INTERNAL AND EXTERNAL RELATIONSHIPS OF
SASKATCHEWAN PLAINS POTTERY ASSEMBLAGES:
CIRCA A.D. 1300 TO CONTACT

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By
Mary Evelyn Malainey
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Head of the Department of Anthropology
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University of Saskatchewan
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ABSTRACT

The study of cultural dynamics of the Late Prehistoric period on the Saskatchewan Plains has been hampered by the lack of recognition of two distinct kinds of pottery. The pottery found most commonly south of the Qu’Appelle has many of the characteristics of Mortlach aggregate pottery. Certain attributes such as Wedge and Straight Rim profiles with check-stamped, simple-stamped, plain or cord-roughened exterior surfaces are most common. The decoration on these vessels is usually limited to right oblique dentate or cord-wrapped tool impressions on the brim.

The pottery found most commonly north of the Qu’Appelle and into the parklands is different. The dominant vessel profiles are Straight Rim, Angled Rim and S-Profiles. These pots tend to have either fabric-impressed, cord-roughened or plain exterior surfaces. While much of the decoration is executed in cord-wrapped tool, many other techniques frequently appear. Although horizontal lines are the most common decoration, elaborate patterns appear on the exterior surface of some vessels. Right oblique impressions regularly appear on the brim; however, a wide variety of lip decorations occur on the pottery. The characteristics of this central Saskatchewan pottery most closely resemble those associated with Wascana ware, originally described in 1959 by Alice Kehoe.
The definition of Wascana ware provided by Kehoe (1959) was very loose. While Kehoe and Kehoe (1968) acknowledged the separation between Mortlach and the central Saskatchewan pottery, the distinction between Selkirk and Wascana ware was unclear. Byrne (1973) labelled the pottery from central Saskatchewan as Mortlach, in particular Lake Midden and Stoney Beach, although this pottery does not have Mortlach attributes. Meanwhile, archaeologists working on material from North Dakota and Montana more closely adhered to Wettlaufer's (1955) definition as modified by Kehoe and Kehoe (1968). Thus for the past 18 years, the archaeologists who follow Byrne (1973) have operated under a much broader definition of Mortlach than those who did not.

The separation of pottery north of the Qu'Appelle from Mortlach is demonstrated in this thesis and the differences between the two kinds of pottery are quantified. The term Wascana ware is reintroduced as the name of the central Saskatchewan pottery. It is suggested that the Wascana pottery was made by the Atsina/Gros Ventre. Evidence from European travellers is used to support this ethnic identification.
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LIST OF ABBREVIATIONS

BET - broad-edged tool
B.P.- before present (A.D. 1950)
CWT - cord-wrapped tool
LT OBLIQ - left oblique
RT OBLIQ - right oblique
SET - sharp-edged tool
SMNH - Saskatchewan Museum of Natural History
1. INTRODUCTION

1.1 Introduction

Several decades of excavating and collecting in central and southern Saskatchewan by professional and avocational archaeologists have resulted in a substantial accumulation of cultural materials dating to the last few centuries of the Late Prehistoric period. Pottery has been recovered from many of these sites, but until now it has not been studied in detail. The main goal of this thesis is to clarify the relationships among Late/Terminal Prehistoric period sites on the Saskatchewan plains. For the purpose of this thesis, south-central Saskatchewan is divided into three regions. The first area lies north of the Qu'Appelle Valley and extends to the northern edge of the parkland. This area is further bounded by the Touchwood Hills on the east and the Missouri Coteau (including the Eagle and Bear Hills) on the west and is referred to as central Saskatchewan. The second area lies south of the Qu'Appelle Valley across the entire width of the province and extends to the International Boundary. It is referred to as southern Saskatchewan. The third area is the Qu'Appelle Valley itself.

In the absence of detailed quantitative descriptions, the pottery from these late sites has been classified and reclassified for more than thirty years on the basis of
general observations. Sometimes the definitions have been so vague that different groups of pottery could not be distinguished. In some cases, previously published definitions of the pottery types/wares were either ignored or misinterpreted. As well, archaeologists have not agreed on the classification of pottery from various sites. As a result, the relationships between pottery from southern, central and northern Saskatchewan are very unclear. This thesis initially provides a review of the changes in the definition, usage and application of the terms Mortlach and Wascana over time.

Furthermore, vessels from sites in the southern and central regions of Saskatchewan are by no means identical and a considerable amount of variation is often present within a single assemblage. Specific attributes tend to appear in all assemblages at least once. For this reason, the relative frequencies of appearance of the attributes in collections is considered a more important criterion for classification. The attributes characteristic of particular pottery complexes or traditions become apparent when comparisons are made in this fashion.

Since there is variation within and between central and southern Saskatchewan pottery assemblages the features which make them distinct are definable. For the purpose of this analysis a number of characteristics have been studied including (1) profile, (2) decorative techniques, motifs and
their location, (3) lip shape, (4) exterior surface finish, (5) interior surface finish, (6) temper and (7) paste quality. The overall composition of each collection is examined and trends are identified.

By analyzing the attributes, it is shown that pottery from the central/south-central parts of the province is different from pottery found south of the Qu'Appelle Valley. While the latter is very similar to pottery associated with Mortlach aggregate sites in North Dakota and Montana, the former most closely resembles pottery defined as Wascana ware by Alice Kehoe (1959). In this pioneering work, she provided a general description for Wascana ware. The present study will provide a more precise definition of this pottery.

The task is complicated by the nature of the assemblages, many of which are from highly fragmented surface collections without tight temporal control. Furthermore, the high mobility of the prehistoric inhabitants of the Northern Plains would have facilitated contact and trade between the groups. This must have led to the diffusion of manufacturing techniques and decorative motifs and the appearance of "exotic" vessels in some assemblages. As well, rapid demographic changes in the early historic period may have permitted neighbouring groups to venture into recently vacated traditional territories of other groups.
1.2 Statement of Problem

Late Prehistoric pottery in association with Plains Side-notched projectile points has been recovered from several sites in central and southern Saskatchewan. While the neighbouring Selkirk composite (Meyer and Russell 1987) and Old Women's phase (Byrne 1973) potteries to the north and west of this region respectively are reasonably well understood, the pottery from central and southern Saskatchewan has not been systematically studied. In the meantime, the label "Mortlach" has been inappropriately applied to sites in central and southern Saskatchewan.

Wettlaufer (1955) defined Mortlach Check-Stamped as a type of pottery with dentate-stamped decorations and a check-stamped exterior surface finish. Over time the definition of Mortlach has changed from a type, to a ware, to a phase, to a complex and finally to an aggregate. In spite of these changes, archaeologists in North Dakota and Montana adhere to the original definition of Mortlach very closely.

The most current definition of Mortlach pottery is based on descriptions of the assemblages from Shippe Canyon, Montana (Joyes 1973) and the Evans site, North Dakota (Schneider and Kinney 1978). Some general statements can be made about Mortlach pottery. Vessels usually have wedge-shaped and flattened lip rim forms, the lips and rims scantily decorated with dentate stamps, cord-wrapped tool
impressions and fingernail pinches. The exterior surface finishes of these vessels tend to be either plain, check-stamped or simple-stamped. According to this definition, Schneider and Kinney (1978:32) consider some Saskatchewan sites to be Mortlach sites. These include Long Creek, Walter Felt and Big Beaver Midden.

The use of this same term in Western Canada is quite different. Byrne (1973:426-431) applied the label to pottery from central and south-central Saskatchewan with attributes which do not conform to the original definition of Mortlach. His usage of the label "Mortlach" encompasses all Late Prehistoric pottery found south and south-west of Selkirk materials and east of the Old Women's phase pottery. Meyer (1988) follows Byrne in identifying all pottery in the parklands and grasslands of Saskatchewan as well as parts of Montana and North Dakota as Mortlach. Recently, Meyer and Epp (1990:335) have indicated that the Lake Midden and Lozinsky sites are members of the Mortlach aggregate. No detailed descriptions of pottery were included in the above reports, consequently, the grounds for designating these sites as Mortlach is unclear.

On the basis of the analysis of the pottery from the Lozinsky site, in the parklands northeast of Saskatoon, the author concluded that the vessels did not reflect Mortlach traits (Malainey 1989). Vessel profiles most frequently identified were Straight Rim, S-shaped or Angled Rim (for
definitions see section 3.3.1.) Cord-wrapped tool impressions were common on the lips and the exterior surface of the rims. Fabric-impressed, cord-roughened and plain exterior surface finishes were the most frequently observed. Further, it was suggested that the pots from central Saskatchewan could be distinguished from both Pehonan (Selkirk) and Mortlach (Malainey 1989).

However, this idea is not new. The attributes of this central Saskatchewan pottery are very similar to Alice Kehoe’s (1959) description of Wascana ware. As this ware was never precisely defined, problems in distinguishing Wascana from Selkirk and Mortlach pottery have developed. In his review of Saskatchewan pottery, Byrne (1973:431) labelled all of this material as Mortlach Check-Stamped. Over time this analysis has been accepted and the recognition of the distinct pottery from central and south-central Saskatchewan has disappeared.

The results of my analysis of over 1000 vessels from the central and southern parts of the province demonstrate that it is possible to differentiate Wascana and Mortlach vessels. The pottery in the parklands south to the Qu’Appelle Valley forms a definable and quantifiable entity, as suggested by Kehoe (1959). Therefore, it is appropriate to reintroduce the term "Wascana ware" into the vocabulary of Saskatchewan archaeologists.
2 A HISTORY OF POTTERY STUDIES ON THE SASKATCHEWAN PLAINS

2.1 Introduction

The study of Late Prehistoric period pottery in Saskatchewan has been hampered by the lack of adequate information and the publication of unsupportable generalizations. Some scholars only selectively accepted the work of their predecessors. Some publications were ignored or rejected outright. Definitions of certain terms, such as Mortlach, seemed to change with each use.

The first professional studies of pottery date to the 1940s and 1950s. A vaguely defined kind of pottery from central Saskatchewan, Wascana ware, was first introduced in 1959. A review of the literature shows how the term Wascana ware fell into disuse in the late 1960s and early 1970s. By 1973, the term and the recognition of a distinct kind of pottery in central Saskatchewan had been lost. Since then, some Western Canadian archaeologists have accepted all Late Prehistoric period pottery as Mortlach while others, with archaeologists in North Dakota and Montana, have more closely adhered to the original definition.

2.2 Central Saskatchewan Pottery and Wascana Ware

In 1944 Jessie Caldwell, an avocational archaeologist from Saskatoon, described the collection of the late Dr. V. A. Vigfusson. This was the first general assessment of
Saskatoon region pottery. More extensive descriptions of Saskatchewan pottery sites and assemblages were made by Thad Hecker, of the State Historical Society of North Dakota, in a 1946 manuscript.

In a later synthesis, Hecker (1952) recognized four ceramic "types" in Saskatchewan. Two types seemed to be influenced by Northern Woodland or Mississippi Woodland groups. Hecker (1952:13, 19) suggested that the Assiniboin and Cree were responsible for materials similar to those referred to as the Headwaters Lake aspect (Blackduck) and the Rainy River aspect in Minnesota and Manitoba.

Two other kinds of pottery were recognized, one thick and the other thin. Many of the characteristics Hecker (1952:18-19) attributed to the thick pottery are those of Old Women's phase pottery. Hecker (1952:19) reported that the thin vessels carried exterior impressions produced by "check-stamped paddle and a fabric weave made of grass or fine vegetable fibers." These vessels were more elaborately decorated:

Decoration on the thin ware is made with punctate, element-wrapped stick, rocker roulette in horizontal lines encircling the neck, punctates made with hollow reed or quill, horizontal lines combined with short diagonal lines at angles under 45 degrees, diagonal lines combined with punctates. Many of these horizontal on neck and shoulder are combined with rim-top, inner or outer lip decoration (Hecker 1952:19).

He suggested that this pottery could have been made by one or more of the Blackfoot, Atsina or Sarcee.
Unpublished observations from the mid-1950s by avocational archaeologist H. Ken Cronk, indicate that he recognized a relationship between the pottery found in the Saskatoon area and in south-central sites. In a description of activities and recoveries at the Broadway Avenue site on the south side of Saskatoon, Cronk (1954) discussed the pottery in this way:

The shape of the pots and the method used in decorating them, suggests close affinity with the pottery found a few miles away on Preston Ave., also with some found in the Beaver Creek area. Similar shapes and decorations are found at Bulyea [Lake Midden], Moose Jaw Creek [Stoney Beach] and a number of other sites in the Regina Moose Jaw area.

In his report on the Mortlach site, Boyd Wettlaufer (1955) introduced two pottery types, Mortlach Check-Stamped and Moose Jaw Cord-Marked. The former was found in the latest occupation, which Wettlaufer named the Mortlach culture. The pottery was characterized by a check-stamped exterior surface finish and by brims decorated with dentate impressions oriented obliquely to the right. Some vessels had punctates on the upper part of the rim exteriors.

Moose Jaw Cord-Marked was associated with the preceding occupation, called the Moose Jaw culture. Vessels had cord-roughened or plain exterior surfaces plus a variety of lip and shoulder decorations. Wettlaufer (1955:27) suggested that Moose Jaw Cord-Marked type was the pottery found at sites along Moose Jaw Creek (Stoney Beach) and Last Mountain Lake (Lake Midden).
Alice Kehoe (1959) made the first attempt to organize all the pottery found in the Northwest Plains. On the Canadian prairies, she identified two wares in the Pisamiks tradition: Ethridge and Wascana. Kehoe (1959:244) associated Ethridge ware with the Blackfoot; it corresponds with the Late Variant of Saskatchewan Basin pottery (Byrne 1973:527-528). The other ware, Wascana, was found in Saskatchewan and identified on the basis of collections supplied by avocational archaeologists, R.J. Gagne and H. K. Cronk. Gagne’s pottery was from Stony Beach Midden, near Moose Jaw, and Cronk’s pottery from the Saskatoon area. The core of the distribution of this pottery was given as south-central Saskatchewan and included the pottery from the Mortlach site.

Kehoe (1959:240-242) described Wascana ware as primarily fabric-impressed pottery, but cord-roughened, basket-impressed and check-stamped surface finishes also occurred. A variety of decorations appeared on the lips, rims, neck angles and shoulder angles including punctates, notches, incised lines, cord-wrapped tool and dentate impressions. Fabric impressions and manipulations of the damp clay producing indentations, fluting and scalloping also appeared on the lips.

One major problem with Kehoe’s paper was that she did not clearly separate Wascana ware from other pottery wares from the Saskatchewan plains. For instance, Wettlaufer
(1955) had previously described Mortlach Check-Stamped and Moose Jaw Cord-Marked type pottery from the Mortlach site, but Kehoe did not discuss their relationship to Wascana ware. Wettlaufer's (1955) work was cited simply to provide support for a very late prehistoric association for pottery in the northwestern plains (Kehoe 1959:243).

Further, Kehoe attempted to define Wascana ware without having seen Selkirk focus pottery from Manitoba. Even so, Kehoe (1959:244) equated Selkirk and Wascana because fabric impressions on the exterior surface are common to both. In doing so, the validity of her own construct, Wascana ware, was undermined. Selkirk-Wascana became an extremely broad category of pottery encompassing all well-made, thin pottery west of Lake Winnipeg and east of Ethridge ware sites in Alberta. The vagueness of her descriptions diminished the usefulness of her definitions. Kehoe's (1959) overview did not contain any diagrams or photographs and no later publication was produced to clarify the description of Wascana ware.

Later, Kehoe (1964) described "contact period" pottery recovered during her excavation of the Francois-Finlay trading post, near Nipawin. She found this fabric-impressed pottery to be the same as that from several Saskatoon area sites including Broadway and Preston Avenue, Big Circle and Cavanaugh. Kehoe (1964) tentatively identified all of this material as the Fabric-Impressed Francois variety of Wascana
After this, the term Wascana ware did not often appear in publications describing Saskatchewan pottery. Even Kehoe and Kehoe (1968) refrained from employing the term in their contribution to *The Northwestern Plains: A Symposium*. In this publication, they recognized that one of the principal pottery wares was Mortlach Check-Stamped which, oddly enough, Kehoe did not address in her 1959 paper. In this 1968 publication, a second southern Saskatchewan ware was said to be "in the Woodland tradition, with emphasis on surface roughening through fabric impression" (Kehoe and Kehoe 1968:33). Presumably, this Woodland style pottery was Wascana ware, since Alice Kehoe's 1964 paper was cited as the reference. They suggested that both wares were made by the Atsina. Selkirk pottery or its relationship to these wares was not mentioned in the 1968 publication.

As mentioned, Kehoe identified the pottery from the Francois-Finlay trading post and from the Saskatoon area as Wascana ware, Francois variety. The implication was that the other principal ware (besides Mortlach) in southern (including central) Saskatchewan was Wascana ware (Kehoe: 1959). However, Hlady (1971:63-64) found the rim of a partially reconstructed vessel from the Francois-Finlay site to be identical to the Clearwater Lake Punctate Type, Mode 17: Outer Lip Cord-wrapped Stick-impressed. Syms (1977:126)
and Meyer (1978:31) have also accepted this vessel as Clearwater Lake Punctate. This identification placed the vessel in the Selkirk Composite (Meyer and Russell 1987). Obviously, there has been some problem in differentiating Wascana and Selkirk vessels. The separation of Wascana ware from Selkirk was eventually made by Meyer (1984), albeit unknowingly.

The term "Wascana ware," therefore, almost disappeared from the archaeological vocabulary primarily as a result of its equation with Selkirk. Considering all the other characteristics mentioned in her 1959 publication it is rather unfortunate that Kehoe focused on the presence of a fabric-impressed exterior surface finish to identify Wascana ware. It is one of the few traits that both Wascana and Selkirk pottery share. Furthermore, although fabric-impressed pottery occurs in central Saskatchewan, it is not the only exterior surface finish found in collections. Had she focused on vessel shape and decoration there might not have been any confusion between Selkirk and Wascana.

William Byrne did not recognize a separation between materials in central and southern Saskatchewan; rather, he (1973:431) referred to all of the pottery as Mortlach Check-Stamped. His description of Lake Midden site pottery was similar to that made by Hecker (1952) and Kehoe (1959):

Motifs include oblique impressions across the lip, horizontal bands below the lip, incised cross hatching below the lip, incisions across the interior and/or exterior edges of the lip, single
rows of punctation/pinching between the shoulder and the lip, and various complicated designs involving horizontal and slanted lines combined to form a variation of the geometric rainbow motif... (Byrne 1973:427-428).

These attributes were not included in descriptions of Mortlach made previously by Wettlaufer (1955), Kehoe and Kehoe (1968) and Joyes (1973) or later by Syms (1977), Johnson (1977) and Schneider and Kinney (1978). In spite of this, Byrne's (1973) inappropriate use of the term was accepted and appears in recent literature (Meyer 1988; Meyer and Epp 1990).

Rod Vickers (1973) studied 181 rim sherds from three different collections, two from the Saskatoon and one from the Moose Jaw area. On the basis of this material, he suggested that variability within any of Alice Kehoe's 1959 ware categories was too great to indicate a taxonomic relationship. For this reason he (1973:5) regarded Kehoe's work as a failure.

In the late 1970s, a Saskatchewan Museum of Natural History (SMNH) survey crew recovered some material from a cultivated field near Alvena. They named this location the Lozinsky Ceramic site (FdNn-6), now called the Lozinsky site (FdNm-51) (Figure 2.1). Some of the rim sherds they found had horizontal cord-wrapped tool lines on the exterior surface, while others, with a single row of punctates, looked more like Selkirk pottery. The relationship between Lozinsky site pottery and other kinds of pottery in the area
Figure 2.1 Map Showing Locations of Sites Discussed

1. Lake Midden
2. Williams
3. Parago
4. Tipperary Creek
5. Lozinsky
6. Saskatoon area
7. Schraeder
8. Walter Felt
9. Sanderson
10. Miry Creek
11. EdOh-44
12. Mortlach
13. Long Creek
14. Shippe Canyon
15. Dune Buggy
16. Evans
17. Stoney Beach
18. Long John
19. Gilmore
has been hypothesized for a decade. Initially, Meyer (1981:25) included the Lozinsky site assemblage within the Pehonan complex of the Selkirk composite. Further investigation prompted him to reconsider this identification and he (1984:45) suggested that this material should be excluded from the Pehonan complex as it was more likely associated with a separate complex in the parkland.

Later, Meyer (1988) suggested that all of the pottery south of Selkirk material was Mortlach, following Byrne (1973). The author (1989) proposed that, although the pottery from the site reflected influences from both the north and the south, it could be distinguished from both Pehonan and Mortlach. Meyer and Epp (1990), however, recently reported that the Lozinsky site contained Mortlach pottery with attributes which reflect Selkirk influence.

### 2.3 The History of "Mortlach"

Wettlaufer (1955) gave the name "The Mortlach Culture" to the final prehistoric occupation at the Mortlach site. It was reported that most of the pottery belonged to the newly named "Mortlach Check-Stamped" type. The rim sherds were usually dentate-stamped with punctates near the top of the exterior. The bodies of these vessels carried small check stamps. Some shoulders had a pinch or fingernail pattern. The vessel shape was reported to be round-bottomed and squat. Wettlaufer (1955:21) reported that its
distribution was not known but similar pottery had been found at the Hagen site in Montana.

In Alice Kehoe's (1959) analysis of Northwest Plains pottery, Wettlaufer's Mortlach Check-Stamped type was ignored. The material from the Hagen site was classified as belonging to the Mandan tradition, mainly due to the presence of simple stamping and the rainbow motif. The distribution of Hagen ware was described as along the Upper Missouri River and its tributaries.

The following year a report on the excavations at the Long Creek site near Estevan, Saskatchewan was published (Wettlaufer and Mayer-Oakes 1960). Material from the Long Creek site was reported to be only marginally similar to that from the Mortlach site. Wettlaufer and Mayer-Oakes (1960:100) recognized one pottery element as common: dentate-stamping with a fingernail pattern on the rim. Although check-stamping was the most common surface finish on body sherds, no firm connection was made between the culture of the inhabitants of the two sites. In the discussion of ethnicity, Wettlaufer and Mayer-Oakes (1960:105-107) seemed to favour a more southerly association. As among the Mandan, Cheyenne and Hidatsa, the association with the Hidatsa was considered most likely as they believed only the Hidatsa had employed dentate impressions as well as check-stamped and cord-wrapped paddles in their pottery making. He suggested that the
prehistoric inhabitants of the Long Creek site were a branch of the Hidatsa called the Fall, Rapids or Gros Ventre that "inhabited the central portion of Saskatchewan from somewhere around 1600 until at least 1804" (Wettlaufer and Mayer-Oakes 1960:107). Wettlaufer and Mayer-Oakes made no mention of Alice Kehoe's paper which had been published the year before.

In their contribution to the Northwestern Plains symposium, Kehoe and Kehoe (1968:34) reported that Mortlach Check-Stamped was one of the two principal wares of late prehistoric southern Saskatchewan. This pottery was said to be restricted to southern Saskatchewan and to differ from earlier check-stamped pottery from North Dakota and the material from Cluny, Alberta. This pottery was found in the upper layers of the Walter Felt and Mortlach sites.

As noted by Schneider and Kinney (1978:34), Kehoe and Kehoe (1968) changed Mortlach Check-Stamped from a "type" to a "ware" in their paper. They saw Mortlach Check-Stamped ware as pottery with a "waffle grid" exterior, dentate impressions on the "rim" and a complex shape (Kehoe and Kehoe 1968:33). The upper portion of the vessel profile was said to resemble the number 3, a shape others have called the "wedge." This was the first time this attribute was included in the descriptions of Mortlach, although these vessel profiles appeared in the Long Creek site report (Wettlaufer and Mayer-Oakes 1960:34-35).
The Long Creek site was not mentioned in the article; however, Kehoe and Kehoe cited Wettlaufer and Mayer-Oakes's (1960) publication as the source of an argument that Mortlach Check-Stamped was manufactured by the Hidatsa. This seems to be a misinterpretation on their part. As mentioned earlier, Wettlaufer and Mayer-Oakes (1960:100) did not recognize a close relationship between Long Creek and the Mortlach site. Materials from the former were classified as representing the Hidatsa-Fall River culture and the latter as Mortlach culture. Kehoe and Kehoe equated the two and suggested that the Atsina could have made both wares. Since then, archaeologists have followed this identification and the pottery from both Mortlach and Long Creek has been called Mortlach Check-Stamped.

Kehoe and Kehoe (1968:34) also suggested a close relationship between the Woodland style (Wascana) and Mortlach; they proposed that both wares were produced and used by the Atsina:

perhaps the latter [Mortlach] was a special development, possibly stimulated by peoples to the southeast, and used as "good dishes" in addition to the more traditional surface roughened pots.

In his study of Southern Alberta pottery, Byrne (1973:366-368) examined the "Cluny complex" material found in sites in the South Saskatchewan drainage system. He (1973:413-417) suggested that Cluny pottery had similarities to pottery from the Milk River Valley sites near the Fresno Reservoir, Montana and from North Dakota: 32WI12, the
Stutsman phase from the Jamestown Reservoir, and the Biesterfeldt site. However, the Cluny material was judged to have more similarities to Saskatchewan pottery, including certain vessels from the Mortlach site, virtually all of the uppermost levels at Long Creek, Gull Lake, Walter Felt, and materials from the collection of Jerry Toergelson, near Moose Jaw (Byrne 1973:423-426). He considered that the similarities between Cluny pottery and certain central Saskatchewan sites (Lake Midden and Stoney Beach) were even stronger:

In sum, with the exception of the more complicated incised and punctated motifs and the variant geometric rainbow design there is a general correspondence with the Cluny complex and the Bulyea Lake Midden pottery (Byrne 1973:428).

In his summary statements, Byrne did not make a distinction between any of the Saskatchewan sites. He (1973:431) stated that, though Kehoe and Kehoe:

deny close relationships between the materials they refer to as Mortlach Check Stamped and the pottery of the Cluny earthlodge village, a close examination of the full range of available materials would seem to indicate otherwise.

Byrne did not follow Alice Kehoe’s (1959) identification of Wascana ware, nor did he distinguish the Woodland tradition pottery (Wascana) from Mortlach Check-Stamped (Kehoe and Kehoe 1968). By the use of the term "full range" of material, Byrne classified Lake Midden, Stoney Beach and some material from Dundurn as Mortlach Check-Stamped. He then used the uniformity of Saskatchewan materials to
support his hypothesis that the protohistoric inhabitants of Cluny moved through southern Saskatchewan en route to Alberta from northwestern North Dakota (Byrne 1973:481).

His initial argument was that:

the pottery of 32WI12 reflects a great many similarities to that of the Cluny complex, and to related ceramic collections in southern Saskatchewan such as those of the Bulyea Lake Midden, the Stoney Beach Midden, the Mortlach site and the Long Creek site (Byrne 1973:481-482).

Byrne (1973:548) reported also that Wettlaufer and Mayer-Oakes (1960) felt "that the Saskatchewan pottery with Middle Missouri area affiliations [was] most likely the result of Hidatsa intrusions" without mentioning that Wettlaufer was referring only to Long Creek material, the Hidatsa-Fall River Culture. Further, Byrne dismissed arguments that some early explorers could have been mistaken in their identification of southern Saskatchewan groups as being related to the Hidatsa.

His conclusion was that the makers of Cluny pottery represented a Hidatsa splinter group which travelled from their Middle Missouri homeland north and west along the South Saskatchewan River valley to the Cluny site in southern Alberta (Byrne 1973:553). Consequently, all of the pottery in southern and central Saskatchewan was Mortlach Check-Stamped, made by this migrating Hidatsa group. Forbis (1977:73) followed the Hidatsa identification at Cluny and further suggested that the inhabitants could be Crow or some other now-extinct Hidatsa offshoot.
South of the Canada-United States border, the term Mortlach was used with more caution. Dennis Joyes (1973) examined pottery from the Shippe Canyon site in Montana and identified two major groups. The first had wedge-shaped rims, check-stamped exterior surfaces and diagonal dentate impressions. Joyes (1973:62) recognized this "ware" as Mortlach Check-Stamped, and cited both Wettlaufer (1955) and Kehoe and Kehoe (1968). The other group, flat rim ware, was described as, in some respects, similar to Alice Kehoe's Wascana ware.

Joyes (1973:83) suggested that the Shippe Canyon site materials were similar enough to components from four southern Saskatchewan sites that they all could be included under the same taxonomic unit, the Mortlach phase. The Saskatchewan sites were Mortlach, Long Creek, Walter Felt and Big Beaver Midden. Long Creek and Shippe Canyon were judged as being particularly similar. Material from Site 32WI12 in North Dakota also appeared to be closely related. Joyes admitted, though, that he had not worked with the entire collections from these components. In spite of this, the sites were judged as constituting a phase, the terminal prehistoric Mortlach phase. Therefore, Mortlach phase sites occurred in the region between the Missouri and Qu'Appelle Rivers including southern Saskatchewan as well as parts of Montana and North Dakota. The western extent was given as southwestern Saskatchewan, where Mortlach was replaced by
the Old Women's phase. On the east it met the Manitoba phase (Blackduck). The northern and southern extent of the Mortlach phase could not be determined (Joyes 1973:83).

In her 1977 report on the Dune Buggy site, Ann Johnson noted that the majority of the pottery was either cord-roughened or smoothed. However, she suggested that the Dune Buggy site pottery was most closely related to sites which had been identified as having Mortlach pottery such as Big Beaver Midden, East Redwater Creek, Mortlach, Long Creek, 32WI12 and Shippe Canyon:

...in fact, [pottery from these sites] is so similar that I have seen rims from 32WI12, East Redwater Creek and Shippe Canyon which could be exchanged for ones from Dune Buggy without perceptible change in the collection's composition (Johnson 1977:46).

Most of the ceramics were collected from a plowed field, so she felt that late prehistoric components may have become mixed.

Johnson (1977:47-48) carefully evaluated the integrity of both the archaeological materials and the labels which had been applied. She (1977) reviewed Wettlaufer's (1955) definition of Mortlach Check-Stamped with reference to material from Mortlach (Wettlaufer 1955), Long Creek (Wettlaufer and Mayer-Oakes 1960) and Shippe Canyon (Joyes 1973). Johnson (1977:47) saw Mortlach Check-Stamped as a "type" of pottery with a wedge-shaped rim, check-stamped body and dentate-stamping. Flat rimmed ware and Wascana ware "seem[ed] to be more descriptive than analytical
categories and need[ed] more rigorous definition" (Johnson 1977:47).

Syms (1977), from Manitoba, introduced an expanded definition of Mortlach which was similar to Joyes (1973) and Johnson (1977). According to Syms (1977:125) Mortlach complex pottery had predominately plain, check-stamped and simple-stamped exterior surfaces with dentate impressions on the "exterior portions of interiorly bevelled rims" (wedge-shaped rims). Syms also saw a relationship between Cluny materials and Mortlach Check-Stamped:

The Cluny Complex should be combined with the Mortlach Complex into a composite since they share many common traits, a comparable time period, and probably represent the same or closely related groups. This Mortlach-Cluny Composite may be combined into a single complex when detailed comparisons and samples are obtained from better contextual situations (Syms 1977:127).

Sites that he identified as having Mortlach Check-Stamped ware included Cluny and one component of the Markin site (both in Alberta), Walter Felt (upper level), Big Beaver Midden, Stoney Beach, Mortlach and Long Creek (all in Saskatchewan), as well as some material in southwestern Manitoba and north-eastern Montana. Syms suggested that the southern boundary may have extended to northwestern South Dakota.

Syms (1977:126) also noted that some avocational archaeologists had previously described material from Stoney Beach and Last Mountain Lake "as being the same as Winnipeg Fabric-Impressed of the Selkirk Horizon." He suggested that
an understanding of cultural developments in Saskatchewan was hampered by a paucity of research.

Fred Schneider and Jeff Kinney (1978:32), in their report on the Evans site, followed Johnson (1977) in their careful consideration of the concept of Mortlach type, ware and phase. The first problem they identified was the small amount of quantified data available and the lack of published reports for much of the Saskatchewan material. The nature of the pottery assemblages, many of which were surface collections or collections which may have had mixed components, affected the ability to understand Mortlach. Attempts to delineate spatial and temporal parameters were complicated by conflicting identifications of the presence or absence of Mortlach pottery in different areas, such as southeastern Alberta (Schneider and Kinney 1978:33).

There was also some variation between sites in the frequency and combinations of different attributes, such as those of decoration and surface finish (Schneider and Kinney 1978:35). While many vessels had dentate impressions, some had cord-wrapped rod and tool impressions. Wedge-shaped rims were common but other profiles were found as well. The check-stamped exterior surface finish appeared but so did simple-stamped, smoothed and cord-roughened exteriors.

Schneider and Kinney (1978:34) identified problems with taxonomy, such as the treatment of "collections" as "assemblages," the difficulty in identifying "components,"
the lack of a complete definition of Joyes' (1973) term "phase" and the suitability of the Syms' (1977) term "complex." They suggested that the term "aggregate" would be most appropriate because of "problems relating to the temporal, spatial and formal content of the sites identified as members of the Mortlach culture/phase/complex" (Schneider and Kinney 1978:35).

The Mortlach aggregate, then, would have occupied a large region, presumably an area approximately 500 miles east-west from western Manitoba to eastern Alberta, and 250 miles north-south from Regina, Saskatchewan, to the Missouri River. The duration of the aggregate would have been 200-300 years from A.D. 1520 - A.D. 1700 or A.D. 1780, based on radiocarbon dates from the Evans, Morkin and Mortlach sites (Schneider and Kinney 1978:33-35).

Meyer (1988:62) reintroduced the term "Mortlach" to describe pottery from central and south-central Saskatchewan materials. The distribution of Mortlach phase materials was shown as covering almost all of the parklands and plains (Meyer 1988:61, Figure 18). He acknowledged the precise descriptions of Joyes (1973) and Syms (1977) and the critical review of problems in identifying the phase discussed by Johnson (1977) and Schneider and Kinney (1978). However, he also accepted Byrne's (1973) all encompassing use of the term:

Certainly, as Byrne has detailed, Saskatchewan Mortlach Phase ceramics are very similar to those
of his One Gun Phase (Cluny Complex pottery) (Meyer 1988:62).

Meyer's use of the term Mortlach is a hybrid of Byrne's (1973) and the Montana/North Dakota usage.

As well, Meyer and Epp (1990:335-337 and Figure 4) applied Schneider and Kinney's (1978) term Mortlach aggregate to Saskatchewan grassland and southern parkland pottery, including the Lake Midden and Lozinsky sites. The presence of certain attributes found in the pottery from the Lozinsky site, and sites near Saskatoon, was described as reflecting Selkirk-Mortlach interaction.

On the basis of this thesis research, however, Meyer and Clarke (1991) have recently decided to employ the term Wascana ware to central Saskatchewan pottery, which is distinct from Mortlach aggregate and Selkirk pottery.

2.4 Summary

The pottery from central and south-central Saskatchewan does not have the same attributes as the material from North Dakota and Montana. In order to effectively communicate ideas it is essential that archaeologists adhere to the same terminological definitions. Consequently, clarification of the term Mortlach is necessary. Our ability to understand the dynamics of Late Prehistoric period interaction across Saskatchewan has been affected by the misapplication of the term "Mortlach Check-Stamped" by Byrne (1973). Saskatchewan sites containing Mortlach aggregate pottery must be
distinguished from those containing pottery which is more like Kehoe's Wascana ware.
3 METHODOLOGY AND TERMINOLOGY

3.1 Introduction

Vessels from central Saskatchewan sites are by no means identical and a considerable amount of variation is often present within a single assemblage. While there is a substantial amount of variation within and between these pottery assemblages, the features which make them distinctive are definable. The likeness of these pottery assemblages becomes more apparent when they are compared with pottery assemblages from other parts of the province. This analysis shows that the central Saskatchewan pottery assemblages are more closely related to each other than to contemporaneous material found to the south (Mortlach).

Some of the collections are from the surfaces of cultivated fields and, therefore, highly fragmented and without tight temporal control. In other cases, "exotic" vessels appear in assemblages, the result of trade between the groups or the diffusion of manufacturing techniques and decorative motifs. Thad Hecker recognized this situation and made the insightful observation that:

Contrary to popular belief, before the coming of the white man, the Indian was not confined to a limited area but could roam at will wherever he wished to go, or could obtain subsistence...If each tribe had been restricted to a given area we would not find the multiplicity of ceramic types in campsites that we find today (Hecker 1952:22).

Syms (1977) has developed the Co-Influence Sphere model in order to better understand the movements of hunter-
gatherers. The exploitation of resources from core (traditional land, used most of the year), secondary (regular trips made) and tertiary (rare or marginal use) areas was necessary for life on the Plains. This model also recognizes the existence and importance of trade networks and that there is some overlap in land use.

Consequently, Late Prehistoric pottery assemblages cannot be compared in a simple fashion. The overall composition of the collections from several sites must be examined and significant traits must be identified in order to make meaningful comparisons.

In the course of this research, several pottery assemblages and collections from the Saskatchewan plains were studied (Figure 2.1). The central Saskatchewan sites (north of the Qu’Appelle Valley) include Lake Midden (EfNg-1), Williams (EjNg-3), Farago (ElNi-1 and 2), Tipperary Creek (FaNp block), Bill Richards (FaNp-9), Lozinsky (FdNm-51) and Schraeder (not recorded). The collections examined from southern Saskatchewan (south of the Qu’Appelle Valley) include Walter Felt (EcNm-8), Mortlach (EcNl-1 and EcNl-10), Sanderson (DhMs-12) Block 1, Miry Creek (EeOc-5) and EdOh-44. From within the Qu’Appelle Valley and its tributaries, material from the Stoney Beach (EdNh-1), Long John (EeNj-1) and Gilmore (EdNe-11) sites was studied.

The following characteristics were examined on individual vessels: profile, decoration (techniques, motifs
and location), lip shape, exterior surface finish, temper and paste quality. The collection as a whole is described in terms of the relative frequency of appearance of and/or meaningful combinations of these traits.

3.2 Methodology

Initially, each assemblage was sorted by individual vessel, defined on the basis of rim sherds. Although one can not be absolutely positive that two rim sherds are from the same pot unless they fit together, the analysis of collections by vessel has become a standard archaeological procedure. Identification of unique vessels was based on the number of characteristics which rim sherds shared. If an extremely high correlation of features existed, the sherds were identified as representing the same vessel. If any reasonable level of doubt existed, the sherds were treated as representing different pots.

A written description of the attributes of each vessel identified in the collection was recorded. A profile and a schematic drawing of the vessel was made. In total, over 1000 individual vessels were examined in the course of this research. The range and frequency of occurrence of different attributes found in the collection were then examined. Descriptions of assemblages/collections are presented in Chapters 4, 5 and 6. Vessel decoration is discussed by zone; however, mention is made if decoration
appears on more than one zone of a particular vessel. In sections 5.4 and 5.5, descriptions of pottery from published reports are examined. The terminology used by different archaeologists to describe vessel profiles and decoration is not uniform. In order to maintain consistency, where possible the terms used by other archaeologists are "translated" into the terminology used in this thesis. Information about temper and paste quality of the vessels is available in the Appendix.

These detailed descriptions of each vessel have been coded using a modified version of an artifact coding program designed for the Atari 520 ST computer by William Ferris. All but the most complex patterns could be coded for each vessel. This information was then transferred to the University of Saskatchewan mainframe computer. The data strings were converted to a general format with a program designed by Alfred Hovdestad, a Computing Services consultant. This will enable the pottery descriptions to be downloaded to any type of personal computer or manipulated with the mainframe SPSS-X statistical package.

3.3. Definition of Profiles

If the assumptions made about the range of possible vessel shapes are correct, determining the profile of a particular vessel requires only the presence of the rim or a large portion of the rim and neck. A vessel with an S-
Profile, Short Rim or Wedge profile can be identified with a relatively small portion of the rim. A relatively larger rim section is needed in order to distinguish vessels with Angled Rim profiles from those with Straight Rim profiles. The category Straight Rim/Angled Rim encompasses vessels that are missing the neck area, making a finer discrimination impossible. Drawings of all of the identifiable profiles are presented in Figure 3.1.

**Straight Rim:** The rim areas of vessels with Straight Rim profiles have flat exterior surfaces and flat or slightly concave interior surfaces. The orientation of the rims ranges from vertical to out-flaring. This category encompasses vessels referred to as Straight Rim and Excurvate Rim by Syms (1986:10). As the rim fragments of the vessels are usually very small, it is very difficult to separate these categories. At a mimimum, vessels must have a lip, rim and upper portion of the neck area for identification. Vessels with incurvate rims are rare, and so are included in the miscellaneous section. Syms (1986:10) refers to these as Converging Rim profiles.

**Angled Rim:** The rim of Angled Rim vessels includes a corner point, referred to as the rim angle. A thickening of the rim often occurs at the angle; the exterior surface of the rim is straight above and below the angle. Only the portion of the exterior surface above the rim angle can be easily viewed from the top and side. The interior surface
Figure 3.1 Profiles With Vessel Areas
Figure 3.1 cont'd Profiles With Vessel Areas
tends to be concave the entire length of the rim. These vessels often have some type of expanding lip. Vessels must minimally have a lip and rim area including a portion of the rim angle intact. Joyes (1973:57 and Figure 6) refers to vessels with similar profiles as "recurved."

**S-Profile:** The rim areas of S-Profile vessels have convex exterior surfaces and concave interior surfaces. A complete rim includes a point of vertical tangency, which is referred to as the rim angle. Vessels must minimally have a lip and 1.5 cm of rim intact for identification.

Sym (1986:10) separates these vessels on the basis of the sharpness or gentleness of the curvature into S-Rim, Shallow S-Rim and Incipient S-Rim vessels. No attempt has been made to follow this finer separation of S-Profile vessels in these categories.

**Straight Rim/Angled Rim:** This term applies to vessels identified on the basis of straight rim sherds without evidence of a rim angle, neck or wedge-shaped lip. Consequently, other profile types are eliminated but it is not possible to separate Straight Rim from Angled Rim profiles. Minimally 1.5 cm of the rim area must be present for categorization, otherwise they are "Undetermined" (see below). These vessels were initially identified as having an Undetermined profile but in the highly fragmented collections close to 90% of the vessels fall into this category. The creation of this category increases the
usability of the data base considerably.

**Wedge:** The Wedge profile is associated with vessels which have wedge-shaped lips. The presence of this distinctive lip shape and the fields of decoration serve to distinguish vessels with Wedge profiles from Straight Rim vessels. The exterior rim area of these vessels is usually gently concave from the bottom of the lip to the shoulder; however, it varies from sharply concave to straight (down to the neck). At a minimum, pots with Wedge profiles have the lip intact for identification.

**Square Wedge:** Vessels with Square Wedge profiles look similar to those with Angled Rim profiles due to an elongation of the brim surface. The fields of decoration on this type of vessel, however, are the same as those associated with the Wedge profile. The inner corner (end of the lip) is usually square or tapering; the juncture of the brim and below-brim area is often very sharp and rarely decorated. Whether this represents a modification of the Angled Rim or the Wedge is unknown. In order to confidently distinguish the Square Wedge profile from the Angled Rim, the complete lip/rim with below brim decoration must be present. Square Wedge profiles are more common in sites with a high incidence of vessels with Wedge profiles.

**Short Rim:** This profile applies to vessels with very short, often "hyper-excurvate", rims. The distance between the lip and the neck is so short that the rim area almost
does not exist. As such, it is difficult to separate the fields of decoration of these vessels. When the complete profile is present, the convex neck/shoulder area is usually long and the shoulder gently curves. The body seems to be quite globular on the vessels with this area represented. Vessels minimally have a lip and upper portion of the rim/neck intact for identification.

Short Rim-like profiles sometimes appear on Old Women’s phase pots. However, the walls of Old Women’s phase pots are much thicker and the body is more conoidal.

**Miscellaneous:** Vessels having less common profiles are coded as having a Miscellaneous profile. This includes vessels with in-curving (converging) rim profiles and possible conoidal profiles, among others.

**Undetermined:** These vessels likely have a Straight, Angled Rim, S-Profile or Square Wedge profile with an incomplete lip and 1.5 cm of rim intact. This also includes vessels that likely have wedge profiles but lack a complete lip.

### 3.4 Vessel Areas and Fields of Decoration

For a diagram showing the locations of the vessel areas described below, see Figure 3.1. Locations of the fields of decoration discussed below are presented in Figure 3.2.

#### 3.4.1. Lip

The area representing the top margin of the vessel and
Figure 3.2 Profiles With Fields of Decoration
Figure 3.2 cont'd Profiles with Fields of Decoration
the very uppermost section of the rim is called the lip. The specific parts of the lip which are most often decorated include the brim, inner corner and outer corner. The brim is the surface which represents the terminus of the walls of the vessel. The orientation of this surface is usually perpendicular to the interior and exterior walls, except in the case of vessels with a bevelled lip. The outer corner is that point which represents the junction of the brim and the exterior surface of the vessel. The inner corner is that point which represents the junction of the brim and the interior surface of the vessel.

This terminology is used for all lip shapes except for wedge or pointed lips and vessels with Square Wedge profiles. In these cases, the lip has two surfaces which are referred to as the brim and the inner corner. This corresponds to Schneider and Kinney's (1978) exterior rim bevel and interior rim bevel, respectively. The juncture of the exterior surface and the brim on these vessels is referred to as the outer corner.

3.4.2. Rim, Below Brim and Angled Rim

The rim of the vessel is that area between the lip and the upper portion of the neck area. This area tends to be treated as single field of decoration on vessels with Straight Rim profiles. On vessels with Wedge or Square Wedge profiles this area is often divided into two separate decorative zones, the below-brim and the rim. The below-
brim is immediately below the juncture of the exterior bevel and the exterior wall, within about 1 cm of the brim surface. The field of decoration called rim is underneath the below-brim and extends to the neck.

Vessels with a Angled Rim or S-Profile have complex rim forms which include an outward expansion below the lip reaching a maximum about midway between the lip and the neck juncture. Below this point of vertical tangency or corner point (Shepard 1956:226-227) the rim slopes inward towards the neck. The point of vertical tangency on the rim in a vessel with an S-Profile is gently curved. The corner point on the rim in a vessel with a Angled Rim profile is sharply angled. In both cases, however, the point of maximum diameter of the rim is referred to as the rim angle. The field of decoration called the rim is restricted to the area between the lip and the rim angle on Angled Rim and S-Profile vessels.

3.4.3 Neck, Neck/Shoulder, Shoulder and Body

**Neck:** The neck consists of that part of the vessel within about 0.5 cm above or below the point of vertical tangency and usually corresponds with the point of minimum diameter in the vessel. The exterior surface in this area is concave and the interior is convex. Often this area is thicker than the adjacent rim and neck/shoulder. Neck decoration may occur restricted to this area or in conjunction with neck/shoulder decoration.
Neck/Shoulder: The area between the neck and the shoulder of the vessel is referred to as neck/shoulder. Often the exterior surface in this area is without curvature or contains a point of inflection where the curvature changes from concave to convex. This region is treated as a field of decoration on vessels with Straight Rim and, occasionally S-Profile vessels. Decoration almost always appears in this area in conjunction with neck decoration.

Shoulder: This is the area of the vessel within about 0.5 cm above or below the point of vertical tangency in a vessel with rounded shoulders or a corner point in a vessel with sharply angled shoulders. The shoulder generally corresponds to the maximum diameter of the vessel. The exterior surface of this area is convex and the interior concave. Often this area is thicker than the adjacent neck/shoulder and body. This area is treated as a field of decoration on all vessel forms.

Body: The area below the shoulder, including the base of the vessel, is referred to as the body. The walls are usually of uniform thickness and gently curved.

3.5 Decoration
3.5.1 Introduction

The conventions for the archaeological description of pottery designs were established to enhance the interpretation of decorative styles. Anna Shepard
(1956:266-267) introduced the concepts of elements and motifs. An element is a part of a geometric design, its simplest regular part. Simple designs are often arrangements of one or more elements. Complex designs are made up of groups of elements. Motifs are more varied and distinctive than the element. Prudence Rice (1987:248) describes design motifs as fixed combinations of elements used to form larger components of the decoration. Basic units of design are conceptual categories which the potter uses to fill in the design space. Design configuration, layout and structure are all considered in the analysis of designs.

The purpose of this analysis is to demonstrate the relationships between the pottery found at different sites in Saskatchewan. Analysis of decoration is restricted to pattern/mode description, positioning on vessels, the technique of execution and the frequency of occurrence at different sites. Decoration on Late Prehistoric pottery from the study area most often takes the form of repeated single elements. Complex motifs do occur but the generally low level of vessel integrity reduces the ability to recognize them; therefore, they are not considered. Further analysis is possible, even essential, but it is beyond the scope of this project.

For the purpose of this discussion, decoration is defined as non-utilitarian modification of the vessel for
the purpose of enhancing the aesthetic appearance or, perhaps, the identification of the vessel. Decorations are usually applied while the paste is plastic, but after the completion of the vessel formation process and/or application of the exterior surface finish. Although drilled holes are most likely utilitarian modifications made after the firing of the vessel they are also discussed in this section.

General patterns or modes are identified in the different fields of decoration. A "Pattern" refers to the basic design, such as inverted Vs with adjacent horizontal lines, regardless of the technique of execution. Variations of patterns reflect subtle differences in the basic design, such as the occurrence of a horizontal line over the inverted Vs. Patterns are identified in relatively wide fields of decoration including the rim and neck/shoulder (including the neck) areas. A "Mode" is recognized as a basic technique of execution, such as fingernail impressions or incised lines. Variations of modes reflect different designs or expressions of a particular mode, such as right oblique impressions or vertical impressions. Modes are recognized on points of vertical tangency, such as rim angles and shoulders. Lip decoration on the pottery is too varied to identify individual patterns and their variations.

The definitions of most of the terms used to describe the decorations in this analysis follow Syms (1986);
however, stamps and punctates were not separated in this analysis. The two elements seem to be closely related in pottery from central and southern Saskatchewan. They tend to appear in the same locations and were used to create similar effects. The different types of punctates, other than the circular, deeply impressed, "normal" punctate are distinguished by shape. Trianguloid and oval punctates would likely be referred to as stamps, according to Syms' (1986) definition.

3.5.2 Decorative Techniques and Decorative Elements

Decoration often occurs as short (usually less than 6 mm long) impressions repeated in a series in a given field of decoration. This decoration is described in terms of the vessel area (field of decoration), technique(s) employed or resulting impression (cord-wrapped tool, broad notch, dentate, etc.) and the orientation (vertical, horizontal, right oblique). For example, Brim CWT Right Oblique refers to a series of CWT impressions running across the surface of the brim from lower (exterior) left to upper (interior) right; Shoulder Notch Vertical refers to a series of notches along the shoulder angle. The tool which produced the notch was vertically oriented when the notch was made.

Implicit in the description is that the decoration appears as a series of identical elements. If the decoration is applied in a specialized manner, the pattern is further described in terms of its presentation. See
Figure 3.3 Examples of Decoration Commonly Found on Vessels
Figures 3.3 for examples of decorative techniques. The variety of decorations which are commonly found in Saskatchewan pottery and the techniques used to make these decorations are described below:

**Cord-wrapped tool (CWT):** A tool, such as a cylindrical rod, paddle or a thick cord, wrapped with a twisted cord (such as sinew) is impressed into the paste.

**Sharp-edged tool (SET):** The thin edge or corner of an object is impressed into the paste.

**Incised:** The pointed or rounded end of an object is drawn through the paste creating a narrow channel, 1-3 mm wide.

**Dentate:** The finely notched edge of an object, probably of wood or bone, is impressed in the paste creating a line of square/rectangular stamps.

**Fingernail-impressed:** The fingernail is impressed into the paste creating a thin crescent-shaped decoration.

**Fingernail gouge:** The fingernail is pulled through paste a short distance creating a wide crescent-shaped decoration.

**Pinch:** The surface of the vessel is squeezed between the tips or nails of the thumb and forefinger, creating a ridge flanked by shallow depressions on both sides.

**Notch:** The side of a cylindrical rod or angular corner is pressed into an angle or corner of the vessel creating an oval or V-shaped impression.

**Broad-edged tool (BET):** The side of a cylindrical rod is pressed into the surface of the vessel while parallel to
that surface, creating a trough.

**Punctates**: An object is impressed into the paste creating a single impression; usually this procedure is repeated several times creating a series in a horizontal row. The different types of punctates are classified on the basis of the shape or by the cross-section of the impression:

- **Punctate (normal)**: circular impression created by a cylindrical tool which is sometimes hollow. The tool may be impressed perpendicular or oblique to the surface of the vessel.

- **Tiny Punctates**: a needle-like tool creates small punctates or "pokemarks," usually in a cluster.

- **Trianguloid Punctates**: an impression which resembles an equilateral triangle with a convex base. The impression is usually shallow and may be referred to as a stamp.

- **Teardrop Punctates**: an impression which resembles an isosceles triangle which is narrow at the top and widens at the (convex) base. The depth of the impression is variable.

- **Oval Punctates**: an elongated circular impression which is usually lightly made and quite shallow.

**Hollow tool gouge**: This is a trough-like impression with a V-shaped notch at the end.

**Fabric-impressed**: The surface is impressed with a woven textile.

**Cord-roughened**: The surface has been impressed with a cord-wrapped paddle.
**Single cord-impressed:** A single strand or twisted strands of cord is impressed into the paste, generally referred to as cord-impressed.

### 3.5.2.1 Orientation and Execution

For all of the references to orientation, the sherd is understood to be oriented as it was in the unbroken vessel and viewed so that the line of vision is perpendicular to the surface of the sherd (see Figure 3.4).

**Right oblique:** The term right oblique describes any decorations appearing to be oriented obliquely from lower left to upper right, when viewing the surface to which the decoration was applied.

**Left oblique:** The term left oblique describes any decoration appearing to be oriented obliquely from lower right to upper left, when viewing the surface to which the decoration was applied.

**Perpendicular:** The term perpendicular describes decorations appearing on the surface of the brim perpendicular to the interior and exterior surfaces at that point. This orientation is parallel to any line representing the radius of the circle created by the vessel orifice.

**Horizontal:** The term horizontal describes any decoration appearing on the exterior or interior walls oriented parallel to the plane in space created by the brim surface.

**Vertical:** The term vertical is used to describe any decoration appearing on the exterior or interior walls
Figure 3.4 Examples of Orientation and Execution of Decoration
oriented perpendicular to the plane in space created by the brim surface.

**Horizontal oblique:** The term refers to an element impressed into the wall of the vessel at an oblique angle. When the impression is made, the tool is held horizontally but the tip is impressed into the paste at an angle. As a result the decoration points to the left or right side. This term is most often used to describe the orientation of punctates.

**Vertical oblique:** The term refers to decoration impressed into the wall of the vessel at an oblique angle. While the impression is made, the tool is held vertically but the tip is impressed into the paste at an angle. As a result the decoration points upwards or downwards on a slant. This term is often used to describe the orientation of punctates.

**Converging/Inverted V:** The terms describe patterns which involve a series of right (or left) oblique impressions which cease and are replaced by left (or right) oblique impressions in the same field of decoration.

**Alternating:** The term is used to describe patterns which alternate right oblique then left oblique then right oblique, etc. The design created by the alternating right and left oblique impressions is a zigzag.

Other types of decoration include:

**Lines:** a decoration which appears as a long (>4 cm) but not necessarily continuous impression or several short impressions which appear as long but not necessarily
continuous impressions. On the brim surface a line is canaliculate; that is, parallel to the inner and outer corners. On the exterior and interior wall surfaces a line is oriented horizontally. The presence or absence of lines is often a function of breakage, not intentional design. Unless otherwise indicated, vessels have a minimum of one horizontal line on the exterior surface.

**Quartering:** Decorations which probably appear equally spaced four times in a field of decoration. As vessels are usually represented by a small fragment, it is not possible to confirm the spacing of most intermittent elements.

**Cluster:** This term refers to a group of elements which occur closely spaced in a limited area. This term most frequently applies to tiny punctates.

**Random:** This term refers to a group of elements which occur on a decorative surface without any indication that the decoration was applied according to a design or pattern.

3.6 Lip Shapes

The various lip shapes which occur in the collection are described in this section (see Figure 3.5).

**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
Figure 3.5 Lip Shapes
interior and exterior

**Interior-bevelled:** The brim surface (or a portion of it) is oblique to the horizontal; the surface slopes towards the interior of the vessel.

**Exterior-bevelled:** The brim surface (or a 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.

Unfortunately, the lip shapes of many vessels do not easily fall into any of the above categories. These lips are often hybrids or combinations of two (or more) lip forms. Combinations which appear include (1) Expanding/Bevel, both interior and exterior, (2) Expanding/Flange, both interior and exterior, (3) Bevel/Flange, both interior and exterior and (4) Expanding/Round. If large sections of the rim are present, sometimes the lip form varies at different parts of the rim. These lip forms are classified
as Variable.

3.7 Exterior Surface Finish

This is the general finish applied to the exterior surface of the vessel. Vessels with unsmoothed exterior surface finishes are not considered separately from those with limited smoothing.

**Fabric-impressed:** A woven textile was impressed on the exterior surface of the vessel.

**Vertical fabric:** A vertical orientation to the fabric impressions is apparent.

**Cord-roughened:** The exterior surface is roughened by a cord-wrapped paddle such that vertical or nearly vertical impressions occur.

**Horizontal cord:** The orientation of the cord impressions is horizontal.

**Plain:** The surface has no visible pattern, includes finishes that have been completely obliterated by smoothing.

**Check-stamped:** Square or rectangular impressions occur on the surface; a series of perpendicular incisions were made on the paddle (Neuman 1963).

**Diamond check-stamped:** Impressions are diamond-shaped instead of square; a series of incised lines crossed at oblique angles were made on the paddle.

**Simple-stamped:** Impressions appear as shallow grooves and low ridges, only parallel incisions were made on the paddle.
**Rolled CWT:** Impressions appear as parallel vertical columns of twined cord, likely produced by rolling a cord-wrapped tool (CWT) over the exterior surface. It can be distinguished from cord-roughened exteriors if the surface was not smoothed after application of the finish.

**Brushed:** Pronounced striations appear on the exterior surface.

**Net:** The surface of the vessel was impressed with inter-knotted strands (Syms 1986:8).

**Burnished:** The exterior surface of the vessel was highly polished before it dried, giving it a smooth, glossy appearance.

**Undetermined:** An exterior surface finish occurs on the vessel but it can not be identified.

**Exfoliated:** The exterior surface of the vessel is not present, due to lamination or breakage.

### 3.8 Interior Surface

Descriptions of the interior surface of the vessel include the following:

**Plain:** The surface is without intentional decoration or carbon residue.

**Boss:** This is a knob which is produced by the displacement of clay associated with an exterior punctate.

**Tiny Punctates:** Small circular punctates are produced by a needle-like tool, sometimes called pokemarks.
Residue: Carbon residue appears on the interior surface; accumulations are either light or heavy.

Exfoliated: The interior surface of the vessel is not present due to spalling or splitting of the paste.

Brushed: Pronounced striations appear on the interior surface.

Undetermined: The information was not recorded.

3.9 Summary

The attributes present in Late/Terminal Prehistoric pottery assemblages on the Saskatchewan plains are highly varied. A number of distinctive vessel profiles are found in the study area, such as Straight Rim, Angled Rim, S-Profile, Wedge, Square Wedge and Short Rim. Each profile has its own fields of decoration. Decoration is applied using a variety of techniques, including CWT, SET, BET, dentates, incisions, notches, punctates and pinches, executed in a number of different ways. Variety in lip shape and in the vessel exterior and interior surface treatment also exists. Therefore, the overall composition of several different collections must be compared before meaningful conclusions can be made.

In the course of this research, pottery from numerous sites in central and southern Saskatchewan has been examined. The attributes of over 1000 individual vessels have been recorded. Descriptions of the various assemblages
and collections are presented in Chapters 4, 5 and 6.
4 POTTERY NORTH OF THE QU’APPELLE VALLEY

4.1 Introduction

The area referred to as central Saskatchewan extends north of the Qu’Appelle Valley and into the parkland about midway between Saskatoon and Prince Albert. Only pottery from sites within the area east of the Missouri Coteau and west of the Touchwood Hills is described (Figure 2.1).

While the pottery assemblage from Lake Midden contains many large sections of vessels, the pots from other sites are highly fragmented. For example, the collections from the Lozinsky, Williams, Farago and Schraeder sites are composed of sherds recovered from cultivated fields, and agricultural processes have contributed greatly to the breakage. Most vessels are represented by single rim sherds, often broken above the neck (Figure 4.1). Profile classification Straight Rim/Angled Rim is made when it is not possible to distinguish these two profiles.

The benefits of observing more complete vessels are numerous. In particular, it provides the opportunity to study decorations applied to the rim, neck and neck/shoulder areas of the same vessel. Apparently, the neck and neck/shoulder area is frequently the location of complex patterns on Straight Rim and, occasionally, S-Profile vessels. The area between the outer corner and the rim angle of Angled Rim and S-Profile vessels is also commonly
Figure 4.1 Relative Vessel Integrity
the site of more elaborate decorations. Recognizing fields of decoration and the presence of sophisticated designs is generally not possible when dealing with highly fragmented vessels.

Sherds which can not be associated with a particular vessel are limited in their utility. They provide some information about the range of decoration found in a particular assemblage; however, in some cases it is not possible to determine which portion of a vessel the sherd represents. In particular, it is difficult (perhaps impossible) to distinguish fragments of rim angle from shoulder sherds. Even portions of wedge lips may be incorrectly identified as rim angle or shoulder sherds. Consequently, particular attention must be paid to collections having higher levels of vessel integrity.

4.2 Lake Midden

The Lake Midden site (EfNg-1) has also been called "Swanston" and "Bulyea" (Watrall 1979:24). Charles Watrall (1979:24) reports that material from this site has been collected by several different avocational archaeologists and pothunters since the 1930s. More systematic investigations of the site occurred in the 1950s and 1960s. The University of Regina Anthropology Department, under the direction of Watrall, has conducted both surface collections and excavations at the site (Watrall 1979).
The site is located in a small coulee on the east side of Last Mountain Lake, about 14 km from the town of Bulyea (Figure 2.1). As no site map is provided, Watrall’s (1979:26-27) information regarding the location of his and earlier excavations is difficult to interpret. However, he reports that artifact concentrations are higher along the coulee bottom than on its sloping sides.

Pottery, lithic material and bone tools are found at the site. Watrall (1979:29) reports that "side notched projectile points of the late prehistoric period [are] dominant." He (1979:31) suggests that the site dates between A.D. 1000 and A.D. 1500. A radiocarbon date of 380 +/- 100 B.P. (S-2246) was reported by Dyck (1983:111). However, some historic goods may have been recovered by avocational archaeologists which may indicate a later occupation (Dale Walde, pers. com. 1990).

A total of 270 vessels from the Lake Midden site have been examined. These include 196 vessels curated by the University of Regina, 72 from the collection held by the National Museum of Civilization and two others from the SMNH collection. Vessels with at least the lip, rim and neck present make up more than 34% (n=119) of the collection. As a result, this site has the highest level of vessel integrity in central Saskatchewan (Figure 4.1).

4.2.1 Profiles

Straight Rim (n=64 or 23.7%), Angled Rim (n=33 or
12.2%) and S-Profile (n=35 or 13.0%) are the most abundant identifiable profiles (Figure 4.2). When vessels in the category of Straight Rim/Angled Rim (n=84 or 31.1%) are included in the total, fully 80% of the collection falls under these categories. Some of the most complete examples of Angled Rim and S-Profiles were observed in this collection. In particular, vessels from the National Museum of Civilization holdings demonstrate a high level of integrity.

Other profile types in the collection include Wedges (n=14), Short Rims (n=9), Square Wedges (n=2) and Miscellaneous (n=3). Selected profiles from this collection are presented in Figure 4.3.

4.2.2 Decoration

Decoration appears on many of the vessels from Lake Midden. In some cases it is quite elaborate involving two different design elements in complex patterns. Cord-wrapped tools were most frequently used by Lake Midden potters in applying decoration, to the lip, rim, neck or neck/shoulder. Most vessels in the collection have a form of CWT decoration on one or more parts of the lip.

4.2.2.1 Lip Decoration

Most vessels in this collection have some form of lip decoration. The most common location for lip decoration is on the brim surface only (n=163 or 60.3%). Brim decoration was the only detectable decoration on 101 vessels. Another
Figure 4.2  Lake Midden Profile Frequency
Figure 4.3 Selected Lake Midden Profiles (90%)  
Angled Rim: A, H, K  
Wedge: B  
Straight Rim: C-E, I, J  
S-Profile: F, G, L, M
Figure 4.3 cont'd Selected Lake Midden Profiles (90%)
Angled Rim: N Wedge: V, W, X, Y Straight Rim: Q-U S-Profile: O
Short Rim: P
46 vessels have brim decoration and some form of rim decoration, usually horizontal cord-wrapped tool lines, CWT patterns or a single row of punctates. The remaining 16 vessels have decorations on the brim surface along with decoration on the rim, rim angle, neck, neck/shoulder or some combination of these.

Examples of the different types of brim decoration are provided in Figure 4.4. Right oblique CWT lines appear on 92 vessels, over one-third of all the pots in the collection. Other forms of CWT impressions on the brim are left oblique, perpendicular, converging right and left oblique impressions, and one, two or three lines. Similar forms of impression appear in SET and occasionally, dentate. Right oblique impressions are the most common. Other brim decorations include perpendicular broad edged tool, single cord and fabric impressions. Two vessels carry single or double punctate lines on the brim surface. Another two vessels exhibit what appears to be brim quartering.

Decoration applied to the outer corner and inner corner of the lip was also quite common in this collection; in total, 42 (15.6%) vessels display this decoration. Twenty-six of these vessels had only outer and inner corner lip decoration. The others were also decorated on the rim, rim angle, neck, neck/shoulder or some other combination. The variety of outer and inner corner decorations in the Lake Midden collection is shown in Figure 4.4.
Figure 4.4 Lake Midden Lip Decoration
### Outer and inner corner decoration

<table>
<thead>
<tr>
<th>Right Oblique</th>
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<tbody>
<tr>
<td>CWT n=15</td>
<td>NOTCH n=4</td>
</tr>
<tr>
<td>SET n=6</td>
<td>CORNER SET n=7</td>
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<tr>
<td>DENTATE n=1</td>
<td>PUNCTATE n=1</td>
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</tbody>
</table>

### Right Oblique / Vertical

<table>
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</thead>
<tbody>
<tr>
<td>SET / FINGERNAIL n=1</td>
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<tr>
<td>SET / SET n=1</td>
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<tr>
<td>SET / PINCHES n=1</td>
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### Vertical / Quartering

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<tbody>
<tr>
<td>SET / SET n=1</td>
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### Outer corner decoration

<table>
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<th>Vertical</th>
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</thead>
<tbody>
<tr>
<td>NOTCH n=9</td>
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### Brim, outer corner and inner corner

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### Line / Right Oblique / Right Oblique (Square Wedge)

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<table>
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<tbody>
<tr>
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Figure 4.4 cont'd Lake Midden Lip Decoration
### BRIM AND OUTER CORNER

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<th>Lines (2)/Punctates</th>
<th>Right Oblique/Punctates</th>
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### BRIM AND INNER CORNER

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<tr>
<th>Right Oblique/Right Oblique (Pointed Lip)</th>
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* Undecorated Lips n=23

Figure 4.4 cont’d Lake Midden Lip Decoration
Most often, both corners were given identical decorative treatments. In this collection, right oblique CWT (n=14), vertical SET (n=7) and oblique SET (n=6) decorations are most common. Other symmetrical decorations include notches (n=4) and right oblique dentate (n=1). The remaining vessels have different treatments on the outer and inner corners of the lip such as oblique SET and vertical SET; SET and pinch; SET and CWT; SET and fingernail.

Vessels with decorations applied to only the outer corner of the lip accounted for another 6% (n=16) of the collection. Outer corner decoration was the only decoration on 13 vessels; one was also decorated on the rim and rim angle; one was decorated on the rim angle and one displayed shoulder decoration. The different types of outer corner decoration found in the Lake Midden collection appear in Figure 4.4. The most common outer corner decorations are vertical notches (n=9) and right oblique treatments of CWT (n=3), SET (n=2) and dentate (n=2).

The same number of vessels (n=16) display decoration on all three lip surfaces: the brim, outer corner and inner corner. The tripartite treatment was the only detectable decoration on 9 pots. The others carried decoration on the rim, rim angle and/or neck. The complete range of decorations to all three lip surfaces found at Lake Midden is presented in Figure 4.4.

Vessels with one CWT line along the brim surface and
right oblique CWT impressions on the inner and outer corners are most abundant (n=7). One of these vessels is of special interest because it has a Square Wedge profile. A similar decoration with two CWT lines on the brim is found on four vessels. Another variation is one incised line along the brim with either right oblique or left oblique CWT impressions on the corners (n=3). One vessel has a series of CWT jabs on the brim surface and vertical CWT impressions on the corners. The final vessel is unusual in that it has a wedge lip with the brim and outer corner surfaces cord-roughened.

Decoration was applied to the brim and outer corner of seven vessels. One vessel has fabric impressions on the brim and punctates on the outer corner; another has two CWT lines on the brim surface and vertical CWT impressions on the outer corner. The other five were decorated rather unusually. Three vessels with wedge-shaped lips had decoration on the outer corner, which is rarely seen. The decorations include two incised lines on the brim with a series of horizontal incisions on the outer corner; pairs of horizontal incisions on the brim/outer corner, and thirdly, two CWT lines on the brim and a single row of punctates on the outer corner. The other two vessels were decorated in a manner most often associated with wedge lips, with the outer corner decoration placed below the brim, rather than across the lip corner. These include fabric impressions on the
brim with outer corner/below-brim oval punctates and right oblique dentate impressions on the brim with outer corner/below-brim notches or shallow punctates. The lip decorations on these vessels will be discussed more fully later.

Three vessels were decorated on the inner corner and brim. However, the inner corner decoration on one vessel with a rounded castellation (undulating) brim was not continuous; rather it appear to represent quartering. The remaining two vessels have pointed lips so the treatment of the inner corner (interior bevel) and brim (exterior bevel) surfaces is not unlike that of a wedge lip. The decoration includes perpendicular CWT impressions on the brim with right oblique CWT impressions on the inner corner and right oblique impressions on both the brim and inner corner.

The remaining vessels (n=23) have undecorated lip surfaces. However, a few of these (n=3) have rim decoration consisting of narrow trailing or incised lines. Another has horizontal CWT lines on the area interpreted to be the rim surface. None of the vessels examined from this site carried only inner corner decoration.

4.2.2.2 Rim, Below-Brim and Rim Angle Decoration

The pottery from Central Saskatchewan is characterized by a wide variety of complex rim decorations. A number of different rim, rim angle and below-brim decorations are displayed in the Lake Midden collection; almost the complete
range of patterns is represented at this site. The pattern numbers assigned to the Lake Midden materials are used to describe identical patterns appearing in other sites.

Three distinct zones on the rim were described in section 3.4.2: the rim, below-brim and rim angle. The decorations appearing in each area will be discussed separately.

Rim decoration on Angled Rim and S-Profile vessels is usually restricted to the area between the outer corner and the rim angle (point of vertical tangency). The actual rim angle represents a unique zone of decoration and is discussed separately. As the surface below the rim angle is not decorated, the term "rim decoration" refers only to decoration appearing on that part of the rim above the rim angle.

RIM DECORATION

Rim decoration was detected on 23.6% (64/270) of the vessels from Lake Midden. Almost three-quarters of the collection appears to have undecorated rims; the rim area was missing on four other vessels. Over one-half (34/64) of the vessels which carry rim decoration have patterns made exclusively with a cord-wrapped tool. Single rows of punctates (all varieties) appear on 10 vessels. This is the second most common rim decoration. One vessel carries two rows of punctates on the rim. Incised decorations appear on the rims of four vessels, dentate on three vessels, and tiny
punctates appear on four vessels. One rim was decorated with pinching and another had a drilled hole. Decorations on seven vessels exhibited a combination of different techniques. Two vessels have horizontal and/or oblique CWT lines and punctates. Each of the following decorations appear on one vessel: horizontal incised lines and punctates; horizontal CWT lines and hole; punctates and fingernail impressions; horizontal CWT lines and tiny punctates and another had tiny punctates and jabs. These patterns are illustrated in Figure 4.5.

Pattern 1: Horizontal Lines

By far, the most common rim decoration is multiple rows of horizontal lines, Variation A. A total of 26 separate vessels have this pattern. In all but two cases the pattern was applied with a CWT. The pattern on the other vessels was executed in dentate. One of these 26 vessels has CWT lines as rim decoration and a series of horizontal incised lines on the rim angle. One Straight Rim vessel has CWT lines on the rim, neck and neck/shoulder. The number of horizontal lines appearing on the rim fragments of different vessels varies from 1 to 12 or more; however, this tends to be more a function of breakage than decoration. In cases where the rim is complete, several lines usually appear.

Variation B of this pattern is "almost" horizontal lines. One vessel from Lake Midden was decorated in this fashion. It is possible that the gentle slope of the lines
<table>
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<th>TECHNIQUE</th>
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<td>HORIZONTAL LINES</td>
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<td>CWT (24) DENTATE (2)</td>
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<tr>
<td>PATTERN 1 VAR. B</td>
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<td>WIDE INCISED (1)</td>
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<td>PATTERN 1 VAR. C</td>
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<td>CWT AND TINY PUNCTATES (1)</td>
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<tr>
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<td>PATTERN 2 VAR. A</td>
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<td>CWT (2) DENTATE (1)</td>
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<tr>
<td>PATTERN 2 VAR. B</td>
<td>HORIZONTAL (1) OVER RIGHT OBLIQUE (SINGLE OR 1/4)</td>
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<tr>
<td>PATTERN 2 VAR. C</td>
<td>HORIZONTAL (2) OVER RIGHT OBLIQUE (MULTIPLE)</td>
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<td>CWT (1)</td>
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Figure 4.5 Lake Midden Rim Decoration
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<td>CWT AND PUNCTATES (1)</td>
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<td>PATTERN 3 VAR. B</td>
<td>HORIZONTAL (1) OVER OBLIQUE &quot;INVERTED V&quot;: - PUNCTATES</td>
<td>INCISED AND PUNCTATES (1)</td>
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<td>CWT (1)</td>
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<td>HORIZONTAL AND VERTICAL (MULTI): FRAMES (6)</td>
<td>CWT (1)</td>
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<td>PATTERN 5 VAR. A</td>
<td>HORIZONTAL AND VERTICAL ADJACENT</td>
<td>WIDE INCISED (2)</td>
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<tr>
<td>PATTERN 6 VAR. A</td>
<td>HORIZONTAL AND OBLIQUE</td>
<td>CWT (1)</td>
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Figure 4.5 cont'd  Lake Midden Rim Decoration
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<td>HORIZONTAL, OBLIQUE AND VERTICAL: DIAMONDS</td>
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<td>PATTERN 8 VAR. A</td>
<td><img src="image" alt="Pattern Image" /></td>
<td>CWT (1) (SHORT RIM)</td>
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<td>PATTERN 9 VAR. A</td>
<td><img src="image" alt="Pattern Image" /></td>
<td>DRILLED HOLE AND CWT (1)</td>
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</tr>
<tr>
<td>PATTERN 9 VAR. B</td>
<td><img src="image" alt="Pattern Image" /></td>
<td>DRILLED HOLE (1)</td>
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<tr>
<td>DRILLED HOLE</td>
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<td>PUNCTATE LINE (1): VERTICAL OBLIQUE</td>
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<td>PATTERN 10 VAR. C</td>
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<td>PUNCTATE LINE (1): OVAL</td>
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Figure 4.5 cont'd Lake Midden Rim Decoration
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<td>PATTERN 12 VAR. A</td>
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<td>HORIZONTAL AND VERTICAL ELEMENT LINES</td>
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<td>PATTERN 13 VAR.</td>
<td><img src="image" alt="Pattern 13" /></td>
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<td>PATTERN 14 VAR. A</td>
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<td>TINY PUNCTATES: CLUSTER</td>
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<tr>
<td>PATTERN 15 VAR.</td>
<td><img src="image" alt="Pattern 15" /></td>
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<tr>
<td>PINCHES</td>
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</table>

Figure 4.5 cont'd Lake Midden Rim Decoration
is related to a spiral pattern on the vessel. However, the vessel fragment is too small to verify this. These lines consist of wide, shallow incisions, but they are too narrow to be classified as trailing.

The addition of tiny punctates to the basic pattern characterizes variations C and D. In the first case, a vertical row of tiny punctates, perhaps representing the extreme right edge of a cluster, is located just below the rim surface. The placement of tiny punctates in variation D seems to be random. They do not appear to be concentrated on the rim surface. Variations C and D each appear on one vessel.

Pattern 2: Horizontal Lines over Oblique Lines

Four variations of this basic pattern are found at Lake Midden. The number of horizontal lines above the oblique and the number of oblique lines below the horizontal line(s) vary. In every case, the oblique lines were applied from bottom left to upper right, that is, right oblique.

The first and most common variation is a single horizontal line over several right oblique impressions. Variation A appears on three vessels. In two instances, the design was executed in CWT, once in dentate. Variation B is similar except that the horizontal line appears over only one right oblique impression. Although there is probably more than one right oblique impression, it is not possible to determine the spacing from the fragment examined. This
variation appears on one vessel, executed in CWT.

Variations C and D each appear on one vessel, executed in CWT. The third variation of Pattern 2 involves two horizontal lines over several right oblique impressions. The fourth consists of three horizontal lines over several right oblique impressions.

Pattern 3: Horizontal and Oblique Impressions: Inverted V

This basic pattern consists of horizontal line(s) above and/or adjacent to converging right and left oblique impressions which form an inverted V or tipi-like design. In both variations of the pattern, A and B, the inverted V is filled with shallow punctates. Variation A consists of two converging sets of four parallel oblique CWT impressions adjacent to several horizontal CWT lines. Variation B involves two converging sets of at least four parallel incised impressions below one continuous incised line. Each of these variations appears on one vessel from the site.

Pattern 4: Horizontal and Vertical Impressions: Frames

This basic pattern consists of horizontal and vertical impressions resembling the upper half of 2-6 concentric rectangles adjacent to several horizontal impressions. Two variations of Pattern 4 are found at Lake Midden. Due to the placement of the line of breakage, the presence of actual frames can not be verified in variation A. The left side of the design is absent so it is possible that the design actually consists of right angles only. However, as
this pattern appears as frames on a different vessel from Lake Midden as well as a vessel from Stoney Beach, this interpretation is supported.

Variation A of Pattern 4 appears as four concentric frames (or right angles) adjacent to several horizontal impressions. Variation B involves six frames adjacent to several (9 or 10) horizontal lines. In both instances the design is executed in CWT.

Pattern 5: Horizontal and Vertical Impressions

The variation of Pattern 5 recognized in the pottery assemblage from Lake Midden consists of two parallel horizontal impressions adjacent to at least three parallel vertical impressions. This motif appears on two vessels in the collection. In both instances the pattern was made with a blunt stylus tool, creating wide incisions.

Pattern 6: Horizontal and Oblique Impressions

One vessel in the collection has horizontal and oblique CWT impressions on the rim surface. No obvious shape is formed by the oblique lines, which are not parallel to one another. At least three left oblique impressions occur under a single horizontal impression. Adjacent to this are three parallel horizontal impressions.

Pattern 7: Horizontal, Vertical and Oblique: Diamonds

One vessel has an elaborate, finely executed pattern consisting of parallel right and left oblique incised lines superimposed to create a diamond pattern. Adjacent to the
diamonds are at least three vertical incised lines. A single horizontal incised lines appears over both the oblique and vertical lines.

Pattern 8: Oblique Lines

One vessel, with a short rim profile, has the rim surface decorated with several parallel right oblique CWT impressions.

Pattern 9: Drilled Hole(s)

The presence of drilled holes in the rim area is more likely to be utilitarian than decorative. Drilled holes were found on two vessels from Lake Midden. The rim surface of one vessel was also decorated with at least three parallel horizontal CWT lines (Pattern 1 Variation A). The drilled hole was the only feature on the rim of the other vessel.

Pattern 10: Single Row of Punctates

Ten vessels carry a single row of some type of punctate on the rim surface. Three varieties of punctates are noted in the collection. The first variation is a single row of round punctates created by a rod-like cylindrical tool pushed into the wall perpendicular to the exterior surface. Variation A is the most common, appearing on seven vessels. On two vessels the placement of the single row is relatively high up on the rim, appearing within 1 cm of the brim surface.

The other variations of the single punctate row pattern
each occur on one vessel from Lake Midden. Variation B consists of elongated punctates created by pushing a rod-like tool upwards into the paste at an oblique angle. Variation C is characterized by a single row of shallow oval punctates appearing just below the brim surface.

Pattern 11: Two Parallel Rows of Punctates

One vessel from Lake Midden has two parallel rows of punctates on the rim surface. The punctates are quite small and are closely spaced in each row. The first row appears just below the brim surface; the second row is about 1 cm below the first. The profile of this vessel can be described as wedge-like.

Pattern 12: Punctate Lines and Fingernail Impressions

One vessel from Lake Midden was decorated in quite an unusual fashion. From the fragment examined, the decoration appears as two horizontal rows of punctates adjacent to a two vertical rows, one of fingernail impressions and another of punctates. The upper punctate line continues over the two vertical rows.

Pattern 13: Tiny Punctates and Jabs

The rim section of one vessel had three oval jabs, quite close together over a group of tiny punctates. These tiny punctates appeared as two converging lines forming a V but laid on its side pointing upwards. No other decoration appears on the rim surface.
Pattern 14: Tiny Punctates

Tiny punctate clusters appear just below the brim surface on three vessels. No other rim decoration appears; however, neck decoration is present on one of these vessels.

Pattern 15: Pinching

One vessel is decorated with at least one pinch mark on the upper part of the rim. Four lines of dentate appear on the brim surface and this vessel has either a straight rim or rim angle profile.

Below-brim Decoration

Only one of the 14 vessels with a Wedge profile carried below-brim decoration. Below-brim Pattern 1 consists of a single row of trianguloid punctates (Figure 4.6). These punctates are shallow and appear just below the brim surface. On vessels with Wedge profiles, the below-brim area is often decorated.

Rim Angle Decoration

The Angled Rim is the point of vertical tangency approximately in the middle of the rim on S-Profile and Angled Rim vessels. It appears to be recognized as a separate field of decoration, complete with a different set of decorative motifs. Rim angle decoration is noted on 19 vessels from the Lake Midden site (Figure 4.7). Most vessels with decorations on the rim angle lack any other rim decoration. However, three vessels carry a different type of rim decoration as well. One vessel has the decoration
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<td>TRIANGULOID PUNCTATES</td>
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**Figure 4.6 Lake Midden Below Brim Decoration**

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<td>HORIZONTAL SERIES - DISCONTINUOUS IMPRESSIONS</td>
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<td></td>
<td>TRIANGULOID PUNCTATES</td>
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<td>(1)</td>
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<tr>
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<td>PINCHING: VERTICAL</td>
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**Figure 4.7 Lake Midden Rim Angle Decoration**
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<td>( ) ( ) ( ) ( ) ( ) ( ( (</td>
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<tr>
<td>FINGERNAIL IMPRESSIONS:</td>
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<td>VERTICAL AND SYMMETRICAL</td>
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<td>) ) ) ) ) ) ) ) ) )</td>
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<tr>
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<td>CWT (1)</td>
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<td>HORIZONTAL LINE: CONT'D FROM RIM</td>
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<td>CWT (1)</td>
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</table>

Figure 4.7 cont'd Lake Midden Rim Angle Decoration
from the portion of the rim above the angle continued on to the angle.

Mode 1: Horizontal Series of Discontinuous Impressions

The most common rim angle decoration at Lake Midden is a horizontal series of discontinuous impressions. This pattern appears as horizontal incisions (Variation A) on 10 vessels and horizontal CWT impressions (Variation B) on two other pots. One vessel with incisions on the rim angle has horizontal CWT lines (Pattern 1 Variation A) on the portion of the rim above the angle. Another vessel with this rim angle decoration has three horizontal lines over oblique impressions (Pattern 2 Variation D) on the rim.

Mode 2: Vertical Notches

A series of vertical notches, oval and quite narrow, appears on the rim angle of one vessel. A single row of small punctates appears on the rim of this vessel, about 1 cm below the brim surface.

Mode 3: Trianguloid Punctates

Trianguloid punctates, similar to those discussed as below-brim decoration (Pattern 1), are found on one vessel. The lip of this Angled Rim vessel is special in that it is pointed. Consequently, it is somewhat wedge-like in appearance and treatment. The exterior- and interior-bevelled surfaces (called inner corner and brim) are both decorated with oblique dentate impressions.
Mode 4: Vertical Pinching

There are two vessels from Lake Midden which have vertical pinches on the rim angle. In both cases, this is the only decoration detected on the vessel. Vertical pinches appear as rim decoration (Pattern 15) on one other vessel from this site.

Mode 5: Fingernail Impressions

There are two varieties of fingernail impressions noted on two different vessels in this collection. The potter repeated single vertical nail impressions, convex left, concave right along the rim angle in Variation A. Variation B involves pairs of vertical nail impressions resembling an open oval. The left impression is the same as variation A, the right impression is its mirror image.

Mode 6: Fingernail Gouges

This pattern differs from Pattern 5 in that the potter dragged the nail a short distance through the paste instead of simply using it to make an impression. A series of thicker crescent-shaped gouges is the result. This decoration is noted on one vessel, with the convex surface of the gouge on the right.

Mode 7: Horizontal CWT Line

One vessel has a continuous horizontal CWT line on its rim angle. However, the decoration represents a continuation of the decoration (Pattern 1 Variation A) from the rim surface.
4.2.2.3 Neck and Neck/Shoulder Decoration

Neck decoration can be studied with some success at this site as over 90 vessels have this area represented. The majority of vessels (72/92) do not have detectable decoration on the neck surfaces. Of the 22% which are decorated, 12 have some form of CWT decoration, 3 have incised decorations, 2 have punctates, and 1 has been decorated with dentate impressions. The necks of two other vessels carry decoration continued from the rim surface. The first has horizontal CWT lines (Pattern 1 Variation A) on the neck and neck/shoulder continued from the rim. Also, tiny punctates on the neck continue from the rim of the vessel with tiny punctates and jabs (Pattern 13). The neck and neck/shoulder decorations are illustrated in Figure 4.8.

By comparison, only 34 vessels also have portions of the surface below the neck, the neck/shoulder, represented. This surface is undecorated on 26 vessels while some of the others carry quite elaborate designs.

The neck angle is a common area of breakage, so it is not always possible to determine if the decoration actually continues on to the neck/shoulder surface. However, on most vessels with both areas represented, if decoration appears on the neck, it is found on the neck/shoulder area as well. The decoration of these two surfaces then represents an integrated design. A few vessels have decoration, usually punctates or vertical impressions, restricted to the neck.
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<thead>
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<td>INCISED (1)</td>
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<td>PATTERN 2 VAR. A</td>
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<td>DENTATE (1)</td>
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<td>PATTERN 3 VAR.</td>
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<td>CWT AND PUNCTATES (1)</td>
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<td>HORIZONTAL (3) OVER / ADJACENT TO OBLIQUE: &quot;V&quot; - PUNCTATES</td>
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<td>PASTE MANIPULATION AND CWT (1)</td>
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<tr>
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<tr>
<td>PUNCTATE LINE: VERTICAL OBLIQUE - NECK ONLY</td>
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Figure 4.8 Lake Midden Neck and Neck/Shoulder Decoration
### Table

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<td>- NECK ONLY</td>
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**Figure 4.8 cont'd** Lake Midden Neck and Neck/Shoulder Decoration
area. Only one vessel with neck/shoulder decoration did not also carry neck decoration (Pattern 6, Figure 4.8).

Pattern 1: Horizontal Lines

Parallel horizontal lines are the most common neck and neck/shoulder decoration. A total of 8 vessels carry this decoration; 7 have CWT lines and one is incised. Due to breakage, it is necessary to say that at least one line is present on four of these vessels. The others have multiple horizontal lines. The rim, neck and neck/shoulder of one vessel is decorated with this pattern.

Pattern 2: Horizontal Lines over Oblique Impressions

Pattern 2 consists of a single horizontal line at the neck over several left oblique impressions on the neck/shoulder area. This motif is executed in dentate on one vessel. Similar rim patterns have been noted in this collection.

Pattern 3: Horizontal and Oblique Impressions: V

This pattern, which appears on one vessel, is very similar to the rim decoration Pattern 3 Variation A, except the oblique lines are in sets of three and the V shape is upright. The design is executed in CWT and shallow punctates. Three horizontal lines appear on the neck above the pattern.

Pattern 4: Horizontal Lines over Curvilinear Impression

This pattern involves two horizontal lines in the neck area over at least 3 curvilinear impressions on the
neck/shoulder area. The curvilinear impressions resemble large fingernail impressions; two have the convex surface to the right, another has the convex surface to the left. The lines can be described as wide, shallow incisions.

Pattern 5: Horizontal, Vertical and Oblique with Punctates

One vessel has a complicated CWT and punctate design below one horizontal line at the neck. From left to right, this pattern consists of several parallel right oblique impressions, three parallel vertical impressions and two parallel horizontal impressions which are over a row of at least four shallow punctates.

Pattern 6: Horizontal, Vertical and Oblique with Relief

One vessel from Lake Midden has a design consisting of CWT impressions and surface modification. Segmented inverted Vs are adjacent to a finger-pinched ridge. A single vertical line runs along the top of this ridge. This pattern is restricted to the neck/shoulder area.

Pattern 7: Punctate Line

The variation of this pattern which occurs at Lake Midden consists of at least one row of vertical oblique punctates along the neck. One vessel, lacking the neck/shoulder area, carries this decoration. This design also appears as rim decoration (Pattern 10 Variation D).

Pattern 8: Vertical Impressions

One vessel with a Short Rim profile has a series of vertical CWT impressions on the neck. Due to breakage, it
is not possible to determine the length of these impressions or if they extend over the neck/shoulder area.

4.2.2.4 Shoulder Decoration

Three vessels from Lake Midden have portions of the shoulder present. Only one vessel carries decoration on the shoulder. Mode 1 consists of a series of vertical notches across the angular shoulder (Figure 4.9). No decoration was found below the shoulder.

4.2.3 Lip Forms and Surface Finishes

4.2.3.1 Lip Forms

The frequencies of the lip forms found in the pottery collection from Lake Midden are shown in Figure 4.10. While almost every type appears at least once, expanding lips are by far the most common. Expanding lips (n=72), expanding lips with a bevel (n=41) or expanding lips with a flange (n=24) are found on over 50% on all vessels. Almost one-third of the collection consists of vessels with an interior flange (n=20), square lip (n=20), exterior flange (n=16), interior-bevelled lip (n=16) or wedge lip (n=14).

4.2.3.2 Exterior Surface Finish

As with lip forms, almost the full range of surface finishes can be found among the vessels from Lake Midden (Figure 4.11). However, three particular surface finishes appear more frequently than the others. Vessels with fabric-impressed (n=98), cord-roughened (n=75) and plain (n=54) surface finishes account for 84% of the collection.
<table>
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<td>MODE 1 VAR.</td>
<td>![Pattern Diagram]</td>
<td>CWT (1)</td>
</tr>
<tr>
<td>NOTCHES:</td>
<td>![Pattern Diagram]</td>
<td></td>
</tr>
<tr>
<td>VERTICAL</td>
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</tbody>
</table>

Figure 4.9 Lake Midden Shoulder Decoration
Figure 4.10  Lake Midden Lip Form Frequency

Figure 4.11  Lake Midden Exterior Surface Finish
Twenty-five vessels, representing just over 9% of the collection, have square or diamond check stamps on the exterior surface.

4.2.3.3 Interior Surfaces

No decoration or carbon residue is present on the interior surfaces of 64% (n=174) of the defined vessels. Some residue is present on almost 30% (n=80). Interior decoration is usually limited to bosses, associated with punctates on the rim exterior. Tiny punctates are found on the interior surface of one pot. Tiny punctates also appear on the exterior rim surface and brim of this vessel.

Five vessels in the collection carry decoration in the form of bosses or burnishing and have traces of residue. A fingerprint occurs on the boss on one vessel and two other vessels have drilled holes.

4.2.4 Summary

The vessels from the Lake Midden site tend to have Straight Rim, S-Profile or Angled Rim profiles with expanding lips. All fields of decoration discussed in section 3.4 are utilized. Lip and rim areas are the most common fields of decoration. A wide variety of decorations occur but the most common are right oblique impressions on the brim surfaces of vessels and horizontal lines on the rims. Decoration does not occur below the shoulder area of Lake Midden vessels. Fabric-impressed, cord-roughened or plain exterior surfaces are most common.
4.3 Williams

Pottery from the Williams site (EjNg-3) is examined in this section. The site is located just north of the town of Nokomis, north-east of Last Mountain Lake (Figure 2.1). The collection represents material collected by the landowner, Douglas Williams, from the surface of a wind-eroded field. The terrain is undulating and the soil is very sandy.

Artifacts are concentrated around the west and east edges of a poplar bluff where intact deposits are likely present (David Meyer, pers. com. 1991). A seasonal pond is found 300 m to the east of the site. Bone, lithics and fire-cracked rock also occur. The collection consists of fragments from a total of 93 vessels. One vessel, identified as Avonlea or Old Women’s phase, is not included in the study.

4.3.1 Profiles

The integrity of vessels in this collection is very low (Figure 4.1). Almost 61% (n=57) of the vessels are classified as having Straight Rim/Angled Rim profiles. The profiles of 18 vessels (19.4%) can not be determined. Only 18 of the 93 vessels (19%) have profiles which can be precisely identified. Of these, 8 vessels have Straight Rims, 6 have S-Profiles, 2 have Short Rims, 1 vessel has a Angled Rim profile, and one other has a wedge profile (Figure 4.12). Selected profiles of vessels from the Williams site are presented in Figure 4.13.
Figure 4.12 Williams Profile Frequency
Figure 4.13 Selected Williams Profiles

S-Profile: A, Q  Straight Rim: B, C, P, U  Short Rim: D, I, V
Wedge: O  Angled Rim: T
4.3.2 Decoration

Of the 93 vessels from this site only six were not decorated.

4.3.2.1 Lip Decoration

Almost all vessels from the Williams site have some form of lip decoration (Figure 4.14). Once again, the most common location for lip decoration is the brim surface (n=52 or 55.9%). Brim decoration is the only detectable decoration on 40 vessels. Another 9 vessels have brim decoration and rim decoration: CWT lines (n=2), punctate lines (n=2), CWT pattern, tiny punctates and incised lines(s). One vessel has a row of oval punctates on the rim with a series of horizontal incisions on the rim angle.

Examples of the different types of brim decoration are provided in Figure 4.14. Right oblique CWT lines appear on 20 vessels or 21.5% of the collection. Other CWT brim decorations include left oblique (n=3), perpendicular (n=3), chevrons and one, two (n=2) or three lines. Sharp-edged tool impressions appear on the brim oriented left oblique (n=2), right oblique (n=6) and, perhaps, perpendicular. Right oblique dentate impressions appear on the brim of six vessels. Two vessels have tiny punctates on the brim surface; in one case they appear to form a pattern. Other brim decorations include perpendicular and right oblique broad edged tool, cord-roughened, fabric-impressed and, perhaps, fingernail impressions.
### BRIM DECORATION

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<th>Left Oblique</th>
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<tbody>
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<tr>
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<td>CWT n=2</td>
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<tr>
<td>Dentate n=6</td>
<td>SET n=2</td>
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<tr>
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<td>BET n=1</td>
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<td>CWT n=2</td>
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<tr>
<td>Set? n=1</td>
<td>SET n=2</td>
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### RIGHT OBLIQUE

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<td>BET n=1</td>
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### LEFT OBLIQUE

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### PERPENDICULAR

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### CHEVRON

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### LINE (1)

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<tr>
<td>Tiny Punctate Pattern</td>
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### RANDOM TINY PUNCTATES

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### FABRIC-IMPRESSED

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<td>Notch n=5</td>
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<tr>
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<tr>
<td>CWT n=1</td>
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**Figure 4.14 Williams Lip Decoration**
OUTER CORNER DECORATION cont'd

FINGERNAIL Gouge

BRIM AND INNER CORNER DECORATION

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<th>FABRIC/ CWT n=1</th>
<th>CWT/ NOTCH n=1</th>
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<td>FABRIC-IMPRESSED/ HORIZONTAL</td>
<td>RIGHT OBLIQUE/ QUARTERING</td>
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<tr>
<td>CWT n=1, SET n=1</td>
<td>CWT n=1</td>
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PARTIAL PERPENDICULAR | RIGHT OBLIQUE/ LEFT OBLIQUE

OUTER CORNER AND INNER CORNER

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<th>NOTCH n=1</th>
<th>PUNCTATE n=1, CWT n=1</th>
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</thead>
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<td>RIGHT OBLIQUE</td>
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<tr>
<td>SET n=1</td>
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RIGHT OBLIQUE/ VERTICAL

BRIM AND OUTER CORNER

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</thead>
<tbody>
<tr>
<td>LINE/ LEFT OBLIQUE</td>
<td>TINY PUNCTATES/ RIGHT OBLIQUE</td>
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</tbody>
</table>

Figure 4.14 cont'd Williams Lip Decoration
BRIM AND OUTER CORNER cont'd

PARTIAL PERPENDICULAR

INNER CORNER DECORATION

RIGHT OBLIQUE

QUARTERING

BRIM, OUTER CORNER AND INNER CORNER

LINES(2)/ VERTICAL/ VERTICAL

* UNDECORATED n=6

Figure 4.14 cont'd Williams Lip Decoration
Outer corner only represents the second most frequent location of lip decoration. In the Williams collection, it appears on 19.4% (n=18) of the vessels, the same proportion of the assemblage. Outer corner decoration is the only decoration on 14 vessels; the other four have some form of punctate line on the rim surface as decoration. The different types of outer corner decoration found in the collection appear in Figure 4.14. The most common outer corner decorations are right oblique SET (n=8) and vertical notches (n=5). Right oblique notches (n=2), vertical SET, vertical CWT and vertical fingernail gouges also occur.

Five vessels are decorated on the inner corner and brim. This lip decoration is the only detectable decoration on four of these vessels. Fabric impressions appear on the brim surface and short horizontal CWT impressions run parallel to the inner corner surface on the first vessel. The single notch appearing as inner corner decoration on the second vessel may reflect quartering. The brim surface of this vessel carries right oblique CWT impressions.

The brim and inner corner decoration on the third and fourth vessels involves single elements applied at an oblique angle, almost horizontally, across the inner corner and partially across the brim surface. This application occurs in right oblique CWT and right oblique SET. A similar method is used to decorate the brim and outer corner of one other vessel in this collection. Elsewhere, the
Tipperary Creek collection has four vessels decorated in a similar fashion.

The fifth vessel has a pointed lip so the treatment of the inner corner (interior bevel) and brim (exterior bevel) surfaces is like that of a wedge lip. The decoration involves right oblique CWT impressions on the brim and left oblique CWT impressions on the inner corner. Right oblique CWT impressions appear on the rim of this vessel, as well. Two similar vessels appear in the Lake Midden collection. Another vessel with similar features is found at the Lozinsky site.

Decoration on the outer and inner corners of the lip is found on four vessels in the Williams collection and is the only detectable decoration on these pots. Usually both corners are given identical decorative treatments: vertical notches, right oblique punctates and right oblique CWT. One vessel has different treatments on the outer and inner corners of the lip. The outer corner has right oblique SET impression; the inner corner has vertically oriented SET. The outer and inner corner decorations in the Williams collection are given in Figure 4.14.

Decoration occurs on the brim and outer corner of three vessels. One vessel has an incised line on the brim surface and left oblique SET impressions on the outer corner. The primary decoration on another vessel appears as right oblique SET impressions on the outer corner; however, it is
interrupted by tiny punctates placed on the brim surface as well as the exterior and interior rim. As mentioned earlier, one vessel has single elements applied to the outer corner and brim. In this case, perpendicular CWT lines appear across the brim and outer corner, almost horizontally.

Inner-corner-only decoration appears on the lips of four vessels in the Williams collection. Two vessels have right oblique SET impressions on the inner corner; one of these also has a number of oblique incised lines on the rim surface. Notches appear on the inner corner of the third vessel while a single notch, likely representing quartering, occurs on the fourth pot.

Two vessels carry decoration on all three lip surfaces. On the brim surface of the first there are two CWT lines and vertical notches appear on both the inner and outer corners. As such, this decoration is quite similar to that found on a few vessels from Lake Midden. The lip of the other vessel has a rather special treatment. Left oblique CWT impressions were "rolled over" the outer corner, brim and inner corner of the lip. The rim of this vessel has both a single row of punctates and at least one horizontal CWT line. The effect of this decoration is reminiscent of motifs commonly seen on Blackduck vessels (David Meyer, pers. com. 1991).
4.3.2.2 Rim Decoration

Just over 10% (n=9) of the vessels from the Williams collection carry rim decoration. The rims of other vessels are undecorated (n=71) or missing (n=3). Punctates and CWT impressions are the most common treatments, appearing on 8 vessels and 6 vessels, respectively. The rims of two vessels are incised and another two have tiny punctates on the rim. One vessel has both punctates and CWT impressions on the rim. Most patterns on the rims of these vessels also occur at Lake Midden (Figure 4.15).

Pattern 1 Variation A, parallel horizontal lines appears on five vessels. This pattern is executed in CWT on four vessels and with incised lines on one. Pattern 2 Variation C, two horizontal lines over several right oblique impressions, appears in CWT on one vessel. A second variation of Pattern 6, horizontal and oblique impressions in executed in shallow incised lines. A single horizontal line appears over sets of two right and three left oblique impressions. One of the right oblique impressions continues and becomes parallel to the original horizontal line. Pattern 8 Variation A, right oblique impressions only, is found on one vessel, executed in CWT.

Four varieties of punctates (two of these were not previously discussed) appear in the Williams collection. Pattern 10 Variation A, "normal" punctates is the most common, appearing on four different vessels. Variation B, a
<table>
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<tr>
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<th>I</th>
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<tr>
<td>PATTERN 1 VAR. A</td>
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<td>HORIZONTAL (2) OVER RIGHT OBLIQUE (MULTIPLE)</td>
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<td>HORIZONTAL AND OBLIQUE</td>
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<td>WIDE INCISED (1)</td>
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<td>PATTERN 8 VAR. A</td>
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<tr>
<td>RIGHT OBLIQUE</td>
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<td></td>
<td>CWT (1)</td>
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<tr>
<td>PATTERN 10 VAR. A</td>
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</tr>
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<td>① ② ③ ④ ⑤</td>
<td>(4)</td>
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<tr>
<td>PATTERN 10 VAR. B</td>
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<tr>
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<td>① ② ③ ④ ⑤</td>
<td>(2)</td>
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<td></td>
</tr>
<tr>
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<td>① ② ③</td>
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Figure 4.15 Williams Rim Decoration
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<th>TECHNIQUE</th>
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<td>PATTERN 14 VAR. B</td>
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<td>TINY PUNCTATES (1)</td>
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<tr>
<td>TINY PUNCTATES: ZIGZAG PATTERN</td>
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<tr>
<td>PATTERN 14 VAR. C</td>
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<td>TINY PUNCTATES (1)</td>
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<tr>
<td>TINY PUNCTATES: SEMICIRCLE (CLUSTER EDGE)</td>
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<td>PATTERN 16 VAR. A</td>
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<td>PUNCTATES AND CWT (MIN=1 LINE) (1)</td>
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<td>PUNCTATE LINE (1) OVER HORIZONTAL LINES(S)</td>
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Figure 4.15 cont'd  Williams Rim Decoration

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<td>MODE 3 VAR.</td>
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<tr>
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Figure 4.16  Williams Rim Angle Decoration
single row of vertical oblique punctates, was identified on two different vessels. The new variation, D, oval punctates with a horizontal ridge in the middle, appears on a vessel which also carries a different type of rim angle decoration. The identification of variation E is somewhat tentative; the impression may not be an intentional decoration. The punctate resembles a pair of dentate stamps oriented right oblique. Due to breakage, it is impossible to determine if this element is repeated.

Two new variations of tiny punctates appear on the rims of two vessels. The tiny punctates in Pattern 14 Variation B seems to be arranged in a zigzag line on the upper portion of the rim. In Variation C, the tiny punctates appear as an arc on the rim sherd. If more of the vessel was present perhaps they would have formed a semi-circle.

A new pattern, Pattern 16, occurs at the Williams site. The design on the rim consists of a single row of punctates over at least one horizontal CWT line. The vessel with this pattern is the one earlier referred to as reminiscent of Blackduck.

Only four vessels in this collection have the rim angle present. Rim angle decoration was noted on two of these pots (Figure 4.16). One vessel bears a horizontal series of discontinuous impressions, Mode 1 Variation A, made with incised lines. This vessel also carries the oval punctates on the rim area. Another vessel has triangular punctates,
Mode 3 Variation A on the rim angle.

4.3.2.3 Neck, Neck/Shoulder and Shoulder Decoration

Only six vessels retained portions of their neck area; all were undecorated. Two of these vessels possessed a portion of the neck/shoulder. Both vessels lacked decoration in this area. No vessels from the Williams collection had the shoulder area represented.

4.3.2.4 Other Observations

Several fragments of decorated rim angles or shoulders exist in the collection. Decorations found include CWT impressions, pinching, fingernail impressions, incised lines and discontinuous series of short horizontal incisions. Unfortunately, at present it is not possible to separate shoulder sherds from fragments of rim angles.

4.3.3 Lip Forms and Surface Finishes

4.3.3.1 Lip Forms

Most varieties of lip forms appear at least once at the Williams collection, except for simple exterior-bevelled lips. The varieties of expanding lips represent the most common lip form in the Williams collection (Figure 4.17). Vessels with lips which are expanding (n=19), expanding with a bevel (n=14), and expanding with a flange (n=7) represent 43% of the collection. Square lips are frequently found at this site, appearing on 11 vessels. This lip form is also quite common at Tipperary Creek, near Saskatoon.

Lips with an interior bevel (n=9) or flange, exterior
Figure 4.17 Williams Lip Form Frequency

Figure 4.18 Williams Exterior Surface Finish
(n=8) or interior (n=6), are also found with some frequency. A variety of other lip forms appear once or a few times in the collection. These include hybrids of previously discussed lips forms, as well as vessels with round and wedge lips.

4.3.3.2 Exterior Surface Finishes

Vessels which appear to have plain surface finishes are numerous (n=43) (Figure 4.18). However, this extremely high occurrence may be related to the fragmented state of this collection. The surface finish on the upper surfaces (rim and neck) is sometimes obscured by vessel manufacturing processes. Other finishes identified at the site include horizontally (n=15) and vertically oriented (n=5) fabric impressions. As well, cord-roughening, applied both vertically (n=14) and horizontally (n=3) is found. The exteriors of two vessels are brushed and another two appear to have rolled CWT impressions on the exterior surface. The surface finish on six vessels could not be determined while the exterior surface of two other vessels had exfoliated.

4.3.3.3 Interior Surfaces

No residue or decoration was detected on 67 vessels (72%). Three types of decoration appeared on the interior surface of Williams collection vessels. Interior bosses, associated with exterior punctates, were found on three vessels. Tiny punctates were found on the interior surfaces of two vessels and the interior surface of one pot was
brushed. Residue remained on the interior surfaces of 15 vessels; in one case the coat was rather heavy.

4.3.4 Summary

Although the collection of pottery from the Williams site is highly fragmented, most vessels have either Straight Rim or Angled Rim profiles. Almost all vessels have some form of lip decoration, usually on the brim surface or outer corner. When present, rim decoration usually takes the form of horizontal lines or single rows of punctates. Although only two vessels have rim angle decoration, several angular sherds in the collection are decorated. Only a few vessels retain portions of the neck or neck/shoulder areas; none carry decoration in these areas. Most vessels have some form of expanding lip. Plain, cord-roughened and fabric-impressed are the most common exterior surface finishes.

4.4 Farago

The Farago site (ElNi-1 and 2) is located near Plunkett, approximately 100 km east-south-east of Saskatoon (Figure 2.1). Material from the excavations at the site(s) by SMNH personnel in 1969 include Prairie and Plains Side-notched projectile points. A relatively large portion of the lithic material is composed of pebble cherts, although Knife River flint, silicified peat and fused shale also occur. Some Old Women’s phase pottery is found at the site; this material was not included in the study.
The 44 vessels examined from this site are from the SMNH collection. The material was taken from a cultivated field, consequently, many of the vessels are highly fragmented (Figure 4.1). The late John Farago, former landowner, had collected at this site for several years. On the basis of the photographs and drawings made by Patricia Froese and Muriel Carlson in 1984, the material in the possession of the family appears very similar to that held by the museum.

4.4.1 Profiles

The profiles of many vessels from the Farago site can not be positively identified. S-Profiles (n=8) are the most numerous followed by vessels with Straight Rim (n=6) and Angled Rim (n=5) profiles. Two vessels from the site have Short Rim profiles and one has a Wedge profile. The profiles of seven vessels can not be determined (Figures 4.19 and 4.20).

Three other vessels have a similar, rather unusual profile. Although large areas of the rim are present, no sign of neck curvature or thickening can be detected. This rim form is uniformly thin and the exterior surface is slightly convex. This may suggest an incipient S-profile; however, one would expect at least some sign a neck. Perhaps the vessels resembled large bowls.
Figure 4.19  Farago Profile Frequency
Figure 4.20 Selected Farago Profiles
Short Rim: L  Straight or Angled Rim: O, P
4.4.2 Decoration

4.4.2.1 Lip Decoration

A total of 44 vessels from the SMNH holdings from the Farago site were examined. While most vessels have some form of lip decoration, many do not. In the collections previously discussed, lip decoration occurred on 88-94% of all vessels. This percentage drops to 75% at Farago. As well, the vessels from the Farago site have very conservative lip decoration. Nearly all the decoration occurs on either the brim surface or the outer corner of the lip. The decoration tends to be quite simple, either right oblique CWT, SET or notches (Figure 4.21).

The most common location for lip decoration is the brim surface (n=19 or 44.2%). Brim decoration was the only detectable decoration on 11 vessels. Another 6 vessels have brim decoration and rim decoration; four of these have CWT lines, one has a CWT pattern and the other has a single oblique incised line as rim decoration. One vessel has brim decoration and a series of horizontal incisions on the rim angle. Another has brim decoration and curvilinear incised lines on the neck.

Examples of the different types of brim decoration are provided in Figure 4.21. Right oblique CWT lines appear on 15 vessels, representing 31.8% of the collection. Series of oblique CWT "punctates" are found on the brim surfaces of two vessels. One vessel has right oblique SET impressions
Figure 4.21 Farago Lip Decoration
on the brim surface; another has SET impressions which alternate from left oblique to right oblique.

As with the Williams collection, outer corner only represents the second most frequent location of lip decoration. In the Farago collection, however, relatively more vessels (25%) carry lip decoration at this location. Outer corner decoration is the only detectable decoration on 6 vessels. Two vessels with outer corner decoration have punctate lines on the rim and three others have vertical pinching on the rim angle. The different types of outer corner decoration found in the collection appear in Figure 4.21. The most common outer corner decorations are right oblique SET impressions (n=4) and vertical notches (n=3). Right oblique notches (n=2), right oblique CWT and vertical CWT also occur.

Outer and inner corner decoration, brim and outer corner decoration and inner corner only decoration each appear on one vessel from the Farago site. The outer and inner corners of one vessel are decorated with vertical set gouges. The brim surface of another vessel is decorated with three CWT lines and vertical CWT impressions appear on the outer corner. Finally, one vessel appears to have intermittent inner corner decoration. The single notch likely represents quartering.

The remaining eleven vessels, representing 25% of the collection, have undecorated lips. Of these, five vessels
are completely without decoration. Five have rim decoration such as CWT lines (n=2), incised patterns, oblique punctates and tiny punctates. One vessel has a CWT pattern on the rim and a series of horizontal incised lines on the rim angle.

None of the Farago site vessels examined have brim and inner corner lip decoration or decoration on all three lip surfaces.

4.4.2.2 Rim and Rim Angle Decoration

Almost one-third of the 44 vessels from the Farago site carried some form of rim decoration. All of the vessels identified retained portions of the rim, 31 rims were undecorated. Once again, CWT impressions were the most common rim decoration: they were found on 8 vessels (Figure 4.22). Punctates appear on three vessels and patterns made with incised lines appear on one, or perhaps, two vessels.

Pattern 1 Variation A, parallel horizontal lines were the most common decoration, appearing on 6 vessels executed in CWT. Three new variations of Pattern 3, horizontal and oblique impressions forming an inverted V, appear at the Farago site. Two of these, variations C and D, are executed in CWT; variation E is incised. The third decoration, Variation E, appears to have been made rather quickly and carelessly. The pairs of right and left oblique impressions make the V in variations C and E. Only a portion of the other design, variation D, is present but it appears that the sides of the V are not symmetrical. In all cases,
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PATTERN</th>
<th>TECHNIQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATTERN 1 VAR. A</td>
<td>HORIZONTAL LINES</td>
<td>CWT (6)</td>
</tr>
<tr>
<td>PATTERN 3 VAR. C</td>
<td>HORIZONTAL LINES OVER AND ADJACENT TO OBLIQUE: &quot;INVERTED V&quot;</td>
<td>CWT (1)</td>
</tr>
<tr>
<td>PATTERN 3 VAR. D</td>
<td>HORIZONTAL LINES OVER AND ADJACENT OBLIQUE: &quot;INVERTED V&quot;</td>
<td>CWT (1)</td>
</tr>
<tr>
<td>PATTERN 3 VAR. E</td>
<td>HORIZONTAL LINES AND OBLIQUE: &quot;INVERTED V&quot;</td>
<td>INCISED (1)</td>
</tr>
<tr>
<td>PATTERN 8 VAR. B</td>
<td>CURVILINEAR: RIGHT OBLIQUE (INTENTIONAL?)</td>
<td>WIDE INCISED (1)</td>
</tr>
<tr>
<td>PATTERN 10 VAR. A</td>
<td>PUNCTATE LINE (1): &quot;NORMAL&quot;</td>
<td>(2)</td>
</tr>
<tr>
<td>PATTERN 10 VAR. F</td>
<td>PUNCTATE LINE (1): HORIZONTAL OBLIQUE</td>
<td>(1)</td>
</tr>
</tbody>
</table>

Figure 4.22 Farago Rim Decoration
horizontal lines are adjacent to, or partially within, the inverted V.

The identification of Pattern 8 Variation B is tentative. The fragment of the vessel is so small it is difficult to determine if the curvilinear right oblique incised line represents intentional decoration.

Two varieties of Pattern 10, punctates, are noted in the material from the Farago site. Variation A, "normal" punctates, appears on two vessels. A new variation of this pattern, the sixth, has been noted. Small, horizontally oblique punctates appear on the upper portion of the rim of one vessel. The end of the tool was pointed to the left at an oblique angle, as it was pushed into the paste. This marks the first appearance of horizontally oblique punctates. Vessels with vertically oblique punctates, variation B, appear at all sites previously discussed.

RIM ANGLE DECORATION

Six of the 11 vessels with rim angles were decorated. The rim angle decorations on vessels from the Farago site are similar to those previously discussed (Figure 4.23).

Mode 1 Variation A, the discontinuous series of horizontal impressions, appears as incised lines on two vessels. One of these carries the rim decoration Mode 3 Variation D, as well.

Vertical pinching, Mode 4, appears on three vessels. Variation A, previously noted, is found on two vessels and a
<table>
<thead>
<tr>
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<th>PATTERN</th>
<th>I</th>
<th>TECHNIQUE</th>
</tr>
</thead>
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<tr>
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<td></td>
<td><img src="image" alt="Incised Pattern" /></td>
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<tr>
<td>HORIZONTAL SERIES - DISCONTINUOUS IMPRESSIONS</td>
<td></td>
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<tr>
<td>MODE 4 VAR. A</td>
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<td><img src="image" alt="Pattern Image" /></td>
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<td>(2)</td>
</tr>
<tr>
<td>PINCHING: VERTICAL</td>
<td></td>
<td><img src="image" alt="Pattern Image" /></td>
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<td></td>
</tr>
<tr>
<td>MODE 4 VAR. B</td>
<td></td>
<td><img src="image" alt="Pattern Image" /></td>
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<td>(1)</td>
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<tr>
<td>PINCHING: VERTICAL WITH FINGERNAIL INDENTATIONS</td>
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<td><img src="image" alt="Pattern Image" /></td>
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<tr>
<td>MODE 8 VAR. A</td>
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<td><img src="image" alt="Pattern Image" /></td>
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<td>INCISED (1)</td>
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<tr>
<td>CONTINUATION OF RIM PATTERN 3 VARIATION E</td>
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<td><img src="image" alt="Pattern Image" /></td>
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</table>

Figure 4.23 Farago Rim Angle Decoration

<table>
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<th>DESCRIPTION</th>
<th>I</th>
<th>PATTERN</th>
<th>I</th>
<th>TECHNIQUE</th>
</tr>
</thead>
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<tr>
<td>PATTERN 9 VAR.</td>
<td></td>
<td><img src="image" alt="Pattern Image" /></td>
<td></td>
<td>INCISED (1)</td>
</tr>
<tr>
<td>CURVILINEAR: RIGHT OBLIQUE (PARTIAL RAINBOW?)</td>
<td></td>
<td><img src="image" alt="Pattern Image" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATTERN 10 VAR.</td>
<td></td>
<td><img src="image" alt="Pattern Image" /></td>
<td></td>
<td>TINY PUNCTATES (1)</td>
</tr>
<tr>
<td>TINY PUNCTATES (RANDOM?)</td>
<td></td>
<td><img src="image" alt="Pattern Image" /></td>
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<td></td>
</tr>
</tbody>
</table>

Figure 4.24 Farago Neck and Neck/Shoulder Decoration
new variation, B, with fingernail impressions within the pinches, also appears. It is difficult to say if the fingernail impressions represent intentional modification of the vertical pinches.

The other rim angle decoration, Mode 8 Variation A, is a continuation of the Rim Pattern 3 Variation H over the angle. As mentioned previously, this design seems to have been made with a minimal amount of care and is rather messy. Consequently, presence of a portion of the pattern on the rim angle may be related to this.

4.4.2.3 Neck, Neck/Shoulder and Shoulder Decoration

Only seven vessels from the Farago site retain portions of the neck area; one of these is decorated. Of these, five vessels possess some of the neck/shoulder area. One of these has decoration in this area. None of the recognized vessels retain portions of the shoulder (Figure 4.24).

Two new types of neck and neck/shoulder decoration appear on two different vessels. Pattern 9, consisting of a pair of incised curvilinear lines, appears in the neck area of one vessel. A couple of punctates, one above and to the right of the other, were noted on the neck/shoulder of another pot. The vessel which bears Pattern 10 has a Short Rim profile.

4.4.2.4 Other Observations

Decoration appears on the angles of either rims or shoulders, but, as discussed previously, no method of
discriminating between rim angles and shoulder angles has yet been established. Various decorations of angular sherds include horizontal oblique punctates, discontinuous series of horizontal incised impressions, horizontally oriented oval punctates, vertical pinching, vertical SET impressions. One sherd has a horizontal incised line along the angle interrupted by at least three vertical SET impressions.

A few sherds have decorations above and terminate at the angle. These including horizontal CWT lines and horizontal CWT lines adjacent to oblique impressions. One sherd has an incised design which resembles the lower half of an eye with lashes. The same pattern appears on a sherd from the late John Farago's collection. Yet another sherd has at least two horizontal CWT lines above the angle and vertical pinching below the angle. As decoration appears below the angle, it is likely that this sherd is from a vessel with a Square Wedge profile.

A neck sherd, which could not be associated with an identified vessel, is decorated with a right oblique fingernail gouge. Flat sherds, likely from the neck/shoulder area of different vessels also carry decorations. One sherd has at least two horizontal CWT lines over vertical CWT impressions. Another has a fragment of a punctate-filled triangle created by oblique and horizontal incisions. One sherd from the collection has a simple-stamped exterior surface finish while another carries a fine
4.4.3 Lip Forms and Surface Finishes

4.4.3.1 Lip Forms

The most common lip forms at the Farago site are expanding lips with a bevel \( n=10 \), expanding lips with a flange \( n=6 \) and lips with an interior flange \( n=6 \) (Figure 4.25). Vessels with square lips \( n=4 \) and lips with an exterior flange \( n=4 \) are also relatively common in this sample. Three vessels possess lip forms classed as interior bevel/interior flange. Only two vessels are judged as having expanding lips. No vessels with wedge lips or interior-bevelled lips appear in the collection.

4.4.3.2 Exterior Surface Finish

A very narrow range of surfaces finishes is found on the defined vessels (Figure 4.26). All of the vessels possess either fabric-impressed, plain or cord-roughened finishes. The cord-roughening, applied horizontally instead of vertically, appears on one of these vessels. Another has vertically-oriented fabric impressions.

4.4.3.3 Interior Surfaces

No surface decoration or residue can be detected on 70.5% of the vessels. A light residue is found on 10 pots \( (22.7\%) \). Two vessels from the site possess interior bosses and another appears to have been brushed.

4.4.4 Summary

S-Profile, Straight Rim and Angled Rim profiles are the
Figure 4.25  Farago Lip Form Frequency

Figure 4.26  Farago Exterior Surface Finish
most common at the Farago site. Lip decoration appears on only 75% of the vessels and the range of decorations present is lower than at previously discussed sites. When present, rim decoration occurs as horizontal lines, single rows of punctates or patterns involving inverted Vs. Rim angle, neck and neck/shoulder decorations also occur. Lip forms are quite variable but no wedge lips are present. All vessels at the site have either fabric-impressed, cord-roughened or plain exterior surface finishes.

4.5 Tipperary Creek

The pottery examined was recovered from the FaNp Borden block, near Tipperary Creek, just north of Saskatoon (E. Walker, pers. com. 1991). As such, material from more than one site may be represented in the collection. A total of 86 vessels were identified, including some which may represent Old Women's phase pottery. These vessels are identified in the analysis.

4.5.1 Profiles

The profiles of 41 of the 86 vessels can be firmly identified. This includes 20 vessels with a Straight Rim profile and 11 vessels with an S-Profile (Figures 4.27 and 4.28). Three vessels with Angled Rim profiles have been identified; 35 others are categorized as Straight Rim/Angled Rim profiles. In this collection, there are also three vessels with Wedge profiles, another three with Short Rim
Figure 4.27 Tipperary Creek Profile Frequency

n=86
Figure 4.28 Selected Tipperary Creek Profiles

Straight or Angled Rim: A, G, I, K
Profile: D, M, O, V
Angled Rim: E, T
Wedge: H
Misc.: Q
profiles and one with a truncated "S" profile. The profiles of 10 vessels can not be determined.

4.5.2 Decoration

4.5.2.1 Lip Decoration

More than 95% of all vessels from the Tipperary Creek collection have some form of lip decoration. However, vessels with decoration only on the outer corner of the lip are the most abundant (Figure 4.29). There are 38 Tipperary Creek vessels (44%) with outer corner decoration compared with 27 vessels (31%) with lip decoration restricted to the brim surface. The brim surface is the most common location for lip decoration at other central Saskatchewan sites. The abundance of outer corner decoration at this site may reflect Selkirk influence.

The different types of outer corner decoration found in the collection appear in Figure 4.29. The outer corner of the lip was the only detectable location of decoration on 36 vessels; two vessels have punctate lines on the rim surface as decoration. Notches represent 68% of all outer corner decorations. Right oblique notches are found on 12 vessels; vertical notches appear on 10 pots; left oblique notches are on 4 pots. Vertically oriented CWT impressions are found on four vessels while another has right oblique CWT impressions. One vessel has a pair of converging CWT impressions on the outer corner. The spacing of this decoration is not continuous, instead, it seems to represent
| OUTER CORNER DECORATION | \[
\begin{array}{c}
\text{NOTCH } n=12 \\
\text{SET } n=1 \\
\text{CWT } n=1
\end{array}
\] | \[
\begin{array}{c}
\text{NOTCH } n=10 \\
\text{CWT } n=4 \\
\text{SET } n=2
\end{array}
\] |
| --- | --- | --- |
| RIGHT OBLIQUE | \[
\begin{array}{c}
\text{NOTCH } n=4
\end{array}
\] | \[
\begin{array}{c}
\text{CWT } n=1
\end{array}
\] |
| LEFT OBLIQUE | n=1 | n=1 |
| FINGERNAIL GOUZE | TAB AND NOTCH |
| VERTICAL CONVERGING | n=1 |

| BRIM DECORATION | \[
\begin{array}{c}
\text{CWT } n=8 \\
\text{BET } n=1 \\
\text{SET } n=1 \\
\text{DENTATE } n=1
\end{array}
\] | \[
\begin{array}{c}
\text{CWT } n=1 \\
\text{SET } n=1
\end{array}
\] |
| --- | --- | --- |
| RIGHT OBLIQUE | \[
\begin{array}{c}
\text{CWT } n=1
\end{array}
\] | PERPENDICULAR | \[
\begin{array}{c}
\text{SET } n=3
\end{array}
\] |
| OVERLAPPING ALTERNATING | BET n=1 | LEFT OBLIQUE | PUNCTATES n=1 |
| "PUNCTATES" | INCISED n=1 | VERTICAL OBLIQUE | n=1 |
| LINES (1) | CORD-ROUGHENED |

Figure 4.29 Tipperary Creek Lip Decoration
<table>
<thead>
<tr>
<th>BRIM DECORATION cont'd</th>
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<tbody>
<tr>
<td>n=1</td>
<td>n=4</td>
</tr>
<tr>
<td>FABRIC AND BURNISHED</td>
<td>RIGHT OBLIQUE (WEDGE/LIKE)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTER CORNER AND INNER CORNER DECORATION</td>
<td></td>
</tr>
<tr>
<td>NOTCH</td>
<td>CWT</td>
</tr>
<tr>
<td>n=1</td>
<td>n=1</td>
</tr>
<tr>
<td>CWT n=1</td>
<td></td>
</tr>
<tr>
<td>VERTICAL</td>
<td>RIGHT OBLIQUE</td>
</tr>
<tr>
<td>SET n=1</td>
<td>NOTCH n=1</td>
</tr>
<tr>
<td>RIGHT OBLIQUE/ VERTICAL</td>
<td>PARTIAL VERTICAL SERIES</td>
</tr>
<tr>
<td>NOTCH n=1</td>
<td></td>
</tr>
<tr>
<td>VERTICAL/ QUARTERING</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BRIM AND INNER CORNER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>INCISED / SET n=1</td>
<td>SET n=1</td>
</tr>
<tr>
<td>LINE/ RIGHT OBLIQUE</td>
<td>PARTIAL RIGHT OBLIQUE</td>
</tr>
<tr>
<td>INCISED / NOTCH n=1</td>
<td></td>
</tr>
<tr>
<td>LINE/ QUARTERING</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.29 cont'd Tipperary Creek Lip Decoration
### BRIM AND OUTER CORNER

| FABRIC-Impressed/LEFT OBlique n=1 | PARTIAL PERPENDICULAR | SET n=1 |

### INNER CORNER DECORATION

<table>
<thead>
<tr>
<th>NOTCH n=1</th>
<th>QUARTERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIGHT OBLIQUE</td>
<td>QUARTERING</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOTCH n=1</th>
<th>LEFT OBLIQUE &gt; VERTICAL</th>
</tr>
</thead>
</table>

### BRIM, OUTER CORNER AND INNER CORNER

| INCISED/ NOTCH/ NOTCH n=1 | LINE/ QUARTERING/ QUARTERING |

* UNDECORATED n=4

* EXFOLIATED (OUTER CORNER) n=1

Figure 4.29 cont’d Tipperary Creek Lip Decoration
quartering. Vertical SET decoration appears on 2 vessels and another has this decoration oriented right oblique. One vessel has vertical fingernail gouges and the outer corner on another is exfoliated.

Brim decoration was the only detectable decoration on 20 vessels. Another 5 vessels have brim decoration and some type of punctate line (n=4) or a horizontal CWT line as rim decoration. One vessel has horizontal CWT lines which extend from the rim to at least the rim angle. Another vessel has neck decoration in the form of at least 2 incised lines.

Examples of the different types of brim decoration are provided in Figure 4.29. Right oblique CWT lines appear on 12 vessels. CWT impressions on the lip also appear oriented perpendicular and as an overlapping right and left oblique impression which forms an "X" pattern. Other brim decorations observed at this site include SET left oblique and perpendicular, broad edged tool punctates, oblique punctates, incised lines, right oblique dentate and smoothed cord. One vessel from this site has a fabric-impressed brim surface which was later burnished.

Decoration applied to the outer corner and inner corner of the lip is found on six vessels from Tipperary Creek. Outer and inner corner decoration on the lip was the only detectable decoration on three of these pots. Punctates appear on the rim surface of two vessels and at least one
incised line appears on the neck of another. Often, both corners are given identical decorative treatment: vertical notches, vertical CWT and right oblique CWT. However, one vessel has different treatments on the outer and inner corners of the lip. The outer corner has right oblique SET impressions; the inner corner has vertically oriented SET. The outer corner of another vessel has notches on part of the lip and inner corner notches on part of the lip. One treatment begins when the other stops. The other vessel has a continuous series of notches on the outer corner and a broad "horizontal" notch on the inner corner. The latter decoration apparently represents quartering. The variety of outer and inner corner decorations seen at Tipperary Creek is given in Figure 4.29.

A total of four vessels are decorated on the inner corner and brim. This lip decoration is the only detectable decoration on all of these vessels. One vessel has an incised line running along the brim surface and right oblique SET impressions on the inner corner. Two vessels have right oblique BET impressions applied, almost horizontally, to the brim and inner corner of the lip. The other vessel appears to have gouges (or the end of an incised line) on the brim surface interrupted by inner corner notch quartering.

Decoration was applied to the brim and outer corner of three vessels. One vessel has fabric impressions on the
brim surface and left oblique notches on the outer corner. The other two vessels have a single element, in this case SET impressions, applied to the brim and outer corner at an oblique angle.

Inner corner only decoration appears on the lips of three vessels. There are right oblique notches on the inner corner of one (possibly Old Women’s phase) of these and a single notch is carried on the inner corner of the second vessel. It may represent a part of an intermittent decoration, such as quartering. Left oblique notches appear on the inner corner of the third vessel. The angle at which these are impressed appears to change from about 45 degrees to nearly vertical along the lip. As only one fragment of this vessel was recovered, it is difficult to determine the significance of this change. One can speculate that the angle change reflects quartering and that the orientation of the impressions may indeed change to right oblique immediately afterwards.

One vessel was given decoration on all three lip surfaces. An incised line is on the brim surface of this pot and two single notches appear opposite each other on the inner and outer corners. This latter decoration appears to represent quartering. A similar vessel is present in the Stoney Beach collection (see section 6.2.2.1).

The remaining four vessels are without lip decoration. The rim on one vessel was decorated with vertical and
oblique trailing.

4.5.2.2 Rim Decoration

Most of the vessels at Tipperary Creek which retain portions of the rim are undecorated. Rim decoration can be detected on only 15% (12/78) of these vessels. The range of decoration observed on the recorded vessels is very narrow, mainly punctates and horizontal lines (Figure 4.30). One other vessel carries curvilinear oblique incising.

Pattern 1 Variation A, parallel horizontal lines, appears on two vessels, executed in CWT. A definite identification of Pattern 8 Variation B, right oblique curvilinear lines can be made at Tipperary Creek. The design was executed with shallow, wide incised impressions.

The most popular rim decoration seems to be a single row of "normal" punctates running along the middle of the rim. Pattern 10 Variation A is found on five vessels. Variation B, vertical oblique punctates, is found on one vessel, as is Variation F, horizontal oblique punctates.

RIM ANGLE DECORATION

Only one of the six vessels with rim angles carries decoration in this area. Mode 7, horizontal lines, appears on the rim angle of this vessel. The lines represent a continuation of a CWT pattern from the rim (Figure 4.31).

4.5.2.3 Neck, Neck/Shoulder and Shoulder Decoration

While 19 vessels from this site retain portions of the neck, only two carry decoration in this area. One or two
<table>
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<tr>
<th>DESCRIPTION</th>
<th>PATTERN</th>
<th>TECHNIQUE</th>
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</thead>
<tbody>
<tr>
<td>PATTERN 1 VAR. A</td>
<td>HORIZONTAL LINES</td>
<td>CWT (2)</td>
</tr>
<tr>
<td>PATTERN 8 VAR. B</td>
<td>CURVILINEAR: RIGHT OBLIQUE</td>
<td>WIDE INCISED (1)</td>
</tr>
<tr>
<td>PATTERN 10 VAR. A</td>
<td>PUNCTATE LINE (1): &quot;NORMAL&quot;</td>
<td>(5)</td>
</tr>
<tr>
<td>PATTERN 10 VAR. B</td>
<td>PUNCTATE LINE (1): VERTICAL OBLIQUE</td>
<td>(1)</td>
</tr>
<tr>
<td>PATTERN 10 VAR. F</td>
<td>PUNCTATE LINE (1): HORIZONTAL OBLIQUE</td>
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</table>

Figure 4.30 Tipperary Creek Rim Decoration
### Figure 4.31 Tipperary Creek Rim Angle Decoration

<table>
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<tr>
<th>DESCRIPTION</th>
<th>PATTERN</th>
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<tbody>
<tr>
<td>MODE 7 VAR. A HORIZONTAL LINE (PATTERN 1 VARIATION A CONT'D FROM RIM)</td>
<td>![Pattern Diagram]</td>
<td>CWT (1)</td>
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</tbody>
</table>

### Figure 4.32 Tipperary Creek Neck and Neck/Shoulder Decoration

<table>
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<th>TECHNIQUE</th>
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</thead>
<tbody>
<tr>
<td>PATTERN 1 VAR. A HORIZONTAL LINES</td>
<td>![Pattern Diagram]</td>
<td>INCISED (2)</td>
</tr>
</tbody>
</table>

![Pattern Diagram]
horizontal lines, Pattern 1 Variation A, are incised into the neck of these vessels (Figure 4.32). Due to breakage, it is not possible to determine if the pattern would continue onto the neck/shoulder.

The neck/shoulder area is present on three vessels but this area is not decorated. No identified vessels retain portions of the shoulder.

4.5.2.4 Other Observations

Wide shallow incisions appear on several neck/shoulder or rim sherds. In one case, the decoration occurs as a series of vertical curvilinear impressions under at least one horizontal line. This design is executed in shallow hollow tool gouges. Another sherd carries at least 2 right oblique impressions adjacent to an incised angle, probably representing one corner of a triangle. At least two concentric incised triangles appear on another.

Pairs of fingernail impressions, which form inverted Vs, occur on a shoulder or rim angle sherd; another carries oblique CWT impressions. Left oblique SET impressions are found on the shoulder or rim angle. Another carries a single row of punctates along the angle.

A rather unusual decoration occurs on a sherd with a concave exterior surface, suggesting it is from the neck area of a vessel. The pattern takes the form of at least two right oblique rows of closely spaced punctates adjacent to other punctates lacking any identifiable orientation.
Further, shallow wide incisions connect some of the punctates as if the tool used to make them was dragged from one to another. A horizontal incised line appears below the decoration.

4.5.3 Lip Forms and Surface Finishes

4.5.3.1 Lip Forms

The range of lip forms present in the collection is extensive (Figure 4.33). Almost every defined lip form occurs at least once. This may be related to the lack of contextual control. Some of these vessels may be from different sites occupied at different time periods.

The most common lip forms at Tipperary Creek are expanding lips with interior bevel (n=12), lips with an interior flange (n=11) and square lips (n=10). Expanding lips (n=8), round lips (n=7) and lips with an exterior bevel (n=7) are also quite abundant.

4.5.3.2 Exterior Surface Finish

Fabric impressions on the exterior are the most common finish on Tipperary Creek pottery (Figure 4.34). Over one-half of the vessels (n=44) have regular fabric impressions; the impressions on 10 other vessels are vertically oriented. Cord-roughened exterior surface finishes are found on 18 vessels or 20.9% of the collection. The only other surface finish identifiable is the plain exterior, found on five vessels. The finish on seven vessels can not be determined; the exterior surfaces of two other vessels are exfoliated.
Figure 4.33 Tipperary Creek Lip Form Frequency

n=86

Figure 4.34 Tipperary Creek Exterior Surface Finish

n=86
4.5.3.3 **Interior Surface**

No residue or decoration can be detected on 72.1% (n=62) of the collection. Residue is found on the interior of 18 vessels. The accumulation is relatively heavy on one of these pots. The six remaining vessels carry bosses on the interior surface associated with punctates on the exterior.

4.5.4 **Summary**

In the Tipperary Creek collection, Straight Rim and S-Profile are the most abundant identifiable profiles; many others have either a Straight or an Angled Rim. Almost all vessels have some form of lip decoration; outer corner notches are very common. Rim decoration, in the form of punctates or horizontal lines, appears on a few vessels. Rim angle or neck decoration appears but it is not common. A wide variety of lip shapes are found in the collection. Fabric-impressed exterior surfaces are the most common.

4.6 **Lozinsky**

The Lozinsky site (FdNm-51, formerly FdNn-6) is the northernmost site with strong ties to sites further south reflected in the pottery (Figure 2.1). This parkland site is located in a cultivated field located 10 km west of Alvena, about 80 km northeast of Saskatoon.

The field where the site is located has a gently rolling topography; the shallow depression which borders the
site fills with water in the spring of wet years (David Meyer, pers. com. 1987). A poplar bluff is located about 200 m to the west; Fish Creek is located 400 m east of the site. The pottery assemblage from the Lozinsky site contains the most highly fragmented vessels examined.

The assemblage includes the fragments of 43 vessels, recovered in 1987 by the University of Saskatchewan. This material represents recoveries from both the systematic surface collection and plowzone excavation of the site (Malainey 1989). Fragments of an additional 12 vessels from surface collections made by the SMNH in 1977 and 1978 are included as well. Thermoluminescence analysis of one of the pot sherds indicates that it dated to or before A.D. 1670 (Ian Bailiff, pers. com. 1989; Dur09TL136-1BSpfg) and the material is associated with Plains Side-notched points.

4.6.1 Profiles

The profiles of only 19 of the 55 vessels can be firmly identified. Of these, 11 appear to have S-Profiles but only a relatively small amount of rim is present. Angled Rim profiles are identified on three vessels. Two vessels definitely have Straight Rim profiles but another 30 vessels are categorized as having a Straight Rim/Angled Rim profile. While two vessels are classed as having Wedge profiles, only one of these is well executed (Figures 4.35 and 4.36). The profiles of six vessels can not be identified.
Figure 4.35  Lozinsky Profile Frequency
Figure 4.36 Selected Lozinsky Profiles

4.6.2 Decoration

4.6.2.1 Lip Decoration

About 91% of all vessels from the Lozinsky site pottery assemblage have some form of lip decoration (Figure 4.37). The 32 vessels with decoration only on the brim surface make up 58.2% of the collection. This decoration is the only detectable decoration on 11 vessels. The majority (20/32) have rim decoration as well, either horizontal CWT lines or punctate lines. One vessel has right oblique CWT impressions as rim angle decoration.

Cord-wrapped tool impressions are the most common brim decoration. Right oblique CWT impressions are found on 13 vessels; left oblique impressions occur on the brim surfaces of 5 pots. Other variations of CWT impressions include double zigzag lines, groups of four short parallel lines, chevrons and converging right and left oblique impressions.

Fabric impressions and cord-roughening are common brim surface treatments. Smoothed fabric impressions are found on 5 vessels; two pots have cord-roughened brims. One vessel has both right oblique CWT impressions and cord-roughening.

One vessel has a series of teardrop shaped punctates on the brim surface. Another vessel has at least one left oblique SET impression on the brim, but it is difficult to determine whether or not this represents an intentional decoration.
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<th>BRIM DECORATION</th>
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<tr>
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<td><strong>TEARDROP PUNCTATES</strong></td>
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<td>SET/ NOTCH n=1</td>
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<td><strong>RIGHT OBLIQUE/ VERTICAL</strong></td>
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</table>

Figure 4.37  Lozinsky Lip Decoration
**Brim and Outer Corner**

- Fabric/CWT n=1
- Fabric-Impressed/Left Oblique
- CWT n=2
- Right Oblique/Right Oblique

**Brim, Outer Corner and Inner Corner**

- Fabric/Cord/CWT n=1
- Fabric/RT Oblique/RT Oblique
- Cord/RT Oblique/RT Oblique
- CWT/Cord/Punctate n=1
- Line/RT Oblique/Punctates

**Brim and Inner Corner**

- CWT n=1
- Right Oblique/Left Oblique

**Outer Corner Decoration**

- CWT n=2
- Right Oblique

*Undecorated n=5

Figure 4.37 cont'd Lozinsky Lip Decoration
Decoration applied to both the outer and inner corners is the second most common lip decoration. Decoration is only detectable on the lips of 5 vessels; two others have single rows of punctates on the rim. Right oblique CWT impressions on both corners of the lip are found on four vessels. One vessel has right oblique SET impressions on both lip corners. Two vessels have different treatments on the inner and outer corners. One pot has outer corner right oblique CWT impressions with left oblique impressions on the inner corner. Another has deep right oblique SET impressions on the outside corner but shallow notches on the inside.

Brim surface and outer corner decoration is found on four vessels. The decoration appears only on the lip of two vessels while the other two have a punctate line on their rim angles. The vessels with rim angle decoration both have right oblique CWT impressions on the brim and outer corner. One vessel has fabric impressions on the brim and left oblique CWT impressions on the outer corner. The lip of the other vessel is highly decorated. Both fabric and right oblique CWT impressions were placed on the brim surface along with right oblique CWT impressions on the outer corner. Stoney Beach is another site which contains vessels with multiple brim decorations.

Three vessels from the Lozinsky site have decoration on all three lip surfaces. Lip decoration represents the only
detectable decoration on these vessels. Two vessels have right oblique CWT impressions on both the inner and outer corners. One of these vessels has fabric impressions on the brim; the brim of the other is cord-roughened. The third vessel has different decorations on each surface of the lip. A CWT line appears on the brim, right oblique CWT impressions are present on the outer corner and there are punctates on the inner corner.

Only two vessels were decorated on the inner corner and brim. The lip decoration is the only detectable decoration on one vessel, which also has a wedge lip. The other vessel appears to have an oblique SET impression on the brim and at least one notch on the inner corner. However, these markings may not represent intentional decoration. Horizontal CWT lines were applied to the rim of this vessel.

Only two vessels have lip decoration on the outer corner only. Both have right oblique CWT impressions on the outer corner and some form of rim decoration. One vessel has a single row of punctates on the rim while the other carries horizontal CWT lines.

Five vessels from this site are without lip decoration.

4.6.2.2 Rim Decoration

Over one-half of the vessels with portions of the rim area present carry decoration. The rim areas of 26 vessels are intentionally decorated, 24 are undecorated and this area is absent from the other 4 vessels. Compared to some
other sites, the vessels from the Lozinsky site are very conservatively decorated. Only two patterns appeared on the rims of identified vessels, horizontal lines and punctates (Figure 4.38). Thirteen vessels were decorated with parallel horizontal lines, Pattern 1 Variation A. This design appeared as CWT impressions in all cases. The same number of vessels were given a single row of "normal" punctates, Pattern 10 variation A. Two vessels have seemingly unintentional fingernail gouges on the rim. Due to the highly fragmented nature of this collection, it is impossible to determine if these elements were actually repeated.

RIM ANGLE DECORATION

One half of the 10 vessels with rim angles present carry decoration on or below the angle. Decorations appearing below the angle are a rare occurrence in central Saskatchewan assemblages. This seems to be a Selkirk trait. Several Selkirk vessels with incipient "S" profiles from the Bushfield West site, near Nipawin, carry a single row of punctates below the "angle" (Terry Gibson, pers. com. 1990).

A minimum of two parallel horizontal CWT lines appear on and below the rim angle of one vessel (Figure 4.39). This decoration is called Mode 7 Variation B. Mode 9 Variation A, a series of right oblique impressions, is executed in CWT on the rim angle of another vessel. "Normal" punctates, Pattern 10 Variation A, appear on the
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Figure 4.38 Lozinsky Rim Decoration

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Figure 4.39 Lozinsky Rim Angle Decoration
rim angle of two vessels and slightly below the rim angle of another.

4.6.2.3 Neck, Neck/Shoulder and Shoulder Decoration

Only two vessels retain a portion of the neck area; one is decorated. A punctate line, Pattern 7 Variation B, is located on the neck of this Short Rim vessel (Figure 4.40). A very similar vessel with a Short Rim profile and single row of punctates at the neck was noted at Stoney Beach. The neck/shoulder area is present on this vessel; however, it is undecorated. No identified vessels retain portions of the shoulder area.

4.6.2.4 Other Observations

The materials recovered from this site include a number of decorated rim or shoulder angles. In fact, 44.7% (38/85) of the shoulder or rim angle sherds recovered were decorated. Decorations include single rows of punctates, two parallel horizontal CWT lines, pinching, vertical CWT impressions. One angle is decorated with a series of pinching marks alternating with punctates, a trait found on some Selkirk vessels in the Nipawin and Buffalo Narrows areas (David Meyer, pers. com. 1991).

Several more sherds are decorated above the angle with right oblique impressions. Three sherds, either from the rim or neck/shoulder area, carry at least one horizontal CWT line above a series of short right oblique impressions. The design is executed in dentate on two sherds and in CWT on
<table>
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Figure 4.40 Lozinsky Neck Decoration
the other. Dentate impressions appear on one other sherd. The neck area is decorated on nine sherds, none of which can be associated with an identified vessel. Decorations include horizontal CWT tool, SET impressions, punctates and, in one case, a dentate stamp.

Two sherds with a check-stamped exterior occur, one sherd is simple-stamped, and another sherd carries dentate impressions.

4.6.3 Lip Forms and Surface Finishes

4.6.3.1 Lip Forms

Vessels with interior lip flanges are very common at the Lozinsky site (Figure 4.41) This lip form appears on almost 35% of the vessels ($n=19$) in this assemblage. The various forms of expanding lips including expanding with a bevel ($n=7$), expanding with a flange ($n=6$) and simple expanding ($n=5$) are found on 33% of the vessels. Many other lip forms appear once or twice; however, no vessels with exterior flanges are noted.

4.6.3.2 Exterior Surface Finish

As at the other central Saskatchewan sites, most vessels carry one of three surface finishes: fabric-impressed, cord-roughened or plain (Figure 4.42). When considering only the finishes apparent of the defined vessels, plain exterior surfaces are found on 20 pots (36.4%). Fabric impressions are found on over one-quarter of the vessels and another 12.7% ($n=7$) are cord-roughened.
Figure 4.41 Lozinsky Lip Form Frequency

Figure 4.42 Lozinsky Exterior Surface Finish
Vertical fabric and horizontal cord impressions appear on a total of 7 (12.7%) pots. The exterior of one vessel is burnished and another is brushed. The exterior finish of five vessels can not be determined.

When all of the sherds (n=1236) at the site are considered, the cord-roughened exteriors are slightly more abundant than fabric impressions. This may indicate that some vessels with cord-roughed exteriors have the surface finish obliterated in the rim area during the manufacturing process. These vessels would appear to have a plain surface finish.

4.6.3.3 Interior Surfaces

No decoration or residue is found on 29 vessels. Eleven vessels have light residue accumulations; on one vessel, the accumulation is heavy. Bosses appear on the interior surface of six vessels; five other vessels have bosses and accumulations of residue. The interior surfaces of three vessels have exfoliated.

4.6.4 Summary

The majority of vessels at the Lozinsky site have an S-profile, Straight Rim or Angled Rim. Most vessels have some type of lip decoration, usually on the brim surface or on the inner and outer corners. Rim decoration, in the form of horizontal CWT lines or a single row of punctates, is found on almost one-half of the vessels. Several decorated neck and angular sherds in the collection can not be associated
with identified vessels. The most common lip forms are interior flanges and types of expanding lips. Vessels tend to have either plain, fabric-impressed or cord-roughened exterior surface finishes.

4.7 Related Sites near Saskatoon

Pottery from several sites near the city of Saskatoon shares many characteristics with the sites discussed in this section. These include the Bill Richards, Broadway Avenue and Preston Avenue sites. However, the pottery from each of these sites is limited to only a few vessels. A partially reconstructed vessel from the Preston Avenue site has an S-Profile with a single row of punctates along the rim angle and a cord-roughened exterior surface.

As mentioned previously, H. Ken Cronk was one of the first people to suggest that the pottery from the Broadway Avenue site is similar to material from the Lake Midden and Stoney Beach site. As well, his description of pottery from a site near Furdale, written about 1960, is published in the August 1987 edition of the Saskatchewan Archaeology Newsletter. He describes the pottery as cord-marked (cord-roughened) except for one check-stamped sherd. Decorations include mid-rim punctates and diamond-shaped punctates on a Angled Rim vessel. Other decorations on angles include fingernail impressions and vertical SET impressions. One vessel carries at least two horizontal CWT lines above the
neck.

From the text and illustrations, it is clear that one vessel (1 or diagram a) has a wedge-shaped profile, right oblique dentate impressions on the brim and a check-stamped exterior surface finish. Two vessels (2 and 6) have Angled Rim profiles with punctates on the angle, diamond shaped and round vertical oblique, respectively. Vessels 4 and 7 have Straight Rim profiles with a single row of punctates. Vessels 3 and 5 have Straight Rim or Angled Rim profiles. At least one horizontal CWT line appears on the rim of vessel 3. Vessels 2, 3 and 7 have right oblique CWT on the brim surface. The right and left oblique CWT impressions on the brim surface of vessel 5 partially overlap forming diamond shapes. The brim surface of vessel 4 is either fabric- or cord-impressed; the lip of vessel 6 is not decorated.

In short, vessels from sites in the Saskatoon area resemble those from other sites in central Saskatchewan in terms of profile, decoration and surface finish.

4.8 Schraeder

The Schraeder site is located in a cultivated field west of the town of Lockwood (Figure 2.1). The site is about 10 km northwest of the Williams site (see section 4.4). Little information about the site is available as it has only recently been discovered. David Meyer (pers. com. 1991), who visited the site briefly in 1990 with Douglas
Williams, reports that the site is in a very sandy area near several poplar bluffs, essentially the same terrain as the Williams site.

Fragments of two tubular pipes, one catlinite and the other steatite, have been recovered from the surface of the field. Fragments of at least 18 vessels occur in the collection.

4.8.1 Profiles

The level of vessel integrity in the collection from the Schraeder site is low; however, most vessels retain some portion of their rims. Several vessels from this site have Wedge (n=6 or 33.3%) or Square Wedge (n=1 or 5.5%) profiles. Straight Rim (n=4) and Straight Rim/Angled Rim (n=4) profiles together represent about 44% of the collection. Two vessels at the site have S-Profiles; one other has an Undetermined profile (Figures 4.43 and 4.44).

4.8.2 Decoration

4.8.2.1 Lip Decoration

Almost all (17/18) vessels at the site have some form of lip decoration. Decoration is restricted to the brim surface in about 44% of these vessels. Five of these vessels have Wedge profiles. One Straight Rim, one S-Profile and one Straight Rim/Angled Rim profile vessel also have "brim only" lip decoration. Three vessels with brim decoration have below brim decoration. One of these vessels also has decoration on the rim and neck areas. One vessel
Figure 4.43 Schraeder Profile Frequency
Figure 4.44 Schraeder Profiles
Wedge: A-C,F,G,Q  Square Wedge: D  Short Rim: E
Straight Rim: H,J,L,M  Undetermined: I,R  S-Profile: K
Straight or Angled Rim: N-Q
with brim decoration has rim decoration.

Examples of the different types of brim decoration are provided in Figure 4.45. The brim decoration found on six vessels consists of right oblique impressions. These impressions are executed in either dentate \( (n=3) \), CWT \( (n=2) \) or SET \( (n=1) \). One other vessel has at least one set of three left oblique dentate impressions on the brim surface. Another vessel has dentate "chevrons" on the brim surface composed of right oblique above left oblique impressions.

Outer and inner corner decoration is found on three vessels. On two of these vessels, the inner corner decoration takes the form of quartering. Both of these have a series of outer corner notches interrupted by a single broad inner corner notch. The other vessel has series of notches on the inner corner (vertical) and outer corner (right oblique) on the vessel. Neck decoration also appears on this pot.

Two vessels have lip decoration restricted to the outer corner. In one case, the decorations are right oblique CWT impressions; in the other, they are vertical notches. Two other vessels have brim and outer corner decoration. In one case, the brim decoration consists of a line of tiny punctates with right oblique SET impressions on the outer corner. The other vessel has five CWT lines on the brim and outer corner of the interiorly bevelled lip.

Two vessels, one with a Wedge, the other with a Square
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<tr>
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<td>TINY PUNCTATES /SET n=1</td>
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<td>CWT n=1</td>
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Figure 4.45 Schraeder Lip Decoration
BRIM, OUTER CORNER AND INNER CORNER

DENTATE
n=1

VERTICAL - ALL 3 (SQUARE WEDGE)
n=1

CIRCULAR IMPRESSIONS - ALL 3 (WEDGE)

* UNDECORATED n=1

Figure 4.45 cont'd Schraeder Lip Decoration
Wedge profile, have decorations on all three lip surfaces. In one case, vertical dentate impressions appear on the brim and continue over the outer corner. Vertical dentate impressions appear on the inner corner of this vessel, as well. Another vessel has at least one partial circular impression on the inner corner with circular impression on the lower brim/outer corner surface of the lip.

No lip decoration can be detected on one vessel.

4.8.2.2 Rim, Below-Brim and Rim Angle Decoration

Although each vessel retains some portion of its rim, often this area is very small. Decoration is present on the rim area of two vessels. Pattern 10 Variation A, "normal" punctates, appears on the rim of this pot. Another vessel has several horizontal dentate lines on the rim (and neck) surface (Pattern 1 Variation A). This particular vessel also has below-brim decoration in the form of vertical finger tip impressions (Figure 4.46).

Below-brim decoration is found on three vessels. One vessel has a series of trianguloid punctates below the brim, Pattern 1 Variation A. One vessel has vertical fingernail impressions, Pattern 2 Variation A; another has impressions which appear to have been made with the thumb tip. This is the second variation of Pattern 2 (Figure 4.47).

No decoration can be detected on the rim angles of the two vessels with S-Profiles.
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Figure 4.46 Schraeder Rim Decoration

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<td>FINGER (THUMB) TIP IMPRESSION</td>
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Figure 4.47 Schraeder Below Brim Decoration
4.8.2.3 Neck, Neck/Shoulder and Shoulder Decoration

Neck decoration appears on two of the five vessels which retain portions of this area (Figure 4.48). One vessel has a row of punctates along the neck, Pattern 7 Variation B. Another has horizontal dentate lines on the neck and neck/shoulder area, Pattern 1 Variation A. Horizontal lines appear on the rim of this vessel, as well. None of the vessels retain portions of the shoulder area.

4.8.2.4 Other Observations

Fragments of three angular sherds with decoration occur in Schraeder site collection, as well. In two cases, decoration appears above the angle in the form of horizontal, or horizontal and oblique, lines with punctates below the angle. These likely represent the fragments of Square Wedge profile vessels. The third piece has fingernail pinches on the angle, suggesting that it is either a shoulder or a rim angle sherd.

4.8.3 Lip Forms and Surface Finishes

4.8.3.1 Lip Forms

Six of the 18 vessels have wedge lips; this is the most common lip form in the collection. Three vessels have square lips; two have expanding lips. Several other lip forms occur once in the collection (Figure 4.49).

4.8.3.2 Exterior Surface Finishes

One-half of the vessels (n=9) in the appear to have plain exteriors. Three vessels have fabric impressions on
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Figure 4.48 Schraeder Neck and Neck/Shoulder Decoration
Figure 4.49 Schraeder Lip Form Frequency

Figure 4.50 Schraeder Exterior Surface Finish
the exterior, another two have cord-roughened surfaces. One vessel has fabric impressions with a definite vertical orientation (Figure 4.50). The exterior surface finishes of the other three vessels can not be determined.

4.8.3.3 Interior Surfaces

No decoration or residue is detected on the interior surfaces of 14 of the 18 vessels. Two pots have light accumulations of residue. The interior surface of another vessel is decorated with a (rim) boss. The other vessel also has a light accumulation of residue and a (neck) boss.

4.8.4 Summary

Although fragments of only 18 vessels have been found at this site, one-third have Wedge profiles. A variety of lip decorations appear; frequently this decoration is restricted to the brim surface. Rim, below-brim and neck decoration occurs as horizontal lines, punctates or fingernail impressions. Many of the vessels are dentate-stamped. Common lip forms are wedge, square and expanding. Most vessels have plain, fabric-impressed and cord-roughened exterior surface finishes.

4.9 Summary

The pottery from nearly all of the sites described in this section shares a number of characteristics. Straight Rim, Angled Rim and S-Profiles dominate the collections. Very few vessels with Wedge profiles occur at the sites, but
usually there is at least one. Most vessels have either fabric-impressed, cord-roughened or plain exterior surface finishes. The incidence of check-stamping is very low. While lip decoration is restricted to the brim surface on many of the vessels, others have outer or inner corner decoration, or some combination of corner and brim decoration. Most of the decoration on these vessels is executed in CWT.

The Schraeder site, however, is a notable exception; the vessel profiles and decorations identified at this site are different from those which commonly appear in central Saskatchewan assemblages (see section 4.3-4.9). As well, the incidence of Wedge lips and dentate impressions is much higher here than in the other sites discussed in this chapter. The two pipes also indicate that Schraeder is not a typical central Saskatchewan site.
5 POTTERY SOUTH AND WEST OF THE QU'APPELLE VALLEY

5.1 Introduction

The pottery discussed in this section is from sites south and west of the Qu'Appelle Valley in Saskatchewan. A detailed description of the pottery from the Walter Felt site (EcNm-8) is given. The pottery from three other sites, Sanderson (DhMs-12) near Estevan, Miry Creek (EeOc-5) in Diefenbaker Lake north of Cabri, and Site EdOh-44 in the Great Sand Hills northeast of Fox Valley, is examined briefly. As well, general overviews of the pottery assemblages the Mortlach site(s) (EcNl-1 and EcNl-10) west of Moose Jaw (Wettlaufer 1955) and Long Creek (DgMv-1) (Wettlaufer and Mayer-Oakes 1960) are presented. Also, a few pottery bearing sites in North Dakota and Montana are discussed, including Shippe Canyon (24SH514) (Joyes 1973), Dune Buggy (24RV1) (Johnson 1977) and Evans (32MN301) (Schneider and Kinney 1978).

Many of the pottery assemblages from the latter sites, in particular the Shippe Canyon and Evans sites, are frequently referred to in discussions of Mortlach pottery. A definition of Mortlach pottery will be presented in Chapter 7 based on the pottery assemblages from the Long Creek, Shippe Canyon and Evans sites.
5.2 Walter Felt - Upper Levels

The Walter Felt (EcNm-8) site is located south of the town of Mortlach, about 16 km southwest of the Mortlach site where Mortlach Check-Stamped was first identified (Figure 2.1). The site was partially excavated in the summers of 1962 and 1965 by the Saskatchewan Museum of Natural History. Apparently, work at this site continued until 1967 (David Meyer, pers. com. 1991). This site is located on a high escarpment overlooking a network of coulees (Kehoe 1964). Thomas Kehoe (1964) has described Besant pottery from Layer 13 at this site; however, a comprehensive site report has not been published.

The pottery under consideration from this site is from the uppermost occupation which Kehoe (1964:51) reports was a late seventeenth century A.D. bison pound. From the catalogue records is appears that the uppermost occupation is concentrated in the first four layers of the site although a few sherds from layers 5, 6 and 7 were very similar to the vessels above.

Kehoe (1973:164) reports that the only mass of bison bone at the site is associated with Layer 3. The remains of buried bases of wooden corral posts and supporting bone uprights have been identified at the site. A radiocarbon date of 400 +/- 40 B.P. is given for Layer 4, which contains Plains Side-notched projectile points.

This study involves a total of 145 vessels from the
upper layers of this site. Most of these vessels have good provenience information although a few rims lack catalogue numbers. The level of vessel integrity from this site is fairly high. About 30% (40/145) of the identified vessels retain some portion of the neck, neck/shoulder, shoulder or body.

5.2.1 Profiles

Wedge (n=26 or 17.9%), Straight Rim (n=24 or 16.6%) and S-Profiles (n=21 or 14.5%) are the most common identifiable vessel shapes (Figure 5.1). These three profile types account for almost 50% of the assemblage. Nearly 25% (36/145) are classified as Straight Rim/Angled Rim.

Other profiles also appearing in the assemblage include Angled Rims (n=11), Short Rim (n=8) and Square Wedge (n=3). Five vessels are placed in the Miscellaneous category; four of these had truncated "S" profiles and the fifth vessel had a simple profile, similar to a large bowl. The profiles of 11 vessels can not be determined. Selected profiles are presented in Figure 5.2.

5.2.2 Decoration

Very few of the vessels from the upper layers of Walter Felt carry elaborate decoration. Most of the vessels have decoration restricted to one part of the lip. When decoration appears on other parts of the vessel it is generally quite simple. While CWT impressions are the most frequent, dentate stamping is common as well.
Figure 5.1 Walter Felt Profile Frequency
Figure 5.2 Selected Walter Felt Profiles (90%)
Angled Rim: A, F, H, I, M
Straight Rim: B, D, J, K, N
Short Rim: C, X
S-Profile: E
Misc: G, L
5.2.2.1 Lip Decoration

Most vessels carry some form of lip decoration. The most common location for lip decoration is the brim surface only (which is the exterior-bevelled surface on a wedge lip) (Figure 5.3). Brim decoration was the only lip decoration on over one-half of the vessels (74/145); it was the only detectable decoration on 44 of these. Ten vessels were decorated on the brim surface and rim (excluding below-brim and rim angle decoration); CWT patterns and single rows of punctates were most common. A number of vessels with wedge profiles have brim and below-brim decoration (n=8), usually some form of punctate or finger-made decoration. Five vessels with Angled Rim profiles have brim and rim angle decoration. Three vessels carry brim surface and neck decoration and two others have brim and shoulder decoration. One vessel has decoration applied to the rim, neck and neck/shoulder while another has decoration which runs across the rim and neck.

Examples of the different types of brim decoration are provided in Figure 5.3. Right oblique CWT impressions appear on 29 vessels, approximately 20% of the collection. CWT decoration is also applied left oblique (n=6), perpendicular (n=2) and as a single line (n=1). Dentate impressions are almost exclusively found on the brim (exterior bevel) surface of wedge-shaped lips. Sixteen vessels have right oblique dentate impressions; the
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<td>DENTATE n=14</td>
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<tr>
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<tr>
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</tr>
<tr>
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<tr>
<td>INCISED n=1</td>
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<tr>
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<td>HORIZONTAL OVER RT OBLIQ</td>
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Figure 5.3 Walter Felt Lip Decoration
Figure 5.3 cont'd  Walter Felt Lip Decoration
Figure 5.3 cont'd  Walter Felt Lip Decoration
Figure 5.3 cont'd  Walter Felt Lip Decoration
impressions are oriented to the left on one other.

A variety of other brim decorations appear once or twice in the assemblage including teardrop punctates; cord-roughened; fabric-impressed; double punctate lines; alternating incised lines; oval punctates with fingernail gouge and fabric-impressed with SET impressions. Of special note is a vessel with a wedge lip that has an elaborate single cord-impressed decoration on the brim (exterior bevel) surface. The decoration is similar to Rim Pattern 2 Variation A, a single horizontal line over several right oblique impressions. As well, horizontal single cord impressions appear below the brim and rim of this vessel.

The second most common lip treatment is decoration applied only to the outer corner. Twenty-five vessels (17.2%) are decorated in this manner. Outer corner decoration is the only detectable decoration on 23 of these pots. One vessel carries rim decoration as well; the other is a Short Rim vessel with punctates on the neck and neck/shoulder. Notches are the most common outer corner decoration oriented vertically (n=9), right oblique (n=5) or left oblique (n=2). A single notch appears on a fragment of another vessel but spacing of this element can not be accurately determined. Fingernail gouges and right oblique SET impressions each appear on the outer corners of three vessels. Vertical pinching and right oblique CWT impressions each appear once.
Brim and inner corner decoration appears on seven vessels. Five of these vessels have wedge-shaped lips so the decoration appears on the interior- and exterior-bevelled surfaces; another has a Square Wedge profile. Dentate and CWT impressions are equally common, each appearing on three vessels. Three of these vessels carry below-brim decoration.

Lip decoration usually consists of oblique impressions or lines and oblique impressions. However, the "brim" of the vessel with the Square Wedge profile is highly decorated. The decoration is similar to the rim decoration Pattern 2 Variation D, except there are four horizontal parallel lines over oblique lines instead of three.

The other vessel has BET decorations applied obliquely to the inner corner and partially to the brim surface. Two vessels from this site have similar brim and outer corner decorations. This technique also appears in collections from Williams, Tipperary Creek and Stoney Beach.

Brim and outer corner decorations appear on eight vessels. Fabric impressions on the brim with outer corner notches or SET impressions appear on four vessels. Another has at least one incised gouge on the brim surface and notches on the outer corner. This vessel has horizontal CWT lines on the rim surface as well.

As mentioned above, two vessels have a combination of brim and outer corner decoration. One vessel has SET
impressions applied obliquely to the outer corner and, partially, the brim. The other has a horizontal hollow tool gouge across the outer corner and partially across the brim. The hollow tool appears to have been wrapped in fabric when the decoration was applied.

The eighth vessel is decorated in an unusual manner, rather like a Blackduck vessel. Left oblique dentate impressions appear on the brim surface while right oblique dentate is found on the outer corner/uppermost rim. Below this there is a row of right oblique fingernail impressions and several rows of horizontal dentate lines which extend to the neck surface.

Lip decorations are found on the inner corners of five vessels. Four vessels have notches on the inner corner, one of which has rim angle decoration. The other vessel appears to have thumb pinching in the inner corner, likely as quartering. This vessel also has rim angle decoration.

Decorations on the outer and inner corners of the lip are present on five vessels. Notches appear on the inner and outer corners of one vessel; vertical SET impressions are on the inner and outer corner of another. The former vessel carries rim decoration as well. One vessel has outer corner notches and inner corner vertical SET impressions. Two other vessels have outer corner decoration and quartering. In one case, the intermittent decoration takes the form of a broad notch on the inner corner; the other is
a single inner corner broad notch opposite two smaller outer
corner notches and SET impressions. The vessel with the
latter decoration is a miniature vessel which also carries
shoulder decoration.

Two vessels with wedge lips have decorations on all
three lip surfaces. The first is highly decorated; it also
has quartering. The lip decorations consist of right and
left oblique CWT impressions. The quartering consists of
four perpendicular CWT impressions on the brim and a pair of
punctates on the outer corner of the lip tab. Below-brim,
rim, neck and neck/shoulder decorations also appear on this
vessel. The other vessel has right oblique CWT impressions
on the inner corner (interior-bevelled surface) and check
stamps on the exterior surface including the brim (exterior­
bevelled surface) and outer corner.

A total of 17 vessels (11.7%) are without any type of
lip decoration. One of these vessels carries rim decoration
and another vessel, with a wedge lip, has below-brim
decoration. No decoration at all was detected on 15
vessels, two of which have Wedge profiles. The brim
surfaces of two other vessels have exfoliated. Corner
decoration is not noted on either of these pots.

5.2.2.2 Rim, Below-Brim and Rim Angle Decoration

RIM DECORATION

Rim decoration was detected on 11.0% (16/145) of the
Walter Felt vessels. Over 77% of the vessels appear to have
undecorated rims; the rim area is absent from another 17 vessels (11.7%). The majority of vessels (9/17) with decorated rims have patterns executed in CWT. Horizontal lines and single rows of punctates are the most common decoration (Figure 5.4).

Pattern 1 Variation A appears on 9 vessels, executed in CWT on seven and once each in dentate and single cord impressions. One of the vessels with CWT lines has a Wedge shaped profile and below-brim punctates, rim and neck horizontal lines as well as neck/shoulder vertical and oblique impressions.

One vessel appears to have the left side of a pattern very similar to Pattern 3 Variation E. However, there are probably four concentric inverted Vs instead of three. This decoration, Pattern 3 Variation F is executed in CWT. Pattern 8 Variation B, is found on one vessel from Walter Felt. The series of right oblique curvilinear impressions is executed in CWT.

Pattern 10 Variation A of this pattern, the "normal" punctate line, appears on three vessels. The punctate line is located on the upper portion of the rim area on two of these vessels. A second variation, B, of Pattern 16 (the Blackduck-like pattern) appears at the Walter Felt site. The punctates in Variation B are shallow oblique fingernail gouges. The horizontal lines are executed in dentate. This vessel has the outer corner/upper rim right oblique dentate
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<td>CWT (1)</td>
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<td>PATTERN 10 VAR. A</td>
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<td>PATTERN 16 VAR. B</td>
<td>OBLIQUE FINGERNAIL IMPRESSIONS OVER HORIZONTAL LINES(S)</td>
<td>DENTATE AND FINGERNAIL IMPRESSIONS (1)</td>
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<td>PATTERN 17 VAR.</td>
<td>CONCENTRIC OVALS</td>
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Figure 5.4 Walter Felt Rim Decoration
impressions described in section 5.2.2.1. The first variation of Pattern 16 was identified at the Williams site.

One vessel from this site has at least one group of shallow incised concentric ovals, Pattern 17, on the rim area. Although it is not possible to determine the spacing of this design, at least one other sherd carries the same decoration.

BELOW-BRIM DECORATION

Below-brim decoration occurs on 53.8% (14/26) of the vessels with Wedge profiles (Figure 5.5). However, this area is absent from seven rims which may imply that the frequency of occurrence is actually much higher (14/19 or 73.7%). Many of the decorations which appear in the below-brim field of decoration rarely if ever occur on the rims of vessels with different profiles; others occur as rim angle decoration on S-Profile or Angled Rim vessels, or as shoulder decoration.

Five variations of Pattern 1 appear below the brim on eight different vessels. Variation A, a single row of trianguloid punctates, appears on three vessels. This below-brim decoration is noted on a vessel from the Lake Midden collection. A row of "normal" round punctates, Variation B, is found below the brim of two vessels. A single row of inverted trianguloid punctates, variation C, occurs on one vessel. One vessel from the upper levels of Walter Felt carries teardrop punctates, variation D.
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<td>PATTERN 1 VAR. C</td>
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<td>PATTERN 1 VAR. D</td>
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<td>PATTERN 1 VAR. E</td>
<td>PUNCTATE: OVAL AND CONstricted</td>
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<td>PATTERN 2 VAR. C</td>
<td>FINGERNAIL GOUGE</td>
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Figure 5.5 Walter Felt Below Brim Decoration
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<td>THUMBNAIL GOUGE WITH</td>
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<td>PINCHED RIDGE</td>
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Figure 5.5 cont'd Walter Felt Below Brim Decoration
Finally, variation E, a single row of constricted oval punctates appears on one vessel. This vessel is the elaborately decorated pot which also has rim, neck and neck/shoulder decoration.

Three different variations of fingernail markings, Pattern 2, each occur once in the assemblage. The first variation is a row of vertical fingernail impressions. The third variation, C, is a row of fingernail gouges with the convex surface on the right. The other decoration, variation D, involves a series of closely spaced thumbnail gouges. The ridges which separate the gouges are modified by pinching as well.

There are two variations of a new design, Pattern 3, vertical pinching and a pinched V. Variations A and B each occur on one vessel. One vessel at this site has multiple rows of parallel, horizontal single cord impressions below the brim surface (Pattern 4). These impressions continue on the rim surface as well.

RIM ANGLE DECORATION

A total of 28 vessels have either Angled Rim or S-Profiles; of these, only seven carry rim angle decoration (Figure 5.6). The rim angle is undecorated on most of the vessels (19/28); the actual angle is missing on two others. In all cases, rim angle decoration is the only below the lip decoration appearing on these vessels.

A discontinuous series of horizontal incised
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<td>- DISCONTINUOUS IMPRESSIONS</td>
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Figure 5.6 Walter Felt Rim Angle Decoration
impressions, Mode 1 Variation A, appear on the rim angles of three vessels at this site. A third variation of Mode 5, the finger-nail-pinched V, is found on one vessel in this assemblage.

A second variation of Mode 6, fingernail gouges, is recognized on the rim angle of one vessel. This variation consists of a row of triangular-shaped ridged and grooved impressions, each created by two fingernail gouges.

Mode 9 Variation B, a series of short SET impressions appears on the rim angle of one vessel. These impressions are oriented obliquely to the right.

A second variation of Mode 10, the punctate line is found in the Walter Felt assemblage. The single row of punctates were made with the tool held perpendicular to the horizontal but pointing to the right.

5.2.2.3 Neck and Neck/Shoulder Decoration

The neck area is represented on less than 30% of the vessels (40/145) examined. Neck decoration is found on nine of the latter 40 vessels (22.5%) (Figure 5.7). A portion of the neck/shoulder area remains on only one-half (n=20) of these pots. Decoration was noted on the neck/shoulder area on four of these vessels; all of them have neck decoration, as well.

Pattern 1 Variation A appears on six different vessels. A single horizontal line, executed in CWT, is on the neck of three vessels. The neck/shoulder area is undecorated on
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Figure 5.7 Walter Felt Neck and Neck/Shoulder

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<td>INCISED (2)</td>
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<td>MODE 3 VAR. A</td>
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Figure 5.8 Walter Felt Shoulder Decoration
them. The CWT line on one of these may be an unintentional decoration. The creation of the line is possibly a function of the application of the exterior surface finish. The finish is probably the product of rolling a CWT over the surface of the vessel (Hurley 1979). The CWT line may result from the overlap of the rolled cord impressions on the rim with the impression on the neck/shoulder area.

Multiple horizontal lines occur on the neck and neck/shoulder area of three vessels. The horizontal dentate line decoration on two of these vessels represents the continuation of this pattern from the rim. One of these also has oblique fingernail gouges in the rim areas. The pattern, executed in CWT, begins at the neck and continues on to the neck/shoulder of the third vessel.

The third variation of Pattern 7 consists of punctates in a partially linear and partially random distribution. It appears on the neck and neck/shoulder of a Short Rim vessel.

A vessel at this site has an incised line, obliquely oriented to the right in the neck area. From the fragment available, it is not possible to determine if the line continues on to the rim. This decoration is Pattern 11.

Pattern 12 involves horizontal, vertical and oblique CWT impressions. This elaborate decoration consists of three horizontal lines on the lower rim and neck area over the neck/shoulder decoration. Vertical CWT impressions adjacent to vertical series of short right and left oblique
impressions (zigzag) appear in this area.

5.2.2.4 Shoulder Decoration

Shoulder decoration appears on three of the seven vessels which retain a portion of this area (Figure 5.8). Mode 2, a discontinuous series of horizontal incised lines, appears on the shoulder of the miniature vessel and on a vessel with a Short Rim profile. It should be noted, however, that the interpretation of this area as the shoulder on the latter vessel rests only on experience.

A third vessel has a single row of vertical oblique punctates on the shoulder angle. This type of punctate is made by pushing a tool upwards at an oblique angle. This shoulder decoration represents the first variation of Mode 3, the single row of punctates.

5.2.3 Lip Forms and Surface Finishes

5.2.3.1 Lip Forms

Expanding (n=22), wedge (n=21) and lips with interior flanges (n=19) are the three most common lip forms (Figure 5.9). Most other lip forms also appear in the assemblage including: square (n=12), round (n=12), expanding lips with a bevel (n=11) and expanding lips with a flange (n=9). Several other lip forms appear a few times. The lips of six vessels are variable.

5.2.3.2 Exterior Surface Finish

Fabric-impressed (n=42), cord-roughened (n=31) and plain (n=27) are the three most common surface finishes
Figure 5.9  Walter Felt Lip Form Frequency

Figure 5.10  Walter Felt Exterior Surface Finish
(Figure 5.10). Together they are found on 69.0% of the vessels from the upper layers of the Walter Felt site. Check-stamped exterior surface finishes are found on 20 vessels; one of which has diamond-shaped check stamps. Other surface finishes which appear at the site include vertical fabric (n=4), simple-stamped (n=1), brushed (n=2), rolled cord (n=1) and burnished (n=1). The surface finish of 16 vessels can not be determined due to breakage.

5.2.3.3 Interior Surfaces

No decoration or residue is detected on the interior surfaces of 90 vessels, representing 62.1% of the assemblage. Light residue is found on 32.4% (n=47) of the pots. The interior surfaces of two vessels are burnished; this surface has exfoliated on four other pots. A slight boss appears on the interior of one vessel, which also has some accumulation of carbon residue.

5.2.4 Summary

The pottery from the upper levels of the Walter Felt site tends to be less elaborately decorated than that from previously discussed sites. However, one of the most highly decorated vessels in Saskatchewan was found at this site. The most common vessel profile is the Wedge. This also occurs at the Schraeder site but at other sites north of the Qu’Appelle Valley this profile is rarely found. Below-brim decorations frequently occur on vessels with Wedge profiles. Vessels with Angled Rim profiles tend to have decoration
restricted to the angle itself. The occurrence of decoration executed in dentate, and of check-stamped exterior surface finishes, is relatively high.

5.3 Sanderson, Miry Creek and EdOh-44

5.3.1 Sanderson

The Sanderson site (DhMs-12) is located on the treed south bank of the Souris River valley, near Estevan (Figure 2.1). It is located about 19 km north-west of the Long Creek site (Wettlaufer and Mayer-Oakes 1960). Excavations were conducted at the Sanderson site by the Saskatchewan Research Council archaeologists in the late 1980s. Currently, the material recovered is in the process of being catalogued and no report has yet been published (Terry Gibson, pers. com. 1991). Apparently, the only disturbance to the site, prior to excavation, was from cattle. Consequently, the potential for reconstruction of vessels from this site is high. The excavators report that sherds representing several hundred vessels have been recovered from the site. The final results of the analysis should greatly enhance our understanding of the terminal Late Prehistoric period pottery in southeastern Saskatchewan.

The 43 vessel sample described below is from Block 1. In general, the pottery from the site seems to be quite similar to the Long Creek material - perhaps more highly decorated. Modifications to the basic wedge-shaped lip are
found in the collection. Whereas the "typical" wedge tapers above the juncture of the brim and rim surface, this wedge lip is extended; it tapers and then expands (Figure 3.5). Another variation is a wedge-like lip with a rounded brim and inner corner surface.

Wedge or wedge-like profiles are the most common profiles in the sample. There are a total of 16 of these, representing 36% of the collection. The other profiles identified include Straight Rim (n=8), Square Wedge (n=2), Straight Rim/Angled Rim (n=9), S-Profile (n=2) and Miscellaneous (n=1). The profiles of 6 vessels can not be determined.

Decoration on the vessels is usually executed in either CWT (n=16) or dentate (n=14). Other techniques, such as single cord-impressed, SET, incised lines, notches and punctates, are not common but do appear. Several vessels (n=6) are extremely highly decorated with horizontal and oblique CWT or dentate lines over the lip, rim and neck surfaces. A decorated lug (loop handle) appears to be associated with one of these vessels. The lug itself is decorated with closely spaced horizontal and vertical dentate impressions. The decoration on many other vessels, however, is restricted to the lip area. The lip of one vessel is decorated with a combination of CWT and dentate impressions; this technique has been noted at the Shippe Canyon site (Joyes 1973:72).
Exterior surfaces in the sample include plain, check-stamped, cord-roughened, rolled cord and fabric-impressed. The first three appear to be the most common; however, a more detailed analysis is needed. The surface finish on several of the vessels in this sample can not be determined.

Large fragments with highly decorated neck, neck/shoulder and shoulder areas are present; however, these fragments are not associated with identified vessels. One vessel has two horizontal dentate lines at the neck. In the neck/shoulder area, there are dentate-impressed concentric rainbow motifs surrounded by groups of small punctates and vertical and horizontal dentate impressions. A series of vertical dentate impressions occurs along the shoulder line, as well.

Another fragment has multiple horizontal lines of CWT on the rim area. These terminate just above the neck and are followed by a minimum of three rows of vertical oblique punctates on the neck and neck/shoulder area. Another vessel has left oblique CWT impressions over right oblique impressions which together form chevrons. The CWT design is adjacent to a curved ridge, along which the sherd broke. These two fragments are very similar to the fragments described as Miscellaneous Categories A and B from the Evans site (Schneider and Kinney 1978; see section 5.5.3.).

5.3.2 Miry Creek and EdOh-44

Miry Creek (Ee0c-5) and EdOh-44 are both pottery-
bearing sites in southwest Saskatchewan (Figure 2.1). The Miry Creek site is located on an island in the South Saskatchewan River, at the confluence of Miry Creek and the river. EdOh-44 is located about 60 km to the south-west, in the Great Sand Hills. Twenty vessels were identified in the Miry Creek collection and three were found at EdOh-44. However, a rather highly decorated vessel from Miry Creek is so similar to one from EdOh-44 that a close relationship between the occupants of these sites is probable. These two vessels may even have been produced by the same potter.

The rim and lip forms at these sites are very similar to those observed at the Sanderson site. Modified wedge profiles, including elongated lips which taper and then expand, as well as rounded wedges are present at Miry Creek. One EdOh-44 vessel also has the same wedge modification.

5.3.2.1 MIRY CREEK

Ten vessels representing 50% of the Miry Creek collection have Wedge or Wedge-like profiles. Straight Rim (n=4), Short Rim (n=2), S-Profile (n=1) and Angled Rim (n=1) profiles also occur. Two vessels have Miscellaneous profiles which resemble modified Angled Rim profiles.

A variety of decorations occur but most are restricted to the lip and rim areas. Decorations consisting of dentate or dentate in combination with punctates or fingernail impressions occur on six vessels. Decorations involving CWT or CWT in combination with incising or fingernail
impressions occur on five vessels. Brim fingernail gouges, in combination with rim angle oval punctates, appear on one vessel. The brim surface of another vessel has both SET and fabric impressions. Other decorations appearing once in the collection include rim punctates, outer corner notches, brim fabric impressions and a drilled hole.

Although many of the vessels retain portions of their neck, none carry decoration. Shoulder decoration, in the form of vertical notches, is found on one Short Rim vessel. The brim of this vessel carries a group of three left oblique SET impression as well as small, tightly grouped dentate impressions. A cluster of tiny punctates also appears just below the lip.

The most common surface finish in the collection is cord-roughening or rolled CWT impressions. Together, these finishes appear on 50% (n=20) of the vessels in the collection. Simple-stamped (n=4), plain (n=3), fabric-impressed (n=2) and check-stamped (n=1) are also present.

5.3.2.2 Site EdOh-44

Three vessels were found at this site including the one illustrated in Figure 5.11. In terms of profile, lip form and decorative treatments, this particular vessel is very similar to a vessel from the Miry Creek site. The below brim decoration on both vessels is a combination of thumbnail gouging and fingernail pinching. Both vessels have dentate impressions on the brim; however, the patterns
Figure 5.11 Modified Wedge Vessel from EdOh-44 (90%)
are not identical. One involves horizontal lines while the other involves horizontal lines over vertical lines. The major difference is that it has a simple-stamped exterior finish while the Miry Creek vessel is cord-roughened.

Two Straight Rim vessels with cord-roughened exterior surfaces were found. One vessel has an incised line on the brim, with inner corner broad notch quartering. The other, a miniature vessel, has right oblique BET on the brim surface.

5.4 Pottery from Published Southern Saskatchewan Sites

5.4.1 Mortlach Site

This site or cluster of sites is located in the Besant Valley along a spring-fed creek, called Sandy Creek, between the towns of Mortlach and Caron (Figure 2.1). In 1955, Wettlaufer reported that occupations were scattered along the valley for several miles. Avocational excavations had been made throughout the entire length of the camping area.

Although Wettlaufer (1955) published the results of the excavation as one site, parts of the site now have separate Borden designations. Wettlaufer described the Mortlach culture based on the Project 4 artifact assemblage. These excavations were more than 0.8 km west of Project 3 (EcNl-10); about 1.2 km west of Project 1 and 2 (EcNl-1).

The author examined the material from the Mortlach site housed at the SMNH. Few of the vessels illustrated in the
report could be located in the museum. No wedged-shaped lips were noted in this collection; few pots even remotely resembled the pottery which is known as Mortlach in North Dakota and Montana (Joyes 1973, Schneider and Kinney 1978).

Wettlaufer (1955:20-21) reported that the greatest part of the 84 sherds found in Project 4 belonged to the Mortlach Check-Stamped type. He believed that this material represented the latest occupation. It also appeared on the west side of Project 1 (Project 1C) but not in Projects 1A or 1B. The pottery below the Mortlach Check-Stamped in Project 1C was the same pottery (i.e. Moose Jaw Cord-Marked) found in the top levels of Project 1A and 1B.

The pottery that Wettlaufer named Mortlach Check-Stamped type was grit-tempered with coarse and laminated paste which tended to split apart. Body sherds were 3.5-6 mm thick. The usual decoration on the rim sherds was right oblique dentate impressions on top (i.e. the brim). The rims of other vessels were plain and series of punctates appeared on the upper part of the exterior rim surface. Some plain topped rims had right oblique dentate impressions on the upper exterior rim (possibly a fragment of a Square Wedge vessel).

The vessels were described as round bottomed and squat; the orifice was 20-25 cm in diameter. Wettlaufer reported that the rims of the vessels were flattened and somewhat rolled inward, although no profiles were provided.
Shoulders were either undecorated or were pinched or fingernail-impressed. A check-stamped pattern appeared on the body sherds, although the pattern was almost completely obliterated on some sherds. Wettlaufer suggested that, although the distribution of material was unknown, the pots were similar to those found at the Hagen site (single cord-impressed Middle Missouri village pottery). Vessels with plain surfaces also appeared in Project 4.

In Project 1C, a few fragments of Mortlach Check-Stamped pottery were found in association with the cord-marked pottery. Several body sherds with cord (-roughened) exteriors were also found. These sherds were 4 mm thick on average. As well, at least two non-Mortlach check-stamped vessels were identified. The description and the illustration of the first indicates that it had outer corner right oblique CWT impressions, inner corner punctates and at least three horizontal CWT lines on the rim. The exterior surface finish of this vessel was not given. The second vessel was represented by an undecorated rim sherd with sand tempering and a plain exterior surface finish.

5.4.2 Long Creek

The Long Creek site (DgMv-1) was located about 10 km southwest of Estevan, just above the confluence of Long Creek and the Souris River (Figure 2.1). The site was excavated in 1957, prior to its inundation by the Boundary Dam Reservoir.
The Long Creek site was found on the valley floor on the south side of the creek. Several features of this location were recognized as being favourable for occupation. In contrast to the upland prairie and north slope, the sheltered south side of the valley had both good tree cover and a hillside spring (Wettlaufer and Mayer-Oakes 1960:4).

The material from Level 1 was called the Hidatsa-Fall River culture. An estimated date of A.D. 1600 was suggested as the time of occupation. Wettlaufer and Mayer-Oakes (1960:21) reported that, except for the pottery, the material culture suggested that two groups of people lived on the site during this period. Wettlaufer and Mayer-Oakes (1960:100) did not recognize a correlation between the Mortlach culture and the Fall River culture; however, others have made this association.

The vessel area terminology employed by Wettlaufer and Mayer-Oakes (1960) makes it difficult to interpret the descriptions. However, they seem to have referred to both the exterior bevel of wedge lips and the brim surface of non-wedge lips as the "rim." The interior bevel of wedge lips is called the "lip." Decorations appearing below the lip are referred to as "neck" decorations (See Wettlaufer and Mayer-Oakes 1960:25 and Plate 11, No.10). Based on the definitions in Chapter 3, their term "rim" has been changed to "brim," "lip" has been changed to "inner corner" and "neck" has been changed to "rim." Their term "sloped rim"
has been translated to "wedge lip."

A total of 99 rim sherds and 2,528 body sherds were recovered from the upper three levels of the site. Most of the pottery from Level 2 (Avonlea) was either cord-roughened or net-impressed. Although Wettlaufer and Mayer-Oakes suggested that Level 2 pottery may be intrusive (i.e. actually from level 1), the separation seems justifiable. The association of net-impressed pottery with Avonlea points has been demonstrated elsewhere (Meyer et al 1988; Quigg 1988).

Table 1 (Wettlaufer and Mayer-Oakes 1960:29) gave frequency counts of sherds with exterior surface finish or decoration from the Long Creek site. Among the body (probably including neck/shoulder, shoulder and body) sherds from Level 1A and Level 1B, there were 275 check-stamped, 215 cord-roughened, 189 grooved paddle, 39 scored, 92 fabric-impressed and three with punctates. Body sherds which were "smoothed or worn and the design elements completely obliterated" were not included in this table (Wettlaufer and Mayer-Oakes 1960:29). By subtraction, 1666 of these sherds with plain or undetermined surface finishes were found in Levels 1 and 2.

Selected profiles of 29 vessels appeared in Plates 9 and 10 of the report. Of these, there were 10 Wedge or Wedge-like profiles, 4 Straight Rims, 3 S-Profiles, 1 Angled Rim and 1 vessel had a braced rim. The remaining 10 vessels
had Straight Rim or Angled Rim profiles.

Five types of pottery were recognized on the basis of rim (lip) decoration: wrapped rod, cord-marked (meaning single cord-impressed), dentate, plain and incised.

Type 1, wrapped rod pottery, carried mainly diamond (check-stamped) and plain exterior surface finishes; cord-roughened and fabric-impressed surface finishes were in the minority. In Level 1A, wrapped rod impressions were found on 67 rim and neck sherds; 10 were found in Level 1B; 2 came from Level 2.

Design 1 involved CWT impressions which appeared only on the brim (exterior bevel) of the wedge lips or the brim surface of non-wedge lips. On other vessels, CWT impressions appeared on the brim (exterior bevel) and inner corner (interior bevel) of wedge lips (Design No. 2). Some Wedge profile vessels with decorated brims and inner corners also had fingernail pinching below the brim (Design No. 3). The brim decorations on these latter vessels consisted of horizontal or combinations of horizontal and oblique lines; inner corner decoration appeared as oblique impressions.

One variation of Design No. 1 was noted; two variations of Design No. 2 occurred. The Design No. 1 variant involved right oblique CWT impressions on the brim and a single row of punctates on the rim. However, this latter sherd was illustrated as part of the Avonlea culture (Wettlaufer and Mayer-Oakes 1960:38, Plate 11, No. 10).
The first variation of Design No. 2 consisted of a non-wedge vessel with right oblique CWT on the brim and multiple horizontal CWT lines on the rim. The second variation of Design No. 2, on a Wedge profile vessel, had a line on the inner corner and oblique impressions on the brim.

Wettlaufer and Mayer-Oakes (1960:25-27) referred to Type 2 pottery as cord-marked, meaning single cord-impressed. In order to avoid confusion, the term single cord-impressed will be employed throughout this discussion.

Type 2 vessels carried either diamond check stamping or "scored horizontal striations—may be grass rubbed" on the exterior surface (Wettlaufer and Mayer-Oakes 1960:25-26; Plate 6, No. 9). The plate caption for a rim sherd with a horizontal, simple-stamped exterior surface was "scored body pattern;" however, later Wettlaufer and Mayer-Oakes (1960:29) separate grooved paddle from those with scored exteriors. It appears that vessels with vertical stamps were called simple-stamped and those with horizontal stamps were referred to as scored. Without examining the pottery assemblage the terminology is difficult to interpret.

These rim sherds were decorated with single cord-impressions on the brim (and sometimes rim) with below-brim vertical fingernail impressions; all of those illustrated had wedge or wedge-like profiles. Wettlaufer and Mayer-Oakes (1960:27) reported that some of these vessels had rounded lips. Single cord-impressions were found on 20 rim
and neck sherds, all from Level 1A.

Type 3 pottery had dentate-stamped decorations. The profile illustrations show vessels with Wedge, Wedge-like and S-Profiles. The pots had either square or diamond check stamping on the exterior surface. Some sherds were smoothed/rubbed after they were paddled and there were a few with horizontal striations. Wettlaufer and Mayer-Oakes (1960:27) stated that one vessel with dentate decoration and a pinch pattern had vertical score marks on the (rim).

All but one of the dentate impressions on the brim were oriented diagonally to the left. A pinch pattern appeared below the brim on some of these sherds, similar to "Mortlach dentate" (Wettlaufer and Mayer-Oakes 1960:27). Most of the rim and neck sherds with dentate impressions were found in Level 1A (n=31); six were found in Level 1B.

Type 4 pottery was called plain. Three rim and neck sherds had undecorated lips. This fourth type of pottery occurred on vessels with check-stamped, fabric-impressed and "scored and rubbed horizontal striations" (horizontal simple-stamped) exterior surface finishes. Reference was made to two vessel profiles: one wedge-like and one Straight Rim/Angled Rim with an exterior-bevelled lip. However, the Wedge-like profile (No. 15) was also referred to under the section on vessels with dentate impressions.

The final type, Type 5, incised, was represented by one vessel. Based on the written description and the
illustration, this Straight Rim profile vessel had two incised lines on the brim surface and left oblique SET impressions on the outer corner. Four incised sherds were found in Level 1A; one was recovered from Level 1B.

Another variety of pottery described consisted of 4 rim sherds with a pinch pattern on the outer corner and a rubbed "loosely knotted fabric impression." This sherd from Level 1A was described as made "rather more carelessly than usual" (Wettlaufer and Mayer-Oakes 1960:182).

Other sherds described include three sherds with punctates. Although Wettlaufer and Mayer-Oakes (1960:29) identified two shoulder sherds as having punctates, the possibility exists that these represented rim angles. The other was a rim sherd with right oblique CWT impressions on the brim and a single row of punctates on the rim. The three sherds with punctate designs are recorded in Table 1 as being recovered from Level 1A. However, the illustration referred to indicates that this rim sherd was found in Level 2, the Avonlea culture.

5.5 Pottery from Montana and North Dakota

In this section, two sites from Montana (Shippe Canyon and Dune Buggy) and one from North Dakota (Evans) are reviewed. Several vessels were recovered from each of these sites. Two other sites, 32WI12 (Metcalf 1963) and East Redwater Creek (Taylor 1960), are reported to have pottery
similar to the above mentioned sites. However, the data in the publications are not presented in a manner which is usable for this study.

5.5.1 Shippe Canyon

The Shippe Canyon site (24SH514) is located south of the town of Plentywood, in north-eastern Montana (Figure 2.1). The material was found in the bottom of a coulee which links the upland with Big Muddy Creek (Joyes 1973). After material was initially exposed in the late 1960s, the site was extensively disturbed by pothunters.

Dennis Joyes (1973) made several brief visits to the site and performed limited test excavations. The material he has described was collected from the surface as well as from in situ deposits in an erosion channel and a 5'X 5' test excavation. The thick occupation layer was under an equally thick layer of sheep dung. Sand grading into gravel alluvium was found beneath the occupation. The site was found in a zone of shrubs between mixed grass prairie above and close to a box elder (Manitoba maple) - ash forest (Joyes 1973:51). A gully, about 100 yards (90 m) down slope may have held a seasonal water supply.

Late Side-notched (Plains) and Triangular projectile points, other chipped stone tools, pottery and other items were recovered (Joyes 1973:72-80). A variety of bone tools were found, including an awl, spatulas, knapping tools and knife handles. Pipe fragments, bone beads and a flat stone
disk were also recovered. Additionally, trade goods such as iron (knife) blades and an iron projectile point, glass beads and a gun flint were associated with the material described above. On the basis of the artifact assemblage, Joyes (1973:57) suggested that the site represents a butchering or camp site near a bison kill.

Pottery, including 130 rim sherds and 2023 body sherds from approximately 40 vessels, represented the most abundant class of artifact. Joyes (1973:57) found the light-coloured, grit-tempered material to be "strikingly uniform in appearance" and suggested that pottery had been manufactured at the site. Four rim forms were identified at the site including 34% Wedge-shaped, 57% Flattened Lip, 3% Recurved and 6% Rounded lip. Several profiles of these vessels were illustrated including 12 Wedge, 1 Square Wedge, 5 Straight Rim, 2 S-Profiles, 1 Angled Rim and 4 Straight Rim/Angled Rim profiles. On 79% of the rims, decoration was restricted to the lip or brim (exterior rim bevel) of wedge-shaped lips.

Most of the pottery was classified as either Mortlach Check-Stamped or Flat Rim Ware. Seven minor groups also appeared at the site. The frequencies of surface finishes, based on percentages of total body sherds, were given as 54% plain, 23% check-stamped, 8.3% simple-stamped, 5.3% cord-marked (single cord-impressed); 4.2% fabric-impressed, 5% dentate-impressed and 0.2% incised.
Only vessels with wedge-shaped lips, check-stamped exterior surfaces and oblique dentate or CWT impressions were classified as Mortlach Check-Stamped ware (Joyes 1973:62). These vessels tended to be thinner and more carefully made than the other kinds of pots. Decoration was restricted to the "lip" (probably inner corner of wedge) and brim (exterior rim bevel) on 69% of the sample (Joyes 1973:66). Decorations include dentate impressions (64%), fingernail impressions (16%), CWT impressions (9%), punctates (9%) and tool (broad-edged?) impressions (2%).

Joyes divided these Mortlach Check-Stamped vessels into four groups based on decoration (Figure 5.12). Group 1 contained 26 sherds representing at least 5 vessels with right oblique dentate impression on the brim plus one each of CWT, "plain cord" (single cord-impressed) and plain tool-impressed.

Group 2 contained 8 sherds representing a minimum of three vessels. These rim sherds were decorated with right oblique dentate impressions and either vertical fingernail impressions or oval punctates below the brim. Group 3 contained 4 sherds from at least 3 vessels. The decoration on the Group 3 rim sherds was similar to the Group 2 sherds except that Group 3 sherds also had horizontal dentate lines on the rim area (min=3), as well. The lips of five rim sherds in Group 4, from at least one vessel, were not decorated but brims of these vessels were check-stamped.
Figure 5.12 Shippe Canyon Decoration Groupings
The second major group, Flat Rim Ware, consisted of 8 composite rims and 58 individual rim sherds, representing in all about 20 vessels (Joyes 1973:66-68). A variety of surface finishes appeared on these sherds such as simple-stamped (30%), fabric-impressed or knotted cord (27%), smoothed (27%), cord(-roughened) (9%) and check-stamped (7%). On the basis of the illustrated profiles, vessels in this category had Straight Rim, S-Profiles and Straight Rim or Angled Rim profiles. On all of these sherds, except one, the decoration was restricted to the lip.

Group 1 consisted of 30 sherds with diagonal impressions across the brim surface; on one sherd, the impressions were alternately left and right oblique. The brim decorations were executed in CWT (n=11), dentate (n=7), cord (single?) (n=5), plain (broad edged?) tool and incised (n=1) impressions.

Group 2 consisted of 9 sherds with tool impressions (notches?) on the inner corner (n=2) or outer corner (n=7) of the lip. The three sherds in Group 3 had "[i]mpressions made with a blunt tool on the surface of the lip" (Joyes 1973:68). The decoration was not illustrated; however, the description could indicate that a series of punctates appeared on the brim surfaces of these sherds.

Group 4 consisted of four rim sherds representing at least three vessels. Fingernail impressions occurred on the outer corners of these sherds and 1 or more (single?) cord
impressions appeared on the brim surface. The profiles of two Straight Rim or Angled Rim vessels were illustrated; one vessel had an expanding lip and the other a "reverse wedge lip." No decoration was detected on the 12 rim sherds in Group 5.

Joyes (1973:68-72) recognized seven minor groups of pottery in the collection. Groups 1, 2 and 4 included vessels with Square Wedge or Angled Rim profiles. Group 1 included three sherds from a minimum of two vessels. Using the terminology defined in Chapter 3, these sherds had Square Wedge profiles with three dentate lines on the brim surface, oblique dentate impressions on the inner corner and vertical fingernail gouges below the brim. The exterior surface of the vessel was check-stamped. One rim sherd from a Angled Rim vessel was placed in Group 2. A single dentate line appeared on the brim surface of this vessel and a series of vertical pinches were made along the rim angle. The exterior surface of this vessel was simple-stamped.

The 13 individual and 1 rim composite placed in Group 4 likely represented the upper lip portions of Square Wedge vessels or the lip and rim of Angled Rim vessels. However, the outer corner/below-brim or rim angle areas of these sherds were absent making further identification impossible. Oblique dentate and CWT (n=2) occurred on the inner corner/brim surface and diagonal, sometimes combined with horizontal, lines occurred on the brim/rim surface. The
exterior surface finish of these vessels could not be determined.

Vessels placed in Groups 3, 5, 6 and 7 have Wedge or Wedge-like profiles. Group 3 consisted of one rim sherd from a vessel with a Wedge profile. The exterior surface of this vessel was either cord-roughened or had rolled CWT impressions. The inner corner (interior bevel) had right oblique dentate impressions, left oblique dentate impressions on the brim surface and vertical fingernail gouges below the brim. Group 5 consisted of eight rim sherds with rounded wedge-shaped lips. Diagonal dentate impressions appeared on the brim surface of these sherds. The exterior surface finish could not be determined.

Groups 6 and 7 were each represented by one, rather highly decorated rim sherd. Joyes (1973:72) noted that the decorations on the Group 6 sherd were executed in dentate and CWT. Based on the description and illustrations, this sherd had a horizontal CWT line over a series of right oblique dentate impressions on the brim surface. Vertical oblique punctates below the brim were followed by at least three horizontal CWT lines on the rim. Oblique impressions executed in dentate appeared on the inner corner, as well.

5.5.2 Dune Buggy

The Dune Buggy site (24RV1), is located southwest of Froid, Montana (Figure 2.1). Ann Johnson (1977) reported that the site is on the east bank of Sand Creek, an
intermittent tributary of the Big Muddy. This east bank was nearly level and trees bordered the sloping banks above. A permanent spring was located near the junction of a coulee with the creek. Across the creek, there were stabilized sand dunes. Johnson believed that the water and the shelter provided by the trees and the dunes attracted the prehistoric inhabitants.

The site was recorded in a cultivated field thirty years earlier, during the River Basin Survey. There are over 2000 museum accession records, many containing multiple artifacts. The material was recovered through the surface collection of the field and the excavation of four 18" X 48" test trenches. The majority of the material came from the surface of the field. From the assortment of projectile points in the collection, the site was occupied on several different occasions over a 10,000 year period. The older occupations occurred on the south end of the site; the pottery was in association with Knife River flint lithics on the north end of the site.

While over 500 potsherds were originally catalogued in 1949, only 196 of these remained, including ninety-four rims, when Johnson studied the collection twenty-five years later. Decomposed granite, mainly 1.3-0.5 mm in size (fine-grained) and, perhaps, sand was used to temper the vessels. No exfoliation was present and the paste was described as "blocky." Johnson suggested that the vessels were formed
using the paddle and anvil technique.

Johnson (1977:46) indicated that the vessels did not belong to the Middle Missouri tradition but resembled the pottery from several other sites in the area. She suggested that the vessels were globular with round bases. Shoulder sherds were described as round to "sharply defined as if creased" (Johnson 1977:41). (On the basis of the latter qualification and fragmentary nature of the collection, the possibility exists that some of these "shoulder" sherds are actually rim fragments of "Square Wedge" vessels or "rim angle" sherds). While Johnson reported that no complex (S-shaped or collared) profiles occur, two rims seemed to have slight S-Profiles (see Johnson 1977:42-43; Figure 3, d; Figure 4, i). The other rim sherds illustrated include 4 Wedge, 3 Straight Rim, 2 Short Rim, 13 Straight Rim or Angled Rim and 3 miscellaneous profiles.

On the basis of profile and decoration, 81 vessels represented by the 94 rim sherds were identified in the collection. Four techniques accounted for 85.7% of the designs; almost 60% of the decoration was restricted to the lip (brim of non-wedge vessels). Another 11.44% of the decorations appeared on the "Upper Rim-Lip," the exterior bevel of wedge lips. The "Upper Rim" (the below-brim area) was decorated 21.9% of the time. The inner lip (inner corner) was decorated 7.62% of the time.

In most cases, decoration appeared in one zone (n=68 or
69.4%) or at most two (n=19 or 19.4%). Three combinations occurred when decoration appear in two zones: inner lip-lip, lip-upper rim; rim-upper rim-lip. No decoration was detected on 11 vessels. Tool impressions were the most abundant decoration, present on the brim surface of 33.33% of the vessels. Dentate (21.91%), cord-wrapped (tool) (19.01%) and (single) cord impressions (11.43%) were also common.

The most common designs were right diagonal (50%), left diagonal (7.3%), horizontal (4.2%) and vertical (12.5%) parallel lines. Most of the single-row designs (n=15) consisted of punctates.

There were no decorated neck sherds in the collection; however, three of the 16 sherds identified as shoulders carried decoration. As previously mentioned, some of these may have been rim angles. Two sherds had pinched Vs on the angle and another had vertical fingernail impressions.

Johnson did not use the same terminology for describing lip shape as Joyes (1973). In particular, the term "wedge-shaped" lip was not employed. Using the terminology defined in Chapter 3, there are four wedge-shaped lips. A wide variety of other lip forms occurred including: round, T-lips, expanding, expanding/round, square, interior-bevelled, exterior-bevelled, exterior flange, as well as some other miscellaneous forms. Few lip forms appear more than once in the illustrations.
The exterior surface finishes found in the collection were cord-wrapped paddle (cord-roughened) and smoothed (plain). Cord-roughening was the predominant surface treatment; it occurred on 45% of the rim and 83% of the sherds from other vessel areas. A smoothed exterior surface finish appeared on 55% of the rim and 17% of the other sherds. The 17 cord-roughened sherds and 7 smoothed sherds from the rim and neck areas exhibited evidence of "numerous fine shallow striations" which Johnson (1977:41) termed "brushing."

Johnson (1977:46) found the pottery at the Dune Buggy site to be similar to that from the East Redwater Creek (Taylor 1960), Mortlach, Long Creek, 32WI12 (Metcalf 1963) and Shippe Canyon sites. The Evans site appeared to be similar, however, descriptions of the pottery had not yet been published.

5.5.3 Evans

The Evans site (32MN301) was found, near New Town, North Dakota (Figure 2.1), at the head of a coulee overlooking the Little Knife River. At the bottom of the coulee there were several springs as well as trees and shrubs. The site was recorded in 1952, at which time a small excavation unit was dug. Artifacts were concentrated on a bench/slump block where Schneider and Kinney (1978) placed a 2 X 2 m excavation unit.

There were two cultural components in the site. The
first was "related to an unspecified Woodland occupation" (Schneider and Kinney 1978:4) located 30-80 cm below ground surface. This occupation was dated to about A.D. 600-800 (Schneider and Kinney 1978:6). The second component was located 0-30 cm below ground surface in levels 1-3. A radiocarbon date of "A.D. 1555+/-80" was obtained from a charcoal sample from level 2. Schneider and Kinney suggested that materials from Component II were related to the Mortlach phase which Joyes (1973) identified at Shippe Canyon. As such, the material from the second component is of interest.

Schneider and Kinney referred to rim composites and individual sherds in their descriptions. Generally, they did not attempt to divide the assemblage into individual vessels. The vessels from Component II had a high frequency of wedge-shaped rims and expanding rims with flattened lips. Rims representing approximately 14 Mortlach Check-Stamped vessels were identified. All of these vessels had wedge-shaped rims or expanding rims with flattened lips, dentate or CWT impressions, and check-stamped exterior surface finish. The term "wedge-shaped rim" was used rather broadly, compared with Joyes (1973). While the stated definition is "thickened and bevelled to the exterior" (Schneider and Kinney 1978:5), the range of profiles in Figures 6, 7 and 8 is tremendous. At least four of the vessels illustrated could not be classified as Wedge
profiles under the definitions presented in Chapter 3 of this thesis. Schneider and Kinney also included a "reverse wedge rim" profile in this category.

The most frequent exterior surface finishes were smoothed, simple-stamped and check-stamped (Schneider and Kinney 1978:16). The frequencies of the surface finishes, made on the basis of numbers of body sherds, are: 37% (n=153) smoothed, 26.2% (n=106) simple-stamped, 11.4% (n=46) cord-roughened, and 24.5% (n=99) check-stamped. Schneider and Kinney (1978:6) separated the check-stamped material into categories A and B, perhaps distinguishing between square/rectangular and diamond shapes.

Cord-wrapped tool impressions were the most common, accounting for 76.5% of the decoration. By contrast, the frequency of dentate-stamping was only 17.6%. Tool-impressions (5.9%) and fingernail impressions (5.9%) also appeared less frequently. Decoration on the brim (exterior bevel) surface of wedge-shaped lips accounted for 59% of the decoration.

In total, six categories of Mortlach Check-Stamped pottery were identified on the basis of brim (exterior bevel) and, sometimes, rim decoration (Figure 5.13). All of these vessels had check-stamped exterior surfaces and most had a Wedge profile. The first category, A, included vessel with oblique CWT impressions oriented right or left oblique and contained three rim composites and seven sherds.
Figure 5.13 Evans Decoration Groupings
Multiple rows of CWT lines in the rim area were found on four sherds with right oblique impressions. One of these had a horizontal CWT line below the brim, as well. This area was undecorated on the three other vessels. Five rim sherds had right oblique impressions; three rim sherds had left oblique impressions.

Category B, consisted of one rim composite with three CWT lines on the brim surface and right oblique CWT impression(s) on the inner corner. Category C, contained one sherd with right oblique CWT impression on the brim and oval punctates below the brim.

The three remaining categories contained sherds with dentate decorations. Category D included one sherd from a non-wedge vessel. This pot had a Straight Rim profile, with an expanding lip bevelled to the interior. The CWT impressions on the brim were obliquely oriented to the right. Category E included one rim sherd with left oblique dentate impressions on the brim and right oblique dentate impressions on the outer corner which, together, formed a chevron. Vertical pinches appeared below the brim as well.

Category F was represented by one highly decorated rim sherd from a vessel with a Wedge profile. Right oblique dentate impressions appeared on the inner corner; left oblique impressions were found on the brim surface and below the brim. As well, at least 4 horizontal dentate lines were placed on the rim area of this sherd.
Two categories of sherds with expanding rims and flattened lips were recognized by Schneider and Kinney (1978:21). The first category, A, was represented by one rim composite with single cord decorations on the lip. Right oblique impressions occurred on the brim and on the very uppermost part of the rim, but not across the outer corner. The second category, B, consisted of one sherd with a dentate pattern on the brim surface. The decoration of the fragment showed two dentate lines adjacent to at least two left oblique lines.

The remaining sherds were described as minor rim forms. The first rim form, "Vertical and Unthickened with Flattened Lips" was divided into three categories. The first category, A, corresponded with Straight Rim profiles with interior-bevelled lips. Three composite rims from one check-stamped vessel were included. The decoration involved right oblique CWT impressions on the brim, six horizontal CWT lines on the rim and right oblique CWT impressions along the neck.

Category B included three undecorated sherds which exhibited a high degree of surface smoothing. The profile of one of these sherds was illustrated; it was from a Straight Rim/Angled Rim vessel with a pointed lip. Category C contained two sherds, the profile of one was illustrated. Assuming the exterior was on the right, the vessel had a Angled Rim profile. One was undecorated and the other
seemed to have at least one perpendicular BET impressions on the brim surface. Category D contained one rim sherd from a Straight Rim vessel. From the description, vertical CWT impressions appeared on the exterior and interior rim surface. At least one horizontal CWT impression occurred at the neck.

The second minor rim form was "Unthickened and Excurvate with rounded lip." Three undecorated sherds, which may be from the same miniature vessel, were placed in this category. Two sherds, interpreted as being "near-rim" sherds, and an appendage were placed in the Miscellaneous category. Category A contained vertical CWT impressions over a single horizontal impression. Below this, six hollow tool punctates were found on the vessel fragment. Category B included a sherd with several (n=21) vertical oblique hollow tool punctates adjacent to a vertical pinched ridge decorated with two vertical dentate impressions. To the right of the ridge was at least one left oblique dentate impression over several right oblique dentate impressions. Together these impressions formed chevrons. From the illustration, these dentate impressions appeared to be curvilinear. The appendage also included in this category was the proximal portion of a strap or loop handle.

5.6 Summary

While the pottery from southern Saskatchewan as well as
from certain sites in North Dakota and Montana possesses a wide variety of decorations, there are many similarities. The pottery from the Shippe Canyon, Dune Buggy and Evans sites is very similar to the material from Long Creek, Sanderson, Miry Creek and Site EdOh-44. These pottery collections/assemblages tend to have higher occurrences of Wedge profiles while Angled Rims and S-Profiles are not very common. While a few vessels are highly decorated, in most cases the decoration is limited to the lip and below the brim. Right oblique decorations executed in dentate or CWT are common, especially on the brim (exterior bevel) of vessels with Wedge profiles. In terms of exterior surface finishes, check-stamped, cord-roughened, plain and simple-stamped seem to be the most abundant.

Middle Missouri pottery traits occasionally occur in these site assemblages. These include loop handles, "rainbows" and decoration executed with single cord impressions. The strongest influence from the Middle Missouri villages is reflected in the pottery from the Evans and Sanderson sites.
6 SITES FROM THE QU’APPELLE VALLEY

6.1 Introduction

The area referred to as the Qu’Appelle Valley includes the Long John site, on modern day Buffalo Pound Lake. The Stoney Beach and Gilmore sites are just south of the main valley on tributary streams, Moose Jaw Creek and Wascana Creek, respectively. The Stoney Beach and Long John site assemblages both have the highest levels of vessel integrity (Figure 4.1). The pottery from the three above mentioned sites is discussed in detail below.

6.2 Stoney Beach

The Stoney Beach site (EdNh-1) is located close to the confluence of Moose Jaw Creek and the Qu’Appelle River (Figure 2.1). The site is in a deep ravine on the east side of Moose Jaw Creek (Wettlaufer 1951). In 1951, Boyd Wettlaufer reported that the site was discovered in 1930 and that collectors had been digging at the site continuously since then. The results of excavations undertaken at the site in the early 1960s by John Hodges have not been published.

Hodges willed his extensive collection from the site to the University of Regina, Department of Anthropology. While the Hodges collection likely contains several hundred vessels, many lack strong provenience. This analysis
focuses on a sample of 156 Stoney Beach vessels which have known provenience.

6.2.1 Profiles

The vessels from this site demonstrate a relatively high level of integrity (Figure 4.1). The profiles of about two-thirds of the pots can be identified with certainty. The profiles of 30 other vessels are vaguely classed as Straight Rim/Angled Rim; the profiles of 15 others can not be determined (Figures 6.1 and 6.2).

Almost equal numbers of vessels with S-Profile (n=46) and Straight Rim (n=44) profiles occur at the site. This accounts for almost 80% of all vessels with identifiable profiles. Ten vessels have a Short Rim profile; six others have Angled Rim profiles. Only one vessel from this site has a wedge-like profile. Two vessels have a converging straight rim profile; another is a little pinch bowl.

Two other vessels have very long, thin, convex rim sherds. Perhaps these represent vessels with high-rimmed incipient "S" profiles or simple profiles. Three vessels with similar rim sherds were identified at the Farago site. Until more of the profile can be assembled, it is not possible to make a positive identification.

6.2.2 Decoration

6.2.2.1 Lip Decoration

Most vessels in the Stoney Beach collection have some form of lip decoration (Figure 6.3). The most common
Figure 6.1  Stoney Beach Profile Frequency

n=156
Figure 6.2  Selected Stoney Beach Profiles (90%)
S-Profile: A-C, F, G  Straight Rim: D, E, H  Misc.: I  Short Rim: J
Figure 6.2 cont'd. Selected Stoney Beach Profiles (90%)
S-Profile: T Straight Rim: K, M, Q - S, V - Y Short Rim: L, O, U, Z
Angled Rim: N, P
location for lip decoration is on the brim surface (85 vessels or 54.5%), slightly lower than the percentage of vessels with the same decoration in the Lake Midden collection. Brim decoration is the only detectable decoration on 54 vessels. Another 21 vessels have brim decoration and some form of rim decoration, usually horizontal cord-wrapped tool lines, complex CWT patterns or complex patterns created with incised lines. There are 10 other vessels with brim surface decorations: one vessel has decorations on the rim and rim angle; three have decoration on the rim angle alone; one had decorations on the neck alone; one has decorations on the neck and neck/shoulder and four have decorations on the shoulder.

Examples of the different types of brim decoration found at Stoney Beach are shown in Figure 6.3. There is a great deal of variety present in the brim decorations from Stoney Beach. Although right oblique CWT lines are the most abundant brim decoration, they appear on only 38 vessels (24.3%). Left oblique CWT impressions (n=10) are also quite common. Other types of CWT decoration on the brim surface include impressions perpendicular across the brim, two CWT lines and pairs of short lines. One vessel has a pattern of oblique impressions and an incised (canaliculate) line.

A variety of SET impressions appear in the collection. It is interesting to note that the number of vessels with left oblique SET (n=4) actually exceeds the number of
## BRIM DECORATION

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Figure 6.3 Stoney Beach Lip Decoration
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Figure 6.3 cont'd Stoney Beach Lip Decoration
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**n=1** | **SET/ NOTCH**  
**n=1** |
| LINE/ VERTICAL | ALTERNATING/ QUARTERING |
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| **OPEN TRIANGLE/ QUARTERING** |  |
| **BRIM, OUTER AND INNER CORNER DECORATION** | **INNER CORNER DECORATION** |
| **INCISED** 
/ NOTCH  
**n=1** | **NOTCH**  
**n=1** |
| LINE/ QUARTERING/ QUARTERING | QUARTERING |

* UNDECORATED *n=20

Figure 6.3 cont'd  Stoney Beach Lip Decoration
vessels with the same impression oriented right oblique (n=3). Other SET decorations include perpendicular and alternating right and left oblique impressions. Dentate impressions are not very common, one vessel has right oblique impressions, another left oblique. Different types of broad edged tool impressions are found such as left oblique (n=1), right oblique (n=3) and perpendicular (n=2). On one vessel, the trough-like BET impression has a central ridge. Incised decorations which appear on the brim surface include left oblique gouges, a single line (n=2), incised lines which change to zigzags and converging right oblique and left oblique incisions. Two pots have perpendicular fingernail impressions on the brim surface. Another vessel has fabric impressions on the surface. Punctates appear on two different pots: one has a single line of punctates on the brim; the other has a series of oval punctates oriented right oblique.

A few vessels have brim decoration involving two different elements. For example, one vessel has left oblique CWT impressions bisected with an incised line; another vessel has SET impressions bisected with an incised line. One vessel has right oblique CWT impressions superimposed on the cord-roughened surface; another has a similar decoration with a fabric-impressed brim instead. This technique is also found at the Lozinsky site.

Vessels with decoration on the outer corner only
represent the second most common form of lip decoration at Stoney Beach. This type of decoration appears on 34 vessels or 21.8% of the collection. Outer corner decoration is the only decoration on 27 vessels; five vessels have decoration of the rim as well; one is decorated on the rim angle; one other carries neck and neck/shoulder decoration. The different types of outer corner decoration which occur in the Stoney Beach collection are shown in Figure 6.3.

The most common outer corner decorations are right oblique notches (n=15) followed by vertical notches (n=6), right oblique SET (n=4), vertical SET (n=3) and right oblique CWT (n=2). A number of other decorations appear once in the collection such as right oblique hollow tool, fingernail gouges and punctates. One vessel appears to have a single notch on the outer corner as quartering. One of the vessels with vertical notches has horizontal CWT lines on the neck and neck/shoulder. The vessel with outer corner punctates has a series of fingernail Vs on the rim angle.

Seven vessels (4.5%) carry decoration on both the outer and inner corners of the lip. Outer and inner corner decoration on the lip was the only detectable decoration on all 7 vessels. These corner decorations are presented in Figure 6.3. Usually, both corners are given identical decorative treatments such as right oblique SET (n=2), right oblique notches, vertical notches and vertical CWT. One vessel appears to be quartered with two small notches on the
outer corner opposite a large broad notch on the inner corner. Another has such deep notches on the inner and outer corners that turret castellations are created on the lip.

Decoration occurs on the brim and outer corner of 4 vessels. One vessel has fabric impressions on the brim and right oblique SET on the outer corner; the SET impressions on a similar vessel are oriented left oblique. A single row of small punctuates are on the rim of the second vessel. The third vessel appears to have an incised line on the brim surface interrupted by (quarterly) notches on the outer corner. The lip of the fourth pot is partially decorated with left oblique BET impressions on the brim and partially decorated with vertical notches on the outer corner. Partial decoration on the lip surfaces also appears on a vessel from the Tipperary Creek collection.

Three vessels are decorated on the inner corner and brim. One vessel has an incised line on the brim with a series of notches on the inner corner. The single notches on the inner corner of two vessels appear to represent quartering. The brim surface of one vessel carries alternating incised (or SET) lines; the other has incised (or SET) lines arranged to form an open triangle.

Only one vessel carries decoration on all three lip surfaces and the corner decoration on the lip is not continuous. Instead, the incised line on the brim is
interrupted by two small outer corner notches opposite a single broad inner corner notch. The shoulder of this pot carries a single exterior boss directly below the corner notching. This type of lip quartering also appears on another vessel which lacks brim decoration. It is interesting to note that both vessels may be miniature pots.

Only one vessel has decoration restricted to the inner corner; this appears to be a single notch representing quartering.

A rather large proportion of the collection has undecorated lips (n=20 or 12.8%). Several of these (n=7) carry some kind of rim decoration, usually a single row of punctates (n=5). One rim of one pot has several horizontal (wide) incised lines. A single drilled hole appears on the rim of another vessel. The final vessel appears to have oblique SET "notches" on the rim angle.

6.2.2.2 Rim and Rim Angle Decoration

All of the basic patterns found on the rim area of vessels from Stoney Beach are found in sites from central Saskatchewan (Figure 6.4). However, several new variations of the patterns appear. Of the 156 vessels from Stoney Beach, rim decoration has been detected on 34 (21.8%). The rims of most vessels are undecorated, the rim area is not present on three other pots. The two most common decorations are CWT impressions and punctates representing 58.8% and 26.4% of all rim decorations, respectively. Three
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<tr>
<td>HORIZONTAL LINES OVER AND ADJACENT OBLIQUE: INVERTED &quot;V&quot;</td>
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<td>PATTERN 3 VAR. I</td>
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<td>WIDE INCISED (1)</td>
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<td>HORIZONTAL AND VERTICAL (MULTI): FRAMES; CONCENTRIC</td>
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Figure 6.4 Stoney Beach Rim Decoration
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<td>PATTERN 6 VAR. D</td>
<td>HORIZONTAL AND OBLIQUE; ADJACENT TO HORIZONTAL; CURVILINEAR</td>
<td>CWT (1)</td>
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<tr>
<td>PATTERN 9 VAR. C</td>
<td>DRILLED HOLES (2)</td>
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<td>PATTERN 10 VAR. A</td>
<td>PUNCTATE LINE (1): &quot;NORMAL&quot;</td>
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<td>PUNCTATE LINE (1): VERTICAL OBLIQUE</td>
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Figure 6.4 cont'd Stoney Beach Rim Decoration
vessels are incised, one has tiny punctates and two holes are found on another.

As with many sites in central Saskatchewan, Pattern 1 Variation A, horizontal lines, is the most common rim decoration. This pattern is executed in CWT on 13 vessels. Pattern 2 Variation A, a single horizontal line over at least two, and probably several, right oblique lines appears in CWT on one vessel.

Three new variations of Pattern 3 are noted at Stoney Beach. In all three cases, the area beneath the inverted V is not filled with punctates. Adjacent horizontal lines can not be detected on the vessel fragment with Pattern 3 Variation G; however, this may simply be a function of breakage. Variations G and I both feature concentric inverted Vs while Variation H consists of converging sets of right and left oblique impressions which make the inverted V. Each of the above variations is executed in CWT on one vessel. One other vessel seems to carry a portion of a rather messy example of Variation H, executed with wide incised lines.

A third variation of Pattern 4 is found at Stoney Beach. The pattern, consisting of two concentric frames under a single horizontal line, is executed with wide shallow, incised lines. The corner angles of the frames are rounded, not sharp like variations A and B from Lake Midden.

A second variation of Pattern 5 occurs at Stoney Beach.
In this example, five parallel horizontal lines are adjacent to at least one vertical line. Wide incised lines are used to execute this pattern.

Two new variations of Pattern 6, horizontal and oblique lines, occur at Stoney Beach. Variation C has three parallel oblique lines adjacent to a right oblique impression which connects with a single horizontal line in the upper part of the rim, forming an oblique angle. The complete pattern appears on one vessel and a fragment of this same design on another. In both cases, the impressions are made with a CWT. Variation D is similar to C except that the design is curvilinear in appearance and two right oblique impressions change to horizontal lines. This pattern, executed in CWT, appears on one vessel.

Two closely spaced holes of different sizes appear on the rim of one vessel. This represents the third variation of Pattern 9.

Two previously defined variations of the punctate line, Pattern 10, are noted in the Stoney Beach sample. Variation A, appears on nine vessels, usually on the upper portion of the rim. One of these vessels has a single row of punctates on the rim angle, as well. A single row of vertical oblique punctates, variation B, is noted on one vessel.

BELOW-BRIM DECORATION

Only one wedge-like vessel appears in the Stoney Beach collection. No below-brim decoration is present.
RIM ANGLE DECORATION

The rim angle decorations from the Stoney Beach sample are quite similar to those at Lake Midden, but certainly not identical (Figure 6.5). The majority of S-Profile and Angled Rim vessels have undecorated rim angles. Only eight vessels (26.6%) with rim angles have decoration in this area.

One example of each of Mode 3, trianguloid punctates, and Mode 4 Variation A, vertical pinching are found in the sample. Mode 5 Variation 3, oblique nail impressions are in pairs which resembled inverted Vs, is found on one vessel. Two vessels carry horizontal CWT lines, Mode 7 Variation A, on the rim angle. This decoration represents a continuation of the rim decoration, Pattern 1 Variation A.

Mode 8 Variation B, represents a continuation of the Pattern 3 Variation C rim decoration over the angle is found on one vessel. Mode 9 Variation B, a series of short right oblique incised lines or SET impressions is also found on one vessel. The other vessel has a single row of punctates on the rim angle, Mode 10 Variation A. As mentioned previously, this vessel carries this same decoration on the rim surface above the angle.

6.2.2.3 Neck and Neck/Shoulder Decoration

While over 40% (n=64) of the vessels in the sample from Stoney Beach retain portions of the neck area, only six carry decoration. As well, only two of the 25 vessels with
<table>
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<td>MODE 5 VAR. C</td>
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<td>FINGERNAIL IMPRESSIONS: INVERTED &quot;V&quot;</td>
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<td>HORIZONTAL LINE: CONT'D FROM RIM</td>
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<td>CONTINUATION OF RIM PATTERN 3 VARIATION F</td>
<td><img src="Diagram5" alt="Pattern" /></td>
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<td>MODE 9 VAR. B</td>
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<td>RIGHT OBLIQUE IMPRESSION</td>
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<td>PUNCTATE LINE: &quot;NORMAL&quot;</td>
<td><img src="Diagram7" alt="Pattern" /></td>
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Figure 6.5 Stoney Beach Rim Angle Decoration
portions of the neck/shoulder present have decorations in this area (Figure 6.6).

Pattern 1, horizontal lines, is found on three vessels executed in CWT. In two cases, a portion of the neck/shoulder area is present and the decoration continues. Pattern 7 Variation A, a single row of vertical oblique punctates, is found on one vessel. Pattern 7 Variation B, the normal punctate, is found on one vessel. This is a Short Rim vessel and the punctates are rather large. The neck decoration named Pattern 13 is a continuation of the rim Pattern 6 Variation B onto the neck area of a Short Rim vessel.

6.2.2.4 Shoulder Decoration

The sample from the Stoney Beach site demonstrates one of the highest levels of vessel integrity (Figure 4.1). A total of 14 vessels retain portions of the shoulder area, of which 5 are decorated. Most of these 14 vessels have round shoulders; only four have angular shoulders. Three new shoulder decoration modes are identified in this collection (Figure 6.7).

The shoulders of two different vessels carry a series of discontinuous horizontal incised impressions, Mode 2. The shoulder of one vessel was given a row of right angle triangle-shaped punctates, Shoulder Mode 3, Variation B. Mode 4 appears on the shoulder of one vessel. It consists of vertical pinching on the shoulder angle. Finally, an
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<td>HORIZONTAL LINES</td>
<td>CWT (3)</td>
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<td>PATTERN 7 VAR. A</td>
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<tr>
<td>PATTERN 7 VAR. B</td>
<td>PUNCTATE LINE: &quot;NORMAL&quot;</td>
<td>(1)</td>
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<tr>
<td>PATTERN 13 VAR.</td>
<td>HORIZONTAL AND OBlique</td>
<td>CWT (1)</td>
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Figure 6.6 Stoney Beach Neck and Neck/Shoulder Decoration
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<tr>
<td>EXTERIOR BOSS: QUARTERING?</td>
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</table>

Figure 6.7 Stoney Beach Shoulder Decoration
exterior boss appeared on the shoulder of a miniature vessel. Although the spacing could not be determined, it is likely that this decoration, Mode 5, reflects quartering.

6.2.2.5 Other Observations

Several large fragments of vessels which lack strong provenience are also found in the Hodges collection. Rim sherds from other vessels are decorated with variations of Pattern 3, horizontal lines and oblique lines forming an inverted V. Other vessels have multiple rows of horizontal lines, Pattern 1 Variation A, executed in CWT. Several vessels with single rows of punctates are also found. Profiles include vessels with Angled Rim, S-Profile, Straight Rims and Short Rims. Many of these fragments are decorated shoulder sherds.

Out of several hundred rim sherds from Stoney Beach, only one sherd is decorated with dentate and single cord. The brim surface of this vessel is decorated with two single cord lines and at least two dentate lines appear on the exterior rim surface.

6.2.3 Lip Forms and Surface Finishes

6.2.3.1 Lip Forms

Many varieties of lip forms occur in the Stoney Beach sample and several of these are well represented (Figure 6.8). Expanding (n=24), expanding with a bevel (n=15), and expanding with a flange (n=11) account for only 30% of all lip forms. Lips with an interior flange (n=20) or exterior
Figure 6.8 Stoney Beach Lip Form Frequency

Figure 6.9 Stoney Beach Exterior Surface Finish
flange (n=11) are common. As well, several vessels have square (n=16), round (n=14) or interior-bevelled lips (n=12). Several lip forms occur only once or twice in the sample, so the number of vessels which fall into the miscellaneous category is quite high.

6.2.3.2 Exterior Surface Finish

Although several different surface finishes appear in the sample, fabric-impressed, plain and cord-roughened exteriors are the most common (Figure 5.9). These three account for over 80% of all surface finishes. Fabric impressions are the most abundant and appear on 59 vessels (37.8%). The number of vessels with either plain (n=34) or cord-roughened (n=33) exteriors are almost equal. Together, these three surface finishes account for over 80% of the vessels. The surface finishes on seven vessels can not be determined; six vessels are check-stamped.

6.2.3.3 Interior Surfaces

No decoration or residue is detected on the interior surfaces of 101 (65%) of the vessels. Some residue is present on the interior surfaces of 48 (31%) of the vessels. Bosses (n=3), brushing (n=1) or burnishing (n=1) also appear. The interior surface of one vessel has exfoliated. One vessel with interior bosses also has accumulations of carbon residue.
6.2.4 Summary

Vessels with S-Profile, Straight Rim and/or Angled Rim profiles represent the majority of the vessels at this site. One vessel has a wedge-like profile. Lip decorations executed in CWT, SET and notches are most common. Some vessels at the site have rather elaborate rim decoration; several varieties of rim angle decoration also occur. About one-third of the vessels with shoulders present are decorated in this field. A wide variety of lip forms occur, most commonly varieties of expanding lips, square lips and lips with interior flanges. Most of the vessels have either a fabric-impressed, cord-roughened or plain exterior surface finish.

6.3 Long John

The Long John site (EeNj-1) is located on Buffalo Pound Lake, just south of the Highway #2 causeway (Figure 2.1). The 55 vessels from the site are from the collection of Doug Warren, who donated them to the SMNH in 1987. Over a period of several years, he had partially reconstructed many of the vessels. As such, the level of vessel integrity at this site was the highest observed in Saskatchewan (Figure 4.1). The Warren collection contains the largest number of vessels from the site; however, the SMNH has small amounts of material donated by other collectors.

The Long John site is situated in a coulee which enters
the Qu’Appelle Valley near a permanent spring. The site is
described as a kill and butchering site, periodically
exposed by slumping. Apparently, the site was first noticed
in the 1930s and potting activities have taken place since
then. A number of people have collected a cultivated field
above the main site. University of Regina archaeologists
and several avocational archaeologists have "tested" the
site. The latter include John Sutherland, John Hodges and
Austin Ellis.

On a 1961 Saskatchewan site record form, Thomas Kehoe
described material from the site as including scrapers,
bifaces and "Mandan Tradition" side-notched points. It is
apparent that the points he is referring to are Plains Side­
notched points (see Kehoe 1973:78). There is no mention of
historic goods in the SMNH collections.

Almost one-half of the vessels (n=25) minimally retain
portions of the lip, rim and neck. Of these, 15 exhibit
portions of the neck/shoulder area; 11 vessels display at
least a section of the shoulder.

6.3.1 Profiles

The most frequent vessel profile at the Long John site
is the Wedge profile (Figure 6.10). Wedge profiles are
found on 24 vessels (43.6%); one other vessel has a Square
Wedge profile. Straight Rim profiles are identified on 10
vessels, including two miniature pots. Three vessels appear
to have incipient "S" profiles; two others have Short Rim
Figure 6.10 Long John Profile Frequency
Figure 6.11 Selected Long John Profiles (90%)
Wedge: A, C, E, F, I  Straight Rim: B, D, H  Misc.: G
Figure 6.11 cont'd  Selected Long John Profiles (90%)
Wedge: J, K, N  Straight Rim: L, M, P  Square Wedge: O
profiles. One vessel has a miscellaneous profile (truncated "S"). Only 10 vessels are vaguely classed as having Straight Rim/Angled Rim profile while the profiles of 4 other vessels can not be determined. Selected profiles from this collection appear in Figure 6.11.

6.3.2 Decoration

Although large sections from many vessels exist, very few carry any elaborate decoration. The vessels which are decorated tend to have either a single row of punctates or rows of horizontal lines. A few of the vessels with Wedge profiles have rather elaborate decorations on the brim (exterior bevel). These decorations are reminiscent of some of the complex patterns found on the rim and neck/shoulder areas of vessels from central Saskatchewan. The frequency of appearance of dentate-stamping at this site is roughly equal, to or greater than, CWT impressing.

6.3.2.1 Lip Decoration

Most vessels from the Long John site have some form of lip decoration. The majority (51% or 28/55) of the vessels have lip decoration restricted to the brim surface, including the exterior bevel of wedge-shaped lips (Figure 6.12). Brim decoration is the only detectable decoration on 21 of these vessels. The remaining 7 vessels have brim decoration along with decoration on the rim, below the brim (Wedge profiles) and/or neck decoration.

Several vessels, both wedge and non-wedge lip, have
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<td>RIGHT OBlique/ LEFT OBlique</td>
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</table>

Figure 6.12 Long John Lip Decoration
| BRIM AND INNER CORNER cont'd | DENTATE / BET  
|-----------------------------|-----------------|
| HORIZONTAL OVER RIGHT OBLIQUE / RIGHT OBLIQUE | DENTATE / DENTATE  
| CHEVRON AND BISECTING LINE / LINE (1) | DENTATE / DENTATE  
| LINES (4) OVER RIGHT OBLIQUE / RIGHT OBLIQUE | DENTATE / DENTATE  
| FABRIC / VERTICAL | FABRIC / SET  
| INCISED / NOTCH | INCISED / NOTCH  
| LINE AND QUARTER / QUARTER | INCISED / NOTCH  
| ALTERNATING AND QUARTERING | FINGER-NAIL / NOTCH  
| GOUZE AND QUARTERING | GOUZE AND QUARTERING  
| OUTER CORNER DECORATION | OUTER CORNER DECORATION  
| VERTICAL | NOTCH  
| LEFT OBLIQUE | NOTCH  
| BRIM, OUTER CORNER AND INNER CORNER | BRIM, OUTER CORNER AND INNER CORNER  
| CHECKSTAMPS / CHECKSTAMPS / RIGHT OBLIQUE | CHECKSTAMPS / CHECKSTAMPS / CWT  

Figure 6.12 cont'd Long Jong Lip Decoration
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VERTICAL AND LATERIAL DISPLACEMENT OF THE PASTE

* UNDECORATED n=4

Figure 6.12 cont’d Long John Lip Decoration
right oblique impressions on the brim surface, executed in either CWT (n=8) or dentate (n=6). Other right oblique brim decorations include broad edged tool impressions (n=1), SET (n=2), single cord impressions (n=1) and "right angle corner" punctates (n=1). Six vessels with right oblique impressions on the brim surface also have decoration below the lip.

One vessel has four parallel dentate lines on brim/exterior bevel. Three vessels with wedge lips have patterns executed in dentate on the brim surface. The decoration on two of these vessels consists of oblique and horizontal lines. The oblique lines on one vessel form an inverted V; possibly the right side of an upright V design on the other. The brim decoration of the third vessel consists of three horizontal lines interrupted, perhaps quarterly, by 8 short vertical impressions. Other brim decorations found at the site include perpendicular SET (n=1), perpendicular BET (n=1), cord-roughening (n=1) and an incised line which alternates from right oblique to left oblique (zigzag).

Decoration appearing on the brim and inner corner of the lip is also common, appearing on 11 vessels. Of these, seven have wedge lips and four do not. The inner corner decoration appears intermittently as quartering on three of the non-wedge vessels. Lip decoration is the only detectable decoration on 6 vessels; the remaining five
vessels have Wedge profiles and decoration on the rim, below-brim, neck and/or shoulder. The lip decoration on almost all of these vessels occurs only once in this collection.

CWT impressions on both surfaces is the most common lip treatment. Three vessels with wedge-shaped lips carry right oblique CWT impressions on both the brim and inner corner. Two of these vessels have a single row of punctates on the rim or just below the brim. Another vessel has right oblique CWT impressions on the brim and vertical CWT impressions on the inner corner. One other vessel has right oblique CWT impressions on the brim and left oblique impressions on the inner corner. These two vessels have below-brim decoration as well.

The other three vessels with Wedge profiles have dentate patterns on the brim. Two have below-brim decoration; this area is missing on the third. One vessel has several right oblique impressions under a single horizontal line, identical to Rim Pattern 2 Variation A. Perpendicular broad-edged tool impressions appear on the inner corner (interior bevel). This vessel also carries below-brim, rim, neck and shoulder decoration.

The brim (exterior bevel) surface decoration on the second vessel includes left oblique and right oblique lines which form a chevron bisected by a single horizontal line. A single line occurs on the inner corner (interior bevel)
surface. This vessel has below-brim, rim and probably shoulder decoration, too.

The third vessel is represented by a fragment of the wedge-shaped lip. The decoration on the brim (exterior bevel) surface consists of four horizontal lines over several right oblique impressions. This is similar to Rim Pattern 2 Variation D, with one more horizontal line. Right oblique impressions occur on the inner corner (interior-bevelled) surface of this vessel, as well.

The remaining four vessels do not have wedge-shaped lips. One vessel has fabric impressions on the brim surface and vertical SET impressions on the inner corner. The inner corner decoration on the other three vessels does not occur in a continuous series. Instead, it likely represents quartering. One vessel has a single incised line interrupted by one left and one right oblique incised impression. These oblique impressions frame a single broad notch on the inner corner. Horizontal incised lines may occur on the shoulder of this vessel; however, this can not be firmly established. Another vessel has an incised line which alternates from right to left oblique (zigzag) interrupted by a single broad notch on the inner corner. The other vessel has a single notch on the inner corner and at least one thumbnail gouge on the brim surface.

Outer corner decoration is the decoration found on six vessels. None of these pots have a wedge-shaped lip. In
all cases, the decoration consists of a series of notches: four oriented vertically, two oriented left oblique.

Three vessels have decoration applied to all three lip surfaces. Two vessels, with Wedge profiles, have right oblique CWT impressions on the inner corner (interior-bevelled) surfaces. The exterior surface finish, check-stamping, appears on the brim and outer corner surfaces. The other vessel may be a miniature pot. The brim surface carries an incised line which alternates from right oblique to left oblique (zigzag). The corner decoration consists of two inner corner notches opposite one outer corner notch. This decoration likely represents quartering.

Vessel decoration is restricted to the inner lip corner on one pot. This vessel has a Short Rim profile and a series of vertical CWT impressions on the inner corner.

Another two vessels, without wedge-shaped lips, have decoration appearing only on the outer and inner lip corners. The first has vertical CWT impressions on both lip corners. The other has a series of notches on the outer corner interrupted by a single broad notch on the inner corner, likely representing quartering.

Another vessel does not actually have decorations applied to the lip surfaces; instead, the lip shape was modified. When viewed from the side, the surface of the brim gently undulates up and down. When viewed from the top, the lip also gently shifts laterally from side to side,
as if there were very broad inner and outer corner notches.

The lips of the remaining four vessels are undecorated. Three of the vessels seem to be pinch pots; the other vessel either has a Square Wedge or Angled Rim/S-Profile. Without decoration it is difficult to classify the shapes.

6.3.2.2 Rim, Below-Brim and Rim Angle Decoration

As previously mentioned, the decoration appearing on the Long John vessels is generally quite simple (Figure 6.13). No rim angle decoration was recorded on the S-Profile vessels at the site. Below-brim decoration is more common than rim decoration. Over 30\% (n=7) of vessels with wedge-shaped lips carried below-brim decoration. Three of these vessels also have rim decoration. Only 2 of the other vessels have rim decoration, 38 (69\%) have completely undecorated rims and the rim area is absent on 8 others. In total, 9.1\% of the collection has rim decoration; 12.7\% of the vessels have below the brim decoration.

Pattern 1 Variation A, horizontal lines, appears on the rims of four vessels at the site. The three vessels with Wedge profiles have the design executed in dentate; the other Straight Rim vessel is single cord-impressed. All three vessels with Wedge profiles have below-brim decoration as well. A single row of "normal" punctates, Pattern 10 Variation A, is found on one vessel with a Wedge profile.

A new variation of the punctate line as rim decoration, Variation G, is recorded at the Long John site. The shallow
<table>
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<td>PATTERN 10 VAR. A</td>
<td>PUNCTATE LINE (1): &quot;NORMAL&quot;</td>
<td>SINGLE CORD (1)</td>
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<tr>
<td>PATTERN 10 VAR. H</td>
<td>PUNCTATE LINE (1): &quot;TEARDROP&quot; CORNER</td>
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Figure 6.13 Long John Rim Decoration
punctates, made with a right angle corner, are shaped like a teardrop. Punctates made with a "right angle corner" also appear on the brim surface of one vessel from this site. Similarly shaped punctates appear as below-brim decoration on a vessel with a wedge profile at the Walter Felt site. While this vessel has either a Straight Rim or Angled Rim profile, the rim decoration does occur on the uppermost part of the rim.

BELOW-BRIM DECORATION

Below-brim decoration appears on seven vessels with Wedge profiles (Figure 6.14). Pattern 1 Variation B, "normal" punctates, appears on two vessels. Vertical fingernail impressions, Pattern 2 Variation A, appears on two other vessels. Horizontal lines appear on one of these vessels as rim decoration, on the other as neck decoration. Pattern 2 Variation B, vertical fingernail gouges, occurs below the brim on one vessel. Pattern 3 Variation B, inverted V pinch marks, is found on one vessel which has rim, neck and shoulder decoration. Pattern 4, horizontal lines which continue on the rim, appear on one vessel.

RIM ANGLE DECORATION

As mentioned previously, rim angle decoration did not appear on any identified vessels from this site.

6.3.2.3 Neck, Neck/Shoulder and Shoulder Decoration

Although, several vessels retain portions of the neck, very few of the vessels are decorated in this area.
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Figure 6.14 Long John Below Brim Decoration
Sections of the neck are present on 45% (25/55) of the vessels but only three (12%) of these have decoration. The neck/shoulder area is present on 15 vessels but none of the pots carry decoration in this location. Of these, 12 retain portions of the shoulder. Shoulder decoration appears on one or two of the vessels.

Two of the vessels with neck decoration carry horizontal lines, Pattern 1 Variation A, executed in dentate (Figure 6.15). One vessel has horizontal lines on the rim and neck area, but not the neck/shoulder. The lines begin at the neck of the second pot; the neck/shoulder area is absent. Only the neck area of the third vessel has decoration. At least one slightly right oblique short incised line appear on the neck of this vessel (Pattern 11). None of the identified vessels from the Long John site have decoration on the neck/shoulder area.

At least one vessel from the Long John site has shoulder decoration. Another decorated shoulder is present in the collection but it can not be definitely associated with a particular vessel. Trianguloid punctates, Mode 3 Variation C, are found on the shoulder area of one vessel (Figure 6.16). This pot has a Wedge profile and is the most elaborately decorated vessel in the collection. It has inner corner and brim decoration, below-brim pinching and horizontal lines on the neck/shoulder area. The decoration on the other shoulder consists of three horizontal dentate
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Figure 6.15 Long John Neck Decoration

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<tbody>
<tr>
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</table>

Figure 6.16 Long John Shoulder Decoration
lines interrupted by at least 5 vertically oriented rectangles. This shoulder seems to be associated with a vessel with inner corner dentate lines, bisected chevrons on the brim, vertical fingernail impressions below the brim and four horizontal dentate lines on the rim.

6.3.2.4 Other Observations

Several other vessels from the site are in the possession of Austin Ellis and the Moose Jaw Museum. David Meyer (pers. com. 1990) has indicated that some of these vessels are partially reconstructed. As well, the SMNH holds small amounts of material donated by other individuals. A complete analysis of all the material collected from the site would be highly useful.

6.3.3 Lip Forms and Surface Finishes

6.3.3.1 Lip Forms

One lip form is far more common than any other in the collection: the wedge (Figure 6.17). Twenty-three (42%) vessels have wedge-shaped lips at the site while the next most common lip shape is the square lip, found on six (11%) vessels. Several other lip forms are present but they occur only two or three times. The lips of three vessels are too variable to classify; the lip forms of three others can not be determined.

6.3.3.2 Exterior Surface Finish

Check-stamping is the surface finish most often applied to the exteriors of vessels at the Long John site (Figure
Figure 6.17 Long John Lip Form Frequency

Figure 6.18 Long John Exterior Surface Finish
6.18). This surface finish appears on 19 (34.5%) vessels. Most have square check stamps but three vessels with diamond-shaped check stamps are found at the site. Fabric-impressed, cord-roughed and plain surface finishes each appear, respectively on 11, 10 and 9 vessels. Vertical fabric and horizontal cord-roughening each appear on one vessel. The exterior surface finish on two vessels can not be determined; the exterior surface of another has exfoliated.

6.3.3.3 Interior Surfaces

No decoration or residue is detected on the interior surfaces of 58% (n=32) of the vessels. Most vessels (n=19) with residue have only a light coating; three vessels have heavy accumulations. The interior surface of one vessel has exfoliated.

6.3.4 Summary

The most common profile at the site is the Wedge, found on over 40% of the vessels. Lip decoration can take the form of complex patterns; most frequently the decoration consists of right oblique impressions. Rim decoration is simple, often in the form of horizontal lines executed in dentate or punctates. Below-brim decoration occurs as punctates or fingernail impressions. Neck and shoulder decoration is rare; neck/shoulder decoration does not occur. Check-stamped exterior surface finishes are most common.
6.4 Gilmore

The Gilmore site (EdNe-11) is located south of Lumsden in the Wascana Creek Valley, a tributary of the Qu’Appelle River (Figure 2.1). The site is located in a coulee on the east side of the valley. Dale Walde conducted excavations at the site for the 1988 University of Regina Department of Anthropology Field School. The analysis of material from site is not complete (Dale Walde, pers. com. 1990).

The pottery assemblage from the site is composed of a total of twenty-four vessels. The collection is highly fragmented, most of the vessels are represented by the lip and rim area only. Two vessels retain portions of the neck; one of these retains a portion of the neck/shoulder area.

6.4.1 Profiles

The Wedge profile is the most common at the site; represented by 7 (29.2%) vessels (Figures 6.19 and 6.20). Additionally, there is a fragment (Undetermined profile) from a vessel with a round wedge lip; another lip fragment probably represents the uppermost portion of a vessel with a Square Wedge profile. Straight Rim and S-Profile profiles each appear three times in the collection. Angled Rim, Short Rim and simple (pinch pot) profiles each appear once. Four vessels have Straight Rim/Angled Rim profiles; the profiles of another 2 vessels can not be determined.
Figure 6.19 Gilmore Profile Frequency

n=24
Figure 6.20  Selected Gilmore Profiles

Straight or Angled Rim: A, R  Wedge: B, C, E, F, G, P  S-Profile: D, H
Misc.: I  Straight Rim: J, S  Undetermined: K–M, O  Short Rim: N
Angled Rim: Q
6.4.2 Decoration

6.4.2.1 Lip Decoration

Most of the vessels (n=18 or 72%) at the Gilmore site have some form of lip decoration (Figure 6.21). The lip decoration on 14 (58.3%) vessels is restricted to the brim surface. On 8 of these 14 (57%) vessels, the decoration takes the form of right oblique CWT impressions. Left oblique (n=1), perpendicular (n=1) and variable perpendicular and left oblique (n=1) CWT impressions also occur. Right oblique impressions on the brim are also executed in dentate (n=2) and SET (n=1). Four of these 14 vessels have rim decoration; another two have below-brim decoration. Five of 14 vessels have Wedge profiles.

Brim and inner corner decoration is present on three vessels. Two vessels have right oblique CWT impressions on the brim and inner corner. Both of these vessels probably have Wedge profiles, although one is just represented by a lip fragment. The Wedge profile vessel has rim decoration; the other vessel with a (probable) Square Wedge profile appears to have brim and inner corner decoration executed in dentate. If this is a correct interpretation of the profile, right oblique dentate impressions appear on the inner corner. A series of left oblique impressions over a minimum of three horizontal lines appears on the brim.

One vessel has brim and outer corner decoration. This Wedge profile vessel has right oblique impressions on the
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RIGHT OBLIQUE

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PERPENDICULAR

| PERPENDICULAR > LEFT OBLIQUE |

BRIM AND INNER CORNER DECORATION

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</table>

| DENTATE n=1 |

LEFT OBLIQUE OVER LINES (3+)/ RIGHT OBLIQUE (SQUARE WEDGE)

BRIM AND OUTER CORNER DECORATION

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<th>RIGHT OBLIQUE/ VERTICAL PINCH</th>
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</table>

| CWT/ FINGER- NAIL n=1 |

* UNDECORATED n=6

Figure 6.21 Gilmore Lip Decoration
brim surface and (at least) one fingernail pinch on the outer corner. This Wedge profile vessel also has below-brim and rim decoration.

Six vessels at the site do not have lip decoration.

**6.4.2.2 Rim, Below-Brim and Rim Angle Decoration**

Nine of the 24 (37.5%) vessels at the Gilmore site have some form of rim decoration (Figure 6.22). Pattern 1, Variation A, horizontal lines, appear on three vessels. Two of these vessels have the pattern executed in CWT. One is the pinch pot which has only one, very fine, CWT line. The other vessel has below-brim decoration. This pattern is executed in dentate on one other vessel.

One vessel appears to have two partial horizontal incised lines on the upper portion of the rim. From the fragment available, however, it is difficult to determine if this represents intentional decoration. Therefore the identification of Pattern 1 Variation E is tentative.

Four vessels at the site have rim punctates. Three carry a single row of "normal" punctates, Pattern 10 Variation A. Another, Wedge profile, vessel has a single row of oval punctates, Pattern 10 Variation C.

One other vessel has an elaborate decoration involving oblique and vertical dentate lines and punctates. A new rim decoration, Pattern 18, appears over the rim, neck and neck/shoulder areas of this Short Rim vessel.
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</tr>
<tr>
<td>PUNCTATES</td>
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<td></td>
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Figure 6.22 Gilmore Rim Decoration
BELOW-BRIM DECORATION

Below-brim decoration appears on 3 of the 7 vessels with Wedge profiles. On two of these vessels, punctates appear as below-brim decoration (Figure 6.23). One vessel has a single row of "normal" punctates, Pattern 1 Variation A. At least one horizontal CWT line appears on the rim of this vessel, as well. The other vessel has a new variation of the punctate line. This vessel has elongated triangular punctates below the brim, Pattern 1 Variation F.

RIM ANGLE DECORATION

One vessel at the site has rim angle decoration. A single row of oval punctates appears on the rim angle. This represents a new rim angle pattern, Mode 11 (Figure 6.24).

6.4.2.3 Neck, Neck/Shoulder and Shoulder Decoration

Only three vessels at the Gilmore site retain portions of the neck area; one of these is decorated (Figure 6.25). The neck/shoulder area of the pot is decorated as well. The decoration, Pattern 14, represents a continuation of the rim pattern, Pattern 18. This is the only vessel in the assemblage which retains a portion of the neck/shoulder area. None of the 24 vessels retain the shoulder area.

6.4.3. Lip Forms and Surface Finishes

6.4.3.1 Lip Forms

Wedge lips are the most common lip form, present on eight (33.3%) vessels. Four vessels have expanding lips with an interior bevel. Three vessels have lips which have
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Figure 6.23 Gilmore Below Brim Decoration

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Figure 6.24 Gilmore Rim Angle Decoration

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<td>DENTATE AND PUNCTATES (1)</td>
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</table>

Figure 6.25 Gilmore Neck and Neck/Shoulder Decoration
an interior bevel and an interior flange. A variety of other lip forms appear once or twice in the assemblage (Figure 5.26). The lip of one vessel resembles a reverse wedge; the rim decoration begins just below the outer corner.

6.4.3.2 Exterior Surface Finish

Eleven of the 24 vessels (45.8%) have plain exterior surface finishes (Figure 6.27). Check-stamped exteriors are fairly common, appearing on six (25%) of the vessels. The exterior surface on three vessels is fabric-impressed; the finish on four other vessels can not be determined.

6.4.3.3 Interior Surfaces

No decoration or residue appears on the interior surface of 17 vessels. The interior surfaces of two vessels are decorated with bosses. Two vessels have accumulations of carbon residue on the interior surface, one light and the other heavy. The interior surface of two vessels has exfoliated; the interior surface of the remaining vessel can not be determined.

6.4.4 Summary

About one-third of the 24 vessels from the Gilmore site have Wedge or Square profiles. Most commonly, lip decoration is executed in CWT. Other decoration on the vessels most frequently takes the form of horizontal lines or punctates; however, one Short Rim vessel has an elaborate dentate and punctate pattern on the rim. Plain and check-
Figure 6.26 Gilmore Lip Form Frequency

Figure 6.27 Gilmore Exterior Surface Finish
stamped exterior surface finishes are the most common.

6.5 Summary

Within the Qu’Appelle Valley, the pottery assemblages from the various sites can be quite different. The pottery from Stoney Beach, the most southerly Qu’Appelle Valley site examined, closely resembles the pottery more commonly found in sites north of the Qu’Appelle and into the parkland (see Chapter 4). Check-stamping appears on less than 4% (n=6) of the vessels in the Stoney Beach sample; only one vessel has a Wedge-like profile. Only one vessel decorated with dentate and single cord impressions seems to occur in the assemblage.

However, at the Long John and Gilmore sites the incidence of Wedge profiles with CWT or dentate-stamping is much higher. The pottery from these two sites most closely resembles that commonly found in sites south of the Qu’Appelle and in northwestern North Dakota and northeastern Montana. Only one similar site, Schraeder, has been found north of the Qu’Appelle. It appears that the Qu’Appelle Valley represents a cultural frontier in the Late Prehistoric period.
7. COMPARISONS AND INTERPRETATION

7.1 Introduction

Archaeologists from Saskatchewan, Montana and North Dakota recognize certain pottery assemblages as having Mortlach pottery. All of these sites are located south of the Qu’Appelle Valley in Saskatchewan and into northeastern Montana and northwestern North Dakota. The best known sites are Long Creek, Shippe Canyon and Evans (Meyer and Epp 1990:335). Reports for all three have been published, and these can be regarded as Mortlach type sites. The key characteristics of the pottery from these three Mortlach sites are examined in the following section. From this information, the general characteristics of Mortlach pottery are established. The description of Wascana ware (Kehoe 1959) is then reviewed.

Detailed descriptions of pottery assemblages from central and southern Saskatchewan have been presented in Chapters 4, 5 and 6. In order to determine more precisely which Saskatchewan pottery assemblages and collections share the attributes of Mortlach pottery and which more closely resemble Wascana ware, a comparison is made of the profiles, exterior surface finishes and vessel decorations. The pottery assemblages and collections are then classified as Mortlach or Wascana. Finally, the characteristics of Wascana ware are examined in greater detail.
7.2 Characteristics of Mortlach Aggregate Pottery

As discussed in Chapter 2, Schneider and Kinney (1978:35) recognize the uncertainties in determining the "spatial, temporal and formal content" of the Mortlach sites. They suggest that the Shippe Canyon, Evans, Mortlach and Long Creek sites form the Mortlach aggregate. While reports have been published for all of these proposed Mortlach aggregate sites, the descriptions of pottery from the Mortlach site are very limited. The profiles of the vessels were not provided in Wettlaufer's (1955) report and some of the pottery assemblage can not be examined. As well, the pottery from the "type site," Mortlach, does not strongly resemble the pottery from these other sites. Consequently, only the data from the Long Creek (Wettlaufer and Mayer-Oakes 1960), Shippe Canyon (Joyes 1973) and Evans (Schneider and Kinney 1978) sites are closely examined here.

The pottery associated with these sites shares several characteristics, most notably in terms of rim profiles, exterior surface finishes and decoration techniques.

7.2.1 Rim Profiles

The relative frequency and, where possible, number of different rim profiles identified at the sites are presented in Table 7.1. Although non-Wedge profiles still dominate the assemblages, in each case over one-third of the vessels have Wedge profiles. The figures given for the Long Creek site are based exclusively on the 29 vessel profiles
Table 7.1 Mortlach Profiles

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<td>10 (35%)</td>
<td>34%</td>
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<tr>
<td>S-Profile</td>
<td>3 (10%)</td>
<td>63%</td>
<td>16 (51.6%)</td>
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</tbody>
</table>

illustrated in the report. The percentage of Wedge profiles at the Shippe Canyon site represents that reported by Joyes (1973). Non-Wedge profiles (63% in Table 7.1) illustrated in the report include Straight Rim, Straight Rim/Angled Rim, S-Profile, Square Wedge and Angled Rim profiles.

In section 5.5.3, it was noted that Schneider and Kinney's use of the term "wedge-shaped" lip was very broad. At least four vessels identified as having a Wedge profile would not be classified as Wedge profiles under the definition presented in Chapter 3. If these four vessels are subtracted from the total number of sherds with wedge profiles, this fraction of the assemblage drops from 48% to 35%. Most of the non-Wedge profile vessels at the Evans sites have Straight Rim or Straight Rim/Angled Rim profiles.

In general, at least one-third of each of the three pottery assemblages/collections is composed of vessels with Wedge profiles. The remaining two-thirds of the vessels tend to have Straight Rim profiles; however, a small
percentage of Angled Rim/Square Wedge and S-Profile vessels occur.

7.2.2 Exterior Surface Finish

The relative frequency and, where possible, the number of occurrences of the different exterior surfaces identified at the three Mortlach type sites is presented in Table 7.2.

Four different surface finishes appear quite frequently in the pottery assemblages: plain, check-stamped, simple-stamped and cord-roughened. The surface finish frequencies for these sites are based on body sherd counts. At the three Mortlach type sites, sherds with plain exterior surfaces appear to be grouped with those with undetermined exteriors. For these reasons, therefore, they are not directly comparable to the writer's descriptions presented in Chapter 4, 5 and 6.

Table 7.2 Mortlach Exterior Surface Finishes

<table>
<thead>
<tr>
<th>Exterior Surface Finish (body sherds)</th>
<th>Long Creek</th>
<th>Shippe Canyon</th>
<th>Evans</th>
</tr>
</thead>
<tbody>
<tr>
<td>check-stamped</td>
<td>275 (11%)</td>
<td>(23%)</td>
<td>99 (25%)</td>
</tr>
<tr>
<td>simple-stamped</td>
<td>189 (8%)</td>
<td>(8.3%)</td>
<td>106 (26%)</td>
</tr>
<tr>
<td>(horiz. &quot;scored&quot;)</td>
<td>34 (1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cord-roughened</td>
<td>215 (9%)</td>
<td>(4.2%)</td>
<td>46 (11%)</td>
</tr>
<tr>
<td>fabric-impressed</td>
<td>92 (4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plain</td>
<td>circa 1666 (67%)</td>
<td>(54%)</td>
<td>153 (38%)</td>
</tr>
<tr>
<td>undetermined</td>
<td></td>
<td>(10.5%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2471 (100%)</td>
<td>100%</td>
<td>404 (100%)</td>
</tr>
</tbody>
</table>

In the Long Creek report, Wettlaufer and Mayer-Oakes (1960) lump the sherds with plain and undetermined finishes (n=1666) from both level 1 and level 2 together. When only
the sherds (n=805) with identifiable exterior surface finishes are considered, check-stamped, cord-roughened and simple-stamped are the most common, appearing on 30%, 27% and 27% of the sherds, respectively. Fabric impressions (11%) and "scored" (horizontal simple-stamped) impressions (4%) appear less frequently.

The surface finishes which occur most frequently at these three sites are plain, check-stamped, simple-stamped and cord-roughened. However, within a particular assemblage any one or two of these four exterior surface finishes may be dominant. It appears that sherds with plain or smoothed exterior surface finishes usually occur with the highest frequency in an assemblage.

At the Long Creek site, sherds with check-stamped, simple-stamped and cord-roughened exterior surface finishes occur in almost equal numbers. At Shippe Canyon, over one-half of the sherds have plain exteriors and almost one-third have check-stamped exterior surface finished. At the Evans site, smoothed (plain) sherds represent almost 40% of the collection. Check-stamped and simple-stamped exterior surface finishes each account for about 25% of the assemblage and the remaining 11% are cord-roughened. At the Dune Buggy site, cord-roughened, smoothed and brushed are the only exterior surface finishes reported. Fabric-impressed exteriors are not common at any of these sites.
7.2.3. Decoration

A variety of decorations is present on the vessels from the three Mortlach type sites, as shown in Table 7.3. The frequencies presented in the table at the different sites are not directly comparable to each other. The descriptions of decoration from both the Long Creek and Shippe Canyon sites include unknown numbers of near-rim or neck sherds. As well, the decorations are not separated by field of decoration.

Table 7.3 Mortlach Decoration

<table>
<thead>
<tr>
<th>Decoration Technique (body)</th>
<th>Long Creek &quot;rim and neck&quot;</th>
<th>Shippe Canyon [calc.]*</th>
<th>Evans [calc.]*</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWT</td>
<td>77</td>
<td>15</td>
<td>17 (52%)</td>
</tr>
<tr>
<td>dentate</td>
<td>37</td>
<td>72</td>
<td>4 (12%)</td>
</tr>
<tr>
<td>notches</td>
<td>min=1</td>
<td>9</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>incised</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SET/BET</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>single cord</td>
<td>20</td>
<td>10</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>punctates</td>
<td>3</td>
<td>5</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>fingernail</td>
<td>min=1</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>punct or finger</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pinched</td>
<td>1</td>
<td>1</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>check-stamp</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>undecorated</td>
<td>6</td>
<td>12</td>
<td>8 (24%)</td>
</tr>
<tr>
<td>Totals</td>
<td>150</td>
<td>152</td>
<td>33 (100%)</td>
</tr>
</tbody>
</table>

* calculated from published descriptions

The numbers for the Long Creek site are based on those reported by Wettlaufer and Mayer-Oakes (1960) as well as the illustrations. The relative percentages are not calculated for Long Creek because both "rim and neck" are included in the totals. Their (1960) neck sherds are likely equivalent.
to near-rim sherds (see section 5.4.2).

The figures given for Shippe Canyon are calculated on the basis of the descriptions of 130 rim sherds. The numbers represent the frequency of occurrence of each particular decoration. However, a few potential sources of error exist. Joyes (1973:57) reports that about 40 vessels are represented. However, he suggests that 19 are Mortlach Check-Stamped, 20 are Flat Rim Ware and the rest are vessels from at least five minor groups (min=5). Eight composite and 58 individual sherds (total=66) are classified as Flat Rim Ware; however, only 58 sherds are described. An unknown number of near-rim sherds are included in the minor rim form Category 4 sample, which also affects the totals.

Twenty-one sherds in the Shippe Canyon assemblage exhibit two different kinds of decoration while one sherd has three different kinds of decoration. These decorations include: 8 dentate and punctate or fingernail, 4 dentate and punctate, 4 single cord and fingernail, 3 dentate and fingernail, 1 dentate and pinch, 1 CWT and fingernail and one dentate, CWT and punctate.

The figures given for the Evans site are calculated on the basis of the descriptions of 31 rims and rim composites from component II (Schneider and Kinney 1978:16-26). Two vessels carry two different kinds of decoration. One rim has below-brim oval punctates and CWT, the other has below-brim pinching and dentate. Three rim composites definitely
belong to the same vessel. Decoration is often restricted to the brim (exterior bevel) of the lip. Right-oblique decorations are by far the most common decoration on wedge-shaped lips. In most cases, these impressions are executed in CWT or dentate. At Shippe Canyon, dentate impressions are the most common technique while at the Evans site, CWT impressions occur on over one-half of the sherds. Occasionally, fingernail impressions or punctates appear below the brim of these vessels. Sometimes multiple horizontal lines appear on the rim in addition to, or instead of, the below-brim decoration.

Non-Wedge, usually Straight Rim, vessels tend to display a greater variety of lip decoration. A number of other techniques are used to decorate the lip, in addition to dentate and CWT. Fingernail impressions, notches, SET or BET impressions and patterns appear on the different lip surfaces. While most vessels are not highly decorated, a few sherds display very elaborate patterns.

7.2.4 Summary of Mortlach Pottery Characteristics

The pottery assemblages associated with Mortlach aggregate sites tend to have relatively high frequencies (30% or more) of vessels with Wedge profiles. These are often sparsely decorated with right oblique dentate or CWT impressions. A number of Straight Rim vessels, also sparsely decorated, appear in the assemblages. S-profiles are quite rare or absent (Johnson 1977:46); Square Wedges
are more likely to appear than Angled Rim profiles. The most common exterior surface finishes are plain, check-stamped, simple-stamped and/or cord-roughened (including smoothed rolled CWT). Fabric-impressions on the exterior surface are rare.

Although Mortlach pottery has not been precisely defined, it appears to be a valid archaeological construct. Several pottery assemblages exist which can be classified as Mortlach under this definition. These pottery attributes are recognized by archaeologists in North Dakota and Montana who more closely adhere to Wettlaufer’s (1955) definition. Only pottery assemblages/collections which share these characteristics should be classified as Mortlach.

Traits commonly associated with Middle Missouri Village pottery, such as collared and S-shaped rims, the curvilinear "rainbow" designs and single cord impressing, appear only rarely in Mortlach assemblages (see section 5.6). 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.

### 7.3 Alice Kehoe’s Wascana Ware

Alice Kehoe (1959:240-242) provided a general description of Wascana ware more than 30 years ago. The geographical distribution of the pottery was given as
between Saskatoon and Moose Jaw. This paddled pottery had a variety of surface finishes including cord-roughened, three different types of fabric-impressed, basket-impressed and check-stamped. Decoration appearing on different parts of the vessels was varied. The lip was usually flat and decorated in a variety of ways. The lips had impressions of CWT and cord-wrapped cord, dentate, fabrics, notches, right oblique SET impressions and incised lines on the brim surface or both as well as different types of punctates and "manipulations of the damp clay" (Kehoe 1959:241).

Decoration was found on the rims, neck angles and shoulder angles. Shoulder decoration included punctates, thumbnail notches and horizontal incised lines. Neck decorations included horizontal lines of cord-wrapped rod or cord-wrapped cord and dentate. The rim exterior was decorated with horizontal CWT lines, as well. The vessels had globular to ovoid bodies, gently rounded bases, well-defined shoulders and concave neck profiles.

In summary, she (1959:241) identified the vessel lips, rims, neck areas and shoulder areas as fields of decoration. Based on this description, cord-wrapped tool impressions, punctates and notches appear to be the most common types of decorations. In later publications, the dominance of fabric-impressed exterior surface finishes of Wascana assemblages was emphasized (Kehoe 1964; Kehoe and Kehoe 1968).
7.4 The Categorization of the Pottery Collections and Assemblages from Central and South-Central Saskatchewan

7.4.1 Introduction

As outlined in Section 7.2 and 7.3 above, the characteristics of Mortlach pottery assemblages differ from those of Wascana ware. However, the Wascana pottery has not been accepted as a distinct entity; pottery from central and southern Saskatchewan which does not possess Mortlach traits has been classified as Mortlach. In this section, the attributes identified in the various assemblages from central and south-central Saskatchewan are compared. On the basis of these comparisons, the pottery from these sites is classified as Mortlach or Wascana.

7.4.2 Profiles

As shown in Figure 7.1, the sites from central and south-central Saskatchewan which have high relative percentages of Wedge profiles include Long John (24/55 or 44%), Gilmore (7/24 or 29%), Schraeder (6/18 or 33%) and Walter Felt (26/145 or 18%). By comparison, the relative frequency of vessels with Wedge profiles does not exceed 5% at any other site. At Lake Midden, the number of Wedge and Square Wedge profiles combined accounts for less than 6% of the collection. No Square Wedge profiles are identified at the other sites and the relative percentage of Wedge profiles is 3.5% or less.

Straight Rim profiles seem to be common at all sites; however, the vessel integrity at many sites is so low that
Figure 7.1 Central and Southern Saskatchewan Profiles Frequency

- Long John n=55
- Gilmore n=24
- Schraeder n=18
- Walter Felt n=145
- Lake Midden n=270
- Tipperary Creek n=86
- Williams n=93
- Lozinsky n=55
- Farago n=44
- Stoney Beach n=156

Percentage of Assembly:
- 0%
- 25%
- 50%
- 75%
- 100%

Legend:
- Wedge
- Other
- S-Profiles
- Straight/Angled Rim
these can not be distinguished from Angled Rim profiles. Many of these sites were located in cultivated fields so the pottery is highly fragmented. Decorated sherds which may represent rim angles or shoulders are present at several of these central and south-central Saskatchewan sites, including Williams, Farago, Tipperary Creek and Lozinsky. It is likely that most of these represent fragments of rim angles. At the Schraeder site, one similar sherd has decoration on the angle itself; however, two other sherds have decorations above and below the angle. The fields of decoration on the latter two vessels suggest that they represent fragments of pots with Square Wedge profiles.

The relative percentage of vessels with Straight Rim, Angled Rim, S-Profiles and Straight Rim/Angled Rim profiles at the different sites are examined together. There are 10 Straight Rim and 10 Straight Rim/Angled Rim vessels at the Long John site, representing 36% of the collection. Three other vessels have S-Profiles. No Angled Rim vessels occur at the Long John site, even though the level of vessel integrity is very high. The profiles of 4 vessels could not be determined.

Three Straight Rim, 3 S-Profile and 1 Angled Rim vessel are identified at the Gilmore site, representing 30% of the assemblage. The profiles of 8 vessels at this site could not be determined. At the Schraeder site, the Straight Rim (n=4), S-Profile (n=2) and Straight Rim/Angled Rim (n=4)
profiles represent 56% of the collection. The profile of only one vessel could not be determined. At Walter Felt, 67% of the assemblage consists of vessels with Straight Rim \( n=24 \), Angled Rims \( n=11 \), S-Profile \( n=26 \) and Straight Rim/Angled Rim \( n=36 \) profiles. Nineteen vessels have undetermined profiles.

By comparison, the relative frequency of these four profiles is quite high at the remaining sites. At Lake Midden, Straight Rim \( n=64 \), S-Profile \( n=35 \) Angled Rim \( n=33 \) and Straight Rim/Angled Rim \( n=84 \) profiles represent 80% of the profiles. At Stoney Beach, this total represents 81% of the collection. There is a very high number of vessels with S-Profiles \( n=46 \) or 25% at this site.

There are high numbers of S-Profiles at Farago, Tipperary Creek and Lozinsky sites as well. At Farago, S-Profiles \( n=8 \), Straight Rim \( n=6 \), Angled Rim \( n=5 \) and Straight Rim/Angled Rim \( n=13 \) profiles represent 74% of the assemblage. About 16% of the vessels had Undetermined profiles. At Tipperary Creek, Straight Rim \( n=20 \), S-Profile \( n=10 \), Angled Rim \( n=3 \) and Straight Rim/Angled Rim profiles \( n=35 \) represent 79% of the collection. The profiles of about 12% of the vessels can not be determined. Vessels at the Lozinsky site were quite highly fragmented; however, 85% of the collection had either S-Profile \( n=11 \), Straight Rim \( n=2 \), Angled Rim \( n=4 \) or Straight Rim/Angled Rim \( n=30 \) profiles.
Very few profiles are positively identified at the Williams site; about 20% of the collection has Undetermined profiles. Even so, the relative frequency of Straight Rim/Angled Rim (n=57), Straight Rim (n=8), S-profile (n=6) and Angled Rim (n=1) profiles is 77%. Considering only the profiles which could be classified, this number jumps to 96%.

7.4.3 Exterior Surface Finish

Check-stamped exterior surface finishes are most common at the Long John and Gilmore sites where they occur on 35% and 25% of the vessels, respectively (Figure 7.2). At Walter Felt, the number of vessels with check-stamped exteriors drops to 14%. At Lake Midden, about 9% of the vessels have check-stamped exteriors. Check-stamped exterior surface finishes are found on six vessels at the Stoney Beach site, representing less than 4% of the assemblage. While a sherd or two with check-stamped exterior surface finishes appear in the collections from the other sites, none of the identified vessels have this surface finish.

Vessels with fabric-impressed exteriors are found at all sites. At some sites the number is quite small: Long John (n=11 or 20%); Williams (n=15 or 16%); Schraeder (n=3 or 17%); Gilmore (n=3 or 13%). At other sites, the occurrence of fabric-impressed exteriors is significantly higher: Lozinsky (n=42 or 25%), Walter Felt (n=42 or 29%);
Figure 7.2 Central and Southern Saskatchewan Exterior Surface Finish
Lake Midden (n=98 or 36%); Stoney Beach (n=59 or 38%); Farago (n=19 or 43%), Tipperary Creek (n=44 or 51%).

Cord-roughened and plain exterior surface finishes are common at most sites. Cord-roughened exteriors are found at all sites, except Gilmore. The frequency of this exterior surface finish ranges from a low of 11% at Schraeder (n=2) to a high of 38% (n=59) at Stoney Beach. On average, about 20% of the vessels in any assemblage have cord-roughened exterior surface finishes. Plain exteriors are the most common exterior surface finish at the Schraeder, Gilmore, Williams and Lozinsky sites where they account for 50%, 46%, 46% and 36% of the collection, respectively.

7.4.4 Decoration

7.4.4.1 Lip Decoration

At most sites, the most common location of lip decoration is the brim surface (Figure 7.3). This is especially true with wedge-shaped lips where the exterior bevel is referred to as the brim surface. More highly decorated wedge-lips have decorations on the inner corner (interior bevel), as well. There is more variety in the location of decoration on non-wedge lip forms. Decorations can occur on any of the three lip surfaces or combinations of them. Decoration on the outer corner, or the outer and inner corners of the lip, is also common.

In general, the variety in the location of lip decorations is highest in pottery from north of the
Figure 7.3 Central and Southern Saskatchewan Lip Decoration Location
Qu’Appelle Valley. There is also more variety in the decorations applied. Usually about 50% of the vessels in any collection have lip decoration restricted to the brim surface. However, the types of brim decoration are not uniform at all sites. For example, at the Gilmore site, 83% of the brim decoration takes the form of right oblique impressions. In sites from the Qu’Appelle north into the parklands, left oblique, perpendicular, alternating and converging impressions are more common. As well, lines along the brim surface, punctates and patterns are found.

Several complex patterns appear on the brim (exterior bevel) of wedge lips at the Long John site. Some of these resemble patterns more commonly found on the rim of S-Profile and Angled Rims vessels or the neck/shoulder of Straight Rim vessels in central Saskatchewan.

Outer corner decoration is found on only a small percentage of vessels with Wedge profiles. Consequently, the frequency of outer corner decoration tends to be low in assemblages/collections with high percentages of Wedge profiles. The Schraeder site pottery represents an exception to this general rule; 7 of the 18 (39%) vessels have outer corner decoration. At Long John and the Gilmore sites, the occurrence of outer corner decoration is low, 16% and 8% of the collection respectively. At Tipperary Creek, outer corner decoration is found on 52% of the vessels. At the other sites the figure is about 25-30%.
Decoration confined to the inner corner is not common in any site; however, inner and outer corner decoration often appear together on non-Wedge vessels. At the Lake Midden and Lozinsky sites, this combination appears on 16% and 13% of the vessels, respectively. Only two vessels of the 55 (4%) vessels from the Long John site have this decorative combination.

7.4.4.2 Rim, Below-Brim and Rim Angle Decoration

The amount and the variety of rim decoration varies considerably between sites. At all sites, horizontal lines and punctates are the most common rim decoration. For example, at the Lozinsky site, over one-half of the vessels with portions of the rim area present carried rim decoration in the form of horizontal lines or single rows of punctates. Decorations appear on the rim surface of 13% of the vessels at the Long John site. Decoration is also limited to punctates and horizontal lines at this site.

Elaborate patterns involving horizontal and oblique lines are found most frequently on vessels with Angled Rim and S-Profiles. Vessels from the Lake Midden, Stoney Beach and Farago sites have the highest frequencies of these elaborate decorations.

Below-brim decoration found on vessels with Wedge profiles usually takes the form of some variation of punctate. Although fourteen of the 270 vessels at the Lake Midden site had Wedge profiles, only one carried below-brim
decoration. One third (8/24) of the vessels with Wedge profiles at the Long John site carry below-brim decoration. At the Walter Felt site, 46% (12/26) of the vessels with Wedge lips have below-brim decoration.

7.4.4.3 Neck, Neck/Shoulder and Shoulder Decoration

Although the vessels at the Long John site have the highest level of vessel integrity, only three of the 25 vessels which retain portions of this area are decorated. None of the 15 vessels with the neck/shoulder area represented have decorations in this area. Only one of the 12 identified vessels with the shoulder area intact is decorated.

At Walter Felt, 9 of the 40 (23%) vessels with the neck area present are decorated; 4 of the 20 (20%) vessels which retain portions of the neck/shoulder area are decorated. Three of the seven (43%) vessels which retain portions of the shoulder area are decorated.

At Stoney Beach, 6 of the 64 vessels with portions of the neck area present are decorated; only 2 of 25 vessels which retain portions of the neck/shoulder area are decorated. However, more than one-third (5/14) of the identified vessels with shoulders have decorations in this area.

At Lake Midden, 22% (20/92) of the vessels with the neck area represented are decorated. Eight of the 34 (24%) vessels with portions of the neck/shoulder area represented
are decorated. Some of these decorations are very elaborate. One of the three vessels with the shoulder area represented has decorations at this location.

7.4.5 Identification of Pottery Assemblages

On the Saskatchewan Plains, vessel profiles appear to be the most useful criteria in classifying the pottery. Mortlach sites have a low frequency of S- Profiles and Angled Rim profiles, but a high frequency of Wedge profiles. Other attributes associated with the Wedge profile include a high frequency of right oblique impressions, executed in dentate or CWT, on the brim surface and the presence of below-brim decoration. The pottery assemblages from Wascana sites tend to have a low frequencies of Wedge profiles; instead, the majority of the vessels have Straight Rim, S-Profile or Angled Rim profiles. As well, the occurrence of check-stamped exterior surface finishes is low.

Many sites are represented by collections from the surfaces of cultivated fields so there is a low level of vessel integrity. As the exterior surface finish is often not present or obliterated on the rim and neck areas of vessels, the number of vessels identified with plain exterior surfaces may be inflated. The highest relative percentage of vessels with check-stamped exterior surfaces is at the Long John site, the site which also has the highest level of vessel integrity.

Considering these factors, it appears that pottery from
the Long John, Gilmore and Schraeder sites most closely resembles the pottery found in recognized Mortlach sites. The pottery assemblages have relatively high frequencies of Wedge profiles. This characteristic clearly distinguishes material from the Schraeder site from other central Saskatchewan sites (Chapter 4). Vessels from the Mortlach types sites tend to have little decoration; in many cases it is restricted to the lip. This also appears to be true at the Long John, Gilmore and Schraeder sites. Right oblique impressions on the brim are extremely common at the Gilmore site. The scarcity of decoration, however, is most noticeable at the Long John site. While many of the Long John vessels are partially reconstructed, few have decorations below the rim area (Figure 7.4). The pottery from the Gilmore and Schraeder sites is too fragmented to assess the occurrence of decoration below the rim.

In some respects, several vessels from the Walter Felt site strongly resemble those found in Mortlach sites. In other respects, most notably the high frequency of neck, neck/shoulder and shoulder decoration, the Walter Felt pottery is similar to the pottery from Lake Midden and Stoney Beach.

At Walter Felt, the relative frequency of Wedge profiles is only about 18% (n=26) while 14% (n=21) of the vessels have S-Profiles. The relative frequency of fabric-impressed pottery (29%) is more than twice that of check-
Figure 7.4 Selected Vessels from the Long John Site
stamped (14%) exterior surface finishes. The variety of lip
decoration is similar to that found in the pottery
collections and assemblages in more northern sites. The
pottery assemblage from the upper levels of Walter Felt
seems to be a hybrid. Pottery with Mortlach attributes is
certainly found at this site; pottery which does not share
Mortlach attributes is also present.

It is possible that Walter Felt is a site which
contains both Mortlach and (probably earlier) Wascana
components. Kehoe and Kehoe (1968:33) suggest that Mortlach
Check-Stamped is mixed with:

the more common surface roughened [Wascana] ware
in the upper layers at the Walter Felt site (where
the topmost occupation contained one trade bead,
dating it as probably eighteenth century)...

However, the material from the upper layers of the Walter
Felt site may reflect two closely spaced but separate
occupations by two different groups, one of which was
associated with Mortlach pottery. If so, it should be
possible to identify two distinct occupations at the Walter
Felt site. The latest occupation should resemble the
Mortlach culture and the second, earlier occupation should
be similar to the Moose Jaw culture, both defined at the
nearby Mortlach site (Wettlaufer 1955). Alternatively, a
multi-ethnic occupation may have taken place at this site or
the makers of the pottery may have simply been strongly
influenced by their neighbours to the north or south. In
the absence of a published site report, it is difficult to
interpret these results. Therefore, the pottery from this site cannot be used to describe Mortlach or Wascana assemblages.

While the pottery from Long John, Gilmore and Schraeder suggests that these are Mortlach aggregate sites, the pottery most commonly found in sites from the Qu'Appelle Valley north into the parklands is not Mortlach. However, the pottery from the Lake Midden, Stoney Beach, Williams, Farago, Tipperary Creek and Lozinsky shares certain attributes. These attributes are the characteristics of Wascana ware.

7.5 Characteristics of Wascana Ware

The following characteristics are based on the 704 vessels examined from the Lake Midden, Stoney Beach, Williams, Farago, Tipperary Creek and Lozinsky sites. Illustrations of several Wascana ware vessels from these sites are provided in Figure 7.5.

Profiles: Straight Rim, S-Profiles and Rim Angle profiles are the most numerous in Wascana ware assemblages. These three vessel forms usually account for the majority of all identifiable profiles in an assemblage (Figure 7.6). However, in sites with low levels of vessel integrity it is not possible to distinguish Straight Rim from Angled Rim vessels so the Straight Rim/Angled Rim category is very large. Small numbers of vessels with Wedge and Short Rim
Figure 7.5 Selected Wascana Ware Vessels
Figure 7.5 cont'd  Selected Wascana Ware Vessels
profiles also occur, as well as a variety of miscellaneous profiles.

The Lake Midden and Stoney Beach sites are the two Wascana assemblages which exhibit the highest levels of vessel integrity. In these assemblages, the ratio of Straight Rim to Angled Rim vessel profiles is approximately 2:1. If one assumes this ratio holds for Straight Rim/Angled Rim vessels, the relative profile frequencies for an ideal Wascana assemblage can be determined. If this assumption is valid, in an ideal Wascana assemblage 50% of the vessels would have Straight Rim profiles; S-Profiles and Angled Rim profiles would each form 20% of the assemblage (Figure 7.7). The remaining 10% would be composed of other profiles types such as Wedge and Short Rim.

**Lip Decoration:** Vessels lacking any form of lip decoration are quite rare in Wascana ware. The lips of only 9% (65/704) of the vessels are completely without decoration. The brim surface is decorated more than 60% of the time; the outer corner is decorated 33% of the time and the inner corner is decorated only 8% of the time.

CWT impressions are the most common brim surface decoration, occurring on 63% of the vessels (Figure 7.8). However, SET, incised, dentate, fabric and broad-edged tool impressions are quite common. Punctates, cord-roughening, fingernail and single cord impressions do appear, but rarely. This decoration usually takes the form of right
Figure 7.6 Relative Frequency of Wascana Ware Profiles

Figure 7.7 Relative Frequency of Wascana Ware Profiles (Ideal Assemblage)
oblique impressions (65%); however, left oblique, perpendicular, converging, alternating and other patterns of impressions are also found (Figure 7.9). One, two, three or four lines may occur along the brim surface. Punctates and gouges are sometimes made. In a few cases, more than one decoration occurs on the brim surface of a vessel.

Outer corner decoration on Wascana ware pottery most frequently takes the form of notches (36%), CWT (28%) or SET (24%) impressions (Figure 7.10). Quartered decorations, usually in the form of broad notches, appear occasionally. Punctates and fingernail gouges occur, but rarely. As shown in Figure 7.11, the orientation of the decoration is usually right oblique (59%) or vertical (31%). Left oblique as well as decorations which occur across the outer corner but only partially across the brim together are not common.

When present, inner corner decoration most frequently consists of CWT (41%), SET (22%) or notches (14%) (Figure 7.12). Quartering, usually in the form of a broad notch, appears on about 15% of the vessels. Inner corner punctates and nail gouges are not common, but do appear. Usually the decoration is obliquely oriented to the right (59%) or vertically (25%) (Figure 7.13). Decorations applied across the inner corner, but only partially across the brim (9%), and decorations oriented obliquely to the left (7%) are found occasionally.
Figure 7.8 Relative Frequency of Wascana Ware Brim Decoration

Figure 7.9 Relative Frequency of Wascana Ware Brim Decoration Execution
Figure 7.10 Relative Frequency of Wascana Ware Outer Corner Decoration

Figure 7.11 Relative Frequency of Wascana Ware Outer Corner Decoration Execution
Figure 7.12 Relative Frequency of Wascana Ware Inner Corner Decoration

Figure 7.13 Relative Frequency of Wascana Ware Inner Corner Decoration Execution
Rim, Below-Brim and Rim Angle Decoration: Rim decoration is found on about 25% of Wascana ware vessels. CWT impressions (49%) and punctates (30%) are the most common rim decoration (Figure 7.14). Incised, dentate and tiny punctates also appear. The most common decorations are horizontal lines (39%) or single rows of various expressions of punctates (30%). However, some vessels have fairly complicated patterns executed in one or more techniques. These patterns may involve horizontal, oblique and vertical lines arranged as inverted Vs or frames. Sometimes, linear impressions are used in conjunction with punctates; sometimes punctates are used with fingernail impressions.

The incidence of Wedge lips is very low in Wascana ware; consequently, so is the incidence of below-brim decoration. However, some non-Wedge vessels have decoration on the uppermost parts of the rim, but not across the outer corner. This may reflect influence from the groups to the south who make Mortlach pottery.

Rim angle decoration is found on the point of vertical tangency of about 30% of Angled Rim and S-Profile vessels. Discontinuous horizontal incised impressions are the most common mode. Punctates, fingernail impressions and pinches also occur (Figure 7.15).

Neck and Neck/Shoulder Decoration: When a portion of the neck area is present, neck decoration occurs on about 16% of the vessels. CWT impressions are the most common,
Figure 7.14 Relative Frequency of Wascana Ware Rim Decoration

Figure 7.15 Relative Frequency of Wascana Ware Rim Angle Decoration
representing 57% of the decorations (Figure 7.16). Incised impressions (20%) and punctates (17%) are also found. Dentate impressions and tiny punctates are rare. Decoration usually takes the form of horizontal lines or rows of punctates.

When a portion of the neck/shoulder area is present on the vessel, it is decorated 14% percent of the time. In most instances decoration occurs in conjunction with neck decoration. When decoration appears in this area, it is sometimes in the form of an elaborate pattern. Five of the 71 vessels which retain a portion of the area are highly decorated.

**Shoulder Form and Decoration:** Only 16 of the 704 vessels retain portions of the shoulder area. Of these, 11 have round shoulders and 6 have angular shoulders. Decoration appears on six of these vessels. These include horizontal discontinuous incised impressions (n=2), triangle-shaped punctates, vertical pinches, vertical notches and exterior boss quartering.

**Lip Form:** Certain lip forms are more common than others (Figure 7.17). Vessels with expanding lips (18%), expanding lips with a bevel (14%), lips with an interior flange (12%), square lips (9%), expanding lips with a flange (8%) and lips with an interior bevel (6%) are quite common. Most other lip forms occur, but much less frequently.

**Exterior Surface Finish:** Fabric-impressed (35%), plain
Figure 7.16 Relative Frequency of Wascana Ware Neck Decoration

Figure 7.17 Relative Frequency of Wascana Ware Lip Forms
(24%) and cord-roughened (22%) exterior surface finishes together account for over 80% of the surface finishes on the vessels (Figure 7.18). Check-stamped (4%) and vertical fabric impressions (4%) are found on the exterior surfaces of some vessels. Brushed, burnished, rolled CWT and simple-stamped exteriors are rare.

**Interior Surface Finish, Temper and Paste Quality:** The majority (66%) of Wascana ware vessels have a plain interior surface (Figure 7.19). Traces of residue appear on 27% of the vessels in central Saskatchewan; usually the accumulation is quite light. Decoration is not common on the interior, but when it occurs it most often takes the form of bosses. Tiny punctates are found on the interior surface of rims, but only rarely.

Most vessels are grit-tempered; that is, crushed, decomposed granite has been added to the clay. Sand or a mixture of sand and granite is detected occasionally. In some, but not all, cases the sand may be naturally occurring. In vessels with known temper, sparse amounts of fine temper (34%) and moderate amounts of fine temper (23%) are the most common (Figure 7.20). The addition of sparse or moderate amounts of medium-sized temper is also quite common.

The vessels are paddled, so the quality of the paste is usually good. Fine laminations often appear in the paste; however, actual exfoliation is quite rare (Figure 7.21).
Figure 7.18 Relative Frequency of Wascana Ware Exterior Surface Finish

Figure 7.19 Relative Frequency of Wascana Ware Interior Surface Finish
Figure 7.20 Relative Frequency of Wascana Ware Temper Quantity and Size

Figure 7.21 Relative Frequency of Wascana Ware Paste Quality
The majority of the vessels have either paste which is compact (36%) or is laminated slightly (21%).

The earliest radiometric date which can be associated with Wascana ware, 380 +/- 100 B.P., is from the Lake Midden site. Material from more northern sites, such as Lozinsky, has been dated to the late 1600s. No dates are available from the most southern occurrences of Wascana ware, such as Stoney Beach and the oldest occupation of the Moose Jaw culture at the Mortlach site. There is a low incidence of dentate stamping, Wedge profiles and check stamping on the pottery at the latter sites which indicates that there is not a strong influence from Mortlach groups. Therefore, these sites represent the earliest occurrences of Wascana ware; perhaps dating to A.D. 1300 or 1400.

7.6 Summary and Conclusions

The pottery from Mortlach aggregate sites shares certain characteristics. Vessels from these assemblages tend to have either Straight Rim or Wedge profiles, check-stamped, simple-stamped or plain exterior surface finishes and sparse dentate or CWT impressed decorations. The attributes of the pottery from the Long John, Gilmore and Schraeder sites are similar to Mortlach aggregate sites; the pottery from other sites in the study area is not characteristic of Mortlach assemblages.

This analysis has demonstrated that the pottery in
central Saskatchewan has the characteristics of Wascana ware as described by Alice Kehoe (1959). The attributes of the pottery from the Lake Midden, Stoney Beach, Williams, Farago, Tipperary Creek and Lozinsky sites, for example, are consistent with her description. In Wascana ware (Kehoe 1959), fabric-impressed and cord-roughened exteriors are common. Although Kehoe does not mention plain exteriors, they are also common. Decoration consisting of horizontal lines of CWT and punctates is dominant on central Saskatchewan vessels. The fields of decoration on these vessels are most often the rim, neck and shoulder areas. A variety of lip decorations occur and the lips of the vessels are usually flat (non-wedge). Although Kehoe makes no mention of vessel form, the combined presence of Straight Rim, Angled Rim and S-Profiles in these sites is a distinguishing characteristic of Wascana ware. These three profile types account for 80-90% of the assemblages.

The pottery from central Saskatchewan can be distinguished from the pottery associated with Mortlach aggregate sites. Therefore, the re-introduction of the term Wascana ware to designate pottery from sites in central Saskatchewan is warranted.
8 ARCHAEOLOGICAL IMPLICATIONS

8.1 Introduction

The redefinition of Wascana ware has implications for the Late Prehistoric archaeological taxonomy on the northern Plains. Initially, problems with using the term "ware" in the classification of central Saskatchewan Wascana pottery are outlined. As well, the relationship between Wascana ware and a material culture described by Wettlaufer (1955) at the Mortlach site is examined. In this regard, it appears that Wettlaufer's concept of the Moose Jaw culture should be reintroduced. Given the recognition of the Moose Jaw culture, it is also possible to consider the ethnic affiliations of this culture and of the Mortlach aggregate materials. As well, a number of other implications to current archaeological interpretations and constructs are discussed.

8.2 Wascana Pottery and the Concept of "Ware"

A few problems exist with Kehoe's original definition; first, she did not define her use of the term "ware." Indeed, the variation in the pottery may have been too great for its designation as a single ware. Vickers (1973:5) regarded Kehoe's work as a failure because the variability within any of her ware categories was too great to indicate a taxonomic relationship. The term "ware," as used by
archaeologists, is examined below.

Anna O. Shepard (1956:318-319) reports that the term "ware" is often loosely employed but has been defined in various ways as: 1) a broad class based on some prominent feature such as colour, decorative technique, or function; no common location, age, cultural relation or similarity is implied other than that named, such as earthenware or glazed ware, 2) a synonym for type, 3) a group of more or less the same types which consistently show the same methods of manufacture including firing atmosphere, method of construction, kinds of temper, surface treatment and paint constituents, 4) a group of ceramics in which all attributes of paste and surface finish remain constant.

The name "Wascana ware" was too narrow to be a ware under the first definition; Kehoe (1959) suggested both a geographic location and a cultural relationship for the pottery. On the other hand, the description of Wascana ware was too broad to be defined as a ware according to the second and fourth definitions because of the variety of vessel forms, surface finishes and paste quality. As has been noted, Kehoe's emphasis on a fabric-impressed exterior surface finish as the most important characteristic of Wascana ware (Kehoe 1959 and 1964; Kehoe and Kehoe 1968) contributed to the inability to distinguish Wascana from Selkirk.

The third definition could be viewed as too restrictive
in some respects, too general in others. The pottery was tempered with crushed granite, crushed granite and sand, or sand alone. The size of the temper and the amount added to the paste varied considerably, even in a single site. As such, the range of this attribute was too broad. However, both firing atmosphere and method of construction were criteria too general to define the ware. Both Mortlach and Wascana were made using the paddle and anvil technique and probably fired in an open hearth. Therefore, the variation in the attributes of central Saskatchewan pottery did not represent one "ware," according to the definitions described above.

In light of the variability in vessel forms, exterior surface finishes, kinds and locations of decoration, temper and paste, Kehoe's (1959) use of the term "ware" may not be entirely appropriate. However, the pottery from central Saskatchewan, from the Qu'Appelle Valley north into the parklands, does form a definable entity. Instead of sharing one specific attribute, however, similarities exist in the range of attributes present in the various collections. A similar problem with Mortlach aggregate sites has been identified by Johnson (1977) and by Schneider and Kinney (1978). The tripartite combination of check-stamped exteriors, dentate-impressed decorations and Wedge profiles is not universal in the Mortlach aggregate pottery found in Montana and North Dakota.
This research supports the validity of both of the above mentioned constructs - Wascana and Mortlach. Therefore it seems that the problem is more likely to lie in the definition of the archaeological term "ware." As shown in section 7.2 for Mortlach and in section 7.3 for Wascana ware, divisions on the basis of exterior surface, vessel form or decoration alone would be fruitless. Vicker's (1973) unsuccessful attempt to identify stable cultural norms operating in prehistoric Saskatchewan can be regarded as evidence of this. The negative results of Vicker's (1973:39) thesis show that exterior surface finishes do not represent a major subtradition in Saskatchewan pottery; secondary alterations of the exterior surface finish do not represent minor subtraditions either. This is true in Wascana and, to a lesser degree, Mortlach, as well. Several different types of surface finishes, profiles and decorative patterns can exist within one Wascana or one Mortlach assemblage. Nevertheless, there are underlying similarities between all sites with Wascana ware in the same manner that there are similarities between the various Mortlach aggregate sites.

8.3 Wascana Ware and the Moose Jaw Culture

Wettlaufer (1955) introduced two Late Prehistoric pottery-bearing cultures in the Mortlach site report: Mortlach and Moose Jaw. References to the former have
frequently been made, especially with regards to "Mortlach Check-Stamped" pottery (section 2.3). Wettlaufer's Moose Jaw culture and "Moose Jaw Cord-Marked" pottery have received comparably little attention from archaeologists. However, the artifact assemblage associated with Wettlaufer's Moose Jaw culture is found in central and south-central sites containing Wascana ware. This has prompted this author to suggest that Wascana ware should be considered the pottery of the Moose Jaw culture.

Wettlaufer (1955:23) named the material from the second to the last occupation at the Mortlach site, the Moose Jaw culture. The Moose Jaw culture was found in the uppermost cultural deposits of Projects 1, 2 and 3, except at Project 1C where a thin overlay of Mortlach culture material occurred. As the Moose Jaw culture material was densest in Project 1B (EcN1-1), Wettlaufer (1955:23) chose this area as the "key location" for this culture. The Moose Jaw culture was divided into two levels of occupation in this area. The first was from the grass roots level down to 13-15 cm (5-6 inches) below the surface. The second occupation began at 20 cm (8 inches) below the surface and extended downward to 36 cm (14 inches), although some Moose Jaw material occurred at 41 cm (16") below the surface (Wettlaufer 1955:25).

The artifact assemblage which Wettlaufer associates with this culture includes Moose Jaw Cord-Marked pottery. In the Mortlach site report, Wettlaufer (1955:26-28) used
the term "cord marked" to describe cord-roughened exterior surfaces as well as CWT impressions. Other artifacts associated with this culture are triangular and side-notched projectile points, which he calls Prairie side-notched. Actually they are Plains side-notched projectile points (see Kehoe 1966). Other material in the assemblage includes "blades", scrapers, choppers, pipes, a stone "plate" and bone tools.

Ironically, in the introduction to the section on bone tools Wettlaufer (1955:31) erred in saying, "Their presence in fairly large quantities can be considered as a diagnostic element of the Mortlach culture," when meaning the Moose Jaw culture. Since this statement is in the section where he described the cultural material of the Moose Jaw culture his mistake is apparent. Furthermore, in the section "Characteristics of the Culture" Wettlaufer (1955:26) explicitly stated:

The pottery is different in body pattern and design from that of the Mortlach culture. There is a distinct complex of bone tools, well developed; some differences in stonework and more use of skin-working tools than in the previously described culture [Mortlach].

The bone tools described under this section included three types of bone scrapers or fleshers, bone flakers, handles for end-scrapers/ice gliders, awls and miscellaneous bone specimens. Two objects of European origin were found at the very top of the upper level, a blue bead and a metal scraper.
Moose Jaw Cord-Marked pottery had rims averaging 7 mm thick with body sherds measuring 4-6 mm thick. Vessels were squat with round bottoms. Vertical impressions, applied with a cord-wrapped paddle, appeared on the exterior surface of the entire vessels. A few fragments of "pseudo basketry-impressed" pottery were also found (Wettlaufer 1955:27). Decorations appeared on the lip and shoulders of Moose Jaw Cord-Marked pottery. Outer corner notches, thumb and finger impressions and incised lines on the brim were reported as lip decorations. Shoulders of these vessels were thicker than other regions of the vessel and had fingernail impressions or pinching.

Moose Jaw Cord-Marked Variant pottery carried oblique neck impressions made with a paddle wrapped with "very closely woven cord;" oblique CWT impressions appeared on the brim surface of this vessel. Other types included rim and body sherds with plain exterior surface finishes. A few fragments of pottery tempered with sand were found as well.

The other type of pottery which Wettlaufer described was thin with parallel vertical cord impressions on the exterior surface (which may be rolled CWT impressions). Sharp-edged tool incisions were found 1 cm from the top and "[e]very 12 mm there [was] an indentation made by pressing downward on the rim with the tip of some blunt instrument" (Wettlaufer 1955:28).

The decorated lips, especially the brim and the outer
corner are characteristic of Wascana pottery. The variety of decoration mentioned such as notches, CWT, incising, fingernail impressing and pinching are more characteristic of Wascana ware than Mortlach. Although decorated shoulders are more likely to occur in an assemblage of Wascana pottery, it is necessary to consider that those mentioned may actually represent rim angles. These angular sherds, often decorated, frequently occur in Wascana pottery assemblages. Vessels with cord-roughened exterior surfaces are common as well.

Wettlaufer (1955:26) explained his choice of the name for this culture as follows:

The culture was named "Moose Jaw" because the author is certain from observing material in private collections, and from his own explorations, that some sites along the Moose Jaw Creek, [probably Stoney Beach] twelve to twenty miles distant from the site, will produce much more material of this particular culture than has been found here. That is to say, the centre of the culture is to the east of Mortlach in the vicinity of Moose Jaw.

Further, Wettlaufer (1955:27) stated:

Although the distribution of pottery in Saskatchewan is little known at this time, the author has seen this variety in sites along Moose Jaw Creek and in the vicinity of Last Mountain Lake.

It seems probable that this is a reference to the (Bulyea) Lake Midden and Stoney Beach sites.

Wettlaufer (1955:35) estimated that the date of the first Moose Jaw culture occupation level (1A) to be A.D. 1750; this late date is based on the presence of historic
goods in the "very top of the upper level." He estimated the date of the lower Moose Jaw culture level, 1B, at A.D. 1700. The association of the European material with the Moose Jaw culture can not be considered strong. No absolute dating methods have been applied to material of the Moose Jaw culture.

The artifact assemblages from Lake Midden (Watral 1979) and Stoney Beach (Wettlaufer 1951) seem to share many characteristics with the Moose Jaw culture. Both of these sites contain a variety of bone tools, Plains Side-notched projectile points, bifaces, scrapers and Wascana ware pottery. While only three fragments of worked bone were identified at the Lozinsky site, in other respects this assemblage is very similar to the more southerly sites. Wascana ware, then, may be considered as the pottery associated with the Moose Jaw culture.

8.4 A History of Ethnic Identifications

Over the years there have been several attempts to identify the ethnicity of the makers of the central and southern Saskatchewan pottery. Problems have arisen due to differing scholarly interpretations of the early accounts of European travellers. This has prompted some academics to dismiss the accounts of knowledgeable travellers. The application of the term "Gros Ventre" to both a Siouan and an Algonkian group has increased the difficulty of solving
this problem (see Russell 1990: Chapter 13 for his detailed discussion of these problems).

Other problems associated with the recognition of different pottery types in northern, central and southern Saskatchewan and changing definitions of terms, discussed previously in Chapters 1 and 2, have complicated these attempts. A short history of the ethnic identifications of the pottery makers, as proposed by archaeologists, is provided below.

Alice Kehoe (1959) suggested that Wascana ware and Selkirk pottery were so closely related that they were both made by Crees. However, Kehoe had never seen Selkirk, a fabric-impressed kind of pottery defined by Richard MacNeish (1958). Later, Kehoe appears to have abandoned this suggestion (Kehoe and Kehoe 1968:34).

Wettlaufer and Mayer-Oakes (1960) identified the Hidatsa-Fall River culture (now termed Mortlach aggregate) at the Long Creek site. They (1960:105-107) noted that pottery characteristic of this culture could have been made by either the Mandan, Hidatsa or the Cheyenne. They identified the Hidatsa as the most likely makers because of the high incidence of certain pottery attributes. Wettlaufer and Mayer-Oakes (1960:105-107) accepted that the Hidatsa/Crow pottery had check-stamped, simple-stamped and cord-roughened exterior surfaces, and dentate and wrapped rod (CWT) impressions; the Mandan and the Cheyenne pottery
did not. They argued that Mandan pottery was characterized by the use of cord-marking (single cord impressions), curvilinear rainbow designs and simple stamping; wrapped rod decorations did not occur. The Cheyenne used wrapped rod decoration and simple stamping, but check stamping did not occur. Only the Hidatsa utilized all of the above mentioned elements. Furthermore, Wettlaufer and Mayer-Oakes (1960:106) cited Bowers (1948) who identifies the Hidatsa as occupants of the Devil’s Lake region, the centre of check stamping.

Wettlaufer and Mayer-Oakes also cited Bowers’ (1948) evidence of Hidatsa camps in Saskatchewan. The main group of Hidatsa moved north because of a flood on the Red River. When the water receded, the group moved to the Devil’s Lake region. Bowers suggested that this group was identified by David Thompson and Alexander Henry as the Fall Indians or Gros Ventre. This group inhabited central Saskatchewan on the south branch of the Saskatchewan River and spoke a "harsh, guttural" language. Wettlaufer and Mayer-Oakes (1960:107) concluded:

There is little doubt that these early explorers refer to a branch of the Hidatsa, and that this branch inhabited the central portion of Saskatchewan from somewhere around 1600 until at least 1804.

Many archaeologists have published their opinions about this association over the years, both supporting and criticising this interpretation. For the most part, they
have supported the association of the check-stamped pottery, or more generally, pottery from the Northwestern Plains (Montana, North Dakota, South Dakota and Wyoming) with the Hidatsa or some Hidatsa splinter group, such as the Crow (Neuman 1963, Bowers 1965 in Wood 1986, Byrne 1973, Forbis 1977).

Bowers (1965 in Wood 1986:125) reported the distribution of check-stamped pottery and suggested the ethnicity of the makers:

Check-stamp ware was never characteristic of the Missouri Valley ... but is very common in southeastern North Dakota and thence northward into Canada. It is found in the Devils Lake area and westward into the Mouse [Souris] River Drainage and thence westward to the Yellowstone River as far west as Forsyth, Mont., ... in a region that in late prehistoric times was traditionally occupied by the various Hidatsa and Crow groups.

The general acceptance of this designation seems fairly universal. In 1979, at the Montana Archaeological Society "Symposium on the Crow-Hidatsa Separation" the archaeological component of the discussion seemed to focus on the identification of the material from specific sites as representing Crow (Frison 1979), as well as the necessity (or not) of making the specific identification (Johnson 1979). The Mandan/Hidatsa identification was implicitly assumed. Wettlauffer's identification of the Fall/Rapid Indians of central Saskatchewan as Hidatsa, however, has not been widely accepted.

In his review of the Long Creek site report, Richard
Forbis (1961:217) suggested that:

Wettlaufer has been misled by the term Gros Ventre, which has been applied variably to the Hidatsa and Atsina. Obviously, many of his citations refer to the Atsina and, therefore, assignment of the complex to the Hidatsa is unacceptable.

As well, Kehoe and Kehoe (1968:33-34) disagreed with Wettlaufer’s suggestion that Mortlach Check-Stamped ware (probably referring to the Fall River culture material) was manufactured by the Hidatsa. Actually Wettlaufer (1955) did not speculate about the ethnicity of the makers of Mortlach Check-Stamped pottery from the Mortlach site.

Like Forbis, Kehoe and Kehoe (1968 and 1974) recognized that an Algonkian group, the Atsina, were also called "Gros Ventre." This group had inhabited the Northwestern Plains for a long period of time. In their opinion, the Atsina were better candidates as the makers of Mortlach Check-Stamped pottery. However, they suggested that the "Woodland tradition" pottery, i.e. Wascana ware, was also made by the Atsina (Kehoe and Kehoe 1968:34).

Joyes (1973) recognized the connection between the Shippe Canyon pottery from Montana and several sites in Saskatchewan, including that from the upper levels of the Mortlach, Long Creek, and Walter Felt sites as well as the Big Beaver Midden (DhNh-1). He applied the term "Mortlach" to all of this material, following Kehoe and Kehoe (1968). Joyes (1973:83-84) accepted the assessment of Forbis (1961) and rejected Wettlaufer’s theory that Mortlach pottery was
made by the Hidatsa; he proposed that the makers were either Blackfoot or Atsina.

Byrne (1973) reported that pottery from the Cluny site was different from much of the other pottery found in southern Alberta. As discussed in section 2.2, he found that this pottery closely resembled (his broad definition of) Mortlach pottery from southern Saskatchewan. Byrne (1973:531-555) seems to place central/southern Saskatchewan material in the One Gun phase with the Cluny pottery.

He reviewed the arguments of Wettlaufer and Mayer-Oakes (1960), Kehoe and Kehoe (1968) as well as the accounts of the early European travellers (David Thompson, Alexander Henry and Edward Umfreville) and the comments of the editor of Henry's journal, Elliot Coues. Like Wettlaufer and Mayer-Oakes (1960), Byrne believed that Henry's identification was correct. Byrne (1973:552) states "it is obvious that Henry was not mistaken in his affiliation of the South Saskatchewan Rapid/Fall Indians with the Big Belly/Gros Ventre/Hidatsa of the Missouri, it was Coues who erred in disputing this claim." Byrne (1973:561) also suggested that the One Gun phase pottery "reflected the migration of the Crow Indians or some other Hidatsa splinter-group out of the Middle Missouri area in the early part of the eighteenth century."

Kehoe and Kehoe (1974) responded that the pottery from Cluny might be Hidatsa; however, it differed from the
pottery found in south-central Saskatchewan (probably referring to Mortlach, based on Kehoe and Kehoe 1968). They went on to say that the Gros Ventre/Fall/Rapid Indians were Atsina and that both Alexander Henry and David Thompson were mistaken in their identification of the Fall Indians as Hidatsa. They (1974) believed that Atsina (Mortlach) pottery may have been influenced by southern styles because of trade.

Schneider and Kinney (1978) did not attempt to attach ethnic labels to the Mortlach pottery in their report on the Evans site in northwestern North Dakota. Instead, they questioned the assumption that all Mortlach sites were actually related. These researchers suggested that the term Mortlach aggregate would be more appropriate because of "spatial, temporal and formal content uncertainties" (Schneider and Kinney 1978:35).

While there is no explicit ethnic affiliation suggested in more recent publications, Mortlach pottery (as used by Byrne 1973) is described as sharing some attributes with that of the Middle Missouri villages (Meyer 1988:62; Meyer and Epp 1990:335).

### 8.4.1 Wascana Ware and Northern Plains Cultural Groups

The association of styles of material items with given ethnic groups is a subject which has been studied by a number of ethnoarchaeologists. These studies generally show
that such associations can only be made with difficulty (Hodder 1979). Others suggest that tribes (ethnic groups) are a relatively recent development on the Plains (Forbis 1979:45-46). However, some researchers on the northern plains and adjacent boreal forest have attempted to identify ethnic groups with certain archaeological materials. For instance, there seems to be a general acceptance that pottery from the Northwestern Plains west of the Middle Missouri was made by the Hidatsa and Crow. Peoples of Hidatsa culture are known to have occupied eastern Montana, western North Dakota, northern Wyoming, southern Alberta and southern Saskatchewan. This distribution corresponds well with that of Mortlach pottery. If this identification is correct, Mortlach aggregate pottery should be considered as the product of peoples of Hidatsa culture.

It may be difficult, even impossible, to actually prove an ethnic identification for the makers of Wascana ware. Nevertheless, an evaluation of possible candidates for the makers of the pottery is a useful exercise. At the end of the Late Prehistoric period a number of groups who inhabited the Northern Plains could have manufactured Wascana pottery, these include the Assiniboine, Snake and Atsina (D. Russell, pers. com. 1991).

The Assiniboine were the most populous group on the northeastern plains and parklands in the eighteenth century (Russell 1990:338). At that time the range of this group
"stretch[ed] from the Branches of the Saskatchewan south to the lower Assiniboine" (Russell 1990:361). However, Ray (1974:21) suggests that, at the end of the seventeenth century, the Touchwood Hills marked the western limits of their territory. This distribution indicates that, in the Late Prehistoric period, the group was situated east of the area under consideration in this thesis. Furthermore, Sandy Lake ware is generally considered to be Assiniboine pottery (Participants of the Lake Superior Basin Workshop 1988, The 1987). The latter authors (1987:58, Figure 1) give the Late Prehistoric period distribution of this ware as northern Wisconsin, northern Minnesota, northeastern North Dakota, southeastern Manitoba and adjacent Ontario.

The later (ca. 400 B.P.) occupation of the Lovstrom site, in southwestern Manitoba, also contains Late Prehistoric period pottery. B.A. Nicholson (1990:52) finds obvious affinities between this material and the Scattered Village complex of the Middle Missouri area. The presence of bison scapula hoes, bone (squash?) knives and grinding stones further supports the Plains Village horticultural identification. Pottery-bearing sites in the parklands of east-central Saskatchewan have yet to be identified.

The Snake were reported to have occupied the Eagle Hills in west-central Saskatchewan. Prior to 1774, Hudson Bay Company travellers feared attacks by Snake raiders as they travelled between the South Saskatchewan and the mouth
of Eagle Creek (Russell 1990:381). The Snake, however, do not appear to have been long-term occupants of the area:

Thus, there is actually little evidence that the Snake once lived as far north as the Eagle Hills...Instead, the Eagle Hills area, through the 1700's, marked the frequent location of their raiding parties [Russell 1990:382].

Therefore, it is highly improbable that large camps to the east, such as Lake Midden, could have been the product of the Snake.

This leaves the Atsina, also called the Gros Ventre, Fall or Rapids Indians. In the early historic period the Atsina were identified as the former inhabitants of the region between the north and south branches of the Saskatchewan River (Johnson 1962:177-178; Flannery 1953:1-16). On October 7, 1772, Matthew Cocking (Burpee 1908:108) found, in an "old tent-place belonging to the Archithinue Natives, part of an earthen vessel, in which they dress their victuals; It appeared to have been in the form of an earthen pan." Cocking is believed to have found this abandoned camp in the Bear Hills southeast of Biggar (Dale Russell, pers. com. 1991). Later, Cocking's group visited a tribe he called the Powestic-Athinuewuck or Water-fall Indians. On December 5, Cocking reported that "Their victuals are dressed in earthen pots, of their own Manufacturing; much in the same form as Newcastle pots, but without feet" (Burpee 1908:111). This camp appears to have been located near modern day Ruthilda, at Duperow (Russell
Russell (pers. com. 1991) indicates that there is little doubt that the Archithinue Indians which Cocking mentioned were Atsina. Cocking’s description is the only European account of pottery manufacturing in central Saskatchewan. Cocking’s account, combined with a Late Prehistoric period placement of the Atsina group in central Saskatchewan, provides the strongest evidence supporting an association of the Atsina with Wascana pottery.

8.5 Other Implications

Byrne’s (1973) lumping of material from central Saskatchewan with Mortlach has implications for his and the later hypotheses of Meyer (1988) and Meyer and Epp (1990). While the basic arguments are not affected, the identification of some of the groups changes. The makers of Wascana pottery, identified here as the Atsina, were likely responsible for the westward displacement of the Blackfoot (Meyer 1988). As well, there is archaeological evidence of interaction between the makers of Wascana ware and the makers of Selkirk ware, as seen in the pottery from central Saskatchewan (Meyer and Epp 1990).

8.5.1 Implications to Byrne

Byrne (1973:471-504; 552-554; 558-560) suggested that a group of Middle Missouri Hidatsa travelled west through Southern Saskatchewan, following Missouri River tributaries
and the Qu’Appelle Valley. This group followed the South Saskatchewan River west to Blackfoot Crossing, the location of Cluny, where they lived for several months. He believed that Mortlach sites in southern Saskatchewan represented short term occupations of the migrating Hidatsa group on their way to Alberta.

Byrne (1973:430-431) found the correlation between pottery from the Cluny site in Alberta and the Mortlach sites in southern Saskatchewan to be strong. The southern Saskatchewan material, in turn, he saw as derived from the Middle Missouri area of the Dakotas. He (1973:497) suggested that differences in the style of the pottery reflected developments in transit. The number of modifications manifested in the pottery increased with the distance the group travelled from the Dakotas.

Although Byrne (1973) included the material from Lake Midden and Stoney Beach in his concept of Mortlach, the separation of Wascana ware from Mortlach does not have a major effect on his hypothesis. The Qu’Appelle Valley seems to represent the northern boundary for Mortlach and the southern boundary of Wascana ware. Sites containing Wascana ware (Stoney Beach) and Mortlach pottery (Long John and Gilmore) both occur within the valley. The exclusion of Lake Midden simply provides evidence that the migrating group did not occupy the area north of the Qu’Appelle on a regular basis. The existence of small Mortlach sites, such
as Schraeder, further north indicates that the group occasionally travelled in that area.

Russell (1990:411-415) indicates that there is evidence of Hidatsa incursions into Saskatchewan in the early historic period. In 1800, Fidler reported the presence of "mud" houses on an island in the South Saskatchewan River, north of modern day Swift Current. Mortlach-related pottery at the Miry Creek site and at Site EdOh-44 may be archaeological evidence of a Hidatsa presence in south-west Saskatchewan.

The combinations of pottery traits such as check stamping, cord roughening, dentate and CWT which appear on what is now known as Mortlach pottery, support Wettlaufer and Mayer-Oakes' (1960) original identification at Long Creek. The makers of the pottery associated with what he named the Fall River culture are most likely to have been Hidatsa or some splinter group of the Hidatsa.

Most of the sites containing Mortlach pottery are located south of the Qu’Appelle Valley and west of the Missouri Coteau. As well, trade goods are usually found in the assemblages, thus indicating an early historic occupation. In the terminal prehistoric/early historic period, therefore, members of a Hidatsa group were the primary occupants of the southern part of Saskatchewan, from the Qu’Appelle Valley south into Montana and North Dakota.
8.5.2 Implications to Meyer

Meyer (1988) has reported that Old Women's phase material was well represented in much of Saskatchewan prior to A.D. 1300; however, the Old Women's phase became restricted to the western side of the province after this time (Meyer 1988). He saw the westward displacement of the Old Women's phase as evidence of the immigration of groups making Mortlach pottery and Plains Side-notched points at around A.D. 1300.

Meyer and Epp (1990:336) have suggested that Pehonan pottery, found in the upper Saskatchewan River Valley, is a Selkirk assemblage modified through the influence by Mortlach pottery styles. On the other hand, the material from the Lozinsky site was seen as reflecting Selkirk influence. Together, these assemblages were considered as evidence of regular interaction between the groups (Meyer and Epp 1990:336).

The separation of Wascana materials from Mortlach does not adversely affect either the conclusions of Meyer (1988) or Meyer and Epp (1990); in essence, only the name of one set of players changes. The westward displacement of the Old Women's phase people was due to the arrival of the makers of Wascana ware, probably the Atsina. This group, then, was also responsible for the introduction of the Plains Side-notched projectile point. The Pehonan complex and the evidence of Selkirk influence in the material from
the Lozinsky site are a result of Wascana-Selkirk interaction.

The occurrence of "exotic" vessels or vessels which reflect the influence of neighbouring groups in Saskatchewan assemblages has been documented by Meyer and Epp (1990). They (1990:335-337) suggest that the high incidence of vessels with a single row of rim punctates at the Lozinsky site is evidence of "north-south interaction" with Selkirk populations. Similar evidence for north-south interaction exists between Wascana and Mortlach assemblages, such as the occurrence of a few Wedge profile vessels in Wascana sites and elaborate brim patterns on Wedge profile Mortlach vessels from the Long John site.

8.6 Summary

While the term "ware" may not be an appropriate taxonomic label for central Saskatchewan pottery, Wascana ware is a definable entity and sites containing this pottery are related. The material culture of the central Saskatchewan sites with Wascana ware represents the Moose Jaw culture, originally defined by Wettlaufer (1955). The strongest support exists for an affiliation of the Atsina with Wascana ware (and the Moose Jaw culture).

The identification of Wascana ware with the Atsina has implications for hypotheses regarding the cultural dynamics of the Late Prehistoric period on the Saskatchewan plains.
The results of this research indicate that the people associated with the Moose Jaw culture had a significant presence in central Saskatchewan.
9 CONCLUSIONS

9.1 Introduction

This research represents the first systematic study of pottery from central and southern Saskatchewan. Over 1000 vessels from 13 central and southern Saskatchewan sites have been analyzed. The consideration of descriptions of pottery in published reports from another six sites in Saskatchewan, Montana and North Dakota has further broadened the data base. The results of this investigation support the identification of both the Moose Jaw culture (Wettlaufer 1955) and Wascana ware (Kehoe 1959) in central Saskatchewan. Mortlach aggregate pottery, as described by Schneider and Kinney (1978), is primarily found in Late/Terminal Prehistoric sites south of the Qu’Appelle Valley.

9.2 Wascana Ware

In a Wascana ware assemblage, about one-half of the vessels have Straight Rim profiles; Angled Rim and S-Profile vessels each account for about 20% of the vessels. Fabric-impressed, cord-roughened and plain exterior surface finishes are the most common. Decoration on the vessels is varied but most often occurs as CWT impressions, notches or punctates. Lip decoration may occur on the brim, inner corner, outer corner or some combination of these surfaces. Decoration on the rim exterior is quite common, often in the
form of horizontal lines or a single row of punctates. At times, elaborate patterns involving horizontal, vertical or oblique lines appear on the rim exteriors of S-Profile and Angled Rim vessels. Similar patterns appear on the neck/shoulder areas of Straight Rim vessels. Points of vertical tangency, such as the rim angle, neck or shoulder may be decorated as well. Vessels are usually tempered with fine- to medium-grained crushed granite, although some sand or granite and sand tempering occurs. Since the paddle and anvil technique was employed to model the vessels they tend to have well-consolidated, compact paste and the walls of the vessels are thin. North of the Qu’Appelle Valley, sites containing Wascana ware include Lake Midden, Williams, Farago, Tipperary Creek, Lozinsky and several small sites near Saskatoon. A large site containing Wascana pottery, Stoney Beach, is located within the Qu’Appelle Valley itself. A site south of the Qu’Appelle Valley, the Mortlach site, has Wascana ware in the component Wettlaufer named the Moose Jaw culture. The nearby Walter Felt site likely has a Moose Jaw culture component, although it has not yet been separated from the Mortlach component.

Wascana ware, therefore, is the pottery associated with the Moose Jaw culture. In the absence of strong radiometric dates, the duration of the culture can not be firmly established. The earliest date which can be associated with Wascana ware, 380 +/- 100 B.P., is from the Lake Midden
The southernmost manifestations of the Moose Jaw culture are found at the Stoney Beach and Mortlach sites. While these may represent the earliest Moose Jaw culture sites, no dates on the material are available. On the basis of the observations of early travellers and the temporal and geographic distribution of Wascana ware, a strong argument can be made for an association of the Atsina with this pottery.

9.3 Mortlach Aggregate Pottery

In Saskatchewan, Mortlach aggregate pottery is primarily found south of the Qu'Appelle Valley. Vessels with Straight Rim profiles are the most common; however, usually at least 30% of the vessels have a Wedge profile. Plain, check-stamped and simple-stamped exterior surface finishes are the most common. Cord-roughened exteriors may occur as well. Decoration on Mortlach vessels tends to be simple and sparse; often it is restricted to the brim and below-brim areas. Lip decoration frequently consists of right oblique impressions executed in CWT or dentate. Below-brim decoration is commonly some type of punctate, fingernail impressing or pinching. As with Wascana ware, Mortlach pottery is modelled using the paddle and anvil technique; vessels tend to have thin walls and to be grit-tempered. Saskatchewan sites with Mortlach pottery include Long John, Gilmore, Schraeder, Sanderson, Miry Creek and
Site EdOh-44. This pottery is also found in the upper levels of the Long Creek site and the Mortlach site, Project 4. Mortlach material is also found in the upper levels of the Walter Felt site, although a clear separation between Mortlach and Wascana occupations can not be made.

9.4 Distribution of the Moose Jaw and Mortlach Cultures

This research has demonstrated that the characteristics of Late/Terminal Prehistoric pottery assemblages in central Saskatchewan from the Qu'Appelle Valley north into the parklands are similar. This pottery in central Saskatchewan is identified as Wascana ware of the Moose Jaw culture. The pottery assemblages from the Late/Terminal Prehistoric period in southern Saskatchewan, south of the Qu'Appelle Valley into northeastern North Dakota and northwestern Montana, share a different set of attributes. This pottery from the south is characteristic of the Mortlach Aggregate.

Material associated with the Moose Jaw culture is found in central Saskatchewan; the parklands and the Qu'Appelle Valley represent the northern and southern boundaries of its core distribution. More research is required before the eastern and western boundaries of the ware can be established; however, known sites tend to occur on the plains between the Touchwood Hills on the east and the Missouri Coteau (including the Eagle and Bear Hills) on the west. South of the Qu'Appelle Valley at the Mortlach site
and, possibly, at the Walter Felt site the Moose Jaw culture is overlain with material from the Mortlach culture.

In Saskatchewan, the pottery associated with the Mortlach aggregate is found across the plains south of the Qu’Appelle Valley to the International Boundary. Sites tend to be terminal Late Prehistoric/early Historic; European goods are frequently associated with Mortlach sites. At the Mortlach (and probably Walter Felt) site, the Mortlach cultural materials are found above the Moose Jaw culture. This may indicate northward displacement of people of the Moose Jaw culture by people of the Mortlach culture in the Late Prehistoric period. Perhaps in the early historic period a Hidatsa (or Hidatsa-splinter) group left the villages and became the primary occupants of southern Saskatchewan to the Qu’Appelle Valley. Evidence of their presence is found at several sites throughout this region.

The Qu’Appelle Valley appears have been a cultural frontier in the Late Prehistoric period. Within the Qu’Appelle Valley itself, both Moose Jaw and Mortlach components are present. The pottery from some sites, such as Stoney Beach, more closely resembles Wascana ware found in sites further north. Others, such as the Long John and Gilmore sites, have pottery with attributes which are similar to Mortlach aggregate pottery found in the more southern parts of the province, northwestern Montana and northeastern North Dakota.

Boyd Wettlaufer (1955) was the first to recognize that pottery from the second component of the Mortlach site, as well as at Lake Midden and Stoney Beach, was distinct from the first component which contained check-stamped pottery. The former was associated with the Moose Jaw culture, the latter with the Mortlach culture.

Then, in 1959, Alice Kehoe broadly and loosely defined a pottery ware, called Wascana, found in sites from Moose Jaw to Saskatoon. She did not discuss the relationship between Wascana ware and the cultures previously defined by Wettlaufer (1955), however. This original definition of Wascana ware appears to have encompassed the pottery from both cultures, although Kehoe and Kehoe (1968) later recognized the two kinds of pottery.

This separation of the two potteries was lost in the early 1970s for two reasons. First, William Byrne (1973) suggested that pottery from sites in central Saskatchewan, specifically Lake Midden and Stoney Beach, represented variations of Mortlach Check-Stamped. In doing so, he altered the definition of Mortlach so that it encompassed Wascana ware. Secondly, the separation of Wascana ware from Selkirk was not clear. As a result, the term Wascana ware fell into disuse; those who followed Byrne (1973) regarded all Late/Terminal Prehistoric period pottery (ca. A.D. 1300 to contact) on the Saskatchewan plains as Mortlach.
While this broad definition of Mortlach has been accepted by some (Meyer 1988; Meyer and Epp 1990), others have more closely adhered to Wettlaufer's (1955) description (Johnson 1977; Schneider and Kinney 1978). Consequently, the meaning of the term "Mortlach" has not been uniform. In order to correct this situation, the pottery most commonly found in central Saskatchewan, from the Qu'Appelle Valley north, must be recognized as different from Mortlach.

The term Wascana ware introduced by Kehoe (1959) seems the most appropriate name for the pottery associated with the Moose Jaw culture, although the description may have initially included Mortlach. The definition of types within Wascana ware on the basis of surface finish is not recommended; they will not be valid constructs. If it becomes necessary to define descriptive types, the basis of the definition should be the three most common vessel profiles: Straight Rim, Angled Rim and S-Profile. As with Mortlach aggregate pottery, the two most common vessel profiles, Wedge and Straight Rim, should form the basis of descriptive types.

9.6 Summary

During the Late/Terminal Prehistoric period the Saskatchewan plains were occupied by peoples of two different cultures. People of the Moose Jaw culture were the primary occupants of central Saskatchewan, the region
north of the Qu'Appelle Valley extending into the parklands. They made Wascana ware which is characterized by the presence of Straight Rim, S-Profile and Angled Rim vessels having fabric-impressed, cord-roughened or plain exteriors possessing a wide variety of decorations. These people were most likely an Atsina group.

People of the Mortlach culture were the primary occupants of southern Saskatchewan, south and west of the Qu'Appelle Valley, as well as northeastern Montana and northwestern North Dakota. They made Mortlach aggregate pottery which is characterized by the presence of scantily decorated vessels with Straight Rim and Wedge profiles having check-stamped, simple-stamped, plain or cord-roughened exteriors. This people were most likely of Hidatsa culture.
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APPENDIX

Temper and Paste Quality of Pottery from Some Sites in Central and Southern Saskatchewan
Temper

The relative size and amount of temper or type of temper added to the clay is described. The description of temper was not completely uniform throughout the analysis. The analysis of the first few collections involved descriptions of material types, but later the size and the abundance of temper was described as well.

The majority of the vessels are grit-tempered; that is, crushed, decomposed granite was added to the clay. Occasionally a sand and granite mixture is identified; vessels tempered only with sand are rare. In order to make the data more useful, the later descriptions focus on the amount and texture of the added temper. Additionally, it is often difficult to discriminate between sand and granite in a vessel sparsely tempered with fine-grained material.

In general, sand-sized temper is described as fine-grained; medium temper is usually no greater than 2 mm in any dimension; coarse temper is 3-4 mm in any one dimension. Since a range of temper sizes occurs in the paste of any vessel, the term describes the size of the majority of temper particles present. If the different sizes of temper occur in equal amounts or if the size of temper in one part of a vessel is significantly different than in another, area then the term "variable" is applied.

The quantity of temper in a vessel is described as sparse, medium or heavy. In sparsely tempered vessels,
temper represents less than 20% of the paste. When approximately 20-40% of the paste is composed of added temper, the vessel is judged to have a medium amount. If more than 40% of the paste is made up of added temper then it is judged to be heavily tempered.

**Paste**

This category includes descriptions of the level of compactness and consolidation of the paste. In general, paste quality ranges from highly laminated to dense and compact. The terms used to describe paste quality indicate different stages on a continuum. The presence or absence of laminations is a function of the extent to which the vessel was paddled. However, as vessels are identified on the basis of rim sherds, the presence of laminations is not surprising. The body of a vessel is the area which would receive the greatest amount of paddling and would be the most compact. Therefore, a study of the compactness of body sherds in a collection would be a more useful indicator of the skill of the potters.

Evidence of bedding in the paste occurs in a laminated paste. A vessel with definite laminations also has evidence of exfoliation or splitting along these beds. Slight laminations indicate that evidence of bedding remains although the paste is well consolidated.

No bedding planes are evident in the vessels with compact paste. Other vessels are so well paddled that the
density of the sherd is noticeably greater. These sherds are referred to as dense/compact. Other sherds appear to have a dense and compact core; however, laminations are found close to the exterior and interior surfaces. Exfoliation of the surface may occur as well. The term "dense core" is used to describe this kind of paste.

Other terms describing the condition of the paste include friable, porous and variable. Paste that is friable is poorly consolidated and prone to crumbling. Porous paste could be the result of very little kneading of the paste so that air bubbles are present or, more likely, the presence of a high quantity of organic matter which is destroyed in the firing process. Variable is applied to vessels with markedly different levels of paste quality within the same vessel area.

Lake Midden Pottery: Temper and Paste Quality

The temper and paste quality of 140 vessels, over one-half of the collection, was determined. The temper in the paste of most vessels was very fine. Often it was difficult to determine if the grains were rounded or angular. Almost half of the sample (n=69) was judged as having sparse, fine temper. Another 39 vessels (28%) were judged as having a moderate amount of fine temper. Medium-sized temper was present in a moderate amount in the paste of 20 vessels; 7 others were sparsely tempered. Only four vessels were
heavily tempered.

While the paste of the Lake Midden vessels was not especially dense and compact, very few vessels exhibited exfoliation. Laminations were visible or slightly visible in the paste of two-thirds of the vessels examined. Most of the others (39 or 28%) were judged as having compact or dense/compact paste.

**Williams Pottery: Temper and Paste Quality**

The temper and paste quality was not rigorously analyzed for all of the vessels at this site. However, these characteristics were examined in over one-half of the collection. Generally speaking, most vessels were tempered with crushed granite and/or sand. The temper tended to be fine-grained. However, it was rather coarse in a few vessels. Vessels tended to be sparsely tempered but some were judged to be heavily tempered.

The paste of most of the vessels examined was well consolidated, either compact or slightly laminated. However, several vessels experienced some degree of splitting or exfoliation of the vessels walls. As well, the paste of several vessels was found to be rather porous.

**Farago Pottery: Temper and Paste Quality**

Over one-half (n=24) of the vessels are sparsely or moderately tempered with fine-grained crushed granite or
sand. Vessels with medium-sized temper are also quite common (n=12). The inclusions present in five vessels exhibit a wide range of sizes, from fine to coarse. The paste of most of the vessels is well consolidated and compact. Although laminations are visible in the paste of several, only two vessels have evidence of exfoliation.

**Tipperary Creek Pottery: Temper and Paste Quality**

The size and relative quantity of the temper added to the clay seems to vary substantially. The temper observed in most vessels is either fine or medium-sized crushed granite. Fully 54.7% of the collection consists of vessels with fine-grained temper. Many heavily tempered vessels are noted in this collection, which is rather uncommon in other central Saskatchewan sites. The paste of over one-quarter of the vessels appears to be heavily tempered. The number of sparsely and moderately tempered vessels was almost equal, 31 and 32 pots respectively.

The paste of the Tipperary Creek pots tends to be compact and well consolidated. Almost 65% of the vessels have paste judged to be either compact or dense/compact. While laminations are identified in the paste of almost 28% of the vessels, exfoliation occurs in only 6 instances.

**Lozinsky Pottery: Temper and Paste Quality**

Most of the vessels at the site are grit-tempered;
however, some sherds in the collection have sand or a mixture of sand and granite temper. Almost all vessels have either fine or medium-grained temper. The temper in 45.5% (n=25) of the vessels is sparse; another 38.2% (n=21) are moderately tempered; five (9.1%) are heavily tempered. The temper in the remaining 4 vessels (7.3%) is variable.

The vessels at the Lozinsky site tend to have well-consolidated paste. The paste was judged to be compact (n=17) or dense/compact (n=12) in 52.7% of the vessels. Slight laminations are apparent in the paste of 11 vessels. However, the quality of the paste in 10 vessels (n=10) is poor. In these, the paste has split apart or it is friable.

**Schraeder Pottery: Temper and Paste Quality**

One half (n=9) of the vessels at the Schraeder site have moderate (n=7) or heavy (n=2) amounts of medium-sized temper added to the paste. Six vessels are judged to be sparsely tempered with fine (n=4) or medium-grained (n=2) grit. One vessel is heavily tempered with fine-grained sand or granite.

The quality of the paste in these vessels ranges from very good to poor. Seven vessels have laminations visible in the paste; the paste is compact in six others. The paste of four vessels is porous and the paste of another is friable. These five vessels, with relatively poor paste, represent nearly one-third of the collection.
Walter Felt Pottery: Temper and Paste Quality

The quantity and quality of temper has not been determined for all vessels from the upper layers of the Walter Felt site. For these vessels, only information regarding the kind of temper is available. In most instances vessels are grit-tempered, although a few vessels have a sand and granite mixture, or sand alone. However, the addition of sparse to moderate amounts of medium sized grains of crushed granite is the most common tempering method. Only 23 (15.8%) vessels are judged as having fine-grained temper; the temper in one vessel is noticeably coarse-grained.

While the walls of most vessels are well consolidated, laminations are visible in the paste of almost 35% (n=50) of the vessels. Splitting of the paste or exfoliation occurs in 18 vessels (12.4%). The paste of just over 36% of the vessels is found to be compact, dense/compact or dense.

Stoney Beach Pottery: Temper and Paste Quality

Most vessels in the collection are sparsely tempered and most often the temper is fine. Over one-third of the vessels (n=54) are judged to have sparse, fine temper. Several other vessels have either moderate fine (n=29), sparse medium (n=24) or moderate medium (n=22) temper. These four temper classes account for almost 83% of the sample. Over 8% of the vessels are judged to be heavily
tempered.

While the paste of over one-half of the Stoney Beach vessels is quite compact, some laminations are present on over 25% of the pots. Definite lamination occurs on 13 pots or 8% of the collection.

Long John Pottery: Temper and Paste Quality

Vessels at the Long John site tend to be sparsely to moderately tempered with fine to medium-grained crushed granite. Over one-half of the vessels (28 of 55) are judged as sparsely tempered. Fine-grained temper is found in 23 vessel; medium-grained temper appears in 27 vessels. A few vessels (n=7) are heavily tempered; mainly with medium-sized grains of crushed granite. One vessel is heavily tempered with coarse-grained grit.

Gilmore Pottery: Temper and Paste Quality

Twenty-three of the 24 vessels at the Gilmore site are judged to have fine or medium-grained temper. The majority of these (n=17) are sparsely (n=11) or moderately (n=6) tempered with fine-grained grit or sand. The temper in the other vessel varies from fine to coarse.

The paste quality of the vessels is variable; however, the paste of most of the vessels is well-consolidated. One-half of the vessels are judged to have compact (n=10) or dense/compact (n=2) paste. On the other hand, definite
lamination occurs in the paste of seven vessels; the paste of two other vessels is friable. Laminations are visible in the paste of two vessels and the final vessel has a dense core with surface laminations.