Vickers Focus and Mortlach-
Examining Cultural Connections in the
Makotchi-Ded Dontipi Locale

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Abstract

Many of the pre-contact and early contact cultures of the Northern Plains have been the subjects of debate in archaeological circles. Mortlach and Vickers focus are no exception. One of the issues to date is the possible relationship between these two groups. A key to understanding this relationship lies in the *Makotchi-Ded Dontipi* locale in Manitoba's Lauder Sandhills. This unique "ecological island" is home to a great number of sites (Hamilton and Nicholson1999), including neighboring Vickers focus and Mortlach sites.

This study offers the results of a comprehensive analysis of the pottery assemblages recovered from the Jackson, Vera, Twin Fawns, Schuddemat and Hollow B sites of the *Makotchi-Ded Dontipi* locale. In addition, it examines the prior cultural affiliation of these sites. Though in many ways different from eastern Vickers focus assemblages, Jackson and Vera assemblages should be considered Vickers focus. Many of the discrepancies are due to the changing nature of the sites over time in conjunction with contact with neighboring Mortlach groups. Schuddemat and Twin Fawns also differ from typical Mortlach assemblages. These differences can be attributed to their location on the eastern periphery of the Mortlach spatial distribution where they came in contact with, and were likely joined by Vickers focus people.

Mortlach, Vickers focus and Wascana ware are likely all a part of a larger phenomenon of eastern Woodlands migration onto the Canadian Plains. These cultures became distinct over time through interaction with neighboring groups and exploitation of territorial resource bases. Though distinct, they share a number of similarities reflecting common ancestors. These similarities culminate in the *Makotchi-Ded Dontipi* locale where interaction between Mortlach and Vickers focus people likely resulted in the amalgamation of Vickers focus into Mortlach. This amalgamation is reflected in the pottery assemblages of Twin Fawns and Schuddemat which seem to represent a Vickers variant of the Lake Midden subphase of Mortlach.

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There are so many people that I need to thank for their help and support as I endeavored to finish this thesis. It seems almost surreal to be finishing something that has been so present in my life for so long!

There were many fellow archaeologists who helped contribute to this thesis in a variety of ways. I would like to offer thanks to Ian Brace, Leigh Syms and Gord Hill for allowing me access to their respective museum and heritage resources. Thank you to Dale Walde for providing me with both his database and personal notes for the Sanderson site and to Mary Malainey for providing insight into her vision of Mortlach and Wascana ware and for always being up for debate on the issue. I would also like to thank Dr. Matthew Boyd for providing me with access to his sample data on archaeobotanicals.

In my summer job at Saskatchewan Culture Youth and Recreation I had the opportunity to work with some outstanding archaeologists who reminded me to get my butt in gear and finish this thesis! Thanks to Carlos, John, Nathan, Kim and Evelyn. Although I was not in Saskatoon very long, I really enjoyed my time at the University of Saskatchewan. I found the professors and fellow students to be a fabulous mix of characters that reminded me that archaeologists are as wonderfully diverse as the people and artifacts that we study!

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I would not have been able to finish this project without the support and input (and patience) of Dr. Bev Nicholson. I arrived in Brandon on a greyhound bus July 1, 1997 to begin my field school. The moment that I stepped off the bus, Bev was there to greet me. He directed me to his truck and followed behind me carrying my gigantic back pack… he has been behind me ever since! At the time, I had no idea the impact that field school would have on my life. My time spent in Lauder and Belmont, Manitoba has provided me with friends and memories to last a life time. To my friends,

you know who you are, thanks for all of the amazing times spent laughing, singing, smoking, maypole dancing, debating, swatting mosquitoes, getting drenched in the rain and baking in the sun! I couldn't have picked a better crew to help me fall in love with life in the field! After saying all of this, I would be remiss not to thank Dr. Charles Watrell for handing me the pamphlet for B.U. field school and encouraging me to try it out!

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Although I have already mentioned my wonderful friends, I need to offer special thanks to a few. Tomasin- you were there through the entire process and have played any number of roles from roommate-to sounding board to- technical support. There truly are no words to express how thankful I am! James and Sarah- from the first moment we met, I knew that we would be fabulous friends! Thanks so much for all of your support and encouragement! Janette, I want say how much I appreciate your help with the editing. I also want to thank all of my friends who aren't archaeologists. Although you may think that living in a tent several months of the year is a hideous idea, you never fail to support my endeavors!

I would like to take a minute to acknowledge the SCAPE (Study of Cultural Adaptations in the Prairie Ecozone) project and the Social Sciences and Humanities Council of Canada. The experiences that I gained doing field and laboratory work with the SCAPE project have been invaluable! Projects like these help to make artificial boundaries, like borders, melt away!

To my Mom and Dad along with my "new" family- the Stolls- your love and support mean the world to me! My sisters have, as always, provided an endless amount of encouragement. They even made it out to field camp and I know that experiencing the town of Lauder, Manitoba is not something that Heather and Chris will soon forget!

When I started this process I had a plan… two years in and out! Well, if there is one thing that the past seven years has taught me is that plans change! While the arrival of my son Jacob and daughter Lilly has extended the process, it has also taught me everything about what is important in life, and in archaeology. These are not just artifacts that we study, they are imprints of families. These people have left their mark on the world just as we shall leave ours. I need to thank Jacob and Lilly for their love and understanding and for teaching me, more than anything, what life is all about.

Last, but certainly not least, I need to thank my husband. Shayne- everyday you make me grateful to have you as my husband. Your "super-daddiness" has really provided me the window of opportunity that I needed to finish this thesis. Having you beside me through it all, giving nudges where needed, made all of the difference. Although many people, including myself at times, had doubts as to whether I would ever finish this, you never seemed to doubt it for a minute. Thank you for believing me and for helping me to believe in myself! For these reasons, and a million more, I dedicate this thesis to my husband Shayne Stoll.

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Chapter One

Introduction

1.1 Statement of Objectives

The Lauder Sandhills of southwestern Manitoba provide a unique "ecological island" which is home to numerous late pre-contact sites (Hamilton and Nicholson 1999). The area is so rich in sites that it has been named the *Makotchi-Ded Dontipi* locale after a Dakota phrase meaning "the place where we live" (Nicholson and Hamilton 2001) (Figure 1.1 and Figure 1.2). The primary objective of this thesis is to provide a systematic analysis of the pottery collections from five sites located in this locale. The Vera (DiMe-25) and Jackson (DiMe- 17) sites are proposed Vickers focus sites, and Twin Fawns (DiMe-23), Hollow B (DiMe-24), and Schuddemat (DiMe-22) are sites which have been previously identified as Mortlach sites (Nicholson and Hamilton 1999). A secondary objective of this thesis is to firmly establish the cultural affiliation of these sites based on their pottery remains. This objective will be achieved by comparing the pottery assemblages from the sites in question with sites that have previously established cultural affiliations such as the Sanderson site in southeastern Saskatchewan.

Figure 1.1 Map Depicting Location of Manitoba's Lauder Sandhills

Certain of the late pre-contact and early contact cultures of the Northern Plains, which have been defined by archaeologists, have been the subjects of differing

interpretations. Two such groups are Vickers focus and Mortlach. Over the past few years, there have been questions raised about the manner in which these cultures have been defined, their relationship to each other, and their possible origins. Contributing further to the dilemma is the debate over the nature of Mortlach pottery itself: some believe that the all-encompassing term Mortlach includes more than one archaeological culture. For instance, Malainey (1991, 1995) feels that it should be more accurately be divided in two - Mortlach ware and Wascana ware representing the pottery of the Mortlach and Moose Jaw cultures respectively. The third and final objective of this thesis is to use the information derived from the analysis of the sites in the Lauder Sandhills to contribute meaningfully to a conversation about the nature of the relationship between Vickers focus and Mortlach and/ or Moose Jaw. Because of the unique nature of the Lauder Sandhills with the relatively close proximity of the sites in both time and space, the key to uncovering important clues about this relationship may lie in the *Makotchi-Ded Dontipi* locale.

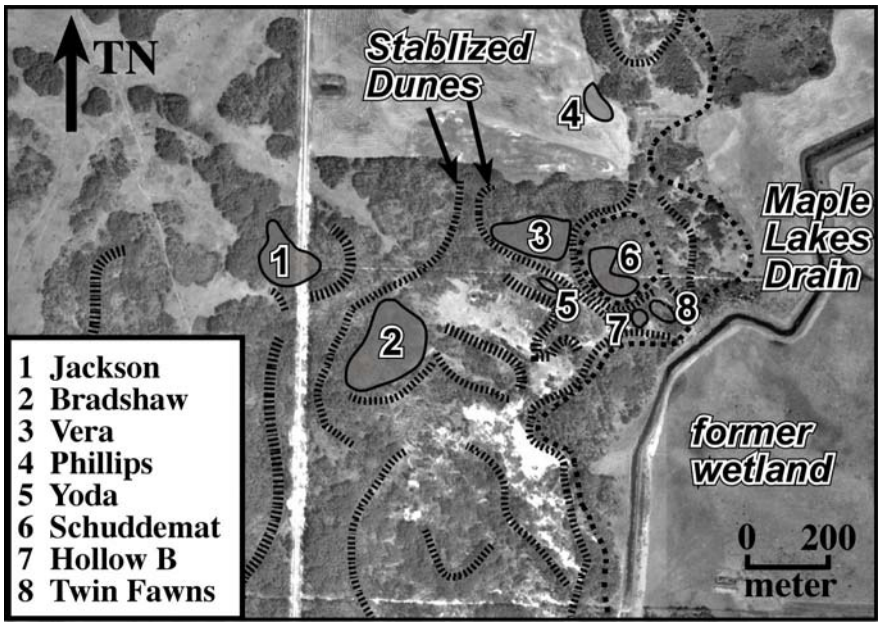

Figure 1.2 *Makotchi-Ded Dontipi* Locale
(Hamilton and Nicholson 2006b)

1.2 Chapter Summary

Chapter 1 is an introduction to the proposed Vickers Focus and Mortlach phase sites whose pottery assemblages will be examined in this thesis. This chapter provides a

brief introduction to the problems surrounding site designation. The objectives of this thesis are presented along with a chapter summery.

Chapter 2 presents the location and nature of each of the sites examined in this thesis and provides a map pinpointing the location of the sites discussed within. A brief synopsis of the biophysical environment of the major sites is also provided.

Chapter 3 provides a synopsis of previous Vickers focus publications and research. It examines the two major clusters of Vickers focus sites in Manitoba and explores the subsistence strategies and general characteristics of Vickers focus pottery. In addition, Chapter 3 looks at possible precursors to Vickers focus and examines several proposed explanations to what may have become of the people who made this pottery.

Chapter 4 summarizes Northern Plains' literature on Mortlach and Moose Jaw. It also explores in depth the debate surrounding Mortlach and Wascana wares, providing a brief synopsis of the characteristics of Mortlach and Wascana ware as described by Malainey (1991, 1995) and Walde (1994).

Chapter 5 explains the research methodology that was carried out in the examination of the pottery collections for this thesis. It provides a brief explanation as to why the methodology was chosen and outlines how each collection was analyzed.

Chapter 6 is a comprehensive summary of the pottery assemblages of the Jackson and Vera sites. These are the two sites being examined in this thesis that have been previously published as Vickers focus sites. In addition to providing a summary of the Jackson and Vera pottery, this chapter briefly explores some of the similarities and differences of these collections.

Chapter 7 provides a comprehensive summary of the pottery recovered from the Schuddemat, Twin Fawn and Hollow B sites of southern Manitoba. It has been suggested that these three sites may in fact be one large site that was occupied at different periods over a short period of time (Scott Hamilton, personal communication 2006). This chapter examines the appropriateness of amalgamating the three sites under a single site designation.

Chapter 8 uses the pottery analysis presented in Chapters 6 and 7 to assign cultural affiliations to the Jackson, Vera, Schuddemat, Twin Fawns and Hollow B sites.

The pottery assemblages from the Twin Fawns and Schuddemat sites are compared with those from the Sanderson and Long Creek sites in southeastern Saskatchewan. In addition, Chapter 8 examines the cultural connections of the people who inhabited the *Makotchi-Ded Dontipi* locale. It looks at possible relationships between the Mortlach and Vickers Focus groups by examining pottery assemblages from the sites, subsistence strategies and other aspects of material culture.

Chapter Nine provides a summary of the results of the pottery analysis and discussion carried out by this thesis. Conclusions regarding the nature and extent of the relationship between Vickers focus and Mortlach are also presented along with recommendations for further research.

Additional information of the pottery assemblages from the Jackson, Vera, Twin Fawns, Schuddemat and Hollow B sites can be found in Appendices A and B. Appendix A provides tables containing the data collected from the analysis of the pottery collections. Appendix B is a compilation of photographs of each of the individual vessels recovered from these sites.

Chapter Two

The Study Area

2.1 Introduction

The five archaeological sites being investigated in this thesis are all located in the Lauder Sandhills of southwestern Manitoba (Figure 1.1). This chapter provides a very brief synopsis of the physical environment of the Lauder Sandhills. In addition, it explores briefly where the Jackson, Vera, Schuddemat, Twin Fawns and Hollow B sites are located within the area and how they relate to each other spatially.

2.2 The Lauder Sandhills

The Lauder Sandhills are located in the southwest corner of Manitoba near the town of Lauder (Figure 1.1). One hundred kilometers southwest of Brandon, the sandhills are approximately 60 km north of the Canada/U.S. border. The Lauder Sandhills are an ecologically diverse region of stabilized sand dunes which are home to a large variety of wildlife and vegetation. The sandhills are located within the glacial Lake Hind basin which was formed around 12,000 years ago when meltwater became trapped between the Manitoba Escarpment and the Laurentian ice front (Sun and Teller 1997; Hamilton and Nicholson 1999:8). The sandhills were "formed by wind erosion of abandoned deltas along the west (windward) side of the glacial lake basin" (Hamilton 2004). The fine silts and sand deposits of the Lake Hind basin along with the well drained sand and silt of the Souris River basin formed the Oak Lake Aquifer which underlies the Lauder Sandhills (Hamilton and Nicholson 1999:9).

An extensive floral and fauna inventory of the modern day Lauder Sandhills Wildlife Management Area was carried out by Hohn and Parson (1993:3) in 1992. In addition, a comprehensive list of flora and vertebral faunal species from this ecologically

diverse region was compiled by Tomasin Playford (2002:164-185). The Lauder Sandhills are comprised of three different habitats- sandhill, grassland and aspen forest (Playford 2001:14). Each habitat supports a wide array of vegetation. "These habitats… provide refuge for a wide variety of animal species including bison, cervids, rodents, birds, amphibians, reptiles and fish" (Playford 2001:14). The current hydrology and vegetation in the Lauder Sandhills are very different today than they would have been when the sites in the area were occupied (Hamilton 2004).

An early vegetation map by E.T. Seton shows that "prior to European homestead agricultural settlement (before ca. 1880), much of southern Manitoba was grassland with widely dispersed forest groves in places protected from chronic prairie fires…" (Figure 2.1) (Hamilton 2004; Hamilton, Nicholson and Wiseman 2006). In order to gain a more accurate view of the environment of the Lauder Sandhills prior to European settlement, Hamilton and Nicholson (1999) went to great lengths to produce a paleo-environmental reconstruction of the study area. Reconstruction methods included, but were not limited to, reviewing historical maps and documents, consulting aerial photos from the 1940s and "mapping proxies of past hydrological and vegetative conditions…" (Hamilton and Nicholson, 2006b). They found that prior to 1969, when a drainage canal was excavated from the Maple Lakes to the Souris River, water levels within the Oak Lake aquifer were much higher than they are today. This resulted in scattered wetlands interspersing the stabilized sand dunes. "These former wetlands consisted of sedge-willow wetlands or small pothole lakes surrounded by aspen groves and mixed grass prairie. The wetlands supported stands of willow, river birch and other water-loving trees and shrubs" (Hamilton and Nicholson 1999:14).

> This surface water supported concentric rings of wetland vegetation (bullrushes, sedges), water-loving trees (willows), and other arboreal plants. These wetland micro-habitats reduced wind velocity, enabling blowing sand to accumulate in dunes to the windward of the wet vegetation. This offered further protection from fire, reduced evaporation and promoted the maintenance of deciduous forest. In turn, this augmented the size and richness of the forest-wetland microhabitats (Hamilton 2004).

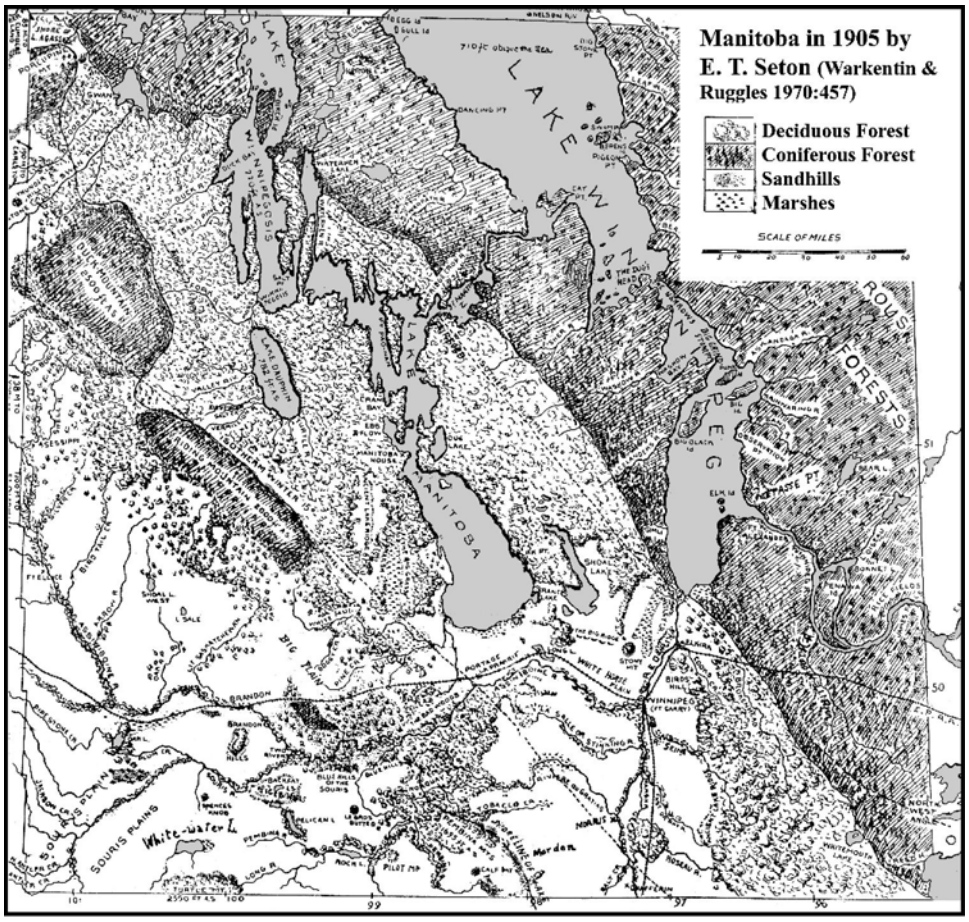

Figure 2.1 E.T. Seton's 1905 vegetative thematic map of southern Manitoba (Hamilton, Nicholson and Wiseman 2006:289)

According to this ecological reconstruction, the Lauder Sandhills were a veritable "ecological island" of mixed forest, wetland and meadow surrounded by mixed grass prairie (Hamilton and Nicholson 1999). Pothole water sources made water readily available. This would have been a very important key to attracting groups to the area as the nearest major water source, the Souris River, is approximately 4 km away (Playford 2001:7). In addition to the pothole water sources, an 1881 Dominion Land Survey map (Figure 2.2) depicts the presence of a lake within the Lauder Sandhills which is adjacent to a number of archaeological sites in the *Makotchi-Ded Dontipi* locale. Therefore the Lauder Sandhills would have supported a diversity of both plant and animal species and provided shelter in the winter months. This would have made the Lauder Sandhills a prime location to camp all year round.

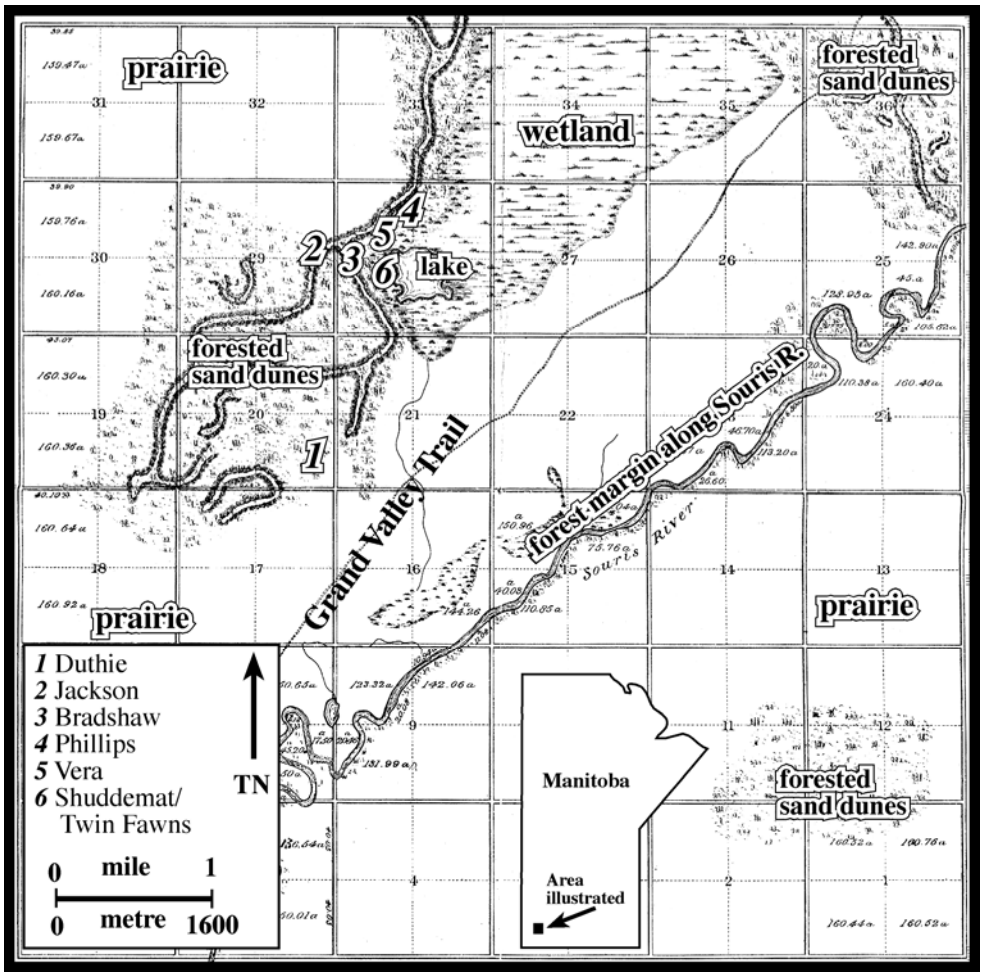

Figure 2.2 Southwest portion of Lauder Sandhills in 1881 (DLS Township Plan for T.5, R.25, W1 by S.L. Brabazon from Hamilton et al. 2006:295)

2.3 The Sites of *Makotchi Ded-Dontipi*

Aside from being rich in natural resources, the Lauder Sandhills are also rich in archaeological resources. Figure 2.2 depicts just a sample of the many sites that have been recorded there during the past twenty years. This thesis is primarily concerned with the pottery recovered from the Jackson (DiMe-17), Vera (DiMe-25), Twin Fawns (DiMe-23), Schuddemat (DiMe-22) and Hollow B (DiMe-22) sites.

The Jackson site is located in a wooded area west of the Maple Hill municipal road. The site was discovered in 1993 when road construction cut through the site, unearthing artifacts. A small section of the site lies east of the portion that was destroyed by road construction (Playford 2001:4).

> Although found in the sandhills, the Jackson site is not characterized by dramatic local relief. Instead, the area is composed of gently undulating topography formed by a series of shallow hollows and localized knolls. The southern edge of the site is flanked by a winding stabilized sand dune while the northern edge is just south of relatively open prairie (Hamilton and Nicholson 1999:16-20).

The Vera site is located approximately 1 km northeast of the Jackson site and like Jackson, the Vera site has quite a gentle topography. This site is located on a "series of low sand dunes overlooking extensive wetlands" (Figure 2.4)(Hamilton and Nicholson 2006b:20)

The Twin Fawns, Schuddemat and Hollow B sites are located southeast of the Jackson and Vera sites (Figure 2.2). All three of these sites are located in hollows surrounded by stabilized sand dunes. The Twin Fawns site "is located within a small flat-bottomed meadow surrounded by stabilized sand dunes…with a large now-dry wetland and shallow lake complex immediately to the east… The protective sand dunes and wetlands likely promoted localized forest cover, with low areas within the meadow itself being periodically wet…" (Hamilton and Nicholson, 2006b). The Hollow B is a relatively small site located in a hollow to the southwest of Twin Fawns and to the north/northwest is the Schuddemat site. It is probable that the meadows in which these sites are located were "intermittently wet and forested prior to homesteading and especially prior to the Maple Lakes Drainage Canal being excavated" (Scott Hamilton, personal communication 2007). It has been proposed that these three sites may actually make up one large site that was occupied at different periods over a short period of time (Scott Hamilton, personal communication 2007). For the purpose of this thesis they will be treated as separate sites with some attention given to the possibility that they may, in fact, constitute a single site.

2.4 Summary

The archaeological sites that this thesis focuses on are just five of the numerous sites located throughout the Lauder Sandhills. This area provided a wide array of natural plant and animal resources for its inhabitants, easy access to pothole water sources and "valuable winter shelter and forage for bison and their human predators" (Hamilton and

Nicholson 2006b). With this being said, it is not surprising to find a large number of archaeological sites located in this “ecological island” (Hamilton and Nicholson 1999) of southwestern Manitoba.

Chapter Three

The Vickers Focus

3.1 Introduction

In 1993, avocational archaeologists Doug Jackson and Ray Bradshaw discovered pottery, lithics and bones unearthed by road construction in the Lauder Sandhills. They approached Dr. Bev Nicholson (Brandon University) and Dr. Scott Hamilton (Lakehead University) with their recoveries from what would later be labeled the Jackson site (DiMe- 17). Upon initial examination, Dr. Nicholson identified the pottery sherds as being very similar to some of those recovered from the Lowton site (DiLv-03), the type site for the Vickers Focus. The Lowton site is located in south central Manitoba (Nicholson and Malainey 1995:87) (Figure 3.1). Although Dr.'s Nicholson and Hamilton had already begun preliminary investigation into the archaeology of the Lauder Sandhills, this discovery prompted extensive survey and excavation of the region which they would later label *Makotchi-Ded Dontipi* (Figure 3.1).

The primary goal of this thesis is to provide a comprehensive analysis of the pottery collections from five of the *Makotchi-Ded Dontipi* sites, including the Jackson and Vera sites. In addition to carrying out a systematic analysis of the pottery from these sites, an attempt will be made to demonstrate if these pottery assemblages do indeed fit into what has been defined as the Vickers focus. In order to demonstrate the appropriateness of this taxonomic assignment we must first look at what is known about Vickers focus. This chapter provides a brief synopsis of published material on Vickers focus. Although this thesis has not yet demonstrated that Jackson and Vera contain Vickers focus components, there has been much published on Vickers focus which

includes these two sites. As a result, they will be discussed throughout this chapter as being a part of the Vickers focus.

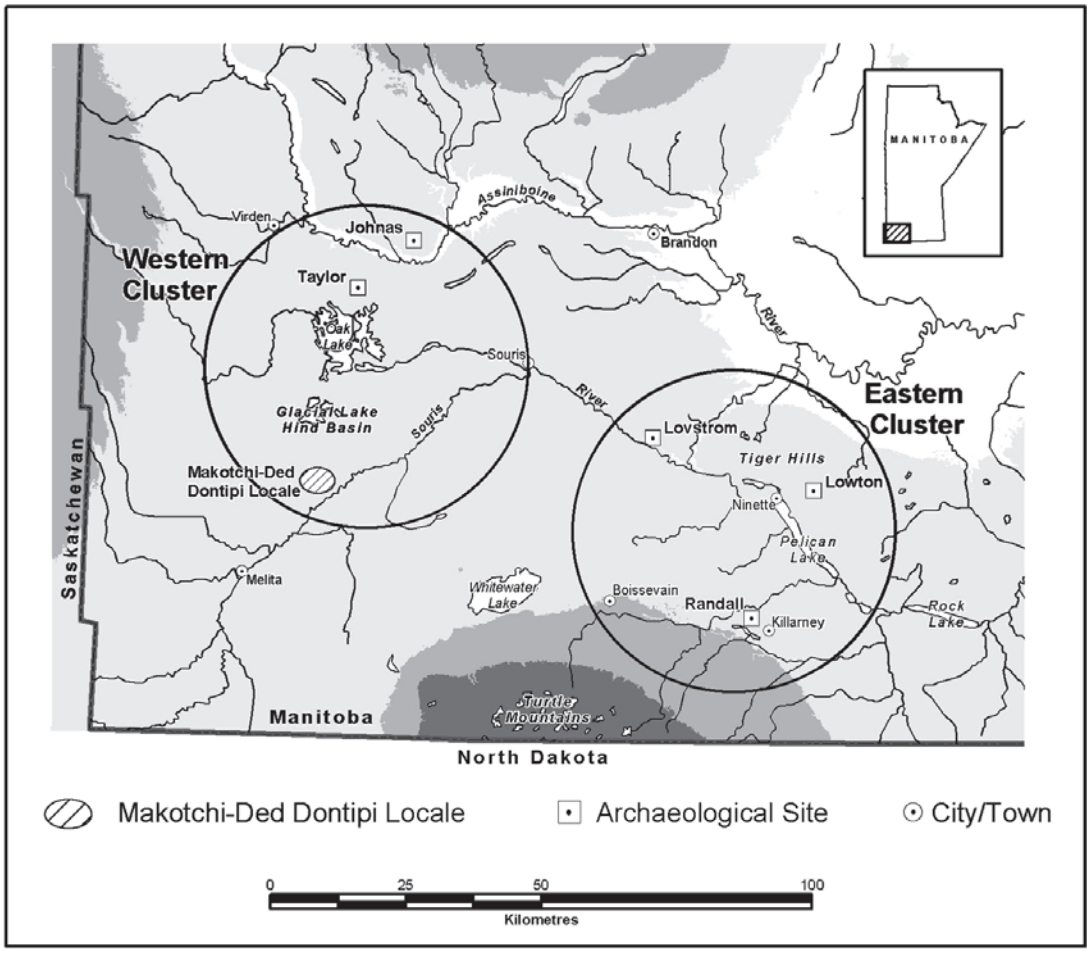

Figure 3.1 Vickers focus sites in southern Manitoba
(Playford and Nicholson 2001:402)

3.2 Vickers Focus

As an avocational archaeologist, Chris Vickers carried out a lot of valuable work in Manitoba in the 1940s and 50s which paved the way for much of the archaeological research to come. Through his work in the Pelican Lake and Rock Lake areas of southern Manitoba he defined two "village cultures"- Rock Lake Focus and Pelican Lake Focus (Vickers 1949). In 1945 Vickers described the pottery from the Lowton site and suggested that it had a Woodland affiliation. "The Lowton site, with its Pelican Lake culture, may well be an eastern base of a people that drifted west; an early home of

one of the historic tribes that later roamed the high plains of Saskatchewan or Alberta" (Vickers 1949:12). In 1991, Dr. Bev Nicholson proposed the renaming of Pelican Lake Focus to Vickers Focus (1991:167). Because Pelican Lake is a taxonomic term for both a projectile point type and cultural phase with no relationship to Vickers focus, Nicholson thought it best to avoid confusion and rename the focus after Chris Vickers.

Since the late 1980's, Nicholson and Hamilton have been intensively studying the Vickers Focus of southern Manitoba. Based upon their work, a number of statements have been made about the lifeways of these people and their possible ancestors. Vickers Focus sites have been found in two "clusters" in southern Manitoba- an eastern cluster and a western cluster (Nicholson and Hamilton 1997:24) (Figure 3.1).

3.2.1 Eastern Vickers Focus

The eastern cluster of Vickers focus components is made up of the Lowton, Lovstrom, and Randall sites (Figure 3.1). These sites are located in the Tiger Hills/ Killarney Plain of Manitoba (Nicholson and Hamilton 1997:24). "All of these sites are situated on warm soils at some distance from major waterways and are dependent upon potholes as water sources" Nicholson and Hamilton (1997:24).

Lowton, the Vickers Focus type site, is located in a cultivated field which has been surface collected for over 70 years. In spite of this, over 60 years after Vickers (1945) first worked on it, the site is still rich enough to warrant further excavations. As the largest site in the eastern cluster, Lowton covers an estimated 10 to 15 ha (Nicholson and Hamilton 1997:27). Lovstrom and Randall are both considerably smaller sites. It has been suggested that Lowton may be a large central village with the smaller Lovstrom and Randall sites as associated logistical camps (Nicholson and Hamilton 1997:30). Lowton appears to be the central site of a "centre-based settlement strategy supported by a combination of hunter-gatherer and small-scale horticultural practice" (Nicholson and Hamilton 2001:53).

The pottery recovered from the Lowton site has formed the diagnostic base from which all other Vickers Focus sites have been defined (Nicholson and Hamilton 1997:24). A majority of the ceramics recovered seems to be consistent with plain wares found in Mississippian sites though some resemble wares from the Middle Missouri region. In addition to this, many of the vessels fit the overall description of Sandy Lake

Ware (SLW) though much of the decoration is consistent with the pottery of the Scattered Village Complex of North Dakota (Anfinson 1979; Ahler and Meher 1984 as cited in Nicholson and Hamilton 1997:27). There are also vessels with animal effigy tabs and rim decoration indicating the practice of "quartering vessels" (Nicholson and Hamilton 1997:27). What is evident from the description of the vessels recovered from Lowton is that the ceramic assemblage is quite diverse. This diversity is surprisingly consistent with what has been found at other Vickers Focus sites (Nicholson and Hamilton 1997).

In addition to the pottery, which seems to indicate a strong relationship to village cultures to the south, there has also been some evidence of horticulture recovered. This evidence includes the recovery of a modified scapula and grinding stones at the Lovstrom site (Nicholson 1990:38).

> Evidence of horticultural activities at the Lovstrom site is circumstantial and hard evidence remains elusive. The presence of ceramics with affiliations to groups which practiced horticultural activities elsewhere (Nicholson 1991:169) and the scapula hoe recovered in 1987 remains the best evidence of horticulture at the Lovstrom site (Nicholson 1990; Nicholson and Malainey 1991:90-91).

In addition, two different types of stone hoes were recovered from the Lowton site (Nicholson and Malainey 1995:97).

Additional research carried out by members of the SCAPE (Study of Cultural Adaptations in the Prairie Ecotone) project has produced further evidence to suggest that the Vickers focus peoples were horticulturalists. Over the course of collecting ethnographic data, Brian Scribe had the opportunity to interview Elder Dave Daniels, an elder from the Long Plain First Nation. Mr. Daniels recalled a story that his father had told him about a group of Indians that once lived in the Tiger Hills that were agricultural. Mr. Daniel's account fits with what is suspected about the Vickers focus. He recalled the story of a different type of Indian, possibly Mandan, who were an agrarian people. They lived in the Tiger Hills area, along south facing banks, and were picked on by others. (Oral Interview of Elder Dave Daniels by Mr. Brian Scribe as cited in Nicholson, Wiseman, Hamilton and Nicholson 2006:326). Nicholson and colleagues point out that although Daniels suggests a possible Mandan connection, the pottery from

the Vickers focus sites fit more closely with the Hidatsa (Nicholson and Hamilton 2001:69; Nicholson, Wiseman, Hamilton and Nicholson 2006:326).

In addition to this ethnographic account, new archaeobotanical research by Matthew Boyd and Clarence Surette also supports the likelihood that horticulture was carried out by the Vickers focus. Analysis of archaeobotanical remains from archaeological features and carbonized food residue from pot sherds has shown the presence of both corn (Z. *mays*) and common beans (P. *vulgaris*) from Vickers focus sites in both the eastern and western clusters (Boyd, Surette and Nicholson 2006:1135). The presence of these foods that were staples in large village sites of the Northern Plains helps to strengthen the connection between the Vickers focus and their more sedentary neighbours to the south though Boyd and colleagues do point out a few key differences between the areas. Differences include the lack of evidence of semi-sedentary settlement in the Vickers focus sites along with limited evidence of horticultural implements. They suggest that if horticulture was being carried out in the area that it was probably non-intensive. In addition they introduce the alternate possibilities that maize may have entered the area through trade and exchange and/or short-term village dispersal (Boyd et al. 2006: 1137-1138). Nicholson and colleagues support the idea that the Vickers focus people were conducting small scale horticulture.

> Given that the proposed human antecedents of the Vickers people were familiar with horticultural practice, and that the archaeological and ethnographic evidence indicate corn production in the region during the Precontact and protocontact period, local production of small fields of corn seems likely. This information is also supported by the account of Dave Daniels (Nicholson, Hamilton, Running and Nicholson 2006)

It is proposed that the sites in the Tiger Hills region probably represent an immigration of people from the Eastern Woodlands into the area (Nicholson 1991; Nicholson et al. 2006). The ceramics at the Vickers Focus sites show ties to Sandy Lake, Oneota, Scattered Village Complex and the Initial Middle Missouri peoples, all of whom engaged in horticulture as a part of their regular subsistence strategy (Nicholson 1996). The ceramics, site location, and recovery of associated horticultural paraphernalia such as bison scapula and stone hoes and milling stones all point to the fact that horticulture may have been carried out at these eastern sites (Nicholson 1990;

1991). Ethnographic accounts along with archaeobotanical evidence of the presence of corn and beans at these sites serve to further this argument. In addition, the presence of an abundance of exotic lithic materials such as Knife River Flint (KRF), Tongue River Silicified Sediment and Catlinite as both lithic debitage and finished tools in these possible horticultural sites indicates firmly established trade and travel connections to the immediate south (Nicholson and Malainey 1991:87). The dates of these Vickers Focus sites in the Tiger Hills region cluster around 500 BP (Table 3.1).

Table 3.1 Vickers Focus Radiocarbon Dates

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Eastern Cluster: Tiger Hills

Site	Lab #	Uncorrected Age	Normalized Age	Calibrated Age
Lowton	S-3459	510 +/- 110	590 +/- 110	-
Lowton	TO-9215	350 +/- 80	-	1515 A.D.
Lowton	TO-9216	440 +/- 80	-	1440 A.D.
Lowton	TO-9217	390 +/- 50	-	1475 A.D.
Lovstrom	SFU- no #	380 +/- 50	460 +/- 55	-
Lovstrom	S- 3032	405 +/- 110	485+/- 110	-
Lovstrom	S- 3033	465 +/- 100	545 +/- 100	-

Western Cluster: *Makotchi-Ded Dontipi* locale

Site	Lab #	Normalized Age	Calibrated Age
Jackson	Beta 83865	290 +/- 50	1645 A.D.
Jackson	Beta 83864	300 +/- 70	1640 A.D.
Jackson	Beta 82792	410 +/- 60	-
Jackson	Beta 82795	330 +/- 60	-
Vera	Beta 106109	340 +/- 60	-
Vera	Beta 111141	250 +/- 50	-

==========

3.2.2 Western Vickers Focus

Hamilton and Nicholson suggest that among the autonomous groups expanding into Manitoba after 1200 AD there was a pattern of gradual abandonment of Plains Village- Woodland economies in favor of a Plains-oriented one which relied heavily on bison hunting (1999:8). They feel that the eastern cluster of Vickers Focus sites represents part of this northern expansion and that over time and space, the Vickers

Focus sites indicate a transgressive shift in subsistence strategy. It is unknown why the people left the Tiger Hills and moved westward but the reason may lie in climatic changes (Nicholson and Hamilton 2001:68-69; Nicholson et al. 2006). It has been argued that a sudden and drastic cold spike during the Little Ice Age may have forced the Vickers focus people to relocate and alter their subsistence strategy (Nicholson, Wiseman, Hamilton and Nicholson 2006:325) As the peoples who produced the Vickers Focus occupations moved westward, they seemingly abandoned the centre-based settlement in favor of one that was more "central-place", an "intensive forager strategy that focused upon resource extraction task groups being dispatched from a seasonal site into a biologically diverse forest/ prairie/ wetland locality (Nicholson and Hamilton 2001:70).

The western cluster of Vickers Focus sites includes Jackson, Vera, Johnas and Bradshaw (Figure 3.1). With the exception of the Johnas site, all of the other western Vickers Focus sites are located in the *Makotchi-Ded Dontipi* locale in the Lauder Sandhills of southwestern Manitoba. The Johnas site is north of the town of Oak Lake on the northern side of the Assiniboine River. The Vickers focus sites in the *Makotchi-Ded Dontipi* locale date approximately 100 years later than those to the east, with dates clustering around 350 BP (Table 3.1) (Nicholson and Hamilton 1999:15). Consistent with the eastern grouping, these sites to the west are also characterized by large sites with unconventional site placement away from primary river systems (Nicholson and Hamilton 1997:24).

Although the ceramics from all of the Vickers Focus sites seem quite similar, there are some differences in other material remains between the two clusters of sites. For instance, although obsidian, Knife River Flint (KRF) and Tongue River Silicified Sediment (TRSS) have been recovered from *Makotchi-Ded Dontipi* sites, there has been no Catlinite found. In addition, there have been no ceramic effigy vessels or Knife River Fine ware vessels recovered from the western sites (Nicholson and Hamilton 1997:30).

Another difference between the eastern and western clusters appears to be in subsistence strategies. There is no direct evidence of horticultural activity at the *Makotchi- Ded Dontipi* sites (Nicholson 1996; Nicholson and Hamilton 1997; Hamilton and Nicholson 1999) though recent work by Boyd and Surette has shown the presence of

both corn (Z. *mays*) and common beans (P. *vulgaris*) at the Vera site (Boyd et al. 2006). Faunal analysis of both the Jackson and Vera sites carried out by Tomasin Playford demonstrates that these sites' inhabitants were heavily reliant on bison procurement (Playford 2001:146; Playford and Nicholson 2006:399). In addition, "their diet was supplemented with a variety of other game including small and micro-vertebrates" (Playford 2001:146). Although there are signs of supplementation, bison was by far the predominant food source at both Jackson and Vera (Playford and Nicholson 2006:399).

In the western Vickers focus sites, there appears to a shift towards a more Plains-adapted subsistence strategy.

> While horticulture appears to have played a supporting role in the Tiger Hills region, the sites located in southwestern Manitoba at *Makotchi-Ded Dontipi* (Dakota translation of the phrase "the place where we live"), indicate a shift to an intensive forager economy. The new strategy seems to have relied fully upon intensive exploitation of seasonal resources available in the surrounding environment, although cultigens may have continued to play a minor role either through trade with the Middle Missouri Village tribes or limited local production (Nicholson and Hamilton 1999:11).

In short, Nicholson and Hamilton (1997:31) propose that the appearance of the Vickers Focus sites in the Tiger Hills/ Killarney Plain region reflect a northerly expression of Plains Woodland/ Plains Village expansion and that sometime before AD 1500 this area was abandoned. The Vickers Focus peoples moved westward into the rich econiche of the Lauder Sandhills where they employed a subsistence strategy geared towards intensive hunting and gathering which may have been supported by small scale horticulture (Nicholson, Hamilton, Running and Nicholson 2006). "The new adaptive strategy continued to support their more complex social structure in some measure, but it also led to a shift from a central place economy to a more transient centre based economic strategy" (Nicholson and Hamilton 1999:15).

3.3 Vickers Focus Pottery

Although the two clusters of Vickers Focus sites do appear to have differences in some of their material remains, the pottery found at these sites is quite similar (Table 3.2). In general, Vickers Focus pottery is made with a variable but well worked paste

(Nicholson 1996:78). Although the vessels do share traits with other cultural wares, Nicholson (1991:171) states that based upon paste characteristics and quality of workmanship, the vessels seem to be locally manufactured. Possible exceptions to this are the Fort Yates Cord-Marked vessels (Nicholson 1990) and the Knife River Fine ware recovered from Lowton (Nicholson and Hamilton 1997:27). The vessels are usually tempered with sand though fine grit temper is also found. In addition, some shell-tempered ceramics were recovered from Lowton (Nicholson 1991:171). The rim profiles of Vickers Focus vessels vary from flaring to straight to occasional s-rim, and the lip profiles are highly variable (Nicholson 1996:78). Preliminary analysis of Jackson site materials indicate the presence of sharply angled rim sections that were derived from collared vessels. The surface finish of the interior of Vickers Focus vessels is generally smooth and the exterior finish for the most part is cord- or fabric-impressed, ranging from rough textile to smooth/ obliterated. There are also vessels with smooth surface finishes and some show evidence of brushing (Nicholson 1996:79).

Table 3.2 Vickers Focus Pottery Attributes
(Nicholson 1991 & 1996)

Profile	globular	**Decoration Area**	most confined to lip and upper exterior rim, also some shoulder
Rim Shape	flaring- straight- occasional S- Rim	**Decoration Type**	twisted cord, finger pinching, CWT, round, sharp edged or angular objects, lip modeling, punctates
Lip Shape	highly variable	**Decoration Motif**	variable- includes finger-pinched nodules along ext. lip; twisted cord loop impressions; tool impressions, incising on the lip and neck area; some show evidence of quartering
Paste	variable- well worked	**Exterior Surface Finish**	cord or fabric roughed smooth/ obliterated smooth and/or brushed
Temper	majority sand tempered; some grit; shell tempered also recovered		

The decoration on the pottery at Vickers Focus sites is varied though most of the decoration on the vessels is confined to the lip or upper rim portions of the vessels. Lip decoration is executed with various tools including round, sharp edged or angular objects. There are occasional twisted cord impressions, finger pinches, lip modeling,

cord wrapped tool (CWT) impressions and punctates (Nicholson 1996; Hartlen 1997). A diagnostic decorative trait of the Vickers Focus is small finger-pinched nodes or nodules along the exterior of the lip (Nicholson and Hamilton 1999:17; Hartlen 1997:63). Another unique decorative technique found on vessels at Lowton, Jackson and Vera is a twisted cord loop. A twisted cord is placed at right angles to the rim and impressed repeatedly on the lip extending from the outside of the vessel over the rim and down onto the interior face of the rim (Nicholson and Hamilton 1999:17). There have also been vessels recovered from Vickers Focus sites which exhibit more elaborate decoration such as s- rim vessels from Lowton with parallel cord designs (some rainbow motifs) and a vessel from Jackson which appears to have a tool incised triangle motif (Nicholson and Hamilton 1999:17). Although Vickers Focus ceramics are quite diverse, this variability is consistent at Vickers Focus sites. "The diversity of the wares, derived from identifiable antecedents elsewhere, indicate a complex mingling and syncretism of cultural elements drawn from widely separated sources resulting in hybrid ethnicity" (Nicholson 1994:103).

3.4 What Became of Vickers Focus

Following the abandonment of the Lauder Sandhills, it is uncertain what became of the Vickers Focus people. Nicholson and Hamilton have proposed several hypotheses in this regard, many relating to Mortlach. In 1999 they introduced the idea that through contact with the Plains Village people, the Vickers Focus evolved into the Mortlach Complex. Recently, Nicholson and Hamilton, along with colleagues, have pointed to the Sanderson site (DhMs-12) in southern Saskatchewan as an extension of the Vickers Focus as these people moved westward and developed a subsistence strategy revolving wholly around bison exploitation (Nicholson et al. 2006:325). While considered by many to be a Mortlach site (Malainey 1991; Walde 1994; Magee 1997), Nicholson finds Sanderson's pottery to be similar enough to that of the Vickers Focus to be virtually indistinguishable (B.A. Nicholson, personal communication 2001). Among most Mortlach and Vickers Focus sites there are many similarities in regards to pottery as well as other aspects of material culture. These similarities, as well as any differences, will be discussed in detail in upcoming chapters

3.5 Discussion

One of the main purposes of this thesis is to conduct a vessel by vessel analysis of the pottery recovered from the Jackson and Vera sites. This analysis can be used to assess similarities and differences between the collections of Vickers Focus vessels from the eastern cluster of sites and those collected from sites to the west. Just as there appear to be substantial changes in the subsistence strategies employed by the people in the Tiger Hills region as they moved westward into the Lauder Sandhills, there are also some large differences in the pottery recovered from these areas. These issues will be dealt with in upcoming chapters of this thesis along with exploration of what these similarities and differences can tell us about how relationships with neighboring groups, Mortlach in particular, may have shifted over time and space.

Chapter Four

Mortlach and Wascana Wares- An Overview

4.1 Introduction

Based upon initial pottery identification, Scott Hamilton and Bev Nicholson have previously suggested that three of the sites being analyzed in this thesis- Hollow B, Schuddemat and Twin Fawns, contained Mortlach phase components (Nicholson and Hamilton 1999). In order to either verify or refute this assignment, it is important to have an understanding of what is considered to be a Mortlach phase assemblage. That is, which pottery attributes have been previously determined to constitute Mortlach wares?

Boyd Wettlaufer (1955) originally defined the Mortlach "culture" through his work at the Mortlach site in the Besant Valley of Saskatchewan. Here, Wettlaufer (1955:19, 20-21) proposed Mortlach as a culture and defined Mortlach Check-Stamped ware. In that same report, Wettlaufer introduced a second pottery-bearing culture- the Moose Jaw culture (Malainey 1991:345). Since this time, much attention has been given to the Mortlach culture as defined by Wettlaufer but his Moose Jaw culture has generally been disregarded. Many archaeologists have instead chosen to "lump" the two cultures together or to simply disregard any possible differences between the artifact assemblages of Mortlach and Moose Jaw components, referring to all as Mortlach sites. As stated by Walde (1994:95), since the initial introduction of Mortlach in 1955, "the history of attempts to classify the Mortlach entity has been short but controversial".

In the 1990s three important works on Mortlach emerged: Mary Malainey's 1991 Master's thesis- *Internal and External Relationships* of *Saskatchewan Plains Pottery*

Assemblages: Circa A.D. 1300 to Contact , Dale Walde's 1995 Ph.D. dissertation- *The Mortlach Phase* and finally *The Lozinsky Site: A Late Pre-Contact Bison Processing Camp,* Malainey's 1995 response to Walde's dissertation. These two researchers analyzed many of the same collections from late precontact sites in the Saskatchewan plains and parklands, and came up with very different ideas of what constitutes a Mortlach phase. Although Malainey and Walde took different approaches to their analysis, the different research methods do not account for all of the differences in their findings (Malainey 1995: 167-185). "In large measure, their diverging perspectives involve the nature and meaning of inter-assemblage variability of the pottery wares in Saskatchewan" (Taylor- Hollings 1999:373). Whatever the case, this is certainly not the place to debate which approach is the "correct" one. Instead, the work and findings of both archaeologists will be presented. Upon undertaking the reanalysis of the pottery from the Long Creek site Bryant states, "the purpose of this thesis is not to redefine the Mortlach complex, but to fit the ceramics into existing schemes" (2002: 215). Bryant provides a diplomatic approach to the complex debate and provides the lead which this thesis will follow.

4.2 Malainey's Approach

In Mary Malainey's work she divides Saskatchewan "Mortlach" into two major entities. She goes back to Alice Kehoe's (1959) concept of Wascana Ware and redefines Mortlach pottery. She supports the idea of Wascana ware being considered the pottery of the Moose Jaw culture observing that "the artifact assemblage associated with Wettlaufer's Moose Jaw culture is found in central and south-central Saskatchewan sites containing Wascana Ware (Malainey 1991:346). In short, the ceramic assemblages of sites from the Qu'Appelle Valley north into the parklands of central Saskatchewan that had previously been labeled by researchers (i.e. Byrne 1973) as Mortlach, should be categorized as dominated by Wascana ware (Malainey 1991:346). The Wascana ware from these sites has high incidences of straight, angled and s- profile rim profiles, which account for up to 80% of all vessel forms. In addition, these Wascana ware assemblages have cord- roughened, fabric-impressed and plain surface finished vessels and are most

commonly decorated with CWT impressions though extensive use of other decorative techniques such as punctates, incising, finger pinches and fingernail impressions are also found (Table 4.1). These, and other decorative techniques, are often used to produce complex decorative motifs.

Malainey (1991:300- 306) retains the "Mortlach" designation for components found primarily south of the Qu'Appelle Valley (Figure 4.1). Mortlach pottery assemblages, in these components have at least 30% wedge profile vessels but also include a lot of straight rim profiles as well as a small percentage of angled rim/ square wedge profiles. Mortlach vessels are more commonly found with check- stamped, simple- stamped and cord-roughened surfaces. "Fabric-impressed exteriors are not common at any of these sites" (Malainey 1991:303). In terms of decoration, when compared with Wascana ware vessels, Mortlach has a higher occurrence of dentate impressions but the variety of decorative techniques and motifs are reduced (Malainey 1995:167). It is not common to find vessels with complex decorative motifs at these more southern sites. Wedge profile vessels in Mortlach assemblages will often be sparsely decorated with right oblique dentate or CWT impressions (Malainey 1991:306) (Table 4.1). Malainey (1991) deals with total pottery assemblages from sites, comparing them with "ideal" Mortlach and Wascana collections.

4.3 Walde's Approach

Walde (1994) takes a somewhat different approach from that of Malainey in defining Mortlach pottery (Table 4.1). He set aside the vessels from Mortlach assemblages that were most likely from neighboring cultures, in order to classify Mortlach ware (1994: 100). Where Malainey (1991) sees a general dividing line of the Qu'Appelle Valley between Wascana Ware and Mortlach ware, Walde (1994) recognized only one ware- Mortlach, and only one cultural phase- Mortlach. In defining Mortlach Phase ceramics, Walde (1994:101) says that they are characterized by relatively thin and compact earthenware with four major vessel profiles- vertical, angled rim, s- rim and wedge. The exteriors of the vessels may be roughened with cord or fabric wrapped paddles or with paddles with incised diamond or square shapes causing a

check- stamped pattern. Surfaces may be partially smoothed or completely obliterate the surface finish. In terms of decoration, Walde says dentate stamps, CWT, quills, solid tools, pointed tools, and fingers are all known to be used. In addition, the vessels may show evidence of quartering (1994:101) (Table 4.1).

Table 4.1 Mortlach Ware and Wascana Ware Attributes

Walde (1994) and Malainey (1991, 1995)

Attributes	**Mortlach** (Walde 1994)	**Mortlach** (Malainey 1991, 1995)	**Wascana** (Malainey 1991, 1995)
Profile	globular		globular
Rim Shape	4 major profiles- vertical, angled rim, s- rim and wedge rim	at least 1/3 wedge, remaining 2/3 mostly straight with a small % angled rim/square wedge and s- profile	straight, s- profile and angled rim most prevalent; small numbers of wedge and short rim
Lip Shape	highly variable	variable- high incidence of wedge shaped lips	variable- usually flat
Paste	relatively thin and compact	majority good quality, consolidated paste	good quality- often fine lamination
Temper	majority are grit tempered; some sand and grit	majority are grit tempered; some sand and grit; sand alone is rare	majority are grit tempered; some sand and grit; sand alone is rare
Decoration Area	most confined to lip and/or rim surface; some decoration extends to the shoulder	most confined to lip and/or brim	lip, rim neck and shoulder
Decoration Type	dentate stamps, CWT, quills, solid tools, pointed tools, notched tools, fingers	majority CWT or dentate; occasionally fingernail impressions, notches, and tool impressions are found	CWT, punctates, incising, fingernail imp., notching, pinching
Decoration Motif	highly variable- from undecorated- simple decoration - quite complex; some show evidence of quartering	majority sparsely decorated though a few sherds show elaborate patterns	wide variety of motifs from simple to very complex
Ext. Surface Finish	roughened with paddles wrapped with cord or fabric, simple or check-stamped, smooth	plain, check- stamped, simple- stamped and cord roughened, fabric-impression rare	fabric-imp., plain and cord-roughened account for > 80%; also check-stamped and vertical fabric-impressed; brushed, burnished, rolled CWT and simple-stamped found rarely

Walde chooses a different approach dividing Mortlach into two subphases- Lozinsky and Lake Midden. These subphases are primarily defined by the presence of neighboring wares in the assemblage. "Significant differences in external relations and evident participation in different exchange networks between parkland and grassland Mortlach components strongly suggest that a sub-division should be made" (Walde 1994:106). The Lozinsky subphase of Mortlach is found in the Saskatchewan parklands where the assemblages show substantial Selkirk influences. South of the parklands, the Lake Midden Subphase of Mortlach has definite Middle Missouri influences such as the presence of gaming discs, ice gliders and bifacial endscrapers made of Knife River Flint (KRF) and projectile points made of fused shale. The high percentage of KRF found in Lake Midden Mortlach sites is not found within the Lozinsky subphase nor is the fused shale. Walde believes that "As important as ceramics are to the identification of Mortlach Phase components, the role of the lithic exchange patterns in the area is of equal significance in defining Mortlach" (Walde 2004:44).

The spatial boundaries for Mortlach are fairly well defined and are delineated primarily on the basis of neighboring cultures (Figure 4.1). The northern boundary for Mortlach lies in the parkland/ boreal forest interface of Saskatchewan where there is evidence of interaction with the Selkirk Composite of the boreal forest. The western boundary of Mortlach is formed by the Old Women's phase and occasionally by the Cluny Complex in southwestern Saskatchewan (Walde et al. 1995:43). Mortlach sites are found as far south as the Middle Missouri River in North Dakota (Meyer 1993:65) but to the southeast the boundary is generally thought to lie with the single cord-impressed. The eastern boundary of Mortlach is yet to be firmly established due primarily to a lack of research in eastern Saskatchewan (Walde et al. 1995:43). There have been several sites in southern Manitoba that have been suggested to be Mortlach such as Cherry Point (Syms 1977), Schuddemat, Twin Fawns, and Bradshaw (Nicholson and Hamilton 1999).

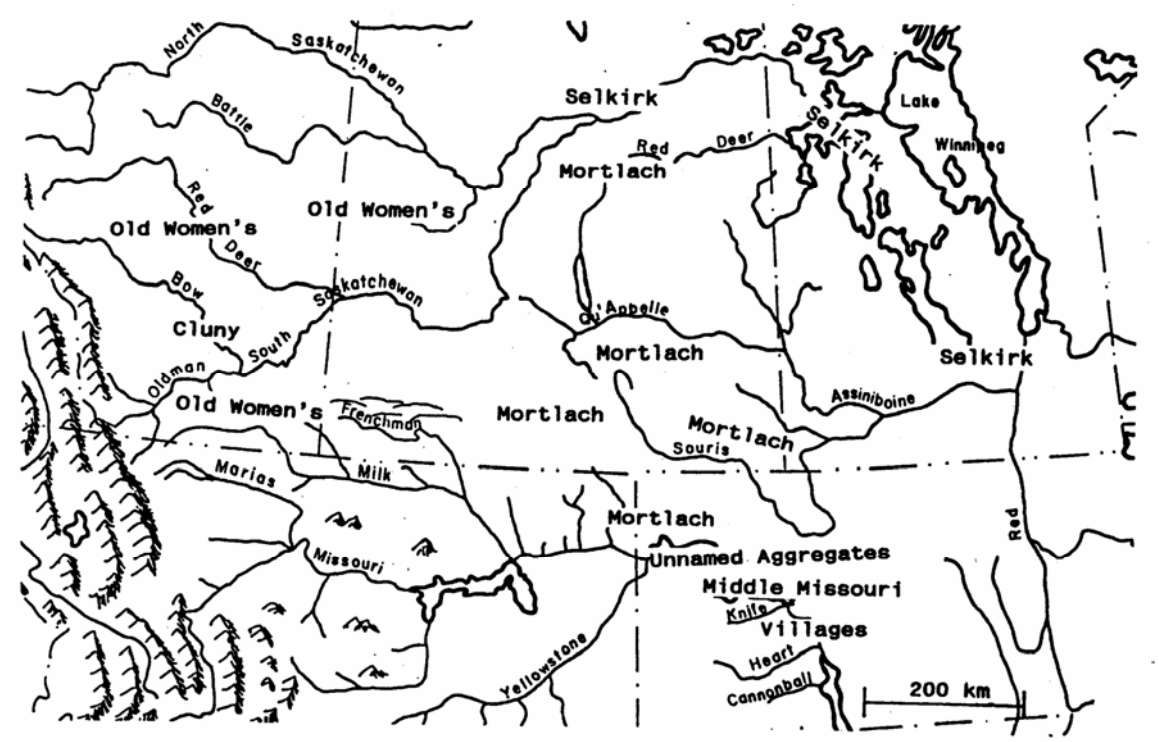

Figure 4.1 Mortlach Spatial Boundaries
(Walde 1994:282)

4.4 Discussion

In 1995, Malainey undertook a detailed analysis of the Lozinsky site in Saskatchewan. Within this paper she compares in detail the different research strategies taken by herself (1991) and Walde (1994) (Malainey 1995: 167-185). She points out that the most profound differences in their approaches to analysis lie in the identification of individual vessels and the classification of rim profiles (1995:167). In taking these differences into account, Malainey rectifies some of the differences between her conclusions and those of Walde but she sticks to her initial recognition of Wascana and Mortlach wares and presents a very different look at what constitutes Mortlach pottery (Table 4.1).

Another area in which Walde and Malainey do not agree relates to the relationship between Mortlach ware and Sandy Lake Ware (SLW). Malainey (1995) disagrees with Walde (1994) about Sandy Lake pottery being ancestral to Walde's all encompassing Mortlach ware. According to Malainey (1995:183), the Mortlach pottery features which Walde (1994:145-148) finds similar to Sandy Lake- globular shape,

slight neck constriction, vertical or slightly S- shaped rims, eclectic vessel surface finish and decoration, lip notching and fabric-impressed exteriors- are attributes which are only Wascana ware attributes (Malainey 1991). Dyck and Morlan (1995) also noted similarities between Wascana ware and SLW through their work at the Sjovold site. The connection between Mortlach/Wascana and Sandy Lake has yet to be firmly established; however, as Taylor- Hollings (1999:178-179) points out, now that Mortlach and Sandy Lake have both been identified in southwestern Manitoba, the idea of the relationship between Mortlach and Sandy Lake as suggested by Walde (1995) can be seen as more likely.

Taylor-Hollings (1999:176-177) points out that simple and check- stamped exterior surface finishes are characteristics shared by SLW, some Middle Missouri wares and Mortlach wares recovered from sites in southeastern Saskatchewan, northeastern Montana and northwestern North Dakota. Ahler, Theissen and Trimble (1991:35) propose that check-stamping was indicative of the Awatixa Hidatsa of the Middle Missouri and Taylor- Hollings suggests the possibility that "this trait, and thus the people making these vessels, left the subarea and moved west since the southern Mortlach Lake Midden subphase (Walde 1994:172) is believed to represent interaction between Mortlach and Middle Missouri peoples" (Taylor-Hollings1999:177). Along with questioning the relationship between SLW and Mortlach, Malainey also debates the relationship between Mortlach wares and Middle Missouri pottery traditions.

> Traits commonly associated with Middle Missouri Village pottery, such as collared and s-shaped rims, curvilinear 'rainbow' designs and single cord impressing, appear only rarely in Mortlach assemblages. The low occurrence or absence of these traits clearly separates Mortlach sites from the Middle Missouri ceramic tradition (Johnson 1977:46). Unlike Village pottery Mortlach has a high incidence of check-stamping and wedge-shaped lips (Malainey 1991:307).

4.5 Mortlach and Moose Jaw Dates

Radiocarbon dating for Mortlach sites is problematic because for this time period, carbon samples show multiple intercepts ranging from about 300 BP to modern times (Nicholson and Hamilton 1999:21). Because of this, absolute dates for Mortlach

sites must be regarded cautiously (Table 4.2). A single thermoluminescence (TL) date from the Lozinsky site is 1670 AD +/- 65 (Malainey 1995: 166). Two TL dates from the Bill Richards site are 1630 +/- 70 AD and 1680 +/-80 AD (Walde 1994:297). There are also a number of conventional radiocarbon dates from Mortlach sites presented by Walde (1994:105-106) such as 400 +/- 40 BP from the Walter Felt site and 395 +/- 80 BP from the Evans site. With the limited dates that are available, in combination with associated contact goods, Walde proposes a temporal span from about 1500 AD to contact (1994:106).

Table 4.2 Mortlach / Moose Jaw Dates

(CAA Radiocarbon Database)

* Malainey (1991:149) sites p.c. w/ Ian Bailiff, 1989

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Radiocarbon Dates

Site	Lab Number	Uncorrected Age	Normalized Age
Sanderson	**S- 2967**	**310 +/- 75**	**390 +/- 80**
Walter Felt	**S- 280**	**400 +/- 40**	**-**
Lake Midden	**S- 2246**	**380 +/- 100**	**460 +/- 100**
Sjovold	**S- 1759**	**950 +/- 190**	**1030 +/- 190**
Evans	**I- 7358**	**395 +/- 80**	**-**
King	**Beta 60245**		**110 +/- 70**

Thermoluminescence

Site	Lab Number	Date
Bill Richards	**Dur88TL 124-1BS**	**1670 +/- 70 A.D.**
Bill Richards	**Dur88TL 124-2BS**	**1680 +/- 80 A.D.**
Lozinsky	**Dur09TL 136-1BS**	**1670 A.D. (or earlier) ***

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4.6 Summary

As with most academics, archaeologists are always up for a good debate and matters of taxonomy and classification provide a perfect forum. The purpose of this thesis is not to assess whether either Malainey's model or Walde's model is "correct". Instead, this thesis will address which model, if either, fits more closely with the pottery recovered from the Twin Fawns, Hollow B, and Schuddemat sites of the Lauder Sandhills. In turn, it may provide a window into a larger question of the possible

relationships between the Vickers Focus and Mortlach and/or Moose Jaw cultures. Possible connections to Sandy Lake and Middle Missouri groups will also be explored.

Chapter Five

Methods and Terminology

5.1 Introduction

The survey and excavation of sites located in the *Makotchi- Ded Dontipi* locale was a project taken on by Brandon University and Lakehead University under the direction of Dr. B.A. Nicholson and Dr. Scott Hamilton. The majority of the field work has been the work of Brandon University field school students. Over the course of more than a decade of research in the area, many up and coming archaeologists have been employed by Brandon and Lakehead Universities to conduct this research. An incredible wealth of information from *Makotchi-Ded Dontipi* sites has been the result of this continued research. This is, in fact, the fourth master's thesis to come out of archaeological research in the Lauder Sand hills. It will join a number of journal articles and conference presentations that discuss the *Makotchi-Ded Dontipi* sites, and provide a window into the lifeways of the people who inhabited this area over thousands of years.

This thesis is primarily concerned with the pottery collections gathered from the Jackson, Vera, Twin Fawns, Schuddemat and Hollow B sites of the *Makotchi-Ded Dontipi* locale. Although I have had the opportunity to work at two of the sites, the assemblages were collected prior to the initiation of this study. All of the pottery recovered from the *Makotchi-Ded Dontipi* sites is housed at Brandon University, Brandon Manitoba.

Similar research methods were employed during the survey and excavation of all of the *Makotchi-Ded Dontipi* sites with the exception of trench and block excavations carried out at Vera in 1997 and 1999. With the exception of a single unit at Jackson which measured 1 X 1.5 m^2, all excavation units measured 1 m^2. All units were divided into quadrants and excavated in arbitrary 5 cm levels. Three point provenience was

taken from a north-east datum for all diagnostic artifacts and identifiable bone found in situ. The matrix was passed through 1/8“screen with the exception of that gathered for soil samples. All artifacts were bagged and catalogued according to quadrant and level and taken back to the lab for cleaning and further analysis. Floor plans were drawn of each level and at least one wall of each unit was profiled to show stratigraphy. An extensive photo record was taken for each unit. Although the vast majority of the pottery was recovered from excavated units, a few of the rim sherds included in this study were recovered from surface collections or round test pits (50 cm diameter) and are noted as such in Appendix A.

5.2 Methodology

The pottery collections from each of the *Makotchi-Ded Dontipi* sites were compiled and examined as a whole, though particular attention was paid to rim sherds. Each assemblage was sorted into individual vessels based on rim sherds. Following Malainey (1991: 31), vessel numbers were assigned to rim sherds based upon shared characteristics, whether or not there was refit. Although there is no way to make this processes entirely objective, the rim sherds had to share a number of traits before they were assigned to the same vessel. Where any doubt existed, the sherds were assigned individual vessel numbers. Vessel numbers were assigned using site name and number. Although it is probable that Twin Fawns, Schuddemat, and Hollow B make up a single large site, the assemblages were given separate vessel assignments in order that they may be separated at a later date if that be deemed necessary.

There seems to be no consensus among archaeologists as to the “proper” means of recording and analyzing pottery from the northern plains. In 1991, Malainey made the first major attempt to analyze and describe late pre-contact pottery from south-central Saskatchewan (Walde 1994). In order to maintain some sort of consistency with regard to description and classification, I have attempted to follow Malainey’s (1991) lead wherever possible. Vessels from each site were analyzed using the following attributes: profile, rim or lip shape, paste, temper, exterior surface treatment and decoration (area, technique and motif). Measurements were taken of each vessel’s rim

and lip thickness and vessel profiles were drawn. Each vessel was photographed and diameters were determined whenever possible.

5.3 Vessel Attributes

5.3.1 Profiles

One of the attributes assessed during pottery analysis was vessel profile. Profile was determined when there was enough of the vessel present to make a logical assumption about what the shape of the entire vessel might be. In most cases, only a rim sherd or a portion of the rim and neck are required to determine profile (Malainey 1991:32). Following Malainey (1991), the categories of Straight, Angled, Straight/Angled, S-Profile, Wedge, Square Wedge and Short are used in this pottery analysis. One additional profile has been added, the Collared Rim, as there was a foreign collared rim vessel recovered from the Vera Site. Figure 5.1 provides sketches of recognized rim profiles.

Straight Rim: Vessels with Straight Rim Profiles have flat exteriors and flat or slightly concave interior surfaces. There must at least be portions of the lip, rim and upper neck present to determine if a vessel has a straight rim profile.

Angled Rim: Angled Rim vessels include a rim angle at which a thickening may occur. Above and below the angle, the rim's exterior surface is straight. Malainey (1991:33) notes that from above, "only the portion of the exterior surface above the rim angle can be easily viewed from the top and side". Interior surfaces tend to be concave. At minimum there must be portions of lip, rim and rim angle to determine profile for Angled Rim vessels.

Straight/ Angled: This vessel profile category is used when it is not possible to determine whether the vessel is Straight or Angled Rim. In most cases, the reason for the confusion is that there is no evidence of rim angle, neck or wedge shape. Malainey (1991:36) notes that if 1.5 cm of the rim is not present, the vessel profile is undetermined.

S- Rim: Vessels with S- shaped profiles have concave interior surfaces and convex exterior surfaces. In cases where the curve of the vessel is very slight or incipient (Syms 1986:10) vessels are labeled S-Rim but incipient is noted. This differs

from Malainey's (1991) approach but is appropriate as it is included in the taxonomic system employed by the University of Brandon where the *Makotchi-Ded Dontipi* collections were first catalogued.

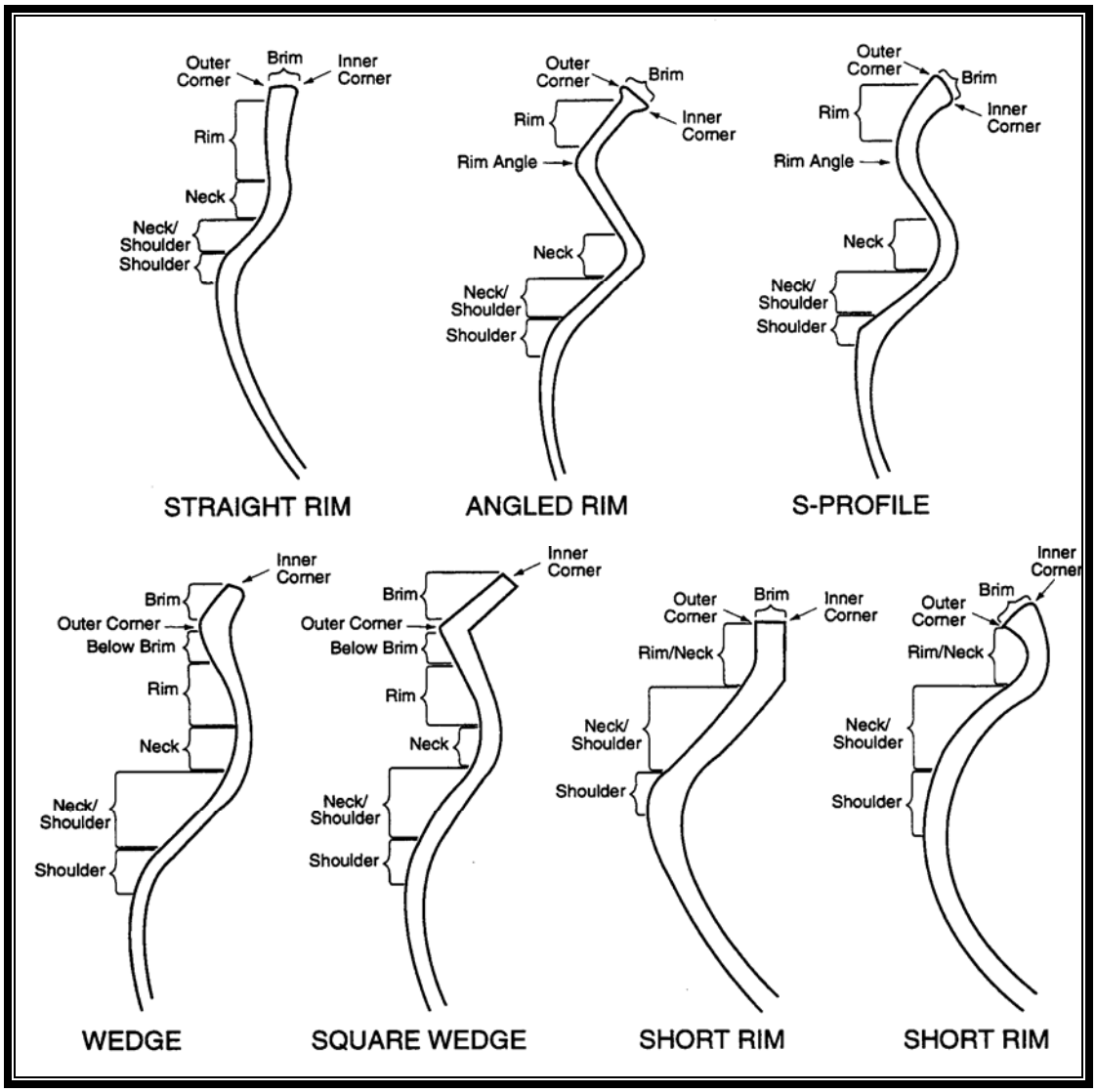


Figure 5.1 Profiles with Vessel Area
(Malainey 1995: 199)

Wedge: Wedge profile vessels have wedge-shaped lips. The exterior rim varies from straight to concave. You need very little of the vessel to determine profile for Wedge Rim.

Square Wedge: Malainey (1991:37) uses the term Square Wedge to identify vessels which are similar to Angled Rim but with fields of decoration that are the same as Wedge profile vessels. In order to tell the difference between Angled and Square

Wedge Vessels, "the complete lip/rim with below brim decoration must be present" (Malainey 1991:37).

Collared: The Collared Rim vessel has a collar that encircles the rim of the vessel and is usually 2.5- 5.5 cm high. The collar's exterior surface is usually straight or concave and "slopes sharply outward below the lip" (Lehmer 1971: 43). This is characteristic of vessels from the Middle Missouri. Malainey (1991) does not include Collared Rim in her list of profiles. These vessels would fit into her miscellaneous category. The Collared profile has been added in this analysis as there is only one vessel in the study that would potentially fall into a Misc. category- that is a Collared vessel recovered from the Vera Site.

Undetermined: There are some cases in which vessel profile can not be determined. For example, if a rim sherd is incomplete or exfoliated, it may not be possible to determine the vessel's profile. In this case, the vessels are noted to have an undetermined profile.

5.3.2 Lip Shape

In analyzing the lip shapes of the vessels in the collections from *Makotchi-Ded Dontipi*, I relied on figures (Figure 5.2) and descriptions provided by Malainey (1991: 53-55). Where lip shape did not fall fully into one category or another, combinations were made to best describe the lip shape present.

Interior Flange: a gradual widening of the lip occurs on the interior only.

Exterior Flange: A gradual widening of the lip occurs on the exterior only.

Expanding: A gradual widening of the lip occurs on both the interior and exterior.

Interior-Bevelled: The brim surface (or portion of it) is oblique to the horizontal; the surface slopes towards the exterior of the vessel.

Wedge-Shaped: The lip is asymmetrical and pointed with a wide exterior bevel and a narrow interior bevel. This lip may represent a specialized form of expanding lip with an exterior bevel.

Square: The brim surface is perpendicular to the interior and exterior surfaces of the vessel.

Round: The brim surface is convex.

T-Shaped: An abrupt expansion of the lip occurs on the interior and exterior.

Tapering: There is a gradual narrowing of the lip.

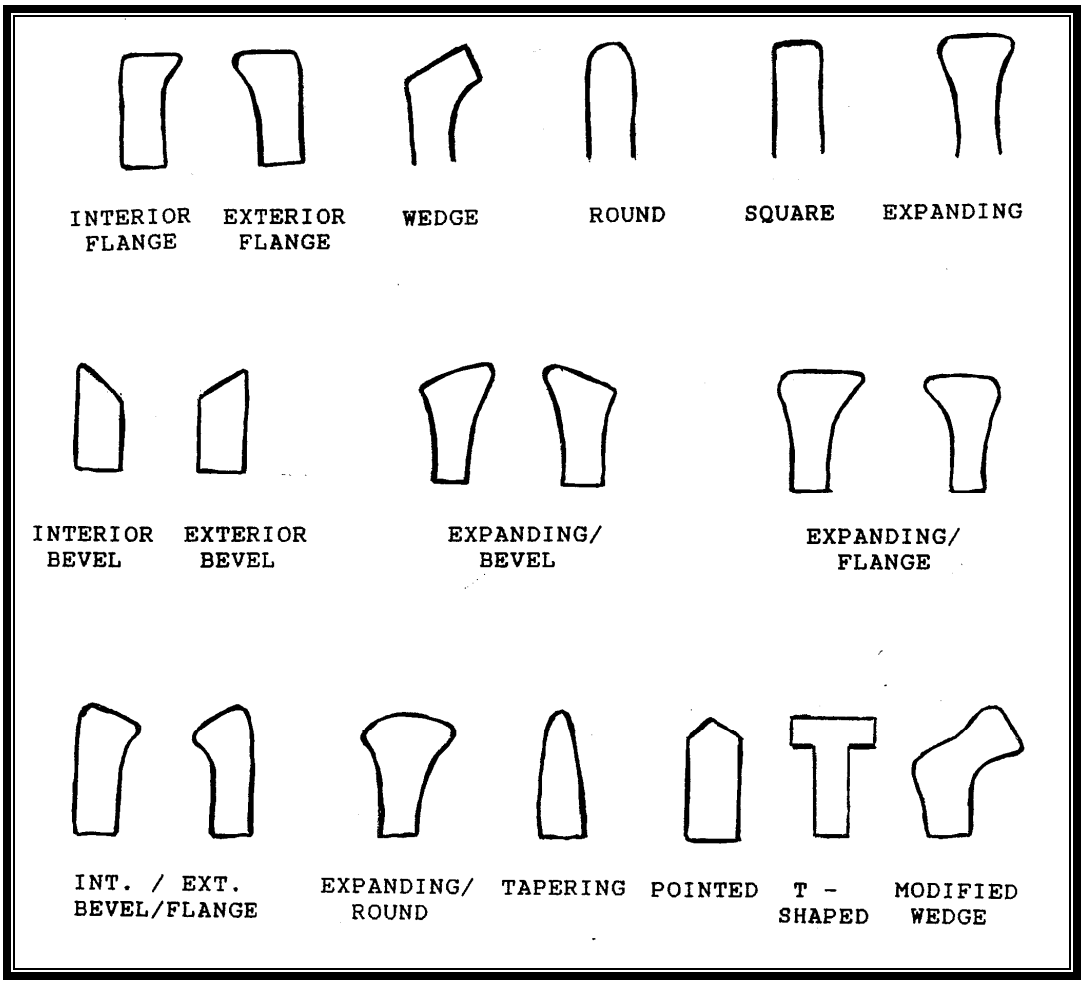


Figure 5.2 Lip Shapes (Malainey 1991: 54)

5.3.3 Paste Quality, Surface Treatment and Temper

Analysis of the pottery collections from the *Makotchi-Ded Dontipi* sites included analysis of the paste quality, surface treatments and temper of each vessel. Although assessing the paste quality of vessels can be quite subjective, basic statements were made including whether the paste looked well worked and the consistency of the clay (fine, medium, coarse). Paste quality can serve to single out vessels that may possibly be trade vessels.

There are many different types of surface treatment that can be found on vessels on the Northern Plains. Although it is often included in types of decoration, the term

surface treatment actually refers to the impressions left on the vessel during its construction (Walde 1994:31). Common types of exterior surface treatment are noted by Malainey (1991:56) and can be found below.

Fabric-Impressed: There are textile impressions left on the surface of the vessel.

Cord-Roughened: The exterior surface of the vessel is roughened by a cord wrapped paddle.

Smooth: The surface does not have any pattern visible.

Obliterated: The majority of the original surface treatment has been removed and only very slight, almost indistinguishable, evidence of impressions remain (Syms 1980 from Hartlen 1997: 105).

Check-Stamped: Square or rectangular impressions on the vessels caused by perpendicular incisions on the paddle (Neuman 1963).

Diamond Check-Stamped: Instead of square or rectangular impressions, the impressions are diamond shaped.

Simple-Stamped: Parallel incisions on the paddle leave shallow grooves or low ridges on the exterior of the pot.

Rolled CWT (cord-wrapped tool): Impressions of parallel vertical columns of twisted cord or twine left on the vessel surface.

Brushed: Vessel surface has brush marks or striations.

Net: The vessel surface is impressed with inter-knotted strands (Syms 1986:8).

Burnished: The vessel surface is highly polished before it dried.

Undetermined: The surface finish cannot be determined.

Exfoliated: The surface finish cannot be determined because of exfoliation**.**

In order to make clay more workable and/ or less susceptible to cracking, potters might add inclusions or temper to their clay (Rye 1981). Common types of temper that you might find on the Northern Plains include grit (crushed rock), sand and shell. During analysis of the pottery collections included in this thesis observations were made in regards to temper used in the construction of the vessels.

5.3.4 Decoration

Vessel decoration refers to impressions on the clay surface and/ or additions of clay to the vessel (appliqués). Upon first glance, decoration presence is the most visible vessel characteristic. Decoration placement, technique, orientation and motif can all be used to help to provide archaeologists with clues as to the relationships between different archaeological sites and the peoples that inhabited them. During analysis, special attention was paid to where the decoration was placed on the vessel (field of decoration), the technique that was used to make the impression and the design or motif that was left on the vessel.

Fields of Decoration

Upon examination of the decorated pottery sherds, decoration placement was noted for each vessel. Malainey (1991:38-43) laid out, in painstaking detail, the fields of decoration based upon vessel profile. As I had chosen to follow her lead in many other aspects of vessel analysis, I used the detailed fields of decoration established in Malainey's thesis (1991:38-43) during analysis of the vessels from *Makotchi-Ded Dontipi* (Figure 5.3).

Lip: The lip of the vessel includes the top portion of the vessel. It is made up of three parts - the brim, the inner corner and the outer corner.

Rim, Below Brim and Angled Rim: The rim is the vessel area between the brim and the neck. On Wedge or Square Wedge vessels, Malainey has broken the area down into two zones- the below- brim and the rim. The below- brim falls "immediately below the juncture of the exterior bevel and the exterior wall, within about 1 cm of the brim surface" (Malainey 1991:41- 42). The rim falls directly beneath the below- brim portion. An additional field is found on Angled rim vessels and falls between the lip and rim angle on Angled and S-Rim vessels.

Neck: The neck of the vessel has a concave exterior surface and a convex interior surface and is usually the point where the vessel has its minimum diameter.

Neck/ Shoulder: The neck/ shoulder region of the vessel fall between the vessel's neck and shoulder.

Shoulder: The shoulder of the vessel is usually the point where the vessel has its maximum diameter. Here the vertical portion of the vessel curves or angles towards the horizontal portion.

Body: Any portion of the vessel beneath the shoulder is referred to as the body.

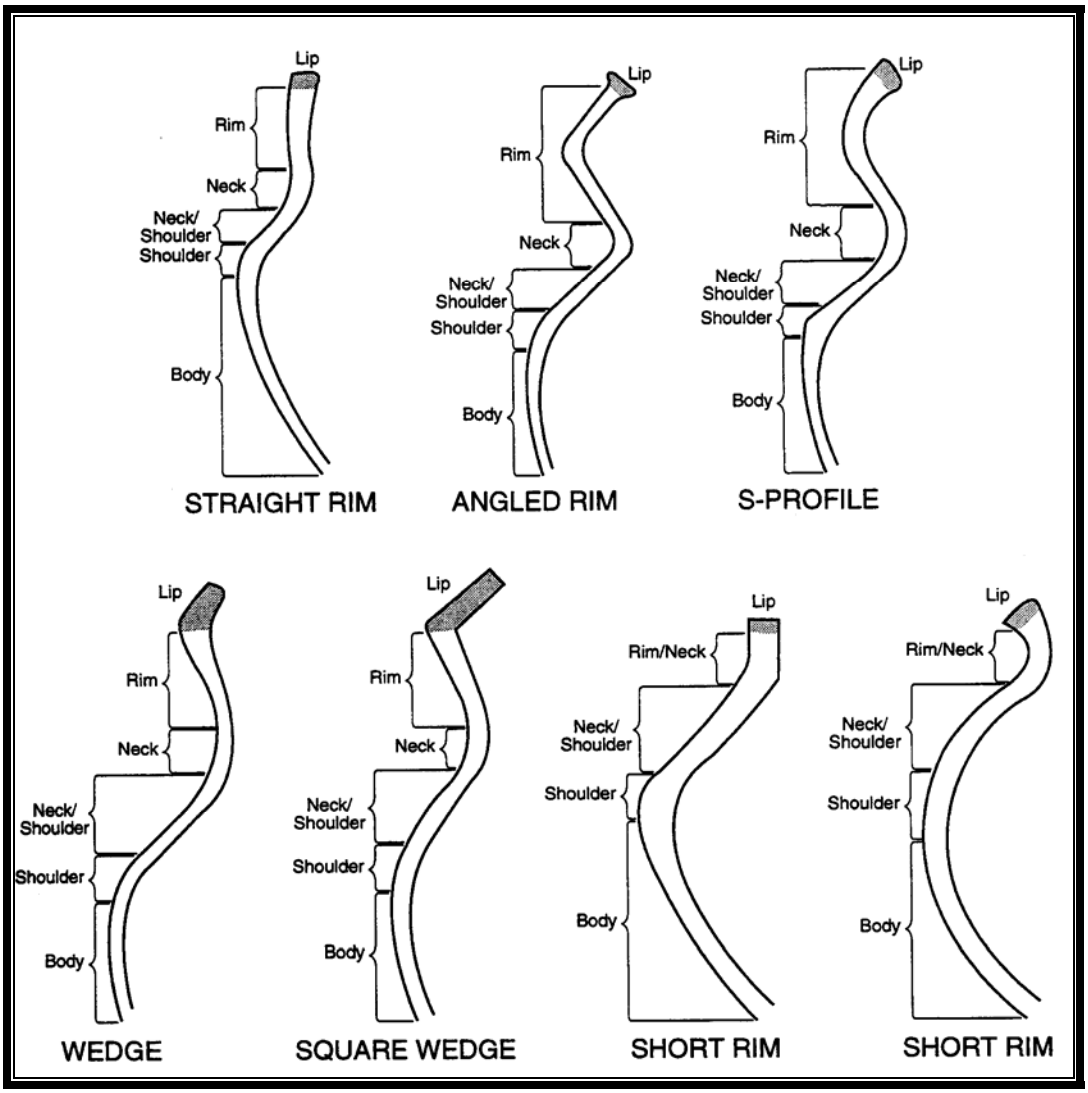


Figure 5.3 Profiles with Fields of Decoration
(Malainey 1995:198)

Decorative Techniques and Motifs

There were many different decorative techniques employed by potters on the Northern Plains. Some techniques can be traced back to, or isolated to specific cultures or geographical areas. Others seem to be more widespread or universal throughout the

Plains. When analyzing the pottery from *Makotchi-Ded Dontipi* the decoration on each vessel was described in terms of the tool that was chosen to make the decoration, the tool orientation and the overall pattern or motif that was left on the vessel. During analysis, the following tool types were recognized:

Cord-Wrapped Tools (CWT): A tool wrapped with twisted cord or sinew is impressed into the clay.

Tool Impressed (TI): A solid tool has been impressed into the clay to leave a negative impression. Impressions may be made with a variety of items so, where possible, further description of tool type is noted. For example, a sharp edged tool (S.E.T.) leaves a thinner impression in the clay than a broad edged tool (B.E.T.).

Fingernail–Impressed: The fingernail of the potter is pressed into the clay to leave a semi- circular or moon- shaped impression.

Finger Pinched- The clay is pressed between two fingers to form a raised nodule of clay.

Dentate- An object (usually wood or bone) is notched along an edge and that edge is pressed into the clay leaving a line of small rectangles or squares.

Incised- A tool is used to scratch narrow lines into the clay.

Punctates- An object is pressed into the clay to leave a single negative impression. Many different shapes of object may be used to leave these punctates. Where possible, the shape of the tool is noted when describing decoration.

Cord Impressed (CI) - A single cord is pressed into the clay leaving an impression of the surface of the cord.

Equally important to the type of tool used to decorate a vessel is the orientation of the tool itself and the pattern or motif that emerges through decoration. The following tool orientations and patterns were recognized in the analysis of the *Makotchi-Ded Dontipi* collections.

Horizontal- The decoration lies parallel to the lip of the vessel.

Vertical- The decoration is perpendicular to the lip of the vessel.

Right Oblique- The decoration occurs on an angle from upper right to lower left.

Left Oblique- The decoration occurs on an angle from upper left to lower right.

Canaliculate- The tool impressions fall on the lip of the vessel and run parallel to the lip circumference.

Curvilinear- The decoration forms a curve.

Scalloped- The impressions fall in a pattern of alternating upwards semi-circle followed by downwards semi-circles.

Triangle- A decoration is described as a triangle motif when tool impressions come together to form at least two sides of a triangle.

Rainbow- A decoration is described as a rainbow when there are a series of semi-circular lines running parallel to each other.

5.4 Discussion

There has been no standard way to conduct pottery analysis established on the Northern Plains. As such, many researchers tend to conduct their analysis using differing methods and terminology. This can lead to much confusion when comparing assemblages from different sites or regions. In 1991, Mary Malainey attempted to lay out an efficient strategy to analyze the pottery recovered from the Saskatchewan plains. In an effort to retain a sense of consistency and comparability, the analysis in this thesis follows Malainey's model wherever possible. The data provided by the vessel by vessel analysis of the pottery collections from the Vera, Jackson, and Twin Fawns, Schuddemat, and Hollow B sites of the *Makotchi-Ded Dontipi* locale form the basis for all of the statements and arguments laid out in this thesis.

Chapter Six

The Jackson and Vera Sites

6.1 Introduction

The primary objective of this thesis is to provide a systematic analysis of the pottery recovered from five sites in the Lauder Sandhills. This chapter provides a brief background on the Jackson and Vera sites and presents the results of the analysis carried out on the pottery that was recovered from excavations at the sites. In addition, it examines some of the similarities and differences between the Jackson and Vera pottery collections.

6.2 Jackson (DiMe-17)

In the four years following the discovery of the Jackson site, a total of 36 excavation units were excavated under the supervision of Dr. Bev Nicholson and Dr. Scott Hamilton. In 1994, students of the Brandon University Field School excavated 11 one m^2 units. The field school returned to Jackson the following year to excavate 14 one m^2 units. In 1996 and 1997 a total of five more one m^2 excavation units were dug by members of a paid crew along with a volunteer (Playford 2001:1).

Along with a series of publications by Nicholson and Hamilton (i.e. 1997, 1999, 2001), there have been two University of Saskatchewan Master's theses derived from the excavations at the Jackson site. In 2001, Tomasin Playford completed an analysis of the faunal assemblage amassed from excavations in1995-1997, and in 2003 Leanne Belsham completed her work which analyzed the lithics recovered from the Jackson site.

Jackson is believed to be a single component (or multiple closely-spaced occupations) Vickers Focus site dating to about 350 BP (Table 3.1). The refit of a pink Swan River Chert (SRC) point base fragment to the point midsection links the kill and

central processing areas of the Jackson site. This particular projectile point, along with clustered radiocarbon dates from the site, indicate that Jackson is most likely a single occupation site (Playford 2006: 406). In addition to the Vickers Focus occupation, there is a deeper Blackduck component in the southwest corner of the site. The Blackduck pottery that was recovered during excavation along with one rim recovered from the surface is included in Appendix A (Vessels J-13 & J-21) of this thesis. Because it is evident that the Blackduck vessels are separate from the remainder of the vessels recovered from the site, they are not included in this discussion of the Jackson pottery collection.

Faunal analysis by Playford (2001, Playford and Nicholson 2006) showed that Jackson was a winter site where the people were almost totally reliant on bison. There were a number of activity areas at the site including a small bison kill at the north end of the site, a midden, a bison boiling pit and processing areas (Playford 2001: 145). In her analysis of the Jackson site lithics, Belsham found that inhabitants "utilized a Plains tool kit containing Plains and Prairie Side-notched projectile points, side and end scrapers, knives, spokeshaves and drills" (2003: 186). Knife River Flint (KRF), Swan River Chert (SRC), brown chalcedony and chert were the most prevalent types of lithic materials in the Jackson collection. Although there were other types of materials present in the form of debitage, these four stone types were the only lithic materials represented in the tool categories (Belsham 2003: 186). Jackson is considered to be a pre-contact site as the only historic artifact recovered was an intrusive metal tack (Playford 2001: 145).

There was a total of 1800 pottery sherds recovered from the Jackson site. From these, a total of 21 vessels were identified. Two of these vessels are Blackduck and, as previously mentioned, will not be discussed further in this analysis as they are believed to be from a preceding, unrelated occupation. Of the 19 remaining vessels, the overwhelming majority (74%) have been identified on the basis of lip/rim sherds only. Five vessels have portions of the neck present and of these, four have portions which extend to the shoulder.

6.2.1 Vessel Profile

Of the nineteen identified vessels recovered from the Jackson site, the vessel profiles are quite varied (Appendix B). There are equal numbers of Short and Straight Rim vessels, each accounting for 21% (n= 4) of the collection. In addition, there are three S- Rim vessels (16%), 2 Square Wedge vessels (11%) and one vessel with a Straight/ Angled profile (5%). Five of the nineteen vessels have an undetermined profile.

6.2.2 Lip Form

The lip shapes of the vessels from Jackson are extremely varied. Of the nineteen vessels identified at Jackson, twelve different lip forms have been identified. Not only are there vast differences when looking at the lip forms of different vessels, there are major differences in lip form within the individual vessels themselves, as the shape of the lip changes depending where on the lip you are looking. For example, Vessel J- 4 has a lip shape that varies from square to exterior bevel. The most common and consistent lip shape present at Jackson is round, with six of the Jackson vessels having a rounded lip form.

6.2.3 Paste Quality, Surface Finish- Exterior and Interior and Temper

The majority of the vessels recovered from the Jackson site have a fine, well worked paste. Fifteen of the 19 identified vessels have paste quality ranging from fine to very fine. Three vessels have a laminated paste and the paste of a single vessel is quite coarse.

During analysis, both the interior and the exterior surface finishes of the Jackson vessels were recorded. There are textile impressions on the exteriors of seven of the nineteen vessels. Five vessels have smooth exterior surface finishes and, of these, one shows signs of burnishing and one has wipe marks remaining. Another 7 of the Jackson vessels have surface finishes that are partially obliterated although two of these show some signs of wiping.

The interior surface finish of the Jackson vessels is far more consistent with 16 out of 19 vessels having a smooth interior. One of these vessels is burnished. The three remaining vessels have interior surface finishes that are partially obliterated though one of the vessels with an obliterated surface finish shows signs of burnishing.

The most common type of temper for the Jackson vessels is grit. Ten of the 19 vessels have a fine grit temper and a single vessel is tempered with a medium sized grit. There were also sand-tempered vessels recovered from Jackson (N= 6). Two of the Jackson vessels show no visible signs of tempering.

6.2.4 Decoration

There were three undecorated vessels, accounting for 16% of the Jackson collection. Of the 16 remaining vessels, all but one has some form of lip decoration. In fact, on 13 of the 16 decorated vessels (81%), there is no decoration below the brim of the vessel. Two vessels have decoration on the brim and rim surfaces and one is decorated exclusively below the brim. At Jackson, there are a number of different decorative approaches (Figure 6.1). Tool impression accounts for 44% of the decoration (n=7), Cord Impression accounts for 25% (n=4), and CWT accounts for 12.5%. The remaining elements include Incising (12.5%) and Punctates (6%).

6.2.4.1 Brim Decoration

One of the Jackson vessels (J-1) has a unique type of decoration- a single cord impression that wraps around the lip from the inner corner across to the outer corner. This vessel is considered by Nicholson (Nicholson et al. 2001) to be Vickers Focus as there are rims with identical decoration recovered from the Lowton and Vera sites (Figure 6.2).

There are six Jackson vessels with decoration restricted to the outer corner of the lip. Five of these have tool impressions perpendicular to the lip. In one case, the tool is fine and sharp (J-9), in one the tool is round (J-10) and in two (J-3, J-4), an angular tool is used to make an impression that, when looking from the top downwards onto the vessel, looks triangular. The last vessel with TI decoration on the outer corner of the lip has a perpendicular impression that has been partially obliterated so it is difficult to know anything more about the tool that was used to make the impression. Vessel J-6 also has decoration confined to the outer lip corner- perpendicular to slight R- Oblique CI.

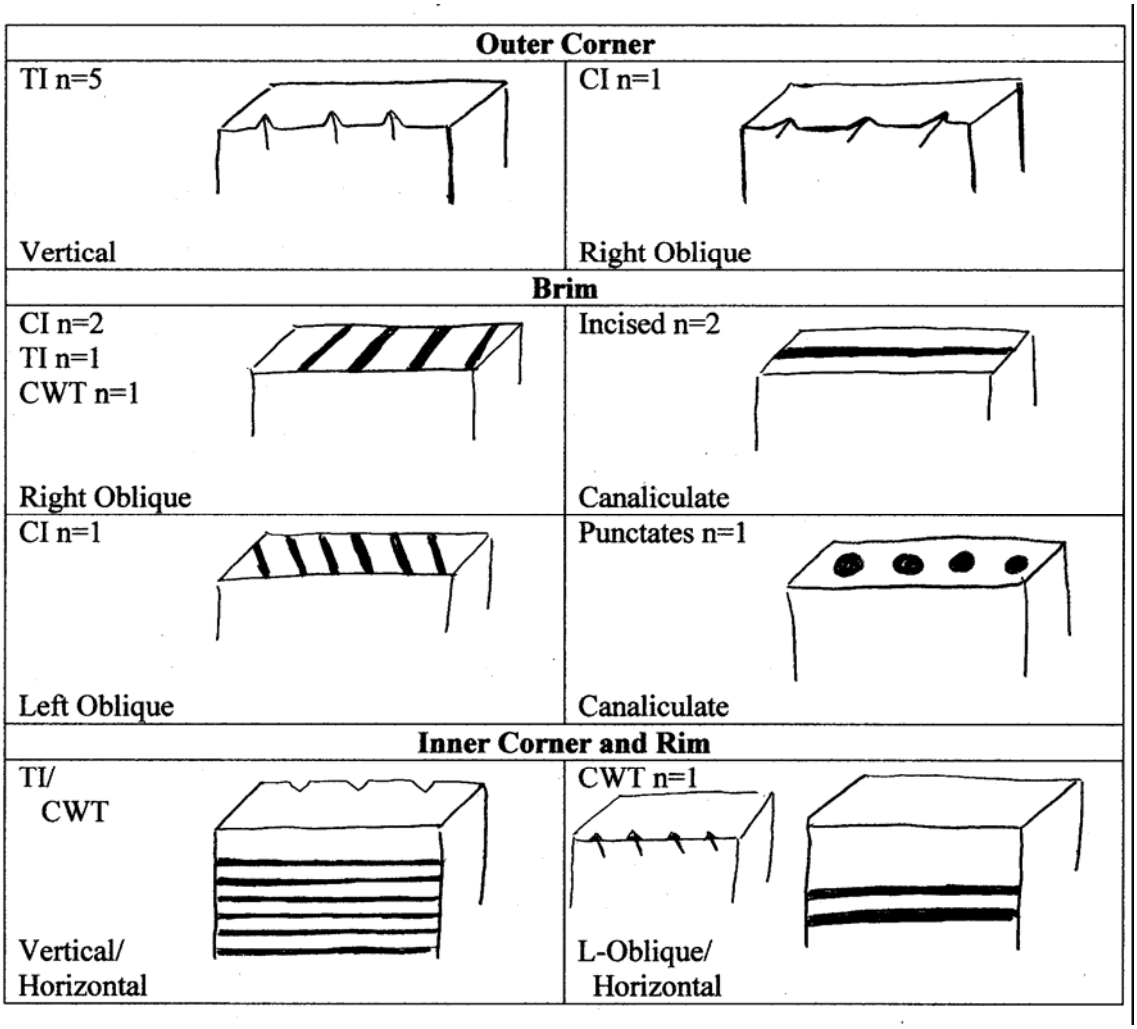


Figure 6.1 Jackson Decoration

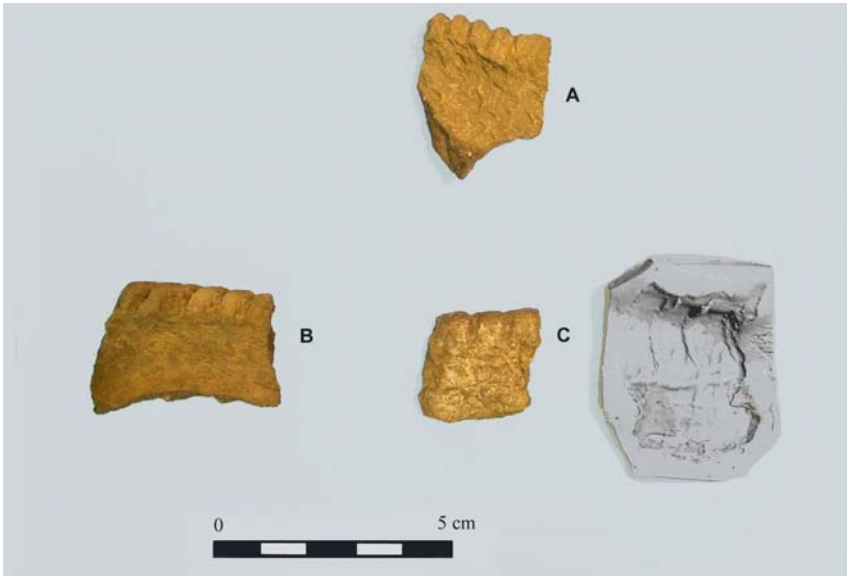


Figure 6.2 Vickers focus Signature Vessels: Lowton- A; Jackson- B (J-1); Vera- C (V-17)

Of the other vessels that exhibit decoration solely on the brim, decorative motifs are varied. Vessel J-2 is the only vessel that has punctates at Jackson and they run around the brim surface parallel to the lip edges. There are two vessels that have a single incised line along the midline of the brim (J- 11 & J- 18). Two vessel brims have been decorated with cord impression though one is orientated left oblique (J- 15) and the other right oblique (J-16). Vessel J- 14 shows tool impressions at a right oblique angle and Vessel J- 20 has CWT impressions which are also right oblique.

6.2.4.2 Below Brim and Rim Decoration

There are three vessels from Jackson that have decoration below the brim of the vessels. J- 16 has right oblique cord impressions directly below the brim of the vessel. Vessel J-5 has tool impressions perpendicular to the inner lip corner. The exterior rim of the vessel is decorated with horizontal rows of CI. There are six rows visible though prior to breakage, there may have been more. Vessel J- 12 is also decorated along the inner corner of the brim. CWT impressions run at a left oblique angle along the inner corner. In addition, there are horizontal rows (at least two) of CWT impressions along the vessel exterior rim.

6.2.5 Jackson Site Pottery Summary

The pottery recovered from the Jackson site is quite varied in terms of both vessel form and lip shape. Profiles include Short and Straight Rim, S-Rim, Square Wedge and Straight/Angled Rim. With 12 different lip forms present in the Jackson vessel collection, the only shape that stands out at all is the rounded lip. This shape accounts for 31% of the lip profiles present at Jackson. The majority of the Jackson vessels have either textile- impressed or smooth exterior surface finishes. Eleven of the 17 vessels with visible temper are grit tempered. Over a third of the tempered Jackson vessels are tempered with sand.

Only three of the vessels recovered from Jackson are undecorated. Of the decorated vessels, an overwhelming majority (almost 94%), have some form of lip or brim decoration. Only three vessels recovered from Jackson have any form of decoration below the brim of the vessel.

The most popular decoration on the Jackson vessels is tool impression along the outer corner of the vessel's lip. This accounts for over 30% of the decorated vessels. Other types of decoration include single cord impression (25%), and CWT impression (12.5%). The remaining elements include incising and punctating. There were no elaborately decorated vessels recovered from the Jackson site.

6.3 Vera (DiMe-25)

The Vera site was discovered by Vera Brandzin and Bev Nicholson in the spring of 1997 while surveying the Lauder Sandhills. This stratified multi-component site has yielded historic, Vickers Focus, Besant, Pelican Lake, Duncan, Hanna and Oxbow artifacts (Playford 2006: 405). Radiocarbon dates from the Vickers focus occupation fall around 1650 A.D. (Table 3.1). The pre-contact pottery recovered from this site is believed to be associated with a Vickers focus occupation. Between the years of 1997-2002, there were a total of 65 one m^2 units excavated at the Vera site. In addition, during the 1997 field season a 6 X 1 m trench was excavated (Playford and Nicholson 2006: 405).

According to the faunal analysis, the Vickers focus occupation at Vera took place in late winter /early spring and possibly into the summer months (Playford and Nicholson 2006: 399). Like Jackson, the primary food source for the inhabitants of the Vera site was bison. "[B]ison was intensively processed at both sites and secondary food sources, although present, were relatively non-important" (Playford and Nicholson 2006: 420). Recent archaeobotanical analysis by Boyd and colleagues of residue on potsherds and features has shown the presence of both corn (*Zea Mays*) and beans (*Phaseolus vulgaris*) at the Vera site (Boyd et al. 2006: 1135).

There was a total of 4053 pottery sherds recovered from the Vera site over the 1997- 2001 field seasons. From these, a total of 23 vessels were identified. One vessel (V-9) was identified by Nicholson et al. (2006: 2) as a foreign or imported vessel (Figure 6.3). This vessel is very "similar in paste and design to vessels from the Double Ditch village site in North Dakota" (Nicholson et al. 2006: 2). Although this vessel can tell us much about possible trade relations between the people who inhabited Vera and their neighbors to the south, it does little to contribute to our understanding of the Vera

pottery collection. A complexly decorated, collared vessel, V-9 is quite different from all of the remaining vessels recovered from the Vera site. For this reason, it has not been included in the following discussion of the Vera pottery.

Figure 6.3 Vera Vessel 9- Middle Missouri Vessel

Excluding the foreign vessel, there have been 22 vessels identified from the Vera site collection. The vessel integrity for this site is quite poor. Only five vessels are represented by vessel sherds below the rim. Two vessels show portions of the rim angle, one includes a portion of the rim/neck and two include a portion of the neck/ shoulder area of the vessel.

6.3.1 Vessel Rim Profile

The vessels recovered from Vera are varied in profile (Appendix B). The most common vessel profile recovered from the site is S-Rim (N= 8). There are two vessels with Angled Rim, two with a Straight Profile and four vessels that fall into the category of Straight/Angled. There is also one vessel with a Short Rim and one Wedge Profile vessel. Four of the vessels from Vera have undetermined profiles.

6.3.2 Lip Form

As with the Jackson site, the lip profiles from the Vera site vessels are highly varied. Of the 22 vessels, 11 different lip profiles are evident. Worthy of note is the presence of six vessels with expanding lip profiles. There are also four vessels with round lip shapes, three with square and two with interior bevel. Other lip shapes are represented by a single vessel each.

6.3.3 Paste Quality, Surface Finish- Exterior and Interior and Temper

The majority of the vessels recovered from the Vera site (68%) have a fine, or very fine, well worked paste. Of the remaining vessels, only two have a paste quality that is a bit coarser. Five of the vessels have a laminated paste.

Fifty percent of the vessels recovered from the Vera site have a textile-impressed exterior surface treatment. The surface treatment of ten of the remaining vessels is obliterated though one shows signs of wiping and one of burnishing. The final vessel has an exterior surface treatment that is smooth and burnished.

This pattern of exterior surface treatment is identical to that of the interior surface treatment with the exception that instead of showing textile-impressions, half of the interiors had a smooth surface finish. Just as in the case of the exterior surface treatment, there are ten vessels with obliterated interior surfaces and one vessel that has a smooth and burnished interior.

The temper used in the manufacturing of the Vera vessels includes grit, sand and shell. The majority of the vessels (64%) are tempered with grit, varying from fine to coarse. Two of these vessels are tempered with grit and sand, and one vessel has both grit and shell temper. Five of the vessels recovered from the Vera site are tempered with sand alone and a single vessel has only shell for temper. Two of the vessels have no visible form of temper.

6.3.4 Decoration

At Vera, 18% (n= 4) of the vessels are undecorated. Of the decorated vessels, almost 75% (N= 13) are decorated in a single field. The most common field of decoration on the Vera vessels is the rim area. Over 66% (n=12) of the decorated vessels have some form of decoration on the rim. Also common is decoration on the brim portion of the vessel (n= 10 or 55.5%). There are no Vera vessels with decoration

falling below the rim of the vessel. This may be misleading, however, as vessel integrity is quite poor. Decoration techniques employed at Vera include CWT (52%), TI (20%), finger pinching (13%), CI (8%), fingernail impression (4%), and incising (4%) (Figure 6.4).

6.3.4.1Brim Decoration

Ten vessels from Vera exhibit brim decoration. Of these, five have outer corner decoration, one inner corner, one is decorated along the brim surface and two have brim decoration running from the outer corner across to the inner corner. On six of these vessels, the brim is the only portion of the vessel that is decorated. On the remaining four, brim decoration is coupled with decoration on the rim of the vessel.

The outer lip edge of 23% (n=5) of Vera vessels are decorated. Outer corner decorative elements include tool impression (n=3) and finger pinch lip nodes (n=2). The inner corner of one vessel (4%) has finger pinching and on two vessels (9%) there is decoration running from the outer corner to the inner corner at a right oblique angle. In one of these instances, the decorative technique is a sharp edged tool and the other is single cord-impressed. Finally, there is a single vessel with a single canaliculate row of CWT impressions along the lip surface.

6.3.4.2 Rim Decoration

Sixty-six percent (n=12) of the vessels recovered from Vera have at least some form of decoration on the rim of the vessel. In seven cases, the rim is the only portion of the vessel that is decorated. On four vessels, the rim decoration accompanies some form of lip or brim decoration and in a single case, the decoration of the vessel rim accompanies decoration on the interior of the vessel. There is only one vessel in the Vera collection that has interior decoration below the inner corner of the brim. Vessel V-14 has a single horizontal line incised on the interior of the vessel under the lip which has a slight interior roll.

On one of the Vera vessels (V-1), there is tool impression along the rim surface and on another, (V-5), there are vertical finger nail impressions on the rim angle below tool impressions along the outer corner of the vessel. V-17 is a considered a signature vessel for the Vickers Focus (Nicholson et al. 2001) with single cord loop impressions wrapping around the lip from the inner corner across to the outer corner (Figure 6.2).

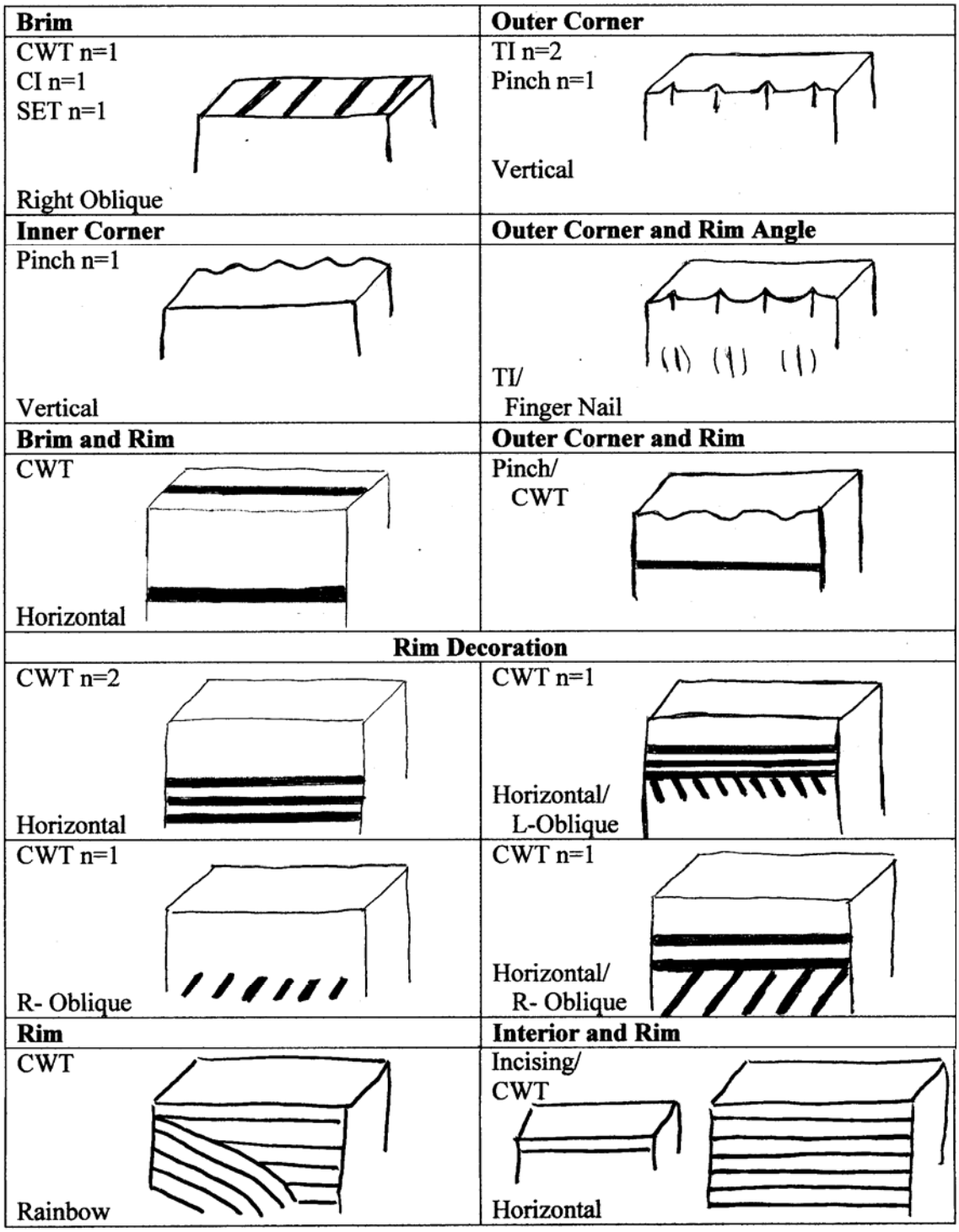


Figure 6.4 Vera Decoration

There are nine vessels (41%) that exhibit CWT impressions along the rim surface of the vessel. In examining these, three separate patterns emerge:

Pattern 1- Horizontal rows of CWT- There are four Vera vessels with horizontal CWT impressions, either on their own or in conjunction with decoration in another field. V-6 is the only vessel from Vera with horizontal CWT impressions along the rim surface with no other form of decoration. It exhibits a minimum of five horizontal rows of CWT impressions before the break in the sherd. It is possible that the decoration is continued past this point. Two vessels have horizontal CWT impressions following some form of brim decoration. V-8 has a minimum of one horizontal row of CWT impressions following finger pinching on the outer corner of the lip and V-22 has at least one horizontal CWT row following a canaliculate CWT impression along the lip surface of the vessel. The final vessel that exhibits horizontal CWT impressions is V-14. There are at least six rows of impressions that accompany a single incised line on the interior of the vessel.

Pattern 2- Horizontal over Oblique- The second pattern that emerges when looking at the Vera collection pottery is a combination of horizontal CWT impressions over oblique CWT impressions. There are three vessels that follow this pattern (V-7, V-11, & V-12).

Pattern 3- Rainbow- This pattern is isolated to a single vessel recovered from the Vera site (V-10). Vessel V-10 has at least six horizontal rows of CWT impressions which are intersected by a rainbow motif of CWT impressions.

6.2.5 Vera Site Pottery Summary

The vessels recovered from the Vera site are quite varied. The S-Rim is by far the most common profile, accounting for over 35% of the vessel profiles in the collection. Also represented are Angled Rim (N=2) and Straight Rim (N=2) vessels along with four vessels that fall into the Straight/Angled Rim category. The categories of Short Rim (N=1), Wedge (N=1) and Undetermined (N=4) account for the remainder of the rim profiles found in the Vera collection. This Jackson site has a much higher incidence of Short and Straight Rim vessels and only three of the vessels from this site have the S-Rim profile that is popular at Vera. The lip profiles at both sites are extremely varied. At Vera there were 11 different lip profiles visible in a collection of 22 vessels. The lip shape that is identified the most in the collection is the expanding lip, which accounts for over a quarter of the lip forms.

The majority of the vessels from the Vera collection have a fine, well worked paste, though three have a paste that is laminated. The most common type of exterior surface treatment found at Vera is textile-impression. Also common is an obliterated exterior surface treatment. The temper used in the manufacture of the vessels, in order from most to least common, is sand, grit and shell. Vera is the only site in the *Makotchi-Ded Dontipi* locale from which vessels with shell temper have been recovered.

Over 80% of the vessels recovered from the Vera site are decorated. As a whole, these vessels are more elaborately decorated than those recovered from Jackson. Of the 19 Jackson vessels, the vast majority of the vessels (74%) are decorated in a single field. In contrast, 44% percent of the decorated vessels from Vera are decorated in more than one field. Where most of the decoration on the Jackson vessels is restricted to the brim of the vessel, many of the vessels from Vera have decorated rims. Although there is no sign of decoration below the rim portion of the vessels recovered from Vera, there are several vessels with elaborately decorated brim and rim areas.

Decorative techniques employed at Vera include tool impressing, finger pinching, finger nail impressing, incising, CI and CWT impression. The frequency of CWT impressions is much higher at Vera than at Jackson, accounting for over half of the decoration. The three different patterns that emerged when examining the decoration of the Vera collection are- horizontal CWT impressions, horizontal over oblique CWT impressions and an elaborate CWT impressed rainbow motif. The common technique employed at Jackson of decorating the outer lip corner is found on five vessels recovered from Vera. Two of these vessels have finger pinch nodes along the outer lip corner which is considered by Nicholson to be a defining characteristic of the Vickers focus (1994: 107).

6.3 Discussion and Conclusions

Although there has been much written about the pottery recovered from the Jackson and Vera sites, this is the first attempt to conduct a systematic analysis of these collections. Both Jackson and Vera are published as Vickers Focus sites though there are substantial differences in the pottery recovered from these sites. These differences include vessel profile and the use of shell temper at the Vera site. Other differences lie

in the decoration found at these sites. As a whole, the vessels from Vera tend to be more elaborately decorated than those recovered from Jackson where almost 75% of the vessels are decorated in a single field. Consistencies between the two sites include similar use of exterior and interior surface treatments. Another link between the sites is the presence of a rim sherd at each site with the cord loop impressed across the vessel brim (Figure 6.2). It is important to note that with such small sample sizes, both differences and similarities between the sites could be more apparent than real due to sample bias. Chapter Eight explores further the cultural connections between Jackson, Vera and the Vickers Focus sites to the east.

Chapter Seven

The Schuddemat, Twin Fawns and Hollow B Sites

7.1 Introduction

The Schuddemat, Twin Fawns and Hollow B sites are located in the *Makotchi-Ded Dontipi* locale of the Lauder Sandhills (Figure 1.2). Preliminary examination of the pottery recovered from these sites indicates that all three are Mortlach components though some of the vessels seem to share a mixture of Mortlach and Vickers Focus traits (Nicholson and Hamilton 1999; Nicholson et al. 2003: 125). This chapter provides a comprehensive summary of the in depth analysis carried out on the pottery recovered from the Schuddemat, Twin Fawns and Hollow B sites. In addition, it addresses the possibility that these sites, which lay in close proximity to one another, may indeed constitute one large site.

7.2 Schuddemat (DiMe-22)

The Schuddemat site was discovered in 1995 by Bruce Low while he was conducting survey work for Brandon University in the *Makotchi-Ded Dontipi* locale. The site is located in brush and pasture. The first artifacts were discovered in areas disturbed by fence line clearing. Excavations at Schuddemat revealed that artifacts seemed to be found in small concentrations or clusters. Based on site placement and the artifacts recovered, the Schuddemat site is believed to be a winter occupation. This suggestion is supported by the recovery of foetal bone (Playford p.c) along with Schuddemat's link with other sites in the area which are also believed to be wintering sites (Twin Fawns and Hollow B). There has yet to be a thorough analysis of the lithic or faunal recoveries from this site though recent archaeobotanical analysis of residue from potsherds and features shows the presence of corn (*Zea mays*) and beans

(*Phaseolus vulgaris*) (Boyd et al. 2006:1135). In 1996, Valerie Pankratz (1996) produced an undergraduate thesis examining a portion of the pottery recovered from the Schuddemat site. Due to complications in radiocarbon dates from this time period, there has been no dating analysis of the site.

In the 1995, 1996 and 1999 field seasons, a considerable amount of work went into testing and excavating Schuddemat. Over the course of the three seasons, a total of 16 one m^2 units and 54 test pits were excavated under the direction of Dr. Scott Hamilton and Dr. Bev Nicholson. From these, a total of 3,416 potsherds were recovered. During analysis of this pottery, a total of 27 vessels were identified based primarily upon lip and rim sherds. Only nine of these vessels have portions of the neck present and of these, only three reconstructions extend to the vessel shoulder.

7.2.1 Vessel Rim Profile

The rim profiles of the vessels recovered from the Schuddemat site are quite varied (Appendix B). There are eight vessels for which the profile could not be determined and of the remaining 19 vessels, seven different vessel profiles have been identified. The most common profile at Schuddemat is Short Rim. There are six vessels with Short rim, excurvate profiles which represents 32% of the identifiable vessel profiles in the collection. S-Rim, Wedge and Straight/Angled profiles are each represented by three vessels (16%). There are two Straight Rim vessels (10.5%), one Angled Rim (5%) and one vessel with a Square Wedge profile (5%).

7.2.2 Lip Form

Among the 27 vessels identified from the Schuddemat collection, 11 different lip forms have been identified. Though most are represented by only one vessel, three lip shapes appear more frequently. There are six vessels with a Round lip, five are Expanding Flange and four have an Exterior Flange shape.

7.2.3 Paste Quality, Surface Finish- Exterior and Interior, and Temper

The greatest percentage (48%, N=13) of the vessels recovered from the Schuddemat site have a fine, or very fine, well worked paste. There are also many vessels that exhibit a fairly fine, laminated paste (37%, N=10). The remaining four vessels recovered from Schuddemat have a paste that is either coarse (7.5%) or medium coarse (7.5%).

The exterior surface finish of the Schuddemat vessels is also quite varied. Twenty- Six percent (N= 7) of the vessels recovered have a textile-impressed exterior surface treatment and 26 % (N=7) have a smooth exterior surface. Of these smooth surface vessels, two have been burnished. The surface finish on over 40% (N= 11) of the vessels has been obliterated, although three show some signs of wiping and one vessel has been wiped and burnished. A single Schuddemat vessel has an exterior surface treatment of vertical cord roughening. On one vessel, the exterior surface has been exfoliated.

The interior surface treatments of the Schuddemat vessels are more straight forward. Over 60% (N= 17) of the vessel interiors are smooth. One of these vessels also has burnishing in the interior. The interior surface treatment of seven vessels (26%) is at least partially obliterated though three show very slight signs of wiping. The two remaining vessels have exfoliated interiors.

There is one vessel recovered from the Schuddemat site that has no visible signs of tempering. All of the remaining vessels are tempered with grit. The overwhelming majority of these have a fine grit temper (69%) though some are tempered with more of a mid-sized grit (19%). There is a single vessel with a coarse grit temper and two that have grit temper that seems to be unsorted.

7.2.4 Decoration

Of the 27 vessels identified in the Schuddemat collection, five (less than 15%) are undecorated. Of those that are decorated, almost 55% of the vessels have decoration that is restricted to a single field. Eighty-two percent (N= 18) of the Schuddemat vessels have some sort of brim decoration which makes it, by far, the most popular field of decoration. It must be noted many vessels that appear to have decoration restricted to the brim and/ or rim of the vessel, may have originally had decoration on additional fields but because of poor vessel integrity, it is impossible to say. Of the decoration on the Schuddemat vessels, 27 % are CWT, 23 % are CI, 20% are TI and 10% are dentate. Additional types of decoration include incising, fingernail impressing, finger pinching and punctating.

7.2.4.1 Brim Decoration

Eighteen of the vessels recovered from the Schuddemat site have decorated brims. Of these, over half (N= 10) have decoration that is restricted to the brim. Eight of the vessels are also decorated in additional fields. In order to get a clearer picture of the trends in brim decoration, all of the decoration in this field will be examined as a whole, with later attention paid to how it is accompanied by decoration in other fields (Figure 7.1).

The most prevalent type of brim decoration at the Schuddemat site is left- or right- oblique impressions on the brim surface. There are nine vessels that have this decorative motif on the brim surface. Of these, three are CI, three are CWT, two are TI, and one is dentate. This is the only form of decoration on almost 50% of the vessels decorated in this manner (S-11, S-13, S-18 & S-19). One of the CI vessels with this motif (S-16) also has a row of large tool impressions on the rim exterior, directly below the brim. The tool used to make the impression appears to be an immature bone epiphysis from a medium to large mammal. S- 5 is decorated with R- Oblique TI along the brim surface followed by R- Oblique TI along the rim of the vessel. Vessel S-27 is also decorated along the rim of the vessel. There is a band of five horizontal CWT impressed rows below the lip, below which there is a row of R- Oblique CWT impressions. Vessel S-23 has R- Oblique CWT impressions on the brim, vertical finger nail impression on the below brim surface and horizontal rows of CWT impressions on the rim of the vessel. The final vessel with oblique impressions on the rim surface is S-2. This vessel has a horizontal tool impression along the inner corner of the brim, L-Oblique dentate impressions on the rim and vertical TI on the inner corner of the brim.

Six of the 18 brim-decorated vessels have two canaliculate rows of decoration along the brim surface. On two of the vessels, the impressions are made with a CWT, on two the impressions are dentate stamped and on two the rows are cord-impressed (CI). The two vessels with CWT (S-3 & S-22) and that with CI (S-10), have only this portion of the vessel decorated. S-4, with two canaliculate rows of dentate impressions, also has L- Oblique dentate stamps on the outer corner of the brim. Vessel S-1, with two canaliculate rows of cord impressions on the brim surface is more elaborately decorated, with four horizontal rows of CI followed by L-Oblique CI on the rim of the vessel.

Vessel S-7, with 2 canaliculate rows of dentate stamps, also has a horizontal over oblique motif on the rim area of the vessel, with one horizontal row of dentate stamps followed by L-Oblique dentate impressions.

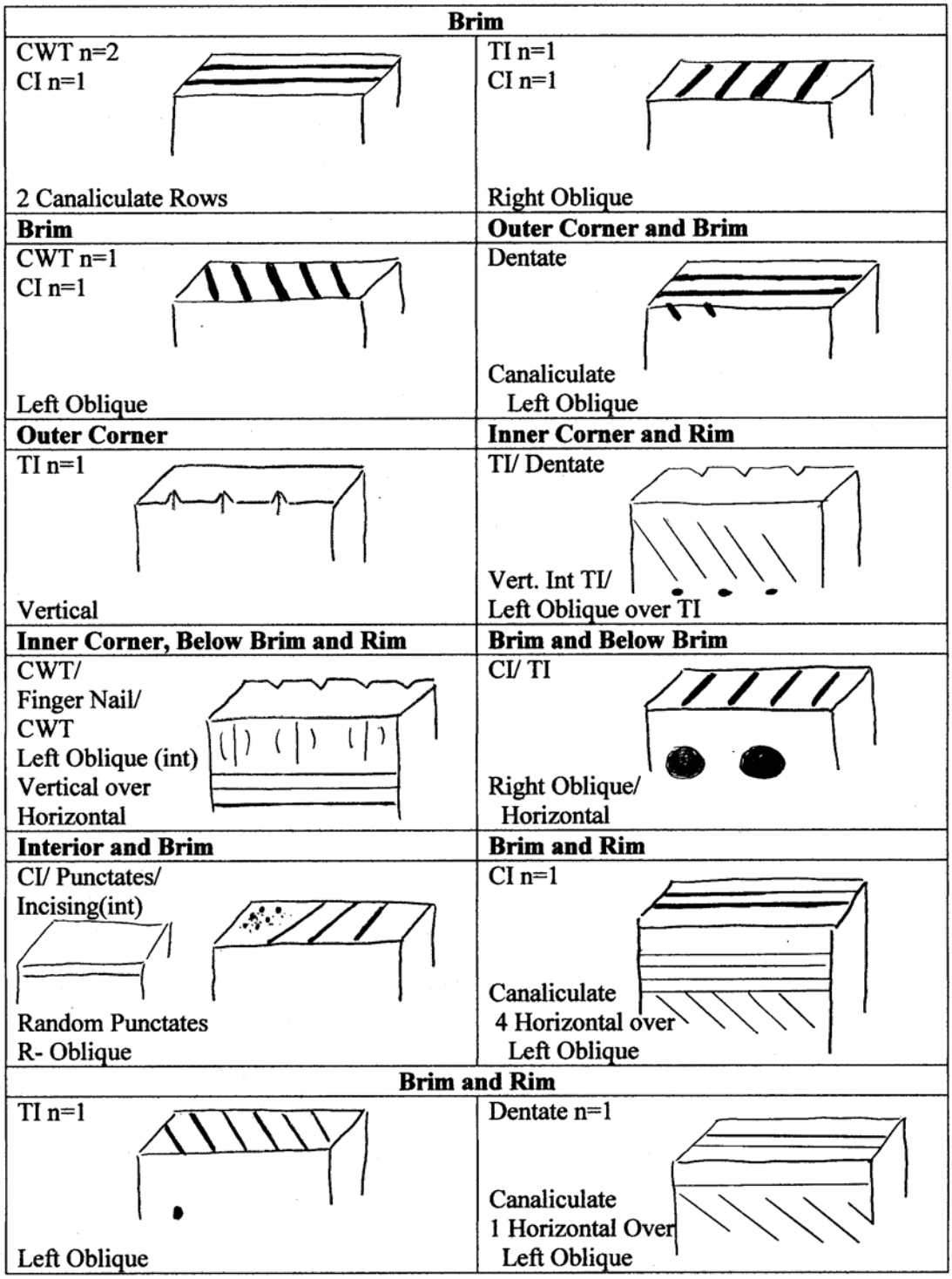


Figure 7.1 Schuddemat Decoration

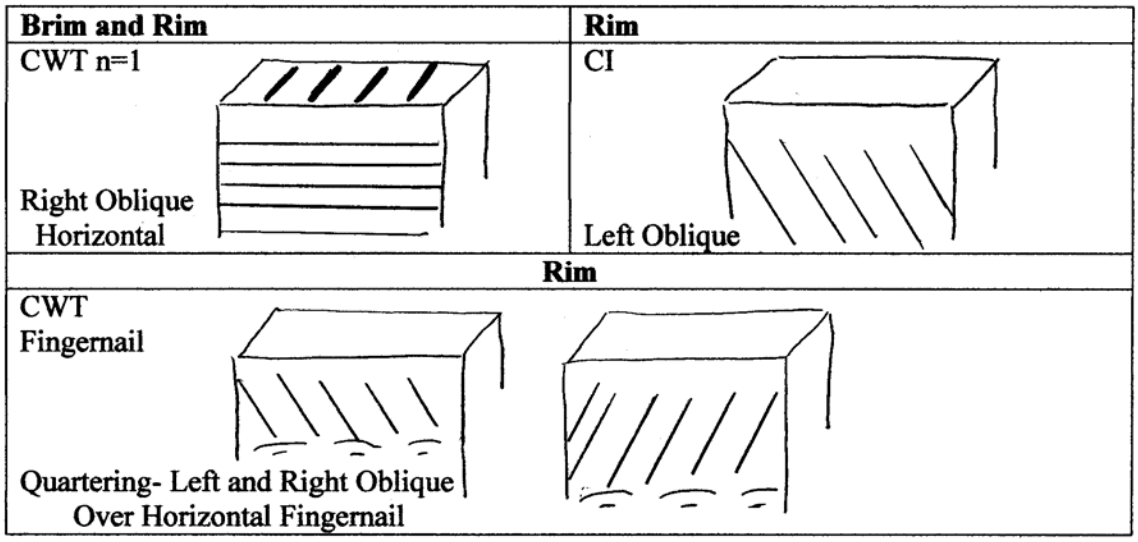


Figure 7.1 cont'd Schuddemat Decoration

The three remaining Schuddemat vessels with decorated brims are S- 21, S-24 and S-25. Two of these vessels are decorated on the outer corner of the brim. Vessel S-21 has a vertical tool impressions and S-24 has finger pinched lip nodes. Schuddemat Vessel 25 has incising under the inner corner of the brim, random punctates on the brim surface and R- Oblique CI directly below the punctates.

7.2.4.2 Decoration in Additional Fields

There are only four vessels in the Schuddemat collection that do not have brim decoration. Vessel S-12 has L-Oblique CI along the vessel rim surface and S-14 has alternating L and R- Oblique CWT impressions followed by a horizontal row of fingernail impressions. Schuddemat Vessel 9 (Figure 7.2) and Vessel 15 (Figure 7.3) are the final two vessels that have no type of brim decoration. They are also the two most elaborately decorated vessels recovered from Schuddemat. With this being said, it must also be noted that they are also two of the most complete vessels in the collection.

Vessel S-9 (Figure 7.2) is a Short Rim vessel. While it does not have decoration on the vessel brim, there are two horizontal rows of CWT impressions on the rim interior. In addition, there are at least three horizontal rows of exterior CWT impressions on the rim or rim/neck portion of the vessel. This is followed by L- Oblique CWT impressions on the shoulder of the vessel with hollow tool impressions directly

Figure 7.2 Schuddemat Vessel #9

below the oblique impressions.

The final vessel from the Schuddemat site is S-15 (Figure 7.3). A large portion of this vessel has been reconstructed which has allowed us to see all of the decoration on the vessel. Like S-9, it is a Short Rim vessel that is excurvate. Also like S-9, there are horizontal rows of CWT impressions on the rim interior, of the vessel below the inner corner of the lip. However, in S-15 there are 3 rows. On the rim exterior, extending to the shoulder, there are eleven rows of CWT impressions that are bisected by a triangle motif made up of CWT impressions. Directly below this, along the vessel shoulder, is a broken horizontal line that is incised in the vessel.

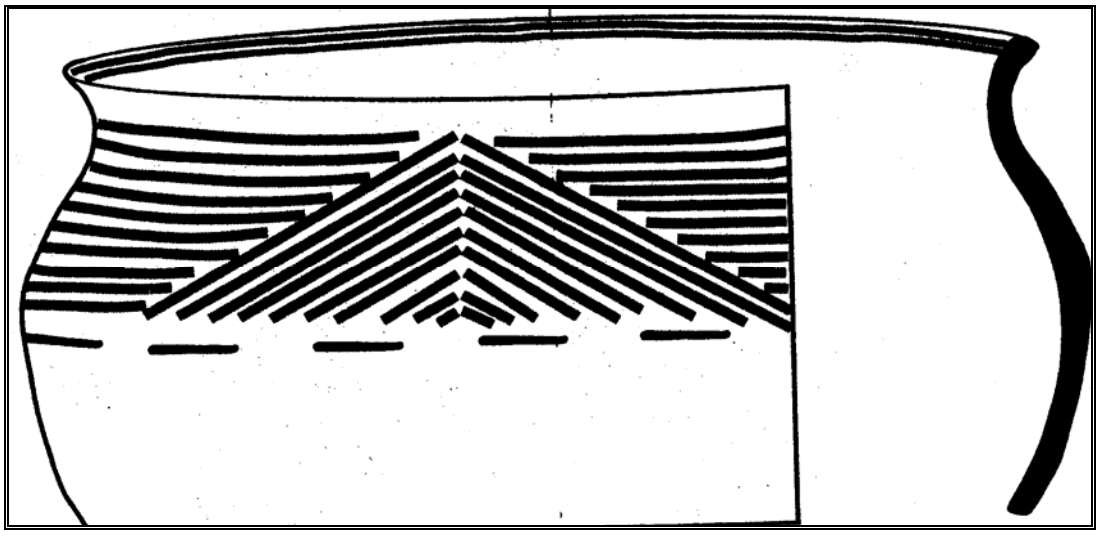


Figure 7.3 Schuddemat Vessel #15

7.2.5 Schuddemat Site Pottery Summery

The pottery recovered from the Schuddemat site is varied in terms of both profile and lip shape. Identifiable vessel profiles included Short Rim (N= 6, 32%), S-Rim (N=3, 16%), Wedge (N=3, 16%), Straight/Angled (N=3, 16%), Straight (N=2, 10.5%), Angled (N=1, 5%) and Square Wedge (N= 1, 5%). Eight of the vessels recovered from Schuddemat had undetermined profiles. There are 11 different lip shapes found on the Schuddemat vessels. The most popular shapes are Round, Expanding Flange and Exterior Flange.

Like the vessel profile and lip shape, exterior surface treatment on the vessels recovered from the site is varied. The majority of the vessels recovered have exterior surface treatments that have been at least partially obliterated (40%). Other popular methods include textile impressing (26%) and smooth (26%). One of the obliterated surface finish vessels and two of the vessels with smooth exteriors show signs of burnishing. Just under half of the Schuddemat vessels have a fine, well worked paste (48%, N=13). Also well represented are vessels with a laminated paste (37%, N=10). Grit is the only type of temper found in the Schuddemat vessels. The majority of the tempered vessels contain a rather fine grit (69%). One vessel in the Schuddemat collection has no visible sign of temper.

Five (18.5%) of the 27 Schuddemat vessels are undecorated. The most popular methods of decoration are CWT (27%), CI (23%), TI (20%), and dentate (10%). Also present are incisions, fingernail impressions, finger pinches and punctates. Many times these methods are used in conjunction with another type of decoration. The most popular field of decoration is the vessel brim. Eighty-two percent of the decorated vessels have decoration on the brim. Only four decorated vessels recovered from Schuddemat do not have any sort of brim decoration.

Two major themes are present in brim decoration. The most popular type of brim decoration is R or L- Oblique impressions along the brim surface. Decorative modes include CWT (N=3), CI (N=3), TI (N=2) and dentate (N=1). The second major theme in brim decoration is two canaliculate rows of impressions along the brim surface. Six Schuddemat vessels are decorated in this manner. Methods include CWT (N=2), CI (N=2) and dentate (N=2). These two “themes” are found both by themselves and in

conjunction with decoration on another field. Other types of brim decoration include finger pinch lip nodes (N=1) and horizontal TI (N=1) on the outer corner of the brim. Decoration falling below the brim area of the vessel varies from large TI along the below brim surface to horizontal fingernail impressions along the vessel rim.

There are a few vessels recovered from Schuddemat that are more elaborately decorated. Five Schuddemat vessels have three different types or fields of decoration and two vessels have four. Two vessels (S-1 & S-17) have brims decorated with two canaliculate rows of impressions and exterior rims with a horizontal over oblique motif. S- 2 is decorated with vertical T.I on the brim inner corner while the exterior rim of the vessel is decorated with L-Oblique dentate impressions followed by a horizontal row of TI. The inner corner of the vessel brim on S-23 is decorated with R-Oblique CWT impressions and the below brim area has vertical finger nail impressions. Following the fingernail impressions are at least three horizontal rows of CWT impressions. The decorative techniques of incising and punctates are seen only once at Schuddemat- both techniques employed on S-25. The interior of the vessel has an incised line, the brim has random punctates and is also decorated with R-Oblique CI. The two Schuddemat vessels decorated on four fields are S-9 and S-15 which are pictured in Figures 7.2 and 7.3 respectively.

7.3 Twin Fawns (DiMe-23)

Dr. Scott Hamilton discovered the Twin Fawns site in 1995 when collecting Global Positioning System data in order to construct a paleo-environmental landscape model for the *Makotchi-Ded Dontipi* locale (Hamilton and Nicholson 1999). Since its initial discovery, a great deal of work has gone into exploring and excavating this site. From 1996 to 2000, a total of 45 one m^2 units and 105 test pits have been excavated at the Twin Fawns site. Recoveries from these investigations indicate that it is a proto-historic site that was occupied for a relatively short period of time. "Absolute dating of the site is complicated by dramatic fluctuations in the radiocarbon calibration curve during this era. One bison bone sample yielded an AMS date of 150 +/-60 (Beta 96111). Upon calibration, and consideration at one and two 'sigma' date ranges, the calibrated date range spans most of the past 330 years" (Hamilton and Nicholson 2006b). The

recovery of two bone slot knives, one with a brass sheet metal blade (Figure 7.4), securely places the Twin Fawns site in the proto-historic though additional materials recovered reflect a Late Plains Woodland archaeological entity (Hamilton and Nicholson 2006b). The presence of a complete late pre-contact tool kit and the lack of any other type of European goods, beyond the brass sheet metal, seem to indicate that Twin Fawns was occupied "in the very early phases of the contact experience" (Hamilton and Nicholson 2006b). In addition to the bone slot knives, there was a number of ice gliders recovered from this site (Nicholson et al. 2003). Recent archaeobotanical analysis of food residue samples and features has tested positive for the presence of corn (*Zea mays*) at the Twin Fawns site (Boyd, Surette and Nicholson 2006: 1135). The possible implications of these discoveries will be discussed in chapter eight.

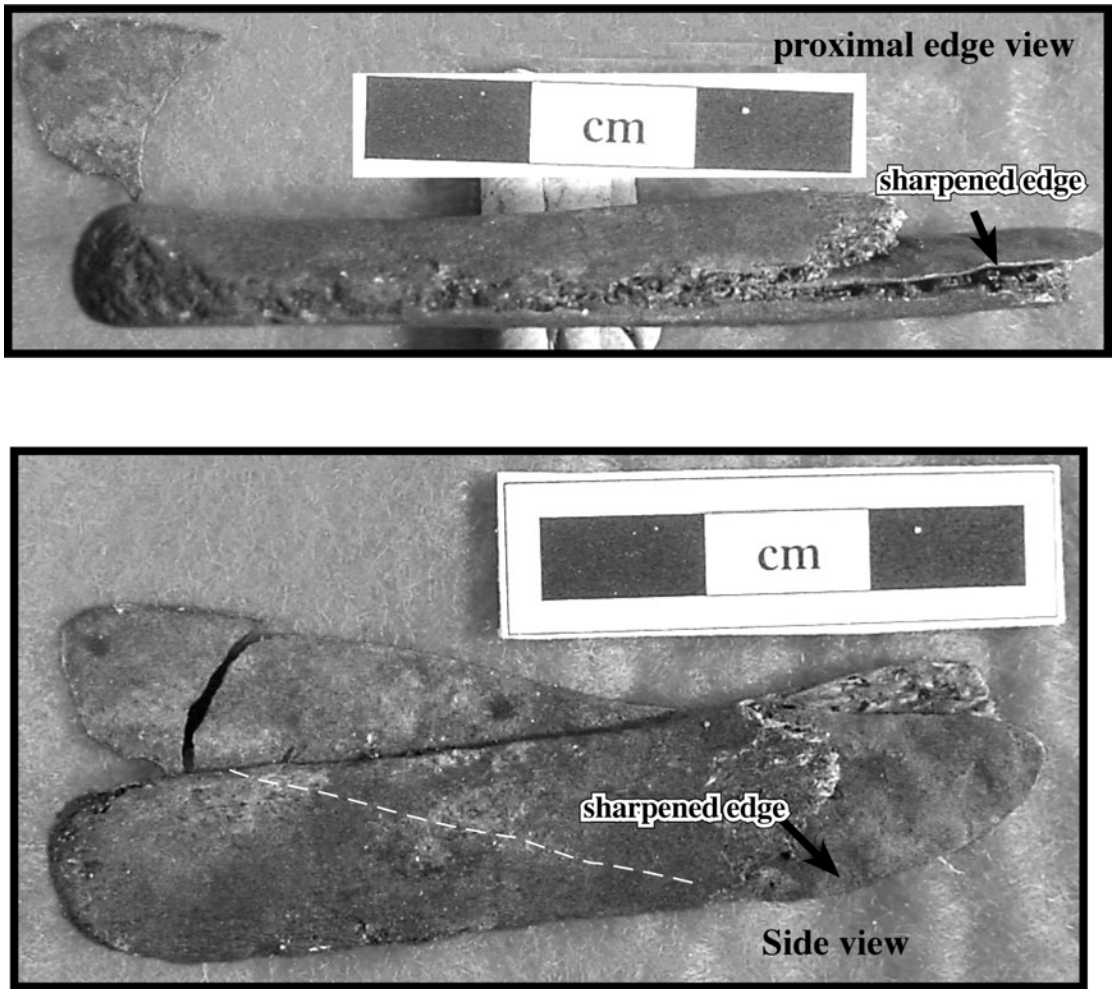


Figure 7.4 Slot Knife with Brass Blade Recovered From Twin Fawns Site
(Hamilton and Nicholson 2006b)

Nicholson and Hamilton have suggested, based upon pottery recoveries, that Twin Fawns is a Mortlach component (1999). They propose that, while much of the pottery seems to be primarily Mortlach, "the Twin Fawns site contains ceramics which appear to represent both Mortlach and Vickers within the same assemblage" (Nicholson, Meyer, Nicholson and Hamilton 2003: 125).

There has been a total of 8,444 pottery sherds recovered from Twin Fawns. Of these, over 85% are considered indeterminate sherds. So, although there has been a large number of sherds recovered, the vessel integrity at Twin Fawns is very low. Based on rim sherds, a total of 26 vessels have been identified from the Twin Fawns collection. Of these, 2 vessels are represented by brim only, 18 by rim sherds, 5 by rim-neck sherds, and one by a reconstructed neck/shoulder area.

7.3.1 Vessel Rim Profile

There are six different rim profiles present in the Twin Fawns collection (Appendix B). Of the vessels with identifiable profiles, the most popular profile is Wedge (32%, N=6). Four vessels have Straight Rim profiles (21%). There are three with S-Rim profiles (16%) and three with profiles which fall into the Straight/ Angled category (21%). Two of the Twin Fawns vessels have Short Rim, excurvate profiles (10%) and there is a single vessel with Angled Rim profile. Seven of the vessels recovered from the Twin Fawns site have undetermined profiles (32%).

7.3.2 Lip Form

The lip forms of the Twin Fawns vessels are highly varied. On the 26 vessels, there are 12 different lip shapes. Only four of these shapes are represented by more than two vessels. The more common shapes are Wedge (N=6), Interior Bevel (N= 3), Interior Bevel/Flange (N=3) and Round (N=3)

7.3.3 Paste Quality, Surface Finish- Exterior and Interior, and Temper

Half of the vessels recovered from the Twin Fawns site have a fine, laminated paste. Of the remaining vessels, an overwhelming majority have a paste quality that can be described as fine or very fine (N= 9). In addition, four of the vessels have pastes that are coarse or medium coarse.

The exterior surface treatment on 42% (N=11) of the Twin Fawns vessel is at least partially obliterated. On two of these vessels there are signs of wiping. Twenty-

three percent (N=6) of the vessels have smooth exterior surface treatments and 27% are textile- impressed. The remaining two vessels have exterior surfaces that are cord-roughened.

An overwhelming majority (89%) of the Twin Fawns vessels have smooth interior surface treatments. Of the remaining three vessels, one has a wiped interior surface, one is wiped and obliterated and the interior surface finish on the final vessel is partially obliterated but there are signs that it was also wiped and burnished.

Most of the Twin Fawns vessels are tempered with fine grit (65%). Two of these vessels with fine grit temper are also tempered with sand. There are five vessels recovered from Twin Fawns that are tempered with sand alone. Of the remaining vessels, four are tempered with a mid-sized grit and one vessel has unsorted grit temper.

7.3.4 Decoration

There is decoration on all but one of the vessels recovered from the Twin Fawns site (Figure 7.5). Decorative techniques include CWT (57%), TI (18%), CI (14%), fingernail impression (7%) and finger pinching (4%). Like the Schuddemat site, the most popular field of decoration is the brim of the vessel. Over 80% (N=21) of the Twin Fawns vessels have decorated brims. Over half of these vessels (N=13) have decoration on the brim alone. Seven vessels have decoration on the brim as well as the below brim or rim surfaces and a single vessel has brim decoration coupled with decoration on the vessel interior. There are four Twin Fawns vessels that have decoration on the rim but not the brim of the vessel.

7.3.4.1 Brim Decoration

There are 21 Twin Fawns vessels that have decoration of the brim of the vessel. Of these over 75% (N=16) are decorated with R or L-Oblique impressions along the brim surface. Eleven of these vessels have this motif carried out with a CWT. Five vessels have this as their only form of decoration (TF-7, TF-8, TF-16, TF-20 & TF-21). Vessel TF-4 has R- Oblique CWT impressions on both the brim and interior of the vessel. There are R-Oblique CWT impressions on the brim surface of TF-9 followed by vertical finger pinches directly below the brim. Both TF-3 and TF-19 have oblique CWT impressions on the brim and vertical fingernail impressions on the rim surfaces. Vessel TF-23 has R-Oblique CWT impressions on the brim followed by a horizontal

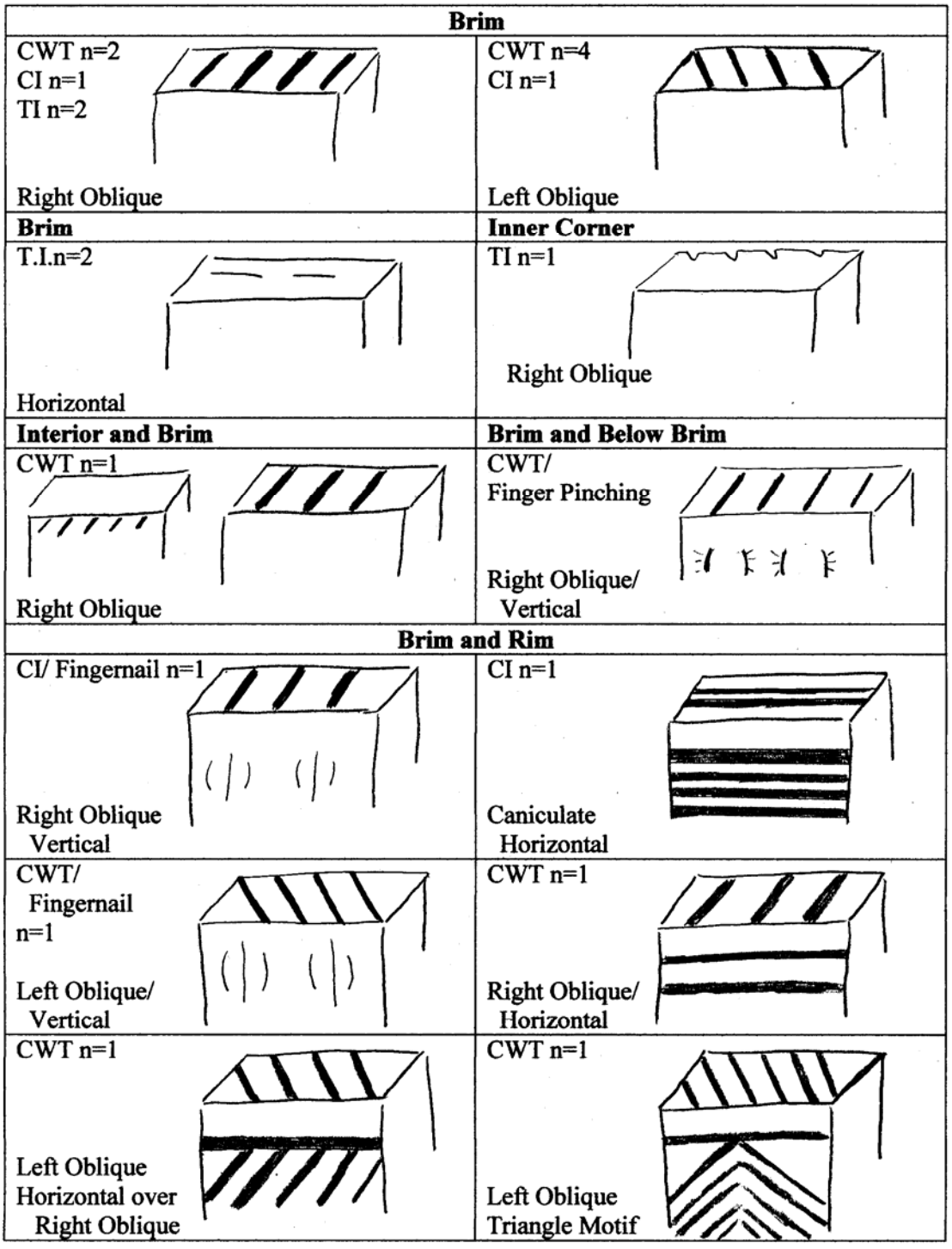


Figure 7.5 Twin Fawns Decoration

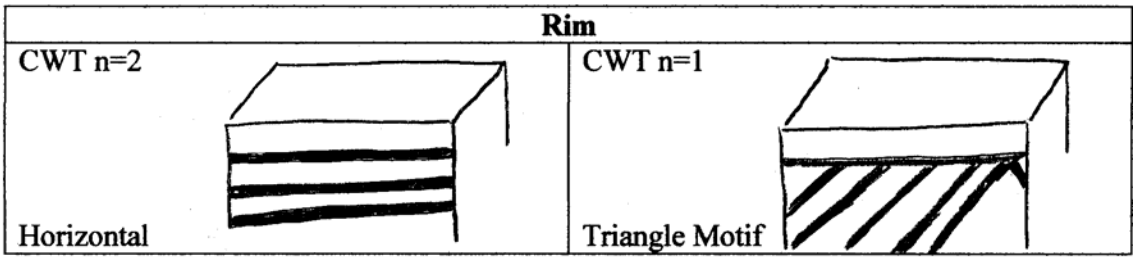


Figure 7.5cont'd Twin Fawns Decoration

CWT impression on the exterior rim surface. TF-24 is decorated with L-Oblique CWT on the brim and horizontal over R-Oblique CWT impressions on the rim of the vessel. The final vessel with CWT impressions along the brim is one of the two Twin Fawns vessels with a triangle motif (TF-22). It has L-Oblique CWT impressions on the brim and horizontal CWT impressions bisected by a triangle on the vessel rim.

The second method of oblique impressions on the brim surface is cord impression (CI). There are three vessels decorated in this manner and for two, this is the only field of decoration (TF-10 & TF-11). Vessel TF-3 has R-Oblique CI on the brim followed by vertical fingernail impressions on the vessel rim. Finally, there are also two vessels that have TI oblique impressions on the brim (TF-1 & TF-18). This is the only form of decoration on these vessels. There is another vessel, TF-15, which has R-Oblique TI on the inner corner of the vessel brim. The other three vessels that have brim decoration are TF-6, TF-14 and TF-17. TF-6 has a discontinuous canaliculate row of TI along the brim surface. TF-14 has the same decoration though the impressions are continuous. Finally, TF-17 has three canaliculate rows of CWT impressions that run along the brim.

7.3.4.2 Rim Decoration

There are only four decorated vessels recovered from Twin Fawns that do not have decorated brims. All of these vessels have CWT decorated rims. TF-5 has four horizontal rows of CWT impressions and TF- 26 has at least three. Vessel TF-12 is decorated with L- Oblique CWT impressions. The final vessel, TF-25 is the other vessel in the collection with horizontal CWT impressions bisected by a triangle motif.

7.3.5 Twin Fawns Pottery Summery

Like the Schuddemat site, the Twin Fawns pottery collection is quite varied in terms of vessel profile and lip shape. There are six different profiles present at Twin Fawns- Wedge (N= 6, 23%), Straight (N=4, 15%), S-Rim (N=3, 11.5%), Straight/ Angled (N=3, 11.5%), Short Rim (N=2, 10%) and Angled (N=1, 4%). Seven vessels recovered from the Twin Fawns site have undetermined profiles. There are 12 different lip shapes present in the collection. Most common are Wedge (N=6), Interior Bevel (N=3), Interior Bevel/Flange (N=3) and Round (N=3). The paste quality of the Twin Fawns vessels is fine and well worked. Thirteen of the Twin Fawns vessels have laminated pastes. In terms of exterior surface treatment, the Twin fawns vessels are very similar to those recovered from the Schuddemat site. Over 40% of the vessel exteriors are at least partially obliterated, 23% have smooth exterior surfaces and 27% are textile-impressed. At Twin Fawns, there are also two vessels with cord-roughened exterior surface treatments. Fine grit temper is prevalent in the Twin Fawns vessels (65%), though there are also a number of vessels that are tempered with sand and grit (N=2) or sand alone (N=5).

Decorative techniques in the Twin Fawns collection include CWT (57%), TI (18%), CI (14%), fingernail impression (7%), and finger pinching (4%). Like Schuddemat, the most popular field of decoration for the Twin Fawns vessels is the brim. Over 80% of the Twin Fawns vessels have some sort of brim decoration. The most prevalent decorative motif for the vessel brim is oblique impressions along the brim surface. Well over half (N=16, 62%) of the Twin Fawns vessels are decorated in this manner, either alone or in conjunction with decoration in another field. Other forms of brim decoration include canaliculate rows impressed along the brim surface. There are four vessels from Twin Fawns that do not have any form of decoration on their brims. All of these are CWT decorated along the vessel rim. There are three more elaborately decorated vessels in the Twin Fawns collection. TF-24 has L-Oblique CWT impressions along the brim and a horizontal over oblique CWT motif on the rim surface. Both TF-22 and TF-25 have CWT triangle motifs on the rim of the vessel. TF-22 also has L-Oblique CWT impressions along the brim surface and the brim of TF-25 is undecorated.

7.4 Hollow B (DiMe-24)

The Hollow B site lies adjacent to the Schuddemat and Twin Fawns sites in the Lauder Sandhills (Figure1.1). It was discovered by Dr. Bev Nicholson while doing testing in the area. The site is in a very small hollow only 4 X 5 m^2. Because of the site location, Hollow B is most likely a winter site. It would have been quite very wet in the spring and very damp and mosquito filled through the summer months. Testing revealed a hearth deep with ash which, along with the site's location in the small hollow, has led Nicholson to describe it as a "well sheltered activity area used for processing" (B.A. Nicholson, personal communication 2007). Unlike Schuddemat and Twin Fawns, Hollow B would not have been amenable to camping and is an activity area that was very likely associated with either of the other habitation sites. The reason for Hollow B's inclusion in this thesis is its proposed relationship to the neighboring Schuddemat and Twin Fawns sites. A total of 2419 pottery sherds were recovered from Hollow B. Though this seems high, the pottery from this site was extremely friable and over 86% of the sherds were from an indeterminate portion of vessels. A total of four vessels have been identified at the Hollow B site.

7.4.1 Vessel Rim Profile

At Hollow B there is one vessel with an S-Rim profile and one with a Wedge profile. The wedge shaped vessel was identified by a very small lip sherd. It is not possible to determine whether the final two vessels are Straight or Angled Rim. As such, both are classified as Straight/ Angled Rim vessels.

7.4.2 Lip Form

Each of the four vessels recovered from the Hollow B site has a different lip shape. As mentioned, the wedge profile vessel has a wedge lip (HB-4). The vessel with S-Rim profile has a lip shape that is Interior Bevel/Flange (HB-1). The remaining two Straight/Angled Rim vessels (HB-2 & HB-3) have lip shapes that are Expanding Flange and Expanding Bevel/Flange.

7.4.3Paste Quality, Surface Finish- Exterior and Interior, and Temper

The paste quality for both HB-1 and HB-4 is fairly fine and laminated. HB-2 and HB-3 have pastes that are a bit coarser and can be considered to have medium paste quality. The temper used in the manufacture of HB-1 and HB-4 is fine grit and the

temper for HB-2 and HB-3 is a more mid-sized grit. The exterior surface finishes of the vessels are as follows- HB-1- vertical cord-roughened, HB-2- obliterated and HB-3 and HB-4- smooth. The interiors of all of the vessels are smooth.

7.4.4 Decoration

All of the vessels recovered from the Hollow B site are decorated. There are three different techniques of decoration- CWT (HB-1), CI (HB-2 & HB-3), and dentate (HB-4). Vessels HB-1 and HB-2 have decoration that extends along the rim of the vessel and HB-3 and HB-4 decoration is restricted to the vessel brim. As there are only four vessels recovered from this site they will each be discussed and depicted individually (Figure 7.6).

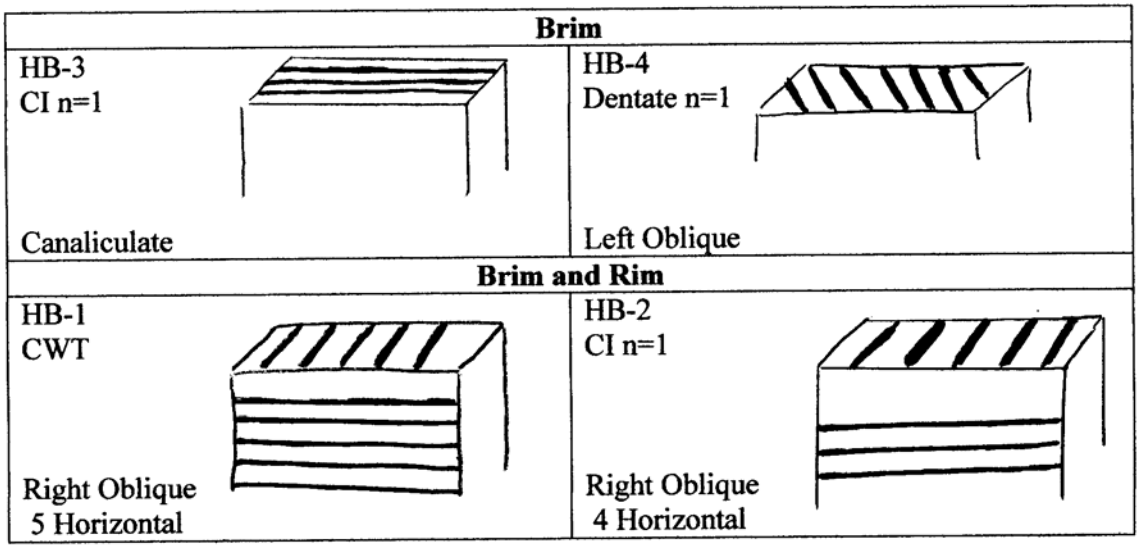


Figure 7.6 Hollow B Decoration

HB-1 has CWT impressions that run from the inner corner of the brim across to the outer corner in a R- Oblique pattern. Following this there are horizontal rows (at least 5) of CWT impressions on the vessel rim exterior. HB-2 follows the same motif as HB-1 with R-Oblique impressions on the brim and horizontal rows (at least 4) on the rim of the vessel but the impressions on HB-2 are CI. HB-3 has 3 canaliculate rows of CI along the vessel brim. Vessel HB-4 also has decoration restricted to the vessel brim but is decorated with dentate stamping in a L- Oblique pattern.

7.4.5 Hollow B Pottery Summary

There are four different profiles present in the Hollow B collection- Straight/ Angled (N=2), S-Rim (N=1) and Wedge (N=1). Each of these vessels also has a lip shape different from the others. Both the S-Rim vessel (S-1) and the Wedge Vessel have fine, laminated pastes while the other two have pastes that are quite a bit coarser. Although the interiors of all of the vessels are smooth, exterior surface finishes range from vertical cord- roughened to smooth to obliterated. All of the Hollow B vessels are grit tempered.

All of the vessels in the Hollow B collection are decorated. Two of the vessels are CI, one is decorated with a CWT and the remaining vessel is decorated with dentate stamping. Two Hollow B vessels have R-Oblique impressions along the vessel brim followed by horizontal impressions along the rim surface. HB-3 is decorated with horizontal CI along the vessel brim and HB-4 has L-Oblique dentate stamping along the brim.

7.5 Schuddemat, Twin Fawns and Hollow B- Contemporaneous?

There have been some questions raised as to degree of relatedness between the Schuddemat, Twin Fawns and Hollow B sites. Because of their close proximity to one another, and similarities in pottery assemblages, it has been suggested that they should be subsumed under one site designation. Articles by Nicholson and Hamilton (2006b: 23) and Mokelki (2002) subsume the three sites under the Twin Fawns site designation. Although the three sites may be considered separate occupations of the same site, a comparison of the pottery collections from Schuddemat and Twin Fawns reveals that it is unlikely that these occupations were contemporaneous.

Though a substantial amount of work has been carried out at Twin Fawns, there is still much more to do at Schuddemat. Comprehensive analysis has been carried out on certain aspects of the Twin Fawns site material culture (i.e. bone distribution, ice gliders, slot knives). New excavations would certainly aid in our understanding of these sites but there is still much to be learned from further analysis of the artifacts that have already been recovered. With major complications in dating from this time period, there are no radiocarbon dates from either Schuddemat or Hollow B and the calibrated date

range from Twin Fawns spans most of the past 330 years (Hamilton and Nicholson 2006b). For the purpose of attempting to assess whether or not it is likely that the sites were occupied contemporaneously, we are limited to comparing their pottery assemblages to determine the degree of continuity between them. With only four vessels identified at Hollow B, it is difficult to include this site in any meaningful comparison. Because of the nature of the Hollow B site, along with its small size, it is unlikely that it will be further explored.

The Schuddemat site and the Twin Fawns site have respectively produced 27 and 26 vessels. The same six vessel profiles are visible at Twin Fawns and Schuddemat but in differing frequencies. While the most common identified profile at Schuddemat is Short Rim (32%), this profile is only present on 10% of the Twin Fawns vessels. At Twin Fawns, the most popular vessel profile is Wedge (23%) which accounts for only 16% of the vessel profiles of Schuddemat. Interestingly enough, both sites have equal numbers of vessels with Straight, Angled and Straight/Angled profiles. Comparison of the lip profiles at Schuddemat and Twin Fawns has little to offer as the lip shapes from each of the sites is highly varied. Exterior surface treatment from both sites includes smoothing, textile impressing and obliterating. At both sites there were small amounts of wiping and burnishing and each site has small numbers of vessels with cord-roughened exteriors. Also very comparable is the paste qualities of the vessels recovered from both sites. Both produced a majority of vessels with fine, well worked pastes, and both had a number of vessels with laminated pastes. One major difference between the vessels recovered from the two sites is the presence of sand temper in the Twin Fawns vessels. Though completely absent from Schuddemat, there is sand temper in 27% (N=7) of the vessels recovered from Twin Fawns.

Although some of the vessel decoration at the two sites is quite similar, there are also a number of differences between the sites. While over 18% (N=5) of the Schuddemat vessels are undecorated, there was only one undecorated vessel recovered from the Twin Fawns site. Types of decoration present at both sites include CWT, CI, TI, finger pinching, and fingernail impression. At both sites, CWT decoration was most prevalent accounting for 57% of the Twin Fawns decoration and 27% of the decoration on the Schuddemat vessels. Notably absent from the Twin Fawns vessels was any type

of dentate stamping. This method of decoration accounted for 10% of the decoration on the Schuddemat vessels. Other elements present at Schuddemat that are not found at Twin Fawns are punctates and incising.

One aspect of decoration that was common at both sites is the high incidence of brim decoration. More than eighty percent of the vessels in both collections have decorated brims. At Schuddemat, there were two very popular modes of brim decoration- oblique impressions (N=9) and two canaliculate rows of impressions along the vessel brim (N=6). While the first mode is also popular at Twin Fawns and found on 16 of the 26 vessels, there are only three vessels with canaliculate impressions along the brim surface. In addition, although this decoration at Schuddemat is consistently made up of two canaliculate rows, the vessels from Twin Fawns either have a single row or three canaliculate rows of impressions. Another difference in brim decoration at the two sites is the fact that while brim decoration is popular at both, there is only one Twin Fawns vessel that has brim decoration anywhere but the brim surface. TF-15 has R-Oblique SET impressions along the inner corner of the brim. At Schuddemat, there are five vessels that are decorated along the inner corner or outer corner of the brim. Three of these also have another type of decoration present on the vessel. While both sites have vessels with elaborate triangle motifs (TF-23, TF-25, S-15), the vessels recovered from the Twin Fawns site tend to be a little plainer in their decoration. There are seven vessels from the Schuddemat site that have at least three different types or areas of decoration. At Twin Fawns, the only vessels with more elaborate decoration are the two with the rainbow or triangle motifs.

This comparison allows a few statements to be made about the possible interconnectedness of the components at these two sites. While there are certain similarities that indicate that the makers of these pots were following similar traditions, differences in the pottery assemblages suggest that these sites are the result of discrete occupations. The short, excurvate rim is quite popular at the Schuddemat site while the wedge profile is much more prevalent at Twin Fawns. The complete lack of sand temper in the Schuddemat collection is quite telling as it is present in over a quarter of the vessels from the Twin Fawns site. Other differences in the collections revolve around vessel decoration. The most glaring differences are the lack of vessels at Twin

Fawns with the decorative motif of two canaliculate lines along the vessel brim. Also missing at Twin Fawns is dentate stamping, incising and punctates. Although there was a higher percentage of undecorated vessels at Schuddemat, the vessels that were decorated were, as a rule, decorated more elaborately than the Twin Fawns collection.

The differences in the assemblages from these sites may simply be a matter of sample error or the activities of individual potters. Further analysis of the additional material remains of the site may, in fact, point to the components being occupied contemporaneously. In addition, further excavation at the sites could prove quite useful in furthering the argument that Twin Fawns and Schuddemat are, in fact, the same component. For the time being however, the pottery comparison points to these sites being occupied at separate times by two groups that share similar cultural connections. While the Hollow B site is likely an activity area associated with either Twin Fawns or Schuddemat, with only four vessels in the assemblage, it is not possible to tell to which component it is more likely related.

7.6 Summary and Conclusions

This chapter provides a summary of the comprehensive analysis of the pottery recovered from the Schuddemat, Twin Fawns and Hollow B sites in Manitoba's Lauder Sandhills. Though the pottery from these sites is consistent in many ways, there are some obvious differences in the collections from the Schuddemat and Twin Fawns sites. Further analysis of the materials gathered from these sites along with continued excavation is needed in order to determine how closely these sites are related. At present, there are enough differences in the pottery collections of the Schuddemat and Twin Fawns site to prevent their amalgamation as a single component. Although it is not possible at this time to connect these sites historically, Chapter Eight explores how they may be connected culturally.

Chapter Eight

Establishing Cultural Connections at *Makotchi-Ded Dontipi*

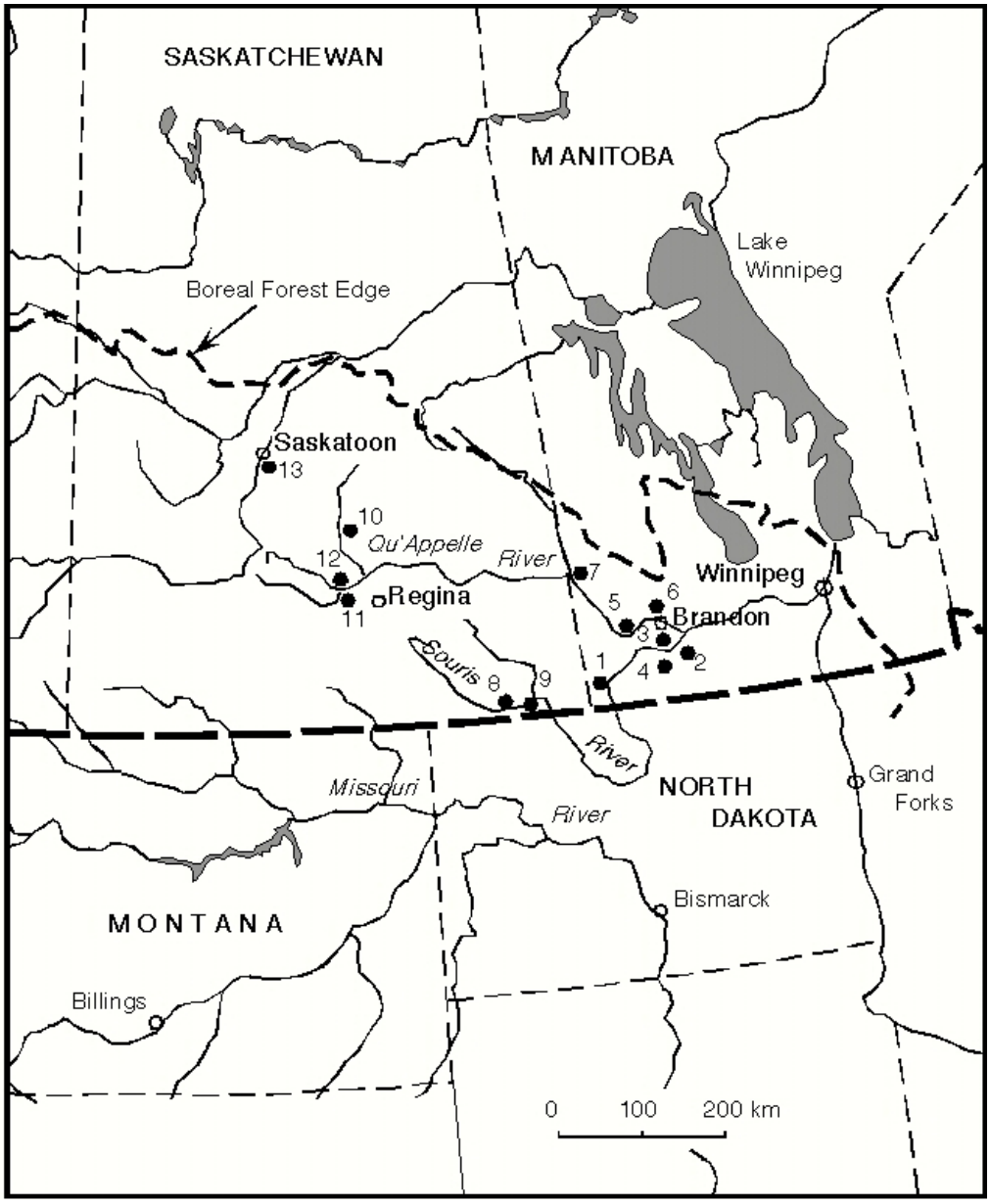
8.1 Introduction

While the primary objective of this thesis is to provide a systematic analysis of the pottery collections from the Jackson, Vera, Schuddemat, Twin Fawns and Hollow B sites, a secondary goal is to determine the cultural affiliation of these sites. The purpose of this chapter is two-fold. First, the information gathered and presented in the previous chapters is used to assess the cultural affiliation of these *Makotchi-Ded Dontipi* sites. Secondly, it explores the relationship between the people inhabiting the Vickers focus and Mortlach phase components. Figure 8.1 is a map showing the location of all of the archaeological sites discussed in Chapter 8.

8.2 Cultural Affiliation of the Jackson and Vera Sites

8.2.1 Establishing Cultural Affiliations

As was the case in earlier chapters, the sites are broken up into two groups based upon past suggestions of cultural affiliations. The Jackson and Vera sites have been identified as Vickers focus sites in past publications (i.e. Nicholson 1993, Nicholson and Hamilton 1997, 1999, 2001). This cultural assignment is explored through comparison to other identified Vickers focus sites. As proposed Mortlach sites (Nicholson and Hamilton 1999, Hamilton and Nicholson 2006b), the collections from Schuddemat, Twin Fawns and Hollow B are reviewed and compared to two major schemes (Malainey 1991, 1995; Walde 1994) and two neighboring archaeological sites (Sanderson and Long Creek) to asses the accuracy of the assignment as well as the possibility that these sites are affiliated with the Moose Jaw culture.



Key

1. *Makotchi-Ded Dontipi* Locale	2. Lowton	8. Sanderson
Jackson	3. Lovstrom	9. Long Creek
Vera	4. Randall	10. Lake Midden
Schuddemat	5. Johnas	11. Stoney Beach
Twin Fawns	6. Martin	12. Long John
Hollow B	7. Wascana Ware	13. Hartley

Figure 8.1 Map of Location of Sites Discussed in Chapter 8
(map courtesy of David Meyer)

Establishing the cultural affiliation of the Jackson and Vera sites is problematic for a variety of reasons. First, there has been no systematic analysis of Lowton, the Vickers Focus type site, with which to compare the *Makotchi-Ded Dontipi* site collections. Due to the sheer volume of artifacts recovered from the Lowton site, such an analysis would be an extremely ambitious undertaking. The site has been collected by amateur archaeologists for well over 80 years and each collector has an extensive collection of pottery along with a multitude of lithics and other artifacts. The samples collected from numerous excavations over the years do not even scratch the surface of what has been collected by these avocational archaeologists. Although Reid undertook the enormous task of cataloguing and analyzing portions of the Lowton collection in his Master's thesis for the University of Manitoba (1972), he made no effort to divide the collection into individual vessels. As a result, the data are not easily comparable to other collections as one vessel may be discussed any number of times. An additional problem with the Lowton site is that due to cultivation, we cannot be sure that it is a single component site.

In spite of the lack of systematic analysis of the pottery from the Lowton site, Nicholson has made great strides in defining the Vickers focus (1991, 1993, 1994a, 1996). Unfortunately, most of the published descriptions of Vickers focus pottery include the collections from the Jackson and Vera sites. Because the pottery from these two sites has actually contributed to defining Vickers focus, it is extremely difficult to separate them from what is considered Vickers focus pottery. In 1991, the same year excavations began at the Jackson site, Nicholson published this description of Vickers focus pottery based upon recoveries from the Lowton, Lovstrom and Johnas sites-

> All Vickers Focus sites share markedly similar ceramic wares. In general, these assemblages resemble the plain wares common to Mississippian villages to the south. An unusual decorative feature common to all three sites is the presence of finger-pinched nodes as exterior lip decoration…. Tool impressions on the interior and exterior of the lip are common and rim profiles vary from flared, through straight, to "S" cross sections. There is also use of grog and mussel shell as well as grit for temper. Exterior surface finish ranges from smooth, through obliterated fabric, to clearly defined cord/fabric marking, as well as small amounts of

> check- stamping. Exterior brushing is also present as a minor element (Nicholson 1994:110).

If the pottery from the Jackson and Vera sites is compared to the above description of Vickers Focus there are visible similarities and differences. Both of the *Makotchi-Ded Dontipi* sites have varied rim profiles which include Straight and S-Rim. At both sites, a number of the Short Rim vessels are excurvate – and might be considered to be flared. A notable difference is the presence of the Angled, Wedge, and Square Wedge profiles at the Jackson and Vera sites. Though these profiles do not dominate the Jackson and Vera assemblages, they are present. In contrast, these profiles are not mentioned in descriptions of the collections of other Vickers focus sites.

Like the eastern Vickers Focus sites, the Vera site contains vessels tempered with shell. Grit temper is found throughout all of the sites but the use of sand as temper seems to be absent from the Lowton, Lovstrom and Johnas sites. Exterior surface treatment on the Jackson and Vera vessels seems consistent with that found on the pottery to the east, with the notable exception of a complete lack of check-stamping at either of the *Makotchi-Ded Dontipi* sites. With consistencies in vessel form, temper, and surface treatment the Vera and Jackson sites seem similar in a number of ways to the Vickers Focus sites in south central Manitoba.

Although there are a large number of undecorated vessels from the Lowton site, the majority of the pottery from both Jackson and Vera is decorated. The notable technique of tool impressions along the inner and outer corners of the lip found at the eastern Vickers focus sites (Nicholson 1994:110) is present at both Jackson and Vera (Figure 8.2). As was earlier mentioned, this method of decoration was very popular at the Jackson site and accounts for over 30% of the decoration on Jackson vessels. Although not as common at Vera, there are six vessels that exhibit some form of impression along the inner or outer lip corners. This decorative characteristic is consistent with decoration found in the Scattered Village Complex in North Dakota (Ahler and Mehrer 1984; Nicholson 1994:107).

Finger-pinch lip nodes along the outer corner of the vessel lip are considered by Nicholson to be a signature trait for Vickers Focus (1994:107). This trait is quite common in the Lowton collection (Figure 8.3) and is present on two vessels recovered

from Vera. Although there are no rim sherds with finger-pinch lip nodes recovered from the Jackson site, there are shoulder sherds which display this type of decoration (Nicholson and Hamilton 1999:17). Another signature trait for Vickers Focus is the twisted cord loop impression that runs from the outer corner to the inner corner of the lip (Nicholson and Hamilton 1999:17). A single rim sherd with this characteristic was recovered from each of the Lowton, Jackson and Vera sites (Figure 6.2).

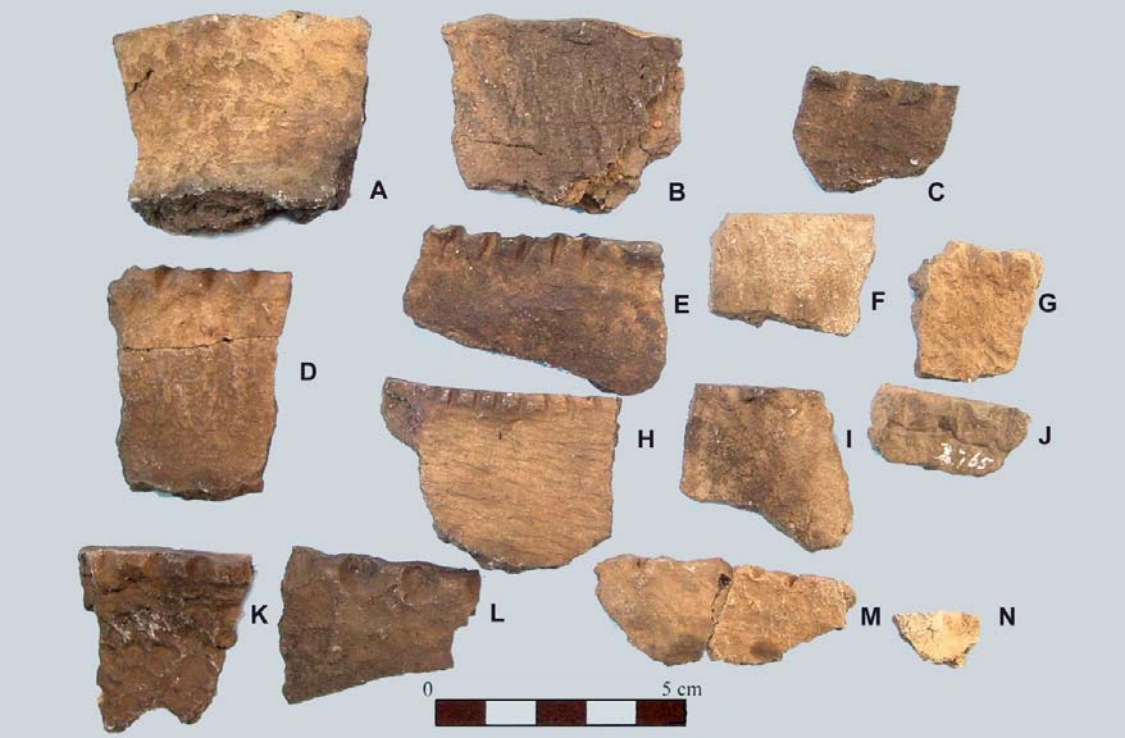


Figure 8.2 Tool Impressed Lips: Jackson- A &D (J- 4 & J- 3); Stoney Beach- B & E; Lowton- C,F,G, I, J; Lake Midden- H; Long John- K; Sanderson- L; Vera- M & N (V-16 & V-18).

Notably absent from the Jackson and Vera sites is "exotic" pottery. Aside from the single imported vessel recovered from the Vera site (V-9, Figure 6.3), there are no other obvious trade vessels recovered from either Vera or Jackson. The Lowton site, however, has a number of vessels that appear to be imported. "These include Fort Yates ware… and Knife River Fine wares… There are also a few vessels, possibly of Mississippian origin, with quartering tabs, and zoomorphic and anthropomorphic effigy heads positioned along the vessel rim…" (Nicholson, Hamilton, Running and Nicholson 2006:2) (Figure 8.4).

Figure 8.3 Finger-Pinch Lip Nodes: Lowton Site

Figure 8.4 Lowton Site Exotic Vessels- a. Incised Sherds b. Knife River Fine Ware
c. Circle Phalanges Effigy Heads d. Aberrant Sherd
e. Anthropomorphic Rim Tab f. Zoomorphic Rim Tab (Bear?)

8.2.2 Discussion and Conclusions

The previous inclusion of Jackson and Vera as Vickers focus sites within the literature makes it difficult to separate the characteristics of Vickers focus pottery. From early descriptions, along with personal examination of the collections from the eastern

Vickers focus sites, it is possible to make some comparisons. There are similarities in vessel shape, paste quality, temper and surface treatment between the Lowton site collections and those recovered from the Jackson and Vera sites. As decorative techniques are quite varied within the Lowton and Lovstrom vessels (Nicholson 1990, 1994), it is not difficult to draw parallels between the decoration found at these sites and that which has been described at the Jackson and Vera sites. Most specifically, the vessel decoration at all of the sites is primarily restricted to the lip and/or rim portions of the vessel. In addition, the decorative technique of making tool impressions perpendicular to the lip surface is quite common at both the Eastern Vickers focus sites and the Jackson and Vera sites. Vessels with finger-pinch lip nodes on the outer corner of the lip, along with vessels with the unique decorative technique of impressed single cord loops over the lip found at the Lowton, Jackson and Vera sites both serve to further link these sites under a common cultural affiliation.

Based upon analysis of the pottery from the Jackson and Vera sites, it seems quite probable that they are indeed Vickers focus sites. Differences in the pottery assemblages can be attributed to a number of different factors. The proposed nature of the Lowton site offers a possible explanation for the rich abundance of exotic pottery along with other classes of exotics (catlinite pipes and exotic lithic materials) recovered there. Lowton is an extremely large site that, by all indications, was occupied a number of times and used as a central place for the other Vickers focus sites in the area (Nicholson and Hamilton 1997:39). Nicholson has suggested that Lowton was a location where members of cognate groups coalesced around an elite kin group (Nicholson 1994). In contrast, Jackson and Vera are much smaller sites that are believed to represent a more centre-based settlement strategy as they were seasonally occupied for shorter periods of time (Nicholson et al. 1997:39). The difference in both the nature and the size of the Lowton site and the Jackson and Vera sites helps to account for a number of the differences in their pottery collection- namely, the absence of exotic vessels in the Jackson and Vera collections.

In addition, the Jackson and Vera sites date approximately 100 years after those in the Tiger Hills region. In an oral interview with Brian Scribe, Elder Dave Daniels from the Long Plain First Nation recalled a story that his father had told him about an

agricultural group that moved into the Tiger Hills. He mentioned that these people were picked on a lot (Nicholson, Wiseman, Hamilton and Nicholson 2006:326). Nicholson and colleagues have used this information to help explain the unusual site selection of the Vickers focus and the fact that "[a]lthough Blackduck people occupied the area before the arrival of Vickers focus, there is no intermixture of Blackduck wares with Vickers, although at the Lovstrom and Jackson sites, Vickers focus overlies Blackduck" (Nicholson, Hamilton, Running and Nicholson 2006). Although their main connections and trade links may have "been from the direction of their Eastern Woodlands homeland and the Middle Missouri Area (Nicholson et al. 2006:348), it is unreasonable to expect that the Vickers focus did not have outside contact with neighboring groups over the extended period of time that they lived in southern Manitoba. With a century of interaction with neighboring groups (limited as it might have been), combined with the passing of generations, it might seem unusual if the pottery collections from the Jackson and Vera sites were identical to those recovered from the earlier Vickers focus sites. .

8.3 Cultural Classification of the Schuddemat, Twin Fawns and Hollow B Sites

Schuddemat, Twin Fawns and Hollow B are all published Mortlach sites (Nicholson and Hamilton 1999, Boyd and Surette 2006). It has been suggested that these sites contain vessels with a mixture of Vickers focus and Mortlach traits (Nicholson and Hamilton 1999, Nicholson et al. 2003: 125). In order to assess the appropriateness of this designation, a comprehensive analysis of the pottery assemblages of these sites must be taken into account. As briefly discussed in Chapter 4, the concept of "Mortlach" has been the subject of considerable debate since its initial introduction by Wettlaufer in 1955. Archaeologists weighing in with differing definitions over the years include Wettlaufer and Mayer-Oakes (1960:27), Schneider and Kinney (1978: 35), Byrne (1973), Joyes (1973), Syms (1977), Meyer and Epp (1990), Malainey (1991, 1995) and Walde (1994, 2003). Most recently, Mortlach has even been suggested as a projectile point typology (Peck and Ives 2001). It is not the intention of this thesis to decide whose use of the term Mortlach is "correct". Instead, the assemblages from the Twin Fawns and Schuddemat sites are examined using the two main models that are presently being used in Saskatchewan archaeology- Malainey's (1991, 1995) more

restrictive scheme and Walde's (1994) scheme that is all encompassing. In addition, the pottery collections from Twin Fawns and Schuddemat are compared to assemblages from two Mortlach sites in southeastern Saskatchewan- the Sanderson and Long Creek sites. Hollow B has not been included in these comparisons because the vessel sample is extremely small.

8.3.1 Hollow B Cultural Classification

The sample size of only four vessels recovered from Hollow B makes it very difficult to assign a cultural designation for this site. Although there has been one vessel with a wedge profile recovered, and decorative elements do fall in line with what would be considered Mortlach wares, it is premature to make a cultural classification of a site based only on four vessels. As Hollow B is believed to be a very small activity area and there are other sites in the immediate area that are considered more significant, it is unlikely that further work will be done at Hollow B in the foreseeable future. The assignment by Nicholson and Hamilton (1999) of Hollow B to the Mortlach phase was based primarily on the belief that it is connected to the Twin Fawns and Schuddemat sites. It is unlikely that a cultural assignment can be made unless the Hollow B site can be securely linked with either Twin Fawns or Schuddemat.

8.3.2 Schuddemat Cultural Classification

There has been a total of 27 vessels recovered from the Schuddemat site. Appendix A and B present the details and photographs of these vessels and a comprehensive synopsis of the analysis can be found in Chapter Seven. This information is used in the following sections to asses the cultural affiliation of the Schuddemat site.

8.3.2.1 Malainey's Scheme

Malainey rejects the inclusion of all late pre-contact pottery of the Saskatchewan Plains into the Mortlach classification. She divides this pottery into two main groups: Mortlach - found south of the Qu'Appelle Valley and in northeast Montana and northwest North Dakota- and Wascana Ware- primarily found north of the Qu'Appelle Valley and in a few sites in eastern Manitoba (Malainey 1991, 1993, 1995). Malainey

identifies two different sets of characteristics for Mortlach and Wascana wares (Table 4.1) and encourages researchers to use the relative percentage of wedge verses non-wedge profiles to determine whether their assemblage should be considered Mortlach or Wascana.

According to Malainey, an "ideal" Mortlach ware assemblage would consist of at least 30% Wedge profile vessels though the most common profile is Straight Rim. In contrast, an 'ideal" Wascana ware assemblage should consist of approximately 80% Straight, Angled Rim and S-Rim profiles. About half of the vessels in Wascana ware collections will have Straight Rim profiles. At the Schuddemat site, there were eight vessels with undetermined profiles. Of the vessels whose profiles could be determined, the most common profile is Short Rim (excurvate) (N= 6) which accounts for 32%. S-Rim, Wedge and Straight/ Angled Rim profiles are each present in three vessels (16% each) in the collection. In addition, there are two Straight Rim vessels (10%), one Angled Rim vessel (5%) and one vessel with a Square Wedge profile (5%). The Straight, Straight/ Angled, Angled and S-Rim vessels make up 47% of the assemblage with only 10% attributed to Straight profile. This is a far cry from the 80 % Straight/ Straight/Angled and S-Rim (50% Straight) that is suggested for an "ideal" Wascana ware assemblage. If you include the Square Wedge with the Wedge profiles, it accounts for 21% of the Schuddemat assemblage. This ratio is certainly closer to the "ideal" Mortlach ratio than the ratio used to determine Wascana assemblages. The profiles at Schuddemat do not fit well into either Mortlach or Wascana ware "ideals". The small number of Straight profile vessels and the presence of more vessels with Short Rim profiles both add to the inability to easily place Schuddemat into a cultural category based solely on vessel profile.

In order to get a more comprehensive picture of how the Schuddemat collection fits with Mortlach and Wascana assemblages, we can look at other aspects of their pottery. According to Malainey (1991, 1995), the exterior surface finish on Mortlach vessels is generally plain, check-stamped or simple-stamped though cord-roughened exteriors are also common. Fabric-impressed exterior surface treatments are rare in Mortlach assemblages (Malainey 1991:368). In Wascana ware assemblages, fabric-impressed, plain and cord-roughened account for more than 80% of exterior surface

treatments (Malainey 1991:366). At Schuddemat, there are no vessels with either check-stamping or simple-stamping. Textile-impressed vessels make up 26% of the exterior surface treatments. All but one of the remaining vessels have either smooth (26%) or obliterated (40%) exterior surface treatments. The final vessel is vertical cord-roughened. Taking this into account, Schuddemat fits much better with Wascana ware than it does with Mortlach.

In addition to differences in profile frequency and exterior surface treatment, Malainey points out differences in decoration in Mortlach and Wascana ware assemblages. Mortlach pots tend to have simple decoration that is mainly confined to lip or brim. The majority of decoration is CWT or dentate though fingernail impressions, notches and TI are also found. In Wascana assemblages, there are a variety of motifs ranging from simple to complex and it is much more likely to find vessels that are decorated on fields aside from the vessel brim. Common decorative types include CWT, notches and punctates. At Schuddemat, the most common types of decoration are CWT (27%), CI (23%), TI (20%) and dentate (10%). The brim is the most popular field of decoration and almost half of the decorated vessels in the Schuddemat collection have decoration that is restricted to the lip/brim. There are, however, still quite a number of vessels with decoration that extends beyond the lip/ brim of the vessel and several vessels in the Schuddemat collection that are more elaborately decorated. Decorative motifs include horizontal over oblique, and triangle motifs.

Taking into account decoration and surface treatment, Schuddemat seems to fit more closely with Malainey's Wascana ware. The ratio of vessel profiles at Schuddemat do not fit easily into either Wascana or Mortlach ware though they are perhaps more in line with the latter. This dilemma is amplified by the fact that Schuddemat provides only a small number of vessels which is probably not a statistically valid sample.

8.3.2.2 Walde's Scheme

Walde (1994) presents a more encompassing view, using the Mortlach phase to encompass all of the sites from the Saskatchewan parklands south into the northern United States (Figure 4.2). He subdivides Mortlach into two subphases - Lozinsky and Lake Midden. The Lozinsky subphase is found in the Saskatchewan parklands and is recognized by the tendency of the assemblages to show substantial Selkirk influences.

The Lake Midden subphase to the south shows signs of interaction with neighbours to the south, as many Middle Missouri influences tend to show up in these sites such as ice gliders and gaming discs.

The Schuddemat site fits fairly well within Walde's broad definition of Mortlach (1994). One particular aspect that does not fit is the strong presence of single cord-impression at the Schuddemat site which accounts for 23% of the decoration. According to Walde, "single cord impressed vessels have a strong distribution outside the Mortlach area and are only very weakly represented in Mortlach sites" (1994: 61). Although not common in Saskatchewan Mortlach sites, Walde points out that this element is common in a number of sites to the east in Manitoba sites including Vickers focus sites and sites with mixed components such as the Martin site. He also points out their presence in North Dakota (Walde 1994:61). In his definition of Mortlach, Walde sees the presence of single cord-impressed vessels to be "special cases" and does not include them in the general description of Mortlach pottery (ibid: 63). In conducting analysis for Walde's dissertation, vessels which were deemed 'foreign" were not included in the general descriptions of site assemblages. Though Walde views single cord impression as "foreign" in Saskatchewan Mortlach sites, vessels with this type of decoration were included in the pottery analysis for all sites in this thesis. Accounting for almost a quarter of the decoration at the Schuddemat site, this type of decoration cannot be regarded as "foreign".

Aside from the presence of a number of single cord-impressed vessels, the remaining decorative techniques and methods employed at Schuddemat fit well within the realm of Walde's general Mortlach characteristics (1994) (Table 4.1). Also consistent are paste, temper and exterior surface treatment. Although it is common to find check- stamping in Mortlach assemblages, there are a number of sites examined in Walde's dissertation that do not have any form of stamping as exterior surface treatment (Walde 1994, Table 4:199). One area where Schuddemat does differ is in vessel profile. Walde recognizes four basic vessel profiles for Mortlach assemblages- Vertical, Angled, S-Rim and Wedge. He does not recognize Short Rim profiles which presents a bit of a problem as they are the most prevalent type of profile identified at the Schuddemat site.

With the exception of the high number of vessels with single cord-impressed elements and the discrepancies in vessel form, Schuddemat fits well into the more encompassing Mortlach Phase. These discrepancies may simply be a matter of falling on the eastern periphery of the Mortlach culture area. Although a comprehensive analysis of the lithics recovered from the site has yet to be done, there was a substantial amount of Knife River Flint recovered from the site which would help to place this site in the Lake Midden subphase of Mortlach.

8.3.3 Twin Fawns Cultural Classification

There has been a total of 26 vessels recovered from the Twin Fawns site. A comprehensive synopsis of the collection is presented in Chapter Seven and details and photographs of each vessel can be found in Appendices A and B. These data are used in the following sections to determine the cultural affiliation of the Twin Fawns site.

8.3.3.1 Malainey's Scheme

Malainey's method of determining whether an assemblage is more appropriately deemed Mortlach or Wascana ware revolves around vessel profiles. At the Twin Fawns site, 32% of the vessels with identifiable profiles are Wedge. Straight Rim (21%), S-Rim (16%) and Angled (5%) together account for 42% of vessels with identifiable profiles. If you add to that the vessels with Straight/ Angled profiles (21%) it still only accounts for 63% of the Twin Fawns vessels. Also present are two vessels with Short, excurvate rims accounting for 10% of the collection. The high number of Wedge profile vessels fits nicely with Malainey's "ideal" Mortlach assemblage as she states that Mortlach assemblages usually have at least 30% of vessels with Wedge profiles (1991: 368).

Also consistent with Malainey's (1991, 1995) more restrictive view of Mortlach is the decoration at Twin Fawns. Although all but one of the vessels recovered from Twin Fawns is decorated, the majority of the decoration is restricted to the brim/lip of the vessel. This sparse decoration is characteristic of Mortlach vessels (1991:368). The popular technique of oblique lip decoration is employed on over 75% of Twin Fawns vessels. This is also consistent with what Malainey has found at other Mortlach sites. Although dentate stamping is also common in Mortlach assemblages, it is completely

absent at Twin Fawns. Also absent is check-stamping and simple-stamping. Although Malainey states that fabric impression is uncommon in Mortlach sites, 27% of the vessels recovered from the Twin Fawns site have this type of exterior surface treatment. Discrepancies in exterior surface treatment and lack of dentate stamping seem to be the only real differences between the Twin Fawns site and Malainey's description of Mortlach Aggregate pottery.

8.3.3.2 Walde's Scheme

The pottery from the Twin Fawns site fits extremely well into Mortlach as defined by Walde (1994). Consistencies include vessel profile, surface treatment and decoration. The only discrepancy is that, like Schuddemat, there are a number of vessels at the Twin Fawns site with single-cord impression (N= 4), a trait that Walde views as "foreign" in Saskatchewan Mortlach sites (Walde 1994:61). Other artifacts recovered from the Twin Fawns site, namely Knife River Flint, numerous ice gliders and the two slot knives help tremendously to strengthen the assignment of the Twin Fawns site to the Lake Midden subphase of Mortlach. Walde points out that recoveries such as these, are found in southern Saskatchewan Mortlach sites, and show strong social ties with the Middle Missouri Village people (1994:173).

8.3.4 Comparing the Schuddemat and Twin Fawns Assemblages with Neighboring Mortlach Sites

8.3.4.1 The Sanderson Site (DhMs-12)

The Sanderson site was made known to archaeologists in 1986 when the "Saskatchewan Research Council began an archaeological survey and mitigation program along the Souris River Basin in Southeastern Saskatchewan for the preparation of the construction on the Rafferty Dam" (Magee 1997:1). The site had been previously discovered in the 1940s by Roy Sanderson of Estevan who had noticed bison bone exposed by cattle trampling at the edge of McDonald Lake. The Sanderson site underwent extensive excavation with a total of 211 one meter units excavated in ten block excavations (Magee 1997:2).

Sanderson was chosen as a comparative site for a number of reasons. First, there has already been an extensive comparison carried out between the Sanderson site and a

Vickers Focus site, Jackson (Playford 2001). In addition, a radiocarbon age of 310 +/- 75 (SRC #S-2968) on a bone recovered from Level 1, along with the recovery of some European trade goods, places Sanderson as occupied at the "very beginnings of European influence on the area" (Magee 1997:33). This is consistent with the Twin Fawns site which, upon calibration, and consideration at one and two 'sigma' date ranges has a calibrated date range which spans most of the past 330 years and also contains a European trade item- a piece of brass sheet metal (Hamilton and Nicholson 2006b). Finally, the Sanderson site, like the *Makotchi-Ded Dontipi* sites is located in a very rich ecozone. "The Sanderson site has grassland, forest, marsh and riverine ecotones bordering one another within one kilometer of the site making it extremely attractive to wildlife" (Magee 1997:4-5).

While it was initially suggested that a full analysis of the Sanderson pottery assemblage be included in this thesis for comparative purposes, this was rejected for a number of reasons. Most importantly, there has already been this type of analysis carried out on the site by two of the leading pottery archaeologists on the Canadian Plains- Mary Malainey and Dale Walde. Though there are a few problems in doing direct comparisons with each of these studies, it seems counterproductive to do an entire reanalysis of the great number of vessels recovered from this site.

In 1991, Malainey included the pottery from Block 1 of the Sanderson site in her examination of Saskatchewan Plains pottery. Unfortunately, the pottery from the other blocks was not included but she did identify 43 vessels from Block 1. Walde also analyzed the pottery from the Sanderson site when he reexamined the Mortlach Phase in his 1994 PhD dissertation. He identified 156 Sanderson vessels in his analysis. Unfortunately, differences in analytical methods complicate direct comparison of the Sanderson collection as analyzed by Walde and the pottery of the sites recovered in the *Makotchi-Ded Dontipi* locale. These differences include the fact that in his analysis, Walde assigned a new vessel number to rim sherds if they could not be conjoined, regardless of shared attributes Walde (1994: 27). In addition, Walde chose to only include four rim profiles in his analysis- Vertical, Angled, S-Rim and Wedge. All other profiles were treated as missing data (Walde 1994:28). In the pottery analysis of this thesis, rim profiles also included the categories of Short, Straight/Angled Rim and

Square Wedge. Nevertheless, because Walde's research includes all of the pottery recovered from Sanderson, and Malainey's research is restricted to a single block, the data reported by Walde will be used to compare to Schuddemat and Twin Fawns.

Based upon Walde's analysis, the following information is available for the pottery recovered from the Sanderson site (1994:399-413). There is a total of 156 vessels recognized from Sanderson. One of these vessels is considered "foreign" as it is single cord-impressed, and is not included in the synopsis of the site. Vertical Rim is the most popular rim profile at the site, accounting for 14.74% of the vessels. Also present are Angled Rim (4.49%), S-Rim (3.21%) and Wedge (8.33%). Almost 70% of the vessels recovered were not assignable to rim profile category. In terms of exterior surface treatment, over 60% of the Sanderson vessels have obliterated surface finishes. Vertical Cord-Roughened accounts for 31.79% of the collection and 6.62% are Check-Stamped. Only a single vessel from Sanderson is fabric-impressed. Over 70% of the vessels recovered from Sanderson have some type of lip decoration. The majority of these have decoration restricted to the lip surface though decoration on the inner and outer corners of the lip is also present. Common decorative techniques on the lip surface are R- Oblique (60.22%), L-Oblique (12.9%), Canaliculates (15.05%), and Perpendiculars 910.75%). Decoration includes CWT, dentate, TI, incising and finger pinching. Twenty-five percent of the vessels with analyzable rims have some type of rim decoration. The most popular type of rim decoration at Sanderson is horizontal lines. Other orientations include R and L-Oblique, and Vertical. Decorative tools used in rim decoration include but are not restricted to CWT, dentate, incising, and TI.

Before comparing Schuddemat and Twin Fawns with the Sanderson assemblage, it is necessary to address the fact that upon initial examination of the Sanderson pottery in 2001, Nicholson suggested that it looked very similar to material recovered from Lowton- the Vickers focus type site. This led Nicholson to explore the idea that Sanderson is actually a Vickers focus site (Nicholson et al. 2002; Nicholson et al. 2001), not a Mortlach site as suggested (Malainey 1991; Walde 1994; Magee 1997). If this is the case, Sanderson would be the most western Vickers site. Motivating this suggestion was the presence of a number of vessels with finger-pinched lip nodes along the exterior lip surface which has been considered by Nicholson to be a diagnostic decorative trait of

the Vickers focus (Nicholson and Hamilton 1999:17) (Figure 8.3). In spite of the fact that my hands-on analysis of the Sanderson collection revealed a number of vessels with this decorative trait, Walde's analysis records this trait on only one vessel. There are a number of vessels however, that are recorded as having solid tool impressions along the outer lip corner. This discrepancy may simply be a matter of difference in opinion regarding decorative technique. It is worth mentioning that the Sanderson collection has been organized and reorganized a number of different times by different researchers. In addition to several vessels being missing from the warehouse of the Royal Saskatchewan Museum, the separation of sherds into individual vessels has not been consistent. Be that as it may, there are quite a number of vessels in the Sanderson collection that display this decorative motif and it was primarily the presence of these vessels along with a number of vessels with vertical tool impressions along the lip outer corner that caused Nicholson to suggest that Sanderson may actually be a Vickers focus component. However, in spite of these vessels with shared decorative attributes, there are a great number of differences between the Sanderson assemblage and Vickers focus collections. The majority of these differences are consistent with general differences between Mortlach and Vickers focus pottery and will be dealt with in further detail in Chapter 9. At this point, it is necessary to indicate that at Sanderson, there are considerable differences in vessel form and exterior surface finish. Wedge shape rim profiles are almost completely absent from Vickers focus assemblages and fabric impression is quite common (Nicholson 1996). Although there are a small number of vessels from the Lowton site that are check-stamped, it is very infrequent and is not present at either the Jackson or Vera sites. The presence of finger-pinch lip nodes along the outer lip corner which is considered diagnostic for Vickers focus is also found at a number of Mortlach sites including Lake Midden and Long John (Figure 8.5). Vertical TI along the outer lip corner is also consistent with both Mortlach ware and Wascana ware assemblages (Malainey 1991). In addition, the Vickers focus signature decoration of single cord-impression (Figure 6.2) looped over the brim has not been recovered from the Sanderson site.

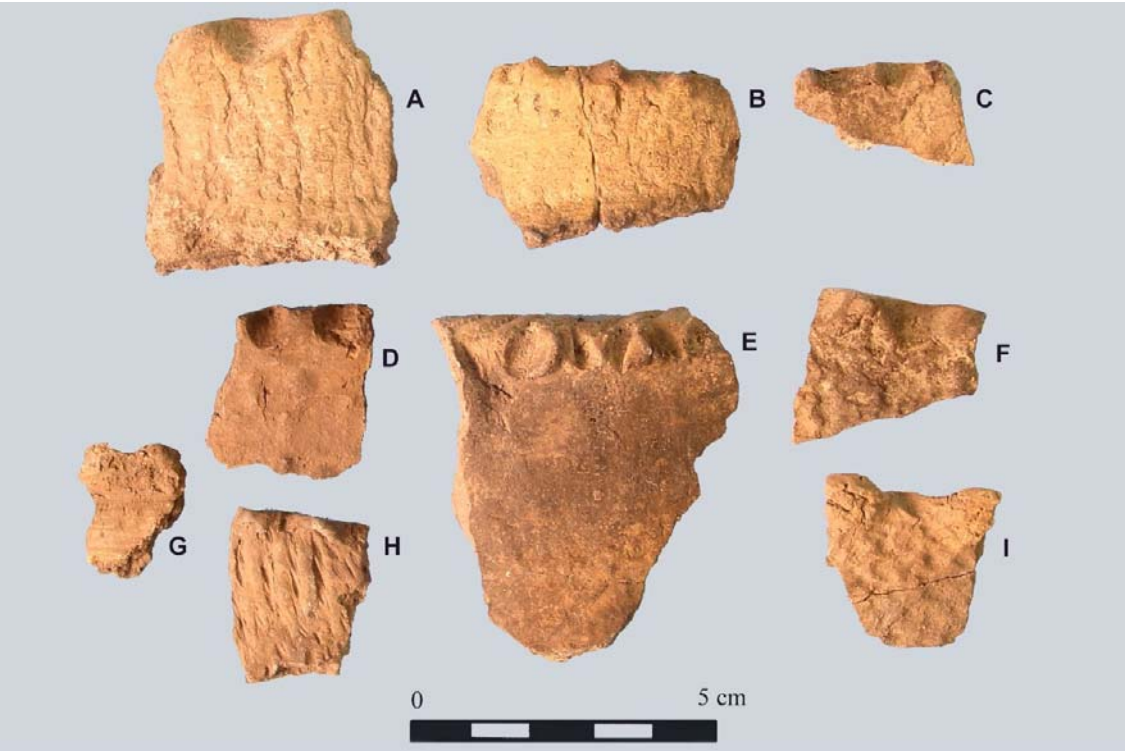


Figure 8.5 Finger Pinched Lip Nodes: Vera- A (V-4); Lowton- B,C,F; Sanderson- D,G,H; Lake Midden- E; Long John- I.

When assessing the cultural affiliation of the Sanderson site, differences in vessel form and exterior surface treatment seem to outweigh similarities in decorative techniques. These differences and similarities between Sanderson and Vickers focus are consistent with what we find when comparing Mortlach ware and Vickers focus assemblages as a whole. If the presence of finger-pinch lip nodes along the exterior lip edge is indeed a diagnostic for the Vickers focus, we can say that there are Vickers focus vessels in the Sanderson collection (Nicholson et al. 2006:329) as well as in the Lake Midden and Long John collections. For the purpose of this thesis then, the Sanderson site is regarded as a Mortlach site, not a Vickers focus site.

For reasons which have been previously stated, it is difficult to make direct comparisons between Sanderson site trait frequencies and those of the Schuddemat and Twin Fawns sites. We can, however, look at some general trends to see similarities and differences in the collections. In terms of vessel profiles, if we take all of the Short Rim and Straight/Angled Rim vessels from the *Makotchi-Ded Dontipi* sites and regard them as not being assignable to rim category, the rim profiles at Schuddemat are Straight

(Vertical) Rim- 7.4%, Angled- 3.7%, S- Rim- 11% and Wedge (including Square Wedge)- 14.8%. Largely because the rim profile with the greatest number of vessels from the Schuddemat site, Short Rim, cannot be assigned to rim category under this method of analysis, the percentage of vessels that cannot be assigned to rim category jumps from 30% to almost 63%. Following this reorganization, there seems to be a greater percentage of S-Rim and Wedge vessels at the Schuddemat site and fewer vessels with Vertical Rim profiles. These differences are probably more apparent than real because of the small sample size from the Schuddemat site. However, the smaller percentage of Straight or Vertical rims is consistent with general comparisons of Mortlach assemblages with the assemblage from the Schuddemat site.

One of the greatest differences between Schuddemat and Sanderson is in exterior surface treatment. While only a single vessel from Sanderson is textile-impressed, this type of exterior surface treatment is found on over 25% of the vessels at Schuddemat. Completely absent in the Schuddemat collection is any type of check-stamp surface finish which makes up 6.62% of the Sanderson collection. Also, while vertical cord-roughening accounts for over 30% of the Sanderson vessels, only a single Schuddemat vessel shares this characteristic.

In terms of decoration, there are definite consistencies between the sites. Both sites have a large number of vessels with decorated lips and, at both, most of the decoration is restricted to the lip surface. Common to both sites is oblique impressions and canaliculate lines on the lip surface. While dentate stamping accounts for much of the decoration at Sanderson, it is found on only two vessels from Schuddemat. In its place are a number of vessels that are CI. This trait is found only once at Sanderson. There is a single vessel from each site decorated in a triangle motif.

In comparing the Twin Fawns site with Sanderson, some of the same differences that were found in the Schuddemat comparison are evident. At Twin Fawns, the Wedge profile accounts for 26% of all of the vessels recovered from the site. This is much higher than the 8.33% reported from Sanderson. Similar to Sanderson, around 15% of the vessels are Vertical Rim. The same differences in exterior surface treatment between Sanderson and Schuddemat are present at Twin Fawns where there is no check-stamping and 27% are textile-impressed. There are a number of consistencies in

decoration between the sites which include fields of decoration and certain decorative techniques such as oblique impressions along the lip surface which account for over 75% of the brim decoration at Twin Fawns. It is less common at Twin Fawns, however, to see the canaliculate lines along the lip surface. Consistent with the Schuddemat site, there are a number of CI vessels at the Twin Fawns site (N=4) but completely absent at Twin Fawns is dentate stamping. There are two vessels recovered from Twin Fawns with triangle motifs.

Some major differences between the Sanderson site and Schuddemat and Twin Fawns sites include exterior surface finish and decorative tools. While there are many pots decorated with dentates at Sanderson, it accounts for only 10% of the decoration at Schuddemat and is completely absent from Twin Fawns. In addition, as Walde has noted with the majority of Saskatchewan Mortlach sites, CI is found very rarely and occurs only once at Sanderson. This is much more common at the Schuddemat and Twin Fawns site. It must be noted, however, that differences in analytical approaches combined with a relatively small number of vessels from each of the *Makotchi-Ded Dontipi* sites makes this type of comparison tenuous at best.

8.3.4.2 The Long Creek Site (DgMv-1)

The Long Creek Site was chosen as a comparative site for Twin Fawns and Schuddemat because of its proximity to the Souris River which runs past the Sanderson site and within four kilometers of the *Makotchi-Ded Dontipi* locale. Located in the southeast corner of Saskatchewan, it is one of the more well known Mortlach sites in close proximity to the Lauder Sandhills. A site report by Wettlaufer and Mayer-Oakes published in1960 provides a description of the excavations and recoveries from excavations of the Long Creek site which took place in 1957. A recent reanalysis of the material recovered from the Long Creek site was undertaken by Loreen Bryant in her M.A. thesis for the University of Saskatchewan (2002). In this reanalysis, she utilized the analytical approaches of both Malainey (1991, 1995) and Walde (1994) to analyze an amalgamation of the Long Creek materials and the Baker pottery collection. The Mortlach component of the Long Creek site is restricted to Level 1 (Bryant 2002:70).

Amalgamating the Long Creek and Baker collections, Bryant identified 82 vessels and the following is a brief synopsis of her analysis (2002:74-85). These vessels are made up of 26% Wedge, 23% Straight Rim, 8% S-Rim, 4% Angled, and 1% Excurvate (Short Rim) vessel profiles. The remaining vessels have Undetermined profiles (38%). Comparing this to the profiles found at Schuddemat and Twin Fawns, both of the *Makotchi-Ded Dontipi* sites have higher percentages of Short Rim, excurvate profiles (Schuddemat- 22%, Twin Fawns- 21%). The Schuddemat site has only 16% Wedge profile and 10% Straight Rim vessels but has a larger percentage of S-Rim vessels (10%) than is present at Long Creek. The Twin Fawns site has Straight Rim profiles (21%) consistent with the Long Creek assemblage with a higher percentage of S-Rim profiles (16%) and Wedge (32%). The percentages of rim profiles vary from site to site. The biggest difference when comparing the sites is that the percentage of Short rim, excurvate vessels from the *Makotchi-Ded Dontipi* sites is much higher than that recovered from Long Creek. With this being said, it is important to keep in mind that each of the *Makotchi-Ded Dontipi* sites has under a third of the number of vessels recovered from Long Creek and the Baker collection and small sample sizes can be easily skewed.

Although for a large number of the vessels in the Long Creek collection the surface finish could not be determined, Bryant identified the following exterior surface treatments for 51 vessels- obliterated- 29%, check-stamped- 21%, cord-roughened- 6% and fabric-impressed- 6%. There is no check-stamping at either the Schuddemat or Twin Fawns sites. Both sites have a much higher incidence of fabric-impressed (Schuddemat- 26%, Twin Fawns- 27%) and smoothed (Schuddemat- 26%, Twin Fawns- 23%) external surface treatments than Long Creek.

Like Schuddemat and Twin Fawns, the majority of the pottery recovered from the Long Creek site is decorated with a single element. Bryant identifies CWT (38%), dentate (22%), Broad Edge Tool, nail gouges and finger pinching among the decorative elements present at Long Creek. These elements are also present at Schuddemat though dentate stamping accounts for only 10% of the decoration from Schuddemat and is completely absent at Twin Fawns. Also identified at the Long Creek site are three

vessels that are CI, an element present at both Twin Fawns and Schuddemat but not often found in Saskatchewan Mortlach assemblages (Walde 1994:61).

Bryant identifies two major decorative motifs at the Long Creek site. The first is "either oblique or horizontal single cord impressions on the upper portion of the rim underlain by a row of nail gouges" (Bryant 2002:75). Vessel 75 from the Long Creek site follows this pattern with R-Oblique CI underlain by fingernail impressions and is very similar to Schuddemat- 14 though on the Schuddemat vessel, the oblique impressions are made with a CWT. The second pattern that Bryant identifies is horizontal and L-Oblique CWT impressions underlain by a row of nail impressions or pinches. Schuddemat Vessel 23 follows this pattern with horizontal CWT impressions along the vessel rim underlain by a horizontal row of vertical fingernail impressions. Twin Fawns Vessel 9 also has R-Oblique CWT impressions underlain with vertical finger pinching though the obliques are on the brim surface of a wedge shape vessel rather than on the uppermost rim surface.

There are certain consistencies between the Long Creek assemblage and those of the Twin Fawns and Schuddemat sites. Common to both are elements of decoration which include oblique and horizontal CWT and CI. Differences in the assemblages, like those with the Sanderson site, seem to fall within what has already been discussed in terms of general differences between the more westerly Mortlach sites and the sites in the *Makotchi-Ded Dontipi* locale. One additional note of interest is that ice-gliders and slot knives have been recovered from both the Twin Fawns and Long Creek sites (Bryant 2002:219; Nicholson et al. 2001).

8.3.4.3 Discussion and Conclusions

While examining the Schuddemat and Twin Fawns assemblages to assess cultural affiliation, comparisons were made to both Wascana ware and Mortlach ware as defined by both Malainey (1991, 1995) and Walde (1994). In addition, the pottery recovered from these sites was compared to assemblages from the Sanderson and Long Creek sites, two of the nearest, well documented Mortlach sites. These sites happen to both lie in close proximity to the Souris River, the main body of water closest to the *Makotchi-Ded Dontipi* locale. While the initial intent was to also provide comparisons

to sites with Wascana assemblages this was not done for a number of reasons. First, while the Martin site (EaMa-6), by Rivers, Manitoba, is considered to contain Wascana ware, it is fairly atypical of Wascana ware in terms of relative frequencies of decorative traits (Malainey 1993). The Wascana Ware Site (EcMh- 17) by St. Lazare, Manitoba was collected by Pierre Huberdeau. While efforts were made to access the assemblage, it seems as though a large portion of the Huberdeau collection has gone missing. Excluding these two sites, the closest documented Moose Jaw phase site is the Lake Midden site (EfNg-1) in central Saskatchewan. Well over 400 km from the Lauder Sandhills, Lake Midden is an incredibly large site from which over 300 vessels were recovered. Because of the considerable distance between Lake Midden and *Makotchi-Ded Dontipi* and the fact that neither Twin Fawns nor Schuddemat produced even 8% of the number of vessels recovered from Lake Midden, this site was not considered to be appropriate for direct comparison.

The Twin Fawns site pottery collection fits into both Malainey's (1991, 1995) and Walde's (1994) definition of Mortlach. Based on vessel profile, although there are only a small number of Straight Rim vessels and a higher frequency of Short Rim Vessels, at 32% Wedge, Twin Fawns falls into Malainey's "ideal" range for Mortlach assemblages. The major discrepancies with the Twin Fawns site and what is characteristic for the Mortlach Aggregate (Malainey 1991, 1995) is the higher percentage of textile-impressed exterior surface finishes at Twin Fawns (27%) and the complete lack of dentate stamping. These differences are also found when comparing the Twin Fawns site with the Sanderson and Long Creek sites as well as with Walde's Mortlach Phase pottery 91995). Additional differences include a complete lack of check-stamping at the Twin Fawns site. Although this is found at both Sanderson and Long Creek, there are several Saskatchewan Mortlach sites where it is completely absent (Walde 1994, Table 4:199). It is interesting to point out that although Walde regards CI vessels as foreign; they are present in small numbers at both the Sanderson and Lake Midden sites. Despite some apparent differences in the Twin Fawns pottery assemblage and general characteristics of Mortlach, the site seems to fit within the cultural assignment of the Mortlach Phase. The recovery of ice gliders, slot knives and KRF serve to strengthen this affiliation.

The Schuddemat site assemblage does not fit easily with either Wascana ware or Mortlach ware as defined by Malainey (1991, 1995). The problem with looking at "ideal" types is that it is not unusual to have a collection that is less than "ideal". With only a small number of vessels, frequencies in form (and all other characteristics) can be changed dramatically with the discovery of just a few additional vessels. With 32% Short Rim, 10% Straight Rim vessels and only 21% Wedge vessels, Schuddemat does not fit into either "ideal" assemblage. Taking into account other assemblage characteristics, such as the exterior surface treatment and frequency of decoration the Schuddemat site seems to fit more closely with Wascana ware than it does with Mortlach. If one considers Walde's more encompassing vision, the Schuddemat site fits into the Lake Midden subphase of Mortlach. Discrepancies include the small percentage of vessels with dentate stamping, the presence of CI vessels (considered foreign by Walde), lack of check-stamped vessels and the high frequency of Short rim, excurvate vessels- a profile not even recognized by Walde. These discrepancies are consistent with what was found when comparing the Schuddemat site with the assemblages from Sanderson and Long Creek. They are also consistent with what was found when Twin Fawns is compared to general Mortlach characteristics as well as the sites from southeastern Saskatchewan.

In Chapter 7 there was a lot of attention paid to comparing the Schuddemat and Twin Fawns collections. In an effort to assess whether these sites should be considered a single site, focus was placed on the differences between two assemblages. Though it was determined that these sites should, for the time being, be considered separate occupations, it is evident when comparing them with the general Mortlach characteristics and the sites in southeastern Saskatchewan, that Twin Fawns and Schuddemat are far more similar to each other than they are to the Mortlach sites to the west. Characteristics such as vessel form, exterior surface finish and little or no dentate stamping serve to link these two sites. According to Malainey's scheme, the Schuddemat assemblage does not fit nicely within either Wascana or Mortlach though is perhaps better placed within Wascana ware. Because of the similarities of Schuddemat to Twin Fawns- a site with a strong Mortlach phase affiliation, I am hesitant to assign Schuddemat to the Wascana ware Aggregate. So then, based upon the pottery analysis

and comparative reviews, it is evident that both the Schuddemat site and the Twin Fawns sites are Mortlach sites. Discrepancies in the pottery collections from these sites and the more general characteristics of Mortlach assemblages seem to be a result of being on the eastern periphery of Mortlach where interaction with eastern groups (the Vickers focus) is reflected in the pottery.

8.4 Exploring the Relationship Between Mortlach and Vickers Focus

The third and final objective of this thesis is to contribute in a meaningful way to the discussion regarding the possible relationship between the peoples who manufactured Vickers focus pottery and those who produced Mortlach ware. The discovery of Vickers focus sites alongside Mortlach sites in the *Makotchi-Ded Dontipi* locale caused Nicholson and Hamilton to consider possible relationships between these two groups. Some similarities in pottery recovered from the Vickers focus sites (Jackson and Vera) and the Mortlach sites (Schuddemat, Twin Fawns and Hollow B), together with the sites' proximity in time and space seemed to indicate contact between the two groups (Nicholson and Hamilton 1999:24). In 1999 they published an article in the Manitoba Archaeological Journal that posed several possibilities with regards to this relationship. The possibilities posed by Nicholson and Hamilton (1999) were: 1. The two groups had limited interaction with each other in the *Makotchi-Ded Dontipi* locale but remained autonomous. 2. The two groups were completely independent but their pottery influences came from a common source. 3. The Vickers focus evolved into the Mortlach Complex. 4. Both groups are a part of a larger phenomenon and their differences stem from their individual historical and contact experiences along with the exploitation of different resource bases (Nicholson and Hamilton 1999:25).

The proposed connection between the Vickers focus and Mortlach revolves around several different things. Included in this are a number of shared attributes between the Vickers focus pottery recovered from the Lauder Sandhills and the pottery recovered from neighboring Mortlach sites (Nicholson and Hamilton1999:21). Secondly, both Vickers focus and Mortlach share ties with people in the Middle Missouri region. These ties are reflected in a number of classes of artifacts recovered from both Vickers focus and Mortlach sites (Nicholson and Hamilton 1999:21, Walde

1994, Walde et al. 1995). Finally, there has been suggestion that as they moved west, the Vickers focus people adapted a more plains-orientated economy through contact with the Mortlach people (Nicholson et al. 1999). The remainder of this chapter explores these different realms of interaction in an effort to contribute meaningfully to an understanding of the relationship between Mortlach and Vickers focus.

8.4.1 Vickers Focus and Mortlach Pottery

There are several commonalities between the pottery recovered from eastern Vickers focus sites and Mortlach sites found to the west. Characteristics of each have been compiled from the work of Nicholson (1991, 1994, 1996), Walde (1994) and Malainey (1991, 1995) (Table 8.1). Commonalities include the propensity for vessels to be globular with well- worked pastes. While the majority of the vessels recovered in the eastern Vickers focus sites are flaring or straight with some s-rim, Mortlach vessels include the above profiles along with angled and wedge rims. It is notable that when Malainey's division of Mortlach and Wascana ware is taken into account, the profiles associated with Vickers focus sites are much more consistent with Wascana ware than they are with Mortlach.

In the eastern Vickers focus sites, exterior surface finishes include smooth, fabric-impressed, obliterated, cord-marked and small amounts of check-stamping. Saskatchewan Mortlach assemblages include smooth, obliterated, cord-roughened, simple and check-stamped. There are also a number of fabric-impressed vessels, though Malainey asserts that these are more common in Wascana ware assemblages and only found in very small numbers south of the Qu'Appelle Valley in Mortlach Aggregate sites.

Although there are a number of vessels recovered from the Lowton site that are elaborately decorated, the majority of vessels recovered have decoration that is confined to the lip and upper exterior rim. This is consistent with assemblages recovered from most Mortlach sites. Decorative elements shared by both Vickers Focus and Mortlach include but are not limited to CWT, TI, punctates and fingernail impression. While there are a large number of CI vessels that have been recovered from Vickers focus sites, this trait is seen rarely in Mortlach assemblages and is viewed as "foreign", representing

Table 8.1 Comparison of Vickers Focus, Mortlach and Wascana Pottery Attributes

* Vickers Focus Attributes Compiled from Nicholson (1991, 1996)

** Mortlach (A) Attributes from Walde (1994)

*** Mortlach (B) Attributes compiled from Malainey (1991, 1995)

**** Wascana Attributes compiled from Kehoe (1959 as cited in Malainey 1991) and Malainey (1991, 1995)

Attributes	Vickers Focus*	Mortlach (A)**	Mortlach (B) ***	Wascana ****
Profile	globular	globular		globular
Rim Shape	flaring- straight- occasional S-Rim	4 major profiles- vertical, angled rim, s- rim and wedge rim	at least 1/3 wedge, remaining 2/3 mostly straight with a small % angled rim/square wedge and s- rim	straight, s- profile and angled rim most prevalent; small numbers of wedge and short rim
Lip Shape	highly variable	highly variable	variable- high incidence of wedge shaped lips	variable- usually flat
Paste	variable- well worked	relatively thin and compact	majority good quality, consolidated paste	good quality- often fine lamination
Temper	majority sand tempered; some grit; shell	majority are grit tempered; some sand and grit	majority are grit tempered; some sand and grit; sand alone is rare	majority are grit tempered; some sand and grit; sand alone is rare
Decoration Area	most confined to lip and upper exterior rim also some shoulder	most confined to lip and/or rim surface; some decoration extends to the shoulder	most confined to lip and/or brim	lip, rim neck and shoulder
Decoration Type	twisted cord, finger pinching, CWT, TI, lip modeling, punct	dentate stamps, CWT, quills, solid tools, pointed tools, notched tools, fingers	majority CWT or dentate; also fingernail imp., notches, and TI	CWT, punctates, incising, fingernail imp., notching, pinching
Decoration Motif	includes finger-pinched nodules twisted cord loop imp.; TI, incising, quartering	highly variable- from undecorated- simple decoration - quite complex; some show evidence of quartering	majority sparsely decorated though a few sherds show elaborate patterns	wide variety of motifs from simple to very complex
Ext. Surface Finish	cord or fabric roughed often sm./ oblit. smooth and/or brushed also found	roughened with paddles wrapped with cord or fabric, simple or check- stamped, smooth	plain, check-stamped, simple-stamped and cord roughened, fabric impression rare	fabric-imp., plain and cord- rough account for > 80%; also check-stamped and vertical fabric-imp.; brushed, burnished, rolled CWT and simple-stamped

interaction with neighboring groups along the eastern and southern boundary of the Mortlach spatial designation (Walde et al. 1995:43).

As previously discussed, finger pinching along the exterior lip edge has been seen as a defining trait of Vickers focus assemblages (Nicholson 1999:17; Nicholson and Hamilton 2001:58). There are, however, a number of Mortlach sites which exhibit this type of decoration. These sites include, but are not limited to, Sanderson, Lake Midden and Long John (Figure 8. 3).

Other decorative techniques common to both the Lowton site and Mortlach assemblages include a variety of tool impressions, oblique or vertical, along the outer and inner lip corners (Nicholson and Hamilton 2003:58). This type of decoration has also been found to be consistent with the Scattered Village Complex in North Dakota (Ahler and Mehrer 1984; Nicholson 1994:103; Nicholson and Hamilton 2003:58). This consistency is so strong that it has caused Nicholson and colleagues to propose that the Vickers focus is actually a northern extension of the Scattered Village Complex (Nicholson, Hamilton, Running and Nicholson 2006). This type of decoration is also found throughout many Mortlach assemblages including Sanderson, Stoney Beach and Lake Midden (Figure 8.4)(Nicholson et al. 2001).

8.4.1.1 Vickers Focus and Mortlach Pottery at *Makotchi-Ded Dontipi*

While the description above outlines some of the basic similarities and differences between the eastern cluster of Vickers focus sites and Mortlach assemblages found primarily in Saskatchewan, there is a shift when you compare the pottery from the Vickers focus and Mortlach sites in the *Makotchi Ded Dontipi* locale. There are many characteristics which are common between the Vickers focus and Mortlach sites in *Makotchi-Ded Dontipi* though they are not necessarily common with their counterparts outside this area.

As previously discussed in detail, the pottery recovered from the Jackson and Vera sites, while still considered Vickers focus pottery, has some differences from assemblages recovered from the eastern cluster of Vickers sites. The most noticeable difference is the presence of a number of vessels at both Jackson and Vera with rim profiles that are uncharacteristic of eastern Vickers focus vessels. The vessels with wedge, square wedge and angular rim profiles recovered from Jackson and Vera are

much more characteristic of Mortlach assemblages than they are of Vickers focus. The Short Rim, excurvate profile vessel does not appear to be common in Saskatchewan Mortlach assemblages but accounts for a number of vessels in the Schuddemat and Twin Fawns assemblages. According to Malainey (1991), short rim vessels are more common in Wascana ware assemblages. They are also common in Vickers focus assemblages, particularly from the Jackson site.

Another characteristic that the Vickers focus and Mortlach phase sites in the *Makotchi-Ded Dontipi* locale have in common is exterior surface treatment. Check-stamping is very common in Saskatchewan Mortlach assemblages and is found in small numbers in the eastern Vickers focus sites. It is, however, completely absent from both the Mortlach phase and Vickers focus sites in the *Makotchi-Ded Dontipi* locale. Another similarity is the large percentage of vessels with textile impressed exterior surface treatments in the Twin Fawns and Schuddemat collections. Textile-impressed exterior surface finishes are not prevalent in Saskatchewan Mortlach assemblages, but are quite common throughout Vickers focus sites. Malainey (1991) notes that this type of surface treatment is much more prevalent in Wascana ware assemblages than it is in Mortlach ware assemblages.

The presence of vessels with CI decoration is one of the strongest links between the Mortlach and Vickers focus sites at *Makotchi-Ded Dontipi.* This trait carries through from the eastern Vickers sites to Jackson and Vera where it is present in large amounts at Jackson (25%) but is found on only a single vessel at Vera. One of the main discrepancies between Saskatchewan Mortlach sites and the Schuddemat and Twin Fawns sites is the presence of CI vessels which is more characteristic of Vickers focus assemblages. As previously discussed, CI decoration is not common in Saskatchewan Mortlach assemblages (Walde 1994:63). It is, however, quite common throughout all of the Vickers focus assemblages. Lowton, the Vickers focus type site, actually contains a number of Middle Missouri vessels that are cord-impressed (Nicholson 1991).

There has been some suggestion that certain vessels from the *Makotchi- Ded Dontipi* sites contain a mixture of Vickers focus and Mortlach characteristics (Nicholson and Hamilton 1999; Nicholson et al. 2003:125). For the majority of vessels the synchronicity revolves around CI decoration of vessels with more angular or wedge

shape forms. Schuddemat Vessel 16 is one such vessel. It is a wedge profile vessel with R-Oblique CI along the brim underlain with unusual TI which appears to be made by an immature bone epiphysis. Other vessels which show a mixture of Vickers focus and Mortlach traits are TF-10 and TF-11, both Wedge Rim vessels with oblique CI along the vessel brim. At Jackson, J-15 is a square wedge profile vessel with L-Oblique CI along the brim surface. Another type of decoration that serves to link Mortlach and Vickers focus in the *Makotchi-Ded Dontipi* locale is the finger pinching along the exterior lip edge present on a vessel recovered from the Schuddemat site (S-24). As mentioned, this feature is considered to be a signature trait of the Vickers focus (Nicholson 1999:17; Nicholson and Hamilton 2001:58). There are also vessels recovered from Jackson, Twin Fawns and Schuddemat that have triangle motifs. While this type of elaborate decoration is not common, it is found in small amounts in a number of Vickers focus and Mortlach sites (Figure 8.6). This motif is also found on the Middle Missouri collared rim vessel recovered from the Vera site (V-9, Figure 6.3).

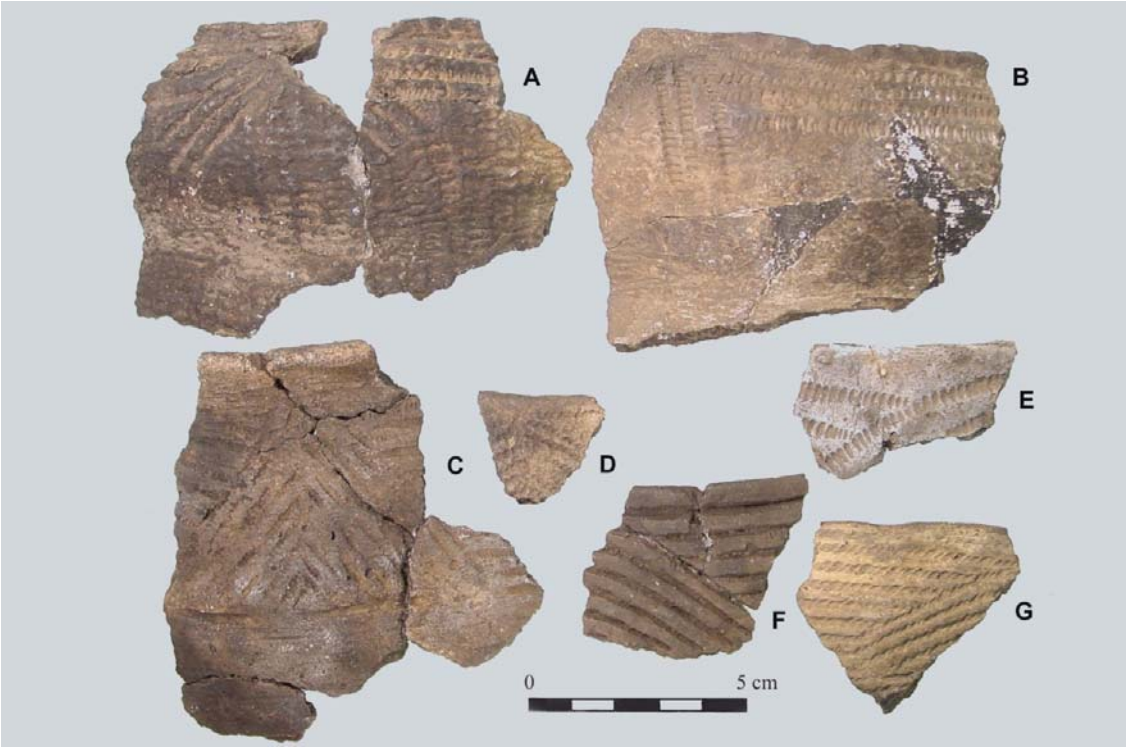


Figure 8.6 Triangle and Rainbow Motifs: Stoney Beach- A&B; Schuddemat- C; Twin Fawns- D; Long John- E; Vera- F; Lowton- G

8.4.1.2 Summary

There are a number of consistencies in the pottery recovered from Mortlach and Vickers focus sites. These consistencies are amplified, though somewhat altered when you take into account the pottery recovered from the *Makotchi-Ded Dontipi* locale. In the Jackson and Vera sites, vessels with Wedge, Square Wedge and Angled Rim profiles have all been recovered. The Short Rim profile, uncommon in Mortlach assemblages, accounts for over a quarter of the vessel profiles in the Twin Fawns and Schuddemat sites. It is also found throughout Vickers focus sites in small numbers and is very popular at the Jackson site accounting for 21% of all vessel profiles. Other commonalities between Mortlach and Vickers focus extend to exterior surface treatment. All of the Mortlach and Vickers focus collections in the *Makotchi-Ded Dontipi* locale have a large percentage of vessels with textile-impressed exterior surface. In addition, there are no vessels from any of the sites which exhibit ether simple- or check-stamping.

There are many commonalities in decoration shared by Mortlach ware and Vickers focus assemblages which have been discussed above. Perhaps the most telling about the relationship between Mortlach and Vickers focus is the presence of CI vessels in more easterly Mortlach sites. This relationship is amplified in the *Makotchi-Ded Dontipi* locale where CI is very common at both Mortlach sites. There are also a number of vessels recovered from the sites there (Schuddemat, Twin Fawns and Jackson) which can be considered syncretic between Vickers focus and Mortlach.

The discrepancies between the Schuddemat and Twin Fawns Mortlach assemblages and Saskatchewan Mortlach assemblages seem to arise from the sites lying on the eastern periphery of Mortlach where their occupants were interacting with Vickers focus groups. This interaction is also reflected in the adoption of rim profiles which are new to Vickers focus assemblages in the Jackson and Vera collections. These Wedge and Angled Rim vessels are characteristic of Mortlach assemblages and are not present in eastern Vickers focus components.

8.4.2 Connections to Sandy Lake

Aside from a few select wares from the Middle Missouri area, there is another archaeological ware with which both Vickers focus and Mortlach have been connected-

Sandy Lake Ware (SLW)(Walde 1994; Walde et al. 1995; Nicholson and Hamilton 2001:54; Taylor-Hollings 1999). There has been a number of SLW vessels recovered from Vickers focus sites and it has been suggested that Vickers focus pottery is actually a regional variant of SLW that has been influenced by the Scattered Village Complex (Hartlen 1996: i). Walde has noted that SLW shares some characteristics with Mortlach pottery. He points to consistencies in globular vessel form with slight neck constrictions along with eclectic approaches to exterior surface finish and decorating (Walde 1994:145). Walde also point out that "vertical rim vessels with lip notching are present in some numbers in Mortlach assemblages" (1994:145). He suggests that "it seems likely Mortlach ceramics are successors to Sandy Lake and represent a continuation of the Psinomani culture in south-central Saskatchewan, northeastern Montana, and northwestern North Dakota" (Walde 1994:146). Malainey, however, asserts that these consistencies in pottery are actually more in keeping with characteristics of Wascana ware assemblages.

> Walde (1994:143-149) suggests that Sandy Lake Pottery is ancestral to his all encompassing Mortlach phase pottery. The Mortlach features he (1994:145-148) finds similar to Sandy Lake include the globular shape, slight neck constriction, vertical or slightly s-shaped rims, the eclectic approach to vessel surface finish and decoration, lip notching and fabric- impressed exteriors. These are features which Malainey (1991) attributes only to Wascana pottery; Mortlach pottery is more conservatively finished and decorated, with low incidence of S-profile rims and fabric-impressed surface finishes…. (Malainey 1995:183).

Taylor-Hollings agrees with Malainey (1995) stating that Mortlach pottery seems to have more similarities to Plains Village wares (1999:177). Dyck and Morlan (1995) also note similarities between SLW and Wascana ware.

8.4.3 The Middle Missouri Connection

There are a number of artifacts, aside from pottery, that have been recovered from Vickers focus and Mortlach sites that show affinity to the Middle Missouri area. As previously noted, several classes of artifacts found in Mortlach assemblages within the Lake Midden subphase point to close relations with the people of the Middle

Missouri region (Walde 1994). Included in this are ice gliders, slot knives and tools made from KRF which originates in the Middle Missouri area, as well as the presence of potsherd gaming disks (Walde et al 1995:43).

8.4.3.1 Ice-Gliders

Ice-gliders are an archaeological remnant of a throwing game in which darts, fashioned from rib bones, are thrown along a smooth surface, preferably ice, to see who has the longest cast (Fenenga 1954:32). Although ice-gliders are varied in decoration; they are remarkably similar in form (Figure 8.7). Majewski (1986:104 as cited in Nicholson et al. 2003:121-122) offers this description:

> A typical ice glider consists of a bone head into which two diverging tails are inserted, these tails are made of thin sticks with feather tips at the proximal ends. Bison, domestic cattle and deer ribs were commonly used for making the head, although all of them from Ice Glider appear to be of bison. Different parts of the rib were used but most often a wide flat portion was selected. The forward end of those from Ice Gliders either have a blunt or V-Shaped point, which was produced by sawing transversely across the rib, or by two obtuse cuts respectively. The proximal end is cut square by sawing across the rib perpendicular to the long axis…Holes for the feathered tails were usually gouged into the cancellous tissue in the proximal ends. One or both ends of the bone may be decorated with incised or punctate designs, either geometric or naturalistic.

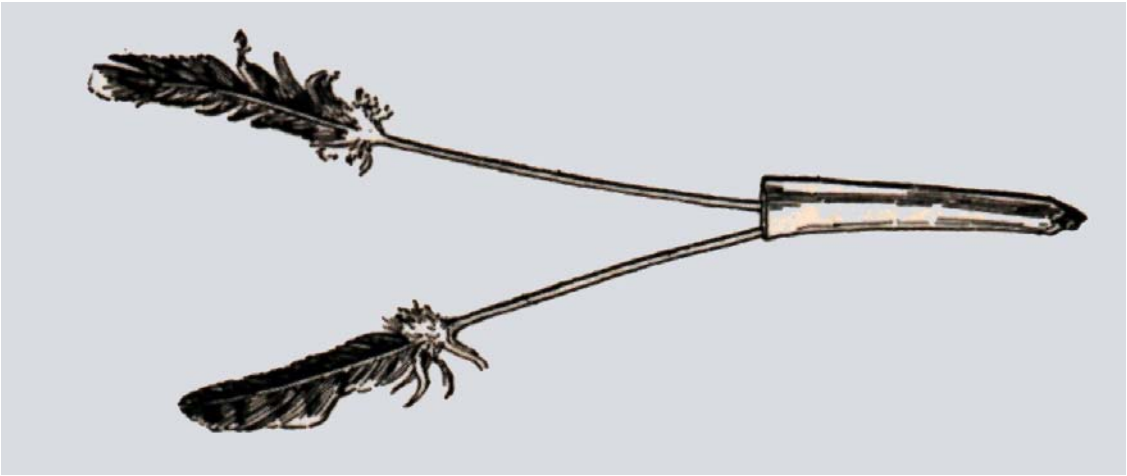


Figure 8.7 Ice Glider Sketch (Culin 1907 in Nicholson et al. 2001)

Nicholson and colleagues add that "specimens are sometimes decorated with notches along the lateral edges…or incised designs but the distal end is usually a simple break" (Nicholson et al. 2003:122).

Ice-gliders or bone-sliders are common in Middle Missouri post-contact sites (Lehmer 1971:119) as well as in Middle Missouri Extended Coalescent contexts (cf. Wilmeth 1958: 9 and fig. 21 as cited in Lehmer 1971:119). Fenega (1954) initially believed that this class of artifact was restricted to the Middle Missouri River drainage. In 1954, Fenega published an article in the Plains Anthropologist documenting all archaeological sites known at that time from which ice-gliders had been recovered. These consisted of nine sites, all located in South Dakota (Fenega 1954:32). In the last twenty years, research has shown that the distribution of ice-gliders is much broader than initially thought, as a number of sites outside the Missouri River Drainage have been found to contain ice-gliders (Walde 1994; Walde et al 1995:43; Nicholson et al. 2003).

There have been a number of ice-gliders recovered from both Vickers focus and Mortlach sites (Malainey 1991; Walde 1994; Nicholson 1991, 1994). Mortlach sites from which ice gliders have been recovered include Lake Midden, Hartley, Stoney Beach (Figure 8.8), Sanderson and Twin Fawns (Figure 8.9) (Walde 1994; Playford 2000; Nicholson et al. 2003). They have also been recovered from Lowton, the Vickers focus type site (Nicholson et al. 2001; Nicholson et al. 2003) and a single ice- glider has recently been identified at the Vera site (Nicholson p.c.).

Nicholson and colleagues note that radiocarbon dates from sites containing ice-gliders indicate that ice- glider use began earlier north of the 49th parallel. Dates from archaeological specimens recovered from Manitoba and Saskatchewan are circa A.D.1440 while the earliest dates south of the 49th parallel are approximately A.D. 1750 (Fenega 1954). Based upon these dates, Nicholson and colleagues suggest that "ice-gliders originated in the northern parklands and plains of Canada and spread from there, likely into the northeastern plains of the Dakotas and eastern Montana" (2003:125).

Figure 8.8 Ice-gliders Recovered from Stoney Beach Site

Figure 8.9 Ice-gliders Recovered from Twin Fawns Site

8.4.3.2 Slot Knives

Slot knives are rib fragments or sections of thoracic spines from large mammals (mostly bison) which have been modified to provide a cavity to hold a blade- either stone or metal (Walde 1994: 42; Joyes 1973; Hamilton et al. 2006a). "While not common, slot knives have been found in several Mortlach components, at Plains Village and Plains Woodland sites and also within a northern Manitoba burial (Brownlee and Syms 1999)" (Hamilton and Nicholson 2006b). Saskatchewan Mortlach sites from which slot knives have been recovered include Lake Midden and Stoney Beach (Walde 1995:93-94). In Manitoba, a brass slot knife was recovered from the Twin Fawns site (Figure 7.4) along with a second slot knife handle which no longer had a blade inserted (Nicholson and Hamilton 1999:24; Hamilton and Nicholson 2006b). On the brass slot knife, the metal is hafted into a section of bone just as a lithic biface would have been. This brass slot knife recovered from the Twin Fawns site reflects ties to the Middle Missouri area, as they are commonly found there (Lehmer 1971:146-147; Walde et al 1995:43). In addition, it places the occupation of the site clearly in the proto-historic period though a lack of additional European cultural goods, along with the retention of traditional lithic technology at the site suggests that the site was occupied early in the contact experience (Hamilton and Nicholson 2006b) Although there has yet to be a slot knife recovered from any of the Vickers focus sites, the recovery from Twin Fawns is interesting as it shows, yet again, contact between the *Makotchi-Ded Dontipi* locale and the Middle Missouri area close to, or just following, the time that the Vickers focus peoples were occupying the area.

8.4.3.3 Additional Aspects of Material Culture

There have been several other aspects of material culture that have been pointed out as links between Mortlach and Middle Missouri assemblages. These include the presence of large amounts of KRF and fused shale and the presence of potsherd gaming discs. While fused shale has not been recovered from Twin Fawns, Schuddemat or any Vickers focus sites, there has been a significant amount of KRF recovered from all of these sites. Of the sites in question, Jackson is the only site to have any type of lithic analysis carried out. At Jackson, Belsham found that not only was KRF present, but that it made up over 60% of the tools recovered from the site (2003:137). "The heavy

representation of KRF clearly indicates either strong exchange connections to the Middle Missouri quarry areas, or alternatively, regular travel into that region" (Belsham 2003: 145).

8.4.3.4 Summary

There are a number of artifacts that have been recovered from both Mortlach and Vickers focus sites which link each of them with the Middle Missouri area. These artifacts, along with some trade vessels and shared pottery attributes indicate that both Mortlach and Vickers focus peoples had ties to the Middle Missouri area. It is unknown whether these connections revolved around exchange networks, travel and/or perhaps some type of kin relations. What is evident is that either independently or together, both the Vickers focus and Mortlach groups from the Lake Midden subphase had associations with the people from the Middle Missouri Villages area.

8.4.4 Subsistence Strategies

It is believed that the Vickers focus people were carrying out small scale horticultural production in the Tiger Hills region (Nicholson 1991, 1993, 1994a; Nicholson and Hamilton 1999; Nicholson, Wiseman, Hamilton and Nicholson 2006; Nicholson, Hamilton, Running and Nicholson 2006). When they appeared in the archaeological record in the Lauder Sandhills roughly 100 years later, they seem to have adopted a more plains-oriented subsistence strategy (Nicholson and Hamilton 1999; Playford and Nicholson 2006; Hamilton and Nicholson 2006c). Nicholson and Hamilton propose that much of this transition into a full-fledged bison hunting society may have been aided by contact with Mortlach groups who were extremely adept in this activity. "Evidence for greater reliance on bison… at least at sites such as Jackson also support the idea of direct contact between Vickers people and Plains bison hunters such as Mortlach" (1999:24).

The people who produced Mortlach pottery were skilled bison hunters who employed intensive processing strategies (Meyer 1993:64; Walde et al. 1995). Generally speaking, Mortlach sites tend to be quite large with dense deposits of materials (Meyer 1993:64). For example, the western third of the Lozinsky site extends

over 1200 m2 and contains distinct work areas for hide and meat processing, drying, grease extraction and marrow extraction (Malainey 1995:164-165).

As a part of her M.A. thesis, Playford compared the subsistence strategies employed by the people who inhabited the Jackson and Sanderson sites in an attempt to assess the degree of similarity between the two sites (2001:134-144). Some similarities noted include the extensive use of bison while other large ungulates were relatively ignored (Playford 2001:143). Findings indicate that bison was being more intensively processed at the Jackson site and while both groups used canids as secondary food sources, they were relied on more heavily at the Sanderson site. Another difference between the two sites is the extensive use of foetal bison at the Jackson site which, while present in the Sanderson faunal assemblage, does not appear to have been utilized to the same extent (Playford 2001:143). Playford noted that "the main subsistence strategy difference between the Jackson and Sanderson site inhabitants is the preferred method of meat storage. Evidence from the Sanderson site indicates that the makers of Mortlach pottery utilized a system of primary butchered frozen hindlimb segments" (Playford 2001:144).

New archaeobotanical research carried out by Boyd and colleagues (2006) found evidence of corn from the Lowton site as well as the from the Vera, Schuddemat, Twin Fawns and Hollow B sites. Archaeobotanical evidence of beans was also found for all of these sites except for Twin Fawns (Boyd et al. 2006:1135). This new evidence supports the idea that the Vickers focus people were engaging in horticulture on some scale. "The indicated subsistence strategy for both the eastern and western site clusters appears to have been a blend of foraging and horticulture with small scale horticulture being more important in the eastern cluster of sites and foraging being more so in the western cluster, following the trans-location of these people" (Nicholson et al. 2006). Boyd and colleagues support the possibility of horticulture but also offer alternative suggestions of trade and exchange as well as short-term village dispersal as a means of explaining the presence of these cultigens (Boyd et al. 2006:1137-1138).

The archaeobotanical evidence for corn and beans at the Mortlach sites in *Makotchi-Ded Dontipi* is very interesting. Although there was a highly polished scapula hoe recovered from the Lake Midden site (Nicholson et al. 2001), Mortlach is

considered to have a completely Plains-oriented subsistence strategy revolving around bison. The recoveries from the Sanderson site indicate that a range of other species were utilized and the Lebret site in the Qu'Appelle Valley is a Mortlach spring fishery (Smith 1986), which suggests that the people who produced the Mortlach pottery were skilled at procuring a number of resources.

With a total lack of horticultural implements recovered from the *Makotchi- Ded Dontipi* sites, it is possible, or even probable that the Mortlach people in the area were trading for corn and beans with either their Vickers focus neighbours or with the Middle Missouri people with whom they had established trade relations. Further research in archaeobotanical remains on potsherds and features would provide a window into whether this vegetal trade extended to Mortlach sites further west. Nicholson and colleagues argue that the Vickers focus people in the Lauder Sandhills were continuing to conduct small scale horticulture.

> The logistics of transporting a heavy and bulky perishable food commodity from either the eastern Woodlands of Minnesota or the Middle Missouri area, prior to the availability of the horse, seems extremely unlikely. Given the known success of horticulture at the Lockport site, the fur trade period success of John Tanner, and the oral tradition of precontact horticultural production narrated by Elder Dave Daniels, it would appear to be a reasonable assumption that the normal source of corn and bean residues in the Vickers Focus sites primarily resulted from local production of corn and beans. It may be that on occasion it was necessary to trade for seed with groups living to the south (Nicholson et al. 2006).

They do suggest that, with the move west, the Vickers focus people would have shifted to more of a foraging economy with less stress placed on horticulture (Nicholson et al. 2006).

Playford and Nicholson (2006) suggest that at both Jackson and Vera, there was heavy reliance on bison and the small kill at Jackson indicates that the Vickers focus people inhabiting this site were becoming quite adept at bison hunting. Whether they learned these skills from their Mortlach neighbours is yet unknown. This developing skill along with the recovery of corn and bean cultigens suggests a degree of continuity

in subsistence strategy between the groups at *Makotchi-Ded Dontipi*. Further analysis of the faunal recoveries from the sites in the area may serve to strengthen this connection.

8.4.5 A Word about Wascana Ware

Certain consistencies between Mortlach and Vickers focus assemblages become problematic when taking into account Malainey's (1991, 1995) division of Mortlach and Wascana ware. Certain elements such as vessel form and exterior surface treatment are much more consistent between Vickers focus pottery and Wascana ware than they are between Vickers focus and Mortlach. In addition, debate over the connection between Sandy Lake and Wascana ware, rather than Sandy Lake and Mortlach as presented by Malainey (1995:183) calls into question the link between Mortlach and Vickers focus via SLW. However, the fact remains that there are a great number of similarities between the pottery recovered from the Vickers focus sites in the *Makotchi- Ded Dontipi* locale and the neighboring sites that have been determined to be Mortlach sites. For this reason, emphasis has been placed on the relationship between Vickers focus and the more encompassing vision of Mortlach (Walde 1994).

8.4.6 Discussion and Conclusions

There are indications that there is a connection between the Vickers focus and Mortlach. Perhaps the strongest evidence lays in common characteristics in the pottery of the two groups which becomes even more apparent in the *Makotchi Ded Dontipi* locale. The adoption of Wedge, Square Wedge and Angled rim profiles in the western Vickers focus sites, syncretic Mortlach/ Vickers vessels from Jackson, Schuddemat and Twin Fawns and a high incidence of CI decoration in the *Makotchi-Ded Dontipi* Mortlach sites all point to contact between the groups who made these wares. The shared affiliation with Sandy Lake and the trade connections between both groups and the Middle Missouri area also serve to strengthen the argument that Mortlach and Vickers focus were connected. It is not possible to say at this time whether the people of the Vickers focus learned their bison hunting skills from Mortlach neighbours but it does seems evident that their skill in this area did evolve as they moved west through Manitoba (Nicholson and Hamilton 1999). The discovery of archaeobotanical evidence that suggests that both groups were incorporating corn and beans into their diet (Boyd et

al. 2006) provides an interesting new link between the Vickers focus and Mortlach inhabitants at *Makotchi- Ded Dontipi*.

Because of the problems with radiocarbon dating at this period of time, comparing dates between Mortlach and Vickers focus is problematic (Table 3.1 and 4.1). However, there are some dates to suggest that Mortlach may have predated Vickers focus or, at least been contemporaneous. A very early date from the Mortlach component of the Sjovold site- 1030 +/- 190 B.P. (Table 4.1) predates both the Vickers focus appearance in the Tiger Hills region and all known Mortlach sites. A normalized date from Lake Midden of 460 +/- 100 B.P. (Table 4.1) places it close in time with the occupation of Lovstrom and Lowton, eastern Vickers focus sites. The dates recovered from the sites in the *Makotchi-Ded Dontipi* locale suggest that, while the Twin Fawns site dates a bit later, into the early proto-historic, it is certainly within the realm of possibility that interaction occurred. Given the adoption of rim profiles that were not found in the eastern cluster, the presence of syncretic vessels and the myriad of other smaller links between the two groups, it is the author's opinion that it is actually more of a probability than a possibility that there was interaction between Mortlach and Vickers focus in southwestern Manitoba.

In the introductory portion of this chapter, Nicholson and Hamilton were quoted as suggesting four differing possibilities as to the relationship between Vickers focus and Mortlach (1999:25). More recently, they have proposed that the Vickers focus and Mortlach had a sort of "cultural ancestor-descendent relationship" (Hamilton and Nicholson 2006c). Also continuing to weigh in on the subject, Dale Walde has suggested that perhaps the taxonomic designation of phase is not large enough for the Mortlach entity. He suggested that Mortlach may be more appropriately deemed a culture with Lozinsky and Lake Midden and possibly Vickers focus as phases within the Mortlach culture (2002). This theory seems consistent with Nicholson and Hamilton's fourth option which suggests that Mortlach and Vickers focus are a part of a larger phenomenon, where "the differences which appear in the archaeological record may simply reflect different historical experiences and contacts and the exploitation of different territorial resource bases" (Nicholson and Hamilton 1999:25). With all of these different theories, it is hard to known which, if any, are "correct".

Given the arguments presented, it is the author's opinions that option two, as presented by Nicholson and Hamilton (1999:25) can be rejected. It seems very unlikely, given the number of similarities between Vickers focus and Mortlach in the *Makotchi-Ded Dontipi* locale, that no type of interaction occurred. It also seems improbable, given the number of similarities between the eastern Vickers focus sites and the Mortlach assemblage, that option one, which suggests that the two groups were completely independent before their interaction at *Makotchi-Ded Dontipi* is correct. It is the author's opinion that some combination of options three and four is probably more accurate.

It seems as though both Mortlach and Vickers focus (and most likely the makers of Wascana ware) were the product of a large migration into the northern Canadian Plains by eastern Woodlands populations, including some of the Psinomani culture. In the Tiger Hills region of Manitoba, these people coalesced with a number of different Plains Village populations leaving a diverse group of wares along with a relatively distinct new pottery- Vickers focus- behind in the archaeological record. When the Tiger Hills region was abandoned a short time later, likely due to a cold-spike which negatively affected horticultural efforts (Nicholson et al. 2006), the Vickers focus people moved west where they interacted with the makers of Mortlach pottery, adopting many of their skills as accomplished bison hunters. While this interaction is most pronounced in the *Makotchi-Ded Dontipi* locale, a mixed assemblage from the Randall site containing both Mortlach and Vickers focus pottery, along with a small number of Vickers and Mortlach sites interspersed throughout southwestern Manitoba, suggests interaction was probably occurring to a lesser extent in areas outside the *Makotchi-Ded Dontipi* locale. The disappearance of the Vickers focus from the archaeological record by ca.1650 (Hamilton and Nicholson 2006c), close to the time that Mortlach was thriving in Saskatchewan, along with the evidence of contact prior to this disappearance suggests that the Vickers focus people may have joined the Mortlach groups with whom they were interacting. Though Hamilton and Nicholson most recently suggest that Mortlach descended from Vickers focus (2006c), I am hesitant to say that this extremely successful group of bison hunters who populated the plains and parklands of

Saskatchewan was descendant from the amalgam of Plains Woodland and Plains Village people who occupied the Tiger Hills region.

It is my opinion rather, that both groups were a part of a larger phenomenon of migration to the area, each evolving separately though their interaction with neighboring groups and their use of differing resource bases which is consistent with Nicholson and Hamilton's option four (1999:24). When the Vickers focus people abandoned the Tiger Hills region, adopting a more transient lifestyle and seasonally based subsistence strategy, they came into increased contact with their Plains-adapted neighbours. Over contact and through time, the Vickers focus people were amalgamated into the Mortlach archaeological record. During and following this amalgamation period, Mortlach sites along the eastern periphery and particularly in the Lauder Sandhills show evidence of much interaction between the makers of Vickers focus and Mortlach pottery. Extensive trade relations with the people of the Middle Missouri area indicates that it is possible that, as per one suggestion by Nicholson and Hamilton (1999:25), the Vickers focus people who inhabited the Lauder Sandhills may have actually amalgamated with one of the Middle Missouri village tribes but it is the author's opinion that evidence for them joining the Mortlach peoples is much stronger.

In 2002, Walde suggested that a possible reanalysis of the taxonomy of Mortlach is called for to address, among other issues, the term 'phase' being too narrow to encompass Mortlach and the relationship between Mortlach and Vickers focus. It is the author's opinion that there is a regional variant of Mortlach along the eastern Mortlach periphery which is reflected by the pottery recovered from the Mortlach sites in the *Makotchi- Ded Dontipi* locale. This could be labeled a Vickers subphase of the Mortlach phase or, probably more appropriate because of the shared ties to the Middle Missouri, be considered a variant of the Lake Midden subphase of the Mortlach phase. It is not appropriate, however to subsume all of the Vickers focus as a phase in the "Mortlach Culture". If Mortlach, Vickers and Wascana sites all actually represent regional variants of a larger eastern Woodland migration phenomenon, as suggested, it would be inappropriate to use any of the above names to define said phenomenon.

Chapter Nine

Summary and Conclusions

9.1 Introduction

When fieldwork began in the Lauder Sandhills more than a decade ago, it quickly became evident that the area had enormous potential to contribute to the archaeological record of pre-contact people in Manitoba. It was so rich in archaeological resources, Dr. Bev Nicholson dubbed the area *Makotchi-Ded Dontipi*- a Dakota phrase meaning "the place where we live" (Nicholson and Hamilton 2001). Through extensive efforts in paleo-environmental reconstruction, Hamilton and Nicholson were able to produce an ecological model of the area prior to the implementation of European homesteading and agricultural practices, which greatly impacted the regional landscape (Hamilton and Nicholson 1999). This reconstruction shows that the water levels in the Oak Lake aquifer, which underlies the Lauder Sandhills used to be much higher than they are today. As a result, the stabilized sand dunes were interspersed with scattered wetlands (Hamilton and Nicholson 1999). These former wetlands would have supported an array of wetland vegetation as well as willows and other arboreal plants (Hamilton 2004). In turn, the area would have provided pothole water resources, protection from fire and shelter from the elements.

This thesis concerns five of the archaeological sites discovered in the *Makotchi-Ded Dontipi* locale of the Lauder Sandhills: Jackson, Vera, Schuddemat, Twin Fawns and Hollow B. The objectives of this project were threefold:

Research Objective #1- To provide a comprehensive analysis of the pottery assemblages from the Jackson, Vera, Schuddemat, Twin Fawns and Hollow B sites.

Research Objective #2- To firmly establish the cultural affiliation of these sites based primarily upon their pottery assemblages.

Research Objective #3- To use the information derived from the analysis of these sites in the Lauder Sandhills to contribute meaningfully to a discussion about the relationship between the Vickers focus and Mortlach.

9.2 Discussion of Results

9.2.1 Research Objective #1

Although there have been a number of publications involving the pottery recovered from the Jackson, Vera, Schuddemat, Twin Fawns and Hollow B sites (ie. Nicholson and Hamilton 1996, 1999, 2001), prior to this thesis, there had never been a systematic analysis carried out on the pottery assemblages from any of these sites. In order to establish the cultural affiliation of these sites, a comprehensive analysis was necessary. Chapters Six and Seven, along with Appendix A, provide the results of the analysis. A brief synopsis of each site assemblage is provided below.

The Jackson site pottery assemblage consists of 19 vessels. Rim profiles at Jackson include Short, Straight, S-Rim, Square Wedge and Straight/Angled. Textile impressing and smooth exterior surface finishes are most prevalent though there are a number of vessels with obliterated surface finishes. The Jackson vessels are mostly tempered with fine grit and/ or sand. There are only three undecorated vessels in the Vera assemblage. The majority of the decoration on Jackson vessels is restricted to the brim area. The most popular type of decoration at Jackson is TI along the outer corner of the brim. Additional decorative elements include CI, CWT, incising and punctates (Figure 6.2).

The vessels recovered from the Vera site are quite varied in terms of rim profile, lip profile and decoration. One foreign vessel from the Middle Missouri area was recovered from Vera (Figure 6.3) (Nicholson et al. 2006:2). Excluding the Middle Missouri vessel, there are 22 vessels in the Vera assemblage. Rim profiles include S-Rim, Angled, Straight, Straight/Angled, Short, and Wedge. The most common exterior surface treatment at Vera is textile impression though there were also a number of potsherds with obliterated surface treatments. Temper includes fine grit, sand and shell. Of the five sites analyzed, Vera is the only site in which shell temper is present. The majority of vessels recovered from Vera are decorated. Decoration is popular both on

vessel brim and rim surfaces (Figure 6.4). Popular rim motifs are horizontal lines, horizontal over oblique and rainbow. Decorative techniques include CI, TI, finger pinching, incising and fingernail impressing though by far the most popular technique is CWT impressing.

The Schuddemat collection consists of 27 vessels. Rim profiles present in the assemblage are Short, S-Rim, Wedge, Straight/Angled, Straight, Angled and Square Wedge. Over 40% of the vessels have obliterated exterior surface treatments but both textile impressed and smoothed are also popular. Grit is the only temper used in the Schuddemat vessels. The most prevalent methods of decoration are CWT, CI, TI and dentate. The vast majority of the vessels recovered from the Schuddemat site are decorated on the vessel brim. Brim decoration is most often found in conjunction with decoration on another field. Two major themes in brim decoration are oblique impressions and two canaliculate rows of impressions along the brim surface. There is an array of decorative motifs employed at Schuddemat (Figure 7.1) including a number of vessels which are fairly elaborate.

There are 26 vessels in the Twin Fawns assemblage. Rim Profiles include Wedge, Straight, S-Rim, Straight/Angled, Short and Angled. Like Schuddemat, the exterior surface treatments are obliterated, textile-impressed or smooth with small amounts of vertical cord roughening. Only one vessel in the collection is undecorated. Decorative techniques employed include CWT, TI, CI, finger-pinching and fingernail impression (Figure 7.5). The majority of Twin Fawns vessels are decorated on the vessel brim and over half have oblique impressions on the brim surface. Other motifs include horizontal impressions along the exterior rim and triangle motifs.

There were only four vessels identified in the Hollow B assemblage. The rim profiles are Straight/Angled, S-Rim and Wedge. Exterior surface treatments include cord- roughened, smooth and obliterated. All vessels are grit tempered. There are three different decorative techniques found on the Hollow B vessels - CWT, CI and dentate (Figure 7.6). Brim decoration consists of either oblique impression (n=3) or three canaliculate rows along the brim surface. Two of the vessels recovered also have horizontal impressions along the exterior rim surface.

9.2.2 Research Objective #2

The second objective of this thesis was to establish the cultural affiliation of the Jackson, Vera, Schuddemat, Twin Fawns and Hollow B sites based primarily on the findings of the vessel analysis. Prior to this analysis, Jackson and Vera were labeled Vickers focus sites (ie. Nicholson and Hamilton 2001, Playford 2001) and the remaining three were considered Mortlach sites (Nicholson and Hamilton 1999). Consideration was given to whether these assignments would be the same when looked at more closely though comprehensive analysis.

Jackson and Vera

Determining the cultural affiliation of the Jackson and Vera sites was complicated by their past inclusion in actually defining Vickers focus pottery. In addition, Lowton- the Vickers focus type site- has not undergone any type of comprehensive analysis that is directly comparable to that carried out in this thesis. In spite of this, the collections from Jackson and Vera were compared with early publications by Nicholson which defined Vickers focus pottery prior to the inclusion of the Jackson and Vera assemblages.

Although the Jackson and Vera assemblages differ in many ways from each other, each shares a degree of similarity with Vickers focus pottery. The presence of a single rim sherd with a twisted cord loop impression in each of the Lowton, Vera and Jackson site assemblages, which is considered a diagnostic trait of Vickers focus (Figure 6.2) (Nicholson et al. 2001), serves to link these three sites together. Another diagnostic indicator, finger pinch lip nodes along the outer lip edge (Nicholson 1994:110), which is found at all of the Vickers focus sites, is present at Vera. Although there are no rims which exhibit this pinching at Jackson, there are shoulder sherds that exhibit this trait (Nicholson and Hamilton 1999). Another decorative technique common in Vickers focus assemblages is impressions along the inner and outer corners of the vessel lip (Nicholson 1994:110). This technique is popular at Jackson and is also found in smaller numbers at Vera.

There are a number of differences between the pottery recovered from *Makotchi-Ded Dontipi* and that recovered from the eastern Vickers focus sites. Major differences include the appearance of a number of rim profiles in the *Makotchi- Ded Dontipi*

collections that are not found in the eastern Vickers collection. These rim profiles are Wedge, Square Wedge and Angled, three profiles common in Mortlach assemblages. Because of the large range of variation in decorative techniques in the Lovstrom and Lowton sites (Nicholson 1990, 1994), it is not difficult to draw parallels between decoration at the eastern Vickers focus sites and that recovered from Jackson and Vera. Other differences include the lack of any exotic wares, outside of the one Middle Missouri vessel recovered from the Vera site, along with a lack of exotic lithic materials such as catlinite which have been recovered from the Lowton site.

Despite these differences, both Jackson and Vera appear to be Vickers focus sites. The absence of a range of exotic pottery along with other classes of exotics may lie in the proposed nature of the Lowton site where it has been suggested that it is a central-place gathering site where members of cognate groups may have coalesced around an elite kin group (Nicholson 1994). Both Jackson and Vera are much smaller sites which represent a more centre-based economic strategy as they appear to be seasonally based and occupied for shorter periods of time (Nicholson et al. 1997:39; Nicholson and Hamilton 2001:70). Others differences may be attributed to the fact that the site clusters date around 100 years apart. In this time period, came a number of adaptations, including a shift in subsistence strategy to one which was more Plains-adapted. This shift seems to indicate interaction with neighboring groups practicing this type of subsistence strategy (Nicholson and Hamilton1999:11). With a century of interaction with neighboring groups, it is natural to expect changes in these pottery collections.

Schuddemat, Twin Fawns and Hollow B

In an effort to determine the cultural affiliation of the Schuddemat and Twin Fawns sites, their site assemblages were compared to those of Mortlach assemblages, as defined by Walde (1994) and to Mortlach and Wascana Ware assemblages as defined by Malainey (1991, 1995). In addition, they were compared to the pottery assemblages from the Long Creek and Sanderson sites in southeastern Saskatchewan. Although it was initially intended that the cultural affiliation of the Hollow B site would be addressed, the small number of vessels recovered prevented this.

The Schuddemat site was found to be atypical of either Malainey's (1991, 1995) "ideal" Mortlach or Wascana ware assemblages. Although more consistent with Wascana ware in terms of exterior surface treatment and decoration, Schuddemat Rim profiles are perhaps more in line with Mortlach assemblages. It should be noted, however, that the Short Rim vessel, the most common profile at Schuddemat, is more common in Wascana Ware assemblages (Malainey 1991). Schuddemat does fit well within Walde's more encompassing vision of Mortlach (Walde 1994). Two areas of inconsistency are the presence of CI vessels in the Schuddemat site collection. This is a trait which Walde regards as "foreign" and sees as only weakly represented in Mortlach sites (1994:61). In addition, the Short Rim profile which is popular at Schuddemat is not recognized in Walde's basic Mortlach vessel profiles. These two inconsistencies are echoed when comparing the Schuddemat assemblage to the assemblages from the Long Creek (Bryant 2002) and Sanderson sites (Walde 1994). In addition, the absence of simple stamped and check-stamped vessels from Schuddemat also set it aside from the Long Creek and Sanderson sites. Textile-impressed exterior surface treatments are much less common at both the Long Creek and Sanderson sites (Bryant 2002; Walde 1994). Consistencies between the sites include decorative techniques, though instances of dentate stamping are much lower and CI is more frequent at Schuddemat.

The Twin Fawns site fits much more comfortably into a cultural affiliation of Mortlach as set out by Malainey (1991, 1995) than Schuddemat does. With a higher incidence of Wedge vessels, Twin Fawns is much closer to an "ideal" Mortlach assemblage though there is a much lower percentage of Straight rim vessels and a higher frequency of Short Rim than is thought to be typical (Malainey 1991). The major difference between the Twin Fawns collection and that of a Mortlach aggregate assemblage is the much higher presence of textile-impressed exterior surface treatments. This is seen as fairly rare in Mortlach assemblages (Malainey1991). When compared with the general characteristics of the more expansive view of Mortlach (Walde 1994), Twin Fawns fits very well. The major differences here seem to be consistent with the differences between the Schuddemat site and Mortlach sites in general. These are the presence of a higher number of CI vessels and increased frequency in Short Rim profile. Like Schuddemat, these are also the traits that stood out when comparing the Twin

Fawns assemblage with those of Long Creek (Bryant 2002) and Sanderson (1994). Also like Schuddemat, additional inconsistencies included lack of check- and simple-stamped exterior surface treatments as well as the absence of dentate stamping from the Twin Fawns site.

Despite some inconsistencies, both Twin Fawns and Schuddemat seem to be culturally affiliated with Mortlach. Aside from pottery, the recoveries of both ice gliders and slot knives from Twin Fawns (Nicholson and Hamilton1999; Nicholson et al. 2003), items that are found in sites in the Lake Midden subphase area of Mortlach, serve to further link Twin Fawns to Mortlach. Although Schuddemat does seem closer to a Wascana ware assemblage in many ways, it is certainly not a typical Wascana ware assemblage. This, together with the fact that in so many ways it is consistent with Twin Fawns, a Mortlach site, is evidence that it, too, should be considered Mortlach.

9.2.3 Research Objective #3

The final research objective of this thesis stems from an article written by Nicholson and Hamilton in 1999. This article- "Vickers Focus and Mortlach Ceramics at *Makotchi-Ded Dontipi*- A Linear Relationship" discusses possible degrees of connectedness between the two cultural assemblages. It presents four different scenarios in this regard. The third and final research objective of this thesis is to use the information gathered in the analysis of these sites to contribute meaningfully in this conversation.

There are a limited number of similarities between the pottery assemblages of the earlier eastern Vickers focus sites and Mortlach assemblages. These commonalities include some of the same vessel profiles and exterior surface treatments as well as the shared decorative technique of tool impression on inner and outer corners of the vessel brim (Figure 8.2). Other shared decorative techniques include triangle motifs and finger pinching along the exterior lip edge (Figures 8.5 and 8.6). When you take into account Malainey's division of Mortlach and Wascana ware, however, similarities in vessel form and surface treatments appear to be more consistent with Wascana ware than with Mortlach. It is not until the later Vickers focus sites in the Lauder Sandhills that the similarities between Mortlach and the Vickers focus become more pronounced.

In the Vickers focus sites at *Makotchi-Ded Dontipi*, we see the adoption of a number of vessel forms which were relatively unknown in Vickers focus assemblages- Wedge, Square Wedge and Angled Rim. These vessel forms are characteristic of Mortlach assemblages (Malainey 2001, 1995; Walde 1994). The higher percentage of Short Rim vessels in the Mortlach sites in the *Makotchi-Ded Dontipi* locale are not seen in large numbers in Mortlach assemblages though they are more common at Wascana ware sites (Malainey 1991, 1995). They also make up a fifth of the rim profiles in the Jackson assemblage and appear in smaller numbers throughout Vickers focus sites.

Though a number of additional shared pottery elements are present in the *Makotchi-Ded Dontipi* sites, perhaps the most telling of the relationship between the two groups in the locale are the presence of a number of syncretic vessels. There are a number of vessels that have been recovered from the Jackson, Twin Fawns and Schuddemat sites which have the rim profile of Mortlach assemblages but are decorated with CI, a trait considered "foreign" in Mortlach pottery (Walde 1994). The Lowton site contains a large number of CI vessels. Many of which have been attributed to Middle Missouri wares. These include, but are not limited to; Fort Yates Cord Impressed and Talking Crow Cord- Impressed (Nicholson 1991:169). C.I. vessels recovered from Mortlach sites are commonly regarded as Le Beau ware (Walde 1994:85), a ware that has also been identified at the Lowton site (Nicholson 1991:169). These CI vessels are viewed as indicative of contact with the Middle Missouri area (Bryant 2002) and also serve to mark the eastern spatial boundary of Mortlach (Walde 1994).

Other links between Mortlach and Vickers focus discussed in previous chapters include ties to the Middle Missouri area and SLW. The adoption of a new type of plains-adapted subsistence strategy by the Vickers focus peoples as they moved west across Manitoba also seems to speak of contact with a neighboring group with a similar strategy. Whether this new adaptive strategy was the result of contact with Mortlach peoples is yet unknown but the recovery of archaeobotanical evidence of both corn and beans at the Vickers focus and Mortlach sites in *Makotchi-Ded Dontipi* suggests a certain degree of continuity in subsistence strategy in this locale.

There are a number of elements which seem to indicate contact between the Vickers focus and Mortlach peoples. Some of the main pottery differences apparent

when the Vickers focus sites at *Makotchi-Ded Dontipi* are compared to the eastern cluster of Vickers focus sites seem to revolve around contact with Mortlach neighbors. Similarly, the main differences in the pottery assemblages between the *Makotchi-Ded Dontipi* Mortlach sites and those to the west seem to stem from influence by Vickers focus. The similarity in form and decoration, along with the recovery of a number of artifacts which show strong ties to the Middle Missouri area (KRF, slot knives, ice-gliders) in the Lauder Sandhills Mortlach assemblages has led to the suggestion that these sites should be considered a Vickers variant of the Lake Midden subphase of Mortlach.

Because of the number of similarities between Vickers focus, Mortlach and Wascana ware, it is the author's opinion that these groups are a part of a larger phenomenon of immigration into the Canadian Plains by eastern Woodland populations. During and following this migration, these cultures evolved separately through interaction with neighboring groups and exploitation of the resources which were available to them. In the Tiger Hills area of Manitoba, these eastern woodlands groups came into contact with Plains Village groups coalescing at the Lowton site and leaving a distinct imprint in the archaeological record (Nicholson 1991). As they moved out of that area and west through Manitoba, they interacted with Mortlach neighbours. This interaction is most pronounced in the Lauder Sandhills. It is the author's opinion that the most likely reason for the disappearance of the Vickers focus people in the archaeological record is that, through increased contact, they amalgamated with their Mortlach neighbours. The result of this amalgamation is the Vickers variant Mortlach sites which are found in the Lauder Sandhills.

9.3 Recommendations for Further Study

As always, there are an endless number of possibilities for further study in this area. In particular, although an enormous undertaking, a systematic analysis of the collections from the Lowton site is in order. As this is the type site for the Vickers focus, these data would be of great assistance for comparative analysis. Ongoing research in the Lauder Sandhills can only further our understanding of the relationship between the Vickers focus and Mortlach in this area. Before further exploration is

carried out, however, there is much work to be done with the data previously collected from the sites in the area.

Archaeobotanical research in the *Makotchi Ded-Dontipi* locale produced some very interesting results. The extension of this research to Mortlach sites further west could prove telling. It may be that the presence of corn and beans is indicative of Lake Midden Subphase sites or perhaps just of Vickers variant sites.

Although as archaeologists we spend a great deal of time trying to get things to fit into neat little boxes, the human condition is not now, nor has it ever been, something that is easily compartmentalized. No matter how many new taxonomic terms we come up with or how we choose to "split or lump", the only sure thing is that, in time, things are sure to change. Each new site provides new insight into the past and as technology improves and access to information is heightened, there is no telling what clues to the past the future may hold.

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Appendix A

Catalogue of Vessel Analysis

Jackson, Vera, Schuddemat, Twin Fawns & Hollow B

Jackson Vessels (DiMe- 17)

Jackson Vessel #	**J-1**	**J- 2**	**J- 3**	**J- 4**
Cat #	420/ 539- 1	32-3-66, 32-5-13, 32-6-11	15-2-5, 15-2-8	S-66
Portion Present	Rim	Rim	Rim, Neck	Rim, Neck, N/S
Rim Profile	Short Rim	Short Rim	Straight	Straight
Rim Thickness	N. M.	N. M.	6.08mm	N.M.
Paste Texture	Fine	Very Fine	Fine	Fine
Temper	FGT	FGT	N.V.T.	Sand
Exterior S.F.	Textile Impressed	Obliterated-Wiped	Vertical Textile Impressed	Textile Impressed
Interior S.F.	Smooth	Obliterated/ Burnished	Smooth, Residue	Smooth, Heavy Residue
Lip S.F.	Obliterated.	Smooth	Smooth	Smooth
Lip Profile	Round	Exterior Bevel	Expanding Interior Flange	Square & Exterior Bevel
Lip Thickness	9.11 mm	8.77 mm	8.07mm	4.72mm
Decoration-Area 1	Brim- From I.C. to O.C.	Brim	Brim- O.C.	Brim- O.C.
Tool Type	CI	Round Punctates	TI	TI
Motif	R-Oblique (slight)	Ave. 3.7mm apart	Vertical	Vertical
Photo Ref.	B.1 Fig. 6.2 (B)	B.1	B.1 Fig. 8.2 (D)	B.1 Fig. 8.2 (A)
Notes:	A Signature Vessel for V.F.		TI looks triangular from above	Very Similar to J- 3 but with thicker shoulder and shorter rim.

Jackson Vessel #	**J- 5**	**J- 6**	**J- 7**	**J- 8**
Cat #	S- 67	11-4-29, 11-4-37	22-6-3, 32-5-1	S- 69
Portion Present	Rim	Rim	Rim, Neck, N/S	Rim, Neck, N/S
Rim Profile	S- Rim (Incipient)	S- Rim (Incipient)	Short	Straight
Rim Thickness	N.M.	N.M.	N.M.	5.76mm
Paste Texture	Laminated	Fine	Fine	Laminated
Temper	Sand	FGT	FGT	FGT
Exterior S.F.	Obliterated	Smooth	Smooth/ Burn.	Textile Impressed
Interior S.F.	Smooth	Obliterated	Obliterated- Wiped & Burnished	Smooth, Residue
Lip S.F.	Obliterated	Smooth	Smooth/ Burnished	Smooth
Lip Profile	Round- Partially Exfoliated	Round	Square	Expanding
Lip Thickness	5.92 mm	4.85mm	4.32 mm	6.62mm
Decoration- Area 1	Brim- I.C.	Brim- O.C.	Undecorated	Undecorated
Tool Type	TI	CI		
Motif	Vertical	Perpendicular/ Slight R- Oblique		
Decoration- Area 2	Rim			
Tool Type	CI			
Motif	Horizontal Rows (at least 6)			
Photo Ref.	B.1	B.2	B.2	B.2
Notes:				

Jackson Vessel #	**J- 9**	**J- 10**	**J- 11**	**J- 12**
Cat #	S- 64	S- 68	S-1	S- 2
Portion Present	Rim	Rim, N/S	Rim	Rim
Rim Profile	Undetermined	Short	Undetermined	Undetermined
Rim Thickness	N.M.	N.M.	N.M.	N.M.
Paste Texture	Fine	Fine	Fine	Coarse
Temper	FGT	Sand	Sand	MGT
Exterior S.F.	Obliterated	Text Impressed	Obliterated	Obliterated
Interior S.F.	Smooth	Smooth, Residue	Obliterated	Smooth
Lip S.F.	Smooth	Smooth	Smooth	Obliterated
Lip Profile	Round & Interior Bevel	Square	Round	Round
Lip Thickness	4.88mm	5.39 mm	5.29 mm	4.98 mm
Decoration-Area 1	Brim- O.C.	Brim- O.C.	Brim	Brim- I.C.
Tool Type	S.E.T.	TI	Incised	CWT
Motif	At least two small incisions perpendicular to lip	One visible vertical round tool impression	Canaliculate	L-Oblique
Decoration-Area 2				Rim
Tool Type				CWT
Motif				Horizontal (at least 2 rows)
Photo Ref.	B.2	B.2	B.3	B.3
Notes:		Very thick N/S		

Jackson Vessel #	**J- 13**	**J- 14**	**J- 15**	**J- 16**
Cat #	4-3-1, 4-5-76, 7-7-5	2-3-29, 2-3-30, 2-3-32, 2-3-41, 2-4-71, 2-2-104, 2-2-16, 2-3-5, 2-3-18	S- 71	TP 14-14
Portion Present	Rim	Rim	Rim	Rim
Rim Profile	Straight/ Angled	Straight	Square Wedge	Undetermined
Rim Thickness	N.M.	6.2mm	5.33mm	N.M.
Paste Texture	Laminated	Fine	Fine	Very Fine
Temper	MGT	FGT	FGT	N.V.T
Exterior S.F.	Obliterated	Text Imp/ Smooth/ Burnished	Burnished	Burnished
Interior S.F.	Smooth	Smooth/ Wiped	Smooth	Smooth
Lip S.F.	Obliterated	Smooth	Smooth	Smooth
Lip Profile	Interior Bevel	Round	Wedge	Tapering
Lip Thickness	10.34 mm	5.01mm	10.07 mm	3.08mm
Decoration- Area 1	Brim	Brim	Brim	Below Brim
Tool Type	CWT	TI	CI	CI
Motif	R-Oblique	R-Oblique	L-Oblique	R-Oblique
Decoration- Area 2	Rim			
Tool Type	CWT			
Motif	R-Oblique			
Decoration- Area 3	Brim			
Tool Type	CWT			
Motif	Horizontal (at least 3 rows)			
Photo Ref.	B.3	B.3	B.3	B.4
Notes:	Blackduck Vessel			

Jackson Vessel #	**J- 17**	**J- 18**	**J- 19**	**J- 20**	**J- 21**
Cat #	S- 72	S- 186	4-4-2	32-3-88, 33-6-4	S- 70
Portion Present	Rim	Rim	Rim	Rim	Rim
Rim Profile	Straight/ Angled	S- Rim (Incipient)	Undet.	Square Wedge	Angled
Rim Thickness	N.M.	N.M.	N.M.	N.M.	N.M.
Paste Texture	Fine	Fine/ Laminated	Fine	Fine	Medium
Temper	FGT	Sand	FGT	Sand	MGT
Exterior S.F.	Obliterated- Wiped & Exfoliated	Textile Impressed- Coarse	Obliterated	Textile Imp.	Obliterated
Interior S.F.	Smooth	Smooth	Smooth	Smooth	Smooth
Lip S.F.	Smooth	Smooth	Smooth	Smooth	Obliterated
Lip Profile	Expanding Round (Exterior rolled lip)	Expanding Bevel	Interior Flange	Wedge	Expanding
Lip Thickness	7.55mm	8.88mm	8.17mm	7.7mm	10.0mm
Decoration- Area 1	Undecorate d	Brim	Brim- O.C.	Brim	Brim
Tool Type		Incised	TI (Oblit)	CWT	CWT
Motif		Single Canaliculate Line	Vertical	R- Oblique	Chevron
Decoration- Area 2					Rim
Tool Type					Stamp
Motif					Chevron
Decoration- Area 3					Rim
Tool Type					CWT
Motif					At least two horizontal rows following chevron
Photo Ref.	B.4	B.4	B.4	B.4	B.4
Notes:					Blackduck

Vera Vessels DiMe- 25

Vera Vessel #	**V- 1**	**V- 2**	**V- 3**	**V- 4**
Cat #	5-5-2, 5-6-18, 5-7-6, 5-7-7	2-12-2, 5-5-6, 7-4-22, 7-4-54, 7-5-7, 31-4-103, 31-4-119, 31-4-178	13-5-9	21-6-5, 31-3-19, 43-4-8
Portion Present	Rim	Rim	Rim	Rim
Rim Profile	Short Rim- Excurvate	S- Rim (Incipient)	S-Rim	Straight Rim
Rim Thickness	N.M.	6.64 mm	N.M.	8.62 mm
Paste Texture	Very Fine	Medium	Very Fine	Very fine
Temper	FGT	CGT	FGT	Sand
Exterior S.F.	Sm/ Burnished, Residue	Obliterated- Wiped	Textile Impressed	Textile Impressed
Interior S.F.	Sm/ Burnished	Smooth	Smooth	Smooth
Lip S.F.	Smooth	Smooth	Smooth	Smooth
Lip Profile	Expanding	Square	Interior Bevel/ Flange	Expanding
Lip Thickness	6.01mm	6.33 mm	6.74 mm	7.4mm- 11.54mm
Decoration- Area 1	Rim	Brim- O.C./ Below Brim	Brim-I.C.	Brim- O.C
Tool Type	TI	TI (Stamp)	Finger Pinch	Finger Pinch
Motif	? Broken at decoration	Scalloped	Scalloped	
Photo Ref.	B.5	B.5	B.5	B.5 Fig. 8.5(A)
Notes:				

Vera Vessel #	**V- 5**	**V- 6**	**V- 7**	**V- 8**
Cat #	2-12-1, 2-14-16, 3-11-15, 3-12-21, 3-13-19, 3-14-11, 5-5-17, 5-5-23, 5-5-24, 5-6-9, 5-6-27, 5-6-28, 5-7-20, 5-8-7, 46-10-7	23-5-1, 24-5-32, 24- 6-8, 29-5-133	18-3-12, 21-4-42, 24-3-38, 24-4-41, 24-4-57, 24-4-58, 29-5-132	34-10-39, 43-8-20
Portion Present	Rim, N/S	Rim	Rim	Rim
Rim Profile	S- Rim (Incipient)	S- Rim (Incipient)	Straight/ Angle	Undetermined
Rim Thickness	5.72 mm	5.59 mm	5.06 mm	N.M.
Paste Texture	Fine/ Laminate	Fine/ Laminate	Fine	Med
Temper	FGT	FGT	FGT	Sand
Exterior S.F.	Textile Impressed	Obliterated	Textile Impressed	Obliterated
Interior S.F.	Smooth, Residue	Smooth, Residue	Smooth	Obliterated
Lip S.F.	Obliterated/ Smooth	Smooth	Smooth	Obliterated
Lip Profile	Interior Bevel	Square	Exterior Flange	Expanding
Lip Thickness	6.20 mm-8.01mm	6. 74mm	7mm	N.M.- Exfoliated
Decoration- Area 1	Brim- O.C.	Rim	Rim (directly below lip)	Brim- O.C.
Tool Type	T. I.	CWT	CWT	Finger Pinch
Motif	Scalloped	Horizontal Rows (at least 5)	1 horizontal row	Scalloped
Decoration- Area 2	Rim Angle		Rim	Rim
Tool Type	Finger Nail		CWT	CWT
Motif	Vertical		L-Oblique	Horizontal (at least 1 row)
Photo Ref.	B.5	B.5	B.6	B.6
Notes:				

Vera Vessel #	**V- 9**	**V- 10**	**V- 11**
Cat #	41-8-31, 41-9-37, 44-8-32, 47-10-29, 47- 10-30, 48-9-48	6-3-15, 6-3-21, 6-4-21, 6-4-22, 6-4-27, 6-5-6	28- 3-44
Portion Present	Rim, Neck	Rim	Rim
Rim Profile	Misc.- Collared	S- Rim (Incipient)	Angled
Rim Thickness	6.24 mm	5. 27 mm	7.07 mm
Paste Texture	Fine	Laminate	Fine
Temper	FGT	FGT (very little)	Sand
Exterior S.F.	Obliterated	Obliterated	Textile Impressed
Interior S.F.	Smooth, Residue	Obliterated-wiped	Smooth, Residue
Lip S.F.	Smooth	Smooth	Smooth
Lip Profile	Round	Interior Bevel	Expanding Bevel
Lip Thickness	7.35 mm	8.38 mm	13.88 mm
Decoration- Area 1	Brim- Alternating I.C. and O.C.	Rim	Rim
Tool Type	TI	CWT	CWT
Motif	Stab and Drag	At least six horizontal rows intersected by rainbow motif of curved cwt	Horizontal (three rows)
Decoration- Area 2	Rim		Rim
Tool Type	Dentate		CWT
Motif	Horizontal- 9 rows intersected by triangle motif		L-Oblique
Decoration- Area 3	Neck		
Tool Type	Finger Nail		
Motif	Vertical Impressions in horizontal rows following dentate impressions		
Photo Ref.	B.7	B.6 Fig 8.6 (F)	B.6
Notes:	Middle Missouri Vessel- Similar to those found at Double Ditch Site		

Vera Vessel #	**V- 12**	**V- 13**	**V- 14**	**V- 15**
Cat #	14-3-3, 15-3-58, 15-3-59	41-9-3	24-5-7, 34-6-94, 38-7-25, 41-11-4	31-4-1, 31-4-9, 31-5-59, unlabelled sherd
Portion Present	Rim, Rim Angle	Rim	Rim	Rim, Rim Angle
Rim Profile	Angled	Wedge	S- Rim (Incipient)	S- Rim (Incipient)
Rim Thickness	4.73 mm	7.4 mm	6.2 mm	4.72 mm
Paste Texture	Fine	Fine	Fine	Fine
Temper	N.V.T.	Sand & Grit	Sand	MGT
Exterior S.F.	Textile Impressed	Obliterated/ Slightly Burnished	Obliterated	Text Imp
Interior S.F.	Obliterated-Wiped, Residue	Smooth, Residue	Obliterated, Residue	Smooth, Residue
Lip S.F.	Smooth	Obliterated	Smooth	Textile Impressed
Lip Profile	Expanding	Wedge	Exterior Bevel, Slight roll on lip interior	Tapering
Lip Thickness	9.5 mm	10.66 mm	9.38 mm	5.22 mm
Decoration-Area 1	Rim	Brim	Rim	Rim
Tool Type	CWT	CWT	CWT	CWT
Motif	Horizontal Rows (2)	R-Oblique	Horizontal (at least six rows)	R-Oblique (partially Oblit.)
Decoration-Area 2	Rim		Interior	
Tool Type	CWT		Incising (under slight roll)	
Motif	R-Oblique from horizontal rows to rim angle		1 horizontal line (not well defined)	
Photo Ref.	B.6	B.8	B.8	B.8
Notes:				

Vera Vessel #	**V- 16**	**V- 17**	**V- 18**	**V- 19**
Cat #	16-5-12, 25-5-5	21-3-15	46-10-31	44-2-16, 49-11-3
Portion Present	Rim	Rim	Rim, Rim/ Neck	Rim, N/S
Rim Profile	Undetermined	S-Rim	Undetermined	Straight
Rim Thickness	N.M.	N.M.	N.M.	5.23 mm
Paste Texture	Fine	Laminated	Laminated	Fine
Temper	FGT	Sand	NVT	MGT and Sand
Exterior S.F.	Textile Impressed	Textile Impressed – netting?	Obliterated	Vertical Textile Impressed
Interior S.F.	Obliterated	Smooth	Smooth	Obliterated
Lip S.F.	Obliterated	Obliterated	Obliterated	Obliterated
Lip Profile	Round	Round	Round	Expanding
Lip Thickness	4.95 mm	8.77 mm	4.10 mm	8.78 mm
Decoration-Area 1	Brim (I.C. - O.C.)	Brim (I.C. - O.C.)	Brim- O.C.	Undecorated
Tool Type	TI (SET)	CI	TI (Round Tool)	
Motif	R-Oblique	Cord cut across entire lip	Short, Vertical Impressions	
Decoration-Area 2		Rim		
Tool Type		CI		
Motif		Horizontal row directly below brim (netting?)		
Photo Ref.	B.8 Fig 8.2 (M)	B.8 Fig 6.2 C	B.8 Fig 8.2 (N)	B.9
Notes:		Vickers Signature Vessel		

Vera Vessel #	**V- 20**	**V- 21**	**V- 22**	**V- 23**
Cat #	33-8-34	12-3-1. 12-5-20, 13-4-27, 13-3-63, 49-6-4	14-3-12, 14-3-57- 14-3-93- 14-3- 102- 14-3- 182- 14-3-190, 14-3-191, 15-2-17	13-4-209
Portion Present	Rim	Rim	Rim	Rim
Rim Profile	Straight/ Angled	Straight/ Angled	Undetermined	Straight/ Angled
Rim Thickness	N.M.	N.M.	N.M.	N.M.
Paste Texture	Fine	Fine	Fine	Fine
Temper	Shell	MGT	Unsorted GT & Shell	FGT
Exterior S.F.	Obliterated	Textile Impressed	Obliterated	Obliterated
Interior S.F.	Obliterated	Smooth	Obliterated-Wiped	Smooth
Lip S.F.	Obliterated	Obliterated	Obliterated	Obliterated
Lip Profile	Square	Exterior Bevel/ Flange	Expanding	Round
Lip Thickness	N.M.	8.77 mm	9.28 mm	3.63 mm
Decoration-Area 1	Undecorated	Undecorated	Brim	Undecorated
Tool Type			CWT	
Motif			1 canaliculate row	
Decoration-Area 2			Rim	
Tool Type			CWT	
Motif			Horizontal Row (at least 1)	
Photo Ref.	B.9	B.9	B.9	B.9
Notes:				Thin Walled Vessel

Schuddemat (DiMe- 22)

Schuddemat Vessel #	**S- 1**	**S- 2**	**S- 3**	**S- 4**
Cat #	1-2-1, 1-2-2, 1-2-10, 1-3-8, 1-3-9, 3-6-13	1-4-1, 1-5-4	2-2-8	3-3-46
Portion Present	Rim	Rim, Neck	Rim, Neck	Rim
Rim Profile	Undetermined	S-Rim	Short-Excurvate	Angled
Rim Thickness	N.M.	N.M.-Exfoliated	N.M.	N.M.
Paste Texture	Laminated	Laminated	Fine	Laminated
Temper	FGT	No Visible Temper	FGT	Grit- Unsorted
Exterior S.F.	Smooth	Smooth	Textile Impressed	Obliterated
Interior S.F.	Smooth	Smooth	Smooth	Smooth
Lip S.F.	Smooth	Smooth	Smooth	Obliterated
Lip Profile	Expanding Flange	Round	Exterior Flange	Interior Flange
Lip Thickness	10.46mm	4.54mm	11.41 mm	11.07 mm
Decoration-Area 1	Brim	Brim- I.C.	Brim	Brim
Tool Type	CI	TI	CWT	Dentate
Motif	Canaliculate-2 rows	Vertical	Canaliculate – 2 rows	Canaliculate- 2 rows
Decoration-Area 2	Rim	Rim		Brim O.C.
Tool Type	CI	Dentate		Dentate
Motif	Horizontal Rows (4)	L-Oblique		L-Oblique
Decoration-Area 3	Rim	Rim		
Tool Type	CI	TI		
Motif	L-Oblique	Horizontal		
Photo Ref.	B.16	B.16	B.16	B.16
Notes:				

Schuddemat Vessel #	**S- 5**	**S- 6**	**S-7**	**S- 8**
Cat #	3-5-11	6-2-22, 6-4-30	6-4-18	6-1-6, 4-4-43, 15-3-8, WL1P1
Portion Present	Rim	Rim	Rim	Rim, Neck
Rim Profile	Straight/Angled	Undetermined	Undetermined	Straight
Rim Thickness	N.M.	N.M.	N.M.	6.49mm
Paste Texture	Coarse	Laminated	Very Fine	Fine
Temper	FGT	FGT	FGT	FGT
Exterior S.F.	Obliterated	Textile Impressed	Smooth/ Burnished	Textile Impressed
Interior S.F.	Obliterated	Obliterated-Wiped	Smooth/ Burnished	Smooth, Residue
Lip S.F.	Obliterated	Textile Impressed	Smooth/ Burnished	Smooth
Lip Profile	Round	Expanding Flange	Round	Expanding Bevel, lip slightly rolled to interior
Lip Thickness	7.52mm	9.82mm	4.97 mm	10.86mm
Decoration-Area 1	Brim- O.C.-I.C.	Undecorated	Undecorated	Undecorated
Tool Type	TI			
Motif	R- Oblique			
Decoration-Area 2	Rim			
Tool Type	TI			
Motif	One partially obscured impression R- Oblique			
Photo Ref.	B.16	B.16	B.17	B.17
Notes:				

Schuddemat Vessel #	**S- 9**	**S- 10**	**S- 11**	**S- 12**
Cat #	8-3-24, 8-3-38, 8-4-5, 8-4-7, 8-4-39, NL1P4	7-3-32, 7-4-31, 8-3-7, 8-3-24, 8-4-35, 8-5-3, 14-3-25, 14-3-52	7-3-44, 8-3-11, 8-3-13, 8-3-21, 8-3-30, 8-3-39	7-4-4
Portion Present	Rim, Neck, Shoulder	Rim	Rim, Neck	Rim
Rim Profile	Short- Excurvate	Undetermined	Short Rim- Excurvate	Straight/ Angled
Rim Thickness	N.M.	N.M.	N.M.	N.M.
Paste Texture	Laminated	Coarse	Fine	Fine
Temper	FGT	CGT	MGT	FGT
Exterior S.F.	Smooth	Smooth	Smooth/ Burnished	Smooth
Interior S.F.	Smooth	Smooth	Smooth	Smooth
Lip S.F.	Smooth	Smooth	Smooth	Obliterated
Lip Profile	Tapering	Expanding Flange	Exterior Flange	Interior Bevel/ Flange
Lip Thickness	3.83mm	12.09mm	8.14mm	6.58mm
Decoration- Area 1	Interior	Brim	Brim	Rim
Tool Type	CWT	CI	TI	CI
Motif	Canaliculate (2 rows)	Canaliculate (2 rows)	R-Oblique (drag)	L- Oblique
Decoration- Area 2	Rim/ Rim/Neck			
Tool Type	CWT			
Motif	Horizontal rows (at least three)			
Decoration- Area 3	N/S			
Tool Type	CWT			
Motif	L-Oblique			
Decoration- Area 4	Shoulder			
Tool Type	Hollow Tool			
Motif	Vertical			
Photo Ref.	B.17 Fig. 7.2	B.17	B.17	B.17
Notes:	Fairly angular shoulders			

Schuddemat Vessel #	**S-13**	**S-14**	**S-15**	**S-16**
Cat #	10-4-2	12-3-25, 12-3-43, 12-3-125, 14-2-30, 14-3-27, 14-3-32, 14-3-85	10-4-6, 10-4-7, 10-5-3, 10-5-4, 10-5-13, T9	12-3-67
Portion Present	Rim	Rim	Rim, Neck, Shoulder, Body	Rim, Neck/ Shoulder
Rim Profile	Undetermined	S- Rim (Incipient)	Short	Wedge
Rim Thickness	N.M.	N.M.	5.39mm	6.01mm
Paste Texture	Fine/ Slightly Laminated	Fine	Fine	Laminated
Temper	MGT	FGT	FGT	Unsorted GT
Exterior S.F.	Obliterated-Wiped	Obliterated	Obliterated-Wiped	Obliterated-Wiped
Interior S.F.	Smooth, Residue	Smooth, Residue	Obliterated	Obliterated-Wiped
Lip S.F.	Smooth	Smooth	Obliterated	Obliterated
Lip Profile	Expanding Flange	Round	Round	Wedge
Lip Thickness	10.91mm	4.53mm	7.45mm	19.29mm
Decoration-Area 1	Brim	Rim	Interior	Brim
Tool Type	CI	CWT	CWT	CI
Motif	L-Oblique	R-Oblique Alt. L- Oblique	Canaliculate- 3 rows	R-Oblique
Decoration-Area 2		Rim	Rim- Shoulder	Below Brim
Tool Type		Finger Nail	CWT	TI (Immature bone epiphysis? Med/Large mammal)
Motif		Horizontal Row	Horizontal Rows (11)	Horizontal Row
Decoration-Area 3			Rim/ Shoulder	
Tool Type			CWT	
Motif			Triangle (partly obliterated)	
Decoration-Area 4			Shoulder	

Tool Type			Incising	
Motif			Broken horizontal lines under CWT and Triangle	
Photo Ref.	B.18	B.18	B.19a B.19b Fig 8.6(C)	B.18
Notes:		Quartering		

Schuddemat Vessel #	**S- 17**	**S- 18**	**S- 19**	**S- 20**
Cat #	16-3-33	12-3-62	12-3-4	12-3-44, 14-3-4
Portion Present	Rim	Rim	Rim	Rim, Neck
Rim Profile	S-rim	Straight/ Angled	Undetermined	Straight
Rim Thickness	N.M.	N.M.	N.M.	8.15mm
Paste Texture	Fine	Laminated	Fine- Medium	Fine
Temper	FGT	FGT	MGT	FGT
Exterior S.F.	Obliterated	Vertical Cord Roughened	Obliterated	Obliterated- Wiped & Burnished
Interior S.F.	Obliterated	Smooth	Exfoliated	Smooth, Residue
Lip S.F.	Obliterated	Obliterated	Smooth	Obliterated, Exfoliated
Lip Profile	Expanding Flange	Interior Bevel/ Flange	Exterior Flange	Round
Lip Thickness	9.63mm	10.04mm	8.88mm	7.17mm
Decoration- Area 1	Brim	Brim	Brim	Undecorated
Tool Type	Dentate	CWT	CI	
Motif	Canaliculate (2 rows)	L-Oblique	R-Oblique	
Decoration- Area 2	Rim			
Tool Type	Dentate			
Motif	Horizontal Row (1)			
Decoration- Area 3	Rim			
Tool Type	Dentate			
Motif	L-Oblique			
Photo Ref.	B.18	B.18	B.20	B.20
Notes:				

Schuddemat Vessel #	**S- 21**	**S- 22**	**S- 23**	**S- 24**
Cat #	14-2-31	TA8- 12	TA1-16, TA1-17	TP33-28
Portion Present	Rim	Rim	Rim	Rim
Rim Profile	Short-Excurvate	Wedge	Square Wedge	Undetermined
Rim Thickness	N.M.	N.M.	N.M.	N.M.
Paste Texture	Fine	Medium	Fine, Laminated	Fine
Temper	FGT	FGT	FGT	FGT
Exterior S.F.	Obliterated	Smooth	Textile Impressed	Smooth
Interior S.F.	Exfoliated	Smooth	Obliterated-Wiped	Smooth
Lip S.F.	Exfoliated	Smooth	Obliterated	Obliterated
Lip Profile	Rolled	Wedge	Wedge	Interior Flange
Lip Thickness	Exfoliated	12.81mm	7.36mm	7.73mm
Decoration-Area 1	Brim O.C.	Brim	Brim- I.C.	Brim- O.C.
Tool Type	TI	CWT	CWT	Finger Pinch
Motif	Vertical	Canaliculate Rows (2)	R-Oblique	Slight Nodes
Decoration-Area 2			Below Brim	
Tool Type			Finger Nail	
Motif			Vertical	
Decoration-Area 3			Rim	
Tool Type			CWT	
Motif			Horizontal (3 rows)	
Photo Ref.	B.20	B.20	B.20	B.21
Notes:				

Schuddemat Vessel #	**S-25**	**S-26**	**S-27**
Cat #	TP33-27	TP39A-9	TP43-4
Portion Present	Rim	Rim, Rim/ Neck	Rim
Rim Profile	Wedge	Short Rim-Excurvate	Undetermined
Rim Thickness	N.M.-Exfoliated	N.M.	N.M-Exfoliated.
Paste Texture	Laminated	Fine	Fine
Temper	MGT	MGT	FGT
Exterior S.F.	Exfoliated	Obliterated	Smooth
Interior S.F.	Obliterated	Smooth	Smooth
Lip S.F.	Obliterated	Smooth	Smooth
Lip Profile	Incomplete (probably wedge)	Square	Exterior Flange
Lip Thickness	N.M. Exfoliated	5.38 mm	9.46mm
Decoration-Area 1	Brim	Undecorated	Brim
Tool Type	Punctates		CWT
Motif	Random		R-Oblique
Decoration-Area 2	Brim		Rim
Tool Type	CI		CWT
Motif	R-Oblique, below punctates		Horizontal rows (at least 5)
Decoration-Area 3	Interior		
Tool Type	Incising		
Motif	Incised line under I.C.		
Photo Ref.	B.21	B.21	B.21
Notes:			

Twin Fawns (DiMe-23

Twin Fawns Vessel #	**TF- 1**	**TF- 2**	**TF- 3**	**TF- 4**
Cat #	8-3-52, 8-4-10	9-4-100, 9-4-110, 9-4-119, 9-4-121, 9-4-122, 9-4-124, 9-4-126, 9-4-130,10-5-1, 10-11-13, 10-11-14, 14-3-106,14-4-82, 30-3-90	14-4-119	14-3-107
Portion Present	Rim	Rim, Neck, N/S	Rim	Brim
Rim Profile	Straight/ Angled	Straight Rim	Undetermined	Wedge
Rim Thickness	N.M.	9.5 mm	N.M.	N.M.
Paste Texture	Very Fine, Laminated	Fine, Laminated	Medium	Fine
Temper	FGT	MGT	MGT	FGT
Exterior S.F.	Cord Roughened	Obliterated- Wiped	Exfoliated	Smooth
Interior S.F.	Smooth	Obliterated- Wiped	Smooth	Smooth
Lip S.F.	Smooth	Obliterated- Wiped	Exfoliated	Smooth/ Exfoliated
Lip Profile	Expanding/ Flange	Expanding Exterior Flange	Undetermined	Wedge
Lip Thickness	8.46 mm	9.22 mm	N.M.	13.81 mm
Decoration-Area 1	Brim	Undecorated	Brim- O.C.-I.C.	Brim
Tool Type	TI (Stamped)		CI	CWT
Motif	R-Oblique		R-Oblique	R-Oblique
Decoration-Area 2			Rim	Interior
Tool Type			Finger Nail	CWT
Motif			Vertical	R- Oblique
Motif				
Photo Ref.	B.10	B.11	B.10	B.10

Twin Fawns Vessel #	**TF- 5**	**TF- 6**	**TF- 7**	**TF- 8**
Cat #	9-4-11, 9-4-13, 9-4-14, 9-4-15, 9-4-17, 9-4-18	16-3-14, 16-3-16, 17-3-47, 18-4-4, 18-4-15	14-4-20	33-3-122, 33-3-196, 33-4-6, 33-4-7, 33-4-10, 33-4-17, 33-4-65, 36-2-103, 36-3-56, 36-3-73, 41-3-147, 41-3-163
Portion Present	Rim, Neck	Rim	Rim, Neck	Rim, Neck
Rim Profile	S- Rim	Wedge	Straight	Straight
Rim Thickness	6.5 mm	8.69 mm	5.10 mm	6.53 mm
Paste Texture	Fine	Fine, Laminated	Laminated	Fine
Temper	FGT	Unsorted GT	FGT	FGT
Exterior S.F.	Textile Impressed	Textile Impressed	Textile Impressed	Vertical Textile Impressed
Interior S.F.	Smooth, Residue	Smooth	Smooth	Smooth, Residue
Lip S.F.	Smooth	Smooth	Smooth	Obliterated
Lip Profile	Tapering/Round	Wedge	Exterior Bevel/ Flange	Expanding Flange
Lip Thickness	4.45 mm	5.48 mm	9.8mm	8.66 mm
Decoration-Area 1	Rim	Brim	Brim	Brim
Tool Type	CWT	TI	CWT	CWT
Motif	4 horizontal rows	Discontinuous canaliculate TI	R-Oblique	L-Oblique
Decoration-Area 2				
Tool Type				
Motif				
Motif	B.10	B.10	B.10	B.12
Photo Ref.				

Twin Fawns Vessel #	**TF- 9**	**TF- 10**	**TF- 11**	**TF-12**
Cat #	18-3-31, 18-3-75, 18-3-166, 18-8-3	26-3-7, 26-3-8	28-4-4, 29-5-11	TP12B- 1
Portion Present	Rim	Rim	Rim	Rim
Rim Profile	Wedge	Wedge	Wedge	Wedge
Rim Thickness	N.M.	8.57 mm	9.38 mm	6.55 mm
Paste Texture	Laminated	Coarse	Fine	Laminated
Temper	FGT & Sand	Sand	FGT, Sand	FGT
Exterior S.F.	Vertical Textile Impressed	Vertical Cord Roughened	Smooth	Smooth
Interior S.F.	Smooth	Obliterated-Wiped & Burnished	Smooth, Residue	Smooth
Lip S.F.	Obliterated	Obliterated	Smooth	Smooth
Lip Profile	Wedge	Wedge	Wedge	Wedge
Lip Thickness	14.09 mm	14.96	15.86 mm	13.63
Decoration-Area 1	Brim	Brim	Brim	Rim
Tool Type	CWT	CI	CI	CWT
Motif	R- Oblique	L-Oblique	R-Oblique	L-Oblique
Decoration-Area 2	Below Brim			
Tool Type	Finger Pinch			
Motif	Vertical			
Photo Ref.	B.12	B.12	B.12	B.12
Notes:				

Twin Fawns Vessel #	**TF- 13**	**TF- 14**	**TF- 15**	**TF- 16**
Cat #	44-3-28, TP68- 15	TP19- 3	14-4-17	37-3-347, 38-3-91, 38-5-91
Portion Present	Rim	Rim, Rim/Neck	Rim	Rim
Rim Profile	Straight/ Angled	Short Rim- Excurvate	Straight	Undetermined
Rim Thickness	N.M.	N.M.	N.M.	N.M.
Paste Texture	Laminated	Fine	Very Fine	Med
Temper	MGT	Sand	FGT	FGT
Exterior S.F.	Smooth	Obliterated	Vertical Textile Impressed	Obliterated
Interior S.F.	Smooth, Residue	Smooth	Smooth	Smooth
Lip S.F.	Smooth	Obliterated	Smooth	Obliterated
Lip Profile	Interior Bevel, Slight inside roll	Interior Bevel/ Flange, Rolled	Exterior Bevel/ Flange	Interior Bevel
Lip Thickness	7.39 mm	5.33- 6.84 mm	9.85 mm	7.36 mm
Decoration- Area 1	Brim	Brim	Brim I.C.	Brim
Tool Type	CI	TI	TI(S.E.T.)	CWT
Motif	2 Canaliculate rows	Horizontal/ Canaliculate Row, tool angled down and to the left	R-Oblique	L-Oblique
Decoration- Area 2	Rim			
Tool Type	CI			
Motif	Horizontal Rows (at least 4)			
Photo Ref.	B.12	B.13	B.13	B.13
Notes:				

Twin Fawns Vessel #	**TF- 17**	**TF- 18**	**TF- 19**	**TF- 20**
Cat #	44-2-99, 44-3-25, 44-3-99	TP24-4	TP51- 8	30-4-82
Portion Present	Rim	Rim	Rim	Rim
Rim Profile	Undetermined	Straight/ Angled	Undetermined	Undetermined
Rim Thickness	N.M.	N.M.	N.M.	N.M.
Paste Texture	Laminated	Coarse	Fine	Fine
Temper	FGT	FGT	FGT	Sand
Exterior S.F.	Obliterated	Textile Impressed	Smooth	Obliterated-Wiped
Interior S.F.	Smooth	Smooth	Smooth/ Exfoliated	Wiped
Lip S.F.	Smooth	Smooth	Obliterated	Smooth
Lip Profile	Interior Bevel/ Flange	Interior Bevel (close to wedge)	Expanding	Tapering
Lip Thickness	9.74 mm	9.44 mm	7.86 mm	4.89 mm
Decoration-Area 1	Brim	Brim	Brim	Brim
Tool Type	CWT	TI	CWT	CWT
Motif	Canaliculate (3 rows)	R-Oblique	L-Oblique	R-Oblique
Decoration-Area 2			Rim	
Tool Type			Fingernail	
Motif			Vertical Impressed	
Photo Ref.	B.13	B.13	B.13	B.14
Notes:				

Twin Fawns Vessel #	**TF- 21**	**TF- 22**	**TF- 23**	**TF- 24**
Cat #	18-4-204	15-3-53, 37-3-212, 39-4-13, 45-W1, 45-3-96, 45-4-22, 45-5-45, 45-3-31, 45-5-10, TP58- 11	17-3-8, 18-4-207	37-3-156, 37-3-224
Portion Present	Lip	Rim	Rim	Rim, Neck
Rim Profile	Undetermined	Angled	Undetermined	Short Rim-Excurvate
Rim Thickness	N.M.	7.89 mm	N.M.	N.M.
Paste Texture	Laminated	Fine/ Laminated	Fine	Laminated
Temper	FGT	FGT	Sand	Sand
Exterior S.F.	Smooth	Obliterated	Obliterated	Obliterated
Interior S.F.	Smooth	Smooth, Residue	Smooth	Smooth, Residue
Lip S.F.	Smooth	Obliterated	Obliterated	Obliterated
Lip Profile	Round	Expanding/ Round	Exterior Flange	Interior Bevel, Flange
Lip Thickness	5.21 mm	6.81 mm	8.02 mm	8.56 mm
Decoration-Area 1	Brim	Brim	Brim	Brim
Tool Type	CWT	CWT	CWT	CWT
Motif	L-Oblique	L-Oblique	R- Oblique	L- Oblique
Decoration-Area 2		Rim	Rim	Rim
Tool Type		CWT	CWT	CWT
Motif		Horizontal	Horizontal	Horizontal- 1 row
Decoration-Area 3		Rim		Rim
Tool Type		CWT		CWT
Motif		Triangle		R- Oblique
Photo Ref.	B.14	B.14 Fig. 8.6(D)	B.14	B.14
Notes:				

Twin Fawns Vessel #	**TF- 25**	**TF- 26**
Cat #	18-3-19, 189-3-53, 18-3-71, 18-3-76, 18-3-131, 18-3-250, 18-4-49, 18-4-59, 19-4-73, 18-4-76, 18-4-81, 18-4-132, 18-4-170, 18-5-12, 44-3-35, 44-3-39, 44-3-111	14-3-7, 14-3-30, 14-3-53, 16-2-1, 18-3-79, 18-3-364, 18-4-205
Portion Present	Rim	Rim
Rim Profile	S- Rim	Straight/ Angled
Rim Thickness	6.26 mm	N.M.
Paste Texture	Fine/ Laminated	Laminated
Temper	FGT	FGT
Exterior S.F.	Obliterated	Obliterated
Interior S.F.	Smooth	Smooth
Lip S.F.	Smooth	Smooth
Lip Profile	Round	Round
Lip Thickness	6.12 mm	5.47 mm
Decoration-Area 1	Rim	Rim
Tool Type	CWT	CWT
Motif	Horizontal rows (at least 7)	Horizontal Rows (at least 3)
Decoration-Area 2	Rim	
Tool Type	CWT	
Motif	Triangle Motif	
Photo Ref.	B.14	B.15
Notes:		

Hollow B (DiMe-24)

Hollow B Vessel #	**HB-1**	**HB- 2**
Cat #	1-2-4, 1-2-13, 1-3-3, 1-3-4, 1-2-5, 1-3-15, 1-3-16, 1-3-46, 1-3-47, 1-3-48, 1-3-56, 1-3-68, 1-3-70, 1-4-13, 1-4-15, 1-4-17, 1-4-26, 1-4-41, 1-4-42, 1-4-43, 1-5-16, 2-2-6, 2-3-35, 2-3-45, 18-3-354	1-4-14, 1-4-27, 2-3-5, 3-3-8, 3-3-17
Portion Present	Rim, Neck, Neck/Shoulder	Rim
Rim Profile	S- Rim	Straight/ Angled Rim
Rim Thickness	7.12 mm	6.26 mm
Paste Texture	Fine, Slightly Laminated	Med
Temper	FGT	MGT
Exterior S.F.	Vertical Cord Roughened	Obliterated
Interior S.F.	Smooth	Smooth
Lip S.F.	Smooth	Smooth
Lip Profile	Interior Bevel/ Flange	Expanding Flange (at places there is slight interior roll to lip)
Lip Thickness	6.46mm	8.9 mm
Decoration-Area 1	Brim- I.C.-O.C.	Brim- O.C.- I.C.
Tool Type	CWT	CI
Motif	R- Oblique	R-Oblique
Decoration-Area 2	Rim	Rim
Tool Type	CWT	CI
Motif	Horizontal rows (5)	Horizontal Rows (at least 4)
Photo Ref.	B.15	B.15
Notes:		

Hollow B Vessel #	**HB- 3**	**HB- 4**
Cat #	2-3-9	TP1-2-8
Portion Present	Rim	Brim
Rim Profile	Straight/Angled Rim	Wedge
Rim Thickness	19.22 mm	N.M.
Paste Texture	Med	Laminated
Temper	MGT	FGT
Exterior S.F.	Smooth	Smooth
Interior S.F.	Smooth, Exfoliated	Smooth
Lip S.F.	Smooth	Smooth
Lip Profile	Expanding Bevel/ Flange	Wedge
Lip Thickness	11.8 mm	N.M.
Decoration-Area 1	Brim	Brim
Tool Type	CI	Dentate
Motif	Canaliculate Rows (3)	L- Oblique
Decoration-Area 2		
Tool Type		
Motif		
Photo Ref.	B.15	B.15
Notes:		

Appendix B

Photographs of Pottery Assemblages
Jackson, Vera, Schuddemat, Twin Fawns & Hollow B

Figure B.1 Jackson Vessels 1-5

Figure B.2 Jackson Vessels 6-10

Figure B.3 Jackson Vessels 11-15

Figure B.4 Jackson Vessels 16-21

Figure B.5 Vera Vessels 1-6

Figure B.6 Vera Vessels 7, 8, 10-12

Figure B7 Vera Vessel 9

Figure B.8 Vera Vessels 13-18

Figure B.9 Vera Vessels 19-23

Figure B.10 Schuddemat Vessels 1-6

Figure B.11 Schuddemat Vessels 7-12

Figure B.12 Schuddemat Vessels 13, 14, 16-18

Figure B.13a Schuddemat Vessel 15

Figure B.13b Schuddemat Vessel 15

Figure B.14 Schuddemat Vessels 19-23

Figure B.15 Schuddemat Vessels 24-27

Figure B.16 Twin Fawns Vessels 1, 3-7

Figure B.17 Twin Fawns Vessel 2

Figure B.18 Twin Fawns Vessels 8-13

Figure B.19 Twin Fawns Vessels 14-19

Figure B.20 Twin Fawns Vessels 20-25

Figure B.21 Twin Fawns Vessel 26 Hollow B Vessels 1-4