 700 g	Small mammal	Ground squirrels
SC1	<100g	Micro-mammal	Mice, voles
SC5	-	Large bird	Swan, eagle
SC4	-	Medium bird	Geese, raven
SC3	-	Small-medium bird	Ducks
SC2	-	Small bird	Robin, pigeons
SC1	-	Micro-bird	Warblers

Table 5.1. Size classification system of Old Cumberland House faunal collection (Mammal classes from Dyck and Morlan 1995:140, avian classes from Webster 1999:40).

Natural and cultural taphonomic modifications of the faunal materials were also identified during analysis. Natural bone modifications included: gnawing and

chewing by rodents and carnivores, pathologies, weathering, and root erosion. Cultural modifications observed during the analysis of faunal materials included: burning, butchering marks, polishing, grooving, incising, and drilling. Additional comments regarding feature association, location of butchering marks, butchering methodology, and fragmentation of skeletal elements across the site were also noted.

Terminology of quantitative units is important in faunal analysis. Two quantitative terms used in this thesis include specimen and element. The definition of a specimen follows that of Grayson (1984:16) and is defined as; “a bone or tooth, or fragment thereof, from an archaeological or paleontological site.” An element is defined by Lyman (1994:100) as “a discrete, natural anatomical unit of a skeleton, such as a humerus, a tibia, or a tooth.” Based on these two definitions, a specimen can be represented by whole skeletal elements or fragments thereof. Conversely, a fragment of a specimen represents, but technically is not, an element (Lyman 1994:100, McKeand 1995:48).

Four approaches used for the quantification of taxa represented in the Old Cumberland House faunal collection includes NISP (number of identified specimens), MNI (minimum number of individuals), MNE (minimum number of elements), and MAU (minimum number of animal units) (Lyman 1994, Morlan 1994).

Lyman (1994:100) defines NISP as “the number of identified specimens per taxon, it is an observational unit”. NISP generates measurements of abundance for taxonomic categories. Minimum numbers of individuals per taxon (MNI), accounts for the abundance of identified specimens found at an archaeological site (Grayson 1978).

MNE and MAU analytical quantification methodologies are designed to measure the representation of skeletal parts in a faunal assemblage and taphonomic

effects rather than the abundance of taxonomic categories. MNE is defined as the “minimum number of a particular skeletal element or portion of a taxon” (Lyman 1994:102). MNE quantification methods calculate the NISP for fragmented skeletal elements. There are several ways to derived MNE values, so it is important for the researcher to specify the criteria used to establish these values (Lyman 1994, Morlan 1994). Anatomical landmarks (tibial tuberosity of the tibia) were used in the analysis of the Old Cumberland House faunal collection to determine MNE values. MAU quantitative units are “the minimum number of animal units necessary to account for the specimens in a collection” (Lyman 1994:105). MAU counts are derived by dividing the MNE value of an element by its anatomical frequency (Morlan 1994).

5.3.2 Qualitative and Quantitative Analysis of Artifact Materials

Artifact materials from the Old Cumberland House archaeological collection were analyzed and catalogued in the database according to material type. These material type classifications included: ceramics, glass, metal, flora, and lithic designations. Each of these classifications contains subcategories based on specific material types and forms.

Many researchers have noted that a classification system based on the material of manufacture criteria is unsuitable for historical archaeology. Problems associated with this material-based descriptive scheme include the fact that an artifact may be manufactured from a number of different types of material. This type of classification system forces the analyst to search each material of manufacture category in order to accumulate all the information related to a particular artifact (Sprague 1981:251-252).

Sprague (1981:252) advocates the use of a classification scheme focusing on the function of the artifacts rather than material typology. This thesis adopts such a viewpoint and qualitative analysis of artifacts is based on functional categories. The

functional classification system utilized in this thesis is organized according to broad functional categories established by Klimko in her 1998 analysis of artifact materials from the Francois-Finlay fur trading complex. This classification system is an amalgamation of Roderick Sprague's and Stanley South's schemes.

Klimko's (1989) seven primary functional categories include domestic, personal, recreational, hunting and subsistence, tools and hardware, business and transport, and miscellaneous. Klimko (1987:29) states that these primary groupings are composed of classes of artifacts that have been subdivided into artifact types.

The assignment of specific functions to artifacts has created a number of problems for archaeologists. An artifact may serve different functions in any cultural context, dependent on where it is found and how it is being used (Deetz 1977, Sprague 1981, Klimko 1987). For example, a ring may serve primarily as a trade good article but may also be incorporated into the personal functional category as an item of jewelry. Numerous historical accounts and evidence from the archaeological record suggest that the function of an artifact may also change as it is reused for multiple tasks throughout time. Simply stated, it is impossible to avoid functional overlapping of the some of the Old Cumberland House artifact materials.

Quantitative analysis of the Old Cumberland House artifact collection encompasses hand computed and computer generated statistical calculations. The statistical abbreviation "n" used in the artifact analysis and discussion sections of this thesis represent quantities of artifacts. The metric system was used to measure all artifacts.

5.4 A Descriptive View of Old Cumberland House

Analysis of the journals from Old Cumberland House provides the reader with a description of the physical layout of the trading post. Journal entries note the construction of four buildings at Old Cumberland House. The first structure to be built

was the main house. This building was a two-story house that contained the Master's quarters, the warehouse/trade room and cellar, the men's cabins. A provisioning supply shed and cellar was constructed to facilitate proper storage of food at the post. A third structure was erected for the purpose of cooking and was called the cook room. The fourth structure, a canoe storage shed, was built during the expansion of the west wall of the stockade. The following chapters will provide an analysis of the visible features at the Old Cumberland House site for the purposes of determining location and function of the buildings at this post.

Chapter 6

South Chimney Feature – Structural, Artifact, and Faunal Analysis

6.1 Introduction

The area around the South chimney mound has received the most attention in regard to excavated units. Seventeen m² of this feature was exposed, with units placed in the feature itself and around it. These include the units from 192N200E to the south half of 199N200E. An initial excavation was conducted in the area of Ranere's third test pit (Figure 4.3) to establish the boundaries of the unit. As a result, the 200N200E point was established at the northwest corner of Ranere's Test Pit #3 and Units 199N200E and 198N200E encompassed most of his test pit. The planking and joist mapped in these units are essentially those shown in Ranere's planview of Test Pit #3 (see Figure 4.4). Meyer (1996:34) notes that subsequent units were placed to the north, south, and west of the 1967 unit. Excavation of the various units to a depth of 20 to 91 cm resulted in the exposure of the south chimney and associated floor planking, floor joists, and wall sills (Figure 6.1).

Building remains associated with the South chimney indicate that this structure was cabin-sized with dimensions of 6 m (20 ft) long by 3.4 m (11 ft) wide (Meyer 1996:34). Figure 6.1 illustrates that a considerable section of the wall sills were exposed along with floor joists and planking. The three floor joists associated with this cabin are oriented in an east-west fashion and are separated from each other by about 1.2 m (4 ft) (Meyer 1996:34).

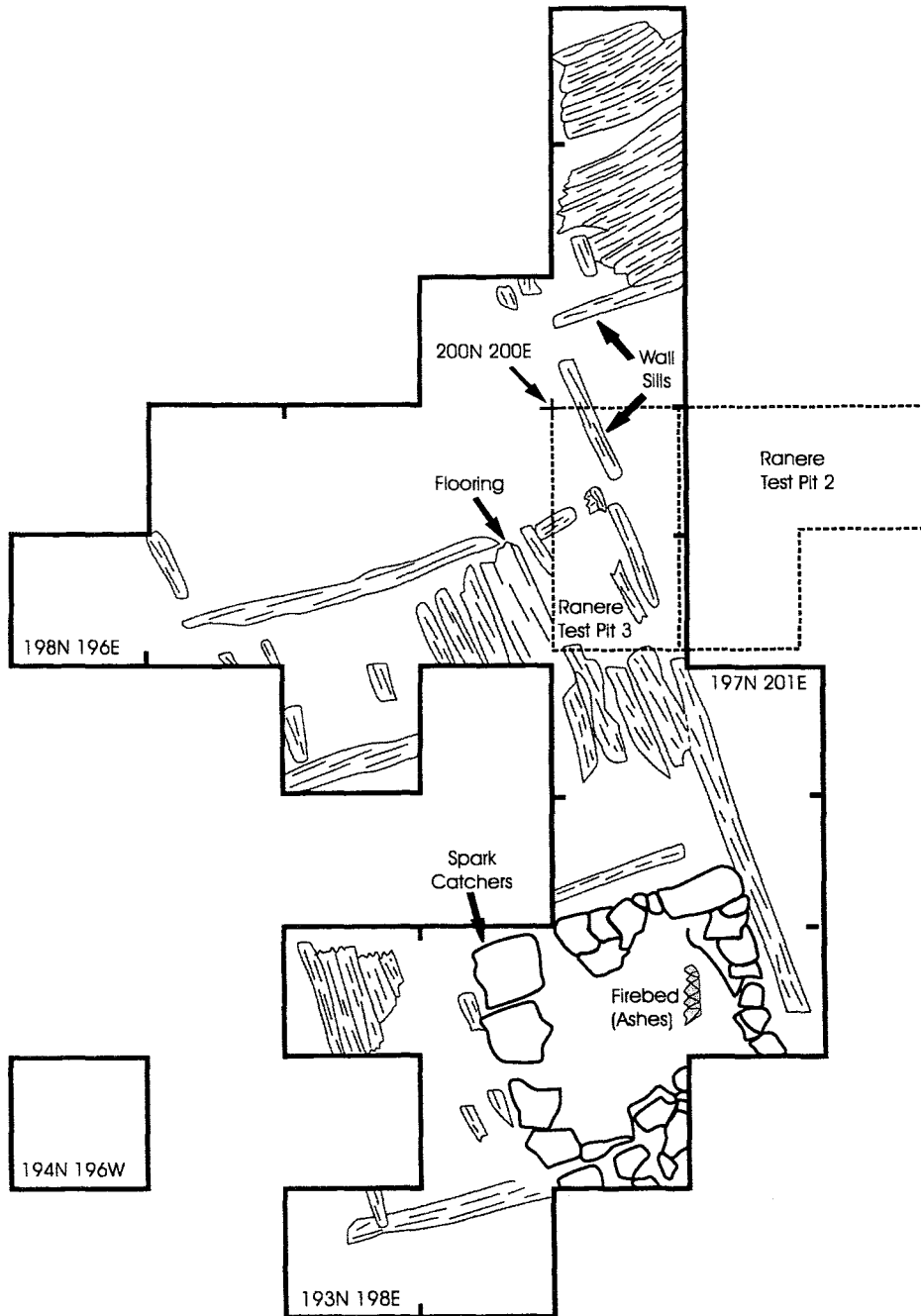


Figure 6.1 Planview of the North chimney feature, the Northwest room, and the South chimney area (computer generation by Kim Weinbender after Meyer 1996:36).

The chimney feature is located in the southeast corner of this structure. Figure 6.2 demonstrates the stone/mortar construction of the chimney and fireplace feature. The presence of large limestone flagstone spark catchers at the base of the fireplace should also be noted. Meyer (1996:34-37) interprets as an ash bin a dense concentration of ash containing artifact and faunal materials that was uncovered along the outside, northern wall of the fireplace.



Figure 6.2 The South chimney feature, looking east. Note the flagstone spark catchers located in front of the fireplace (Meyer 1996).

The awkward positioning of the structural elements of this building to that of the location of the fireplace is noted by Meyer in his 1996 field season report. The exposure of the east wall sill in level 4 (26 - 53 cm dbs) of Unit 197N201E indicates that the wall sill was positioned upon the collapsed burned remains of a previous structure. Meyer postulates that the original building had burned and a subsequent

narrower structure was erected over the original remains. However, the presence of any original, larger building was not evident in the excavation units in areas outside the South chimney feature. Meyer (1996:37) suggests that the presence of a cultivation zone in this area may have obliterated any structural evidence of the original structure.

The stratigraphic profiles of the units encompassing the South chimney feature are complex. Areas located on the eastern edge of this feature display evidence of cultivation practices. The disturbed profiles encompass a present day humus/littermat layer overlying a level of yellow sandy silt. The presence of yellow sandy silt is indicative of flooding at the Old Cumberland House site. This layer of silt covers a thick matrix of friable, grey clay. This friable soil is suggestive of cultivation practices (Meyer 1996:22).

Some of the units within the area of the South chimney feature do not display any indication of gardening. The stratigraphic profile of these areas consists of a humus/littermat covering a flooding episode deposit. At times a layer of grey, silty soil is situated between the two latter strata. The presence of this soil type denotes the backdirt associated with souvenir hunting activities. Another organic A horizon is located under the yellow sandy silt. This horizon encapsulates a yellow clay matrix which contains building debris and cultural materials associated with the 18th century fur trade occupation. The remnants of buildings and past activities at this site overlie a final A horizon, representing the original ground surface at the time of initial occupation of the fort (Meyer 1996:22-26).

Strata from other units of this feature suggest that two periods of flooding occurred at the Old Cumberland House site. The stratigraphic record of Unit 193N199E (Figure 6.3) displays a contemporary humus layer overlying backdirt and rubble from souvenir hunting activities. Two layers of sandy silt are separated by an A

horizon. The second layer of sandy silt covers and protects the intact 18th century strata. This chapter will discuss the three components associated with the South chimney feature and provide an indication of the artifacts and faunal remains associated with each component.

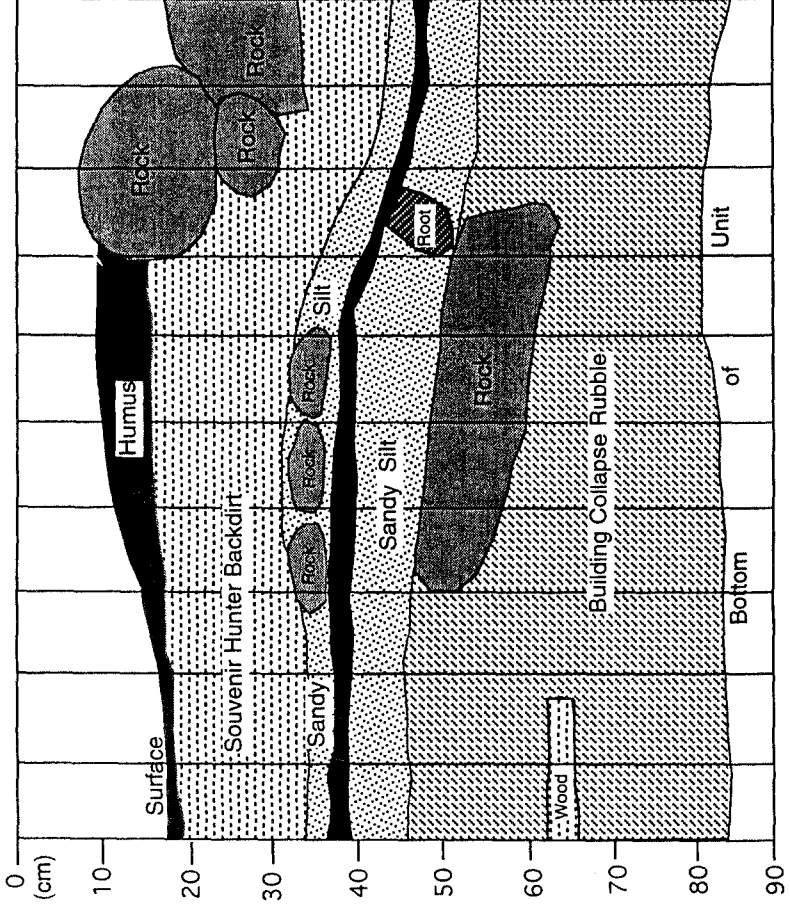


Figure 6.3 A profile of the South wall of Unit 193N199E indicating two flooding episodes in the area of the South chimney mound (Meyer 1996:25).

6.2 19th and 20th Component - Artifacts

The South chimney feature contains a total of 8290 artifacts. One hundred and seventy-five artifacts (2.1% of the total assemblage) were uncovered in the upper component (0 - 48 cm db) of this feature. Soils from this upper component consist of a humus layer, an organic horizon, and a yellow sandy silt matrix. Table 6.1 provides quantified data for the functional artifact categories in this feature.

Artifacts designated as representing Miscellaneous functions (53.2%) encompass a large portion of the upper artifact assemblage. Domestic related artifacts (27.5%) comprise the second most abundant functional category followed by Tools and Hardware (9.1%), Personal (7.4%), Business and Transport (1.7%), and Recreational (1.1%).

Functional category	Number present
Domestic	48
Personal	13
Recreational	2
Hunting and Subsistence	0
Tools and Hardware	16
Business and Transport	3
Miscellaneous	93
Total	175

Table 6.1 Number of artifacts present in the 19th and 20th century component of the South chimney feature.

The Miscellaneous functional category includes pieces of chinking, ferrous and cut copper scraps, melted masses of unknown metal, pieces of plastic, unknown ferric formed items, debitage, clinkers, and two pieces of leather.

Artifacts composing the Domestic functional category include four sherds of earthenware, the blade of a ferrous knife, a lead handle from a pail or container, a bottle cap, canning jar fragments, sherds from various bottles, pieces of flat glass, and a neck/lip finish. One earthenware sherd is not decorated and has a clear glaze applied to the interior and exterior surfaces. A blue-on-white transfer printed design of parallel lines decorates one side of a fragment of earthenware. A majority of the design area has been broken off creating difficulties in identifying the pattern type. A piece of a cup or bowl, exhibiting an unidentifiable flow-blue transfer print, fits with another sherd from the upper component in Unit 198N196.5E of the Northwest room feature. The interior surface of a plate rim fragment possesses a portion of an unidentified flow-transfer print.

Glass artifacts include two specimens of flat glass and 39 pieces of curved glass. The flat glass consists of green and clear shards. Seven pieces of brown glass include three unidentifiable fragments and four bottle portions. The fragmented nature of four green shards inhibited further identification. One clear glass fragment exhibits some patination while a piece of aqua tinted glass is partially melted and slightly patinated. A fragment of a base from a clear glass bottle exhibits an impressed design around on outer edge. Twenty-three fragments of green tinted glass represent the remains of turn molded canning jars in the upper component. Some of the fragments possess threads indicative of a screw cap application. Medicine vials are represented in the 19th and 20th century component of the South chimney feature by a flanged neck/lip finish.

The Tools and Hardware category is comprised of 15 nails and one staple. Four varieties of nails are found in the upper component of this feature and include handwrought, cut, wire, and unidentifiable nails. A list of nail types and associated characteristics are provided in Table 6.2.

Nail type	Portion	Shape	Length	Head form	Notes
1 handwrought	Complete	Straight	4-6 cm	Non-id'able	-
1 handwrought	Shank	Straight	-	-	-
1 handwrought	Shank	Bent	-	-	Spatula tip
1 cut	Complete	Bent	6-8 cm	Non-id'able	-
1 cut	Complete	Straight	2-4 cm	Rose head	-
1 cut	Head	Straight	-	Non-id'able	-
1 cut	Head	Bent	-	Clasp head	-
1 cut	Head	Straight	-	Non-id'able	Wood adhering
1 cut	Shank	Bent	-	-	-
1 cut	Shank	Straight	-	-	Wood adhering
1 wire	Complete	Straight	8 cm	Circular, flat	-
1 wire	Complete	Straight	6-8 cm	Circular, flat	-
2 wire	Complete	Straight	4-6 cm	Circular, flat	-
1 non-id'able	Head	Bent	-	Clasp head	-

Table 6.2 Nail typology for the 19th and 20th century component of the South chimney feature.

Personal artifacts found in the upper component of the South chimney feature include a fragment of a bone bead, nine ferric buttons, a silver button, and a portion of a zipper. Modification of the bone bead consists of a series of small cut marks on the exfoliated external surface of the shaft. The polished appearance of one end of the fragment suggests that the bone was cut into segments during the manufacturing process. This bead bone was made from a limb element of an avian species.

Nine ferric buttons were found in the upper component of this feature. These buttons are classified as a snap-type form. The shank on the silver button is missing but characteristics of the base of the shank and form of the artifact suggest an alpha loop shank construction. The date of manufacture associated with this specimen is 1785 to 1800 (Olsen 1963:553).

Three portions of barrel hoops represent the Business and Transport functional category. The Recreational artifact category is composed of white ceramic pipe fragments. These include a portion of a bowl and one piece of a stem. The used bowl fragment possesses a portion of an impressed ring on the back surface of the bowl. A piece of a stem exhibits general burn characteristics.

6.3 19th and 20th Component - Fauna

A total of 19358 (11922.8g) faunal materials were recovered during the excavation of the South chimney feature. The vast majority of these remains were burned or calcined (78.7%) while 4121 (21.3%) are unburned. Faunal remains from the 19th and 20th century component weigh 758.3g and represent 3.2% (n=612) of the total faunal assemblage for this feature. A total of 270 (44.1%) of the upper component fauna are unburned while 55.9% (n=342) are burned and calcined. Over half (55.6%) of the fauna from the 19th and 20th century component are unidentifiable with a majority (88.6%) being burned or calcined. Identifiable remains encompass 44.3% (n=271) of the upper faunal component with an overwhelming portion (85.3%)

exhibiting no indication of exposure to extreme heat. Identifiable fauna for the upper component is listed in Table 6.3.

Common name	Taxonomic designation	NISP	MNI
Snowshoe hare	<i>Lepus americanus</i>	12	2
American marten	<i>Martes americana</i>	1	1
American beaver	<i>Castor canadensis</i>	18	2
Canid (SC4)	<i>Canis sp.</i>	1	1
Moose	<i>Alces alces</i>	4	1
Grouse or partridge	Phasianidae	1	1
Mallard	<i>Anas platyrhynchos</i>	1	1
Goose (SC4)	Indeterminate Anatidae	3	1
Lake sturgeon	<i>Acipenser fulvescens</i>	43	-
Northern pike	<i>Esox lucius</i>	4	1
Possible Northern pike	<i>Esox lucius c.f.</i>	1	1
Perch sp.	<i>Stizostedion sp.</i>	1	1
Walleye	<i>Stizostedion vitreum</i>	4	1
Very large mammal (SC6)		5	-
Large mammal (SC5)		39	-
Medium mammal (SC4)		3	-
Small-medium mammal (SC3)		1	-
Medium bird (SC4)		11	-
Small-medium bird (SC3)		1	-

Table 6.3 Identified taxa for the 19th and 20th component for the South chimney feature.

6.3.1 Mammals

Family Leporidae, *Lepus americanus* – Snowshoe hare

Snowshoe hare are represented by 11 specimens in the 19th and 20th century component. There is no evidence of exposure to extreme heat for any of the *Lepus* remains but five bones do display evidence of butchering. A complete left mandible exhibits a series of cut marks on the lateral and medial surfaces of the diastema. The midshaft of a right femur has two cut marks located on the posterior surface and two on the anterior portion. A right proximal end of a tibia fragment possesses a cut mark on the posterior/medial surface and three cuts on the lateral side of the shaft. The proximal and distal portions of a left tibia display two cuts on the anterior border and

one on the anterior shaft surface. Table 6.4 presents the *Lepus americanus* skeletal remains from the 19th and 20th century component of this feature.

Skeletal elements	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	3	1	1	2	1.0
Mandible	2	1	1	2	1.0
Anterior limb					
Scapula	1	0	1	1	0.5
Posterior limb					
Femur	2	1	1	2	1.0
Tibia	2	0	2	2	1.0

Table 6.4 Skeletal representation of Snowshoe hare in the 19th and 20th century component of the South chimney feature.

Snowshoe hare are commonly found in forested regions throughout Canada but will also inhabit swamps, riverside thickets, and lowland areas. Snowshoe hare are crepuscular and nocturnal in their behavior and follow familiar runways in their foraging areas. Summer diets encompass an array of vegetation including grasses, vetches, weeds, berries, flowers, and leaves from trees. During the winter they feed on bark, buds, evergreen leaves, and twigs from a variety of different species of shrubs, trees, and conifers (Banfield 1974:81-83).

Family Mustelidae, *Martes americana* – American marten

A portion of the left premaxilla and maxilla represent the remains of marten in the upper component of the South chimney feature. This specimen possesses four socketed teeth: second premolar, third premolar, fourth premolar, and first molar. There are no indications of cultural or natural modification.

One of the more prominent and valued fur-bearing animals, the American marten once flourished across forested areas of North America, but has been diminished to a number of isolated northern areas because of over-trapping and destruction of habitat. Martens are described as solitary and nocturnal in nature. They tend to be active throughout all seasons. The diet of a marten is varied and is

based on what is present in the environment at that particular time. They are omnivorous and subsist on a wide array of mustelids, rodents, birds, insects, carrion, and berries (Banfield 1974:316-318).

Family Castoridae, *Castor canadensis* – American beaver

A minimum number of two beavers are represented by the major trochanter of the femur in the 19th and 20th century component of this chimney feature and surrounding area. An axial specimen and fragments of appendicular long bones show evidence of natural and cultural alteration. The ventral surface of a right auricular area of a sacrum exhibits four medium-sized puncture marks. A left middle phalanx and femur are burned and calcined. The lateral surface of a distal ulna shaft fragment possesses a number of cut marks. A tabulated representation of skeletal specimens for *Castor canadensis* is provided in Table 6.5.

Skeletal element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	2	0	1	1	0.5
Mandible	1	0	1	1	0.5
Vertebrae					
Sacrum	1	1	0	1	0.5
Anterior limb					
Ulna	1	0	1	1	0.5
Radius	1	0	1	1	0.5
3 rd metacarpal	1	0	1	1	0.5
Posterior limb					
Femur	3	0	2	2	1.0
Proximal phalanx	1	-	-	1	0.1
Middle phalanx	1	-	-	1	0.1

Table 6.5 Representation (NISP, MNI, MNE, and MAU) of beaver in the upper component of the South chimney feature.

The beaver has a wide distribution across North American and has become a national emblem for Canadian culture. The importance of this species and its exploitation during the fur trade provided the initial exploration and settlement of the

Canadian interior. Not only was this mammal prized for its fur potential but it was also a valuable food source for the fur traders and native peoples (Banfield 1974:158).

Banfield (1974:158-160) describes the beaver skeletal and physical features as adapted to an aquatic existence. The habitat of the beaver varies from forested areas to prairie province streams, muskegs, and meadows. Beavers will construct their dams where water flow is slow and not subject to flash flooding. Beavers are crepuscular rodents and do not hibernate during the winter. They subsist on a variety of trees, herbaceous pond plants, leaves, twigs, and buds.

Family Canidae, *Canis sp.* – Canid (SC4)

The remains of a canid species were uncovered in the upper component of this feature. A complete, right lower molar did not display any indications of cultural or natural alteration. This specimen could not be assigned to a particular genus designation based on the fact that both domesticated and wild canids were and still are present in the Cumberland House area.

Family Cervidae, *Alces alces* – Moose

Four specimens, representing appendicular elements encompass the remains of moose in the South chimney mound area. All of the bone fragments are unburned with only two exhibiting cultural modifications. A left, spirally fractured distal tibia shaft fragment has a number of cut marks on the posterior surface of the bone. The proximal medial surface of a left radius possesses a series of cut marks as well.

The moose is described as the largest member of the Cervidae family. Moose inhabit a variety of different locales including forests, parkland, lakeshores, alder swamps, and the arctic tundra. Moose prefer a solitary existence with calves only remaining with their mothers for a one-year period. The moose is generally active at dawn and dusk hours but tends to be more active in the daytime during the winter months as it must forage for food. During the summer months, moose consume a

number of aquatic plants, grasses, and tree foliage. The winter diet consists of a variety of trees, twigs, buds, and leaves (Banfield 1974:395).

6.3.2 Birds

Family Phasianidae – Grouse or partridge

The proximal end of a right humerus encompasses the remains of a grouse or partridge species in the upper component. This specimen is similar in size to a grouse but a genus or species designation could not be given for this humerus fragment.

There does not seem to be any indication of cultural or natural modification associated with this wing element.

Family Anatidae, *Anas platyrhynchos* – Mallard

The mallard is represented in the upper level of the South chimney feature by a nearly complete, left scapula fragment. This element is the same size as the specimen in the Department of Anthropology and Archaeology faunal collection and does not exhibit any indication of natural or intentional alteration.

The mallard is one of the best-known waterfowl in the duck family. This species of duck inhabits northern temperate zones with a wide range across North America, Europe, and Asia. Mallards reside in a number of different habitats including fresh water lakes, streams, ponds, rivers, and marshes to salty coastal regions. It relies on aquatic vegetation, seeds, grains, and mosquito larvae to fulfill its diet. This species is a favorite of hunters because of its distinctive field marks and flight abilities (Godfrey 1986:86).

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

Three specimens could only be classified as representing the remains of an indeterminate goose species. The two axial and one appendicular fragment do not appear to be naturally or culturally modified.

6.3.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

Forty-three skeletal remains were classified as representing sturgeon in the upper component faunal assemblage. Skutes and fin supports encompass the sturgeon remains for this level. One of the skate fragments has been burned while another exhibits one cut mark. A fin support shows evidence of rootlet action on the external surface of the bone.

Family Esocidae, *Esox lucius* – Northern Pike

Pike specimens are represented by four axial remains; two parasphenoid fragments, one left subopercle, and the anterior three-quarters of a left dentary. All of the remains are unburned and display no evidence of cultural or natural modification.

A portion of a maxilla was classified as probably being Northern pike. This specimen is unburned and does not appear to have been subjected to any natural or cultural modification.

Family Percidae, *Stizostedion sp.* – Perch species

The anterior half of a right dentary fragment was designated as representing a perch species. There is no evidence of natural or cultural alteration to this axial specimen.

Family Percidae, *Stizostedion vitreum* - Walleye

The skeletal remains of walleye were found in the 19th and 20th century component of the South chimney feature. The four axial portions include a right and left ceratohyal and associated epihyal. These specimens are not naturally or culturally altered.

6.3.4 Size classification

Forty-eight mammal remains could not be classified to a specific taxonomic designation and were assigned a size class instead. Very large mammals (SC6)

encompass five rib fragments. All of the rib portions are unburned with two displaying cut marks in close association to the proximal tubercle.

Large mammals (SC5) remains included unknown appendicular fragments, unidentifiable specimens, and a portion of a rib. Burned and calcined bones encompass 74.4% (n=29) of the SC5 faunal materials. Two burned/calcined unknown appendicular fragments have three cut marks on the external surface of the bones. One unburned unknown appendicular fragment displays a series of cut marks on the external surface of the specimen, with one edge having been cut through. A number of gnaw marks are present on the broken and cut edges of this specimen. The left proximal portion of a rib has also been subjected to butchering activities. Four cut marks are observed on the anterior medial surface, the proximal and distal edges of the rib have been cut through, and there are two cut marks on the lateral medial surface. A burned and calcined unidentifiable fragment exhibits a cut mark on its external surface. Natural alteration is evident on an unidentifiable bone fragment that displays a number of etched rootlet marks on its external surface. Medium mammal materials (SC4) encompass three rib portions. One of the specimens exhibits an indication of exposure to extreme heat.

Twelve avian specimens could not be identified to a specific taxonomic level and were given a size classification instead. Medium avian (SC4) remains encompass 11 specimens. Axial skeletal remains include unmodified portions of a sternum, a nearly complete cervical vertebra, and a furculum fragment. Seven fragments represent the appendicular skeleton. The wing appendage includes the distal half of a left scapula with three cuts marks on the lateral surface of the specimen, two unmodified distal shaft fragments of an ulna, the gnawed proximal shaft fragment of a right ulna, and an unburned portion of a right radial carpal. Lower limb elements are represented by two proximal left femur fragments and the dorsal

portion of a right tibiotarsus shaft. The unburned posterior portion of a thoracic vertebra was classed as representing a small to medium-sized bird (SC3).

6.4 Cultivated Component - Artifacts

A total of 4007 artifacts were found during the excavation of the cultivated, grey friable clay component (2 - 91 cm dbs) of the South chimney feature. All the functional categories are represented in the artifact assemblage for this component.

Table 6.6 provides artifact totals for each of the functional categories.

Functional category	Number Present
Domestic	24
Personal	8
Recreational	46
Hunting and Subsistence	0
Tools and Hardware	50
Business and Transport	11
Miscellaneous	3868
Total	4007

Table 6.6 Number of artifacts present in the 19th and 20th century component of the South chimney feature.

Miscellaneous artifacts (96.5%) provide the bulk of the mixed artifact assemblage for this feature. Tools and Hardware (1.3%) are the second largest artifact category followed by Recreational (1.1%), Domestic (0.6%), Business and Transport (0.3%), and Personal (0.2%).

The Miscellaneous artifact category encompasses a wide array of artifacts. A large majority of the category is comprised of chinking (3869 pieces). Cut and unmodified scraps of ferric, brass and copper metal, slag, pieces of plastic, and debitage make up the remainder of the Miscellaneous category.

A variety of nail forms comprise the Tools and Hardware category. These nail forms are present in the mixed matrix of the South chimney feature. A list of nail types and associated characteristics are provided below.

Nail type	Portion	Shape	Length	Head form	Notes
1 handwrought	Complete	Straight	2-4 cm	Rose head	-
1 handwrought	Shank	Straight	-	-	-
1 cut	Complete	Straight	4-6 cm	Non-id'able	-
1 cut	Complete	Straight	2-4 cm	T-head	-
2 cut	Complete	Straight	2-4 cm	Rose head	-
1 cut	Complete	Straight	2-4 cm	Non-id'able	-
3 cut	Complete	Bent	2-4 cm	Rose head	-
1 cut	Complete	Straight	0-2 cm	Rosehead	-
2 cut	Complete	Clinched	2-4 cm	Rose head	-
4 cut	Head	Straight	-	Clasp head	-
1 cut	Head	Straight	-	Rose head	-
1 cut	Head	Straight	-	Non-id'able	-
13 cut	Shank	Straight	-	-	-
7 cut	Shank	Bent	-	-	-
1 non-id'able	Complete	Straight	4-6 cm	Non-id'able	-
1 non-id'able	Complete	Bent	2-4 cm	Non-id'able	-
1 non-id'able	Head	Straight	-	Non-id'able	-
5 non-id'able	Shank	Straight	-	-	-
2 non-id'able	Shank	Straight	-	-	Wood adhering

Table 6.7 Nail typology for the mixed component of the South chimney feature.

Forty-six specimens encompass the Recreational artifact category of the mixed matrices in the area of the South chimney feature. Ceramic pipe stems (n=26) dominate the Recreational artifact assemblage. A majority of these specimens (65.4%) exhibit evidence of being burned.

Sixteen bowl fragments were found in the mixed matrix of this feature. Eight of these specimens are unburned, four have been used, and four others have been burned by an external source. Two pieces of pipe bowl display characteristics associated with designs and markers marks. One bowl fragment displayed a portion of an impressed ring and an impressed "T" on the backside of the bowl. A second fragment possessed an embossed "T" and "D" on the spur and a portion of a impressed "TD", ring and scroll on the surface facing the user.

A complete, burned bowl was found during excavation and decorated with the impressed "TD", scroll and ring design and an embossed "T" and "D" on the spur. Three bowl/stem junctions were found in the area around the South fireplace. One

embossed bowl/stem junction has been subjected to extreme heat and an undecorated junction fragment displays signs of use. The third specimen shows no indication of cultural modification.

Twenty-four specimens are included in the Domestic artifact category. Four white earthenware sherds and a piece of stoneware represent ceramic artifacts for this component. Two earthenware sherds are decorated with transfer printed designs. One pattern is unidentifiable while the other is the Honeysuckle pattern produced by Spode/Copeland in the later part of the 1800s. A rolled rim fragment was identified as a portion of a salt glazed stoneware gallipot.

A variety of colors and shapes of glass fragments are found in the cultivated component of this feature. A piece of clear flat glass appeared to have been subjected to extreme heat as a portion of the shard is melted. Four curved glass fragments also display characteristics associated with exposure to a heating/cooking source. Slight patination is observed on one clear shard and two green fragments of glass. Two olive colored shards have heavily patinated surfaces. A canning jar fragment was found in this component. The similarity in shape and manufacturing style to those in the preceding component was noted. Domestic artifacts made of ferrous materials include two rim fragments from a container, a handle from a bucket, the proximal portion of a knife blade, and two complete needles.

The Business and Transport artifact category is composed of 11 portions of barrel hoops. Eight artifacts were classified as belonging to the Personal functional category. They include such items as beads, tinkling cones, an eyelet, buttons, and rings (Figure 6.4).

The two beads are classified as representing wire wound and tube manufacturing methods. A white seed bead is 1-2 mm in length and accounts for the tube-manufactured class. One bead is wire wound and exhibit flowered designs of

inlaid colors. A button from the cultivated component of the South chimney area is made of brass. A broken yellow metal button does not display any decoration and possesses a soldered shank style.

One ferric tinkling cone and two brass rings were found in the middle component of the South chimney feature. The tinkling cone was found in front of the fireplace and outside of the east wall sill. The two rings were found in the immediate vicinity of the South chimney feature. One of the rings is plain with no ornamentation. The other ring has three glass stones; a primary deep blue stone with one secondary small blue stone located on each side.



Figure 6.4 Artifacts from the Old Cumberland House site. Clockwise: a ring, a HBC button, the proximal portion of a metal projectile point, a wire wound bead, and a tinkling cone.

6.5 Cultivated Component – Fauna

A total of 9642 specimens with a weight of 5356.7g were uncovered during the excavation of this feature. Burned and calcined remains comprise 77.2% (n=7445) of the mixed faunal assemblage while 2197 (22.8%) are unburned.

A total of 6823 remains could not be identified to a specific taxonomic level. Two hundred and thirty-one (3.4%) are unburned and 96.6% (n=6592) display evidence of exposure to extreme heat. Identified remains comprise 29.2% (n=2819) of the mixed component faunal assemblage. Unburned specimens encompass 69.7% (n=1966) of the identifiable fauna while 853 (30.3%) are burned and calcined. Identifiable taxa for this component of the South chimney feature are provided in

Table 6.8

Common name	Taxonomic designation	NISP	MNI
Meadow vole	<i>Microtus pennsylvanicus</i>	1	1
American marten	<i>Martes americana</i>	1	1
Snowshoe hare	<i>Lepus americanus</i>	1	1
American beaver	<i>Castor canadensis</i>	248	7
Canid (SC4)	<i>Canis sp.</i>	4	1
Cervid	Cervidae	2	1
Moose	<i>Alces alces</i>	6	2
Raven	<i>Corvus sp.</i>	1	1
Mallard	<i>Anas platyrhynchos</i>	2	1
Duck	<i>Aythya sp.</i>	1	1
Duck (SC3)	Indeterminate Anatidae	7	1
Goose (SC4)	Indeterminate Anatidae	20	2
Goose	<i>Anser sp.</i>	2	1
Canada goose	<i>Branta canadensis</i>	1	1
Greater White-Fronted goose	<i>Anser albifrons</i>	1	1
Swan	<i>Cygnus sp.</i>	2	1
Lake Sturgeon	<i>Acipenser fulvescens</i>	934	-
Northern pike	<i>Esox lucius</i>	18	1
Probable Northern pike	<i>Esox lucius c.f.</i>	1	1
Walleye	<i>Stizostedion vitreum</i>	2	1
Very large mammal (SC6)		19	-
Large mammal (SC5)		587	-
Medium mammal (SC4)		83	-

Small-medium mammal (SC3)	10	-
Medium bird (SC4)	53	-
Small-medium bird (SC3)	30	-
Micro bird (SC2)	1	-

Table 6.8 Identifiable fauna for the mixed component of the South chimney feature.

6.5.1 Mammals

Family Muridae, *Microtus pennsylvanicus* – Meadow vole

The meadow vole is a natural inhabitant of the Cumberland House area. A right mandible and associated socketed teeth were found in the vicinity of the South chimney feature. This specimen does not appear to be naturally or culturally altered.

Meadow voles are found in all areas of Canada and inhabit meadows, marshes, prairies, and open areas in wooded regions. This species is active during early mornings and later afternoons. Their dietary staples consist of grasses, sedges, seeds, bulbs, roots, and bark. They have also been known to consume insects, snails and vole nestlings. Predators include a number of species of snakes, birds, fish, and fur-bearing mammals (Banfield 1974:209-210).

Morlan (1994:135) states that the occurrence of rodent bones in archaeological context results from a number of situations. A failure in burrowing strategy, intra-specific fighting, disease, poor hibernation preparation, and predation are sighted by Morlan as reasons for the presence of rodent bones in archaeological sites. Profiles and planviews from the Old Cumberland House site illustrate the presence of a number of rodent burrows in a number of units so the presence of this specimen may be related to one of the previously mentioned suggestions.

Family Mustelidae, *Martes americana* – American marten

Skeletal remains of a minimum of one marten were found in an area outside of the east wall sill of the South chimney feature. The coronoid process of a left

mandible from a marten was found in this mixed component. This specimen does not appear to have been physically or naturally altered.

Family Leporidae, *Lepus americanus* – Snowshoe hare

One right 3rd phalanx and an unfused proximal portion of a right femur represent the remains of snowshoe hare in the cultivated component of this feature. The specimens are unburned and the femur fragment displays a number of cut marks on the anterior and posterior surfaces of the bone.

Family Castoridae, *Castor canadensis* – American beaver

A total of 248 specimens were identified as *Castor canadensis*. These represent a minimum number of seven beavers. This MNI value is based on the quantity of left scapula specimens found in the cultivated matrix of this feature. One hundred and fifty-seven (63.3%) beaver remains are burned and calcined while 91 (36.7%) are unburned. Table 6.9 provides quantified data for *Castor canadensis* in the mixed component of the South chimney feature.

Skeletal element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	20	2	1	3	1.5
Mandible	13	1	2	3	1.5
Vertebrae					
Atlas	1	0	1	1	0.5
Sacrum	2	1	1	2	1.0
Anterior limb					
Clavicle	3	1	2	3	1.5
Scapula	12	3	7	10	5.0
Humerus	8	3	0	3	1.5
Radius	12	2	3	5	2.5
Ulna	15	5	2	7	3.5
Radial carpal	1	1	0	1	0.5
4 th (os. carpal quartum)	1	1	0	1	0.5
2 nd metacarpal	2	2	0	2	1.0
3 rd metacarpal	3	2	1	3	1.5
4 th metacarpal	1	1	0	1	0.5
Claw	1	-	-	1	0.1
Posterior limb					
Pelvis	6	4	1	4	2.0

Femur	13	2	4	6	3.0
Patella	1	1	0	1	0.5
Tibia	9	3	0	3	1.5
Fibula	5	1	1	2	1.0
Calcaneous	1	0	1	1	0.5
Talus	5	3	2	5	2.5
Central and fourth	1	0	1	1	0.5
Cuneiform medial	2	1	1	2	1.0
Cuneiform intermedium	1	0	1	1	0.5
Cuneiform laterale	2	0	2	2	1.0
1 st metatarsal	1	1	0	1	0.5
2 nd metatarsal	1	0	1	1	0.5
3 rd metatarsal	4	3	1	4	2.0
4 th metatarsal	4	2	2	4	2.0
5 th metatarsal	2	0	2	2	1.0
Proximal phalanx	5	-	-	1	0.5
Middle phalanx	10	-	-	1	1.0
Distal phalanx	4	-	-	1	0.4
3 rd phalanx	3	-	-	1	0.3

Table 6.9 Quantified values for NISP, MNI, MNE, and MAU of *Castor canadensis* for the mixed component of the South chimney feature.

Twenty-one specimens exhibit cut marks and knife scrapes along shaft surfaces. The presence of cut marks on the distal ends of limb elements indicates pelt removal practices. A number of beaver specimens in this component possessed cut marks on the distal shafts and articular surfaces.

The presence of cut marks and knife scrapes on limb and axial elements, coupled with the appearance of burned and calcined remains, suggest dismemberment and preparation for consumption. As stated previously, a large number (n=157) of the remains are burned and calcined. Modification of axial elements includes a burned/calcined caudal vertebra that has been cut in half and cut marks on a number of unburned and burned rib fragments. Sixteen appendicular remains exhibit a number of processing marks and four of these fragments possess indications of exposure to extreme heat.

Family Canidae, *Canis sp.* – Canid (SC4)

Four vertebral portions represent the remains of canid species in this feature. These medium-sized remains could not be identified to a specific canid species, as both wild and domesticated canids inhabited the Old Cumberland House area. Wild canid species were hunted for their furs and probably as a source of food. Domesticated dogs were used as work animals and companions for the fort occupants.

Family Cervidae - Cervid

Two specimens were classified as cervid remains and probably represent the skeletal remains of moose. The axial skeleton is represented by a left transverse process of a lumbar vertebra. An acromion and body fragment of a right scapula denotes the appendicular skeleton. Evidence of exposure to extreme heat is noted by the burned and calcined nature of the two specimens.

Family Cervidae, *Alces alces* – Moose

The skeletal remains of a minimum of two moose are present in the culturally mixed component of this building. Appendicular skeleton fragments of the anterior and posterior limbs are represented by six specimens. Four of these remains display evidence to indicate intentional modification. A proximal posterior shaft fragment from a right ulna is burned and calcined. A highly modified capitulum from a right humerus displays a knife scrape on the posterior surface, three cut marks on the lateral surface, and has been cut through on the medial aspect. Three cut marks were found on the anterior surface of a left humerus distal shaft fragment. The posterior portion of a right ilium has been sawed through and two cut marks are evident on the ventral surface of this specimen.

6.5.2 Birds

Family Corvidae, *Corvus sp.* – Raven

The remains of a raven species were found in the mixed component of the South chimney feature. The proximal end of a left scapula is burned and calcined. This specimen shares similarities in size and morphology to the raven remains in the department faunal collection but species designation could not assigned.

Family Anatidae, *Anas platyrhynchos* – Mallard

Two appendicular fragments denote the presence of *Anas platyrhynchos* in the mixed component of the South chimney feature. The two unburned specimens were found in the vicinity of the fireplace. These remains display the same morphological characteristics and are the same size as the skeletal elements of the Mallard in the department faunal collection.

Family Anatidae, *Aythya sp.* – Duck

An unburned right coracoid fragment could only be identified to the taxonomic level of *Aythya sp.* The ventral surface of the proximal end of this specimen displays two cut marks. There does not appear to be any indication of natural alteration of this specimen.

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

Six appendicular fragments and one sternum portion were classified as representing duck in the middle component of this feature. Three of the specimens were burned and calcined. One burned furculum symphysis displays a knife scrape and cut mark on the ventral surface of the shaft. Two cut marks are located on the anterior surface of the distal condyles of a left tibiotarsus.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

A total of 20 skeletal remains of indeterminate geese species were found in the cultivated matrix of the South chimney feature. A minimum number of two geese

are represented by two complete left quadrates. Axial skeletal remains are comprised of portions of mandibles, complete quadrates, and sternum fragments. Portions of appendicular elements represent wings and lower appendages. Four specimens are burned while the remaining 16 show no evidence of exposure to a heating/cooking source. The burned nature of the bones and location of cut marks on wing and limb appendages indicate dismemberment for the purpose of consumption. The presence of small puncture marks on a number of specimens provides evidence of rodent activity at the Old Cumberland House site.

Family Anatidae, *Anser sp.* – Goose

Two furculum fragments could only be identified to the taxonomic level of *Anser sp.* These specimens were refitted during laboratory analysis and form the right portion of a furculum. Natural and cultural modifications consist of three small punctures and evidence of exposure to extreme heat.

Family Anatidae, *Branta canadensis* – Canada goose

The proximal end of a right scapula is identified as that of a Canada goose. This specimen is the same size as the example from the faunal collection. This scapula fragment was found outside of the eastern wall sill of the South chimney feature and does not show any evidence of cultural or natural alterations.

Canada geese are widely distributed across Canada and breed in different ecological regions. These geese will breed in forested areas as well as open prairies. Nests are constructed in close proximity to water resources in a variety of different terrain (Godfrey 1986:80).

Family Anatidae, *Anser albifrons* – Greater White-Fronted goose

The skeletal remains of one white-fronted geese were found in the cultivated component of the South chimney feature. One left proximal coracoid fragment was identified as *Anser albifrons*. The appendicular element of the Greater White-Fronted

goose from the department faunal collection was the same size as appendicular fragment found in this component.

Godfrey (1986:75) describes the Greater White-Fronted goose as primarily greyish-brown in color with white patches located on the forehead, behind the base of the bill, and across the base of the tail. These birds possess diagnostic yellow posterior appendages. The Greater White-Fronted goose breeds in the arctic tundra around edges of lakes, valleys, stream deltas, and grassy flats. During migration they utilize grainfields, grassy fields, lakes, ponds, and marshes.

Family Anatidae, *Cygnus sp.* – Swan

Two appendicular fragments are identified as *Cygnus sp.* It is believed that they represent the remains of Trumpeter or Whistling swan but limitations of the department comparative collection hampered any further classification of these specimens. A right pubis fragment does not display any indication of intentional or natural modification. A portion of a right furculum is burned and calcined and has one cut mark on the posterior border of the specimen.

6.5.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

A total of 934 faunal specimens represent the remains of Lake sturgeon in this component. Complete and fragmented skutes and fin supports comprise the sturgeon remains. Forty-three skutes are burned and calcined and do not display any indications of butchering practices. Root etching is present on the external surface of a fin support fragment.

Family Esocidae, *Esox lucius* – Northern pike

Eighteen appendicular and axial element fragments were identified as Northern pike in the cultivated component faunal assemblage. Three maxillary

fragments and two palatine portions are burned and calcined. One maxillary fragment was identified as possibly representing Northern pike.

Family Percidae, *Stizostedion vitreum* – Walleye

The presence of walleye in the mixed component of this feature is noted by two skeletal specimens. A ceratohyal fragment and a portion of a right angular are unburned. There is no indication of cultural or natural alterations of these remains.

6.5.4 Size classification

A total of 783 faunal materials were classified according to a size gradation. Mammal remains encompass 89.3% (n=699) of the sized classed faunal assemblage. Eighty-four avian remains were separated into medium (SC4), small-medium (SC3), and micro (SC1) size classes.

Very large mammal (SC6) remains include a deciduous tooth root, a number of pieces of ribs, and shaft fragments. Cut marks, impact scars, and knife scrapes on seven axial and appendicular specimens are evidence of butchering practices. Etching of rootlets on the external bone surfaces is evident on four rib pieces and one posterior tibia shaft fragment.

Unidentified fragments, portions of ribs, unknown appendicular shaft fragments, portions of vertebral elements, scapula fragments, and the ischium of an immature individual represent the remains of large mammals (SC5) in the mixed component of the South chimney feature. A number of the specimens exhibit natural and cultural modifications. Cut marks, knife scrapes, carnivore-related puncture marks, root etching, and exfoliation are found on the large mammal remains.

Medium-sized faunal materials (SC4) are represented by vertebral portions, rib fragments, and phalanges. A majority of the remains (83.1%) are burned and calcined while 14 fragments are unburned. Indications of butchering activities were only found on four rib fragments.

A total of 10 small-medium-sized mammal (SC3) remains are associated with the middle component of the South chimney feature. Vertebral portions, skull fragments, a section of a left ilium, a distal end of rib, and an unidentifiable appendicular fragment encompass the SC3 category. Six of the specimens exhibited characteristics indicating exposure to intense heat.

The medium-sized bird category, SC4, is represented by numerous axial and appendicular elements, or portions thereof. Axial specimens include complete and incomplete vertebrae, portions of sternums, and rib fragments. Portions of appendicular elements account for wing and lower limb appendages. Forty-eight (90.6%) of the medium-sized avian remains are unburned and 9.4% (n=5) are burned and calcined. The location of cut marks, the presence of axial and appendicular specimens, and exposure to a heating/cooking source would suggest that medium-sized avian species were brought back to the site as whole birds and then butchered for consumption purposes. Post employees, hired hunters, and native peoples hunted a number of migratory goose species during the spring and fall seasons. Journal notes indicate that these species were a dietary staple during the spring and fall months.

A total of 30 faunal materials were designated as representing small-medium birds (SC3). Vertebral portions, pieces of sternum, fragments of wing elements, and shaft fragments of lower limbs account for the remains in the SC3 category. Twenty-six of the specimens are unburned while 4 appeared to be burned and calcined. The representation of a majority of the skeleton, the location of cut marks, and exposure to a heating/cooking source would suggest that small-medium-sized avian species were also being brought back to the site as whole carcasses and butchered for use as a food source. Journal references note that a number of ducks, pigeons, grouse, and partridges were hunted and used as a food resource for the post occupants.

The complete element of a perching bird (SC1) was found outside of the east wall sill in Unit 197N201.5E. A left ulna does not display any indications of cultural or natural alteration. I would suggest that this specimen does not represent the skeletal remains of a bird that was used as food source but accounts for the presence of a Passeriformes species that inhabits the Cumberland House area.

6.6 18th Century Fur Trade Component – Artifacts

Four thousand one hundred and eight artifacts representing various functional categories were found in the intact 18th century component (5 - 71 cm dbs) of the South chimney feature. Table 6.10 provides a list of the functional artifact categories and numbers of artifacts associated with each group.

Functional category	Number present
Domestic	32
Personal	7
Recreational	32
Hunting and Subsistence	2
Tools and Hardware	53
Business and Transport	13
Miscellaneous	3969
Total	4108

Table 6.10 Number of artifacts present in the intact 18th century component of the South chimney feature.

Artifacts included in the Miscellaneous functional category comprise a majority (96.6%) of the artifact assemblage for the lower component of this feature. Tools and Hardware specimens (1.3%) are the second most numerous artifact. Domestic artifacts account for 0.8% of the total assemblage while Recreational (0.8%), Business and Transport (0.3%), Personal (0.2%), and Hunting and Subsistence (0.04%) make up the rest of the collection.

Miscellaneous artifacts include chinking, pieces of wood, melted metal, pieces of unknown metal, and modified bone specimens. Chinking comprises a majority (n=3807) of the Miscellaneous category. Melted masses of lead and unknown metal

were found within the building structure. The edge of a cancellous bone fragment exhibits red staining and is identical to ethnographically observed paint application tools. A modified large mammal-sized shaft fragment exhibits incised letters and Roman numerals.

A screw, a portion of a drill bit, and a variety of nails comprise the Tools and Hardware category. Table 6.11 provides a list of the nails found in the intact component of the South Chimney feature.

Nail type	Portion	Shape	Length	Head form	Notes
1 handwrought	Complete	Straight	6-8 cm	Non-id'able	-
1 handwrought	Complete	Straight	6-8 cm	Clasp head	Clinched
1 handwrought	Complete	Straight	2-4 cm	Non-id'able	Spatula tip
1 handwrought	Complete	Straight	2-4 cm	Non-id'able	-
1 handwrought	Complete	Bent	2-4 cm	Non-id'able	-
1 handwrought	Complete	Straight	0-2 cm	Non-id'able	-
1 handwrought	Shank	Straight	-	-	-
1 handwrought	Shank	Bent	-	-	-
1 cut	Complete	Straight	6-8 cm	Clasp head	-
1 cut	Complete	Straight	2-4 cm	Non-id'able	Spatula tip
2 cut	Complete	Straight	2-4 cm	Non-id'able	Ash bin
1 cut	Complete	Straight	2-4 cm	L-head	Ash bin
1 cut	Complete	Bent	2-4 cm	Rose head	Ash bin
1 cut	Complete	Straight	0-2 cm	Rosehead	-
2 cut	Complete	Straight	0-2 cm	Non-id'able	Wood adhering
2 cut	Complete	Clinched	4-6 cm	Clasp head	-
1 cut	Complete	Clinched	2-4 cm	Flat, circular	-
1 cut	Head	Straight	-	Non-id'able	Ash bin
1 cut	Head	Straight	-	Clasp head	-
1 cut	Head	Straight	-	Clasp head	Ash bin
3 cut	Head	Straight	-	Rose head	-
1 cut	Head	Bent	-	Clasp head	-
1 cut	Head	Bent	-	Clasp head	Ash bin
1 cut	Head	Bent	-	Rose head	-
1 cut	Head	Bent	-	Non-id'able	-
15 cut	Shank	Straight	-	-	-
7 cut	Shank	Bent	-	-	-
1 cut	Shank	Bent	-	-	Ash bin
2 non-id'able	Shank	Straight	-	-	Wood adhering

Table 6.11 Nail typology for the 18th century component of the South chimney feature.

Domestic related artifacts include stoneware sherds, flat and curved glass fragments, fragments of knives, and a needle. Stoneware sherds are comprised of

two gallipot fragments, an orange painted sherd, and a salt-glazed fragment that fits with a sherd found in the mixed component of 213N208E. Two curved glass fragments display characteristics associated with exposure to a heating/cooking source. Slight patination is observed on three clear shards and two green fragments of glass. Two portions of a Turlington's Balsam of Life bottle were also present in the vicinity of the South chimney area. The knife blade and tang and needle were found in Unit 197N198E. The distal portion of a knife was found in Unit 196N200E.

The Recreational category includes various portions of white ceramic smoking pipes. A bowl/junction and spur fragment, mouthpiece, five stem portions, and a junction fragment are unburned and unmodified. Seventeen portions of pipe stem and three bowl fragments show evidence of general burn. Two pipe bowl fragments exhibit evidence of having been smoked. A portion of an impressed ring design is evident on a bowl fragment. The bowl/ junction and spur fragment exhibits a design and maker's mark. The initials "TD", with a scroll design located above and below, are found within an impressed circle on the backside of the bowl. An embossed "T" and "D" are also located on either side of the spur. One handmade micmac pipe junction was found in the immediate vicinity of the fireplace. The base is rectangular in shape and begins to constrict at the neck of the bowl. The bowl is not present and appears to have been broken off. This specimen does not show any signs of use and may have been broken during its construction.

Twelve sections of a barrel hoop and a piece of slate pencil represent the Business and Transport category for the intact 18th century component. Personal artifacts include beads, buttons, an incised copper form, and a tinkling cone. A 2-4 mm section of turquoise glass tubing and a wire wound form represent beads in the lower cultural component of the South chimney feature. Beads like the slightly melted translucent yellow wire wound specimen found here are also present in the North

House feature of the Grant and McLeod site and at the Francois-Finlay posts (Klimko 1987, Klimko and McKeand 1998). A Hudson's Bay Company beaver button was found in Unit 196N200E. This specimen is decorated with a stamp design of a thatched cross and four beavers. A metal shank has been soldered to the back of this specimen. The incised copper form from this component may be a bracelet. A similar specimen was found by avocational archaeologist Ed Yurach, four miles north of Wynard. This artifact was found in a mixed context of historic farming equipment and Mortlach pottery (Brad Novecosky 2000, personal communication). The Hunting and Subsistence functional category includes a complete lead shot and metal projectile point.

6.7 18th Century Fur Trade Component – Fauna

A total of 9104 (5798.8g) faunal materials were found in the lower component of the South chimney feature. A large portion of the material is burned and calcined (82.6%) and was found in the ash bin. Unknown specimens encompass 73.2% (n=6668) of the intact faunal assemblage with 189 (2.8%) unburned and 97.2% (n=6479) burned and calcined. A total of 2436 identified specimens were found in the lower component. A majority of these remains are unburned (57.2%) while 1043 (42.8%) are burned and calcined. Table 6.12 provides an indication of the identified taxa for the fur trade component of the South chimney feature.

Common name	Taxonomic designation	NISP	MNI
Common muskrat	<i>Ondatra zibethicus</i>	2	1
Snowshoe hare	<i>Lepus americanus</i>	6	2
American beaver	<i>Castor canadensis</i>	256	5
Possible American beaver	<i>Castor canadensis c.f.</i>	6	1
Canid	<i>Canis sp.</i>	1	1
Woodland caribou	<i>Rangifer tarandus</i>	1	1
Moose	<i>Alces alces</i>	10	2
American robin	<i>Turdus migratorius</i>	1	1
Pigeon	Columbidae	3	1

Grouse or partridge	Phasianidae	1	1
Mallard	<i>Anas platyrhynchos</i>	2	1
Duck (SC3)	Indeterminate Anatidae	5	1
Goose (SC4)	Indeterminate Anatidae	16	2
Greater White-Fronted goose	<i>Anser albifrons</i>	6	2
Snow goose	<i>Anser caerulescens</i>	1	1
Swan	<i>Cygnus sp.</i>	2	1
Lake sturgeon	<i>Acipenser fulvescens</i>	519	-
Northern pike	<i>Esox lucius</i>	8	1
Perch	<i>Stizostedion sp.</i>	2	1
Sauger	<i>Stizostedion canadense</i>	1	1
Walleye	<i>Stizostedion vitreum</i>	1	1
Very large mammal (SC6)		20	-
Large mammal (SC5)		711	-
Medium mammal (SC4)		61	-
Medium bird (SC4)		49	-
Small-medium bird (SC3)		14	-

Table 6.12 Identified taxa for the 18th century component of the South chimney feature.

6.7.1 Mammals

Family Muridae, *Ondatra zibethicus* – Common muskrat

The remains of one muskrat were uncovered in the intact 18th century component of the South chimney feature. The two portions of a skull do not display any indications of natural or cultural modification.

The muskrat is found throughout most of North America with the exception of the arctic tundra and the Southwest. This fur-bearing creature thrives in an aquatic environment, preferring to inhabit lakes, streams, rivers, ponds, marshes, and sloughs. They are omnivorous in nature, consuming a varied diet of vegetation, mussels, and various aquatic life forms. The construction of winter “push-ups” provides the muskrat with an insulated feeding station of stored vegetation matter (Banfield 1974:198-199).

Family Leporidae, *Lepus americanus* – Snowshoe hare

Axial specimens represent the skeletal remains of snowshoe hare in the lower component of the South chimney feature. The anterior portions of two left mandibles denote the presence of two individuals. One of the mandible portions exhibits a cut mark on the medial surface of the ramus. A nearly complete skull displays six cut marks on the proximal dorsal and lateral surfaces of the nasal bones. A nearly complete atlas vertebra does not appear to be culturally or naturally altered. These five axial specimens do not display any characteristics associated with exposure to extreme heat.

Family Castoridae, *Castor canadensis* – American beaver

Two hundred and fifty-six faunal materials represent the presence of five beaver in the intact 18th component of this feature. A preponderance of the axial and appendicular specimens are burned and calcined (80.9%) while 49 specimens (19.1%) are unburned. Quantified skeletal data for *Castor* in the lower cultural component is provided below.

Skeletal elements	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	23	3	1	4	2.0
Mandible	6	1	2	3	1.5
Vertebrae					
Atlas	3	2	1	3	1.5
Axis	2	1	0	1	0.5
Sacrum	1	1	0	1	0.5
Anterior limb					
Clavicle	1	1	0	1	0.5
Scapula	8	5	1	6	3.0
Humerus	5	1	1	1	0.5
Ulna	16	3	5	8	4.0
Radius	13	5	4	9	4.5
Radial carpal	1	1	0	1	0.5
Proximal phalanx	1	-	-	1	0.1
Posterior limb					
Pelvis	17	4	2	6	0.3
Femur	21	5	0	5	2.5

Patella	1	0	1	1	0.5
Tibia	11	4	1	5	2.5
Fibula	7	2	1	3	1.5
Calcaneous	3	2	1	2	1.0
Talus	3	1	2	3	1.5
Central and fourth	3	0	3	2	1.0
2 nd metatarsal	3	2	1	3	1.5
3 rd metatarsal	4	0	4	4	2.0
4 th metatarsal	1	0	1	1	0.5
Proximal phalanx	8	-	-	-	0.8
Middle phalanx	3	-	-	-	0.3
Distal phalanx	3	-	-	-	0.3
3 rd phalanx	1	-	-	-	0.1

Table 6.13 Quantitative values of NISP, MNI, MNE, and MAU for *Castor canadensis* of the 18th century fur trade component.

Ten appendicular and three axial specimens display evidence of butchering. A majority of the beaver skeleton is represented in the intact fur trade component of the South chimney feature. The presence of these elements, coupled with evidence of cultural modification, suggests that beavers were brought back to Old Cumberland House as whole carcasses. It would appear that beaver served as a food source and a fur trade commodity.

Six axial fragments were given the designation of *Castor canadensis c.f.*. Five of these remains are burned and calcined. The anterior one-third of a right frontal bone does not show any evidence of natural or cultural modification.

Family Canidae, *Canis sp.* – Canid

Two axial and one appendicular specimen were identified as *Canis sp.* Five unmodified, fragile, and disarticulated skull fragments are the remains of an immature individual and include a left tympanic bulla, a right mandibular condyle, and three ventral fragments. No evidence of natural or cultural alteration was observed on a portion of caudal vertebra and a complete right patella.

Family Cervidae, *Rangifer tarandus* – Woodland caribou

A distal shaft fragment of a left ulna was found during the excavation of the intact component of the South Chimney feature. This specimen is not naturally or culturally modified. References to the hunting and provisioning purposes of woodland caribou are noted in the Old Cumberland House journals. Caribou was present in the area of Old Cumberland House during prehistoric and historic periods. Meyer (1985:180) notes that since the 1930s burning of muskeg areas between Cumberland House and Red Earth, no more caribou have been observed to inhabit this area.

Woodland caribou are gregarious in nature, living in large groups of ten to fifty animals. Banfield (1974:385) notes the nomadic nature of the caribou and states that they are always on the move, searching for available food sources. Caribou are mostly active during early mornings and late evenings feeding on a variety of vegetation. Their diet consists of grasses, lichen, mushrooms, willows, birch, and a variety of low lying vegetation. Caribou have been known to supplement their primarily vegetarian diets with lemmings (Banfield 1974:386).

Family Cervidae, *Alces alces* – Moose

Ten appendicular skeletal fragments account for the presence of two moose in the 18th century fur trade component of the South chimney feature. Portions of a distal end and a medial shaft of a right radius represent the anterior limb. One specimen is burned and calcined while the other is unburned specimen and has a cut mark on the medial surface of the shaft. Posterior limb elements are represented by pelvis, femur, and tibia fragments. The ischium portion of a left pelvis possesses three cut marks on its lateral surface. The proximal head and shaft fragment of a right femur has a knife scrape and burn mark on the articular surface and a number of cut marks on the posterior surface of the shaft. Butchering practices are indicated on the anterior border and lateral surface of a left tibia shaft fragment. A chop mark is

located on the border while two cut marks were found on the lateral shaft surface. Two tibia fragments are burned and calcined. Indications of carnivore activity in the lower component are represented by nine puncture marks on the articular surface of a left proximal tibia fragment.

6.7.2 Birds

Family Muscicapidae, *Turdus migratorius* – American Robin

The American robin is a natural inhabitant of the Old Cumberland House area. The distal three-quarters of a right humerus denote the presence of this species in the intact component of the South cellar feature. This specimen was the same size and exhibited similar morphological characteristics to the robin remains from the department faunal collection. This humerus fragment is not burned or calcined and does not show any evidence of natural or cultural modification. It is highly unlikely that this avian species was used as a food resource for fort occupants based on the facts that this species is naturally found in this area and that only one unmodified skeletal element was uncovered. Robins inhabit a wide array of environments, from wooded areas to urban centres. Their diets are based on insects, worms, and fruits (Godfrey 1986:429-430).

Family Columbidae – Pigeon

The presence of a pigeon species in the 18th century fur trade component of the South chimney feature is denoted by a complete right 1st phalanx, the proximal portion of a right femur, and the proximal end of a right tibiotarsus. These elements are not burned or calcined and do not exhibit any further indications of cultural or natural alteration. I believe that this specimen is part of the skeletal remains of a passenger pigeon but limitations of the department faunal collection could not support such a view.

Family Phasianidae – Grouse or partridge

A number of journal references note the hunting of grouse and partridges by fort occupants and hired hunters during the fall and winter seasons. The proximal end of a left coracoid was found in close proximity to the fire place feature of this building. The burned and calcined appearance of this specimen suggests exposure to intense heat.

Family Anatidae, *Anas platyrhynchos* – Mallard

Two unburned appendicular fragments were found in the vicinity of the fireplace. Evidence of butchering is present on both specimens. The proximal end of the left humerus has five cut marks located on and around the head area. A proximal fragment of a right humerus has cut marks on the head and under the deltoid tuberosity. Root etching is found on the right humerus fragment. These remains are similar in size and morphology to the Mallard specimen in the department faunal collection.

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

Five appendicular specimens were identified as Anatidae sp. (SC3) and denote the presence of duck species in the lower component of this feature. These appendicular shaft fragments do not display any evidence of exposure to extreme heat. The ventral/lateral surface of a distal/medial right coracoid fragment exhibits a series of cut marks. One cut mark is located on the extensor surface of a left carpometacarpus. The altered state of the proximal right tibiotarsus shaft fragment indicates rootlet action in the fur trade component of this feature.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

Sixteen skeletal remains denote a minimum number of two geese in the intact component. Thirteen specimens are unburned, three are burned and calcined, and three displaying evidence of butchering practices. The lateral surface of a right

coracoid shaft fragment displays a cut mark. The anterior surface of a left furculum fragment exhibits two parallel cut marks. Three cut marks were observed on the head of the proximal right humerus fragment. The following table provides quantified values for geese in this feature.

Skeletal element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Mandible	4	2	2	4	2.0
Anterior limb					
Furculum	2	1	0	1	0.5
Coracoid	4	3	1	2	1.0
Humerus	2	2	0	2	1.0
Posterior limb					
Tibiotarsus	1	1	0	1	0.5
Tarsometatarsus	1	1	0	1	0.5

Table 6.14 Quantified values of NISP, MNI, MNE, and MAU for geese in the Old Cumberland House 18th century fur trade component.

Family Anatidae, *Anser albifrons* – Greater White-Fronted goose

Two incomplete and one complete specimen represent three axial elements of the Greater White-Fronted goose. The posterior three-quarters of a skull, the anterior portion of a sternum, and a complete left quadrate represent the presence of *Anser albifrons* in the intact component of the South chimney feature. All of these specimens are unburned and unaltered. Two incomplete coracoid fragments and one complete left coracoid were identified as *Anser albifrons*. The dorsal and ventral surfaces of the left complete coracoid display 15 cut marks and two small carnivore punctures. The appendicular elements from the 18th century component were the same size as the Greater White-Fronted goose from the department faunal collection.

Family Anatidae, *Anser caerulescens* – Snow goose

The remains of one snow goose were found in the lower component of the South chimney feature of the Old Cumberland House site. The proximal end of a left scapula was identified as *Anser caerulescens*. This specimen is unburned and does

not exhibit any indication of natural or cultural modification. The size of this specimen was used as an indicator of a species designation.

Snow geese have two phases relating to color change in their plumage, a white phase and a blue phase. They also display distinct field marks throughout these periods, such as pink feet and a dark patch along the side of the bill that produces the illusion of a grin. Snow geese inhabit coastal plain areas that contain abundant water sources during the summer. Migrational stops include marshes, fields, exposed sandbars, and lakes (Godfrey 1986:76-77).

Family Anatidae, *Cygnus sp.* – Swan

Two posterior limb elements, or portions thereof, suggest that one swan species is represented in the lower component of this feature. The distal end of a left tibiotarsus is not culturally or naturally altered. Evidence of carnivore activity is observed on the proximal head articular surface of a right humerus proximal fragment. Three small puncture marks are present on the anterior and posterior surface of the head fragment.

6.7.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

Five hundred and nineteen faunal materials represent the remains of Lake sturgeon in the intact 18th century component. An overwhelming majority (n=449) of the skutes and skate fragments are unburned while 70 specimens are burned and calcined. One unburned fin support has three cut marks on the lateral surface of the bone in addition to some root etching.

Family Esocidae, *Esox lucius* – Northern Pike

Eight axial skeletal specimens were found in the vicinity of the South chimney feature. Four parasphenoid fragments, a left and right subopercle, a portion of a prevomer, and a maxilla fragment were identified as representing pike. These

remains are all unburned and do not exhibit any indication of natural or cultural alteration.

Family Percidae, *Stizostedion sp.* – Indeterminate perch species

Two indeterminate specimens represent portions of the axial skeleton of a perch species in the intact 18th century component. A left palatine fragment and a portion of a right preopercle are unburned and do not show any evidence of further alteration, natural or cultural.

Family Percidae, *Stizostedion canadense* – Sauger

A left cleithrum fragment represents the remains of Sauger in the 18th century component of the South chimney feature. This specimen does not exhibit any indication of natural or intentional modification.

Family Percidae, *Stizostedion vitreum* – Walleye

A complete axial element denotes the presence of walleye in the lower component of the South chimney feature. A complete right maxilla was found in the vicinity of the South fireplace but it was not burned or calcined. No further evidence of natural or intentional modification is observed for this specimen.

6.7.4 Size classification

Eight hundred and fifty-five specimens could not be given a taxonomic designation and were classified according to a size gradient. Seven hundred and ninety-two of these specimens are associated with the mammalian size classifications. Sixty-three faunal remains represent sized classed birds.

Very large mammals (SC6) account for 20 of the total specimens. Thirteen of these materials were identified as rib fragments. Six of these ribs display evidence of butchering practices. A deciduous tooth root, a left ilium fragment, a fragment of a lumbar vertebra, and an unmodified spinous process of thoracic vertebra were classified as SC6. Two cut marks were observed on the medial surface of trochlea

fragment of a humerus. This specimen and two portions of ribs show evidence of root etching on the external surface of the bone.

Seven hundred and eleven faunal remains are classed as large mammals (SC5). These specimens include unidentified bone fragments, unknown axial specimens, and portions of ribs. The external surface of one unidentified bone fragment exhibits a number of puncture marks and one cut mark. A rib fragment displays three cut marks and a medium-sized puncture on the external surface of the bone. An unidentified appendicular specimen is exfoliated and possesses a spiral fracture. Fourteen axial and appendicular specimens exhibited cut marks. Six hundred and forty fragments were burned and calcined.

Axial and appendicular skeletal remains represent medium-sized mammals in the lower component of the South chimney feature. Fifty-five specimens exhibit indications of cultural modification; fifty-two fragments are burned and calcined and three rib fragment exhibit evidence of butchering.

Avian materials encompass remains from medium and small-medium-sized birds. Medium-sized birds (SC4) are represented by a wide array of skeletal elements. Axial components include vertebrae, ribs, and sternum specimens. Elements and fragments of the wing and leg appendages are also represented in the medium-sized category. Cut marks are present on six specimens and reflect dismemberment and butchering practices. One cut mark is located on the posterior surface of a right humerus midshaft portion. The posterior surface of a left tibiotarsus midshaft displays a series of small cut marks. A complete cervical vertebra has one cut mark across its dorsal surface. A humerus fragment has two cut marks on the lateral surface of the shaft. The rib facets of a left sternum are cut through and the proximal shaft portion of a left humerus exhibits cut marks on all four surfaces.

Small-medium -sized bird (SC3) remains consist of axial and appendicular specimens. Two proximal portions of rib represent the axial skeleton. The appendicular skeleton encompasses right and left tibiotarsus shaft fragments, various portions the femur, the distal end of a left and right humerus, a left ischium fragment, the glenoid facet of a left coracoid, and the proximal portion of a left scapula. Eight of these specimens exhibit alterations. Bony re-growth is evident on the external surface of the right tibiotarsus. This may represent the healing of a past injury. Cut marks are observed on the anterior surface of a left furculum fragment and six specimens are burned and calcined.

6.8 Discussion

Artifacts associated with the Miscellaneous, Tools and Hardware, and Domestic functional categories comprise the three largest artifact assemblages for all of the South chimney components. Recreational artifacts are the fourth most numerous category in this feature, followed by the Personal, Business and Transport and Hunting and Subsistence groups.

The presence of chinking in all the components of the South chimney feature is associated with the 18th century buildings at the site. A number of journal entries note the use of mud mixtures as an insulating and filling material in the construction of buildings and fireplaces. George Hudson indicates that on August 13, 1781 two Hudson's Bay Company employees were making mud to repair the men's chimney (HBCA B.49/a/11). A journal entry from October 20, 1781 notes that the men were filling gaps in the walls of the main house with mud (HBCA B.49/a/11). The inclusion of chinking in the various components relates to the collapse of abandoned building structures and chimney features at the site.

A number of artifacts can be used as dating indices for the three components of this feature. Artifacts representing such categories as Domestic, Tools and

Hardware, Personal, and Recreation will be analyzed for dating potential. Decorated ceramic sherds from the upper component included three specimens. The flow-blue transfer print technique is present on a portion of a plate rim and a piece of cup or bowl. The two pattern styles could not be identified but the invention of the flow-blue printing technique occurred in the 1820s. The presence of these sherds and their associated manufacturing date provides support for a 19th and 20th century designation for the upper component of this feature.

Subsequent support is also provided by the presence of a flanged lip/neck finish and canning jar remains within the area of the south fireplace. The style of the lip/neck specimen suggests an 18th and 19th century manufacturing date (Jones and Sullivan 1989:80). The screw thread closure of the jar sherds in the upper level was identified as representing Mason canning jar fragments. The Mason's screw thread application was patented in 1858. The presence of this artifact and its associated manufacturing date also provide support for a later occupation date.

A variety of nails were found in the 19th and 20th century component and include handwrought, cut, wire, and unidentifiable forms. Handwrought nails were used into the 1850s and cut nails with hand applied heads were manufactured from ca. 1790 to the mid 1820s. The manufacture of wire nails dates from ca. 1850 to the present (Nelson n.d.). The cut and wire nails found in this component supports a later occupation date for this level. The presence of handwrought nails may be related to nail shortages and the subsequent manufacture and reuse of handwrought nails. The use of nails from Old Cumberland House in the construction of (New) Cumberland House is noted in the Cumberland House journals (HBCA B.49/1/25^a).

The diagnostic characteristics of buttons found in the South chimney area suggest a 19th and 20th century affiliation. Characteristics of the shanked area of a silver button suggest the presence of an alpha loop shank. Olsen (1963:553)

indicates that this particular loop type dates from 1785 to 1800. While the manufacturing date of this button does not coincide with a 19th and 20th century occupation, the issue of button reuse may account for its presence in this component. The presence of nine ferric snap-type buttons in this upper component also supports a later date.

Recreational artifacts are represented by a number of ceramic pipe fragments. Designs and maker's marks can be used to date smoking paraphernalia. The "TD" marker's mark was first used in the 1750s by a London based pipe maker, Thomas Dormer (Klimko 1987:43). The popularity of the styles and designs of his pipes led other pipe makers to adopt the same cartouche. This creates problems when trying to affiliate a specific design with a particular manufacturer. The design styles and marker's marks associated with the upper component pipe assemblage could not be used as a dating source.

Artifacts from the cultivated assemblage include a variety of material culture. A number of cut and handwrought nails were found in the South chimney feature and represent manufacturing dates up to the 1820s. Diagnostic forms and decorations of the various ceramic pieces lend support to the mixed nature of this component. A sherd exhibiting a portion of a Honeysuckle pattern provides a date of 1855 to post 1882 (Sussman 1979:127). Hume (1976:205) states that salt glazed gallipots were commonly manufactured during the late 1700s. Therefore, this stoneware gallipot fragment most likely relates to the 18th century occupation.

It is thought that the presence of patination on glass surfaces suggests an older manufacturing date. The correlation follows that the more patinated a fragment is the older it is. Slight patination was exhibited on five glass fragments while two specimens were heavily patinated. Demmy (1967:49) suggests that patination rates are not only influenced by the age of a specimen but also by fluctuations in climatic

conditions. Based on these criteria, patination of glass in this component does not provide for an accurate dating source.

Evidence of smoking activities was also found in the mixed component of the South chimney feature. Although a number of the bowl fragments possessed maker's marks and designs, the potential for dating was minimal.

A few artifacts found in the intact 18th century component can be used as a dating resource for this occupation period. Salt glazed gallipots were commonly produced during the late 18th century (Hume 1976:205). The presence of two sherds in the intact component of this feature supports an 18th century occupation of this location.

Two portions of a Turlington's Balsam of Life vial were located in the intact matrix of the South chimney feature. The clear glass shards are embossed with two inscriptions reading "y I KING" and "ROB. T. TURLINGTON". Robert Turlington patented his medicinal concoction in 1744 but it is unclear if a bottle design was issued at the same time. The popularity of Turlington's solution inspired other manufacturers to replicate the bottle and its contents. This act of piracy was common practice in the 18th and 19th centuries. Bottle replicas were made from thinner and lighter pale blue glass. A clear, square-shaped bottle form was also common in the later part of the 18th century (Hume 1976:74). The lack of diagnostic manufacturing marks creates problems when assessing the age of these two specimens.

The use of handwrought nails in the construction of the Old Cumberland House site is evidenced by the presence of two specimens in this feature. Two machine manufactured nails were also found in this component and may indicate reuse of the building structures after abandonment of the post. (New) Cumberland House employees used the abandoned site as a gardening area, and dilapidated structures may have been repaired for the purpose of storage facilities. As stated

previously, cut nails were manufactured ca. 1790 and were used into the 19th century. The incorporation of these nails in the repair of structures at the site is a strong possibility.

An interesting pipe junction was found in level eight of this feature. This specimen represents the remnants of a stone pipe, the style of which is termed "micmac" in this fur trade literature. However, it is apparent that these pipes were made at fur trade posts throughout the western interior (Wallace *et. al.* 1963).

The Hudson's Bay Company button found in the 18th century component of this feature provides an indication of the age of this component. Klimko and McKeand (1998:340) note that buttons of this form were found at other fur trade posts that were occupied from the late 1700s to the early 1800s. The presence of this button in the intact matrix supports an 18th century fur trade occupation. However, Klimko and McKeand (1998:340) caution that the factors such as design popularity and artifact reuse may influence the appearance of such artifacts in the archaeological record.

Faunal remains in the three components of the South chimney feature encompassed a number of species that inhabit the Cumberland House area. Some of the 19th and 20th faunal materials exhibit cultural modification suggesting skinning, butchering, and food preparation. Bone fragments representing snowshoe hare, beaver, moose, sturgeon, and sized class specimens have cut marks and some are burned and calcined. The presence of medium and small-sized carnivores (presumably dogs) at the site is denoted by puncture marks on a number of specimens.

Artifacts and faunal materials associated with the 19th and 20th century component may represent recent activities and those associated with the 1876 Anglican mission and the 20th century cabin occupation within the immediate vicinity

of the Old Cumberland House site. In 1996, the author observed that this site is also periodically used for hunting, fishing, and logging purposes. The butchered bones and artifacts found in this component relate to the occupation and reuse of this area in the past as well as present.

Faunal remains from the second component include a number of fur bearing mammals in addition to large ungulates, avian species, and fish. The burned and calcined nature of the remains and the location of cut marks on elements suggest that a number of the species were butchered for consumption purposes. Archaeological representation of the axial and appendicular elements of some species indicates that many mammals, birds, and fish were brought back to site as a whole carcasses and processed there. One must argue that a portion of these materials are directly related to the 18th century fur trade occupation but cultivation practices at this site have destroyed much of this intact component, creating difficulties in associating material culture with specific time periods.

Identified taxa for the fur trade component of the South chimney feature suggests a varied diet for the fort occupants. The presence of axial and appendicular skeletal portions of marten, snowshoe hare, beaver, various waterfowl, and fish suggest that these species were being brought back as complete carcasses. A number of journal entries indicate that post employees and native hunters actively pursued these species as food sources. There are numerous references to the acquisition of freshly killed beavers, partridges, swans, ducks, geese, fish, and other small game. Large game was brought back to the site in the form of whole carcasses and portions thereof. Native peoples providing provisions for the post would probably butcher most large game at the kill site, taking some meat for themselves and dividing the kill into easily transported portions. Journal entries dated February 16 and July 21, 1787 indicated butchering units of moose as consisting of sides, brisket, rump,

and shoulder cuts (HBCA B.49/a/17 and B.49/a/18). The presence of cut marks and the burned and calcined nature of faunal specimens from this component indicate butchering for consumption purposes.

I believe that the South chimney feature and associated architectural remains represent the cook room of the Old Cumberland House post. Construction of the cook room was started on July 18, 1776 (HBCA B.49/a/4). Structural evidence of wall joists, floor sills, planking, and chimney remains support this notion. The west wall of the stockade was moved in May of 1779 to make more room for gardens and a proper canoe storage facility (HBCA B.49/a/7). The placement of a garden near the cook room is a practical idea. Individuals involved with food preparation would not have to travel far to procure vegetables for meals. Gardens at Severn Factory, New Cumberland House, and Fort George were also located in close proximity to the cook room (Hamilton 1990).

A number of domestic artifacts are found in the intact component of this feature. Fragments of a gallipot vessel and salt glazed crockery suggest storage facilities for food. The presence of a knife blade fragment and culturally modified faunal materials represents dismemberment and food preparation. The needle found in close association with the fireplace could indicate the use of a light device during the sewing and repair of clothing by the light of the fire. The recreational activity of smoking is also associated with the South chimney feature. This fireplace not only served as a cooking, light, and heating source but it provided an area for disposal of broken pipes.

It must be noted that cultural materials associated with the cultivated component of this feature support the cook room premise. A number of broken pipe specimens and modified faunal materials were found in direct association with the fireplace feature. The presence of ceramic vessel fragments, portions of metal

containers, needles, and a knife blade fragment also provide support for a cook room designation.

Chapter 7

Northwest Room Feature – Structural, Artifact, and Faunal Analysis

7.1 Introduction

Figure 6.1 illustrates the presence of a portion of a building located immediately north of the south chimney structure. This building encompasses an excavation area of eight m² that denotes its southern, eastern, and western physical boundaries through the presence of wall sills. Unfortunately there is no indication of the northern boundary of this structure, as excavation units were not extended into this area. It appears that this feature lacks any structural elements of floor joists and planking, therefore suggesting that it is a separate structure (Meyer 1996:37).

This feature provides the author with the opportunity to examine the intact 18th century fur trade component. This site portion (with the exception of cultivated cultural components in Units 199N200E and 200N200E) has not been culturally modified by past gardening activities that have occurred throughout much of the site. Stratigraphic profiles of intact units indicate the presence of a humus layer covering a dark organic A horizon, overlying a layer of yellow sandy silt. Another A horizon is evident underneath the flood episode, forming the upper portion of the 18th century component. Meyer (1996:24) interprets that this level as comprised of backdirt from construction activities at the site as well as materials from collapsed buildings. A third organic horizon is located underneath the latter cultural level and represents the original ground surface during the occupation of the Old Cumberland House site. The 18th century component covers a forest podzol formed on stoney till (Meyer 1996:24).

Units 199N200E and 200N200E do not display the same stratigraphic profiles as the rest of the units associated with this feature. The upper component of Unit 199N200E (0-20 cm db) contains backfill from Anthony Ranere's 1967 test pits (two and three). The lower cultural component of both units (2 - 36 cm db) appears to be located in a gray friable clay matrix, indicative of cultivation practices at this site.

The following chapter will discuss the three cultural components associated with the Northwest room feature. Results of the analysis of artifacts and faunal materials from the 1967 survey are provided in Chapter 4.

7.2 19th and 20th Century Component - Artifacts

Sixty-five artifacts were uncovered during the excavation of the Northwest room feature. Upper 19th and 20th century levels consisting of humus, an organic horizon and a yellow sandy silt layer (0 - 28 cm db) yielded a total of 27 artifacts (41.5%). Functional categories represented include Domestic, Personal, Recreational, Hunting and Subsistence, Tools and Hardware, and Miscellaneous (Table 7.1).

Functional Category	Number Present
Domestic	4
Personal	2
Recreational	3
Hunting and Subsistence	3
Tools and Hardware	3
Business and Transport	0
Miscellaneous	12
Total	27

Table 7.1 Number of artifacts present in the 19th and 20th century component of the Northwest room feature.

The Miscellaneous functional category (44.5%) encompasses a majority of the Old Cumberland House 19th and 20th century artifact assemblage. The Domestic category (14.8%) represents the second most numerous artifact group in the upper

level component, followed by Recreational artifacts (11.1%), Hunting and Subsistence remains (11.1%), Tools and Hardware articles (11.1%), and Personal items (7.4%).

A number of chinking fragments, chalcedony debitage, and an unknown ferric artifact comprise the Miscellaneous category. The Domestic category is represented by a flow-blue transfer printed rim sherd, a flow-blue transfer printed side portion from a cup or bowl, a possible salt glazed, stoneware gallipot sherd, and a curved fragment of clear glass. Recreational artifacts are comprised of two unmodified white ceramic pipe stem fragments and part of a white ceramic pipe bowl exhibiting a portion of an impressed ring design. A brass/copper shell casing with an impressed "D" headstamp, a piece of gunflint, and a possible ferric percussion cap container represent the Hunting and Subsistence category. The Tools and Hardware functional artifacts consist of two complete machine manufactured cut nails and one complete handwrought nail. One cut nail possesses a clasped head while the other cut nail and handwrought nail head forms are unidentifiable. A ferric shoe buckle and a dark blue seed bead (5 PB 3/2) comprise the Personal functional artifact category.

7.3 19th and 20th Century Component – Fauna

A total of 1673 faunal remains (1464.3g) were found during the excavation of the Northwest room feature. Five hundred and eighty-nine specimens, weighing 591.7g are associated with the upper 19th and 20th century component.

Unidentified materials (n=418) comprise 71.0% of the upper assemblage while identified remains consist of 171 specimens (29.0%). Burned and calcined bones make up 92.8% of the unidentified fauna with 7.2% representing unburned remains. Identified fauna is comprised of 78.9% unburned materials while 21.1% consists of burned and calcined specimens. A list of identifiable taxa for the uppermost levels of the Northwest room feature is provided in Table 7.2.

Common name	Taxonomic designation	NISP	MNI
Beaver	<i>Castor canadensis</i>	20	2
River otter	<i>Lontra canadensis</i>	1	1
Duck (SC3)	Indeterminate Anatidae	1	1
Duck	<i>Anas sp.</i>	1	1
Goose (SC4)	Indeterminate Anatidae	7	1
Canada goose	<i>Branta canadensis</i>	1	1
Lake sturgeon	<i>Acipenser fulvescens</i>	46	1
Very large mammal (SC6)		8	-
Large mammal (SC5)		25	-
Medium mammal (SC4)		2	-
Large bird (SC5)		1	-
Medium bird (SC4)		17	-
Small-medium bird (SC3)		2	-

Table 7.2 Identifiable taxa for the 19th and 20th century component of the Northwest room feature.

7.3.1 Mammals

Family Castoridae, *Castor canadensis* – American beaver

The remains of beaver are represented by 20 skeletal elements in the uppermost level of the Northwest room feature. The axial skeleton (n=8) is represented by a number of ribs, portions of the skull, and a vertebral fragment. Faunal materials comprising the appendicular skeleton (n=12) of the beaver include various limb elements, a metatarsal, and a phalanx (Table 7.3).

Evidence of cultural modification is present on seven of the beaver specimens associated with this cultural component. A burned and calcined left distal humerus shaft fragment exhibits a series of cut marks on the anterior surface of the shaft in addition to root etching. Two cut marks are present on the medial surface of the neck of a left femur element. Five additional specimens are also burned and calcined.

Skeletal element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	2	1	1	1	0.5
Rib					
1 st rib	2	1	1	2	1.0
Anterior limb					
Clavicle	1	0	1	1	0.5
Humerus	3	2	1	2	1.0
Ulna	4	3	1	3	1.5
Posterior limb					
Femur	1	0	1	1	0.5
Tibia	1	0	1	1	0.5
5 th metatarsal	1	1	0	1	0.5
Phalanx	1	1	0	1	0.1

Table 7.3 Quantifiable values of skeletal elements of the beaver for the 19th and 20th century of Northwest room feature.

Family Mustelidae, *Lontra canadensis* – River otter

A right half of an atlas cervical vertebra represents the skeletal remains of a river otter in the uppermost levels of the Northwest room feature. Evidence of cultural modification was observed based on the burned and calcined nature of the specimen.

The river otter is found only in North America and prefers to inhabit clear deep lakes, rivers, ocean bays, and marsh shorelines because of its amphibious behavior. The otter is primarily nocturnal and active most of the year, with the exception of extremely cold weather. River otters tend to have a wide foraging range and will travel great distances in search of food and mating possibilities. A majority of an otter's diet consists of aquatic wildlife and includes a number of fish species, invertebrates, amphibians, and mammals such as small mustelids and beavers (Banfield 1974:342-343).

7.3.2 Birds

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

One faunal specimen, the proximal end of a right furculum fragment, could only be identified to the family designation of Anatidae, representing the remains of a

duck species. There appears to be no cultural or natural modifications of this specimen.

Family Anatidae, *Anas sp.* – Duck

The anterior portion of a sternum has been identified to the genus level of *Anas* in the upper component faunal assemblage. This unburned specimen displays a type of natural modification in the form of rootlet etching on the exterior surface of the bone.

Family Anatidae, Indeterminate Anatidae – Geese (SC4)

Seven faunal specimens were identified as indeterminate geese species. Faunal remains representing axial elements include a right quadrate, the dorsal half of an atlas cervical vertebra, and a frontal/squamosal skull fragment. Appendicular specimens included in this genus designation consist of fragments of a right coracoid, a left and right humerus, and a left radius. Four bones display evidence of cultural modification. The right proximal coracoid shaft fragment exhibits two cut marks on the mesial border of the glenoid facet and a knife scrape on the lateral surface. Two cutmarks are evident on the burned/calced medial surface of a right distal humerus shaft fragment. A right quadrate and a left distal radius shaft show evidence of exposure to a heating/cooking source.

Family Anatidae, *Branta canadensis* – Canada goose

The anterior portion of a sternum represents the skeletal remains of a Canada goose in the 19th and 20th century component. This specimen does not exhibit any evidence of cultural or natural modification.

7.3.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

The skeletal remains of Lake sturgeon are present in levels associated with the 19th and 20th century component. Skeletal elements identified to the genus level

Acipenser include a number of skate fragments, fin supports, and a cleithrum. Specimens displaying evidence of cultural modification include six burned and calcined skate fragments. A fin support shows evidence of small carnivore activity through the presence of two puncture marks on its lateral surfaces. The cleithrum specimen exhibits evidence of root etching on the exterior bone surface.

7.3.4 Size classification

A total of 53 specimens were identified to a size classification for the upper cultural component. The very large mammal classification (SC6) includes eight fragments of bones including the ribs, unknown appendicular fragments, a right ulna midshaft fragment, and the distal end of a phalanx. Two of these specimens, the appendicular fragment and phalanx, exhibit cultural modification in the form of exposure to a heating/cooking source.

Twenty-five specimens (rib, unknown appendicular, and unidentified fragments) represent the remains of large mammals (SC5). Three unidentifiable bones show evidence of cultural modification through the presence of cut marks and exposure to fire. Two rib fragments and one unidentifiable fragment are burned and calcined.

The size classification category of medium mammal (SC4) encompasses two faunal specimens, a maxillary fragment, and a section of a left distal rib. These two specimens do not show any evidence of cultural or natural modification.

Large bird (SC5) is represented in the upper cultural component by an unmodified midshaft fragment of a tarsometatarsus. The medium bird size classification (SC4) encompasses 17 specimens. Four axial elements, a posterior cranial fragment, a left distal rib fragment, a complete cervical vertebra, and the posterior portion of a thoracic vertebra, do not display any kind of modification. One axial element, a temporal fragment, shows evidence of being burned and calcined. A

single appendicular element, a right ulna shaft fragment, exhibits calcium carbonate on the internal surface of the shaft. Other appendicular specimens bearing no evidence of cultural or natural modification include two left proximal humerus shaft fragments, a left distal tibiotarsus shaft fragment, a humerus shaft fragment, and the distal end of a left coracoid. Two appendicular fragments were classified in the small-medium bird identification grouping (SC3). A right distal medial coracoid fragment and left distal tibiotarsus shaft fragment do not show any evidence of alteration.

7.4 Cultivated Component - Artifacts

The lower levels (2 to 36 cm dbs) of excavation units 199N200E and 200N200E demonstrate evidence of cultural modification through the presence of a cultivated, friable clay matrix. A total of 10 (15.4%) artifacts are associated with this culturally mixed component. Table 7.4 provides an account of the functional artifact categories in the cultivated component of this site.

Functional Category	Number Present
Domestic	3
Personal	0
Recreational	2
Hunting and Subsistence	0
Tools and Hardware	2
Business and Transport	0
Miscellaneous	3
Total	10

Table 7.4 Number of artifacts present in the cultivated component of the Northwest room feature.

The Domestic (30%) and Miscellaneous functional categories (30%) comprise a majority of cultivated component artifacts. Recreational (20%) and Tools and Hardware categories (20%) provide the remainder of the artifact assemblage.

Artifacts associated with the Domestic functional category include a curved aqua glass fragment, a curved green glass shard exhibiting slight patination, and a baby blue glazed buffware sherd that fits with other pieces found during Meyer's initial survey on August 9, 1991. Chinking (n=3) comprises the Miscellaneous functional artifact category. Recreational artifacts include two white ceramic pipe bowl fragments that show evidence of use burn. One of the bowl pieces is decorated with a portion of an impressed ring. The Tools and Hardware category includes two straight ferric nails. One nail is classified as a handwrought shank fragment while the other is a machine made shank fragment.

7.5 Cultivated Component - Fauna

A total of 72 faunal specimens, weighing 72.8g, were uncovered during the excavation of the cultivated components from Units 199N200E and 200N200E. Identified specimens (61.1%) comprised the majority of the cultivated assemblage, with 13.6% being burned/calcined while 86.4% are unmodified. Unidentified remains (n=28) represent 38.9% of the cultivated faunal component with a majority being burned and calcined (75%) as compared to unmodified (25%). Table 7.5 illustrates the identifiable taxa associated with the cultivated archaeological component.

Common name	Taxonomic designation	NISP	MNI
American marten	<i>Martes americana</i>	1	1
American beaver	<i>Castor canadensis</i>	9	1
Common raven	<i>Corvus corax</i>	1	1
Lake sturgeon	<i>Acipenser fulvescens</i>	6	-
Very large mammal (SC6)		1	-
Large mammal (SC5)		11	-
Medium mammal (SC4)		2	-
Medium avian (SC4)		2	-
Small-medium avian (SC3)		1	-

Table 7.5 Identifiable taxa for the cultivated component of the Northwest room feature.

7.5.1 Mammals

Family Mustelidae, *Martes americana* – American marten

American marten is represented in the cultivated component of the Northwest room feature by a complete right femur. This specimen possesses a distal epiphysis that is not fully fused to the diaphysis. There are no cultural or natural modifications associated with this bone.

Family Castoridae, *Castor canadensis* – American beaver

A total of nine specimens denote beaver in the culturally mixed, cultivated component of this feature. Seven axial elements include fragments of molars, the left half of a lumbar vertebral specimen, a piece of a mandible, a portion of zygomatic/squamosal arch, and a fragment of a distal rib. Only the molars appear to have been culturally altered, since they are burned and calcined. Two appendicular specimens, a distal half of a left humerus and a right ulna midshaft fragment exhibit evidence of root etching.

7.5.2 Birds

Family Corvidae, *Corvus corax* – Common raven

The left proximal portion of a scapula represents the remains of a raven in the culturally mixed level of Unit 200N200E. Distinctive morphological characteristics and size were determining factors for the designation of *Corvus corax*. There appears to be no cultural modification to this specimen but there are two small carnivore puncture marks on the lateral and medial surfaces of the bone.

The raven is often mistaken for the American crow but exhibits distinct differences in regard to its size, bill morphology, and feather shape. This species is found throughout Canada and inhabits a variety of areas. Its scavenging nature permits it to reside in varied terrain such as lakeshores, rivers, sea, settled areas, roadsides, and garbage dumps (Godfrey 1986:396-397).

7.5.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

Six specimens identified as belonging to the genus *Acipenser* were found in the cultivated component of the Northwest room feature at this site. All remains are unburned, broken sturgeon skutes. One skate does display two cutmarks on its external surface.

7.5.4 Size classification

A total of 16 identifiable specimens could not be designated to a specific *genus* or *species* level resulting in the use of a size classification scheme. All of the size-classed faunal remains did not display any evidence of cultural or natural modification. Large and medium mammal (SC5 and 4) classification categories consist of axial specimens encompassing rib fragments and vertebral elements. A fused right ulna/radius midshaft fragment comprises the very large mammal size class designation (SC6). Medium and small-medium bird size classes (SC4 and 3) are represented by an axial fragment and two appendicular elements.

7.6 18th Century Fur Trade Component - Artifacts

The artifact component of the intact 18th century occupation (11 - 56 cm dbs) consists of 28 specimens (43.1%). Miscellaneous artifacts (32.2%) constitute a majority of the fur trade artifact assemblage, followed by Domestic (25.0%), Tools and Hardware (21.4%), Recreational (14.3%), and Personal (7.1%). Table 7.6 provides a description of functional artifact groupings for the intact 18th century fur trade component.

Two types of artifacts comprise the Miscellaneous functional artifact category. These include chinking and debitage (quartz and cat head chert shatter). Domestic functional artifacts include two stoneware gallipot sherds that were salt glazed and three fragments of curved green tinted glass. One specimen is slightly patinated

while another fragment provides some evidence of having been exposed to a heating source.

Functional Category	Number Present
Domestic	7
Personal	2
Recreational	4
Hunting and Subsistence	0
Tools and Hardware	6
Business and Transport	0
Miscellaneous	9
Total	28

Table 7.6 Number of artifacts present in the 18th century fur trade component of the Northwest room feature.

Four ferric machine made cut nails and one ferric handwrought nail comprised the Tools and Hardware functional artifact category. Two of the cut nails are complete specimens exhibiting a rose head and a clasped head form respectively. The other two cut nails consist of a bent shank fragment and a straight head fragment with a non-identifiable head form. A bent shank fragment represents the handwrought nail.

Recreational artifacts consist of four white ceramic pipe fragments. These include one stem fragment, one decorated bowl piece, and two decorated bowl/stem junction fragments. All the decorated pipe portions display the "TD" maker's mark with only one exhibiting use burn and a number of cutmarks around the base of the spur. A turquoise seed bead (5B 5/6, 1-2 mm) and a copper tinkling cone comprise the Personal functional artifact category.

7.7 18th Century Fur Trade Component - Fauna

A total of 1003 faunal specimens (799.8g) were uncovered during excavation of the intact 18th century fur trade component. Identified remains (63.8%) comprise most of the assemblage with 85.9% being unburned while 14.1% is burned and

calcined. Unidentified specimens occupy 36.2% of the fur trade faunal component exhibiting a large percentage (71.1%) of burned and calcined materials. Table 7.7 provides an indication of identifiable fauna for this intact assemblage.

Common name	Taxonomic designation	NISP	MNI
Snowshoe hare	<i>Lepus americanus</i>	1	1
American beaver	<i>Castor canadensis</i>	29	2
Wolverine	<i>Gulo gulo</i>	1	1
Moose	<i>Alces alces</i>	5	1
Pigeon	Columbidae	1	1
Duck (SC3)	Indeterminate Anatidae	5	1
Goose (SC4)	Indeterminate Anatidae	6	1
Goose	<i>Anser sp.</i>	2	1
Greater White-Fronted goose	<i>Anser albifrons</i>	1	1
Snow goose	<i>Anser caerulescens</i>	1	1
Swan (SC5)	<i>Cygnus sp.</i>	4	1
Lake sturgeon	<i>Acipenser fulvescens</i>	161	-
Northern pike	<i>Esox lucius</i>	1	1
Very large mammal (SC6)		14	-
Large mammal (SC5)		78	-
Medium mammal (SC4)		13	-
Small-medium mammal (SC3)		2	-
Medium bird (SC4)		51	-
Small-medium bird (SC3)		17	-

Table 7.7 Identifiable taxa for the 18th century fur trade component of the Northwest room feature.

7.7.1 Mammals

Family Leporidae, *Lepus americanus* – Snowshoe hare

A fragment of an upper 1st premolar represents the remains of snowshoe hare in the intact fur trade component of the Northwest room feature. This specimen does not exhibit any form of natural or cultural modification.

Family Castoridae, *Castor canadensis* – American beaver

Twenty-eight skeletal remains represent a minimum number of two beavers.

Table 7.8 provides quantifiable values of NISP, MNI, MNE, and MAU for *Castor canadensis* skeletal remains in the 18th century component of the North cellar feature.

Skeletal Element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	6	1	1	2	1.0
Anterior limb					
Scapula	1	1	0	1	0.5
Humerus	3	2	2	4	2.0
Radius	2	2	0	2	1.0
Accessory carpal	1	1	0	1	0.5
Sacrum					
Auricular surface	1	1	0	1	0.5
Posterior limb					
Femur	1	0	1	1	0.5
Tibia	1	1	0	1	0.5
Calcaneous	1	1	0	1	0.5
Central tarsal	1	1	0	1	0.5

Table 7.8 Quantitative representation of *Castor canadensis* remains in the 18th century component of the North cellar feature.

Axial skeleton remains (n=16) consist of rib fragments, thoracic vertebral portions, a number of caudal vertebra fragments, a molar, skull and mandible pieces, and a portion of a sacrum. Thirteen specimens denote the appendicular skeleton and consist of forelimb and hindlimb shaft fragments and one complete tarsal (See Table 7.8). Nine of the beaver remains are burned and calcined and seven exhibit evidence of butchering and skinning practices.

Family Mustelidae, *Gulo gulo* – Wolverine

An unburned complete left 3rd metatarsal indicates the presence of wolverine in the lower fur trade component of this feature. One cut mark is located on the anterior distal articular surface of this element. The position of this cut mark and the presence of this bone suggest that only the pelt of this animal was brought back to

the site. There are numerous references to the trapping of wolverines in the Cumberland House journals

The wolverine is one of the larger species of the Mustelidae family and formerly inhabited the boreal forest areas of North America. Banfield (1974:332-334) notes that they are presently more commonly found in the tundra area. Wolverines are noted for their strong, bold, and curious nature and have been known to outsmart trappers by obtaining food from set traps without being captured in addition to hiding the traps set to catch them. The wolverine is active during the day and the night and does not hibernate during the winter months. Wolverines are omnivorous and subsist on a diet of berries, rodents, birds, small game, and large game. The dentition of the wolverine suggests a scavenging way of life, with similarities in dentition to that of the Eurasian hyenas (Banfield 1974:332-334).

Family Cervidae, *Alces alces* – Moose

The skeletal remains of one moose were discovered in the lowest level of the Northwest room feature. The axial skeleton is represented by two fragments and three specimens account for the appendicular skeleton. Axial remains include an unburned right mandibular symphysis fragment and a broken, rootless lower 2nd premolar. Appendicular remains include an unburned right ulna fragment and two burned and calcined patella specimens. The posterior olecranon portion of the right ulna was cut on the lateral/posterior surface and possessed a deep cut mark on the lateral/interior broken edge of the bone.

7.7.2 Birds

Family Columbidae – Pigeon

The proximal end of a right coracoid represents the remains of a pigeon species in the Old Cumberland House fur trade component. The author feels that this specimen is a coracoid fragment from a Passenger pigeon (*Ectopistes migratorius*)

but was not able to confirm this due to lack of this particular species in the department faunal collection. There are no signs of cultural or natural alteration associated with this specimen.

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

Five small-medium-sized skeletal materials were identified as duck, but could not be given a genus or species designation. A right suprangular fragment of a mandible represents the axial skeleton and does not show any indication of modification, natural or cultural. Four culturally unmodified specimens are associated with the wing appendage and include a complete right 1st phalanx, a complete right scapula, a left furculum fragment, and a complete right ulna. Carnivore activities and root etching are evident in this cultural component based on the presence of a puncture mark on the medial surface of the ulna element.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

Six skeletal specimens could only be identified to the family designation, Anatidae. These remains are representative a goose and are either *Anser* or *Branta* species. All five wing element fragments and one left mandibular portion are not culturally modified. A left, proximal humerus fragments possesses small multiple carnivore puncture marks, indicating rodent activity at the site.

Family Anatidae, *Anser sp.* – Goose

One appendicular and one axial element could only be identified to the genus level of *Anser*. Fragments of a right clavicle and left sternal facet do not exhibit any evidence of cultural or natural alteration.

Family Anatidae, *Anser caerulescens* – Snow goose

A distal half of a right coracoid element represents the skeletal remains of snow goose in the lower component of the Northwest room feature. Cultural

modification of this specimen consisted of exposure to intense heat. The shape and size of the distal coracoid specimen provided evidence for its species designation.

Family Anatidae, *Anser albifrons* – Greater White-Fronted goose

A minimum number of one Greater White-Fronted goose was represented in the fur trade component of the Northwest room feature. The proximal end of the left coracoid was root etched but did not display any indication of cultural alteration. Similarities in size and morphology were determined by comparing these materials to the Greater White-Fronted goose specimen from the department faunal collection.

Family Anatidae, *Cygnus sp.* – Swan

Three appendicular limb portions and one axial skeletal fragment were identified as belonging to the genus *Cygnus*, representing a minimum number of one swan species in the fur trade component of this feature. A right proximal humerus shaft fragment does not display any indication of cultural modification. Skeletal remains providing evidence of the butchering of swans at the Old Cumberland House trading post include a left proximal humerus shaft fragment and the right frontal portion of a skull. The indication of carnivore activity is supported by medium-sized puncture marks on the anterior and posterior shaft surfaces of a complete, left coracoid element.

7.7.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

Lake sturgeon accounts for 52.2% (n=161) of the fish remains found in the intact fur trade component of the Northwest room feature. These specimens include fragments of skutes and fin supports. Eleven of the skutes and fin supports are burned and calcined while one unburned specimen displays a cut mark on the exterior surface of the skate.

Family Esocidae, *Esox lucius* – Northern pike

The species, Pike, is accounted for in the 18th century fur trade component by the posterior portion of a right maxillary fragment. This bone does not show any indication of having been naturally or culturally modification.

7.7.4 Size classification

Sized based categories were used to classify 17.6% (n=176) of the total faunal assemblage for the intact 18th century component of the Northwest room feature. One hundred and seven specimens were identified to various class sizes while 68 avian remains were given class size designations.

Very large mammal specimens (SC6) consisted of unidentifiable fragments, pieces of rib, unidentified fragments from the axial skeleton, vertebral remnants, and appendicular remains. Evidence of natural modification was observed on an exfoliated, unknown appendicular fragment and a chewed, unknown axial specimen. A distal shaft fragment of a femur was the only SC6 specimen that was burned and calcined.

A total of 78 faunal materials were classified as large mammal (SC5). These included a number of rib portions, unknown appendicular remains, and unidentifiable bone fragments. The ends of two unburned rib fragments were cut through and a number of cut marks were present on the exterior surfaces of unburned axial and appendicular fragments. Two burned and calcined unidentified specimens also exhibit cut marks on the exterior bone surface.

Thirteen axial and appendicular specimens were classed as medium-sized mammal remains (SC4). Four axial elements and two unknown appendicular portions were subjected to intense heat, resulting in a burned and calcined appearance. Small-medium mammal remains (SC3) consisting of a cranial fragment and a portion

of an unknown appendicular element exhibit evidence of human alteration as observed by the burned and calcined nature of the specimens.

The proximal end of a left humerus was classed as a large avian (SC5). This unburned specimen possessed four small rodent-sized puncture marks on the proximal articular surface of the head.

Medium-sized avian (SC4) remains include 51 complete and fragmented faunal specimens. Various axial, wing, and lower limb elements (or portions thereof) are represented in this size class. These faunal remains do not show any indication of exposure to extreme heat but four specimens do exhibit signs of butchering. A complete cervical vertebra has two cut marks on the ventral surface of the postzygapophyses. One cut mark is evident on the distal articular surface of a right 1st phalanx. The anterior surface of a right distal humerus shaft fragment has one cut mark and two medium-sized carnivore puncture marks while the posterior surface exhibits one puncture. Eight cut marks are present on the dorsal surface of a right humerus midshaft fragment.

Seventeen fragmented avian specimens could not be identified to a specific taxonomic level and were classified as small-medium-sized remains (SC3). Unburned specimens account for 82.4% of the SC3 specimens while three fragments are burned and calcined. Evidence of human activity is supported by the presence of three cut marks located on the medial border of a burned/calcined right coracoid posterior shaft fragment. Carnivore activity is indicated by small to medium-sized puncture marks on two incomplete wing elements.

7.8 Discussion

Excavation units in the Northwest room feature contain three components: (1) 19th and 20th century, (2) a cultivated component, and (3) an intact 18th century fur trade occupation. Artifacts from these components can be used to provide an

indication of time period of occupation. Faunal materials found during excavation provide information regarding the environmental resources available to the Cumberland House inhabitants during these different time periods.

Artifacts from the 19th and 20th century component comprise 42.6% of the total artifact assemblage for the Northwest room feature. Miscellaneous artifacts include a number of chinking fragments. The presence of chinking in the upper cultural component represents the collapse of chimney and building structures at the site after abandonment of the post.

A number of artifacts found in the uppermost levels of the site provide support for a 19th and 20th century occupation. These artifacts include ceramics, nails, and ammunition. The presence of flow-blue transfer printed sherds suggests a date of post 1820 (Springer Papa 1972:13) while stoneware gallipot fragment supports a late eighteenth century occupation (Hume 1976:205). Although the gallipot sherd suggests an earlier date for the upper component issues such as date of initial use and reuse must be noted. The gallipot may not have been brought to the Cumberland House area until the nineteenth century and this particular item may have been used for a long period of time and then disposed of after it broke. Rodent disturbance may also account for the presence of this sherd in the upper component.

Cut nails, dating from 1790 to the 1820s also support a later occupation date. The presence of a handwrought form may indicate nail reuse (Fontana and Greenleaf 1962:55, Nelson n.d., Quakenbush 1989:216). A rimfired .22 caliber shell casing exhibiting an impressed "D" headstamp dates from 1900 to 1927 and was made by the Dominion Cartridge Company (National Parks and Sites Branch 1979). Other hunting and subsistence artifacts found in the upper level include a wedge-shaped gunflint with battered edges and a possible ferrous percussion cap container.

Fragments of ceramic white pipes in this component do not provide any indication of occupation date. White clay pipes were manufactured in the 18th, 19th and 20th centuries by a number of pipemakers in various parts of the world (Kenyon n.d.). The specimens associated with the upper component do not display any distinct attributes, ultimately inhibiting any dating correlation.

Personal artifacts include a nearly complete ferrous shoe buckle and a seed bead. Klimko (1987:33) notes that shoe buckles were a popular fashion accessory through to the later period of the 18th century. These two types of artifacts are commonly found in fur trading post sites but are not solely connected to that time period.

Gardening activities are evident in two units associated with the Northwest room feature. Ten artifacts were found in the grey, friable clay matrix of the cultivated component. The domestic related artifacts of this component are not dateable due to the fragmentary nature of the specimens. Evidence of structural features in the middle component are denoted by chinking. Two used ceramic pipe bowl fragments represent recreational activities. These specimens do not display any diagnostic characteristics and therefore can not be dated. A mixed assemblage of handwrought and machine made nails were found in the cultivated matrices. The presence of these nail types supports the idea that this component has been culturally modified through gardening practices.

A number of artifacts associated with the intact 18th century component can be dated to the initial fur trade occupation of this area. Miscellaneous functional artifacts encompass fragments of chinking and debitage. As stated early, the appearance of chinking in the archaeological record can denote the presence of structural remains.

One slightly patinated piece of glass may be used as a dating device. The patination of glass surfaces has been suggested to only occur on old glass but as has

been noted previously, changes in environmental conditions influence the patination process (Demmy 1967:49). Two sherds of a salt glazed gallipot may also provide some information in regard to date affiliation of the lower cultural component. This form of gallipot was commonly manufactured during the late 18th century (Hume 1976:205). The date of manufacture of this vessel type lends support to the early occupation date of this site.

Handwrought and machine manufactured nails are present in the 18th century fur trade component of the Northwest room. Handwrought nails were used into the 1850s while machine made nails date from 1790 to mid 1820s. The presence of handwrought nails indicates an early occupation date while the use of machine made nails in the construction of Old Cumberland House is not entirely unfeasible. The incorporation of nails in the lower intact component may have resulted from deterioration of building structures and from loss during the removal of roof boards and nails for use at New Cumberland House (HBCA B.49/a/25^a). On the basis that this trading post was abandoned by 1794, it does seem unlikely that machine manufactured nails would be present unless Hudson's Bay Company employees were utilizing the abandoned site and buildings.

Decorated ceramic pipe bowl fragments and spurs can also provide support for an 18th century occupation of this site. Unfortunately, no complete designs were associated with these specimens. The popularity of the white ceramic "TD" pipes creates problems when dating pipes fragments that display only portions of the designs (Klimko 1987:43). Indications of cultural alteration included evidence of use burn and a number of cut marks around the spur of a broken specimen.

The presence of a seed bead and a tinkling cone do provide support for the designation of an 18th century occupation for the lower component. These artifacts are classified as Personal items but were also used as trade goods.

Faunal materials for the 19th and 20th century component represent 35.2% (n=589) of the total faunal assemblage for the Northwest room feature. Beaver, river otter, varieties of geese and ducks, Lake sturgeon, and a number of size-classed faunal fragments make up the taxa for this upper component.

Faunal specimens from this component show evidence of cultural modification. Beaver, river otter, migratory waterfowl (SC4), and Lake sturgeon specimens show evidence of butchering marks and exposure to extreme heat. These species are present in the Cumberland House area and are used as food resources by inhabitants. Recent historical use of the area is supported by the remains of a cabin located to the south of the site and the presence of the Anglican Mission in the area. The cabin feature dates to the 20th century and was occupied by Tom Stewart, a member of the Cumberland House Band (John Brandon, fieldnotes - August 27, 1992). The Anglican Mission was established near the Old Cumberland House site in 1876 (Meyer 1996:9). The author observed that this area continues to be used by Cumberland Reserve residents for its timber, hunting, and fishing resources. Artifacts associated with the 19th and 20th century represent activities associated with these different occupations.

The skeletal remains of two fur bearing mammals were found in the cultivated component of the Northwest room feature. American marten was represented by one complete femur element showing no cultural or natural modification. Nine specimens denote the presence of American beaver in the cultivated matrix. Evidence of cultural modification is observed on the burned and calcined fragments of a molar.

The culturally unaltered remains of a raven suggest that this specimen was not utilized for human consumption but became part of the archaeological record through a natural process (death by predator or old age). The activity of small rodents is indicated by the presence of small puncture marks on the lateral and

medial surface of a scapula fragment. It is felt that this specimen is part of the remains of a raven found in the upper component of the North chimney feature. Rodent activity may account for the movement of this particular specimen into the middle, cultivated component.

Lake sturgeon is represented by six fragments of skutes in the culturally mixed strata on the Northwest room feature. One specimen does exhibit two parallel cut marks on the external surface of the skate, suggestive of filleting. Lake sturgeon were a popular fish resource for the occupants of Old Cumberland House and large quantities of this species were caught through the use of nets during the winter months (Colpitts 1997:13).

Over half of the faunal assemblage (60.0%) of the Northwest room feature was found in the 18th century component. This lower level exhibits the widest array of taxa when comparing the three components. Snowshoe hare, American beaver, and wolverine were not only used as a fur source but also accounted for a large part of the fur traders diet. Moose, pigeon, migratory waterfowl, sturgeon, and Northern pike are noted as food sources in the daily journals of Old Cumberland House. Numerous journal entries indicate that complete or whole animals were brought back to the post for provisioning purposes. The presence of limbs elements and axial skeletal specimens support the idea of whole carcasses being brought to the post. Post employees, hired hunters or native peoples wishing to trade, hunted mammals, birds, and fish and supplied the post with provisions. George Colpitts (1997:5) indicates that most of the trade of at Old Cumberland House was centered on securing provisions for the post employees.

I believe that this feature represents a dirt floor passageway from the cook room to the main house structure. There is no indication of wood flooring in this area but units immediately to the north and south possess those structural remains (Meyer

1996:34-39). A minimal amount of cultivation is evident in this structure suggesting that the removal of planking would not have occurred in intact units. Artifacts found in this area include a large amount of discard items based on the fragmented state of the artifact collection.

The presence of faunal materials in this structure may indicate the disposal of refuse in an area where a dirt floor was present or after abandonment when post employees came back to the site to garden. The presence of refuse areas in the living quarters of employees has been observed in a number of fur trading posts (Hamilton 1990).

Chapter 8

North Chimney Feature – Structural, Artifact, and Faunal Analysis

8.1 Introduction

The North chimney feature was tested with two and a half m² (Figure 6.1). This building appears to lie at a right angle to the south building. Two fragments of wall sill denote the southern and western boundaries of this structure. One north-south oriented floor joist underlies two portions of floor planking running in an east-west fashion (Meyer 1996:37-39).

Stratigraphy at this location is composed of a superficial humus layer, overlying a yellow sandy silt level that is indicative of a flooding episode. Directly underneath the flooded level is a layer of friable, mottled clay suggestive of cultivation practices. The levels exhibiting this cultural modification also contain the remnants of the 18th century fur trade building structures and associated artifacts and faunal remains. The following analysis of the North chimney feature artifact and faunal assemblage is organized according to 19th and 20th century components versus those of the 18th century.

8.2 19th and 20th Century Component - Artifacts

A total of 53 artifacts were found during excavation of the North chimney feature. The uppermost levels, with depths ranging from 0 to 33 cm, were comprised of humus and sandy silt deposits and contain a mixture of 19th and 20th century dated artifacts (Table 8.1). The Tools and Hardware category (50.0%) comprise the

majority of the upper level artifact assemblage, followed by Domestic artifacts (25.5%) and Miscellaneous remains (25.5%).

Functional Category	Number present
Domestic	1
Personal	0
Recreational	0
Hunting and Subsistence	0
Tools and Hardware	2
Business and Transport	0
Miscellaneous	1
Total	4

Table 8.1 Number of artifacts present in the 19th and 20th century component of the North chimney feature.

Two machine manufactured nails encompass the Tool and Hardware functional category for the earliest levels. One nail is complete and has a clasp headed form while the second nail is comprised of a straight shank fragment. A rim sherd of earthenware represents the Domestic artifact category. This sherd exhibits an unidentified flow-blue transfer print on the interior surface of the rim portion. A fragment of ferric wire comprises the Miscellaneous functional category.

8.3 19th and 20th Century Component - Fauna

A total of 67 faunal specimens, weighing 104.5g, were found in the North chimney feature. The uppermost levels are associated with the 19th and 20th century component and contain a total of 41 specimens weighing 57.1g. The majority of faunal materials from the upper level consists of identifiable remains (n=37) and account for 90.2% of the faunal assemblage. Unburned specimens make up 97.3% of the identified fauna while 2.7% account for the burned and calcined remains. Four faunal specimens were unidentifiable and represent the remainder of the assemblage (9.8%). Two burned and calcined bone fragments compose 50.0% of the

unidentifiable remains while 50.0% consist of unburned specimens. Table 8.2 provides a list of the identifiable taxa for the 19th and 20th century component.

Common name	Taxonomic designation	NISP	MNI
Snowshoe hare	<i>Lepus americanus</i>	2	1
Beaver	<i>Castor canadensis</i>	1	1
Moose	<i>Alces alces</i>	1	1
Common raven	<i>Corvus corax</i>	7	1
Lake sturgeon	<i>Acipenser fulvescens</i>	3	-
Possible pike	<i>Esox sp.</i>	2	1
Northern pike	<i>Esox lucius</i>	1	1
Walleye	<i>Stizostedion vitreum</i>	5	1
Large mammal (SC5)		1	-
Medium bird (SC4)		3	-

Table 8.2 Identifiable taxa for the 19th and 20th century component of the North chimney feature.

8.3.1 Mammals

Family Leporidae, *Lepus americanus* – Snowshoe hare

Snowshoe hare is represented by two unburned specimens in the 19th and 20th century component, a left proximal femur shaft fragment and the anterior portion of a left mandible. Four socketed teeth are included with the mandible fragment and include the incisor, third premolar, fourth premolar, and the first molar. There are no natural or cultural modifications associated with these specimens.

Family Castoridae, *Castor canadensis* – American beaver

A shaft fragment of a left distal fibula represents the skeletal remains of beaver in the uppermost component. This specimen does not exhibit any natural or cultural modifications.

Family Cervidae, *Alces alces* – Moose

One specimen, a complete unfused distal epiphysis from a left radius, represents the skeletal remains of moose in the uppermost levels of the North

chimney feature. This specimen is unburned and does not exhibit any evidence of natural or cultural modification.

8.3.2 Birds

Family Corvidae, *Corvus corax* – Common raven

The skeletal remains of a common raven were found in the second level of the 19th and 20th century component. The various elements were distributed across two adjacent units in the North chimney feature. The anterior portions of a mandible and sternum represent the axial skeleton. Appendicular wing remains include fragments from elements such as the coracoid, humerus, radius, and carpometacarpus. Three of the specimens display numerous small puncture marks, probably a result of the scavenging activities of a small carnivore. These specimens share similarities in size and morphological characteristics to the raven remains in the department faunal collection.

8.3.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

Three skate fragments from the first level in Unit 201N200E represent the remains of Lake sturgeon in the 19th and 20th century component. These skates do not display any evidence of natural or cultural alteration.

Family Esocidae, *Esox lucius* – Northern pike

All pike skeletal specimens from the 19th and 20th century component are found in the second level of Unit 202N200E in the North chimney feature. One complete parasphenoid is present showing no evidence of natural or cultural modification. Left and right quadrate fragments are designated as possible Pike skeletal elements.

Family Percidae, *Stizostedion vitreum* – Walleye

Walleye represents a majority of the fish remains in the upper cultural component. The MNI value of one individual is denoted by the presence of five specimens. Representation of partial skeletal elements includes the palatine and premaxilla. Complete specimens include left and right ceratohyals. Cultural modification of a right anterior premaxillary fragment is indicated by the presence of two parallel cutmarks on the lateral surface.

8.3.4 Size classification

Two specimens could not be identified to a specific taxonomic level and therefore are considered in a size classification system. A single rib fragment was designated as large mammal (SC5) and did not show any natural or cultural modifications. Three ulna shaft fragments represent a medium-sized bird (SC4) but could not be identified to a specific taxonomic level. These three specimens do not exhibit any natural or cultural modification.

8.4 Cultivated Component - Artifacts

The stratigraphy of the lower level (2 to 70 cm db) is defined as friable mottled clay, providing evidence for gardening disturbance of the 18th century fur trade occupation. Forty-nine artifacts are associated with these disturbed levels. Miscellaneous artifacts (61.2%) comprises a majority of the assemblage followed by Hunting and Subsistence (18.4%), Personal functional artifacts (10.2%), Tools and Hardware (4.1%), Domestic (4.1%), and Recreation (2.0%) (Table 8.3).

The Miscellaneous functional artifact category is composed of 30 pieces of chinking. Nine lead shot balls, representing the Hunting and Subsistence functional category, were found in and among the 18th century fur trade floor planking of level six (70 cm db) in the northern-most unit of the North chimney feature. Personal artifacts

Functional Category	Numbers Present
Domestic	2
Personal	5
Recreational	1
Hunting and Subsistence	9
Tools and Hardware	2
Business and Transport	0
Miscellaneous	30
Total	49

Table 8.3 Number of artifacts present in the cultivated component of the North chimney feature.

include five beads of varying color and size gradations which were found in levels four and six (Table 8.4). Two handwrought nails represent the Tools and Hardware functional category. One specimen is complete with a non-identifiable head form while the other nail has a clinched shank with a spatula tip. Domestic artifacts consist of two green tinted glass sherds while a ceramic pipe stem fragment represents the Recreational functional category.

Provenance	Level	Quantity	Size (mm)	Color	Munsell no.	Type
201N/200E	4	1	2-4	White	N9	Pony
201N/220E	4	1	10+	Dark blue	5 PB 5/6	Tube
202N/200E	6	2	2-4	Turquoise	5B 5/6	Seed
202N/200E	6	1	1-2	White	N9	Seed

Table 8.4 Bead classifications for North chimney feature.

8.5 Cultivated Component - Fauna

A total of 26 specimens, weighing 47.4g comprise the mixed cultivated faunal assemblage. As indicated previously the levels associated with this component consist of mottled, friable clay that is indicative of gardening activity. Identifiable specimens (76.9%) make up a majority of the lower component and include no burned and calcined remains.

Unidentifiable specimens (n=6) encompass 23.1% of the lower occupation levels. Varying degrees of burning are exhibited on 66.7% of these specimens with

only 33.3% being unburned. A total of three taxa were identified for this occupation period (Table 8.5).

Common name	Taxonomic designation	NISP	MNI
Beaver	<i>Castor canadensis</i>	10	1
Possible Northern pike	<i>Esox lucius sp.</i>	1	1
Northern pike	<i>Esox lucius</i>	1	1
Walleye	<i>Stizostedion vitreum</i>	1	1
Medium mammal (SC4)		1	-
Medium bird (SC4)		2	-

Table 8.5 List of taxa and size classes present in the mixed cultivated component of the North chimney feature.

8.5.1 Mammals

Family Castoridae, *Castor canadensis* – American beaver

Ten unmodified skeletal specimens, representing a MNI value of one, were uncovered during the excavation of the mottled clay matrices. A caudal vertebra and right distal rib shaft fragment were found in level four of Unit 201N200E. The remaining specimens were located in level six of Unit 202N200E. MNI quantities were determined from a first rib, radius shaft fragment, complete tibia, and a complete appendicular vestigial specimen.

8.5.2 Fish

Family Esocidae, *Esox lucius* – Northern pike

Pike is represented in the culturally mixed component by the presence of one palatine fragment. A left fragment of a quadrate is designated as a possible Pike species. These two specimens do not display any natural or cultural modifications.

Family Percidae, *Stizostedion vitreum* – Walleye

A left anterior fragment of a premaxilla represents the presence of walleye in the lower cultivated component. This specimen is classified as an unburned fragment that does not exhibit any further cultural or natural modification.

8.5.3 Size classification

Two specimens indicating the presence of a medium-sized mammal (SC4) and a medium-sized bird (SC4) are present in the lower occupation levels. A very worn right proximal tibia epiphysis represents the SC4 value. A left distal scapula fragment denotes the presence of a medium-sized bird (SC4). These specimens could not be designated to a specific taxon but were classified according to size.

8.6 Discussion

Artifacts associated with the 19th and 20th century component do provide solid evidence of its time affiliation. The presence of machine cut nails provides an excellent dating source for this level. Nelson (n.d) and Fontana and Greenleaf (1962:54) provide manufacturing dates of 1790 – mid 1820s for machine made nails. Since the Old Cumberland House post was all but abandoned by 1794 it is highly unlikely, but not entirely impossible, that machine cut nails would be represented in the building of this post. The presence of a flow-blue transfer printed earthenware sherd is also evidence of a later occupation, based on the initiation date of the flow-blue transfer print technique and the date of manufacture of the pattern style. The pattern style could not be identified for this sherd but the flow-blue transfer printing method was not invented until the 1820s (Springer Papa 1972:13). The date for the invention of this printing method provides support for a 19th or 20th century occupation.

Artifacts associated with the cultivated component include handwrought nails, lead shot, green tinted flat and curved glass sherds, beads, and smoking paraphernalia. The presence of handwrought nails may provide some indication as to

the date of the associated levels. Handwrought nails continued to be used in the 1850s and beyond if machine made nails were not available (Fontana and Greenleaf 1962:54, Nelson n.d., Quakenbush 1989:219). A majority of the artifacts listed for the mixed cultivated component were located in and around the planking, joists, and sills associated with the North chimney feature. These artifacts may be indicative of fur trade occupation at the Old Cumberland House site.

Faunal materials from the 19th and 20th century component are more numerous and encompass a wider array of taxa. Faunal materials represented in the cultivated component include those of *Castor canadensis*, *Esox lucius*, *Stizostedion vitreum*, medium-sized mammal (SC3), and medium-sized birds (SC4). Only one of the specimens exhibits any cultural modification. The species listed in the tables of Appendix 1 provide an indication of the dietary resources available to the fur traders who lived at Old Cumberland House fur trade post. Some of these species are also referred to in journal accounts as being food resources for everyday existence at the post. One must also remember that the men were required to perform various duties regarding cleaning garbage from inside the house and around the works, thus affecting what is ultimately deposited in archaeological context.

The structural remains found in the North chimney feature represent the remnants of the main house at the Old Cumberland House site. Units 201N200E and 202N200E (58 to 84 cm dbs) contain burned rocks and chinking from the collapsed chimney that overlay a floor joist and associated wood planking. The northern half of Unit 200N200E (29 cm dbs) contains a portion of a burned wooden sill and fallen chimney debris. Artifacts and faunal material in the cultivated component of this feature support the presence of an 18th century occupation.

On April 6, 1775 Hearne and his men began to lay the ground pieces to build the main house, cabin-like partitions were roughed in and a chimney was erected by

September 27th of the same year (Tyrrell 1934:144-181). This two storied structure contained sleeping areas for the men, a trading room, a warehouse and cellar, and the Master's quarters. Chimneys were built for the main house and the Master's room (Tyrrell 1934:181). Windows were constructed for this structure with parchment to transmit light and shutters as insulating devices (HBCA B.49/a/4 and B.49/a/7).

The location of the gates in the palisade structure also provides support to solidify the idea that the North chimney feature is indeed part of the main house. Matthew Cocking (HBCA B.49/a/3) notes in his journal entry that on May 28, 1776 the gates were placed on either side of the house in the palisade walls. Archaeological support for this statement is based on the fact that the remains of a gate were found in the north palisade wall, lying directly in front of this feature (Meyer 1996:31).

Chapter 9

North Cellar Feature – Structural, Artifact, and Faunal Analysis

9.1 Introduction

The North cellar feature was investigated through the exposure of a 50 cm wide trench (Figure 10.4). This trench was extended in a north-south fashion from an area located to the north of a rock ridge, through the rock ridge, and to the northern edge of the north cellar depression. The southern portion of this trench continued from the southern end of the north cellar feature and passed within 3.5 m of the southern cellar feature (Meyer 1996:26-27).

There are a number of 18th century remains associated with the North cellar feature. A possible wall sill, running in an east-west fashion, was exposed in level five (40 to 50 cm dbs) of Unit 216N208E. Two other wood features were uncovered in Units 213N208E (level five – 40 to 50 cm dbs) and 214N208E (level four – 30 to 40 cm dbs) and are spaced at 1.3 m intervals (Meyer 1996:27). Meyer (1996:27) suggests that these structures are the remnants of floor joists as they are oriented in the same direction as the wall sill. There is no evidence of floor planking in these units.

Other structural remains present in the vicinity of the North cellar include the remains of a chimney, rotted wood representing possible cribbing in the west wall of the cellar, and a potential wood floor joist. Meyer (1996:27) observes that the chimney mound appears to be collapsing into the eastern side of this feature but no further exploration of this area was conducted. An effort to clear the North cellar walls

occurred in the fall of 1991, exposing four defined dirt walls and some possible wood cribbing in the west wall but no further investigations were carried out.

There appears to be another floor joist on the southern edge of the cellar depression. The west half of Unit 206N208E was opened during the 1991 field season exposing a small piece of possible planking overlying a larger segment of rotted wood in level three (20 to 26 cm db). This larger piece of wood was aligned in an east-west direction, similar to the two previous wood joists and wall sill located on the north side of the cellar depression. In 1992, the east half of this unit was excavated, exposing the remains of a rotted wood plank in level two (17 to 24 cm db). This fragment of planking is oriented in a north-south fashion and may be a continuation of the small piece of planking found in the west half of this unit. Unfortunately, no further excavations were conducted to the west or east to establish the boundaries of this structure.

Stratigraphy in this five m² area (all units from 204N208E to 218N208E) conforms to the majority of the soil typology present throughout the Old Cumberland House site. The present day humus/littermat and yellow silt layers comprise a total of 20 cm, forming the upper 19th and 20th century component. These layers cover a 30 cm matrix of gray friable mottled clay, indicative of cultivation practices. The following information will discuss the artifact and faunal assemblages of the two components in the North cellar feature.

Artifacts and faunal materials were collected from the backdirt in an area within the North cellar. The exposure of this material culture resulted from the activities of souvenir hunters, thus the assemblage from this area does not have any archaeological context and can not be associated with any cultural components in the feature. The 19th and 20th century component, the cultivated matrix, and the materials from the backdirt in the North cellar will be discussed below.

9.2 19th and 20th Century Component - Artifacts

A total of 83 artifacts were found during the excavation of the North cellar feature. Twenty-six artifacts (31.3%) were located in the uppermost levels (0 - 20 cm db) of this cellar feature. Soils comprising the upper component include the present day humus/littermat and a layer of yellow sandy silt. A tabular representation of the functional artifact categories and numbers present are presented in following table.

Functional Category	Number Present
Domestic	8
Personal	0
Recreational	2
Hunting and Subsistence	0
Tools and Hardware	6
Business and Transport	2
Miscellaneous	8
Total	26

Table 9.1 Number of artifacts present in the 19th and 20th century component of the North cellar feature.

Artifacts denoting the Miscellaneous (30.8%) and Domestic functional categories (30.8%) comprise the majority of the artifact assemblage. Tools and Hardware artifacts represent 23.1% of the assemblage followed by those related to Recreational activities (7.7%) and Business and Transport (7.7%).

The Miscellaneous functional category is comprised of chinking and one piece of ferric scrap metal. Domestic artifacts include three fragments of colored glass, two sherds of baby blue glazed buffware, one piece of salt glazed stoneware, and two portions of a salt glazed white gallipot.

Tools and Hardware artifacts are represented by one complete machine-made nail with a clasp head, two cut shank fragments, one complete handwrought nail possessing a rose head form, one handwrought shank fragment, and a non-identifiable nail type.

Two ceramic pipe specimens encompass the Recreational functional artifact category. Each of the pipe bowl fragments exhibit use burn modification in addition to the presence of maker's marks, an impressed "T" and an impressed portion of a circle surrounding an impressed "T". The Business and Transportation functional artifact category contains the remnants of two ferric barrel hoops.

9.3 19th and 20th Century Component - Fauna

Three hundred and twenty-seven faunal specimens, weighing 218.9g, were exposed during the excavation of the North cellar feature. Three hundred and sixteen (88.5%) of these specimens were unburned while 11.5% (n=41) exhibited some characteristics associated with exposure to high heat. The 19th and 20th century component of the North cellar feature contains a total of 38 pieces of faunal material; 84.2% were unburned while 6% were burned and calcined.

Common name	Taxonomic designation	NISP	MNI
Snowshoe hare	<i>Lepus americanus</i>	1	1
American marten	<i>Martes americana</i>	1	1
American beaver	<i>Castor canadensis</i>	2	1
Duck (SC3)	Indeterminate Anatidae	1	-
Goose (SC4)	Indeterminate Anatidae	1	1
Canada goose	<i>Branta canadensis</i>	1	1
Lake sturgeon	<i>Acipenser fulvescens</i>	5	-
Redhorse sucker	<i>Moxostoma sp.</i>	1	1
Large mammal (SC5)	-	4	-
Medium mammal (SC4)	-	1	-
Medium bird (SC4)	-	2	-
Small-medium bird (SC3)	-	3	-

Table 9.2 Identifiable taxa for the 19th and 20th century component of the North cellar feature.

Identifiable specimens (55.9%) comprised a majority of the fauna for the North cellar feature. Unburned remains encompass 84.2% of the identifiable assemblage while 15.8% show evidence of being burned and calcined. Thirty specimens (44.1%)

could not be identified to a taxonomic level. A large majority (93.3%) of the unidentifiable faunal materials were unburned while two (6.7%) specimens were burned and calcined. Identifiable taxa from the North cellar feature are provided in Table 9.2.

9.3.1 Mammals

Family Leporidae, *Lepus americanus* – Snowshoe hare

A portion of the ramus from a left mandible fragment accounts for the remains of snowshoe hare in the upper component of the North cellar feature. This specimen does not exhibit any indication of alteration, cultural or natural.

Family Mustelidae, *Martes americana* – American marten

The skeletal remains identified as belonging to the species *Martes americana* consist of a portion of the ilium from the right side of a pelvis. This specimen appears to be unburned and does not show any indications of other natural or cultural modifications.

Family Castoridae, *Castor canadensis* – American beaver

Two specimens identified as American beaver were found in the 19th and 20th century component of the North cellar feature. A complete, left patella is unaltered while the anterior quarter of a left frontal fragment shows evidence of skinning. Five cut marks are present on the external surface of the frontal fragment.

9.3.2 Birds

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

The remains of an unidentifiable duck species were uncovered in the lower level of the 19th and 20th century component of this feature. The unburned, proximal end of a right ulna possesses multiple cut marks located below the olecranon process and on the medial surface of the posterior portion of the element.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

The distal end of a left tibiotarsus provides evidence of the presence of *Anser* or *Branta* species in the 19th and 20th century component here. This specimen is unburned but a cut mark on the lateral surface of the shaft fragment suggests some form of cultural modification.

Family Anatidae, *Branta canadensis* – Canada goose

The presence of Canada goose is not unusual for any of the cultural components of the Old Cumberland House site. This migratory species was and still is hunted as a food source for local inhabitants. The upper levels of the North cellar feature contain an unburned furculum with a number of cut marks on the anterior surface of the symphysis and two cut marks on the anterior portion of the right clavicle. The specimen is the same size and shares the same morphological traits as the example from the department faunal collection, thus indicating that this furculum is from a Canada goose.

9.3.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

The Lake sturgeon species has been and still is used by local inhabitants as a food source. Numerous journal references cite the capture of Lake sturgeon in nets set by fur trade post employees. The presence of Lake sturgeon in the 19th and 20th century component are represented by five skate fragments that do not display any evidence of cultural or natural modification.

Family Catostomidae, *Moxostoma sp.* – Redhorse

A fragment of an ethmoid bone represents the presence of a redhorse species in the Cumberland House area. There is no evidence of natural alteration but cultural modification consists of evidence of exposure to high heat.

9.3.4 Size classification

Nine faunal specimens could not be identified to a specific taxonomic level and were therefore given a size class designation. Faunal materials identified as belonging to the large mammal size classification (SC5) include two unidentifiable bone fragments, one axial unknown specimen, and an acetabular portion of a right pelvis fragment. All the bones were unburned and only one of the unidentifiable fragments possessed two faint cut marks on its external surface. One thoracic vertebral specimen was identified to the medium mammal class (SC4). This thoracic articular process did not exhibit any cultural or natural alteration.

The medium bird size classification (SC4) includes two specimens, one axial and one appendicular element fragment. A portion of right rib facets from a sternum and a right tibiotarsus midshaft fragment did not display any evidence of natural or intentional modification. A complete cervical vertebra, a glenoid facet fragment of a right coracoid, and the proximal end of a right carpometacarpus were designated as belonging to the small-medium-sized bird class (SC3). These two specimens were unburned and unaltered.

9.4 Cultivated Component - Artifacts

A total of 57 artifacts (68.7%) were found during the excavation of the lower (20 - 50 cm dbs) cultivated, friable clay component of the North cellar feature (Table 9.3). Artifacts associated with the Domestic functional category (33.3%) encompass a majority of the assemblage. Tools and Hardware is the second most numerous functional group (31.6%) followed by Miscellaneous (28.1%), Personal (3.5%), and Recreational (3.1%).

Domestic functional artifacts for the mixed cultivated component include pieces of glass and sherds of ceramics. Glass artifacts vary in color and modification. Six fragments of aqua colored glass and one piece of green glass do not exhibit any

Functional Category	Number Present
Domestic	19
Personal	2
Recreational	2
Hunting and Subsistence	0
Tools and Hardware	18
Business and Transport	0
Miscellaneous	16
Total	57

Table 9.3 Number of artifacts present in the cultivated component of the North cellar feature.

form of alteration. Six green tinted fragments of glass display slight patination while two green colored pieces are slightly patinated and partially melted. Other Domestic related artifacts include two salt glazed sherds of stoneware. One stoneware fragment has a flesh colored interior surface with a natural finish on the exterior. Another piece of stoneware exhibits incised lines and may have been burned. This particular specimen may also be from vessel #747 (194.5N199E, level 3).

The Tools and Hardware functional artifact category is comprised of a number of ferric nail forms. Table 9.4 provides a descriptive list of the different nail types found in the lower levels of the North cellar feature.

Nail type	Portion	Shape	Length	Head form	Notes
2 handwrought	Complete	Straight	6-8 cm	T-head	Wood adhering
1 handwrought	Complete	Bent	4-6 cm	Non-id'able	-
1 handwrought	Complete	Straight	6-8 cm	Rose head	-
1 handwrought	Complete	Straight	6-8 cm	T-head	-
1 handwrought	Complete	Bent	4-6 cm	Clasp head	-
1 handwrought	Shank	Clinched	-	-	Spatula tip
1 handwrought	Complete	Straight	6-8 cm	Non-id'able	-
1 handwrought	Complete	Bent	2-4 cm	Non-id'able	-
1 cut	Complete	Bent	2-4 cm	Clasp head	-
2 cut	Head	Straight	-	Clasp head	-
2 cut	Shank	Straight	-	-	-
1 cut	Complete	Straight	4-6 cm	Clasp head	-
2 cut	Complete	Straight	2-4 cm	Rose head	-
1 cut	Head	Straight	-	Non-id'able	-

Table 9.4 Nail typology for the cultivated component of the North cellar feature.

Artifacts assigned to the Miscellaneous functional category include two pieces of quartz debitage and 14 pieces of chinking. Personal artifacts encompass two complete copper/brass tinkling cones while two unmodified white ceramic pipe stems represent the Recreational artifact functional category.

9.5 Cultivated Component - Fauna

Two hundred and eighty-nine (88.4%) faunal specimens, weighing 167.4g, were discovered during the excavation of the lower cultural levels of the North cellar feature. A summary of the identifiable taxonomic groups for the mixed cultivated component of the Old Cumberland House site is provided in Table 9.5.

Common name	Taxonomic designation	NISP	MNI
Snowshoe hare	<i>Lepus americanus</i>	1	1
American marten	<i>Martes americana</i>	3	1
American beaver	<i>Castor canadensis</i>	26	2
Canid (SC4)	<i>Canis sp.</i>	1	1
Moose	<i>Alces alces</i>	1	1
Duck (SC3)	Indeterminate Anatidae	3	1
Goose (SC4)	Indeterminate Anatidae	3	1
Greater White-Fronted goose	<i>Anser albifrons</i>	1	1
Lake sturgeon	<i>Acipenser fulvescens</i>	25	-
Northern pike	<i>Esox lucius</i>	2	1
Large mammal (SC5)	-	23	-
Medium mammal (SC4)	-	9	-
Small-medium mammal (SC3)	-	3	-
Large bird (SC5)	-	3	-
Medium bird (SC4)	-	10	-
Small-medium bird (SC3)	-	6	-

Table 9.5 Identifiable taxa for the cultivated component of the North cellar feature.

A total of 256 (88.6%) of the cultivated assemblage was unburned with 11.4% (n=33) displaying characteristics associated with exposure to extreme heat. One hundred and seventy-seven (61.2%) identified specimens, weighing 133.1g, comprise a large portion of the lower component assemblage. A total of 172 (97.2%) of these remains are unburned while five specimens (2.8%) are burned and calcined.

Unidentified specimens (38.8%) encompass the remainder of the mixed cultivated faunal assemblage. Of these remains, 84 (75.0%) are unburned and 28 (25.0%) are burned and calcined.

9.5.1 Mammals

Family Leporidae, *Lepus americanus* – Snowshoe hare

The proximal end and shaft fragment of a left ulna represents the species snowshoe hare. This specimen is unburned, with a cut mark under the trochlear notch on the anterior surface.

Family Mustelidae, *Martes americana* – American marten

Three faunal specimens were identified to the species level of *Martes americana*. These bones include a right pelvis fragment encompassing the ilium and acetabulum, a fragment of a thoracic vertebra centrum, and the distal half of a left calcaneus. These specimens do not display any indication of cultural or natural modification.

Family Castoridae, *Castor canadensis* – American beaver

Faunal remains associated with the American beaver species are represented in the lower component of the North cellar feature primarily by limb elements or portions thereof. Skull portions and vertebral elements account for the axial skeleton of the beaver at this site. Table 9.6 illustrates the quantifiable skeletal elements of the American beaver for this feature.

The bulk of *Castor canadensis* remains are unburned while only 7.7% show any evidence of exposure to a heat source. Three appendicular skeletal elements display evidence of skinning cut marks on the distal ends of these elements while the posterior portion of a frontal fragment has cut marks adjacent to the nuchal crest.

Skeletal element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	4	1	1	2	1.0
Vertebrae					
Atlas	1	0	1	1	0.5
Anterior limb					
Humerus	1	1	0	1	0.5
Ulna	1	0	1	1	0.5
Posterior limb					
2 nd metatarsal	1	0	1	1	0.5
5 th metatarsal	2	0	2	2	1.0
Talus	2	1	1	2	1.0
Calcaneous	2	1	1	2	1.0
Proximal phalanx	2	-	-	2	0.1
Middle phalanx	2	-	-	2	0.1

Table 9.6 Quantifiable values of skeletal elements of the beaver for the mixed component of the North cellar feature.

Family Canidae, *Canis sp.* – Canid (SC4)

The proximal portion of a third phalanx represents the remains of a medium-sized *Canis sp.* in the mixed cultivated component of the North cellar feature. A species designation could not be given for this specimen, as wild and domesticated canid species were present during the occupation of Old Cumberland House. There was no indication of intentional or natural alteration to this lower limb element.

Family Cervidae, *Alces alces* – Moose

The skeletal remains of moose are present in the mixed cultivated component of this feature. The proximal portion of a third phalanx was discovered during excavation. This specimen does not display any evidence of cultural or natural modification.

9.5.2 Birds

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

Three skeletal specimens could only be classified to the family taxon of Anatidae. These remains are identified as duck but could not be given a genus or species designation. The left, complete radius and proximal portion of a right

coracoid do not show any indication of alteration, natural or cultural. The left, distal end fragment of a humerus does display cut marks on the medial/posterior surface of the shaft.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

The skeletal remains of geese species were found in the mixed cultivated matrix of the North cellar feature. These specimens were identified to the genus level as either representing *Anser* or *Branta*. Two complete elements, a left coracoid, and a left ulnar carpal do not show any signs of alteration. The right, proximal three-quarters of a tarsometatarsus does display root etching on the external shaft surface.

Family Anatidae, *Anser albifrons* – Greater White-Fronted goose

The anterior portion of a sternum represents the skeletal remains of Greater White-Fronted goose. Although fort occupants hunted this species for use as a dietary staple, this particular specimen does not exhibit any cultural or natural alteration.

9.5.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

Twenty-six skate fragments comprise the skeletal remains of Lake sturgeon in the mixed cultivated matrix. A majority of the fragments (96.2%) do not display any indication of cultural modification while one specimen appears to be burned and calcined.

Family Esocidae, *Esox lucius* – Northern pike

Skeletal remains of *Esox lucius* include two fragments of the dentary portion of the skull. These two specimens do not exhibit any evidence of natural or cultural alteration.

9.5.4 Size classifications

A total of 54 faunal specimens could not be identified to a taxonomic level and were sorted to a size classification instead. Twenty-three specimens were identified as belonging to the large mammal size class (SC5), nine bone fragments encompass the medium mammal class (SC4), and three specimens make up the small-medium mammal size classification (SC3). Large mammal remains were composed of unidentifiable fragments, appendicular pieces and rib portions. All of the skeletal materials associated with this size class are unburned and one specimen represents an immature large mammal based on the presence of a billowed, spongy-like articular surface. One rib fragment displays evidence of butchering through the appearance of cut marks on its posterior surface. An unidentifiable fragment displays a chop mark and one cut mark on the external surface of the bone. Two unknown appendicular specimens appear to have been subject to butchering. One specimen has a chop mark located on the internal surface of the bone while the other long bone fragment has two cut marks across its external surface. Finally, evidence of carnivore activity is also present in the mixed cultivated component of the Old Cumberland House site. A large mammal unidentifiable fragment exhibits two medium-sized puncture marks on the external surface of the bone.

Axial and distal appendicular elements compose the medium mammal size classification (SC4) faunal inventory. Nine of the specimens are unburned and one shows evidence of extreme heat exposure. Three of the medium mammal sized specimens were culturally modified. One vertebral centrum fragment possesses two cut marks on its dorsal surface, a burned and calcined unknown appendicular fragment has one knife scrape on the external surface of the bone, and cut marks penetrate the medial surface of a rib fragment.

The small-medium mammal size class (SC3) is comprised of three specimens, two axial and one appendicular. A rib fragment and spinous process of a thoracic vertebra are unburned while a complete phalange is burned and calcined. The rib fragment also possesses signs of cultural modification in the form of one cut mark on the lateral surface of the rib shaft.

Large bird size class remains (SC5) are comprised of three specimens. These include the acetabular and ischial fragment of a left pelvis, the proximal trochanter portion of a femur, and the body of a caudal vertebra. All of these faunal materials are unburned and do not display any evidence of cultural or natural modification.

Ten specimens are included in the medium bird size classification (SC4). Two axial fragments, the carinal portion of a sternum and the centrum of a cervical vertebra, do not show any indication of alteration. Four appendicular specimens do display evidence of intentional modification. The shaft of an incomplete humerus has cut marks on its medial surface. The distal portion of a right femur displays cut marks on the medial, posterior, and anterior surfaces. A left tibiotarsus midshaft fragment has cut marks on the medial and anterior surfaces and the anterior surface of a proximal humerus head fragment has two small carnivore puncture marks.

The small-medium bird size class (SC3) designation was given to six faunal specimens. All of these appendicular element fragments were unburned with only one displaying indications of further cultural alteration. One cut mark is located on the lateral surface of a right coracoid midshaft fragment.

9.6 Disturbed North Cellar Soil – Artifacts

Disturbed soils were collected from the bottom of the North cellar feature and screened. The presence of the disturbed soil is a result of past souvenir hunting activities at the Old Cumberland House site. While we can assume that these

materials are associated with the North cellar feature the archaeological context of the cultural materials found in this disturbed soil is unknown. Based on this fact, these materials could not be included in the two preceding component discussions.

A total of 187 artifacts were found in the disturbed matrices of this feature. All functional artifact categories are represented with the exception of the Business and Transport group. Table 9.7 illustrates the functional categories and the number of artifacts associated with each group.

Functional category	Number present
Domestic	106
Personal	2
Recreational	3
Hunting and Subsistence	1
Tools and Hardware	71
Business and Transport	0
Miscellaneous	4
Total	187

Table 9.7 Number of artifacts present in the disturbed soils from North cellar feature.

The Domestic functional category (56.7%) encompasses the most artifacts for this area. Tools and Hardware related artifacts (38.0%) are the second most numerous group, followed by Miscellaneous (2.1%), Recreational (1.6%), Personal (1.1%), and Hunting and Subsistence (0.5%).

Artifacts representing the Domestic functional category include a number of ceramic, glass, and metal fragments. Ceramics found in this feature include a piece of undecorated earthenware, a rim and body portion of a buffware cup, and a rolled gallipot rim sherd. Glass artifacts encompass 90 pieces of flat glass, a decorated bottle base, a lip/neck finish, four shards of heavily patinated green glass, a slightly patinated green sherd, and a piece of clear glass. A portion of a ferrous rim completes this functional category.

Handwrought and cut nail forms encompass the Tools and Hardware category. These nails encompass a variety of sizes, lengths, shapes, portions, and headed forms. Nail types and their associated characteristics are provided in Table 9.8.

Nail type	Portion	Shape	Length	Head form	Notes
3 handwrought	Complete	Straight	6-8 cm	Clasp head	-
1 handwrought	Complete	Straight	2-4 cm	Non-id'able	-
5 handwrought	Complete	Clinched	6-8 cm	Clasp head	-
1 handwrought	Complete	Clinched	6-8 cm	L shape	-
4 cut	Complete	Straight	6-8 cm	Rose head	-
1 cut	Complete	Straight	6-8 cm	Non-id'able	-
1 cut	Complete	Straight	2-4 cm	Rose head	-
2 cut	Complete	Bent	8+ cm	Rose head	-
15 cut	Complete	Bent	6-8 cm	Clasp head	-
3 cut	Complete	Bent	4-6 cm	Rose head	-
1 cut	Complete	Bent	2-4 cm	Rose head	-
8 cut	Head	Straight	-	Clasp head	-
5 cut	Head	Straight	-	Rose head	-
2 cut	Head	Straight	-	Non-id'able	-
14 cut	Shank	Straight	-	-	-
2 cut	Shank	Bent	-	-	-
1 non-id'able	Complete	Bent	2-4 cm	Non-id'able	-
2 non-id'able	Shank	Bent	-	Non-id'able	-

Table 9.8 Typology of nails present in the disturbed soils of the North cellar feature.

The Miscellaneous functional category is represented by a piece of ferric material, a portion of cut copper sheet metal, one fragment of chalcedony, and a piece of chinking. Three ceramic pipe stems comprise the Recreational category. Two specimens exhibit indications of use and one stem fragment is unburned. A turquoise blue tube bead and a wire wound yellow translucent bead with colored glass inlays account for Personal artifacts in this feature. A complete musket ball is associated with Hunting and Subsistence activities at this site.

9.7 Disturbed North Cellar Soil – Fauna

A total of 76 faunal materials, weighing 155.3 g were found during the screening of disturbed soils from the North cellar feature. Unidentifiable specimens

encompass 27.6% (n=21) of the faunal assemblage. Fourteen (66.7%) of these materials are burned and calcined while 33.3% (n=7) are unburned. Identifiable remains represent 72.4% of the disturbed faunal materials of which 32 (58.2%) are unburned and 23 (41.8%) exhibit characteristics indicative of exposure to extreme heat. Table 9.9 provides a list of identified taxa for this area.

Common name	Taxonomic designation	NISP	MNI
Vole	<i>Microtus sp.</i>	1	1
Least weasel	<i>Mustela nivalis</i>	1	1
Snow shoe hare	<i>Lepus americanus</i>	5	2
American beaver	<i>Castor canadensis</i>	6	1
Canid (SC4)	<i>Canis sp.</i>	1	1
American robin	<i>Turdus migratorius</i>	1	1
Pigeon	Columbidae	2	1
Grouse or partridge	Phasianidae	2	1
Mallard	<i>Anas platyrhynchos</i>	1	1
Goose (SC4)	Indeterminate Anatidae	1	1
Greater White-Fronted goose	<i>Anser albifrons</i>	1	1
Snow goose	<i>Anser caerulescens</i>	1	1
Lake sturgeon	<i>Acipenser fulvescens</i>	1	-
Sucker	<i>Catostomus sp.</i>	1	1
Very large mammal (SC6)	-	4	-
Large mammal (SC5)	-	14	-
Medium mammal (SC4)	-	2	-
Small-medium bird (SC3)	-	3	-

Table 9.9 Identifiable taxa from the disturbed soil in the North cellar feature.

9.7.1 Mammals

Family Muridae, *Microtus sp.* – Vole

A portion of a left maxilla and associated socketed teeth were identified to the genus level *Microtus*. These remains represent one individual and are burned and calcined. As stated in previous chapters, vole species are a natural inhabitant of the Cumberland House area and their presence in the archaeological record may be associated with a number of causes.

Family Mustelidae, *Mustela nivalis* – Least weasel

The remains of one least weasel were found among the disturbed soils of the North cellar feature. The anterior and right portions of a skull do not show any signs of natural or intentional modification.

The least weasel is a fur bearing mustelid that inhabits most areas of North America. This species lives in a number of different environments including fields, forests, parklands, and meadows. The least weasel is active throughout all seasons of the year and feeds on mice, voles, amphibians, and insects. Predators of this species include house cats, owls, and long-tailed weasels (Banfield 1974:326-327).

Family Leporidae, *Lepus americanus* – Snowshoe hare

The remains of at least two snowshoe hares are represented by portions of scapula and humerus elements. These specimens are burned but do not display any evidence of skinning or butchering.

Family Castoridae, *Castor canadensis* – American beaver

Axial and appendicular fragments account for the presence of beaver in the souvenir hunting backdirt of the North cellar. An unfused proximal right ulna fragment and the distal portion of a right fibula display characteristics associated with exposure to extreme temperatures. Unmodified specimens include a left premaxilla fragment and the distal end of a left metatarsal. The distal shaft of a left radius has been cut through and is root etched and exfoliated. A left condylar process is burned and has two cut marks on the lateral surface of the bone.

Family Canidae, *Canis sp.* – Canid (SC4)

The remains of canid species were found in the disturbed matrix of this feature. A proximal portion of a right rib represents the remains of a medium-sized canid. A species designation could not be provided for this specimen as both wild and domesticated species have and still do inhabit this area.

9.7.2 Birds

Family Muscicapidae, *Turdus migratorius* – American robin

A complete left humerus was identified as American robin. This specimen does not display any characteristics associated with intentional or nature modification. Morphology and size of this specimen provided direct evidence for its species designation. Robins are commonly found in the Cumberland House area.

Family Columbidae – Pigeon

The presence of pigeon has been noted previously in other features at the Old Cumberland House site. Two appendicular remains were found in the disturbed soils from the floor of the North cellar. A complete right ulna and the proximal end of the right carpometacarpus are not burned or calcined and do not display any characteristics of butchering.

Family Phasianidae – Grouse or partridge

The remains of grouse or partridge were found in the backdirt of souvenir depressions in the North cellar. A right mandible does not show any modification, natural or intentional. A left acetabulum fragment is burned and calcined but does not exhibit any markings associated with dismemberment.

Family Anatidae, *Anas platyrhynchos* - Mallard

Migratory waterfowl were a dietary staple for fort inhabitants during the spring and fall months. The distal half of a left tibiotarsus was classified as Mallard. This specimen does not display any natural or cultural modifications. The size of this distal tibiotarsus suggests a Mallard designation.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

A medium-sized right furculum shaft fragment was identified as representing goose but a species designation was not possible due to the similarity of the element

among the different species of geese. This specimen has a number of gnaw marks on the anterior border and the external surface of the bone is exfoliated.

Family Anatidae, *Anser albifrons* – Greater White-Fronted goose

A single specimen represents the remains of a Greater White-Fronted goose in the disturbed soils from the floor of the North cellar. A distal portion of a left tibiotarsus was unburned but did show evidence of rootlet action. This specimen is identical in size and morphology to the example from the department faunal collection.

Family Anatidae, *Anser caerulescens* – Snow goose

A number of journal entries note the presence of migratory geese in the area of Old Cumberland House during certain periods of the year. Most entries indicate that geese were shot but do not give an indication of the species that were killed. A comparison with the department's faunal collection resulted in the identification of a snow goose in the disturbed soils from the North cellar. The proximal half of a right fibula was identified as *Anser caerulescens*. This specimen does not exhibit any indication of cultural or natural alteration. Morphology and size of this fibula specimen indicates an *Anser caerulescens* affiliation.

9.7.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

The skeletal remains of sturgeon are found in all of the structural features at this site. The great quantity of sturgeon in archaeological context illustrates the importance of this species as a food resource for the inhabitants of this area. One unmodified skate fragment was identified in the fish remains found in the North cellar.

Family Catostomidae, *Catostomus sp.* – Sucker

Five species of suckers are found in Cumberland House Lake and were used as a food resource by site occupants. A portion of a ventral parasphenoid represents

the remains of sucker in the disturbed matrix of the North cellar. This specimen does not display any cut marks but does exhibit indications of extreme heat exposure.

9.5.4 Size classification

Twenty-three faunal remains from the North cellar could not be identified to a specific taxonomic level and given a size designation. Mammals account for 87.0% of the size-classed materials while birds are represented by three specimens.

Three pieces of rib and a medial shaft fragment of a right humerus represent very large mammals (SC6). The lateral and medial surfaces of the three rib portions display a number of butchering marks while the humerus fragment is burned. Large mammal (SC5) remains include a number of unidentified fragments, pieces of rib, and unknown axial and appendicular portions. Thirteen of these specimens are burned and calcined and one appendicular specimen has been cut. Medium-sized mammal (SC4) remains include fragments of a metapodial and a rib. These specimens are unburned and do not display any natural modification. Three specimens were classed as representing small-medium-sized bird (SC3). A coracium of a sternum and a distal shaft fragment of a right ulna are unmodified. A burned right carpometacarpus shaft displays two smoothed edges, possibly resulting from being cut.

9.8 Discussion

Domestic and Miscellaneous functional groupings form the bulk of the artifact assemblage from the cultural components of the North cellar feature at the Old Cumberland House site. Fragments of glass and sherds of ceramics comprise the Domestic functional artifact category for the 19th and 20th century component of this feature. The fragmentary nature of the glass artifacts renders them unidentifiable as to date of manufacture. Two gallipot sherds provide some indication of time period occupation for this upper component. Hume (1976:205) notes that delicate white, salt glazed gallipot vessels displaying rolled rims were commonly manufactured in

England during the late eighteenth century. This date of manufacture does support evidence suggesting a possible affiliation with the Old and (New) Cumberland House fur trade occupations, but factors such as the initial date of artifact usage and artifact reuse must also be considered. The presence of chinking in the North cellar feature provides evidence of structural remains in this location.

As mentioned in previous chapters, nails can serve as dating indices for the three components of the post. The upper level of the North cellar feature contains both cut and handwrought nail types. The complete nails from this component have hand applied heads, a technique used until 1830 (Nelson n.d.). The presence of handwrought nails in the upper component may illustrate a situation of nail shortage and subsequent nail reuse. Magnus Twatt notes in the Cumberland House journal of 1793-1974 that the roof of the main building at Old Cumberland House was taken apart to find nails for the construction of the new post, as there was a shortage of nails (HBCA B.49/1/25^a).

Two white ceramic pipe bowl fragments, exhibiting use burns, represent the Recreational activities for the upper cultural component of this feature. The backs of these bowl fragments are marked with impressed designs and/or letters to denote the pipe manufacturer. While one of the pipe bowl fragments cannot be dated, a manufacturing designation and date can be applied to the bowl fragment displaying an impressed "T" and circle. This particular specimen was made by Hunter's Well and dates from 1825 to 1840 (Kenyon n.d.). The manufacturing date of the bowl fragment certainly supports a 19th and 20th century time frame for the upper component of the North cellar feature.

Artifacts from the cultivated component of the North cellar feature are dominated by those serving a domestic and structural function. The fragmented

nature of the glass and ceramic artifacts does not lend to identification of container or vessel forms.

The patinated feature of seven glass fragments may provide support for an early fur trade occupation but the process of patination is influenced by external factors such as temperature and moisture fluctuations. Thus, the presence of patination on glass surfaces does not always indicate that the specimen is old but may be a reflection of environmental changes (Demmy 1967:49).

Stoneware vessels are represented by the presence of two sherds. These two specimens are salt glazed, indicating the possibility of an early manufacturing date (Dean 1984:3). Decoration of these sherds includes the application of a flesh colored paint and incised lines.

Fragments of chinking in the lower component and the bottom of the cellar of the North cellar feature once again supports the presence of a building structure and chimney feature. One would expect to retrieve an abundance of chinking if more units associated with the North cellar feature were excavated.

A total of eighteen nails were found in the mixed cultivated component of the North cellar feature. Half of the specimens were identified as handwrought in manufacture while the other half are classified as machine manufactured cut nails. The combination of these two nail types in this component supports the mixed nature of the matrices. One should expect to find few, if any, machine manufactured nails used in the construction of Old Cumberland House as this mode of nail manufacturing dates from 1790 to the mid 1820s (Fontana and Greenleaf 1962:54, Nelson n.d.).

Personal artifacts include two complete tinkling cones and may represent trade good items at Old Cumberland House. Two white ceramic pipe stem pieces are found in the North cellar feature and do not display any form of cultural modification.

These fragments of pipe stem may represent broken, unused pipes that belonged to the House occupants, or broken trade goods.

Artifacts found during the screening of the souvenir hunter's backdirt include a few dateable specimens. The presence of a salt glazed gallipot rim suggests a late 18th century affiliation. A base of a dip molded green bottle is embossed with "CB Co." The maker's marks could not be identified with a specific company but the dip mould manufacturing process dates from the 1730s to the 19th century (Jones and Sullivan 1989). The presence of handwrought and cut nail forms provides for some confusion. Handwrought nails were commonly used into the 19th century while cut nails were not manufactured until 1790 (Fontana and Greenleaf 1962:54 and Nelson n.d.). The mixed nature of the nail types in this area is not unexpected based on the lack of archaeological context here. The activities of souvenir hunters in this feature caused such artifact mixing to occur.

Eighteen taxa are represented in the two cultural components of the North cellar feature. The upper component comprises 11.6% (n=38) of the total faunal assemblage. Three waterfowl limb fragments, an unknown axial portion of a large mammal, and one beaver specimen show evidence of butchering and skinning. Intentional exposure to extreme heat was only observed on one specimen, the ethmoid bone of a Sucker species.

The poor representation of faunal materials for these upper components would seem to suggest that no permanent occupation of this area occurred after the abandonment of the Old Cumberland House trading post. The presence of some culturally modified faunal materials supports sporadic use of this area. The location of this post in relation to the shoreline of Cumberland Lake provides an adequate environment for the hunting of waterfowl, aquatic mammal species, and fish. The author recalls visiting the site in October of 1996 and observing the presence of fresh,

dismembered wing appendages from a duck by the South cellar feature.

Archaeological data and current observation support the premise that this site and surrounding area was and still is used for food procurement. The location of the Anglican Mission in the immediate vicinity of Old Cumberland House site and reuse of the site as a gardening area by occupants at the (New) Cumberland House post would also support a human presence in the area after initial abandonment.

The majority (88.4%) of the faunal assemblage for the North cellar feature is located within the lower, cultivated component. Ten different taxonomic groups are represented in the cultivated matrix. Some of the skeletal remains of snowshoe hare, beaver, duck, Lake sturgeon, large mammal (SC5), medium mammal (SC4), small-medium mammal (SC3), medium avian (SC4), and small-medium avian (SC3) show signs of human alteration including exposure to heat, skinning, and butchering. The presence of medium-sized puncture marks on a fragment of large mammal bone would also suggest the presence of carnivores at the site. Domesticated dogs that lived at the fort or wild canid species scavenging for food may have been responsible for these chew marks.

The remains of at least two beavers were found in the mixed, cultivated component of the North cellar feature. An array of fragments representing most of the beaver skeleton was found in this lower level with four specimens showing evidence of skinning. Based on the presence of skeletal elements, or portions thereof, and cut mark locations, one can assume that beavers were being brought back to the site as whole carcasses. This mammal not only served as a fur source for the traders but was also a dietary staple of the post inhabitants.

Faunal materials from the disturbed earth in the North cellar include the remains of fur bearing mammals, ungulates, large mammals, waterfowl, small birds,

and fish species. The presence of cut marks and the burned and calcined nature of some specimens suggests that they were used as a food source.

It is my contention that this feature is associated with the main house and represents the warehouse and trading room while the collapsing chimney mound is associated with the Master's quarters. Journal entries and structural evidence of a cellar, wall joist, floor sills, and chimney remains support these notions.

Journal notes indicate that the warehouse and trading room had a cellar located underneath, referred to as the inner cellar. Journal entries dated to December 23, 1776 and January 2, 1777 indicate preparation of the trading room (HBCA B.49/a/4). Construction of the cellar was started on May 25, 1775 for the purpose of storing goods (Tyrrell 1934:152). This feature was repaired on July 16, 1788 because the wood had rotted, resulting in the collapse of the cellar walls (HBCA B.49/a/20). The association of this feature with the warehouse/trading room and the Master's quarters is supported by the September 2, 1775 journal entry which states that over half of the roof was finished, this being located over the Master's room and the warehouse. In that same month a fireplace and chimney were also built for the Master's quarters (Tyrrell 1934:181). No evidence of floor planking was found during excavation as these may have been removed for gardening purposes, reuse, or firewood after the abandonment of the post (Meyer 1996:27).

The presence of Domestic, Personal, and Recreational functional artifacts in the lower component provides support to this premise. Thick-walled stoneware sherds could have been used as storage containers while tinkling cones and broken unburned pipe stems may constitute trade items. The presence of a large Domestic artifact category as well as two beads and four pipe fragments from the disturbed backdirt soil of the North cellar may also be used as support for a warehouse/trade room and Master's quarters. Although we do not know the archaeological context of

these materials, their presence in the North cellar feature may suggest that they are from this area and may be part of the assemblage from the fur trade occupation.

The lack of trade artifacts in this feature does not readily lend support to the trading room hypothesis, but two considerations must be noted in regard to this statement. Firstly, a lack of trade beads has been observed in the archaeological record of this site. Meyer (1996:50-51) attributes the lack of beads to three possibilities. The size of screening mesh used during excavation may have hampered the collection of smaller sized materials, post employees may have kept a tighter control of bead stock, and trade beads may have not been in high demand during the initial operation of the fort. It has been noted that the preference of specific bead types and styles changed from year to year among native groups (Spector 1976:17).

Secondly, the movement of operations to a newly built post may have resulted in an organized movement of trading goods from Old Cumberland House to the new facility as time was not a factor. Greater care may have been taken to assure that all trade goods in the ledgers were accounted for and subsequently removed from the old post. Journal references indicate that all of the furs and trade goods were moved to (New) Cumberland House on April 9th, 1793 by Magnus Twatt, the Master in-charge of Old Cumberland House (HBCA B.49/a/25a).

Two hundred and eight-nine faunal remains were found in the lower component of this feature. Ten species were identified and represent an array of food sources noted in the Old Cumberland House journals. References to the hunting and trapping of rabbits, martens, and beavers are numerous. Moose was a preferred dietary staple that was supplied by hired hunters or native peoples wishing to trade meat for trade goods. Waterfowl was hunted during the spring and fall

seasons. Cultural modification of some specimens included butchering, skinning, and exposure to extreme heat.

Chapter 10

Stockade Feature – Structural, Artifact, and Faunal Analysis

10.1 Introduction

The stockade feature of the Old Cumberland House site was exposed through the excavation of 23.5 m². In 1991, the crew uncovered remains of the stockade and associated trench although they were unsure of its true identity at that time (Figures 10.1 and 10.2). The 1992 field season was geared towards identifying and establishing the location of this feature. It was during this time that the northwest and southwest corners of the stockade were uncovered as were more of the northern and southern walls. The identification of this stockade structure tended to solidify the notion that this was indeed the location of the Old Cumberland House trading post (Meyer 1996:29).

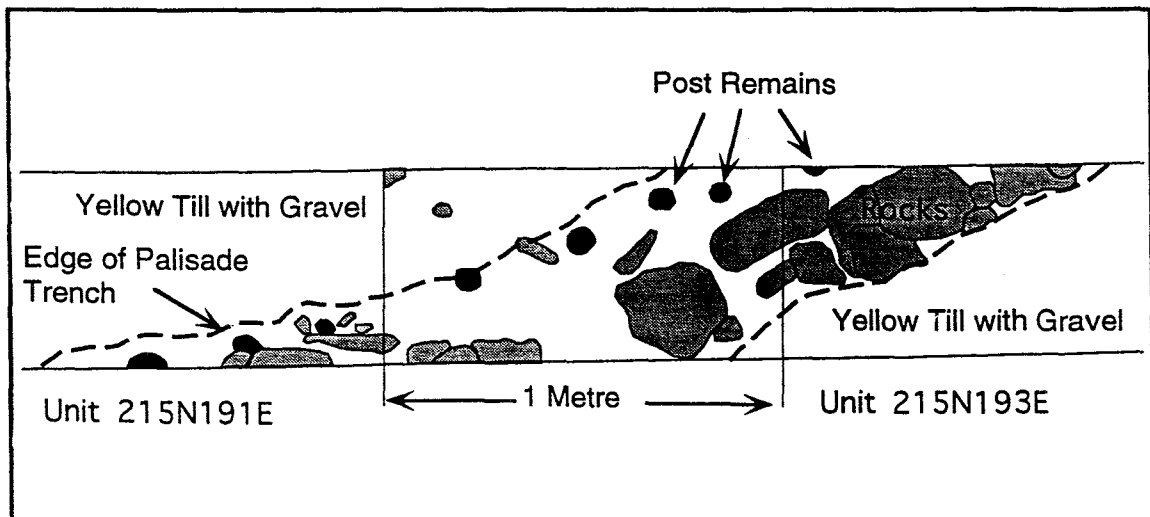


Figure 10.1 A planview of rotted bases of posts along the west wall of the stockade feature (Meyer 1996:30).



Figure 10.2 Level four of Unit 217N220E showing the remains of six rotted wooden stockade uprights.

In 1994, Jill Musser and crew found the remains of the gateposts located in the darker stain of the posthole, in the northern stockade wall (Figure 10.3). The gate was 2.5 m (or 8 ft) in width with large, square posts located on each side. Figure 10.4 denotes the presence of the stockade represented by the dashed lines. This structure measures 38 m (125 ft) long (west-east) and 31.5 m (103 ft) wide (north-south) and encloses the three chimney mounds and two cellar depressions (Meyer 1996:31).



Figure 10.3 A dark stained posthole exhibiting gatepost remains (Meyer 1996:32).

10.2 19th and 20th Component - Artifacts

A total of 348 artifacts were uncovered during excavation of a number of units associated with the stockade feature. Levels including humus, an organic horizon, and yellow silty sand (0 - 20 cm dbs) yielded a total of 48 artifacts. These artifacts encompassed a number of functional categories including Domestic, Personal, Recreational, Tools and Hardware, Business and Transport, and Miscellaneous.

Table 10.1 illustrates the number of artifacts for each functional category.

Functional category	Number present
Domestic	16
Personal	1
Recreational	4
Hunting and Subsistence	0
Tools and Hardware	9
Business and Transport	1
Miscellaneous	17
Total	48

Table 10.1 Number of artifacts present in the 19th and 20th century component of the stockade feature.

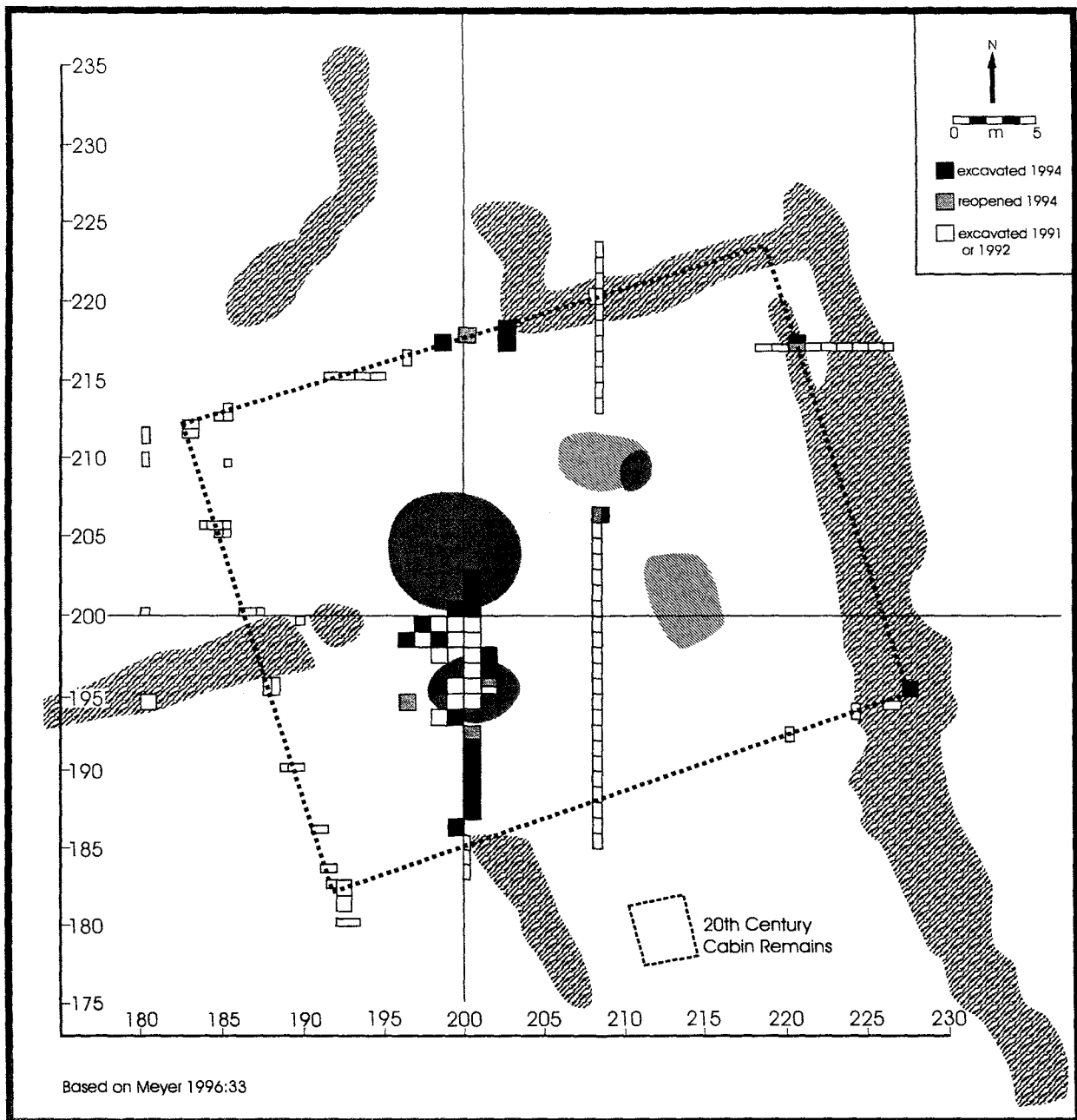


Figure 10.4 A map of the features, excavation units, and stockade structure at the Old Cumberland House site (computer generation by Kim Weinbender after Meyer 1996:33).

Seventeen artifacts (35.4%) represent the Miscellaneous functional category and are the most numerous group in this component. Domestic artifacts (33.3%) comprise the second most abundant functional grouping, followed by Tools and Hardware (18.8%), Recreational (8.3%), Personal (2.1%), and Business and Transport (2.1%).

Miscellaneous artifacts found in the upper component of this feature included a chrome rivet, five pieces of debitage, a cut scrap of ferric metal, and 10 fragments of chinking. Domestic artifacts include sherds of earthenware and porcelain, fragments of colored glass, and a ferrous kettle hook. Six sherds of green and white glazed earthenware, probably representing one vessel, display a painted gold band on the rim fragments. Pieces of aqua, clear, and green tinted glass were found in the 19th and 20th century component of this feature. Heavy patination was observed on a shard of green tinted glass. Nine nails represent the Tools and Hardware category. Table 10.2 provides a list of these nails and their diagnostic characteristics.

Nail type	Portion	Shape	Length	Head form	Notes
1 handwrought	Complete	Straight	2-4 cm	Non-id'able	-
1 cut	Complete	Straight	8+ cm	Rose head	-
1 cut	Complete	Straight	6-8 cm	Rectangular	-
1 cut	Complete	Bent	8+ cm	Rectangular	-
1 cut	Complete	Bent	6-8 cm	Rose head	-
1 cut	Head	Straight	-	Rectangular	-
1 cut	Head	Bent	-	Non-id'able	-
1 cut	Shank	Straight	-	-	-
1 non-id'able	Head	Straight	-	Clasp head	-

Table 10.2 Nail typology for the 19th and 20th century component of the stockade feature.

Recreational artifacts encompass fragments of ceramic smoking pipes. A mouthpiece, bowl fragment, and portion of a stem do not exhibit any cultural or natural modification. One stem fragment displays evidence of exposure to extreme heat but has not been smoked. A turquoise (moderate blue, 5B 5/6) seed bead

represents the Personal functional category while a 1903 Canadian nickel encompasses the Business and Transport group.

10.3 19th and 20th Component – Fauna

Faunal remains for the stockade feature encompassed a number of taxa and totaled 4592 specimens with a weight of 4989.8g. A total of 682 faunal remains (1060.2 g) were found in the 19th and 20th century component of the stockade feature. Five hundred and eighty-four (85.6%) these specimens were unburned and 98 (14.4%) showed evidence of exposure to extreme heat.

Unidentifiable materials represented 39.9% (n=272) of the total assemblage for this component. One hundred and ninety (69.9%) of the unidentifiable remains were unburned while 82 (30.1%) were burned and calcined. A total of 310 specimens were identifiable to a taxonomic level or size class. A preponderance of these materials (94.8%) was unburned while 16 specimens (5.2%) displayed characteristics associated with heat exposure. A list of identifiable taxa and size classes are provided in the following table.

Common name	Taxonomic designation	NISP	MNI
Snowshoe hare	<i>Lepus americanus</i>	3	1
American marten	<i>Martes americana</i>	2	1
American beaver	<i>Castor canadensis</i>	44	2
Possible American beaver	<i>Castor canadensis c.f.</i>	1	1
Cervid	Cervidae	2	1
Moose	<i>Alces alces</i>	2	1
Duck (SC3)	Indeterminate Anatidae	1	1
Goose (SC4)	Indeterminate Anatidae	7	1
Lake sturgeon	<i>Acipenser fulvescens</i>	129	-
Northern pike	<i>Esox lucius</i>	4	1
Sucker	Catostomidae	1	1
Very large mammal (SC6)	-	4	-
Large mammal (SC5)	-	46	-
Medium mammal (SC4)	-	10	-
Small-medium mammal (SC3)	-	2	-

Large bird (SC5)	-	2	-
Medium bird (SC4)	-	12	-
Small-medium bird (SC3)	-	7	-
Small bird (SC2)	-	1	-

Table 10.3 Identified taxa for the 19th and 20th century component of the stockade feature.

10.3.1 Mammals

Family Leporidae, *Lepus americanus* – Snowshoe hare

Three posterior limb fragments were identified as *Lepus americanus*. These included the proximal portion of a left femur, a lateral midshaft fragment of a right femur, and the distal end of left tibia. These specimens were unburned and did not display any indication of cultural or natural modification.

Family Mustelidae, *Martes americana* – American marten

Skeletal remains of American marten were found in the 19th and 20th century component of the stockade feature. A right occipital condyle and a distal end of a right tibia did not show any evidence of natural or physical alteration.

Family Castoridae, *Castor canadensis* – American beaver

Axial and appendicular elements, or portions thereof, represent the remains of *Castor canadensis* in the upper component of this feature. Axial specimens included portions of the skull, ribs, and various vertebral sections. Appendicular specimens denote the anterior and posterior limbs. Quantifiable representation of the beaver skeleton is presented in the following table.

Skeletal element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	4	1	1	2	1.0
Teeth	2	1	0	1	0.5
Mandible	1	1	0	1	0.5
Anterior limb					
Scapula	4	2	0	2	1.0
Humerus	3	1	1	1	0.5
Ulna	3	1	1	2	1.0
Radius	1	0	1	1	0.5

2 nd metacarpal	1	0	1	1	0.5
Posterior limb					
Pelvis	1	1	0	1	0.5
Femur	1	0	1	1	0.5
Tibia	4	0	1	1	0.5
Fibula	2	1	0	1	0.5
Proximal phalanx	1	-	-	1	0.1
Middle phalanx	1	-	-	1	0.1
Distal phalanx	1	-	-	1	0.1

Table 10.4 Representation (NISP, MNI, MNE, and MAU) of beaver in the upper component of the stockade feature.

Few beaver remains show any evidence of natural or cultural modification.

Root etching was observed on a right zygomatic fragment and a right proximal ulna shaft specimen. Carnivore activity at this site was indicated by the presence of one medium-sized puncture mark on a butchered left tibia fragment. Three specimens were burned and calcined; a left zygomatic fragment, a proximal unfused shaft fragment of a left humerus, and a right pubis portion.

Evidence of butchering was observed on one axial fragment and three appendicular portions. A cut mark was situated on the lateral surface of a left pre-maxillary fragment. Two cut marks were located across the anterior surface of the infraspinous process of a right scapula. The unfused distal end of a left tibia exhibited a knife scrape on the anterior portion of the shaft. A cut mark and knife scrape was observed on the lateral surface of a left tibia fragment. An unburned right frontal fragment was identified as possible beaver. This specimen did not exhibit any evidence of natural or cultural modification.

Family Cervidae – Cervid

A molar fragment denotes the presence of cervid species in the 19th and 20th century component. The anterior portion of a right upper molar was found in a south wall unit in close proximity to two very large mammal remains (SC6). The molar is not burned or calcined and has not been modified.

Family Cervidae, *Alces alces* – Moose

Portions of a right and left tibia represent the remains of moose in this upper component. The proximal end of a right tibia is unburned but exhibits exfoliation. A distal end of a left tibia possesses a number of cut marks. Two cuts were observed on the medial malleolus, numerous fine cuts are located on the medial surface of the bone and three cut marks were found on the posterior/lateral portion of this specimen. These two appendicular fragments were not subjected to intense heat.

10.3.2 Birds

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

One specimen could only be identified to the taxonomic level of Anatidae. These remains are portions of a duck skeleton but could not be identified to the level of genus or species. The proximal half of a left scapula did not show any indication of alteration, natural or cultural.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

Seven appendicular specimens were identified as representing *Anser* or *Branta* species. Two specimens exhibit evidence of dismemberment and include a left proximal scapula and a right proximal humerus fragment. Rooting etching was also observed on the culturally modified humerus specimen. A right distal humerus fragment displays evidence of carnivore activity and root etching.

10.3.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

One hundred and twenty-nine fragments of skutes and fin supports represent the remains of Lake sturgeon in the faunal assemblage of the upper component. Evidence of cultural modification was observed on a burned skate fragment.

Family Esocidae, *Esox lucius* – Northern Pike

Three axial and one appendicular specimen were identified as Northern pike. A right angular fragment, a left subopercle portion, and a piece of cleithrum are unmodified. A palatine fragment displays evidence of exposure to intense heat.

Family Catostomidae – Sucker

The remains of a sucker species were found in the 19th and 20th component. A parasphenoid fragment is unburned and does not display any further natural or cultural alteration.

10.3.4 Size classification

Eight-five faunal materials were classified to a size category. Mammalian fauna is represented by 62 specimens. Very large mammals (SC6) include unburned rib portions, fragments of teeth, and a posterior shaft fragment of a tibia. Three impact scars on the tibia fragment and a cut mark on a proximal left rib portion suggest skeletal dismemberment. Forty-six specimens were identified as large mammal remains (SC5). These included a number of unidentifiable remains, axial portions, rib fragments, and unknown appendicular specimens. Exfoliation was observed on a rib fragment and an unidentified specimen. Butchered remains included two unidentified fragments, three portions of ribs, and an unknown axial specimen. Two unknown appendicular shaft fragments, an unidentified specimen, and a piece of a rib were burned. Carnivore activity was indicated by the presence of two puncture marks on an axial specimen.

Medium-sized mammal remains (SC4) encompass portions of ribs, cranial fragments, and various vertebral elements. These specimens did not show any evidence of butchering and were not subjected to intense heat. A vertebral fragment and a missing mandible are classed small-medium mammal-sized remains (SC3).

These remains were unburned and did not exhibit any indication of natural or intentional modification.

Avian materials that could not be identified to a specific taxonomic level were classified according to a size category. Two unmodified rib portions were classed as representing large bird remains (SC5). A number of axial and appendicular avian materials were identified as medium birds (SC4). Portions of vertebrae, a carina fragment, and pieces of rib denote the axial skeleton. Fragments of wing and lower limb elements represent the appendicular skeleton. These specimens did not exhibit any natural or cultural modification. SC3 bird remains included various portions of wing and lower limb elements, fragments of cervical vertebrae, and a complete thoracic vertebra. A complete right tarsometatarsus was designated as representing the remains of a small bird (SC2).

10.4 Cultivated Component - Artifacts

The lower levels (4 to 28 cm dbs) of four stockade units contained friable clay soils, indicative of cultivation practices at the Old Cumberland House site. This mixed component contains 13 artifacts representing six of the seven functional artifact categories. Table 10.5 provides a list of the functional categories and the number of artifacts present in the cultivated component of the stockade feature.

Functional category	Number Present
Domestic	4
Personal	2
Recreational	2
Hunting and Subsistence	1
Tools and Hardware	2
Business and Transport	0
Miscellaneous	2
Total	13

Table 10.5 Number of artifacts present in the cultivated component of the stockade feature.

The Domestic functional category (30.7%) represents the most numerous artifact group. Miscellaneous, Personal, Recreational, and Tools and Hardware artifacts (15.4%) encompass the second most numerous functional categories, followed by Hunting and Subsistence (7.7%).

Domestic functional artifacts include two curved glass sherds, a flanged lip/neck finish, and a portion of a rim from an earthenware vessel. An olive colored glass fragment, likely from a bottle, is heavily patinated. A clear piece of glass also exhibits horizontal striations on the body. The earthenware sherd is decorated with an unidentified blue/white transfer print.

The Miscellaneous functional artifact category is comprised of a bent scrap of copper sheet metal and a piece of chinking. Two beads represent the Personal artifact category. A tube bead is 2-4 mm in length and is dark reddish brown (10R3/4) in color. A ceramic bead measuring 8-10 mm is primarily white with a painted green leaf design. Recreational artifacts encompass two fragments of ceramic pipe stem. One of these specimens is unmodified while the other exhibits evidence of having been smoked. Two nail forms indicate the presence of Tools and Hardware in the cultivated component of the stockade feature. A straight shank fragment represents machine made nails. A complete, straight handwrought nail is 2-4 cm in length and does not have an identifiable head type. Hunting and Subsistence activities are denoted by the presence of a lead shot.

10.5 Cultivated Component – Fauna

The cultivated component of the stockade feature contained a total of 205 (132.1g) faunal materials. A majority (n=162) of these remains were unburned while 43 (21.0%) showed evidence of exposure to extreme heat. Unidentifiable materials encompassed 42.4% (n=87) of the mixed faunal assemblage. Fifty specimens (57.5%) were unburned and 42.5% (n=37) were burned and calcined. Identified

faunal remains totaled 118 specimens of which 94.9% (n=112) were unburned. Table 10.6 provides a list of identified taxa for the cultivated component of the stockade feature.

Common name	Taxonomic designation	NISP	MNI
American marten	<i>Martes americana</i>	1	1
American beaver	<i>Castor canadensis</i>	19	2
Moose	<i>Alces alces</i>	1	1
Sharp-tailed grouse	<i>Tympanuchus phasianellus</i>	1	1
Duck (SC3)	Indeterminate Anatidae	1	1
Mallard	<i>Anas platyrhynchos</i>	1	1
Goose (SC4)	Indeterminate Anatidae	5	2
Canada goose	<i>Branta canadensis</i>	1	1
Greater White-Fronted goose	<i>Anser albifrons</i>	1	1
Swan	<i>Cygnus sp.</i>	1	1
Lake sturgeon	<i>Acipenser fulvescens</i>	40	-
Very large mammal (SC6)		2	-
Large mammal (SC5)		7	-
Small-medium mammal (SC3)		1	-
Medium bird (SC4)		4	-
Small-medium bird (SC3)		4	-

Table 10.6 Identifiable fauna for the mixed component of the stockade feature.

10.5.1 Mammals

Family Mustelidae, *Martes americana* – American marten

The remains of one American marten was found in the cultivated component of the stockade feature. A proximal end of right metatarsal did not show any evidence of natural or cultural alteration.

Family Castoridae, *Castor canadensis* – American beaver

Thirteen specimens were identified as skeletal elements of the American beaver. The axial and appendicular skeleton is represented by a number of remains. Axial remains include cranial fragments, rib fragments, and vertebral portions. Fragments of limb elements represent the posterior appendage. Quantified values of skeletal portions of *Castor canadensis* are presented in the table below.

Skeletal element	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	2	1	0	1	0.5
Mandible	1	0	1	1	0.5
Vertebrae					
Atlas	11	1	0	1	0.5
Posterior limb					
Femur	2	1	1	2	1.0
Tibia	1	1	0	1	0.5
Fibula	2	0	2	2	1.0
Talus	1	0	1	1	0.5
4 th (os. cuboideum)	1	1	0	1	0.5
Proximal phalanx	1	1	0	1	0.1

Table 10.7 Quantified values for NISP, MNI, MNE, and MAU of *Castor canadensis* for the cultivated component of the stockade feature.

Eighteen of the beaver specimens from this component in the stockade feature are unburned and an atlas fragment is burned and calcined. Natural and cultural modification was observed on a number of beaver remains. Medium-sized carnivore punctures were observed on the lateral and medial surfaces of the left talus. The anterior half of a frontal fragment has a cut mark across the external surface. A distal epiphysis from a left femur has a cut mark on the medial condyle. Three parallel cut marks were observed on the medial surface of a left proximal fibula shaft fragment. The placement of these marks indicates the skinning and dismemberment of the beaver carcass.

Family Cervidae, *Alces alces* – Moose

A thoracic vertebra fragment indicates the presence of moose in the mixed matrix of the stockade feature. The left portion of a centrum is unburned but does have puncture marks that penetrate the exterior surface.

10.5.2 Birds

Family Phasianidae, *Tympanuchus phasianellus* – Sharp-tailed grouse

The distal half of a right ulna represents the remains of sharp-tailed grouse in the middle component of the stockade feature. This specimen is unburned and does

not exhibit any indication of further natural or cultural modification. The morphology and size of the distal ulna suggest that it represents the remains of sharp-tailed grouse.

Godfrey (1986:163-164) describes the sharp-tailed grouse as a medium-sized bird with diagnostic markings. The tail is short and pointed and the under parts of this species has a distinctive v-mark. The sharp-tailed grouse inhabits a variety of terrain including the prairies, parklands, and woodlands. This species is famous for its courtship dance that it performs on ancestral dancing grounds.

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

The remains of a duck species were found in the cultivated component of this feature. A distal portion of a right coracoid was found in the south stockade wall. This specimen is unburned and does not display any cultural or natural alteration.

Family Anatidae, *Anas platyrhynchos* – Mallard

A portion of a wing element was identified as *Anas platyrhynchos*. This specimen represents the proximal end of a right carpometacarpus. There is no indication of burning or intentional dismemberment. This specimen is identical in size to the Mallard skeleton from the department faunal collection.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

The remains of at least two unidentified goose species are represented by the presence of two left scapulas. Three other portions of anterior limb elements represent the remains of goose in this component. One scapula specimen has two cut marks located on the dorsal shaft surface under the glenoid fossa. Portions of a left furculum, left coracoid, and right humerus do not display any butchering marks, nor have they been exposed to any extreme heat source.

Family Anatidae, *Branta canadensis* – Canada goose

A left parietal fragment was identified as Canada goose from the faunal assemblage of the mixed component in this feature. This specimen is burned but does not display any other cultural or natural modifications.

Family Anatidae, *Anser albifrons* – Greater White-Fronted goose

An avian sternum fragment was found in the south wall of the stockade feature. This left anterior fragment was identified as belonging to the goose species *albifrons*. The sternum fragment is unburned and does not appear to have been naturally or culturally modified.

Family Anatidae, *Cygnus sp.* – Swan

A shaft fragment from a left femur was identified as part of the lower appendage of a swan species. This specimen is unburned but does have a number of cut marks on the shaft surface.

10.5.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

The remains of Lake sturgeon are represented by 40 skeletal specimens. The skutes and fin supports do not display any characteristics associated with exposure to extreme heat. Rodent gnawing was observed on one of the fin supports.

10.5.4 Size classification

A total of 18 faunal remains could not be identified to a specific taxonomic level and were alternatively designated to a class size instead. Ten of these faunal materials were identified as representing mammals. An unmodified fragment of bone from the axial skeleton (rib or spinous process from a vertebra) and a portion of an inferior sesamoid were identified as very large mammal (SC6). Large mammal remains (SC5) included two appendicular shaft fragments, a portion of a vertebral epiphysis, an unknown axial specimen, and four unidentified remains. A cut mark

was observed on an unidentified bone specimen. The small-medium-sized mammal category (SC3) includes a transverse process from a thoracic vertebra.

Unmodified size classed avian remains included seven specimens. Medium bird remains (SC4) are comprised of a cervical vertebra fragment, the proximal portion of a right rib, the distal end of a left scapula, and the fibular crest fragment of a right tibiotarsus. A shaft fragment of an ulna element, cervical and thoracic vertebrae, and a distal shaft fragment of a right tarsometatarsus represent the remains of small-medium-sized (SC3) avian species in the cultivated component of the stockade feature. The ulna fragment has two cut marks on the external surface of the shaft.

10.6 18th Century Fur Trade Component – Artifacts

The lower intact component (10 - 48 cm dbs) of the stockade feature contains the most artifacts, a total of 287. Soils consisted of brown silt, yellow and brown clay, and yellow till. Table 10.8 provides a list of functional categories and the number of artifacts present in each group.

Functional category	Number present
Domestic	129
Personal	4
Recreational	12
Hunting and Subsistence	0
Tools and Hardware	27
Business and Transport	0
Miscellaneous	115
Total	287

Table 10.8 Number of artifacts present in the intact 18th century component of the stockade feature.

The Domestic functional category comprises 45.0% of the 18th century component. Miscellaneous artifacts (40.0%) are the second most numerous group in the lower level, followed by Tools and Hardware (9.4%), Recreational (4.2%), and Personal items (1.4%).

Domestic related artifacts include two earthenware sherds, various colored flat and curved glass fragments, and two portions of a tin metal container. The two ceramic fragments are undecorated and covered with a clear glaze. Twenty-three pieces of flat glass vary in color and modification. An opaque white sherd is slightly melted while nine blue tinted pieces, four green fragments, and four aqua colored sherds are not modified. Heavy patination was observed on three fragments of olive glass and a green tinted sherd. One green tinted fragment has light patination present on the glass surface.

Curved glass fragments consist of a variety of colors and forms. Twenty clear colored sherds could not be identified as to what form they represent. One of these pieces has a slightly melted appearance. A clear glass bottle fragment has a visible seam extending the length of the sherd. A clear basal portion has a rough edged pontil mark and a lip/neck fragment has a prescription lip form. Three fragments of aqua colored glass could not be identified to form but one displays some slight patination. Olive colored sherds encompass five specimens. Four fragments could not be identified to form but three pieces had patinated surfaces. A neck fragment from a bottle was also heavily patinated. Green tinted glass comprises 54 specimens. Heavy patination was observed on two unknown fragments, four basal bottle portions, four bottle body sherds, and a lip fragment. Two body sherds do not display any modification while a seam is visible on one of the specimens. Two pieces of a bottle neck have horizontal striations suggesting a turn/paste mold construction.

Miscellaneous artifacts include rotted wood samples from stockade uprights, unknown ferrous and yellow metal items, a melted metal mass, and chinking. A variety of nail forms compose the Tools and Hardware category. They are listed in the table below.

Nail type	Portion	Shape	Length	Head form	Notes
1 handwrought	Complete	Straight	8+ cm	Rose head	Spatula tip
1 handwrought	Complete	Bent	6-8 cm	Non-id'able	-
1 handwrought	Complete	Bent	2-4 cm	Non-id'able	-
1 handwrought	Complete	Bent	2-4 cm	Non-id'able	Possible spatula tip
1 handwrought	Shank	Straight	-	-	-
1 handwrought	Shank	Bent	-	-	-
1 cut	Complete	Straight	6-8 cm	Rose head	-
1 cut	Complete	Straight	6-8 cm	Clasp head	-
2 cut	Complete	Straight	4-6 cm	Rose head	-
1 cut	Complete	Straight	2-4 cm	Non-id'able	-
1 cut	Complete	Bent	8+ cm	Non-id'able	-
3 cut	Complete	Bent	6-8 cm	Clasp head	-
1 cut	Complete	Bent	4-6 cm	Rose head	-
1 cut	Complete	Clinched	6-8 cm	Clasp head	-
1 cut	Complete	Clinched	4-6 cm	Rose head	-
1 cut	Complete	Clinched	4-6 cm	Non-id'able	-
1 cut	Head	Straight	-	L-head	-
1 cut	Head	Bent	-	Clasp head	-
4 cut	Shank	Straight	-	-	-
1 cut	Shank	Straight	-	-	Spatula tip
1 non-id'able	Shank	Straight	-	-	-

Table 10.9 Nail typology for the fur trade component of the stockade feature.

Twelve ceramic pipe fragments comprise the Recreational artifact category. Stem portions account for half of the pipe assemblage. Four stem fragments are unmodified while one specimen has been smoked and another has general burn characteristics. A stem/bowl junction has been burned and displays an embossed "T" and "D" on the spur. Three bowl fragments do not exhibit any maker's marks and two are unburned while the other has been used. Two bowl fragments exhibiting use burn also have designs present on the back of the specimens. A portion of an impressed ring was observed on one specimen while the other has an impressed ring, scrolls, and "WM".

The Personal artifact functional category is comprised of a bead, a tinkling cone, and two brass rings. A dark blue tube bead was found in the north wall of the stockade feature. The copper tinkling cone was found in the trench fill of the west

stockade wall. The brass rings consist of a plain specimen and ring with a clear glass stone. These two items were found in the west and north stockade walls.

10.7 18th Century Fur Trade Component – Fauna

The 18th century component of the stockade feature contains the most faunal materials. A total of 3704 remains, weighing 3796.0g were found in the stockade fill and associated matrices. Unburned faunal materials encompass 87.3% (n=3235) of the total assemblage while 12.7% (n=469) display characteristics associated with exposure to extreme heat.

Unidentified remains total 862 specimens. Five hundred and ninety-nine (69.5%) of these faunal materials are unburned while 263 (30.5%) are burned and calcined. Identified remains encompass 76.7% of the total faunal assemblage for the 18th century component. Unburned specimens (92.8%) represent a majority of the identified assemblage while 206 (7.2%) are burned and calcined. A list of identified taxa are provided in the following table.

Common name	Taxonomic designation	NISP	MNI
Mustelids	Mustelidae	1	1
Meadow vole	<i>Microtus pennsylvanicus</i>	1	1
Squirrels	Sciuridae	1	1
American red squirrel	<i>Tamiasciurus hudsonicus</i>	1	1
Common muskrat	<i>Ondatra zibethicus</i>	2	1
American marten	<i>Martes americana</i>	24	2
Snowshoe hare	<i>Lepus americanus</i>	3	1
American beaver	<i>Castor canadensis</i>	160	6
Possible American beaver	<i>Castor canadensis c.f.</i>	1	1
Canid	<i>Canis sp.</i>	5	1
Cervid	Cervidae	2	1
Woodland caribou	<i>Rangifer tarandus</i>	1	1
Possible elk	<i>Cervus elaphus c.f.</i>	1	1
Bison	<i>Bison bison</i>	1	1
Moose	<i>Alces alces</i>	13	1
Pigeon	Columbidae	6	1
Grouse or partridge	Phasianidae	2	1
Sharp-tailed grouse	<i>Tympanuchus phasianellus</i>	1	1
Duck (SC3)	Indeterminate Anatidae	15	1

Duck	<i>Anas sp.</i>	2	1
Northern pintail	<i>Anas acuta</i>	1	1
Blue-winged teal	<i>Anas discors</i>	1	1
Mallard	<i>Anas platyrhynchos</i>	5	1
Goose (SC4)	Indeterminate Anatidae	17	-
Goose	<i>Anser sp.</i>	2	1
Canada goose	<i>Branta canadensis</i>	7	2
Greater white-fronted goose	<i>Anser albifrons</i>	1	1
Swan	<i>Cygnus sp.</i>	10	1
Lake sturgeon	<i>Acipenser fulvescens</i>	1547	-
Possible Northern pike	<i>Esox lucius</i>	1	1
Northern pike	<i>Esox lucius c.f.</i>	3	1
Sucker	Catostomidae	3	2
Trout	Salmonidae	2	1
Walleye	<i>Stizostedion vitreum</i>	1	1
White sucker	<i>Catostomus commersoni</i>	2	1
Very large mammal (SC6)		31	-
Large mammal (SC5)		186	-
Medium mammal (SC4)		47	-
Small-medium mammal (SC3)		6	-
Large bird (SC5)		5	-
Medium bird (SC4)		73	-
Small-medium bird (SC3)		12	-

Table 10.10 Identified taxa for the 18th century component of the stockade feature.

10.7.1 Mammals

Family Mustelidae – Mustelid

A parietal fragment was identified as part of a mustelid skull. This specimen is not burned or calcined and does not appear to be natural or physically altered in any form.

Family Mustelidae, *Microtus pennsylvanicus* – Meadow vole

A right maxilla and mandible were identified as *Microtus pennsylvanicus*. These two specimens are unburned and do not display any evidence of being naturally or culturally modified.

Family Sciuridae – Squirrels

The remains of a squirrel species were found in the 18th century component of this feature. The proximal end of right tibia was identified as representing the

remains of a sciurid, although a species designation was not possible. This specimen is unburned but does display some exfoliation on the external surface of the element.

Family Sciuridae, *Tamiasciurus hudsonicus* – American red squirrel

A complete appendicular element was identified as belonging to the skeleton of an American red squirrel. This right femur was unburned and did not possess any indication of dismemberment. Evidence of slight exfoliation was observed on the distal surface of the femur shaft. This specimen is probably part of the same posterior appendage as the previously mentioned tibia shaft fragment.

The red squirrel is described as a bold, curious, and agile rodent who defends its territory with noisy excitement. Red squirrels do not hibernate and are active during the early dawn and late dusk as well as moonlit nights during the summer and fall. The diet of this species is extremely varied consisting of cones from conifers, nuts, plant buds, flowers, fruit, bark, mushrooms, sap, insects, eggs, and baby birds as well as mice. Red squirrels are found throughout North America and inhabit forested areas (Banfield 1974:130-141).

Family Muridae, *Ondatra zibethicus* – Common muskrat

A portion of a cranium and a proximal epiphysis from a right tibia represent the remains of muskrat in the intact lower component. Two cut marks were observed on the lateral surface of the left premaxilla, suggesting skinning activity. The tibia epiphysis is unburned and does not appear to be altered in any form.

Family Mustelidae, *Martes americana* – American marten

Twenty-four faunal materials suggest the presence of a minimum number of two martens in the stockade trench feature of the lower component. A cranium, two left mandibles, a right mandible, the proximal end of a left humerus, a left ulna fragment, and a complete right fibula and calcaneus are unburned and do not show

any indication of natural or intentional modification. A reconstructed skull and associated skeletal elements are illustrated in Figure 10.5.

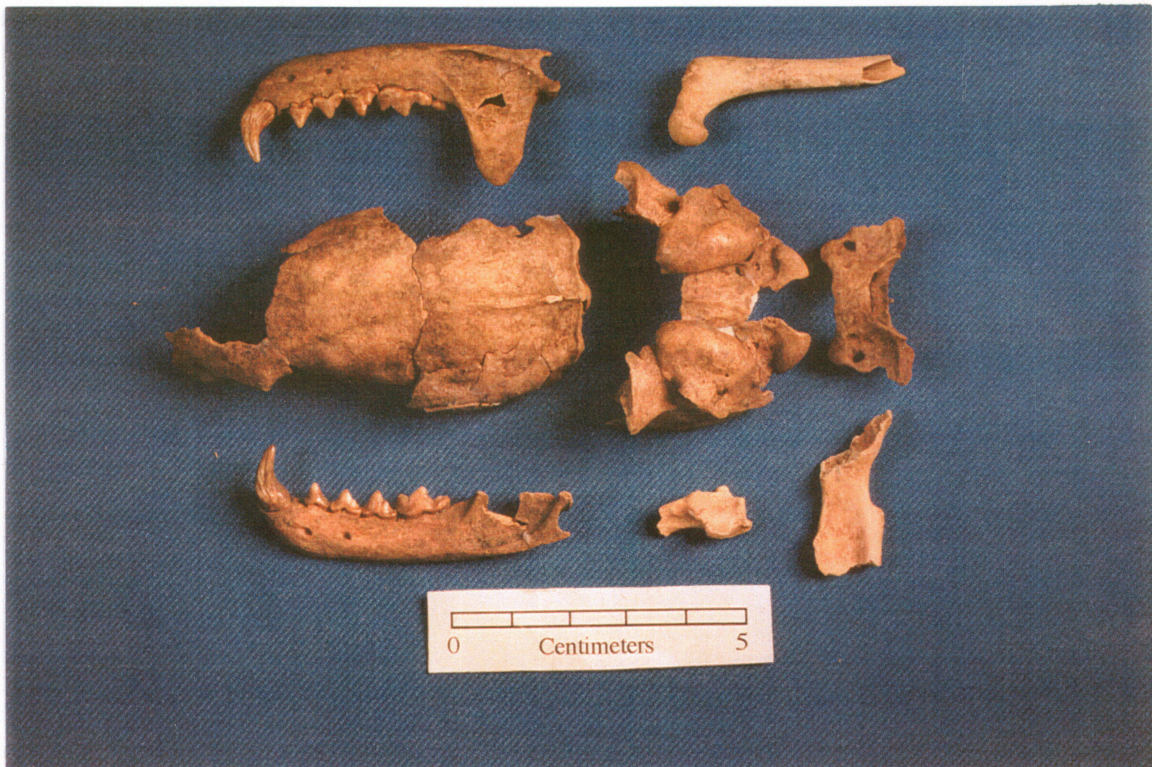


Figure 10.5 A reconstructed marten skull, left femur, right ilium, and left calcaneus.

Family Leporidae, *Lepus americanus* – Snowshoe hare

Three skeletal specimens of snowshoe hare were found in the intact fur trade component. A left maxillary fragment and a portion of a right mandible comprise the axial remains found in this feature. A proximal end of a left humerus represents the appendicular skeleton. The maxilla and mandible fragments were unburned and did not show any evidence of natural or cultural modification. The left humerus specimen displayed characteristics associated with exposure to extreme heat.

Family Castoridae, *Castor canadensis* – American beaver

A total of 160 faunal materials were identified as *Castor canadensis*. The axial and appendicular skeleton was well represented, suggesting that beavers were

brought back to the post as whole carcasses. The presence of cut marks and burning indicates intentional dismemberment and preparation for consumption. The beaver was not only used as a fur source during the occupation of Old Cumberland House but also as a dietary staple. Table 10.11 provides quantification of various skeletal elements of beaver found in the 18th century intact component of the Old Cumberland House stockade feature.

Skeletal elements	NISP	MNI (right)	MNI (left)	MNE	MAU
Axial					
Skull	28	1	2	3	1.5
Mandible	8	0	1	1	0.5
Vertebrae					
Atlas	1	1	0	1	0.5
Rib					
1 st rib	1	0	1	1	0.5
Anterior limb					
Clavicle	2	1	1	2	1.0
Scapula	6	0	1	1	0.5
Humerus	7	3	3	6	3.0
Ulna	8	2	4	6	3.0
Radius	3	2	0	2	1.0
2 nd metacarpal	1	1	0	1	0.5
3 rd phalanx	1	-	-	1	0.1
Posterior limb					
Pelvis	7	1	3	4	2.0
Patella	1	1	0	1	0.5
Femur	15	6	2	6	3.0
Tibia	4	2	0	2	1.0
Fibula	5	3	1	4	2.0
Vestigial tarsal	1	0	1	1	0.5
3 rd metatarsal	2	1	1	2	1.0
5 th metatarsal	1	0	1	1	0.5
Proximal phalanx	4	-	-	1	0.4
Distal phalanx	1	-	-	1	0.1
3 rd phalanx	1	-	-	1	0.1

Table 10.11 Quantitative values of NISP, MNI, MNE, and MAU for *Castor canadensis* of the 18th century fur trade component.

Burned remains include nine cranial specimens, two caudal vertebrae, an acromion fragment, a left deltoid tuberosity, three ulna shaft portions, two pelvis fragments, two femur shaft portions, and a tibia fragment. Cut marks were observed

on a cranial fragment, a caudal vertebra, a rib portion, two clavicles, a humerus midshaft fragment, three pelvis specimens, four femur portions, and two fibula fragments. Root etching is present on four appendicular specimens. An occipital fragment was identified as possible beaver. This specimen is unburned and does not possess any characteristics to suggest intentional or natural modification.

Family Canidae, Canid – *Canis sp.*

Canid species are represented by five specimens found in the intact component of the stockade feature. A caudal vertebra is burned and root etching is evident on the surface of a right humerus distal shaft fragment. Unmodified remains include the proximal end of a phalanx, a shaft fragment from a right ulna, and a deciduous upper right molar.

Family Cervidae – Cervid

Two fragments of a right upper molar were identified as a cervid tooth. These specimens are not burned or calcined and do not display any evidence of natural or cultural modification.

Family Cervidae, *Rangifer tarandus* – Woodland caribou

A left patella represents the remains of caribou in the intact fur trade component of the stockade feature. There are no indications of exposure to extreme heat or any butchering marks to suggest intentional dismemberment. This specimen was found in the northwest corner of the stockade feature.

Family Cervidae, *Cervus elaphus c.f.* – Possible elk

A modified metatarsal fragment was identified as possibly representing the remains of elk in the lower component of this feature. A knife scrape was observed on the anterior surface of the broken distal end of this element. Puncture marks, indicating the activity of carnivores, are present on the proximal portion of this fragment. This specimen does not appear to have been exposed to extreme heat.

Family Bovidae, *Bison bison* – Bison

The remains of bison were found in Unit 220N208E along the north wall of the stockade feature. A culturally modified spinous process from a thoracic vertebra was identified as *Bison bison*. This specimen is not burned or calcined but does have four cut marks on lateral surface of the spine.

Banfield (1974:405-406) describes the bison as our largest terrestrial mammal. It has a massive head, large anterior limbs, a hump, and slim posterior limbs. This migratory species lives in herds and is active at dawn and for portions of the day. Bison inhabit an array of terrain from grasslands to forested areas. The meat and coats of these mammals supplied the fur traders with food, warmth, and trade items.

Family Cervidae, *Alces alces* – Moose

Fragments from one axial specimen and 12 appendicular elements were identified as representing the remains of moose. A complete right lower, lateral incisor completes the axial skeleton. Fragments from such appendicular elements include the humerus, radius, ulna, metacarpal, patella, tibia, fused central and 4th tarsal, metatarsal, and 1st phalanx.

10.7.2 Birds

Family Columbidae – Pigeon

Faunal materials identified as pigeon remains are also present in the intact 18th century component of this feature. A complete right humerus, the proximal end of a left humerus, a complete left and right coracoid, and the proximal portion of a right ulna represent the left and right wings. No evidence of intentional dismemberment was observed on the specimens but they do bear evidence of rootlet action. These probably represent passenger pigeon remains.

Family Phasianidae – Grouse or partridge

Two avian remains could only be identified to the level of Phasianidae. These materials consist of the distal end of a left carpometacarpus and a complete right 1st phalanx. Both specimens are unburned and do not display any sign of modification, natural or intentional.

Family Phasianidae, *Tympanuchus phasianellus* – Sharp-tailed grouse

Remains of sharp-tailed grouse were observed in other components of this feature. The proximal portion of right ulna was identified as *Tympanuchus phasianellus*. This specimen is unburned and does not show any indication of natural or cultural alteration. Morphology and size similarities to the example from the department faunal collection provided evidence of the species designation for this appendicular element.

Family Anatidae, Indeterminate Anatidae – Duck (SC3)

The designation, Indeterminate Anatidae was assigned to 15 avian remains. These specimens represent the remains of ducks but no genus or species designation was possible. An angular process from a right mandible represents the axial skeleton. Portions of wing elements such as a furculum, scapula, and coracoid were found during excavation. Left and right tibiotarsus fragments represented the lower limbs. Intentional dismemberment was observed on the anterior surface of a left furculum fragment. The left proximal scapula specimen appears to be weathered.

Family Anatidae, *Anas sp.* – Duck

The distal half of a right ulna was identified to the genus *Anas*. This specimen is not burned and does not display any characteristics associated with intentional dismemberment. There is no evidence of natural alteration to this long bone fragment.

Family Anatidae, *Anas acuta* – Northern pintail

Northern pintail are present in the Cumberland House area during seasonal migration periods. The remains of a Northern pintail were found in the north wall of the stockade feature. A nearly complete right coracoid is not naturally or culturally altered. This specimen is identical in size and morphology to the example from the department faunal collection.

The Northern pintail species is found throughout North America. *Anas acuta* prefers to inhabit shallow bodies of water in the interior and coastal areas. The adult male displays a number of field marks while both sexes possess distinctive calls (Godfrey 1986:87).

Family Anatidae, *Anas discors* – Blue-winged teal

The remains of blue-winged teal are present in the fill of the stockade trench. A right humerus proximal fragment was identified as *Anas discors*. This specimen is unburned and not culturally or naturally modified. Similarities in morphology suggest an *Anas* genus affiliation but size indicates Blue-winged teal designation.

This small duck is found throughout North America, preferring to inhabit ponds, lakes, sloughs, marshes, and streams. The adult male possesses discriminating characteristics allowing for easy identification. A purplish tinge is observed on the neck and head of this sex. A large white crescent shape is located in front of the eyes. The wing is blue and green, separated by a narrow white band. The adult female has a greyish white colored head and neck; the plumage is dark brown and buff. The wing is similar to the males though not as vibrantly colored (Godfrey 1986:88).

Family Anatidae, *Anas platyrhynchos* – Mallard

Elements from the wing and lower limb represent the remains of Mallard in the 18th century component of the stockade trench. The proximal portions of a left and

right humerus are unburned. Root etching is evident on the right humerus while cut marks were observed on the posterior head surface of the left humerus. The proximal and distal portions of a left femur and the proximal end of a right tibiotarsus represent the lower limb. The size of this specimen provided evidence for its incorporation in the Mallard species designation.

Family Anatidae, Indeterminate Anatidae – Goose (SC4)

A total of 17 specimens could only be identified as representing the remains of geese; species and genus designation was not possible. A left frontal fragment, the anterior portion of a sternum, and a piece of the dentary from a right mandible represent the axial skeleton. Bones denoting the wing appendage include the furculum, coracoid, radius, and ulna. The distal end of a right tibiotarsus represents the lower limb bones. All specimens are unburned and only a right ulna distal shaft fragment possesses a series of cut marks and a knife scrape down the length of the quill tubercles.

Family Anatidae, *Anser sp.* – Goose

A left squamosal fragment and a proximal portion of a left scapula were designated to the genus *Anser*. These specimens did not possess any characteristics associated with exposure to heat or intentional dismemberment. Evidence of natural alteration was also not observed.

Family Anatidae, *Branta canadensis* – Canada goose

One axial and six appendicular avian skeletal remains were identified as representing two Canada geese. A right parietal fragment composes the axial skeletal materials. Appendicular remains consist of a left furculum fragment, proximal portions of two right humeri, a complete right cuneiform, and a complete left tibiotarsus. Cultural modification was observed on the burned right carpal and one of the humerus specimens had a cut mark on the articular head surface. The action of

rootlet growth was observed on the second right humerus fragment. The presence of two medium-sized puncture marks indicates the activity of carnivores at the Old Cumberland House site. These specimens were similar in size and shared diagnostic characteristics with the Canada goose remains from the department faunal collection.

Family Anatidae, *Anser albifrons* – Greater White-Fronted goose

Greater White-Fronted geese are present during the spring and fall seasons and are hunted as a food resource. A proximal end of a left humerus was found in the lower component of the stockade trench. This specimen was unburned, but did possess a medium-sized carnivore puncture mark on the surface of the head. The size of this specimen provided support for the *Anser albifrons* designation.

Family Anatidae, *Cygnus sp.* – Swan

A total of ten specimens were identified as swan remains in the lower component of this feature. All of the swan materials are unburned and five show evidence of butchering. Cut marks were observed on the dorsal and ventral surfaces of a distal right coracoid fragment in addition to a medium-sized carnivore puncture mark. A left humerus shaft fragment displays two cut marks and a knife scrape on the ventral and dorsal surfaces. One cut mark is located on the ventral surface of a distal radius shaft fragment. The distal portion of a left tibiotarsus shaft has a knife scrape and a number of cut marks.

10.7.3 Fish

Family Acipenseridae, *Acipenser fulvescens* – Lake sturgeon

One thousand and fifty-seven fish remains were identified as sturgeon skutes and fin supports. Fourteen of these remains were burned and calcined and include 12 skate fragments and two fin supports. No evidence of intentional dismemberment was observed on any of the specimens.

Family Esocidae, *Esox lucius* – Northern Pike

Three unburned cranial fragments represent the remains of Northern pike in the intact 18th century component of the stockade feature. Two prevomer fragments and one dentary portion do not show any evidence of intentional dismemberment. A right quadrate was identified as possibly representing Northern pike. This specimen is not altered in any form.

Family Catostomidae – Sucker

Three fish remains could only be identified to the family level of Catostomidae. Two right hyoid mandibular fragments and a portion of a right opercle represent the remains of two fish. All of these specimens are unmodified and do not display any evidence of cultural or natural alteration.

Family Salmonidae - Trout

Two maxilla fragments have been tentatively identified as representing trout. The right and left maxillary portions are not burned and do not show any characteristics associated with natural or intentional modification.

Family Percidae, *Stizostedion vitreum* – Walleye

A left pre-maxillary fragment was identified as *Stizostedion vitreum*. This specimen was not burned and did not display any evidence of having been naturally or culturally altered.

Family Catostomidae, *Catostomus commersoni* – White sucker

The fish species, white sucker, was found in the intact trench of the stockade feature. Two opercle fragments represent the remains of this species. These specimens were unburned and did not show any characteristics of natural or cultural modification.

10.7.4 Size classification

Three hundred and sixty-one faunal materials could not be identified to a specific taxonomic level and were designated to a size class instead. A total of 270 specimens were identified as mammal remains and placed into a number of size categories. The very large mammal class (SC6) contains 31 specimens. Two cranial fragments and 12 rib portions represent the axial skeleton. Appendicular specimens include a distal border of a right scapula, a left ulna shaft fragment, a broken metacarpal, pelvic portions, a fragment of a patella, pieces of tibia, and the distal ends of three phalanges. Evidence of burning was observed on the patella fragment, a rib portion, and a left tibia. Root etching was observed on two rib portions and a medial midshaft fragment of a tibia. The broken metacarpal had evidence of exfoliation on the external bone surface. There were a number of cut marks on the rib portions, a left ulna, and unknown axial and appendicular fragments.

A total of 186 faunal specimens were placed in the large mammal category (SC5). These remains included a number of unidentified specimens, unknown axial and appendicular fragments, rib portions, and a foetal metapodial. Burned and calcined remains encompassed 45.7% (n=74) of the large mammal materials. Exfoliation was observed on unknown axial and appendicular fragments. Five specimens showed evidence of butchering through the presence of knife scrapes and cut marks.

The medium mammal size class (SC4) contained 47 faunal remains. These included cranial and mandible fragments, rib portions, various vertebral fragments, a piece of scapula, a fragment of a head epiphysis from a femur, and portions of broken phalanges. Scapula, mandible, and rib fragments showed evidence of exposure to extreme heat. Root etching was observed on two rib portions. The external surfaces

of a caudal vertebra epiphysis and the proximal end of a phalanx were exfoliated. A single rib fragment had two cut marks located on the anterior and medial surfaces.

Six specimens were designated as representing small-medium-sized mammals (SC3). Fragments of appendicular elements, ribs, and vertebrae comprise this class size category. These specimens are unburned and do not show any evidence of intentional or natural modification.

A total of 91 faunal materials were classified as avian remains and placed in appropriate size categories. Large bird (SC5) remains encompassed five specimens. Cut marks were observed on a right ischium fragment and burned humerus shaft. A lateral shaft fragment of a right tibiotarsus was root etched. A portion of a right rib and left coracoid did not show any indication of natural or cultural modification.

Seventy-three avian materials were identified as medium-sized bird remains (SC4). Fragments of cranium, vertebrae, ribs, and sternum represent the axial skeleton. Portions of the scapula, humerus, ulna, carpometacarpus, and phalanges account for the wing. Fragments of the pelvis, femur, tibiotarsus, tarsometatarsus, and phalanges represent the lower limbs. Five specimens are burned and include the anterior portion of a sternum, two unknown appendicular fragments, the ventral surface of a left ulna, the deltoid crest of a right humerus, and a distal shaft fragment of a right tarsometatarsus. The placement of cut marks on proximal, midshaft, and distal portions of various wing and lower limb appendages suggest intentional dismemberment. Exfoliation was observed on a left 2nd phalanx and a left tibiotarsus shaft fragment. The presence of small puncture marks on two right humerus fragments and the anterior portion of a sternum indicate evidence of carnivore activity at the Old Cumberland House post.

Small-medium-sized bird remains (SC3) consist of 12 specimens. A thoracic vertebra and two portions of a furculum represent the axial skeleton. Fragments of a

left coracoid and right humerus account for the wing. A portion of a femur and two left tibiotarsus shaft fragments represent the lower limbs. One of the tibiotarsus shaft fragments is burned and calcined while exfoliation was observed on an unknown appendicular specimen. Two unmodified complete cervical vertebrae were classified as representing the remains of a small-sized bird (SC2).

10.8 Discussion

A total of 348 artifacts and 4592 faunal materials were found in the units associated with the stockade feature. These remains represent refuse and building materials associated with the initial and subsequent occupations of the area. Domestic and miscellaneous artifacts compose a majority of the artifact assemblages from the three components of this feature. Domestic artifacts are comprised mostly of broken flat and curved glass fragments and a few ceramic pieces. The fragmented nature of these remains suggests that their presence relates to disposal of refuse in the stockade area. A number of broken ceramic pipe fragments were also found in the units associated with this feature. The presence of these items may also be attributed to refuse disposal.

The Tools and Hardware category encompasses handwrought and cut nails forms and represents construction of the stockade feature. The incorporation of rings, tinkling cones, beads, and lead shot into the stockade units may have resulted from carelessness and loss, as these artifacts are small and can be easily misplaced.

Various artifacts can be used as an indicator of period of occupation for this site. The presence of a 1903 Canadian nickel in the upper component indicates a 20th century cultural affiliation. Handwrought and cut nails were also found in this component. As stated previously, handwrought nails were used into the 19th century and beyond while manufacturing of machine made nails began in the late 18th century.

The cultivated component of this feature contains five artifacts that provide an indication of time of occupation. The process of transfer printing was initiated in 1753 by John Sadler of Liverpool (Springer Papa 1972:12). The presence of a transfer printed ceramic sherd in the cultivated level suggests an 18th century occupation date. A lip/neck finish exhibiting a prescription lip form dates to the late 19th and early 20th centuries (Jones and Sullivan 1989:81). A clear fragment of glass has horizontal striations, suggesting a possible turn/paste mold construction. T. Stell Newman (1970:72) states that the turn/paste mold manufacturing technique was used from 1880 to 1920. A handwrought nail suggests a possible 18th century fur trade occupation while a cut form dates to the 19th century.

Artifacts found in the intact 18th century trench fill from the stockade structure provide a source for dating the components of this site. A clear bottle base with a rough pontil was manufactured until 1870 (Newman 1970:72). A clear lip/neck finish displays a flanged lip that is commonly found on medicine vials dating to the 18th and 19th centuries (Jones and Sullivan 1989:80). Two neck fragments from a bottle have horizontal striations suggesting a turn/paste mold manufacture. Heavy patination on a number of flat and curved glass fragments may suggest an early occupation date but as mentioned previously, climate fluctuations can affect the rate of patination of glass. Handwrought nails were commonly used into the 19th century and machine made nails were manufactured ca.1750 and into the 19th century. While the presence of cut nails and two turn/paste mold bottle forms suggest a later affiliation, reuse of the site and structures was a common practice after its initial abandonment. These artifacts may relate to occupations associated with gardening activities carried out at a later date.

A total of 682 faunal materials were found in the upper component of the stockade feature. A majority (85.6%) of these remains are unburned and very few

show evidence of intentional dismemberment. As stated in previous chapters, the author observed the present-day use of this area by inhabitants of the Cumberland House area on a visit in 1996. This site provides a number of natural and faunal resources including mammals, fish, and waterfowl. Artifacts and faunal materials in the upper component may be related to the Anglican Mission, a 20th century occupation, and present-day use. There are houses located only a short distance from the site.

Faunal materials found in the cultivated component of the stockade feature represent a less varied species assemblage as compared to the upper and lower components. Evidence of burning and intentional dismemberment is not prevalent in this component as well.

The intact 18th century component of the stockade trench contains the most numerous faunal remains of the three assemblages. A variety of different taxa are found in this lower faunal assemblage and a number of specimens show evidence of butchering. A majority (87.3%) of the faunal materials was unburned while 12.7% were burned and calcined. The incorporation of these faunal materials in the trench fill of the stockade suggests that they represent the remains of refuse. The nature of the unburned bones, coupled with butchering marks may suggest dismemberment and subsequent disposal of unwanted parts. One must also remember that some bones may not have been burned during the preparation of the carcasses for consumption.

Overall, the presence of artifact and faunal materials in the intact 18th century component of the stockade feature suggests that refuse was deposited in the yard area of the Old Cumberland House post and was incorporated into the trench fill upon construction and repair of the stockade feature. Other materials may have been

swept to the limit of the stockade wall when the post employees were required to clean the main house and the surrounding yard.

Chapter 11

Comparison of Old Cumberland House and Hudson House

11.1 Introduction

The establishment of Old Cumberland House in 1774 allowed the Hudson's Bay Company to directly compete with other traders in the western interior. The movement of operations from the Bay area into western Canada benefited the Hudson's Bay Company by increasing their presence and fur profits. With the establishment of Old Cumberland House, the Hudson's Bay Company was once again acquiring a significantly large amount of furs.

As competition increased and other traders began to establish outposts in close proximity to Old Cumberland House and areas farther up the Saskatchewan River, the Hudson's Bay Company once again saw the quantity and quality of the furs traded with the company posts decrease. Journal entries indicate the passage of Canadian traders through the Cumberland House area on their way to their posts. In a letter to Mr. Humphrey Martin dated May 21, 1778, William Tomison noted the distressing fact that a number of Canadian traders had positioned themselves in the area surrounding Old Cumberland House, completely cutting off trade routes to the post (HBCA B.49/a/6). To compensate for the lack of trade expected at Cumberland House, the Master began sending men inland with trade goods. These employees met with native groups, trading goods for furs and provisions and tried to encourage the native peoples to trade at the Old Cumberland House post.

The movement of Hudson's Bay men into these areas appeared to be lucrative for the Company but a need for direct competition was still evident. In 1779, Samuel Hearne sent William Tomison and a group of men up the North Saskatchewan River to establish a post. On October 8th of that year, Tomison and his crew arrived at a location some 30 miles above the Canadians' Lower Settlement at Setting or Sturgeon River. Construction of a log building was started on the 15th of October and Tomison noted that "the House is 37 foot Long and 27 Foot broad" (HBCA B.87/a/2).

Dean Clark (1969:1) states that Hudson House was occupied during the years of 1779 to 1787 and reopened the following year but was completely abandoned by 1789. The final year of use is attributed to providing provisions for the Hudson's Bay Company fur brigades as they traveled to Manchester House. The destruction of Hudson House in 1791 resulted from the Canadian traders burning it to the ground.

The following information in this chapter will provide the reader with a description of the structural components of Old Cumberland House and Hudson House. I believe that the physical layout of the two posts should be similar, based on the fact that William Tomison, a resident and Master at Old Cumberland House, established and built Hudson House.

11.2 The Physical Layout of Old Cumberland House

Chapters 6 through 10 of the preceding thesis provide information on excavations of five features at the Old Cumberland House site (see Figures 6.1 and 10.4). A large portion of the South chimney area was excavated. A total of ten units were placed between the South and North chimneys. A 50 cm wide trench uncovered structural remains associated with the North cellar/chimney feature while the southern portion of this trench did not produce any evidence of structural remains relating to the South cellar feature.

Twenty-three and a half units are associated with the stockade structure and produced evidence of a stockade trench, a number of clearly defined wooden uprights, and a northern gate. Structural remains of the stockade verify that this feature measures 38 m (125 ft) by 31.5 m (103 ft) with a gate located in the north wall. Excavation units indicate that the stockade uprights were positioned along the outer edge of a 50 cm wide trench at 20 cm intervals. Rocks and earth, containing faunal remains, and artifacts were used to fill the inner edge of the trench (Meyer 1996:31).

A wooden beam, presumably a wall sill of an unidentified structure, composes a portion of the southwest stockade wall. The structure may represent the remains of a canoe storage facility that was constructed after the west wall of the stockade was moved in 1779. This allowed for more garden area and the construction of a canoe shed. It should also be noted that the eastern side of the stockade was also moved farther from the main house. A September 26th, 1780 entry indicates that the stockade was too close to the main house and the uprights were too widely spaced, "they being at present too wide, any ill designed person may shoot a Man through the Stockadoes 60 Yards Distance" (HBCA B.49/a/9). This structure encloses the chimney and cellar features of this site.

The South chimney feature contains the remains of a chimney, fireplace, wall sills, joists, and associated wood planking and is believed to represent the remains of the cook room at Old Cumberland House (see Figure 6.1). This small building measures 6 m (20 ft) north-south by 3.4 m (11 ft) west-east. Meyer (1996:37) notes that the east wall sill was positioned over the burned, collapsed remains of a previous structure. He believes that the original building may have burned and a new structure was constructed over the burned remains. There is no textual documentation to support such a view but a journal entry dated October 14th, 1789 states that new wood was needed for the construction of a cooking tent as the cook room was entirely

rotten (HBCA B.49/a/20). Perhaps these burned remains represent the old rotted building and the structural remnants found during excavation are associated with a newly built cook room.

The stratigraphic profiles of units associated with this structure indicate that a large portion of this building area was subject to cultivation after the abandonment of this site. A number of the artifact and faunal assemblages associated with this building were found in a mixed context. One would assume that some of these specimens are associated with the 18th century occupation of the fort. The presence of smoking paraphernalia, needles, a portion of a knife, handwrought nails, and gallipot fragments in the middle component of this feature suggests a fur trade occupation but the disturbed context of the soils hampers any further correlation. Faunal materials include local and migratory species that could have been used as a food resource. The presence of cut marks and the burned and calcined nature of some specimens suggests dismemberment and preparation for food consumption.

A number of artifacts associated with the 18th century component of this feature suggest the presence of domestic activities. Stoneware sherds represent storage vessels for the containment of food stuffs, unidentifiable curved glass fragments may represent bottles and glasses, a blade from a knife indicates processing of food, and the presence of a needle is associated with the tailoring of clothing. The butchering of rabbit, beaver, moose, and duck is suggested by the locations of cut marks on axial and appendicular specimens. The unburned nature of this faunal assemblage may be related to where the specimens were found in the building. The units located directly in and around the fireplace have greater concentrations of burned and calcined bones. A portion of faunal materials from the mixed component were burned and calcined and were found in the immediate vicinity of the fireplace. With the exception of the ash bin, many of the intact units were not

located near the fireplace feature. The lack of burned bone in these units may indicate dismembered remains that were not processed for food consumption or specimens that were not burned even though the surrounding meat was cooked.

The Northwest room feature represents an enclosed, dirt floored passage area from the cook room to the main house. A large majority of this area has not been subjected to cultivation, therefore most of this feature possesses an intact 18th century occupation. The only structural elements associated with this room include two wall sills, denoting the building's western and eastern boundaries. There is no evidence of joists or floor planking in this feature but dark organic-rich soil suggests a cultural occupation. The presence of a tinkling cone and a seed bead in this component may have resulted from loss or carelessness. Four broken pipe fragments, two gallipot sherds, three shards of green glass, and a number of processed faunal remains may represent the discard of refuse in this dirt floored passage way. This structure may have served as a convenient disposal area for the fort occupants. As stated previously, the presence of discarded refuse in the habitation structures of post employees has been observed in a number of trading posts (Hamilton 1990).

Excavation of the North chimney area exposed a wall sill, chimney collapse, joists, and floor planking. Figure 6.1 shows the east-west orientation of this building and its associated structural elements. I believe that this feature represents a portion of the remains of the main house. This two-storied structure contained the men's quarters, the warehouse/trading room and cellar, the Master's quarters, and a second story storage area. Historical documentation and data from excavations support this hypothesis. Journal notes and visible structural remains indicate the presence of three chimneys at this post. Two of these chimneys are associated with the main house, specifically the Master's room and the men's cabins. The large North chimney mound represents the men's chimney. The Master's quarters and warehouse/trading

room were built in close proximity to each other and a journal entry indicates that half of the roof, over the Master's room and warehouse, was built before the rest of the house was finished. The North cellar feature and the chimney mound on the edge of this depression represents these two structures. Journal information alludes to the presence of a cellar underneath the warehouse/trading room. As stated previously, journal entries note the location of stockade gates on either side of the house. The remains of a gate were uncovered in the north wall of the stockade structure in Units 218N201E and 217N199E. This gate structure is located directly north of the North chimney feature.

The stratigraphy of excavation units suggests that this area was cultivated and no intact 18th century component is associated with this feature. A number of lead shot and beads were found among the planking of the 18th century structure and may be directly related to fort occupation. The lack of domestic artifacts and recreational pipe smoking is disheartening, as one would expect to find these activities associated with the fireplace area. The lack of such artifacts may be directly related to the small number of excavation units associated with this feature. The poor representation of faunal materials in this feature may also be a result of sampling size.

The warehouse/trade room and Master's quarters are located in the vicinity of the North cellar feature. Sills or floor joists and some possible wood cribbing in the west wall of the cellar represent wooden structural remains of the warehouse/trade room. A collapsing chimney on the eastern edge of the cellar feature represents the Master's chimney. I suspect that the Master's quarters are located on the eastern side of the cellar feature.

As stated previously in Chapter 9, historical journal documentation notes the completion of half of the roof of the main house, encompassing the warehouse and the Master's quarters. A chimney was also constructed for the Master's room shortly

after the roof was completed. Numerous journal entries refer to the construction and subsequent repair of the warehouse and trading room cellar. There are only two cellars at the site and this one is located in direct association to the main house. Floor planking was not found during the excavation of this feature but the presence of joists suggests that this feature had floor planking. The removal of the planking may be related to the subsequent gardening of this area, reuse of planking, and the use of this wood source for firewood (Meyer 1996).

Cultivation and souvenir hunting activities in the area around and in this feature have obliterated the 18th century component. However, a portion of the artifacts and faunal materials found in the disturbed matrices of this feature represent 18th century material culture. The presence of domestic refuse and trade related artifacts in the mixed component and disturbed backdirt from souvenir hunting activities provide support for the warehouse/trade room designation. The lack of an abundance of trade goods in this feature has been attributed to a number of factors including the screen mesh size used, tighter control of trade goods, changes in preference of trading goods, and the careful movement of goods from the old post to the new site. The preponderance of a variety of taxa in the lower component of this site suggests a wide resource base. A number of the specimens are burned and calcined and show evidence of dismemberment.

The South cellar feature was not subjected to any direct exploration during the 1990s excavations, with the exception of clearing disturbed soils, representing souvenir activities, from the bottom of the cellar. Ranere's 1967 test pit on the western border of the depression indicated the presence of cellar cribbing, and a piece of tin and a fragment of glass were recovered. The south trench excavated in 1991 and 1992 passed within 3.5 m of this feature and did not encounter any evidence of structural remains. I believe that this feature is associated with the

provisioning shed based on the 1967 observation of cellar cribbing and information from the Old Cumberland House journals. The construction of an 'out office' began on July 2nd, 1776 with the addition of a wood lined cellar (HBCA B.49/a/3). This structure was subsequently rebuilt in 1781 because of the dampness of the cellar.

The disturbed soils collected and screened from the bottom of the South cellar contained 72 artifacts exhibiting various manufacturing dates. The presence of a sherd with a diagnostic Honeysuckle pattern dates from 1855 to post 1882 (Sussman 1979:127). Transfer printed sherds suggest a post 1820s occupation (Springer Papa 1972:13). The presence of handwrought nails could suggest an early occupation but one must remember that they were used into the 19th century (Fontana and Greenleaf 1962:54). Voles, beavers, moose, sturgeon, large mammals, medium birds, and small-medium birds represent the remains of identified fauna in the disturbed soils of the south cellar.

11.3 The Physical Layout of Hudson House

Dean Clark (1969:2) conducted excavations of the Hudson House site from May 20th to June 13th, 1969. The site is located on the north bank of the North Saskatchewan River in the NE quarter of SW-21-48-2-W3M. Shovels and trowels were used during the excavation of a number of features associated with the post. All dirt was screened, profiles and planviews were drawn, and photographs were taken of all the units. Souvenir hunting activities were indicated by the presence of holes and backdirt piles within some the features (Clark 1969:3).

A number of features were noted at the Hudson House site and include depressions (presumably cellars), chimney mounds, and ridges. Clark (1969) focused his attention on determining the position and dimensions of the stockade and the buildings located within this structure (Figure 11.1).

Units associated with the stockade feature suggest that the dimensions of this structure measure 32 m (105 ft) by 32 m (105 ft) (HBCA B.87/a/2). Three corners of the stockade were located in the 1969 units (see Figure 10.1). Clark (1969:3) states that very little wood was found to represent wooden uprights but notes that local poplar and spruce trees would have been used to build this structure. No gate remains were encountered but Clark (1969:3) believes that it is situated in the east wall, facing the river.

Journals indicate that the main house constructed at the Hudson House site measured 37 feet (11 m) by 27 feet (8 m) (HBCA B.87/a/2). Clark (1969:3) notes that upon inspection, the dimensions of this structure are 27 feet (8 m) by 42 feet (13 m). Journal entries indicate that grass and mud were used in the construction of a thatched roof and seams in the house were filled with mud. Partitions were constructed within the main house to separate the men's apartments from the trading room (HBCA B.87/a/2). Clark (1969:3) did not excavate this structure but identified the presence of three fireplaces. Fireplaces are located on the west wall of each room and a double fireplace is located in the middle of the house. Clark also notes the appearance of two depressions within the structure. One large depression is located in the north room while a small depression is situated adjacent to the chimney of the south room. These may represent cellars or refuse areas within the main house.

A provisioning house and cellar are located in the southwest corner of the post. A journal entry from November 13th, 1779 states that a provisioning house was being built because goods could not be kept within the main house. This project was completed on November 15th, 1779 (HBCA B.87/a/2). No excavations were conducted in this souvenir hunted feature but Clark (1969:3) suggests that the cellar

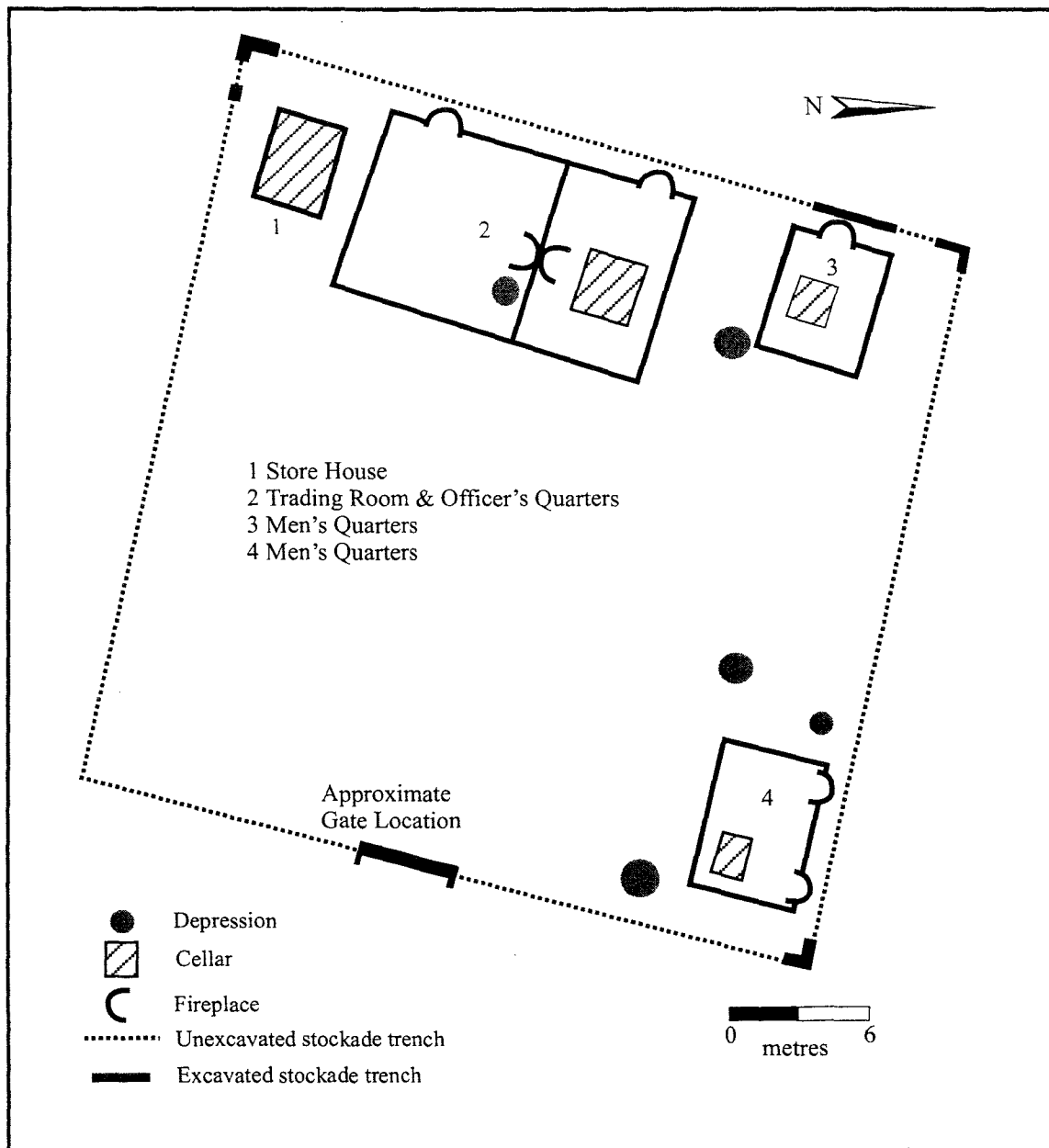


Figure 11.1 A map of excavated units, surface features, and structures of the Hudson House site, 1779-1789 (map by Kim Weinbender based on Clark 1969:8).

is almost 2 m deep (5 ft) and was located underneath a structure measuring 5 m (15 ft) by 4 m (12 ft).

Clark (1969:4) notes the presence of two other structures and associated chimney features. One structure is situated in the northwest corner of the yard and contains a chimney feature and cellar depression. A second structure is located in the northeast corner and contains two chimney mounds and a cellar depression.

The northwest structure was partially excavated by Clark and crew, and produced very few artifacts. A unit placed over the west wall indicated the presence of charred soil and wood running parallel to the west wall of the stockade structure. Units in the area of the fireplace produced a copper tinkling cone fragment, portions of four nails, five white seed beads, and one blue seed bead. Two other units were placed in this structure to deduce the extent of its dimensions. Artifacts recovered from these units included a single lead shot, eight blue seed beads, a fragment of brass wire, half of a round rat-tailed file, a gun trigger, and one gunflint.

A fourth unit was opened in an area outside of the structure for the purpose of deducing the function of a shallow depression. Excavation observations suggest that this depression represents a mudding/refuse pit. Artifacts associated with this feature included a nail, five clay potsherds, and three blue seed beads.

Clark (1969:4) believes that the two structures in the northern corners of the stockade represent the men's cabins. Dateable artifacts from excavation units in the northwest building include a handwrought nail (used into the 19th century) and a gun spall fragment suggesting a late 18th century occupation.

11.4 Discussion

The Hudson's Bay Company established a number of posts in Canada that fulfilled specific functions. Three kinds of posts comprise the Hudson's Bay Company establishments: administrative centres, regional headquarters, and wintering

outposts. These three post types differed in function, form, size, and layout. Administrative posts were quite large, containing a number of different structures and areas for agricultural and industrial purposes (Hamilton 1990:128). Hamilton (1990:129) notes that most of the administrative posts were surrounded by stockades that were built in a defensive fashion.

Regional headquarter posts were usually surrounded by a stockade with most demonstrating a distinct separation between the men's living quarters and the Master's accommodations. The lack of space often required the assignment of more than one function for specific structures at these posts. Hamilton (1990:130) indicates that the physical layout of many of these posts consisted of a two storied housing structure (containing the trade shops and Master's quarters) positioned along the backwall of the stockade facing the main gates. Living accommodations and storage areas flanked either side of this building, forming a u-shaped configuration. Variations of this u-shaped layout consisted of two parallel rows of houses facing each other with a courtyard positioned between them.

Wintering posts were built on a smaller scale than those occupying higher administrative purposes. Wintering posts consisted of one or two buildings that were usually not surrounded by a stockade. Hamilton (1990:132) observed that the practice of rank segregation was still prominent in these small posts.

The physical layout of the Cumberland and Hudson House posts appears to be similar to those of regional headquarter status. These two posts played a primary role in the establishment of the Hudson's Bay presence in the western Canadian interior and occupied a prominent role in the regional trading system of this company.

Archaeological information and historical textual documentation of the Old Cumberland House and Hudson House posts demonstrate the similarities of the physical layout of the sites. A substantial stockade structure enclosed a number of

features at the post. A two story main house was located at each of the sites and encompassed the men's quarters, the warehouse/trading room, and the Master's room.

A provisioning shed was built at each site for the purpose of storing provisions and supplies. A cook room is present at the Old Cumberland House post and alluded to in the Hudson House journals although no specific references are made to the construction of such a feature. A fourth heated building is located at Hudson House and has been suggested to represent the living quarters of post employees. Remains of an unidentified structure are present in the western portion of the Old Cumberland House stockade. A wall sill was found in the stockade trench and may represent the foundations of a storage facility for canoes.

The location of gates on either side of the main house at the two posts is also noted. These gates were situated in a convenient location for easy access to water resources. The presence of the gates directly in front of the main house feature also served two purposes. Firstly, the open visibility of the gate would provide security for the post inhabitants. Intruders entering through the gate would be easily spotted. Secondly, the awe-inspiring view of the main house would provide an intimidation factor for the posts' visitors. As one entered the fort they would have been subjected to a view of the large main house - this projected a feeling of superiority and control over individuals coming to trade at the posts. Hamilton notes in his 1990 doctoral dissertation that the placement of the main gate for the purpose of creating a commanding view was observed at other trading posts. Hamilton presents pictorial images of a number of posts that display this characteristic including York Factory, Severn Factory, Fort Chippewyan, (New) Cumberland House, and Buckingham House.

The presence of separate dwelling areas for post employees also suggests a reinforcement of superiority within the Hudson's Bay Company. Hamilton (1990:120-130) notes that post masters resided in separate areas from the general populace and Cumberland House was no exception. As previously noted, a number of entries in the Old Cumberland House journals indicate the presence of separate quarters for the Master. Unfortunately, no indication of a separate dwelling area was found for the Hudson House journals but one would imagine that such a situation existed at this post as well.

Overall, one must conclude that Old Cumberland House and Hudson House were constructed in a similar manner to each other and are comparable to other trading posts to a certain degree. The physical layout of the structures at the sites served not only a practical purpose but also created an atmosphere of respect and authority. This silent message was displayed to the post employees and visitors, thus reinforcing social stratification within a wilderness environment.

Chapter 12

Environmental Resources at Old Cumberland House

12.1 Introduction

The intensification of competition in the Canadian fur trade promoted the European penetration and exploration of the western frontier. It was a common belief that the movement of fur traders into these remote areas would increase profit margins for the companies involved but this was not always the case. The establishment of fur trading posts provided the traders with a centralized occupation/business area and facilitated trading relations with local native populations. The aboriginal groups no longer had to travel great distances to trade their provisions and furs for goods.

The increase in numbers of fur traders into the western interior resulted in the construction of a number of posts in close proximity to each other. This population increase created an impact on the immediate environment, leading in many cases to a depletion of local resources (Burley *et. al.* 1996, Hamilton 1993, Hamilton *et. al.* 1988, Losey and Prager 1975, Pyszczyk 1978). Provisions for the post inhabitants were obtained from the surrounding environment and other regions. With the increase of a number of posts in an area one would expect to see a decrease in the variety and number of food resources available for consumption. An analysis of the Old Cumberland House journals and the faunal materials from the intact 18th century occupation should indicate the availability of local resources for the post inhabitants.

These data will generate a baseline for future analysis of the effects of increased competition on the Cumberland House area resource base.

The issue of resource stress has been addressed for the Peace River District and east central Alberta. Causes of resource depletion have been attributed to over hunting of fur bearing and provision species (Burley *et. al.* 1996, Hamilton 1993, Hamilton *et. al.* 1988, Klimko 1989, Losey and Prager 1975, Pyszczyk 1978).

Burley *et. al.* (1996) compared the faunal assemblages from Rocky Mountain Post (1794 – 1805) to St. Johns Fort (1806 – 1823) for the purpose of illuminating the effects that the fur trade had on local faunal populations. The presence of large ungulate remains in the Rocky Mountain Post faunal assemblage illustrates the great reliance on bison as a main food source for the post inhabitants. The presence of a large number of beaver bones compared to that of hare may attest to an abundance of faunal resources or a higher ratio of beaver to hare during the occupation of the Rocky Mountain Post. It is noted that hare were used during times of provisioning problems, a phenomena that does not appear to occur at Rocky Mountain Post (Burley *et. al.* 1996).

The St. Johns faunal collection illustrates the reverse of this trend, the availability of bison appears to be reduced over time, a possible indication of the extermination of bison in that area. The amount of hare in the faunal assemblage of this post is also considerably greater than that of beaver when compared to the Rocky Mountain Post collection. This indicates a reduction in the provisioning potential of the local environment over time (Burley *et. al.* 1996).

The faunal assemblages from Rocky Mountain Post (1794 – 1805) and Fort D'EpINETTE (1806 – 1823) in the Peace River District were compared by Hamilton *et. al.* (1988) to illustrate resource stress. Elk dominates the assemblages, bison, beaver, and red fox populations appear to decrease, and moose and hare become

more prominent when comparisons were made between the two posts (Hamilton *et al.* 1988, Klimko 1989, Williams 1978).

Four forts (Fort George, Fort White Earth, Buckingham House and Fort Victoria) from east central Alberta were compared by Pyszczyk (1978) to illustrate the effects of fur trade competition on bison availability. Pyszczyk (1978) notes that the later dated occupation of Fort Victoria witnessed a decline in bison populations. The presence of poorer cuts of meat was noted in addition to an increase in bone marrow extraction and bone grease production. The following information examines the Old Cumberland House journals to provide an indication of the faunal resource base available to the post inhabitants.

12.2 The Cumberland House Journals

The Cumberland House journals provide a wealth of knowledge concerning the faunal resources available to the post occupants. The Master of the post made daily notations regarding the type of provisions that were brought to Old Cumberland House, the amount of the provisions received, who supplied the faunal resources, and observations regarding the presence or absence of certain fauna during specific times of the year. The initial eight years of the Cumberland House journals were investigated to provide an indication of the resources available to the post inhabitants.

Journal entries indicate that three faunal groups were utilized by the Old Cumberland House post employees. These include mammals, avian, and fish resources. One must note that availability of fauna is influenced by a number of factors: seasonal availability, natural population cycles, over-hunting, and climatic fluctuations (Colpitts 1997:5).

It appears that a seasonal provisioning cycle governed the availability of faunal resources at Old Cumberland House. The arrival of spring saw the influx of migratory waterfowl into the Cumberland House area. As previously noted, a number

of ducks, geese, and swan species were utilized by post inhabitants as food sources. The summer months were spent procuring goldeye and moose resources. Fall brought another migration of waterfowl through the area and rabbits, grouse, and moose were also hunted (Cocking 1997:6). Cocking indicates that the fall was the best season for the procurement of provisions. He stated that the moose were fat and the native peoples could hunt them with the use of their canoes (HBCA B.49/a/4). Journal evidence suggests that resources began to dwindle during the winter months. Sturgeon, rabbits, grouse, and occasionally moose were obtained for consumption purposes during this time period (Colpitts 1997:6). The preference for sturgeon is noted by Cocking in his journal entry dated April 24, 1776. He states that the sturgeon caught in Cumberland Lake are fat and that the employees prefer this fish to any other food resource (HBCA B.49/a/4).

George Colpitts (1997:7-17) examines the seasonal and cyclical changes of faunal resources during the first eight years of operation at Old Cumberland House. He notes that populations of mammals, birds, and fish rise and fall throughout this time period. He indicates that a number of post employees were sent to live with native groups for prolonged periods of time, in an effort to combat situations of resource scarcity. A journal entry dated January 24, 1777 indicates that Cocking advocated the placement of Hudson's Bay Company employees among native populations during periods of resource depletion (HBCA B.49/a/4).

An intra-site comparison of the faunal materials from the intact 18th century occupation will be examined and compared to information obtained from the Old Cumberland House journals. Although the determination of the full extent of resource utilization was hampered by a lack of stratigraphy and cultivation practices one can still gain an understanding of the varied nature of the faunal resources available to the post employees.

12.3 Intra-site Comparison

Faunal materials from three features at the Old Cumberland House post will be used in the following discussion. These include remains from the intact 18th century component of the Northwest room, the South chimney feature, and the stockade. Some of these features were not completely disturbed by cultivation. Stratigraphy from the excavation of other features included the presence of a friable grey clay layer that is indicative of gardening activities. This action resulted in the mixing of the 18th century occupation with those from a later date. For this reason, the cultivated component of the Old Cumberland House site was not considered for comparison purposes. Faunal materials from the 19th and 20th century were not used, as they are not associated with the fur trade occupation of Old Cumberland House.

A total of 13811 faunal remains (10394.6g) were found in the intact 18th century component of this site. Unidentified specimens encompass 57.2% (n=7893) of the total faunal assemblage. Unburned remains composed 11.3% (n=893) of the unidentified materials while 7000 (88.7%) were burned and calcined. Identified remains comprised 42.8% (n=5918) of the intact faunal assemblage. A total of 4579 (77.4%) of these specimens were unburned and 1339 (22.6%) display evidence of exposure to intense heat. A list of the identified taxa and size classes for the 18th century component of the Old Cumberland House post is provided in the following table.

Common name	Taxonomic designation	NISP	MNI
Mustelids	Mustelidae	1	1
Meadow vole	<i>Microtus pennsylvanicus</i>	1	1
Squirrels	Sciuridae	1	1
American red squirrel	<i>Tamiasciurus hudsonicus</i>	1	1
Common muskrat	<i>Ondatra zibethicus</i>	4	1
American marten	<i>Martes americana</i>	24	2
Snowshoe hare	<i>Lepus americanus</i>	10	2
Possible American beaver	<i>Castor canadensis c.f.</i>	7	1

American beaver	<i>Castor canadensis</i>	445	10
Wolverine	<i>Gulo gulo</i>	1	1
Canid	<i>Canis sp.</i>	6	2
Cervid	Cervidae	2	1
Woodland caribou	<i>Rangifer tarandus</i>	2	1
Possible elk	<i>Cervus elaphus c.f.</i>	1	1
Moose	<i>Alces alces</i>	28	2
Bison	<i>Bison bison</i>	1	1
American robin	<i>Turdus migratorius</i>	1	1
Pigeon	Columbidae	10	2
Grouse or partridge	Phasianidae	3	1
Sharp-tailed grouse	<i>Tympanuchus phasianellus</i>	1	1
Duck (SC3)	Indeterminate Anatidae	25	1
Duck	<i>Anas sp.</i>	2	1
Northern pintail	<i>Anas acuta</i>	1	1
Blue-winged teal	<i>Anas discors</i>	1	1
Mallard	<i>Anas platyrhynchos</i>	7	2
Goose (SC4)	Indeterminate Anatidae	39	2
Goose	<i>Anser sp.</i>	4	1
Canada goose	<i>Branta canadensis</i>	7	2
Greater-white fronted goose	<i>Anser albifrons</i>	8	3
Snow goose	<i>Anser caerulescens</i>	2	1
Swan	<i>Cygnus sp.</i>	16	2
Lake sturgeon	<i>Acipenser fulvescens</i>	2227	-
Possible Northern pike	<i>Esox lucius c.f.</i>	1	1
Northern pike	<i>Esox lucius</i>	12	2
Perch	<i>Stizostedion sp.</i>	2	1
Sauger	<i>Stizostedion canadense</i>	1	1
Sucker	Catostomidae	3	2
Trout	Salmonidae	2	1
Walleye	<i>Stizostedion vitreum</i>	2	1
White sucker	<i>Catostomus commersoni</i>	2	1
Very large mammals (SC6)		65	-
Large mammals (SC5)		975	-
Medium mammals (SC4)		121	-
Small-medium mammals (SC3)		8	-
Large bird (SC5)		5	-
Medium bird (SC4)		173	-
Small-medium bird (SC3)		43	-

Table 12.1 Identified taxa and size classifications for the 18th century component of the Old Cumberland House site.

Sturgeon remains were the most numerous faunal material found in this component. Large mammal and beaver were the next most abundant species found in this feature. Burned and butchered large mammal remains suggest that portions

of the skeletons were brought to the site and processed for consumption. The axial and appendicular skeleton of beaver was represented in this component. Cut marks and burning on many specimens suggest that whole beaver carcasses were brought back to the fort for provisioning and trading purposes.

The Northwest room feature had the lowest faunal assemblage count (n=1003) of the three intact components but, over half (63.8%) of the remains were identified to a taxonomic level or size class. Most of this assemblage was unburned, with only 14.1% showing evidence of exposure to heat. It is suggested that this structure was an enclosed passageway, with a dirt floor, that connected the cook room to the main house. The presence of faunal materials indicates the disposal of refuse in a convenient area.

The South chimney feature contained 9104 faunal materials encompassing a variety of species. The presence of burned and butchered bone, coupled with domestic related artifacts, supports the premise that this structure was the cook room.

The stockade feature contained the greatest variety of species and largest number of faunal materials found at this site. One may postulate that if no cultivation of this site had occurred the variety of faunal species at the site overall would be similar to those found in the stockade trench. Also, the number of faunal remains would be substantially higher. The fragmented, unprocessed remains found in this feature represent disposed refuse. As stated previously, the men were required to clean the yard and the house. Debris was swept into the area of the stockade feature, eventually becoming part of the trench fill during construction and repair of this structure. These materials may have also been used to shore up the stockade thus providing stability for this structure.

12.4 Discussion

A comparison of the journal information and taxonomic table for the fur trade occupation suggests a varied diet for the post occupants. A total of 535 mammal specimens (15 taxa) were identified to species in the Old Cumberland House collection. One hundred and twenty-seven specimens, representing 15 avian species were identified in the intact 18th century faunal component. American robin, partridge or grouse, sharp-tailed grouse, a variety of ducks and geese, and swans were identified in the Old Cumberland House collection.

A total of 2252 fish remains in the lower component of the Old Cumberland House collection were identified to species. Nine species were identified and include Lake sturgeon, Northern pike, perch, sauger, sucker, trout, walleye and white sucker. Journal entries note the prevalence of fish during specific seasons and importance of this resource during times of resource depletion.

A total of 65 specimens from the Old Cumberland House collection were identified as representing the remains of very large mammals. The Old Cumberland House faunal assemblage contains large mammals (SC5), medium mammals (SC4), small-medium mammals (SC3), large birds (SC5), medium birds (SC4), small-medium birds (SC3) and small bird (SC2) sized-classed remains.

Beaver, moose, birds, fish, and various size-classed faunal remains from the Old Cumberland House collection are quite numerous. A greater reliance on fish and waterfowl was also observed at this site. Although bison were present in the Cumberland House area during the fur trade, journal entries indicate a focus on moose as a food source. The presence of bison meat, mostly supplied by Hudson House, begins to become commonplace at Old Cumberland House, in the late 1700s (Colpitts 1997).

Only a small portion of the Old Cumberland House faunal assemblage could be used for comparative purposes. The abundance of faunal resources may have been more prevalent if the entire 18th century occupation was intact. Archaeological evidence suggests that the occupants of Old Cumberland House were utilizing a variety of fauna resources. Journal information accounts for the cyclical and seasonal availability of provisions in the Cumberland House area, thus providing evidence that situations of resource stress did occur.

Chapter 13

Conclusions

The Old Cumberland House fur trading post is an important part of the fur trade heritage of western Canada. The establishment of this post brought the Hudson's Bay Company into direct contention with its competitors. This movement allowed for the establishment of more trading posts, ultimately shaping the development of Canada. The analysis of cultural materials from Old Cumberland House provides pertinent information regarding the early portion of the fur trade. It illustrates how the Hudson's Bay Company manipulated the physical environment to exert control and how these characteristics were portrayed in a number of other forts across Canada. It also provides some illumination on the availability of a varied dietary resource base for the Cumberland post inhabitants.

This thesis examines the archaeological record and the written historical accounts of the first Hudson's Bay Company western inland trading post for the purpose of deducing its physical layout and to examine the issue of resource abundance. Shortcomings in the sampling methodology and disturbance of cultivation practices provided a number of limitations for the fulfillment of the objectives. Strong correlations could not be made between the assemblages and the function of the physical structures. The determination of the full extent of resource utilization was also hampered by these conditions. However, a more detailed picture of resource exploitation and practices by Cumberland House inhabitants was provided by a comparison of the archaeological and documentation records.

The North chimney feature represents a portion of the main house, most likely the men's living area. The main house also contained an upper storage area, the warehouse/trade room, and the Master's quarters. The disturbed stratigraphy from this feature indicated that this area had been cultivated and subjected to souvenir hunting activities. Structural remains, hunting materials, trade beads, smoking paraphernalia, and gate location support the main house premise.

A structure encompassing wall sills was designated as representing an enclosed Northwest room/passage way from the main house to the cook room. The presence of a large number of burned and modified faunal materials suggests that this feature was used as a refuse disposal area. Much of this feature had not been subjected to gardening activities, thus providing a rare opportunity for examination of the intact 18th century fur trade component of this site.

The North cellar feature and associated chimney mound represents part of the main house encompassing the warehouse/trade room and the Master's chimney. The nature of the stratigraphy of this feature indicates that the area around the cellar was cultivated, while the cellar itself was souvenir hunted. The location of the cellar and the inclusion of personal artifacts that also served as trade goods lends credence to the warehouse/trade room designation.

The South chimney feature is interpreted as the cook room. Stratigraphy of this feature consists of three components; a 19th and 20th century upper level, a cultivated middle level, and a lower 18th century intact fur trade occupation. This feature was not only subjected to cultivation but was also extensively disturbed by the activities of souvenir hunters.

The South chimney feature contained a number of structural remains in addition to artifact and faunal materials. The presence of stoneware sherds, curved glass, knives, and needles provided support for the cooking room premise. A number

of faunal remains from this feature show evidence of exposure to extreme heat and indications of processing for consumption purposes.

The South depression is believed to represent the cellar of the provisioning shed. No excavation units were placed within the immediate vicinity of this feature during the 1991, 1992, and 1994 field seasons. An excavation trench passed within 3.5 m of this feature but did not encounter any structural remains. Evidence to support the victual/provisioning shed hypothesis was generated during Ranere's 1967 excavation when possible cellar wall cribbing was uncovered along the western wall of this depression.

The stockade feature was extensively explored during the excavation of this site. The remains of rotted uprights, the northern gate, and the stockade trench were exposed. This structure measures 38 m by 31.5 m and encloses the three chimney mounds and two cellar depressions. Much of the feature was undisturbed with only four units showing evidence of cultivation. The artifact and faunal remains found in the stockade trench represent the disposal of refuse in the yard, cleaning practices, and the subsequent use of these materials as trench fill for the support of the stockade feature.

A comparison of the structural layout of the Old Cumberland House site to Hudson House suggests a similar construction methodology. The main house faced the gate and encompassed the men's living area, the warehouse/trade room, and the Master's quarters. A provisioning shed is located outside of the main house, as a cool place was needed to store food. The presence of a cook room is suggested for both posts, although the Hudson House journals never fully allude to the location of this structure. A substantial stockade is present at both sites and encloses the buildings of the posts.

Comparisons to Hamilton's (1990) descriptions of the physical layout of fur trading posts dating between 1780 and 1821 were conducted to deduce consistencies and discrepancies in the construction of the two earlier Hudson's Bay Company posts. It was believed that the construction of Old Cumberland House and Hudson House would be similar to the administrative posts located around Hudson's Bay but on a much smaller scale.

A comparison of the physical layout of a number of Hudson's Bay Company posts to that of Old Cumberland House and Hudson House illustrates the use of a standard construction methodology. A number of the Hudson's Bay Company posts were arranged in a similar u-shape configuration. Administrative centres such as York Factory and Severn Factory possessed a large building facing the main gates with smaller buildings flanking each side. Some regional headquarter posts were constructed in the same fashion and include Fort Chippewyan, Fort Edmonton, Carlton House, (New) Cumberland House, and Buckingham House (Hamilton 1990). The continued use of a u-shaped construction methodology illustrates the importance of post officers exerting control over visitors, employees, and nature itself. This construction method was implemented in the posts on Hudson Bay and was used throughout the construction of many inland posts.

The issue of resource depletion has been studied for the Peace River District and east central Alberta (Burley *et. al.* 1996, Hamilton 1993, Hamilton *at. el.* 1988, Klimko 1989, Losey and Prager 1975, Pyszczyk 1978). These studies illustrate the importance of large ungulates in the dietary resources of the fort occupants. The archaeological record and post journals indicate that as time passed, large ungulate resources began to become depleted while dependence on small game increases.

The comparison of fur trade faunal assemblages from the Old Cumberland House site to information from post journals alludes to the presence of a variety of

faunal resources. The availability of these resources were governed by a number of external forces, at times creating a situation of resource stress. An examination of the faunal assemblage and journal materials suggests a reliance on moose, caribou, beaver, canid species, snowshoe hare, martens, muskrats, waterfowl, small game birds, and fish from the local environment as food resources for the post employees. As stated previously, if a majority of the Old Cumberland House 18th century occupation had not been destroyed by cultivation activities and more easily assessed, resource abundance and variety may have been more pronounced.

Future excavation at this site should be conducted between the North chimney and the North cellar features to contribute further support for the main house identification. This would provide an indication of the dimensions of this structure and the different components of the building. Units should also be placed to the east of the North cellar depression as it is believed that this area contains the remains of the Master's quarters. If the Master's quarters and the men's cabins were completely excavated, one could possibly compare the artifact and faunal assemblages from the two structures to determine differences in ranking amongst the Hudson's Bay Company employees. One may be able to assess the impact that the Master's and post employee's diets were having on local resources. The function of specific rooms in the main house could also be determined by the presence of particular artifact and faunal materials. Additional excavation units should be placed around the southern depression to determine the function of this feature and its associated structural remains. Excavation at (New) Cumberland House is also advocated as a comparison of faunal assemblages from Old Cumberland House to that of the new post would provide excellent evidence of resource stress in this area.

Overall, the analysis of the Old Cumberland House archaeological collection and journal sources have provided pertinent information regarding the physical layout

of the post and the faunal resources available to the post inhabitants. The reconstruction of the structural components of this post suggests the continued use of the standard u-shape construction methodology in posts dating before and after Old Cumberland House. The examination of journal materials and the faunal assemblage from this post illustrates the rich and varied nature of the faunal resources found in this area.

References Cited

- Acton, D.F., G.A. Padbury and C.T. Stushnoff
1998 *The Ecoregions of Saskatchewan*. Canadian Plains Research Center, Regina.
- Atton, F.M. and J.J. Merkowsky
1983 *Atlas of Saskatchewan Fish*. Saskatchewan Dept. of Parks and Renewable Resources, Regina, Saskatchewan. Fisheries Technical Report 83-2.
- Banfield, A.W.F.
1974 *The Mammals of Canada*. University of Toronto Press, Toronto.
- Beaver, The
1974 Cumberland House 1774-1974. *The Beaver*, Winter: 24-25.
- Bicentennial Committee of Cumberland House
1974 *A History of Cumberland House...as Told by Its Own Citizens 1774-1974*. Bicentennial Committee, Cumberland House.
- Brandon, J. and L.J. Amundson
1994 FIMn-9 Saskatchewan Archaeological Resource Record. Saskatchewan Municipal Government, Heritage Branch, Regina.
- Brown, J.A.
1960a FIMn-1 Saskatchewan Archaeological Resource Record. Department of Natural Resources. Saskatchewan Museum of Natural History, Archaeological Survey, Regina.

1960b FIMn-3 Saskatchewan Archaeological Resource Record. Department of Natural Resources. Saskatchewan Museum of Natural History, Archaeological Survey, Regina.
- Burley, D.V., J.S. Hamilton and K.R. Fladmark
1996 *Prophecy of the Swan: The Upper Peace River Fur Trade of 1794 – 1823*. UBC Press, University of British Columbia, British Columbia.
- Casteel, R.W.
1976 *Fish Remains in Archaeology*. Academic Press Inc., London
- Clark, W.D.
1969 Excavations at Hudson House. Unpublished manuscript on file with the author.
- Clarke, A.H.
1981 *The Freshwater Molluscs of Canada*. National Museum of Natural Sciences, Ottawa.

- Cohen, A. and D. Serjeantson
 1996 *A Manual for the Identification of Bird Bones from Archaeological Sites* (revised edition). Archetype Publications Ltd., London
- Colpitts, G.
 1997 Victuals to Put in our Mouths. Environmental Perspectives on Fur Trade Provisioning Activities at Cumberland House, 1775 – 1782. *Prairie Forum* 22(1):1-19.
- Conant, R.
 1958 *A Field Guide to Reptiles and Amphibians of the United States and Canada East of the 100th Meridian*. Houghton Mifflin Company, Boston.
- Dean, P.
 1984 *Official Guide to Pottery and Porcelain*, edited by Thomas E. Hudgeons III. House of Collectibles, Inc., Orlando.
- Deetz, J.
 1977 *In Small Things Forgotten: An Archaeology of Early American Life*. Doubleday, New York.
- Demmy, G.C.
 1967 Glass Dating, an Archaeologists's Evaluation of the Concept. *Historical Archaeology* 1:49-51.
- Didiuk, A.B.
 1999 Amphibians and Reptiles. In *Atlas of Saskatchewan*, edited by K.I. Fung, B. Barry and W. Wilson, pp.144. University of Saskatchewan, Saskatoon.
- Dirschl, H.J. and D.L. Dabbs
 1969 A Contribution to the Flora of the Saskatchewan River Delta. *The Canadian Field Naturalist* 83:21-228.
- Dirschl, H.J. and A.S. Goodman
 1967 *Land Capability for Wildlife Production and Utilization in the Western Saskatchewan River Delta*. Saskatchewan Wildlife Branch .
- Dyck, I and R.E. Morlan
 1995 *The Sjøvold Site: A River Crossing Campsite in the Northern Plains*. Archaeological Survey of Canada Mercury Series Paper 151. Canadian Museum of Civilization, Hull, Quebec.
- Fontana, B.L. and J.C. Greenleaf
 1962 Johnny Ward's Ranch: A Study in Historic Archaeology. *The Kiva* 28(1-2):1-115.
- Froese, P
 1984 FIMn-5 Saskatchewan Archaeological Resource Record. Saskatchewan Culture and Recreation, Regina.

- Fung, K.I., B. Barry and M. Wilson
1999 *Atlas of Saskatchewan*. University of Saskatchewan, Saskatoon.
- Glass, B.P.
1951 *A Key to the Skulls of North American Mammals*. Burgess Publishing Co., Minneapolis, Minnesota.
- Gibson, T.H.
1991 MacADEM: Archaeological Data Entry and Management Software for the Apple Macintosh computer. Western Heritage Services Inc., Saskatoon
- Gilbert, B.M., L.D. Martin and H.G. Savage
1985 *Avian Osteology*. B. Miles Gilbert, Arizona.
- Glover, R.
1951 Cumberland House. *The Beaver*, December: 4-7.
- Godfrey, W.E.
1986 *The Birds of Canada, revised edition*. National Museum of Canada, Ottawa.
- Gollop, J.B.
1969 Birds in Saskatchewan. In *Atlas of Saskatchewan*, edited by J.H. Richards and K.I. Fung. University of Saskatchewan, Saskatoon.
- Grayson, D.K.
1978 Minimum Numbers and Sample Size in Vertebrate Faunal Analysis. *American Antiquity* 43(1):53-65.

1984 *Quantitative Zooarchaeology: Topics in the Analysis of Archaeological Faunas*. Academic Press, Inc., Florida.
- Hamilton, J.S.
1990 *Fur Trade Social Inequality and the Role of Non-verbal Communication*. Unpublished Ph.D. Department of Archaeology, Simon Fraser University, British Columbia.

1993 Over Hunting and Local Extinctions: Socio-Economic Implications of Fur Trade Subsistence. In *Culture and Environment: A Fragile Coexistence*, edited by Ross Jamieson, Sylvia Abonyi and Neil Mirau. Proceedings of the 23rd Annual Chacmoal Conference of the Archaeological Association, University of Calgary, Calgary.
- Hamilton, J.S., D.V. Burley and H. Moon
1998 *Rocky Mountain Fort Mountain Fort and the Land Based Fur Trade Research Project: The 1987 End of Season Report*. Unpublished Report Submitted to the B.C. Heritage Trust. Simon Fraser University, Burnaby.
- Harding, J.H.
1997 *Amphibians and Reptiles of the Great Lakes Region*. The University of Michigan Press, Ann Arbor.

- Harper, K.D.
n.d. *The Genealogy of the Harpers and McLeods*. Unpublished manuscript on file with the author.
- Heidenreich, C. and A. J. Ray
1976 *The Early Fur Trade: a Study in Cultural Interaction*. McClelland and Stewart, Toronto.
- Hillson, S.
1986 *Teeth*. Cambridge Manuals in Archaeology. Cambridge University Press, Cambridge
- Houston, C.S. and M.
1987 Samuel Hearne, Naturalist. *The Beaver*, August/September (64)7:23-27.
- Houston, C.S. and M.G. Street
1959 *The Birds of Saskatchewan: Carlton to Cumberland*. Special publication No. 2, Saskatchewan Natural History Society. Regina, Saskatchewan.
- Hume, I.N.
1976 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.
- Innis, H.A.
1962 *The Fur Trade in Canada*. University of Toronto Press, Toronto.
- Jones, O. and C. Sullivan
1989 *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat glass and Closures*. Canadian Parks Service, Ottawa.
- Jonker, P.
1999 Endangered Species. In *Atlas of Saskatchewan*, edited by K.I. Fung, B. Barry and M. Wilson. University of Saskatchewan, Saskatoon.
- Kavanagh, M.
1967 *La Verendrye: His Life and Times*. Fletcher and Sons Ltd., Norwich, England.
- Kenyon, T.
n.d. Nineteenth Century Notes. *Ontario Archaeological Society – London Chapter*.
- Klimko, O.
1987 The Grant and McLeod, Neufeld Sawmill, and Loos Cabin Sites. *Nipawin Reservoir Heritage Study*, Volume 9. Saskatchewan Research Council Publication No. E-903-E-87. Saskatoon.
- 1989 Fur Trade Faunal Studies and Interpretations: A Review of the Archaeology. *Saskatchewan Archaeology* 10:28-40.
- Klimko, O and P. McKeand
1998 *The Francois-Finlay Complex, Volume II*. Western Heritage Services, Saskatoon.

- Krozser, K.
1988 FIMn-7 Saskatchewan Archaeological Resource Record. Saskatchewan Parks, Recreation and Culture, Regina.
- Looman, J. and K.F. Best
1979 *Budd's Flora of the Canadian Prairie Provinces*. Research Branch, Agriculture Canada, Publication 1662. Canadian Government Publishing Centre, Quebec.
- Losey, T.C. and G. Prager
1975 A Consideration of the Effects of the Demise of Bison on the Subsistence Economy of Fort Victoria: A Late 19th Century Hudson's Bay Company Post. *Canadian Archaeological Association Bulletin* 7:162-182.
- Lundqvist, O.
1999 Climate. In *Atlas of Saskatchewan*, edited by K. Fung *et.al.*, University of Saskatchewan, Saskatoon.
- Lyman, R.L.
1994 *Vertebrate Taphonomy*. Cambridge University Press, New York.
- Magee, M.
1996 *Bison Osteology: An Introduction*. Unpublished manuscript, University of Saskatchewan, Saskatoon.
- McIntyre, S.
1980 FIMn-2 Saskatchewan Archaeological Site Survey. Department of Natural Resources, Saskatchewan Museum of Natural History, Regina.
- McKeand, P.
1995 *A Comprehensive Faunal Analysis of Bushfield West (FbNa-10), Nipawin, Saskatchewan*. Unpublished M.A. thesis, Department of Anthropology and Archaeology, University of Saskatchewan, Saskatoon.
- Meyer, D.
1985 The Red Earth Crees, 1860-1960. *National Museum of Man Mercury Series*, Paper No. 100. National Museums of Canada.

1992 FIMn-8 Saskatchewan Archaeological Resource Record. Saskatchewan Parks, Recreation and Culture, Regina.

1996 *Cumberland House Archaeological Investigations: the 1994 Season*. Submitted to the Office for Archaeological Resource Management, Canada Department of Communications and to the Heritage Branch Saskatchewan Municipal Services.
- Moodie, W.D.
1987 The Trading Post Settlement of the Canadian Northwest, 1774-1821. *Journal of Historical Geography* 13(4): 360-374.

- Morlan, R.E.
 1994 Bison Bone Fragmentation and Survivorship: a Comparative Method. *Journal of Archaeological Science* 21:797-807.
- 1994 Rodent Bones in Archaeological Sites. *Canadian Journal of Archaeology* 18:135-142.
- Morton, A.S.
 1973 *A History of the Canadian West to 1870-71*. University of Toronto Press, Toronto.
- Nelson, L.H.
 n.d. Nail Chronology as an aid to dating old buildings. Technical Leaflet 48. *History News* 24(11).
- Newman, T.S.
 1970 A Dating Key for Post-eighteenth Century Bottles. *Historical Archaeology* 4:70-75.
- Olsen, S.J.
 1963 Dating Early Plain Buttons by their Forms. *American Antiquity* 28(4):551-554.
- 1964 *Mammal Remains from Archaeological Sites*. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. LVI, No. 1. Peabody Museum, Cambridge.
- 1985 *Origins of the Domestic Dog*. The University of Arizona Press, Tucson.
- Parks Canada and Site Branch
 1979 *Handbook on Arms and Ammunition*. National Historic Parks and Sites Branch, Ottawa.
- Peel, B.
 1950 Cumberland House. *Saskatchewan History* 3(2), Spring: 68-73.
- Peterson, R.T.
 1990 *A Field Guide to Western Birds: A Completely New Guide to Field Marks of All Species Found in North America West of the 100th Meridian and North of Mexico*. Houghton Mifflin Company, New York.
- Pyszczyk, H.
 1978 *The Fort Victoria Faunal Analysis: Considerations of Subsistence Change of the Fur Trade Era in North Central Alberta*. Unpublished Masters Thesis. Department of Anthropology, University of Manitoba, Winnipeg, Manitoba.
- Quackenbush, W.G.
 1989 *Tastes of Canadians and Dogs: The History and Archaeology of McLeods Lake Post, British Columbia, GfRs-2*. Unpublished Masters Thesis. Department of Anthropology and Archaeology, University of Saskatchewan, Saskatoon.

- Ranere, A.J.
 1967 *A Report on the Historic Sites Survey Carried Out During June 1967*. Saskatchewan Museum of Natural History. Saskatchewan Museum of Natural History, Regina.
- Ray, A.J.
 1974 *Indians in the Fur Trade: Their Role as Hunters, Trappers, and Middlemen in the Lands Southwest of Hudson Bay 1660-1870*. University of Toronto Press, Toronto.
- Ray, A.J. and D. Freeman
 1978 *'Give Us Good Measure': an Economic Analysis of Relations Between the Indians and the Hudson's Bay Company Before 1763*. University of Toronto Press, Toronto.
- Rich, E.E.
 1959 *The History of the Hudson's Bay Company 1670-1870. Volume II: 1763-1870*. The Hudson's Bay Record Society, London.
 1967 *The Fur Trade and the Northwest to 1857*. McClelland and Stewart Limited, Toronto.
 1976 The Free Traders: Their Diet and Drugs. *The Beaver* Summer Outfit 307(1):42-53.
- Rich, E.E. and A.M. Johnson (eds.)
 1951 *Cumberland House Journals and Inland Journal 1775-82. First Series, 1775-79*. Hudson's Bay Record Society, London.
- Richards, J.H. and Fung, K.I.
 1969 *Atlas of Saskatchewan*. University of Saskatchewan, Saskatoon.
- Richards, M.H.
 1974 Cumberland House Two Hundred Years of History. *Saskatchewan History* 27(3): 108-114.
- Ruggles, R.I.
 1991 *A Country So Interesting: The Hudson's Bay Company and Two Centuries of Mapping, 1670-1870*. McGill-Queen's University Press, Montreal and Kingston.
- Schilz, T.F.
 1984 Brandy and Beaver Pelts: Assiniboine-European Trading Patterns, 1695-1805. *Saskatchewan History* 37(3): 95-102.
- Scott, W.B. and E.J. Crossman
 1973 *The Freshwater Fishes of Canada*. Fisheries Research Board of Canada Bulletin 184. Canadian Government Publishing Centre, Ottawa.
- Smith, A.
 1999 Birds. In *Atlas of Saskatchewan*, edited by K.I. Fung, B. Barry and M. Wilson. University of Saskatchewan, Saskatoon.

- Smith, N.D., R.L. Slingerland, M. Perez-Arлуcea, and G.S. Morozova
 1998 The 1870s Avulsion of the Saskatchewan River. *Canadian Journal of Earth Sciences* 35:453-466.
- Smythe, T.
 1968 *Thematic Study of the Fur Trade in the Canadian West, 1670-1870*. Historic Sites and Monuments Board of Canada. Agenda Paper 1968-69.
- Spector, J.D.
 1976 The Interpretive Potential of Glass Trade Beads in Historic Archaeology. *Historical Archaeology* 10:17-27.
- Sprague, R.
 1981 A Functional Classification for Artifacts from 19th and 20th Century Historical Sites. *North American Archaeologist* 2(3):251-261.
- Springer Papa, J.
 1972 Flow, Flowing, or Flown Blue. *Spinning Wheel* Jan-Feb:12-14.
- Sussman, L.
 1979 *Spode/Copeland Transfer-Printed Patterns*. Canadian Historic Sites Occasional Papers in Archaeology and History, No. 22. Parks Canada, Ottawa.
- Thistle, P.C.
 1986 *Indian-European Trade Relations in the Lower Saskatchewan River Region to 1840*. The University of Manitoba Press, Winnipeg.
- Tyrrell, J.B. (ed)
 1934 *Journals of Samuel Hearne and Philip Tumor Between the Years 1774 and 1792*. The Champlain Society, Toronto.
- Wallace, R.G., W. Forbes and R. Brown
 1963 Three Micmac Pipe of North Central Saskatchewan. *Plains Anthropologist* 8(21):167-169.
- Wapple, R.
 1999 Mammals. In *Atlas of Saskatchewan*, edited by K.I. Fung, B. Barry and M. Wilson. University of Saskatchewan, Saskatoon.
- Webster, S.M.
 1999 *Interpreting Northern Plains Subsistence Practices: An Analysis of the Faunal and Floral Assemblages from the Thundercloud Site (FbNp-25)*. Unpublished Masters thesis. Department of Archaeology and Anthropology, University of Saskatchewan, Saskatoon.
- Wheeler, A. and A.K.G. Jones
 1989 *Fishes*. Cambridge Manuals in Archaeology. Cambridge University Press, Cambridge.

Whitake, Jr., J.O.
1996 *National Audubon Society Field Guide to North American Mammals*. Alfred A. Knopf, New York.

Willard, J.R., W.W. Sawchy, D.A. Meyer, J.E. Polson and D. Russell
1978 *Environmental Implications of the Proposed Water Level Control Program for Cumberland Lake for the Department of Northern Saskatchewan*. Saskatchewan Research Council, Saskatoon.

Williams, G.
1983 *The Hudson's Bay Company and the Fur Trade: 1670-1870. The Beaver*, Autumn.

Williams, J.
1978 *Fort D'Epinette: A Description of Faunal Remains from an Early Fur Trade Site in Northern British Columbia*. Unpublished Masters thesis. Department of Archaeology, Simon Fraser University, Burnaby, B.C.

Hudson's Bay Company Archives (HBCA), Public Archives of Manitoba
Post Records

E.3/2, fo.103

Cumberland House

B.49/a/3
B.49/a/4
B.49/a/6
B.49/a/7
B.49/a/9
B.49/a/11
B.49/a/17
B.49/a/18
B.49/a/20
B.49/a/25^a

Hudson House

B.87/a/2

**Appendix 1. Flora and Fauna from the
Cumberland House Area.**

Table 1: Flora species of the Cumberland House area in the Saskatchewan River Delta

Common names	Taxonomic designation
Adder's-tongue family Virginia grape fern	Ophioglossaceae <i>Botrychium virginianum</i>
Arrow-grass family Rush-like bog plant Seaside arrow-grass	Juncaginaceae <i>Scheuchzeria palustris</i> <i>Triglochin maritima</i>
Arum family Sweet flag Water-arum	Araceae <i>Acorus calamus</i> <i>Calla palustris</i>
Bayberry family Sweet gale, bog myrtle	Myricaceae <i>Myrica gale</i>
Birch family Beaked hazelnut Speckled alder Swamp birch White birch, canoe birch	Betulaceae <i>Betula resinifera</i> <i>Alnus rugosa</i> <i>Betula glandulifera</i> <i>Betula papyrifera</i>
Bladderwort family Flat-leaved bladderwort Greater bladderwort	Lentibulariaceae <i>Utricularia intermedia</i> <i>Utricularia vulgaris</i>
Bluebell family Marsh bluebell	Campanulaceae <i>Campanula aparinoides</i>
Borage family Bluebur Tall lungwort	Boraginaceae <i>Lappula echinata</i> <i>Mertensia paniculata</i>
Buckthorn family Alder-leaved buckthorn	Rhamnaceae <i>Rhamnus alnifolia</i>
Buckwheat family Golden dock Great water dock Narrow-leaved dock Pale persicaria Swamp persicaria	Polygonaceae <i>Rumex maritimus</i> <i>Rumex occidentalis</i> <i>Rumex mexicanus</i> <i>Polygonum lapathifolium</i> <i>Polygonum amphibium</i>
Bur reed family Broad-fruited bur reed Narrow-leaved bur reed	Sparganiaceae <i>Sparganium eurycarpum</i> <i>Sparganium angustifolium</i>

Composite family

Arrow-leaved colt's-foot
 Canada thistle
 Cut-leaved ragwort
 Dandelion
 Flat-topped goldenrod
 Graceful goldenrod
 Lindley's aster
 Many-flowered yarrow
 Perennial sow-thistle
 Philadelphia fleabane
 Prickly sow-thistle
 Purple-stemmed aster
 Rush aster
 Smooth beggarticks
 Swamp thistle
 Upland white goldenrod
 Vine-leaved colt's-foot
 Water-marigold
 Yarrow, milfoil

Crowfoot family

Bristly buttercup
 Canada anemone
 Lapland buttercup
 Large-leaved watercrowfoot
 Macoun's buttercup
 Marsh-marigold
 Red baneberry
 Small yellow watercrowfoot
 Smooth-leaved buttercup

Cypress family

Creeping juniper
 Low juniper

Dogbane family

Spreading dogbane

Dogwood family

Bunchberry
 Red-osier dogwood

Elm family

American elm

Evening-primrose family

Fireweed
 Marsh willowherb
 Northern willowherb
 Small enchanter's-nightshade

Compositae

Petasites sagittatus
Cirsium arvense
Senecio eremophilus
Taraxacum officinale
Solidago gaminifolia
Solidago canadensis
Aster ciliolatus
Achillea sibirica
Sonchus arvensis
Erigeron philadelphicus
Sonchus asper
Aster puniceus
Aster junciformis
Bidens cernua
Cirsium muticum
Aster ptarmicoides
Petasites vitifolius
Megalodonta beckii
Achillea millefolium

Ranunculaceae

Ranunculus pensylvanicus
Anemone canadensis
Ranunculus lapponicus
Ranunculus aquatilis
Ranunculus macounii
Caltha palustris
Actaea rubra
Ranunculus gmelini
Ranunculus abortivus

Cupressaceae

Juniperus horizontalis
Juniperus communis

Apocynaceae

Apocynum androsaemifolium

Cornaceae

Cornus canadensis
Cornus stolonifera

Ulmaceae

Ulmus americana

Onagraceae

Epilobium angustifolium
Epilobium leptophyllum
Epilobium glandulosum
Circaea alpina

Fern family

Ostrich fern, fiddle heads
Spinulose shield fern

Figwort family

Purple lousewort

Frog's-bit family

Canada waterweed

Gentian family

Buck-bean

Ginseng family

Wild sarsaparilla

Goosefoot family

Lamb's-quarters
Strawberry blite

Grass family

Bog muhly
Canada wild rye
Common reed grass
Fowl manna grass
Fringed brome
Kentucky blue grass
Quack grass, couch grass
Marsh reed grass
Reed canary grass
Rough hair grass
Slender wheatgrass
Slender wood grass
Slough grass
Spangletop
Smooth brome
Tall manna grass
Timothy
Wild barley

Heath family

Dry-ground cranberry
Labrador-tea
Leatherleaf
Pale laurel
Swamp cranberry

Honeysuckle family

Blue fly honeysuckle
High bush-cranberry
Low bush-cranberry

Polypodiaceae

Matteuccia struthiopteris
Dryopteris spinulosa

Scrophulariaceae

Pedicularis parviflora

Hydrocharitaceae

Elodea canadensis

Gentianaceae

Menyanthes trifoliata

Araliaceae

Aralia nudicaluis

Chenopodiaceae

Chenopodium album
Chenopodium capitatum

Gramineae

Muhlenbergia glomerata
Elymus canadensis
Phragmites communis
Glyceria striata
Bromus ciliatus
Poa pratensis
Agropyron repens
Calamogrostis canadensis
Phalaris arundinacea
Agrostis scabra
Agropyron trachycaulum
Cinna latifolia
Beckmannia syzigachne
Scolochloa festucacea
Bromus inermis
Glyceria grandis
Phleum pratense
Hordeum jubatum

Ericaceae

Vaccinium vitis-idaea
Ledum groenlandicum
Chamaedaphne calyculata
Kalmia polifolia
Oxycoccus quadripetalus

Caprifoliaceae

Lonicera caerulea
Viburnum trilobum
Viburnum edule

Twinflower
Twining honeysuckle
Western snowberry, buckrush

Horsetail family
Common horsetail
Common scouring-rush
Meadow horsetail
Swamp horsetail

Hornwort family
Hornwort

Lily family
Fairybells
Star-flowered solomon's-seal
Three-leaved solomon's-seal

Madder family
Cleaver
Northern bedstraw
Small bedstraw
Sweet-scented bedstraw

Maple family
Manitoba maple, box elder
White maple

Mint family
Field mint
Marsh hedge-nettle
Marsh skullcap
Northern water-horehound

Mustard family
Bitter crest
Dog mustard
Indian mustard
Marsh yellow cress
Shepherd's-purse
Stinkweed
Wild mustard

Nettle family
Stinging nettle

Oleaster family
Canada buffaloberry

Olive family
Green ash

Linnaea borealis
Lonicera dioica
Symphoricarpos occidentalis

Equisetaceae
Equisetum arvense
Equisetum hyemale
Equisetum pratense
Equisetum fluviatile

Ceratophyllaceae
Ceratophyllum demersum

Liliaceae
Disporum trachycarpum
Smilacina stellata
Smilacina trifolia

Rubiaceae
Galium labradoricum
Galium septentrionale
Galium trifidum
Galium triflorum

Aceraceae
Acer negundo
Acer spicatum

Labiatae
Mentha arvensis
Stachys palustris
Scutellaria galericulata
Lycopus uniflorus

Cruciferae
Cardamine pennsylvanica
Erucastrum gallicum
Brassica juncea
Rorippa islandica
Capsella bursa-pastoris
Thlaspi arvense
Brassica kaber

Urticaceae
Urtica dioica

Elaeagnaceae
Shepherdia canadensis

Oleaceae
Fraxinus pennsylvanica

Parsley family

Bulb-bearing water-hemlock
Cow-parsnip
Smooth sweet cicely
Water-hemlock
Water-parsnip

Pea family

American vetch
Canadian milk-vetch

Pine family

Balsam fir
Black spruce
Tamarack
White spruce

Pink family

Blunt-leaved sandwort
Long-leaved stitchwort
Northern stitchwort

Pitcherplant family

Pitcherplant

Plantain family

Common plantain

Pondweed family

Leafy pondweed
Richardson's pondweed
Sheathed pondweed

Primrose family

Northern starflower
Tufted loosestrife

Rose family

American wild strawberry
Cloudberry
Dewberry
Marsh cinquefoil
Narrow-leaved meadowsweet
Pin cherry
Prickly rose
Red-fruited choke cherry
Rough cinquefoil
Saskatoon
Silverweed
Shrubby cinquefoil
Smooth wild strawberry

Umbelliferae

Cicuta bulbifera
Heracleum lanatum
Osmorhiza longistylis
Cicuta maculata
Sium suave

Leguminosae

Vicia americana
Astragalus canadensis

Pinaceae

Abies balsamea
Picea mariana
Larix laricina
Picea glauca

Caryophyllaceae

Arenaria lateriflora
Stellaria longifolia
Stellaria calycantha

Sarraceniaceae

Sarracenia purpurea

Plantaginaceae

Plantago major

Zosteraceae

Potamogeton foliosus
Potamogeton richardsonii
Potamogeton vaginatus

Primulaceae

Trientalis borealis
Naumburgia thyrsoiflora

Rosaceae

Fragaria vesca
Rubus chamaemorus
Rubus pubescens
Potentilla palustris
Spiraea alba
Prunus pennsylvanicus
Rosa acicularis
Prunus virginiana
Potentilla norvegica
Amelanchier alnifolia
Potentilla anserina
Potentilla fruticosa
Fragaria virginiana

Stemless raspberry
Wild red raspberry

Rush family
Knotted rush

Sandalwood family
Northern comandra

Saxifrage family
Bishop's-cap
Northern black currant
Northern gooseberry
Skunkberry
Swamp gooseberry
Swamp red currant
Wild black currant

Sedge family
Awned sedge
Beaked sedge
Bog sedge
Creeping spike-rush
Cyprus-like sedge
Dewey's sedge
Golden sedge
Great bulrush
Hairy-fruited sedge
Mud sedge
Prostate sedge
Russet cotton-grass
Sheathed cotton-grass
Short sedge
Slender cotton-grass
Small-fruited bulrush
Two-seeded sedge
Water sedge
Woolly sedge
Viscid great bulrush

St. John's-wort family
Marsh St. John's-wort

Sundew family
Round-leaved sundew

Touch-me-not family
Spotted touch-me-not

Violet family
Kidney-shaped violet

Rubus acaulis
Rubus idaeus

Juncaceae
Juncus nodosus

Santalaceae
Geocaulon lividum

Saxifragaceae
Mitella nuda
Ribes hudsonianum
Ribes oxycanthoides
Ribes glandulosum
Ribes lacustre
Ribes triste
Ribes americanum

Cyperaceae
Carex atherodes
Carex rostrata
Carex paupercula
Eleocharis palustris
Carex pseudo-cyperus
Carex deweyana
Carex aurea
Scirpus validus
Carex lasiocarpa
Carex limosa
Carex chordorrhiza
Eriophorum chamissonis
Eriophorum spissum
Carex canescens
Eriophorum gracile
Scirpus microcarpus
Carex disperma
Carex aquatilis
Carex lanuginosa
Scirpus acutus

Guttiferae
Hypericum virginicum

Droseraceae
Drosera rotundifolia

Balsaminaceae
Impatiens capensis

Violaceae
Viola renifolia

Long-spurred violet

Viola selkirkii

Water-lily family

Small water-lily

Yellow pond-lily

Nymphaeaceae

Nymphaea tetragona

Nymphaea variegatum

Water-milfoil family

Spiked water-milfoil

Haloragaceae

Myriophyllum exalbescens

Water-plantain family

Arum-leaved arrowhead

Alismaceae

Sagittaria cuneata

Willow family

Aspen poplar

Autumn willow

Balsam poplar

Basket willow

Beaked willow

Bog willow

Cottonwood

Flat-leaved willow

Hoary willow

Pussy willow, diamond willow

Sandbar willow

Shining willow

Velvet-fruited willow

Yellow willow

Salicaceae

Populus tremuloides

Salix serissima

Populus balsamifera

Salix petiolaris

Salix bebbiana

Salix pedicellaris

Populus deltoides

Salix planifolia

Salix candida

Salix discolor

Salix interior

Salix lasiandra

Salix maccalliana

Salix lutea

Wintergreen family

Indian-pipe

One-flowered wintergreen

One-sided wintergreen

Pink wintergreen

Pyrolaceae

Monotropa uniflora

Moneses uniflora

Pyrola secunda

Pyrola asarifolia

References: Dirschl and Dabbs 1969, Looman and Best 1979

Table 2: Mammalian species of the Cumberland House area

Common name	Taxonomic designation
Antelopes, cattle, sheep, and goats American bison	Bovidae <i>Bison bison</i>
Bears American black bear Grizzly bear	Ursidae <i>Ursus americanus</i> <i>Ursus arctos</i>
Beavers American beaver	Castoridae <i>Castor canadensis</i>
Cats Lynx Mountain lion	Felidae <i>Lynx lynx</i> <i>Felis concolor</i>
Deer American elk Mule deer Moose White-tailed deer Woodland caribou	Cervidae <i>Cervus elaphus</i> <i>Odocoileus hemionus</i> <i>Alces alces</i> <i>Odocoileus virginianus</i> <i>Rangifer tarandus</i>
Dogs, foxes, and wolves Coyote Domestic dog Red fox Wolf	Canidae <i>Canis latrans</i> <i>Canis familiaris</i> <i>Vulpes vulpes</i> <i>Canis lupus</i>
Jumping mice and jerboas Meadow jumping mouse	Dipodidae <i>Zapus hudsonius</i>
Porcupines American porcupine	Erethizontidae <i>Erethizon dorsatum</i>
Rabbits and hares Snowshoe hare	Leporidae <i>Lepus americanus</i>
Raccoons and allies Raccoon	Procyonidae <i>Procyon lotor</i>
Rats, mice, and voles Common muskrat Deer mouse Gapper's red-backed vole Heather vole House mouse Meadow vole Northern bog lemming	Muridae <i>Ondatra zibethicus</i> <i>Peromyscus maniculatus</i> <i>Clethrionomys gapperi</i> <i>Phenacomys intermedius</i> <i>Mus musculus</i> <i>Microtus pennsylvanicus</i> <i>Synaptomys borealis</i>

Norway rat

Rattus norvegicus

Shrews

American water shrew
Arctic shrew
Masked shrew
Pygmy shrew

Scoricidae

Sorex palustris
Sorex arcticus
Sorex cinereus
Microsorex hoyi

Smooth-faced bats

Hoary bat
Little brown bat
Red bat
Silver-haired bat

Vespertilionidae

Lasiurus cinereus
Myotis lucifugus
Lasiurus borealis
Lasionycteris noctivagans

Squirrels

Least chipmunk
Northern flying squirrel
Red squirrel
Thirteen-lined ground squirrel
Woodchuck

Sciuridae

Eutamias minimus
Glaucomys sabrinus
Tamiasciurus hudsonicus
Spermophilus tridecemlineatus
Marmota monax

Weasels, skunks, otters, and allies

American marten
American mink
Ermine
Fisher
Least weasel
River otter
Striped skunk
Wolverine

Mustelidae

Martes americana
Mustela vison
Mustela erminea
Martes pennanti
Mustela nivalis
Lontra canadensis
Mephitis mephitis
Gulo gulo

References: Banfield 1974, Fung *et.al.* 1999, Richards and Fung 1969.

Table 3: Avian species of the Cumberland House area

Common name	Taxonomic designation
Avocets American avocet	Recurvirostridae <i>Recurvirostra americana</i>
Caracaras and falcons American kestrel Gyr falcon Merlins	Falconidae <i>Falco sparverius</i> <i>Falco rusticolus</i> <i>Falco columbarius</i>
Cormorants Double-breasted cormorant	Phalacrocoracidae <i>Phalacrocorax auritus</i>
Cranes Sandhill crane	Gruidae <i>Grus canadensis</i>
Creepers Brown creeper	Certhiidae <i>Certhia familiaris</i>
Finches American goldfinch Evening grosbeak Hoary redpoll Lapland longspur Pine siskin Purple finch Red crossbill White-winged crossbill	Fringillidae <i>Carduelis tristis</i> <i>Coccothraustes vespertina</i> <i>Acanthis homemanni</i> <i>Calcarius lapponicus</i> <i>Spinus pinus</i> <i>Carpodacus purpureus</i> <i>Loxia curvirostra</i> <i>Loxia leucoptera</i>
Goatsuckers Common nighthawk Whip-poor-will	Caprimulgidae <i>Chordeiles minor</i> <i>Caprimulgus vociferus</i>
Grebes Horned grebe Pied-billed grebe Red-necked grebe Western grebe	Podicipedidae <i>Podiceps auritus</i> <i>Podilymbus podiceps</i> <i>Podiceps grisegena</i> <i>Aechmophorus occidentalis</i>
Hérons and bitterns American bittern Great blue heron	Ardeidae <i>Botaurus lentiginosus</i> <i>Ardea herodias</i>
Hummingbirds Ruby-throated hummingbird	Trochilidae <i>Archilochus colubris</i>
Jays, magpies, and crows American crow Black-billed magpie	Corvidae <i>Corvus brachyrhynchos</i> <i>Pica pica</i>

Blue jay
Common raven
Gray jay

Kingfishers
Belted kingfisher

Larks
Horned lark

Loons
Arctic loon
Common loon

Mockingbirds and thrashers
Brown thrasher
Gray catbird

Nuthatches
Red-breasted nuthatch
White-breasted nuthatch

Old world sparrows
House sparrow

Old world warblers, kinglets, and allies
American robin
Hermit thrush
Mountain bluebird
Ruby-crowned kinglet
Swainson's thrush
Veery

Ospreys, kites, hawks, and allies
Bald eagle
Broad-winged hawk
Cooper's hawk
Golden eagle
Northern goshawk
Northern harrier
Osprey
Red-tailed hawk
Sharp-shinned hawk

Partridges, pheasants, and allies
Gray partridge
Greater prairie-chicken
Ruffed grouse
Sharp-tailed grouse
Spruce grouse
Willow ptarmigan

Cyanocitta cristata
Corvus corax
Perisoreus canadensis

Alcedinidae
Ceryle alcyon

Alaudidae
Eremophila alpestris

Gaviidae
Gavia arctica
Gavia immer

Mimidae
Toxostoma rufum
Dumetella carolinensis

Sittidae
Sitta canadensis
Sitta carolinensis

Passeridae
Passer domesticus

Muscicapidae
Turdus migratorius
Catharus guttata
Sialia currucoides
Regulus calendula
Catharus ustulata
Catharus fuscescens

Accipitridae
Haliaeetus leucocephalus
Buteo platypterus
Accipiter cooperii
Aquila chrysaetos
Accipiter gentilis
Circus cyaneus
Pandion haliaetus
Buteo jamaicensis
Accipiter striatus

Phasianidae
Perdix perdix
Tympanuchus cupido
Bonasa umbellus
Tympanuchus phasianellus
Dendragapus canadensis
Lagopus lagopus

Pelicans

American white pelican

Pigeons and doves

Mourning dove
Passenger pigeon

Plovers

Black-bellied plover
Killdeer
Lesser golden-plover
Piping plover
Semi-palmated plover

Rails, gallinules, and coots

American coot
Sora
Virginia rail
Yellow rail

Sandpipers, phalaropes, and allies

Baird's sandpiper
Buff-breasted sandpiper
Common snipe
Great yellowlegs
Hudsonian godwit
Lesser yellowlegs
Marbled godwit
Pectoral sandpiper
Ruddy turnstone
Semipalmated sandpiper
Solitary sandpiper
Spotted sandpiper
Stilt sandpiper
Wilson's phalarope

Shrikes

Northern shrike

Skuas, gulls, terns, and skimmers

Black tern
Bonaparte's gull
California gull
Caspian tern
Common tern
Forster's tern
Franklin's gull
Herring gull
Parasitic jaeger
Ring-billed gull

Pelecanidae

Pelecanus erythrorhynchos

Columbidae

Zenaida macroura
Ectopistes migratorius

Charadriidae

Pluvialis squatarola
Charadrius vociferus
Pluvialis dominica
Charadrius melodus
Charadrius semipalmatus

Rallidae

Fulica americana
Porzana carolina
Rallus limicola
Coturnicops noveboracensis

Scolopacidae

Calidris baridii
Tryngites subruficollis
Gallinago gallinago
Tringa melanoleucus
Limosa haemastica
Tringa flavipes
Limosa fedoa
Calidris melanotos
Arenaria interpres
Calidris pusillus
Tringa solitaria
Actitis macularia
Calidris himantopus
Phalaropus tricolor

Laniidae

Lanius excubitor

Laridae

Chilidonias niger
Larus philadelphia
Larus californicus
Sterna caspia
Sterna hirundo
Sterna forsteri
Larus pipixcan
Larus argentatus
Stercorarius parasiticus
Larus delawarensis

Starlings

European starling

Swallows

Bank swallow

Barn swallow

Cliff swallow

Purple martin

Tree swallow

Swans, geese, and ducks

American widgeon

Black duck

Blue-winged teal

Bufflehead

Canada goose

Canvasback

Common goldeneye

Common merganser

Common scoter

Gadwell

Greater white-fronted goose

Green-winged teal

Hooded merganser

Lesser scaup

Mallard

Northern pintail

Northern shoveler

Oldsquaw

Red-breasted merganser

Redhead

Ring-necked duck

Ross' goose

Ruddy duck

Snow goose

Trumpeter swan

Tundra swan

White-winged scoter

Wood duck

Swifts

Chimney swift

Tanagers

Western tanager

Titmice

Black-capped chickadee

Boreal chickadee

Sturnidae

Sturnus vulgaris

Hirundinidae

Riparia riparia

Hirundo rustica

Hirundo pyrrhonota

Progne subis

Tachycineta bicolor

Anatidae

Anas americana

Anas rubripes

Anas discors

Bucephala albeola

Branta canadensis

Aythya valisineria

Bucephala clangula

Mergus merganser

Oidemia nigra

Anas strepera

Anser albifrons

Anas crecca

Lophodytes cucullatus

Aythya affinis

Anas platyrhynchos

Anas acuta

Anas clypeata

Clangula hyemalis

Mergus serrator

Aythya americana

Aythya collaris

Anser rossii

Oxyura jamaicensis

Anser caerulescens

Cygnus buccinator

Cygnus columbianus

Melanitta fusca

Aix sponsa

Apodidae

Chaetura pelagica

Thraupidae

Piranga ludoviciana

Paridae

Parus atricapillus

Parus hudsonicus

Typical owls

Barred owl
 Boreal owl
 Great gray owl
 Great horned owl
 Long-eared owl
 Northern hawk-owl
 Northern saw-whet owl
 Short-eared owl
 Snowy owl

Tyrant flycatchers

Alder flycatcher
 Eastern kingbird
 Eastern phoebe
 Great crested flycatcher
 Least flycatcher
 Olive-sided flycatcher
 Traill's flycatcher
 Western wood-pewee
 Yellow-bellied flycatcher

Waxwings

Cedar waxwing

Woodpeckers and wrynecks

Black-backed woodpecker
 Downy woodpecker
 Hairy woodpecker
 Northern flicker
 Three-toed woodpecker
 Pileated woodpecker
 Yellow-bellied sapsucker

Wood-warblers, tanagers, and allies

American redstart
 Bay-breasted warbler
 Black-and-white warbler
 Blackburnian warbler
 Blackpoll warbler
 Black-throated blue warbler
 Black-throated green warbler
 Brown-headed cowbird
 Brewer's blackbird
 Canada warbler
 Cape may warbler
 Chestnut-sided warbler
 Chipping sparrow
 Clay-colored sparrow
 Common grackle
 Common yellowthroat

Strigidae

Strix varia
Aegolius funereus
Strix nebulosal
Bubo virginianus
Asio otus
Sumia ulula
Aegolius acadicus
Asio flammeus
Nyctea scandiaca

Tyrannidae

Empidonax minimus
Tyrannus tyrannus
Sayornis phoebe
Myiarchus crinitus
Empidonax minimus
Contopus borealis
Empidonax traillii
Contopus sordidulus
Empidonax flaviventris

Bombycillidae

Bombycilla cedrorum

Picidae

Picoides arcticus
Picoides pubescens
Picoides villosus
Colaptes auratus
Picoides tridactylus
Dryocopus pileatus
Sphyrapicus varius

Emberizidae

Setophaga ruticilla
Dendroica castanea
Mniotilta varia
Dendroica fusca
Dendroica striata
Dendroica caerulescens
Dendroica virens
Molothrus ater
Euphagus cyanocephalus
Wilsonia canadensis
Dendroica tigrina
Dendroica pensylvanica
Spizella passerina
Spizella pallida
Quiscalus quiscula
Geothlypis trichas

Connecticut warbler
Dark-eyed junco
Fox sparrow
Le Conte's sparrow
Lincoln's sparrow
Magnolia warbler
Mourning warbler
Northern oriole
Nashville warbler
Northern waterthrush
Orange-crowned warbler
Ovenbird
Palm warbler
Red-winged blackbird
Rose-breasted grosbeak
Rusty blackbird
Savannah sparrow
Sharp-tailed sparrow
Snow bunting
Song sparrow
Swamp sparrow
Tennessee warbler
Vesper sparrow
White-throated sparrow
Wilson's warbler
Yellow warbler
Yellow-headed blackbird
Yellow-rumped warbler

Wrens

House wren
Marsh wren
Sedge wren
Winter wren

Vireos

Philadelphia vireo
Red-eyed vireo
Solitary vireo
Warbling vireo

Oporornis agilis
Junco hyemalis
Passerella iliaca
Ammodramus caudacutus
Melospiza lincolni
Dendroica magnolia
Oporornis philadelphia
Icterus galbula
Vermivora ruficapilla
Seiurus noveboracensis
Vermivora celata
Seiurus aurocapillus
Dendroica palmarum
Agelaius phoeniceus
Pheucticus ludovicianus
Euphagus carolinus
Passerculus sandwichensis
Ammospiza caudacuta
Plectrophenax nivalis
Melospiza melodia
Melospiza georgiana
Vermivora peregrina
Poocetes gramineus
Zonotrichia albicollis
Wilsonia pusilla
Dendroica petechia
Xanthocephalus xanthocephalus
Dendroica coronata

Troglodytidae

Troglodytes aedon
Cistothorus palustris
Cistothorus platensis
Troglodytes troglodytes

Vireonidae

Vireo philadelphicus
Vireo olivaceus
Vireo solitarius
Vireo gilvus

References: Acton *et. al.* 1998, Gilbert *et. al.* 1985, Godfrey 1986, Gollop 1969, Houston 1987, Houston and Street 1959, Peterson 1990.

Table 4: Fish of the Cumberland House area

Common name	Taxonomic designation
Catfishes	Ictaluridae
Channel catfish	<i>Ictalurus punctatus</i>
Cods	Gadidae
Burbot	<i>Lota lota</i>
Minnnows and carps	Cyprinidae
Emerald shiner	<i>Notropis atherinoides</i>
Flathead chub	<i>Hybopsis gracilis</i>
Fathead minnow	<i>Pimephales promelas</i>
Longnose dace	<i>Rhinichthys cataractae</i>
River shiner	<i>Notropis blennius</i>
Spottail shiner	<i>Notropis hudsonius</i>
Mooneyes	Hiodontidae
Goldeye	<i>Hiodon alosoides</i>
Mooneye	<i>Hiodon tergisus</i>
Perches	Percidae
Logperch	<i>Percina caprodes</i>
Johnny darter	<i>Etheostoma nigrum</i>
Sauger	<i>Stizostedion canadense</i>
Walleye	<i>Stizostedion vitreum</i>
Yellow perch	<i>Perca flavescens</i>
Pikes	Esocidae
Northern pike	<i>Esox lucius</i>
Salmons, trouts, and allies	Salmonidae
Cisco, lake herring	<i>Coregonus artedii</i>
Lake whitefish	<i>Coregonus clupeaformis</i>
Sculpins	Cottidae
Spoonhead sculpin	<i>Cottus ricei</i>
Sticklebacks	Gasterosteidae
Brook stickleback	<i>Culaea inconstans</i>
Ninespine stickleback	<i>Pungitius pungitius</i>
Sturgeons	Acipenseridae
Lake sturgeon	<i>Acipenser fulvescens</i>
Suckers	Catostomidae
Longnose sucker	<i>Catostomus catostomus</i>
Quillback	<i>Carpiodes cyprinus</i>
Shorthead redhorse	<i>Moxostoma macrolepidotum</i>
Silver redhorse	<i>Moxostoma anisurum</i>

White sucker

Catostomus commersoni

Trout-perches

Percopsidae

Trout-perch

Percopsis omiscomaycus

References: Acton *et. al.* 1998, Atton and Merkowsky 1983, Scott and Crossman 1973, Willard *et. al.* 1978.

Table 5: Amphibians and reptiles of the Cumberland House area

Common name	Taxonomic designation
Pond and box turtles Western painted turtle	Emydidae <i>Chrysemys picta belli</i>
Snakes Red-sided garter snake	Colubridae <i>Thamnophis sirtalis parietalis</i>
Treefrogs and relatives Boreal chorus frog	Hylidae <i>Pseudacris triseriata</i>
True toads Canadian toad	Bufo <i>Bufo hemiophrys</i>
Typical frogs Northern leopard frog Wood frog	Ranidae <i>Rana pipiens</i> <i>Rana sylvatica</i>

References: Acton *et. al.* 1998, Conant 1958, Harding 1997.

Table 6: Freshwater molluscs of the Cumberland House area

Common name	Taxonomic designation
Fingernail and pea clams	Sphaeriidae
Adam's pea clam	<i>Pisidium adamsi</i>
Arctic-alpine fingernail clam	<i>Sphaerium nitidum</i>
Fat pea clam	<i>Pisidium rotundatum</i>
Giant northern pea clam	<i>Pisidium idahoense</i>
Globular pea clam	<i>Pisidium ventricosum</i>
Grooved fingernail clam	<i>Sphaerium simile</i>
Lake fingernail clam	<i>Sphaerium lacustre</i>
Lilljeborg's pea clam	<i>Pisidium lilljeborgi</i>
Long fingernail-clam	<i>Sphaerium transversum</i>
Perforated pea clam	<i>Pisidium punctatum</i>
Pond fingernail clam	<i>Sphaerium securis</i>
Quadrangular pill clam	<i>Pisidium milium</i>
Ridged-beak pea clam	<i>Pisidium compressum</i>
River pea clam	<i>Pisidium fallax</i>
Rusty pea clam	<i>Pisidium ferrugineum</i>
Shiny pea clam	<i>Pisidium nitidum</i>
Short-ended pea clam	<i>Pisidium subtruncatum</i>
Striated fingernail clam	<i>Sphaerium striatinum</i>
Triangular pea clam	<i>Pisidium variabile</i>
Ubiquitous pea clam	<i>Pisidium casertanum</i>
Walker's pea clam	<i>Pisidium walkeri</i>
Pearly mussels	Unionidae
Brook lasmigona	<i>Lasmigona compressa</i>
Common floater	<i>Anodonta grandis grandis</i>
Fat mucket	<i>Lampsilis radiata siliquoidea</i>
Northern floater	<i>Anodonta grandis simpsoniana</i>
White heel-splitter	<i>Lasmigona complanata</i>
Pond snails	Lymnaeidae
Amphibious fossaria	<i>Fossaria parva</i>
Blade-ridged stagnicola	<i>Stagnicola caperata</i>
Common stagnicola	<i>Stagnicola elodes</i>
Great pond snail	<i>Lymnaea stagnalis jugularis</i>
Lake stagnicola	<i>Stagnicola catascopium</i>
Modest fossaria	<i>Fossaria modicella</i>
Shouldered northern fossaria	<i>Fossaria decampi</i>
Striped stagnicola	<i>Stagnicola reflexa</i>
Ramshorn snails	Planorbidae
Broad promenetus	<i>Promenetus exacuus megas</i>
Flatly coiled gyraulus	<i>Gyraulus circumstriatus</i>
Greater carinate ramshorn	<i>Helisoma pilsbryi infracarinatum</i>
Irregular gyraulus	<i>Gyraulus deflectus</i>
Keeled promenetus	<i>Promenetus exacuus exacuus</i>
Larger prairie ramshorn	<i>Helisoma trivolvis subcrenatum</i>

Modest gyraulus
Say's toothed planorbid
Tiny nautilus snail
Two-ridged ramshorn

Spire snails

Flat-ended spire snail
Ordinary spire snail

Tadpole snails

Blunt prairie physa
Polished tadpole snail
Tadpole snail

Valve snails

Ribbed valve-snail
Three-keeled valve snail

References: Clarke 1981

Gyraulus parvus
Planorbula armigera
Armiger crista
Helisoma anceps anceps

Hydrobiidae

Probythinella lacustris
Amnicola limosa

Physidae

Physa jennessi skinneri
Aplexa hypnorum
Physa gyrina gyrina

Valvatidae

Valvata sincera sincera
Valvata tricarinata