An Analysis of Late Woodland Ceramics

From Peter Pond Lake, Saskatchewan

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Fabric-impressed ware

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ABSTRACT

Recent archaeological surveys on Peter Pond Lake have provided an opportunity to better elucidate the Late Woodland period of occupation in the upper Churchill River basin of northwestern Saskatchewan. Previous studies identified two pottery-bearing cultures in the region. This included the Kisis complex of the well-documented Selkirk composite, which is characterized by Winnipeg Fabric-impressed ware and dates from approximately A.D. 1300 through to the historic period. The second was a lesser-known archaeological entity represented by limited pottery recoveries from just two sites in the region. Early interpretations proposed this latter "Narrows" pottery represented an incursion of the plains adapted Old Women's phase into the region, with a suggested age of approximately A.D. 1000 to 1300.

Through a comprehensive analysis of pottery assemblages recently recovered from over twenty sites in the Peter Pond Lake region, this study was able to further validate the original description of the Kisis complex, but more significantly, propose a new pottery ware and complex for the enigmatic Narrows pottery assemblages. As a result, this pottery is now formally classified as Narrows Fabric-impressed ware and is considered characteristic of the Buffalo Lake complex. This complex is centered on Peter Pond Lake and appears to have an extensive presence in the region. Recently obtained radiocarbon dates indicate it is slightly younger than originally believed, and spanned from approximately A.D 1200 to 1500. Unlike previous interpretations, which suggest this pottery represents a plains influence in the region, the Buffalo Lake complex is considered a boreal forest manifestation, with origins that lie in the woodlands to the southeast. The pottery shares particular affinities with contemporaneous Sandy Lake ware that has a distribution extending from east-central Saskatchewan through to northwestern Ontario and Minnesota, with additional influences evident from Winnipeg Fabric-impressed ware found throughout northern Saskatchewan, Manitoba and Ontario.

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LIST OF ABBREVIATIONS

Abbreviation

B.P.: before present

CWTI: cord-wrapped tool impression

SET: sharp-edge tool impression

OWP: Old Women's Phase

CHAPTER 1
INTRODUCTION

1.1 Introduction to Research Problem

Unlike vast regions of the boreal forest of northern Saskatchewan, the headwaters of the Churchill River (Figure 1.1) have been subject to a significant amount of archaeological scrutiny. This can be attributed to the activities of avocational archaeologists, various small-scale cultural resource management projects, and academic research conducted mainly along the Kisis Channel (Figure 1.2). As a result, our knowledge of the precontact history of this region is better than that of many others. Despite such progress, however, our understanding is still far from complete. The culture history thus far constructed is best described as a mere sketch based on data coming almost exclusively from the narrow channel linking Little Peter Pond and Churchill Lakes. Any contribution to the existing data set outside of the Kisis Channel, therefore, has the potential to substantially enhance our knowledge and challenge our concepts regarding the precontact occupation of the region.

Such an opportunity was presented in 2000, when Western Heritage Services Inc. of Saskatoon, Saskatchewan was contacted by the Buffalo River Dene Nation of Dillon, Saskatchewan to conduct an archaeological survey of their traditional lands (Dale Russell 2002: personal communication). Forest fires had swept through the west side of Peter Pond Lake in the summers of 1993 and 1998 exposing materials from dozens of archaeological sites, and the band was concerned over ongoing loss of artifacts to local collectors. Archaeologist Dale Russell, with the assistance of local band members, carried out pedestrian surveys over the course of two summers as part of a salvage project. The examined region included burned areas primarily along the northwest shore of Peter Pond Lake, with additional surveys conducted along a trail leading south towards Dillon River, as well as the east and west shores of Vermette Lake. As a result of this survey 105 new sites were discovered and approximately 3000 artifacts collected. Although a majority of

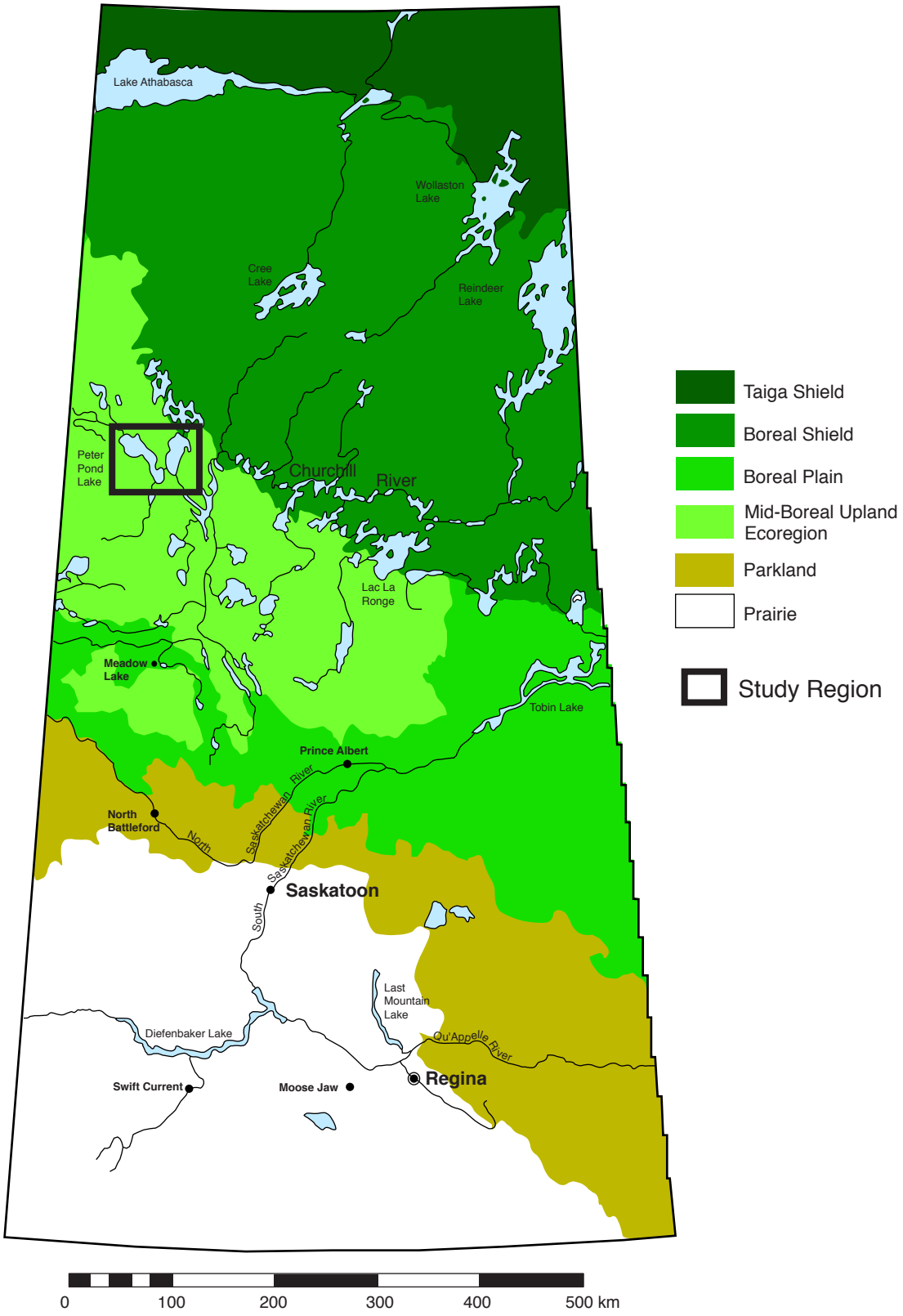


Figure 1.1: Location of the Upper Churchill River Basin within Saskatchewan (Adapted from Fung 1999:133).

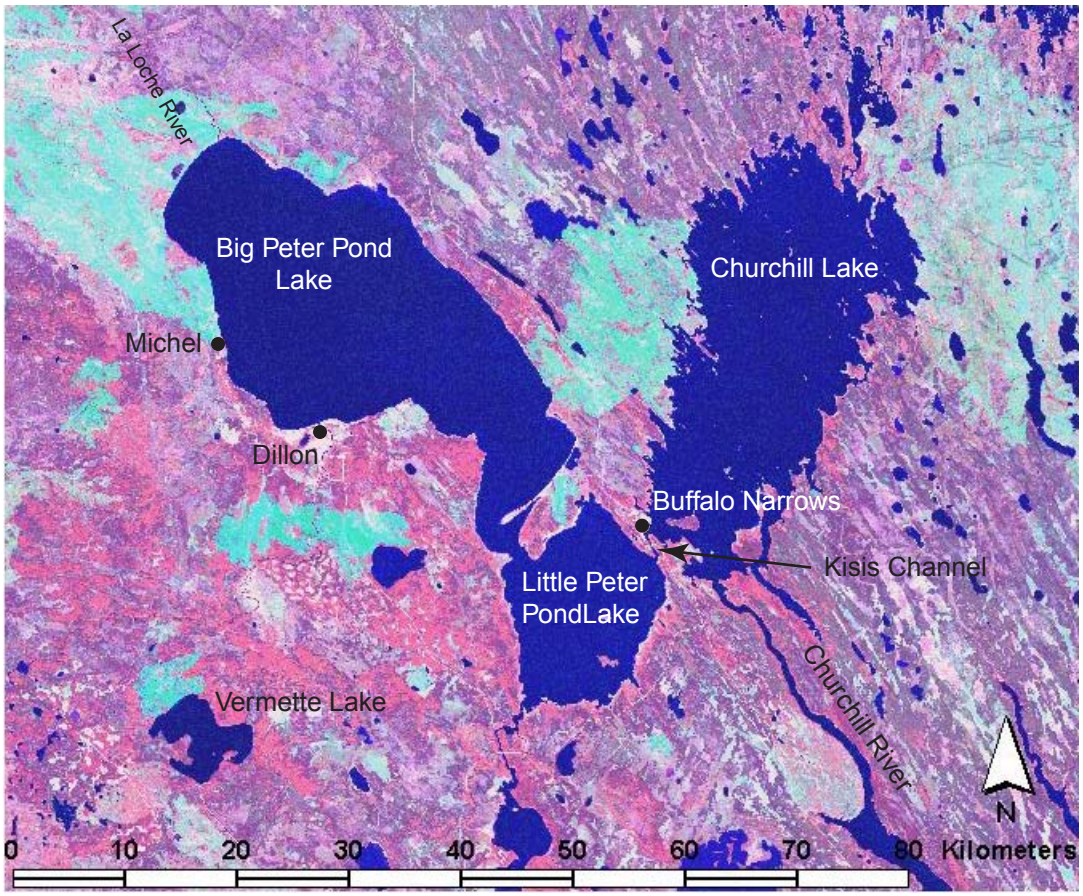


Figure 1.2: Upper Churchill River Basin Study Region. The light blue areas indicate forest fire zones (Landsat 7 Satellite Image, 1999).

these sites were small, isolated lithic find spots and scatters, 22 sites contained substantial amounts of late precontact pottery and represent the bulk of the artifacts collected.

It is this pottery that will serve as the focus of thesis research. The unprecedented number of Late Precontact ceramic-bearing sites found on Peter Pond Lake offers an opportunity to better elucidate this period of occupation in the region. Research will focus specifically on a definition of the enigmatic archaeological entity variously referred to as the "Narrows Assemblage" (Millar 1983) or "Narrows sub-phase" (Paquin 1995). Through a comprehensive analysis of the pottery, it will be possible to further refine, define, confirm or refute previous pottery classifications and resulting interpretations. In particular, potential relationships with other known pottery bearing complexes within the boreal forest and northern plains of central Canada will be explored.

1.2 Study Region Environment

The upper Churchill River basin is located within the mid-boreal upland ecoregion of the southern boreal forest of northwestern Saskatchewan (Figure 1.1) (Fung 1999:133; Acton et al 1998:78). The headwaters are comprised of Peter Pond and Churchill Lakes, with the former being a huge expanse of water which is over 60 km long and 20 km wide (Figure 1.2). Thompson Peninsula constricts this lake, with Big Peter Pond Lake lying to the north and Little Peter Pond Lake to the south. The narrow Kisis Channel joins Little Peter Pond with Churchill Lake, where a southern outlet marks the beginning of the Churchill River.

1.2.1 Flora and Soils

The mid-boreal upland ecoregion is located south of the Precambrian Shield proper and is characterized by a more favourable climate and productive soils than the Shield forests to the north. It is considered a Mixedwood Boreal Forest with aspen (*Populus tremuloides*) and white spruce (*Picea glauca*) dominating medium to fine textured soils, jack pine (*Pinus banksiana*) occurring on well-drained sandy or gravely plains and low ridges, and black spruce (*Picea mariana*) and tamarack (*Larix laricina*) preferring poorly drained mineral soils (Thorpe 1999:135). Although Grey Luvisolic

soils typify most of this ecoregion, near the shield the soils tend to be sandy and poorly drained. Immediately west and north of Peter Pond Lake much of the landscape is characterized by low-lying peatlands containing black spruce or treeless to sparsely treed fens. As observed historically by Franklin (1823:129), "the shores [of Peter Pond Lake] are of moderate height, and well wooded, but immediately beyond the bank the country is very swampy and intersected with water in every direction."

A plethora of shrubs, herbaceous plants and wildflowers constitute the understory of much of the forest in the region. Some of the more common shrubs include beaked hazelnut (*Corylus cornuta*), green alder (*Alnus crispa*), low-bush cranberry (*Viburnum edule*), pin cherry (*Prunus pensylvanica*), choke cherry (*Prunus virginiana*), buffalo berry (*Shepherdia canadensis*), Saskatoon berry (*Amelanchier alnifolia*), common blueberry (*Vaccinium myrtilloides*) and prickly rose (*Rosa acicularis*) (Acton et al 1998: 80-81).

1.2.2 Physiography

The physiography of the region west of Peter Pond Lake, referred to as the Dillon Plain, is relatively level to gently undulating and ranges in elevation from approximately 400m at the lake to 500m at the base of the Moostoos uplands to the south (Acton et al. 1998:83-84). As a result, the Grizzly Bear Hills located approximately 10 km west of Peter Pond Lake and rising to an elevation of 600m figure prominently in the local relief and cultural lore. This toponym apparently is derived from the earliest known aboriginal name for the hills. As recorded by Phillip Turnor (Tyrrell 1934:368), surveyor for the Hudson's Bay Company, during his explorations of 1790-92: "…a hill appears WbS called by the Southern Indians [Cree] Mist-ta-hay Mus-qua Wau-Chu and by the Chepawyans [Dene] Hot-hail-zaz-za Sheth or the Grizil Bear Hill". In a subsequent account, Back (1836:80) observed this conspicuous hill was also referred to as "Buffalo Mountain" by the Canadians who believed it was the source of "the frequent storms which occur in crossing this wide expanse [Peter Pond Lake]".

1.2.3 Climate

The climate of the region is classified as sub-arctic with a dry sub-humid moisture index and characterized by long, cold winters (Fung 1999:96). The mean daily temperature is 0.3° C, with average summer temperatures of 16.3°C and mean winter temperatures of –18.9°C. Annual precipitation averages 452mm, with 291mm of rainfall occurring from May to September. The summers are typically short and cool with only 91 frost-free days (Acton et al 1998:79).

1.2.4 Fauna

Wildlife in the region is abundant and varied and would have provided an ample food source during precontact times. Large game animals include moose (*Alces alces*), mule deer *(Odocoileus hemionus)*, elk (*Cervus elephus*), and woodland caribou (*Rangifer tarandus*). There is evidence that Wood bison (*Bison bison athabascae*) were present in the area during the early historic period. Explorer and fur trader Peter Pond, the first European to pass through this region in 1778, was also the first to record the name of the lake now bearing his name. On his 1785 map of North America, Pond identifies the water body as Beef Lake (Hays 2002:140). Similarly Turnor noted that the lake was "called by the southern Indians [Cree] Mis-toose-Sask-a-ha-gan and by the Chepawyans [Dene] A-gid-da Too-ah or Buffalo Lake" (Tyrrell 1934:367). Although no bison were observed directly on the lake, Turnor subsequently documented evidence for their presence in the region. While traveling down the Garson River, a route his native guides informed him was abundant in buffalo and moose, Turnor observed "plentiful buffalo dung" near Garson Lake and considered this area to be a buffalo wintering ground (Tyrrell 1934:373). Garson Lake is situated approximately 50 km northwest of Peter Pond Lake. One of the best-known wood buffalo grounds documented in the region during the early fur trade period, however, was located at the confluence of the Clearwater and Athabasca Rivers (Ferguson 1993:69; Tyrrell 1934:461). Hunters provisioning posts from as far away as the Ile a la Crosse district ventured into the upper reaches of the Clearwater River via Peter Pond Lake to exploit this valuable game

animal. Undoubtedly the presence of Wood bison in the region would have been a significant draw for precontact peoples to the study area.

Predator species found in the area also factored into precontact subsistence and would have provided a valuable resource for clothing. This includes the grey wolf (*Canis lupus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), and lynx (*Lynx lynx*). Black bear (*Ursus americanus*) is the only species of bear present in the region today; however, as the toponym for the local hills indicate, grizzly bears (*Ursus arctos)* were present during precontact and historic times (Banfield 1977:310). Other fur bearing animals include the beaver (*Castor Canadensis*), woodchuck (*Marmota monax*), snowshoe hare (*Lepus americanus*), marten (*Martes americana*), fisher (*Martes pennanti*), ermine (*Mustela erminae*), least weasel (*Mustela nivalis*), mink (*Mustela vison*), muskrat (*Ondatra zibethicus*), wolverine (*Gulo gulo*), and river otter (*Lutra canadensis*) (Acton et al. 1998:82).

The abundant lakes and streams of the region contain bountiful fish populations including northern pike (*Esox lucius*), walleye (*Stizostedion vitreum*), lake whitefish (*Coregonus clupeaformis*), longnose sucker (*Catostomus catostomus*), common sucker (*Catostomos commersoni*), yellow perch (*Perca flavescens*) and scattered populations of lake trout (*Salvelinus namycush*) (Merkowsky1999:154). Northern pike, walleye, sucker and perch spawn in early spring, and populations remain localized during the summer and winter. Whitefish and lake trout spawn in the fall. The abundance of fish in Peter Pond Lake is evidenced by the number of commercial fisheries that operated on the lake from 1916 through to the late 1970's (Wuorinen 1981), and undoubtedly was a major food source for precontact peoples camping on the shores of the lake.

Many avian species inhabit the area either permanently, seasonally or while passing through during migration, however, it is likely the seasonal waterfowl that figured most prominently in precontact subsistence. Such species include the Canada goose (*Branta Canadensis*), mallard duck (*Anas platyrhynchos*), pintail duck (*Anas acuta*), ring-necked duck (*Athya collaris*), common loon (*Gavia immer*), Trumpeter swan (*Cygnus buccinator*), Tundra swan (*Cygnus columbianus*) and White pelican (*Pelecanus erythrorhynchos*). Other species of note include the ruff grouse (*Bonasa umbellas*),

spruce grouse (*Canachites Canadensis*), bald eagle (*Haliaeetus leucocephalus*) and hawk (*Accipiter and Buteo sp*) (Godfrey 1974).

1.3 Paleoenvironment

Although the study area currently lies within a stable mixedwood boreal forest environment, this was not always the case. The region has seen considerable transformation of flora and hydrology throughout the millennia. Following deglaciation of the study region about 10 000 years ago, the local environment was dominated by periglacial tundra and primitive boreal forest (Ritchie 1976:1812). Around this same time the northwestern arm of Glacial Lake Agassiz inundated the Upper Churchill River, extending as far as Lac la Loche (Fisher and Souch 1998:60; Fisher and Smith 1994). In a catastrophic overflow event that occurred about 9 900 years ago, the Clearwater-lower Athabasca spillway opened, establishing a drainage outlet for Lake Agassiz to the northwest (Fisher and Smith 1994). This westward drainage pattern would have an influence on the Churchill River for the next several thousand years. As the climate continued to warm, a full spruce boreal forest established itself in the region by about 8000 years ago, with a deciduous forest/parkland zone located just south of the Churchill River (Ritchie 1976:1812; 1987).

A severe warming and drying trend known as the Altithermal began about 8 000 or 9 000 years ago (Vance et al. 1995:93-94), and while there was little change to the forest environment in the vicinity of Peter Pond Lake, there was a general expansion of southern grasslands north towards the Churchill River (Ritchie 1976, 1987). Sometime during this warming trend (between 5000 and 3000 years ago) the Churchill River shifted from a westward drainage to its current eastward drainage pattern (Fisher and Souch 1998:72). Eventually the climate cooled and moderated so that the mixedwood boreal forest that we recognize today was established in the upper Churchill basin by approximately 3000 years ago (Ritchie 1976:1812).

1.4 History of Archaeological Research in Study Area

As mentioned previously, the majority of archaeological work conducted in the study area has focused on the Kisis Channel. As a result, much of the surrounding area, including the northern reaches of Peter Pond Lake, remained largely unknown archaeologically. Over 40 precontact sites were recorded in the region prior to 2000; of these, 33 were located on or near the Kisis Channel, five at the north end of Churchill Lake, one at the confluence of the La Loche River and Peter Pond Lake, and two along the western shore of Peter Pond Lake. This work is summarized below.

The first archaeological reconnaissance in the region was undertaken by the staff of the Saskatchewan Museum of Natural History in 1964 (Gibson and Russell 1991: 85). Anthony Ranere and Gilbert Watson conducted surveys in and around the communities of Buffalo Narrows, Dillon and Michel focusing on disturbed areas such as garden plots, eroded cutbanks and beaches. In the Buffalo Narrows region, two sites were recorded within the town site and two along the Kisis Channel (GlOc-1 to 4). Artifact recoveries consisted of precontact lithics and ceramics, as well as historic fur trade period materials (Meyer 1977:5). No sites were found in the Dillon area, and a stone circle interpreted as a tipi ring (GlOg-1) was recorded near the community of Michel. Two additional sites were recorded outside the survey area as a result of reports from local informants. This included the remains of a fur trade post (GlOe-1) and a nearby precontact site (GlOe-2) located on Old Fort Point east of Dillon (Gibson and Russell 1991:20). Ranere and Watson then continued their survey north towards Lac La Loche where one precontact lithic scatter site (HaOg-2) was recorded near the confluence of the La Loche River and Peter Pond Lake.

In 1977, David Meyer, on staff at the Saskatchewan Research Council, conducted a survey focusing on the Kisis Channel in advance of proposed construction of a causeway and bridge (Meyer 1977). This work resulted in the identification of four additional precontact lithic scatter sites. Perhaps of greater importance to this survey was the re-examination of materials collected from the 1964 study in which Meyer (1977:17) was the first to recognize the presence of Taltheilei and Late Woodland cultural materials in the region.

The Kisis Channel was once again the focus of investigations in 1981 in response to proposed land development by the Buffalo Narrows Local Community Authority (Millar 1982:2). Dr. Jim Millar from the University of Saskatchewan was contracted by the Authority to find and evaluate heritage resources in the area and make recommendations for further mitigation of these resources. A controlled survey and testing program was undertaken along the peninsula and shoreline of the Kisis channel across from Buffalo Narrows, and 25 additional sites were discovered (Millar and Ross 1982:36). Three sites were identified as significant and resulted in excavations at the Ice House (GlOc-2), the Martin Chartier (GlOc-20) and the Bernadette Chartier sites (GlOc-21) (Millar and Ross 1982; Millar 1983). The data from these excavations, in addition to surface collected artifacts contributed by local people, combined to formulate early concepts of the culture history in the region.

As a follow up to this study, graduate student Virginia Scanlon from the University of Saskatchewan continued excavations at the Ice House site in 1983 (Rollans 1992:6). Regrettably, her thesis was never completed and despite recovering over 12, 000 artifacts from the site area, no permit report was filed and many of the records associated with the excavations were lost (Paquin 1995:17). In 1991, Western Heritage Services Inc. of Saskatoon returned to excavate at the Ice House site as part of a research/public education program initiated by the Northwest Tourism Development Group and the Northern Village of Buffalo Narrows (Rollans 1992). A total of 19 m^2 were excavated and over four thousand artifacts were recovered dating from precontact through to modern times. In response to the abundance of excavated material recovered from the Ice House site over the years, then graduate student Todd Paquin (1995; 1999) undertook the analysis of ceramics from this site and others in the region as part of his thesis research. In particular he focused on re-defining the late precontact Kisis Complex as previously identified by Millar (1983).

Beyond the Kisis Channel, archaeological studies in the headwaters region have been much less intense. In 1978, Meyer conducted a survey of Thompson Peninsula to determine potential heritage impacts in advance of proposed recreational development (Meyer 1978a). Five precontact sites were identified containing debitage and some formed tools; however, no diagnostics were recovered. During the course of Scanlon's

excavations at the Ice House site, she and Millar also embarked on several small-scale reconnaissance surveys of the region. This included the north end of Big Peter Pond Lake at the confluence with the La Loche River; the south end of Little Peter Pond Lake at the confluence with Niska Channel; the north end of Churchill Lake at the confluence with the Simmonds Channel; and the south end of Churchill Lake at the confluence with the Churchill River. As a result of this work, two historic sites were recorded on the east shore of the La Loche River about 1 km upstream from Peter Pond Lake; three historic campsites were documented on Niska Channel; five precontact lithic scatter and feature sites were recorded within the Simmonds Channel; and one historic feature site was documented in Grey Bay at the south end of Churchill Lake (Gibson and Russell 1991:13-14; 20-21). Again, no diagnostic precontact artifacts were retrieved.

Although this was the extent of research on Peter Pond and Churchill Lakes, it should be observed that additional archaeological work has been conducted in the region. North of the study area, Donald Steer conducted the Methy Portage Archaeological Survey during the summer of 1971 (Steer 1977). This survey of the historic route connecting Lac La Loche with the Clearwater River and the Arctic watershed beyond resulted in large-scale excavations of the North West Company post of La Loche House and a Hudson's Bay Company transport depot. Although primarily focusing on the fur trade period, precontact occupations were also excavated.

Several major highway surveys were also conducted by the Saskatchewan Research Council in the northwest part of the province. In 1979, Jim Wilson surveyed the right of way for Highway 55 (now Highway 955) from the Clearwater River north to Cluff Lake (Wilson 1979). Only six precontact lithic scatter sites were encountered along the 193 km stretch, none of which contained diagnostic tools. In 1981, Dr. Margaret Hanna surveyed the upgrading of Highway 155 and recorded one site at the Saleski Creek crossing just east of La Loche (Hanna 1982). To the east of the research area 221 km of the proposed Highway 914 from the village of Pinehouse north to Key Lake was surveyed (Meyer et al. 1981). Sixty-six archaeological sites were recorded along this route with excavations subsequently occurring at three of these. A lesser survey was carried out in 1980, again by David Meyer, in advance of proposed construction of Highway 165 between Beauval and Pinehouse (Meyer 1980). A total of four sites were

recorded during this survey with subsequent excavations occurring at one of the sites (Wilson 1982).

1.5 Cultural Chronology of the Study Area

As a result of this previous work conducted in the study area, Meyer (1995:55; 1999:23) has proposed that the archaeological record for the western Churchill Basin be divided into four major periods: 1) Palaeo-Indian or Early Precontact, 2) Middle Precontact 3) Taltheilei and 4) Late Woodland. Although there is evidence for only sporadic occupation during the Early and Middle periods, occupation is most intense during the Taltheilei period through to contact with Europeans.

The earliest human occupation in the region occurred shortly after deglaciation and appears to date from terminal Palaeo-Indian times. Evidence for this comes in the form of a handful of lanceolate, Angostura style projectile points found in local collections and at such sites as the Old Beach site (GlOc-30), and Ice House site (GlOc-2) on the Kisis Channel (Millar and Ross 1982: Plate 1 A; Plate 3, D-E, as identified by Meyer 1995:54). Lanceolate points of this style found on the northern plains date from approximately 8400 to 7500 years ago (Meyer and Walker 1999: 20).

The subsequent Middle Precontact period spanned from approximately 7000 to 2000 years ago (Meyer 1995:55). It corresponds with a warming trend referred to as the Altithermal that saw the expansion of the grasslands north, possibly as far as the Churchill River system (Meyer 1999:23). The material culture found in the region during this time is essentially the same as that on the northern plains and likely represents the sporadic incursion of plains people into the area following the buffalo (Meyer 1999:23). This is reflected by the presence of plains point styles scattered throughout the region including Early Side-notch, Oxbow, McKean, Hanna and Pelican Lake. Such points have been found mainly as surface finds and are known to occur along the Kisis Channel at the Ice House (GlOc-2), North Big Hill (GlOc-31) and Old Beach (GlOc-30) sites, and along Methy Portage (Meyer 1995:55-56; 1999:23; Miller and Ross 1982:40; Steer 1977;).

After the climate had cooled and the forest expanded southward to its current extent, the Taltheilei tradition appears (Meyer 1999:23). This tradition is best known from the barrengrounds of the eastern Mackenzie District and Nunavut, where it spans

from approximately 2600 to 200 years ago (Noble 1971; Gordon 1976; Gordon 1996:27). The people responsible for this tradition are generally regarded as ancestors of the modern Dene. The Churchill River system marks the southernmost limit of Taltheilei occupation and also corresponds with the extreme southern migration limit of barrenground caribou upon which the Taltheilei peoples subsisted. The tradition is represented by a continuum of projectile point styles divided into three phases. The earliest is characterized by broad projectile points with poorly defined stems, followed by lanceolate forms in the middle phase, and finally, the latest phase is represented by small corner and side-notched projectile points (Gordon 1996:57,85,116).

Taltheilei is well represented in the Buffalo Narrows region with an abundance of stemmed, lanceolate and side-notched forms found in local collections and at sites such as the Ice House (GlOc-2), South Big Hill (GlOc-24), North Big Hill (GlOc-31) and the Old Beach (GlOc-30) sites (Miller and Ross 1982: 40, 133-137). Miller (1983:94) further recognized Taltheilei occupations at the Martin Chartier (GlOc-20) and Bernadette Chartier (GlOc-21) sites where they were characterized by medium to large lanceolate bipoints and the prominent use of white vein quartz. This occupation was dated to 1275 +/- 75 radiocarbon years B.P. (calibrated between 1320 to 1050 years B.P. [Morlan 1993:35]).

The Late Woodland period is marked by the arrival of people producing pottery, with two ceramic industries identified in the region. The earliest of these is referred to as the Narrows Assemblage or Narrows subphase and has only been found at two sites on the Kisis Channel (Millar 1983:101; Paquin 1995). It is suggested to date from approximately A.D. 1000 to 1300 (Paquin 1995:124; Meyer 1995:55; 1999:24). The latest woodland culture is represented by the Kisis Complex of the Selkirk Composite (Paquin 1995, 1999). This composite is well known throughout the boreal forest, extending from northwestern Ontario through to northern Saskatchewan, and is generally considered to represent ancestral Western Woods Cree (Meyer 1987; Meyer and Russell 1987). The Selkirk Composite dates from approximately A.D. 1300 to 1700 elsewhere in Saskatchewan, and likely dates to this period in the Buffalo Narrows region (Meyer 1995:55; Paquin 1995:114). Details of the Late Woodland Period cultures and the pottery they produced will be elaborated on in Chapter Three.

It should also be noted that the headwaters of the Churchill River played a significant role during the fur trade period. After Peter Pond mapped a route connecting the Churchill and Athabasca Rivers via Methy Portage in 1778, it became a regular route for traders seeking the rich fur bearing grounds of the Arctic watershed (Hays 2002:140). Temporary posts were established on the west shore of Peter Pond Lake as early as 1790 (Tyrrell 1934:367); however, this region remained subordinate to the district headquarters and Mission at Ile a la Crosse. As a result, small outposts were only sporadically or seasonally maintained through to the 1900's, and few records exist of these activities (Gibson and Russell 1991: 87). Likewise, although many travelers passed by the western shores of Peter Pond Lake on their way to Methy Portage, it appears this leg of the journey was regarded as perilous due to the vast expanse of the lake and completed as fast as possible (Back 1836:36; Simpson 1938:35). As a consequence, camp stops were brief, and recorded observations few.

1.6 Research Objectives

Although a sketch of the culture history for the upper Churchill River has been proposed, very little is known about one of these archaeological entities in particular. The "Narrows Assemblage" was first defined by Millar (1983) based on the results of excavations at the Bernadette Chartier site (GlOc-21). The most distinctive aspect of this assemblage was the pottery, which he perceived as exhibiting either cord-impressed or vertically-oriented fabric impressions on the exterior and sand tempered paste. Millar (1983:113) recognized this pottery as distinct from other pottery in the region and suggested there was evidence for a Plains influence reflected in these ceramics and accompanying small side-notched points. This assemblage appeared to occur stratigraphically below a Selkirk occupation and above an older Taltheilei occupation, which led subsequent authors to suggest the Narrows assemblage spanned from approximately A.D. 1000 to 1300 (Paquin 1995:124; Meyer 1995:55). The concept of the Narrows assemblage was next explored by Paquin (1995) as a peripheral aspect of his Master's thesis research. Based on additional pottery finds from the Ice House site (GlOc-2), he (Paquin1995:135) furthered Miller's theory and cautiously suggested that

Narrows pottery from the Kisis Channel represented a northern regional variant of the Old Women's Phase, a recognized archaeological culture from the Plains.

Despite these early interpretations, however, the Narrows assemblage or subphase has remained a poorly understood entity. It was defined based largely on a small pottery sample recovered from just two sites. As a result, there are many outstanding questions regarding the exact nature of the material culture that characterizes this archaeological entity, as well as its spatio-temporal extent within the region. In addition, recent pottery studies conducted in the boreal forest to the southeast suggests that Narrows assemblages may demonstrate closer affinities to woodland archaeological cultures than previously realized. The surveys conducted on Peter Pond Lake and surrounding areas, therefore, provide a unique opportunity to address some of these issues and expand our knowledge of this Late Precontact pottery-bearing culture. With a substantially increased sample size, this study will be the first to focus on Narrows pottery assemblages, and hopefully contribute to a better understanding of the region's culture history. The objectives of this research are threefold:

1) To undertake a comprehensive analysis of Late Woodland pottery found on the northwest shore of Peter Pond Lake as well as assemblages from Vermette Lake. This will provide an opportunity to validate or modify original descriptions of both Selkirk and Narrows pottery found in the region. Emphasis, however, will be placed on providing a more complete and expanded definition of the lesser-known Narrows pottery.

2) Once the full suite of Narrows pottery attributes has been identified, they will be compared with other known ceramic industries in the boreal forest and adjacent plains during the Late Woodland Period. This will enable a formal classification of this pottery and determine if it conforms to an already existing ware category, or if it can stand on its own as a distinct ware. Such comparisons will also enable a re-examination of previous interpretations that suggest the origins of this pottery lie in the plains to the south.

3) Once a ware designation has been determined, the assemblages containing this pottery will be placed into an appropriate taxonomic context, and a formal definition of this archaeological entity will be presented. As part of this definition, the spatio-temporal parameters will be refined through an examination of Narrows pottery distribution within

and beyond the study region, and by obtaining the first radiocarbon dates for the Late Woodland period in the upper Churchill River basin.

1.7 Research Limitations

The nature of the data set used in this study presents several obstacles for more comprehensive archaeological interpretations. The primary difficulty is that all of the ceramic assemblages were recovered through controlled surface collection and lack full three dimensional provenience information normally obtained from formal excavations. This problem is compounded in boreal forest environments where a lack of upland erosion and concomitant sediment deposition in lower areas often prevent the "discrete separation of archaeological occupations in a layer cake sedimentary deposit" (Meyer 1995:54). The lack of stratigraphic development can result in materials representing thousands of years of occupation being mixed together on or near the surface, with the ability to sort out discrete archaeological assemblages becoming virtually impossible (Wright 1972; Reid 1988). To further complicate matters, the acidic nature of boreal forest soils is such that organics, including bone, often do not preserve. Without this vital resource, archaeologists are severely limited in their opportunities to ascertain the age of occupations through radiocarbon dating, and are unable to comment on further issues relating to seasonality, diet and subsistence patterns (Meyer 1995:54).

These factors have obvious implications in this research. With the possibility of materials collected from sites in the study region representing a palimpsest of occupations, the ability to discern a discrete occupation and associated artifacts becomes problematic. In such unstratified contexts it may not be obvious whether different pottery wares found at one site represent co-occupation and interaction or separate periods of occupation. Further, even if only one ware is found at a site, the lithic assemblage cannot be related with certainty as aceramic cultures were known to inhabit the region. Compounding this latter problem is the difficulty in differentiating between non-descript Late Woodland and Late Taltheilei side-notched points in the northern boreal forest (Dickson 1980; Rollans 1992; Paquin 1995). It is for this reason that pottery analysis is often emphasized in defining Woodland archaeological cultures. Pottery wares are

generally considered a more diagnostic artifact type and are more clearly differentiated than lithic tools of the same period (Meyer and Hamilton 1994).

Due to the aforementioned limitations, the focus of this study will remain on ceramic analysis. In lieu of stratified deposits, an examination of horizontal provenience on an intrasite level as well as comparisons on an intersite level will assist with interpreting and defining pottery assemblages. Additionally, even though the relative dating of pottery wares is not possible with surface finds, it is hoped that dating of pottery residues through Accelerator Mass Spectrometry (AMS), a form of radiocarbon dating, will aid in determining the absolute age of ceramics and place them more firmly in a chronological sequence.

1.8 Summary and Overview of Following Chapters

This chapter presented a brief introduction to the study area and provided the necessary background information to outline current research objectives. In summary, several sites situated on Peter Pond and Vermette Lake contain Late Woodland pottery, most of which is related to a little known archaeological entity tentatively referred to as the Narrows subphase. Through a detailed analysis of this pottery the original interpretations concerning this archaeological culture will be re-examined, and a formal classification of both the pottery and archaeological complex will be attempted. The analysis and resulting interpretations are developed in the chapters that follow.

The theoretical and methodological framework that underlies this analysis is discussed in Chapter Two. Chapter Three provides a more in depth summary of Late Woodland archaeological cultures currently recognized in the study region, with a focus on previous research relating to Narrows pottery and assemblages. The results of archaeological surveys conducted by Western Heritage Services in 2000 and 2001 are summarized in Chapter Four, along with a comprehensive analysis of pottery recovered from various sites in the study region. Attention is then turned towards Narrows pottery which is compared with existing wares from the plains and boreal forest in Chapter Five. Based on the results of this comparison, a new pottery ware and archaeological complex is proposed in Chapter Six. Finally, a summary and conclusion is presented in Chapter Seven, as well as recommendations for future research.

CHAPTER 2
THEORETICAL AND METHODOLOGICAL CONSIDERATIONS FOR CERAMIC ANALYSIS

2.1 Theoretical Framework

The theoretical paradigm employed during this research is that of Culture History (Willey and Phillips 1958). The main objective of this paradigm is to establish a chronology of human occupation within a given region by exploring three different variables: form, space and time (Willey 1953:361). Simply put, a sequence of archaeological complexes or "cultures" can be developed by describing, classifying and arranging distinctive artifacts that have specific distributions through space and time (Gibbon 1984; Sharer and Ashmore 1993: 589). This approach employs inductive methods that reflect the early influence of cultural anthropology on the discipline, whereby archaeologists were encouraged to operate on observational, descriptive and explanatory levels (Willey and Phillips 1958:4). Although variously criticized for not being hypothesis based (Binford 1962:224; Lyman et al. 1997b; Taylor 1948:157), culture history studies are still widely employed and recognized as forming the foundation of Americanist archaeology (Lyman et al. 1997b:1). As Ashmore and Sharer note (2000:36) "because this approach leads to an outline of the general trends of both cultural change and continuity, it often serves as the starting point for all other kinds of research." Indeed, when investigating any region, archaeologists first establish a basic temporal and spatial framework before moving on to more complex issues regarding cultural process and interpretation (Smith 1992:29; Duke 1995:201). Use of this paradigm is justified in this research, as the culture history of the upper Churchill River basin is still evolving.

2.2 Classification

Artifact classification is a cornerstone of culture history studies and integral to archaeology as a discipline. In the hierarchy of theoretical development, classification is considered low level theory because it is based on empirical generalizations (Trigger 1992:20). Regardless, it is fundamental to all scientific disciplines because it is the basic procedure by which the discipline and its data are structured. Formal classification brings order to the data by providing a system for describing and naming the objects of study; enables communication through shared terminology and nomenclature; defines variability; and permits the development of hypotheses regarding the relationship among various classes (Ashmore and Sharer 2000:110; Rice 1987:274).

2.3 The Ware-Type-Variety System

The ware-type-variety method of ceramic classification is one such formal classifactory scheme introduced in the 1950's in response to increasing amounts of archaeological research and ceramic analysis in North America (Wheat et al. 1958). The purpose of this method was to create a systematic framework for creating, describing and naming widely comparable classifactory units that were considered to have historical significance in establishing cultural chronologies. This was achieved by establishing consistent criteria in defining types in a region, and by publishing detailed descriptions to make the system easy to replicate and verify. Since its introduction, the system has evolved to become the most elaborate and widely used in North America (Rice 1987:282). It is an ordered or hierarchical structure of categories that specifies inclusion relations. Varieties are the smallest unit recognized and are subsumed within types, which are in turn subsumed within wares. The main strength of this system lies in the temporal and spatial specificity of defined types, which are used to construct regional and local archaeological sequences and identify relationships between sites (Sinopoli 1991:53). It has also proven to be an effective and efficient medium for delineating patterns of ceramic interaction and facilitating inter analyst communication (Ball1 979:829). The type-variety method has been used in ceramic analysis throughout

the central boreal forest of Canada and this precedence will be followed in the current study. The relevant terms within this system are defined in the sections below.

2.3.1 Attributes

In a general sense classification is the process of ordering or arranging data into groups on the basis of shared characteristics called attributes. The object is to create groups whose members exhibit a high within-group homogeneity while the groups themselves exhibit low between-group homogeneity (Rice 1987:274). Attributes are characterized as any observable trait that can be defined and isolated. In theory the number of attributes that exist for any one object is infinite and it is impossible for the analyst to select all attributes to study (Hill and Evans 1972: 250-251). The specific attributes chosen, therefore, are selected because they "pertain to a particular research problem or based on some consensus concerning their role within a given classifactory scheme (e.g.: the type variety system)" (Rice 1987:284). Ashmore and Sharer (2000:107) observe there are three basic categories most often studied in the archaeological analysis of material culture: style, form and technology. Stylistic attributes relate to the most obvious descriptive characteristics and include such things as colour, decoration and texture. Form attributes relate to the three dimensional shape of an object as well as its various parts, and can include measurable dimensions such as thickness, length and weight. Finally, technological attributes refer to the raw material of the artifact and any characteristics relating to how it was manufactured. In order for an attribute to be meaningful in an analysis, however, it must occur in two or more defined states (Hodson 1982:22). The stylistic attribute of colour, for example can occur in various states such as black, white and buff, while the form attribute of a pottery vessel can occur in states such as conical or globular.

2.3.2 Type and Variety

The object of most classifications is the formulation of types. The definition of types varies somewhat but they are generally based on the consistent patterning or non-random clustering of attributes that characterizes a group of specimens and defines them

as a class (Rouse 1972:48; Hill and Evans 1972:233; Spaulding 1982; Trigger 1992:383). Clarke (1978:36) observes that rarely do types in archaeology exist as a monothetic group whereby all types demonstrate identical lists of attributes. Rather, they more closely resemble a polythetic group where "[1] each entity possesses a large number of attributes of the group, [2] each attribute is shared by large numbers of entities and [3] no single attribute is both sufficient and necessary to the group membership. Whereas there is only one form of monothetic group there are many varieties in a polythetic grouping…" (Clarke 1978:36). However, even within this definition, types are not fully polythetic because certain core attributes may be shared by all members of a group. The presence of additional attributes or attribute states beyond these shared core traits comprise varieties within the type. Clarke (1978:209) suggests a more appropriate definition of a type would be "an homogenous population of artifacts which share a consistently recurrent range of attribute states within a given polythetic state."

In the type-variety system Sabloff and Smith (1969:278) define a type as representing an "aggregate of visually distinct ceramic attributes already objectified within one or generally several varieties which, when taken as a whole, are indicative of a particular class of pottery produced during a specific time interval within a specific region." This definition is similar to Clarke's in that the type is comprised of several varieties, but most importantly, only attribute clusters that are proven to be spatio-temporally specific can define a type. This requirement achieves the analytic goal of establishing ceramic complexes and their chronologic sequence through space and time. The utilization of types in such spatio-temporal systematics is dependent on two assumptions. The first is referred to as the popularity principle and states that attribute combinations, most often reflected in stylistic types, approximate normal frequency curves over the course of their lifespan (Lyman et al. 1997b:51). That is, certain attribute combinations are introduced into a system, reach a maximum height of popularity, then decline to be replaced by a different combination of attributes. It is this principle that allows defined types to measure time. The second assumption is that similar or shared attributes reflect homologous similarity (Lyman et al. 1997b:10). The distribution of pottery-making traditions, as well as the interaction and influence

between different traditions can be traced across space by observation of these shared attributes.

The attributes typically considered in type definitions are of two kinds: (1) stylistic or those dealing with decorative techniques, and (2) vessel form. In this system the variety exhibits minor variations on the type theme with the differences in attributes or attribute states not significant enough to warrant a new type designation (Sabloff and Smith 1969:279). As Wheat et al. (1958:38) observe, once an "archetype" is established within a type category, there exists a "constellation" of varieties, differing in only minor ways. The variety is generally equal in time span and geographic location to the type.

2.3.3 Ware

The concept of ware has been utilized in North American archaeology since the early part of the last century. Early definitions were somewhat ambiguous, relating to the general 'look' and 'feel' of the pottery and based on features considered the "most striking characteristics of [an assemblage] when viewed en masse" (Kidder 1931;13). Working in the American southwest, Shepard (1936) eventually refined the definition of ware by introducing technological characteristics of paste. Although the definition of ware varies somewhat throughout North America, her concepts appear to be the model most widely used by archaeologists today. According to Rice (1976:538) "'ware' is the classifactory unit of the type-variety system which deals with the technological attributes of pottery relating to paste, composition and surface finish…This unit therefore embraces the attributes which most directly reflect patterns of clay and temper selection and preparation, and vessel forming and finishing techniques." Similar to types, wares are defined based on spatio-temporal attribute combinations; however, they are not as limited in time as types and varieties (Sabloff and Smith 1969:278). In this most encompassing classifactory unit, types that share paste texture, temper and exterior surface finish attributes are included in the same ware category.

Rice (1976:539), however, has argued that the traditional definition of ware is problematic because paste composition and surface treatment are two independent variables. She suggests they are technologically independent and should not be combined into a single organizational level. Paste reflects the availability and diversity

of ceramic resources within a prescribed area and, therefore, paste characteristics are partly environmentally determined. This could result in paste attributes that cross cut types, and within the hierarchical structure of the type-variety system would be incompatible. Surface treatment on the other hand is not as environmentally constrained and more likely to be culturally determined. In addition, paste, unlike other attribute categories, is not considered a one-attribute class. It is defined on the basis of a number of attributes that are not mutually exclusive, such as texture, temper, and colour. To help rectify this problem, Rice (1976:541) suggests restricting the ware definition to surface treatment where it could be reduced to a single attribute. This would make the definition of ware more consistent with the existing type-variety system and enable it to serve primarily as a taxonomic unit. Paste characteristics should not be ignored, but rather should be considered as a separate analytic unit that crosscuts types and wares.

Despite this insightful reconsideration of the ware concept, the definition employed within the boreal forest of central Canada closely follows the traditional one. As Meyer (1998:49) observes "…similar decoration, paste characteristics, temper, and (especially) surface finish have been attributes emphasized in the recognition of wares in this part of the boreal forest." Although paste is included in this definition of ware, the significance of exterior surface treatment has been continually stressed. Elsewhere Meyer (1981:26) comments that "commonalities in exterior surface finish have been particularly important in defining ceramic wares in Midwestern Canada."

2.4 How Types and Wares Are Defined

Lyman et al. (1997a, 1997b) observe that in any classification process there are two distinct units operating on different levels that need to be differentiated from each other: the abstract, ideational unit that states the necessary conditions required for inclusion in a group, and the empirical units or physical specimens that actually comprise that group (Lyman et al. 1997b:6-7). It is the ideational unit or what we would consider a "type" or "ware" that is created in the classification process, and it can be defined in one of two ways: extensionally (inductively) or intensionally (deductively). Most types in archaeology are formed inductively by enumerating selected attributes shared by the real, physical specimens. A summary of the central tendencies in each

group then constitutes the definitive criteria for membership in that group (Lyman and O'Brien 2002:81). The alternative deductive approach constructs types for analytical purposes without referencing the actual specimens. In this method the necessary attributes required for inclusion in that group are derived from an a priori theory (Lyman and O'Brien 2002:80). It has been argued that units defined by this latter method meet the true definition of a "class", which is designed to be a timeless and spaceless entity (O'Brien and Wood 1998:362). It does not merely describe objects, but serves as a unit of measure where any object that meets the precise definition outlined can be included in that class. Conversely, types formed inductively tend to be descriptive and are not explicitly theoretically defined because they are based on the individual analyst's perception of which attributes indicate difference or similarity when subdividing a collection into smaller groups. This process has been criticized because what one analyst perceives or chooses to emphasize may be different from another's. In addition, the resulting units are regarded as historical accidents because their definition depends entirely on what specimens happen to be discovered first (Lyman et al. 1997b:7). To help counteract this sampling bias, it has long been acknowledged that type constructs developed inductively need to remain fluid to allow refinement of descriptions as new data are discovered (Wheat et al. 1958:38). Despite the inherent limitations of the inductive method, types devised in culture history studies are defined by this approach. It is hoped, however, that the classification process is transparent enough to allow for independent evaluation of the decisions made.

2.5 What Types and Wares Represent

Beyond the utility of types and wares in spatio-temporal systematics, archaeologists have long desired units that are also culturally meaningful (Lyman and O'Brien 2002:77). The latter objective strikes at the very heart of one of the earliest debates in modern archaeology. The central question concerned whether these types were real and natural (emic) or artificial and imposed (etic) (Lyman et al. 1997b: 147-149). On one side of the issue, attribute associations resulting in types were considered to be inherent in the data and therefore discoverable (Deetz 1967; Gifford 1960; Krieger 1944; Spaulding 1953). If attributes were shown to occur together more than chance

would predict, this represented purposeful selection and grouping by the ancient artisans. The resulting interpretation was that because types are real, they reflect the ideas and values of ancient people or the artisan's "mental template" for creating the artifact (Rice 1987:283). This corresponded with the normative concept of culture where it was argued that "within a given society, behaviour patterns are the result of adherence to a set of rules, or norms, for behaviour" (Sharer and Ashmore 1993:51). These rules are passed down from one generation to the next and material culture is a reflection of those norms (Johnson 2003:16). Gifford (1960:346) crystallized this view in his advocation of the type-variety system when he suggested the classes created resulted from the "combined value forces of the total cultural configuration (indeed the inherent cultural bias) that particular kinds (types) are striven for as desired norms in ceramic manufacture." In the hierarchy of arranged units from the specific varietal level to the more general levels of type and ware, one therefore moves from the "specific pottery making preference of one or a few potters to a consideration of abstract cultural elements reflecting widely shared value orientations [of a larger group or society]" (Neff 1993:24).

The opposing view held that types were analytical constructs created by the archaeologist and imposed on the data (Brew 1946; Ford 1954; Rouse 1939). They were artificial units useful for chronology building and interpreting culture change, but were in no way real. Artifacts were argued to have so many attributes that depending on which ones were chosen a number of arbitrary, crosscutting classifications could result. Proponents of this view suggested that there was not one, true classification for any given artifact, and argued for the creation of multiple classifications using different attributes to study different kinds of variation.

Eventually this debate subsided as it was realized that the central question was poorly phrased. Hill and Evans (1972:261) argue that any artifact class formed by associating two or more attributes, either statistically or impressionistically, can be considered to represent patterned behaviour by past peoples. Whether or not the resulting types correlate with the "mental template" of the ancient artisan cannot be known because it is impossible to verify. What is significant is that these attribute associations are empirically real, discoverable and verifiable. Today most

archaeologists would agree that typologies are constructs of the archaeologist, but the fact that many classifications continue to endure suggest they are based to a substantial degree on reasonably objective empirical observations (Trigger 1992:383).

Despite the recognition that types are imposed on the data, Lyman et al. (1997b:80) observe that the erroneous treatment of types as emically real continues to persist. They argue this is a product of the inductive method in which types in archaeology are generally defined. In theory most types established are conceptual otherwise the criteria for membership would not be able to change with the discovery of new data. In practice, however, types are often treated as real because they are not structured to be timeless and spaceless entities. On the contrary, types in culture history studies are based on spatio-temporal specificity. This results in the conflation or merging of the conceptual unit of the type with the actual artifacts within that class, and the one-to-one correlation of artifact types as representing real and discreet cultural groups. This urge to link a particular material assemblage to some level of human social organization or ethnic group persists because archaeologists understand that humans were ultimately responsible for producing the artifacts under study. This desire was also fostered in the early development of the discipline where ethnographers encouraged archaeologists to find small, bounded communities in the past (Welsch and Terrell 1998:73). In turning the archaeological record into a cultural record, anthropological theory could then be used to make interpretations. However, a problem arises because there is often a lack of fit between the types of social boundaries we would like to see and the actual pattern of material culture (Stark 1998:9). The archaeological distribution of artifacts often occurs over much larger territories than many ethnic units presently recognized. This fact demonstrates that “cultures”, “traditions” and “industries” defined by archaeologists denote only artifact distributions (MacEachern 1998:108).

A more suitable alternative to relating the archaeological record in terms of human social organization is perhaps presented by the recent concept of the Social Field (Welsch and Terrell 1998). This larger unit represents a network or web of social, economic and political relations that can involve the exchange of goods and marriage partners in the quest to build alliances (Welsch and Terrell 1998:52). Such Social Fields represent neither culture areas nor specific ethnic groups, but can crosscut multiple

ethnolinguistic boundaries (Stark 1998:10). Viewing pottery classification in such a context may be more suitable as Wright (2004:1517) observes: "applying ethnographic cultural abstractions to pottery traditions in a simplistic one-to-one fashion is fraught with unjustified assumptions given the culturally permeable margins surrounding such generalized constructs."

2.6 Attributes Considered for Ceramic Analysis

As part of a comprehensive analysis and description of ceramics from Peter Pond Lake, the three main categories of attributes– technological, stylistic and form– will be examined. However, because the main objective of this research is to define Narrows pottery as a ware, emphasis will be placed on describing the technological attributes. The potential significance of the latter attributes in ware descriptions is offered by Goodby (1998:162) who argues that technical choices may be more appropriate for detecting social or cultural boundaries because they better reflect learned and ingrained behaviours, more so than stylistic choices, which traditionally have been emphasized by archaeologists.

2.6.1 Technological Attributes

As discussed previously, technological attributes relate to the manufacture of the vessel and reflect clay and temper preparation as well as vessel formation processes. Attribute states concerning the exterior surface treatment and paste are considered here.

2.6.1.1 Exterior Surface Treatment

The exterior surface treatment of pottery vessels refers to such things as the application of slips or surface texture modification. In the northern plains and forests of Canada variations in exterior texture are the most common form of surface alteration. Attribute states can include burnished, smoothed, roughened, stamped, tool impressed or fabric impressed. It has been suggested that textured surfaces were purposefully applied for decorational or functional purposes. In a functional sense roughened surfaces of

variable thickness can increase thermal shock resistance and help reduce thermal spalling during firing and heating (Schiffer et al. 1994); compensate for wall thickness in transferring heat while boiling liquids (Chilton 1998:154); or provide a better surface for gripping (Rice 1987:232). Despite these possible motives for exterior modification, the surface treatment of vessels found across the boreal forest is typically considered a product of the manufacturing process (MacLean 1995:202; Saylor 1978:52; Syms 1977:61).

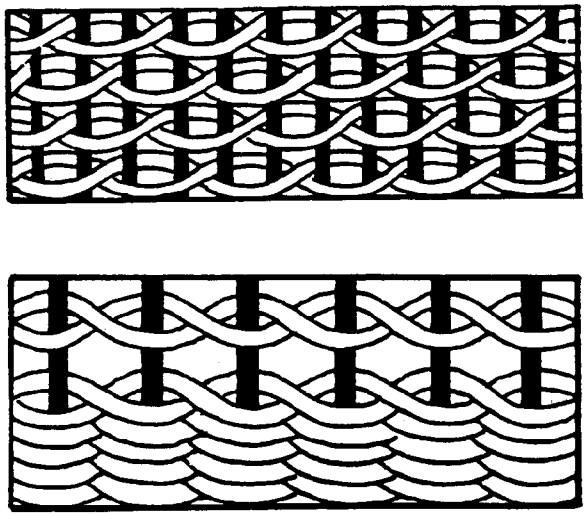
Late Woodland ceramics have long been recognized as exhibiting textile or cord marked impressions on the exterior surface (MacNeish 1958; Hlady 1971). Early interpretations suggested that pots were formed using the paddle and anvil technique whereby a vessel was beaten into shape with a cord or textile wrapped paddle (MacNeish 1958:69). Hanna (1983:33) proposes a model for pottery construction where a combination of this method and a molding process were utilized. In this process, a lump of prepared clay was first drawn and pinched into a general globular shape. An anvil was then held against the interior while the exterior was beaten with a paddle. Evidence for this is indicated by broad, shallow impressions on the interior surface of vessels where the wet clay deformed around an object such as a smooth cobble. This procedure served to thin the walls and further refine the shape. However, Hanna (1983:31) observes that when a globular body is formed in this manner it becomes unstable in the shoulder area and unable to support itself. The body must then be placed in a mold such as a hole in the ground, a basket or the basal portion of a broken vessel to provide support until the shoulder and neck are formed. Textile impressions are then created on the exterior surface of the vessel as the result of a piece of flat fabric serving as a parting agent between the mold and wet clay of the vessel. The textile is then drawn upwards over the shoulder and neck areas to continue this finish over the entire vessel surface. Hanna (1983:33) further notes that it is unlikely a fabric wrapped paddle could leave such consistent impressions in areas of the vessel profile where contours change sharply.

In a somewhat different technique, experimental archaeologist Grant Goltz has successfully replicated textile impressed woodland pottery found in northern Minnesota by using a textile bag mold process (MacLean 1995:5; Mantey and Pettipas 1996:2;

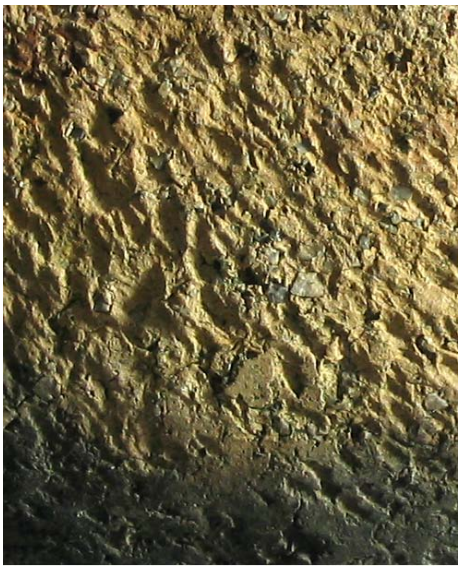
Meyer 1998:49). This method first involves creating the base of a vessel through the coiling technique, then placing it inside a woven fabric bag. The bag serves to support the vessel walls as more clay is added and smeared over the interior of this mold. The interior surface of the clay is then scraped with a tool to produce an even, thin walled vessel. In this process the textile mold still requires some kind of basal support provided by a hole in the ground or, as used by Goltz, a loose deerskin stretched across a wood frame. The significant aspect of this method is that the bag itself serves to form the vessel as opposed to a paddling technique. During this process the weight of the unfired plastic clay is supported by the bag and thus produces the fabric impressions (Saylor 1978:51).

Due to the climatic and soil conditions of the boreal forest environment, textiles produced by precontact inhabitants do not survive in the archaeological record to allow direct study (MacLean 1995:1). However, historic and ethnographic accounts indicate that a textile and cordage industry figured prominently in the technology of forest peoples. Leighton (1985:82) observes that roots from black spruce, white spruce as well as willow bark were used by the Woods Cree of east central Saskatchewan to produce cordage for string and lashing. The Attawapiskat and West Main Cree were similarly observed to use spruce root and willow bark as well as rawhide, sinew and babiche to produce cordage as well as woven carrying bags (Honigman 1956:28-29; 1981:219). The remains of these industries are visible in the archaeological record only in the impressions left on pottery vessels. Several studies of textile impressions have been conducted to better understand this technology and enhance ceramic interpretations. As a result, two textile structures are generally identified on Late Woodland vessels: twined and sprang. These structures and resulting surface impressions are defined below.

Twined impressed: MacLean (1995) conducted an analysis of fabric impressions found on 47 Selkirk ware vessels from 16 sites in northern Saskatchewan and Manitoba to determine the textile structure. She (MacLean 1995:202-205) concluded that a twining weave was used almost exclusively. This method involves the interlacing or twisting of warp elements (vertical strands) with weft elements (transverse strands) creating a complex textile weave (Figure 2.1) (Drooker 1992:248; MacLean 1995:234). The resulting impression of this pattern on pottery vessels has been variously described

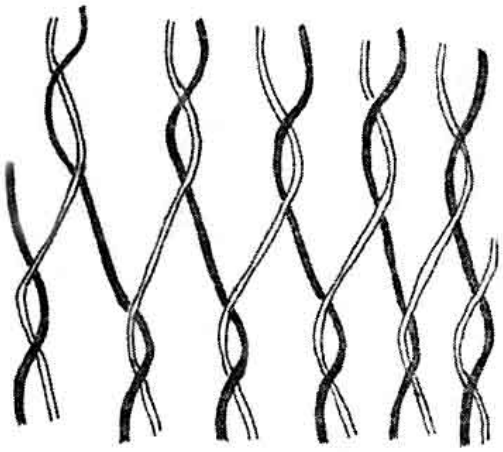


Plain twining (top) and weft-faced twining(bottom) (from Burnham 1981).



Amorphous textile impression typical of a twine weave.

Figure 2.1: Example of twining structures and resulting impressions on pottery vessels.



Interlinking or sprang weave; illustration in "open" pattern for clarity (from Saylor 1978:55).

Vertical oriented textile impression typical of a sprang weave.

Figure 2.2: Example of sprang structures and resulting impressions on pottery vessels.

as “amorphous” (Meyer 1998:51) or producing a “closely spaced, uniform, dimpled impression” (Paquin 1995:40) (Figure 2.1).

Sprang Impressed: In an examination of 20 vessels from the Wanipigow site in Manitoba, Saylor (1978) observed not only twining patterns but also simple interlinking and plaiting structures on the exterior surface of many sherds. This manufacturing technique, also referred to as sprang weave, involves the interlinking or crossing over of vertical warp elements in the absence of horizontal weft elements (MacLean 1995:233; Saylor 1978:55). The result is a less complex, distinctly vertical oriented fabric impression where parallel strands can be clearly seen and traced from the top of the vessel to the bottom (Figure 2.2). Goltz has produced similar impressions experimentally as a result of vessel formation inside sprang woven bags (Meyer 1998:49; Taylor-Hollings 1999: 63).

An important distinction must be made between sprang textile impressions and cord wrapped paddle impressions, both of which can produce vertical oriented patterns. Saylor (1978:50) describes the latter exterior surface as exhibiting:

> …extensive smearing around the margins of the impression. The impressions are not deep, are discontinuous, and overlap one another. One will essentially find that non-fabric impressions are non-patterned and extremely difficult to follow. An ethnographic example of how vessels are formed using the ‘cord-wrapped paddle’ technique is found in Wilson (1977:97-105).

In contrast, therefore, fabric bag impressions are not as smeared, are rather deep and most importantly individual cords can be traced along the length of the vessel with no abrupt overlap or superimposition from successive paddle impressions.

2.6.1.2 Paste

Paste refers to the composition of the clay matrix used to manufacture ceramic vessels. Although this can include such attributes as colour and hardness, only texture and temper were considered for this study.

Texture refers to the consistency of the paste and generally occurs in two states: compact and laminated (Syms et al. 1986:9). *Compact* refers to clay that is well consolidated and has a blocky, unstructured breakage pattern. This texture is commonly,

but not exclusively, found in pots manufactured by the paddle and anvil technique as a result of consistent clay compaction. *Laminated* texture refers to clay that is layered in cross section and exhibits parting fractures. The paste tends to exfoliate or break along these layers. Saylor (1978:52) observes that fabric impressed sherds are commonly laminated as a result of clay being applied in two or more pancake layers inside a fabric mold.

Temper is defined as a non-plastic additive that improves the working, drying or firing properties of the clay (Rice 1987:483). Densely tempered pastes usually improve the mechanical strength of vessel walls and can improve workability during the formation process (Chilton 1998:151). After the vessel has been formed, temper serves to open up the clay matrix and allows water to escape during the drying and firing process. This counteracts shrinkage and facilitates uniform drying, thus reducing strain and the risk of cracking (Shepard 1956:25). Temper is also significant in reducing thermal stress caused by repeated heating (Rice 1987:229). Thermal stress is typically caused by uneven reactions of the paste to the heating and subsequent cooling process, and this can result in vessel fracture. This effect can be minimized by temper inclusions that have thermal expansion coefficients similar to or less than the clay. Minerals such as feldspars are particularly suitable for this purpose (Rice 1987:97; Rye 1981:27; Shepard 1956:28). It has been suggested that clay and temper selection is influenced by environmental availability and vessel function (Rice 1976:539); however, Syms (1977:60) observes a certain amount of cultural choice is evident when preferences for a specific material is recognized in a region with a multitude of resource possibilities.

Temper recognized in this study occurs in two forms, grit and natural. *Grit* temper refers to specifically prepared, crushed granite (Syms et al. 1986:9). It has been observed ethnographically that decomposed fire cracked rock used for such things as sweat lodge ceremonies can be processed for this purpose (Syms 1977:61). The constituent minerals of granite can often be isolated and identified in the paste and include feldspar, quartz and mica. Purposefully crushed and added inclusions exhibit a distinct angular morphology (Fig. 2.3). *Natural* temper refers to the use of naturally occurring, unprocessed coarse sand or very small pebbles as tempering agents (Syms et

Figure 2.3: Grit tempered paste with angular fragments of crushed feldspar.

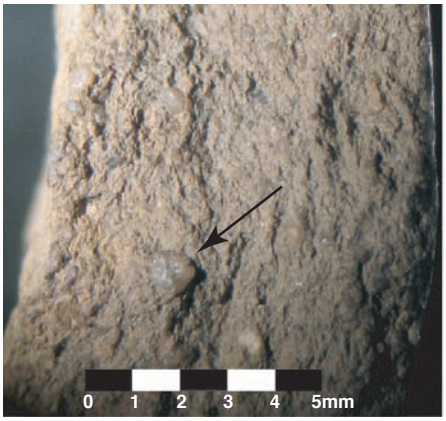


Figure 2.4: Natural tempered paste with round particles of sand.

al. 1986:9). The term is also considered here in a less presumptuous manner as it is possible that sand and pebble particles present in the paste represent natural inclusions in the original clay source. Unlike prepared grit temper, these particles exhibit a rounded morphology as a result of natural erosional processes (Fig. 2.4).

2.6.2 Form Attributes: Vessel Zones

Form attributes refer to the overall shape of a vessel and its constituent parts. Such attributes are commonly used in ceramic studies to define types, although it should be observed that in the Middle Missouri region vessel form is also used in the definition of wares (Calabrese 1977:30; Butler and Hoffman 1992:6). Beyond their use in culture-history studies, form attributes can also be examined in the definition of functional types. Attributes including wall thickness, vessel size and orifice diameter are used to suggest vessel function such as storage, cooking or serving (Gibson 2001).

Pottery vessels can be divided into different zones that typically include the lip, rim, neck, shoulder, body and base (Fig. 2.5). Each has distinct morphological characteristics that when combined together create the overall vessel form or shape (Ahler and Swenson 1985:5). There are three basic pottery forms recognized across the boreal forest, ranging from simple conoidal to more complex globular shapes. Conoidal vessels lack many of the recognized zones and are essentially coconut or cone shaped. They have no neck, little or no shoulder development, and exhibit a wide orifice diameter, with a body of varying curvature leading to a pointed, rounded or flat base (Anfinson 1979: 220). Sub-conoidal vessels demonstrate a slightly more developed profile with obvious but not pronounced shoulders, a slightly constricted neck, and a slightly conoidal base (Anfinson 1979: 224). Globular vessels are the most complex and demonstrate all of the zones including constricted necks, pronounced shoulders and an orifice diameter smaller than the maximum width of the vessel (Anfinson 1979: 221).

In archaeological contexts, however, rarely are complete vessels found to indicate form and the researcher is often reduced to analyzing its constituent parts. If existing sherds are of sufficient size they can be assiged to a particular zone and are capable of yielding valuable information. Further, if enough sherds are recovered vessel

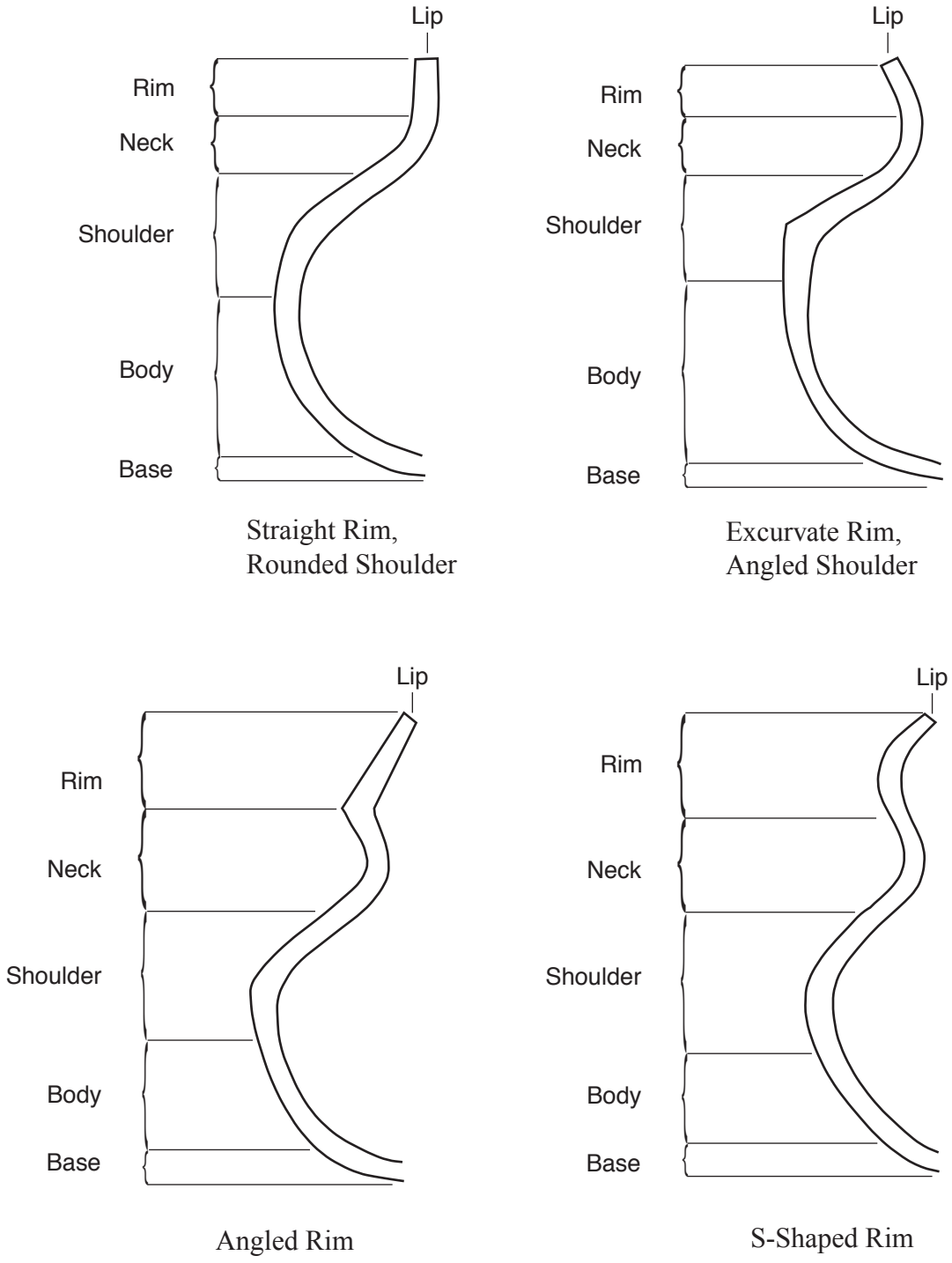


Figure 2.5: Vessel zones and profiles (Adapted from Paqun 1995).

reconstruction is possible. The different vessel zones and corresponding attribute states recognized in this study are defined below.

2.6.2.1 Lip

This zone is also referred to as the brim or the boundary of the vessel orifice. It is the surface found at the top of the vessel bridging the interior and exterior surface of the rim. The lip surface and inner and outer corners are often subject to decoration. Lip profiles recognized in the study region are defined in Table 2.1 and illustrated in Figure 2.6.

Table 2.1: Select Lip Profiles Discussed in Analysis.

Square	Lip edges are sharp, approaching 90^{o} and the surface is flat.
Rounded	Lip edges are difficult to define and the lip surface is convex or rounded.
Sub rounded	Lip edges are rounded and the surface is flat.
Contracting	Lip gradually thins to a rounded or pointed lip surface.
Bevelled	Lip surface is flat and at an angle to the rim created by one lip corner being higher than the other.
Expanding	Either the interior, exterior or both lip corners bulge outwards producing an expanding profile.
Flanged	One of the lip corners protrudes prominently outwards creating an inverted L-shaped profile.
Pulled Over	Clay from the lip corner has been folded over and variably smoothed down the surface of the rim resulting in an expanded profile. This is similar to the beaded profile of Plains Village tradition ceramics.

(From Ahler and Swenson 1985; Anfinson 1979; Lenius and Olinyk 1990; Paquin 1995; Syms et al. 1986).

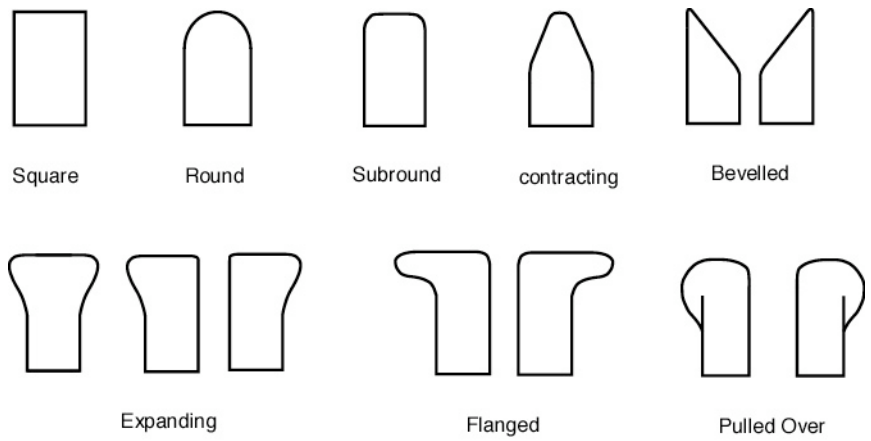


Figure 2.6: Lip profiles, exterior to left (adapted from Paquin 1995)

2.6.2.2 Rim

The rim as defined here is the upper portion of the vessel encompassing both the lip juncture and the portion of the vessel immediately below the orifice (Anfinson 1979:223). Paquin (1995:37) argues, however, that a true rim exists only if there is a second inflection point above the neck constriction marking a change in curvature between concavity to convexity. Without this second inflection point the upper portion of the vessel is merely an extension of the neck and not a distinct rim. Although this is a sound argument and perhaps better isolates those portions of the vessel, the term "rim" used in this study will be in the traditional sense, referring to the upper portion of the vessel regardless of inflection points. Rim profiles occurring in the study region are described in Table 2.2 and illustrated in Figure 2.5.

Table 2.2: Select Rim Profiles Discussed in Analysis.

Straight	The rim exhibits no curvature and is straight in cross section whether vertical, inverted or everted.
Excurvate	The rim curves outward from the most constricted portion of the neck towards the lip.
Angled	The rim exhibits an angular inflection above the neck constriction and below the lip, leading into an in-sloping, straight, or slightly convex rim.
S-shape	The rim exhibits a sharp concave curvature between the lip and point of inflection, followed by a sharp convex curvature below the inflection point towards the neck juncture.

(From Ahler and Swenson 1985; Anfinson 1979; Paquin 1995; Syms et al. 1986)

2.6.2.3 Neck

The neck refers to that part of the vessel above the shoulder and below the rim (Fig. 2.5). The neck juncture represents the point of maximum constriction in globular vessels (Rice 1987:479; Anfinson 1979:222). The interior surface of neck junctures in the boreal forest can occur in two forms, either rounded or angled exhibiting a distinct interior edge (Lenius and Olinyk 1990:87).

2.6.2.4 Shoulder

The shoulder refers to the inflection point below the neck where the profile shifts from a concave to convex curvature (Fig. 2.5). This usually represents the point of maximum diameter on the vessel and can occur in states that range from gently rounded to markedly angular (Anfinson 1979:223; Paquin 1995:39).

2.6.2.5 Body

The body is defined as the lower portion of a vessel between the shoulder and base (Fig. 2.5). The body is essentially a continuation of the shoulder curvature with no change in inflection towards the base (Paquin 1995:39). Sherds from this part of the vessel do not exhibit obvious landmarks and depending on the shape of the vessel can be indistinguishable from shoulder and base sherds.

2.6.2.6 Base

The base refers to the underside of the vessel where the walls of the body converge (Fig. 2.5). Sherds from this part of the vessel are often thicker, may have an obliterated surface or exhibit wear (Anfinson 1979:219). The three most common basal forms include rounded, pointed and flat (Syms et al. 1986:2). Only rounded bases were observed in the study area.

2.6.3 Stylistic Attributes

Decorative stylistic attributes refer to the embellishment of a pottery vessel in a manner unrelated to the manufacture or function of the vessel (Rice 1987:144). It has been argued, however, that stylistic attributes might be functional in a communicative or signalling sense (Close 1987:7; Sackett 1977:268-270; Rice:244; Weissner 1983:257; Wobst 1977:318). In the boreal forest of central Canada stylistic attributes most often take the form of surface enhancement via displacing or penetrating the wet clay with a variety of tools. Decorative elements usually occur on the upper portion of the vessel such as the lip, rim and sometimes shoulder. The decorative attributes and techniques of

application examined in this study are described in Table 2.3 and illustrated in Figure 2.7. Each can occur in a range of attribute states including differing orientation, shape, size and placement on the vessel.

Table 2.3: Select Stylistic Attributes Discussed in Analysis.

Punctate	An impression, usually round, made by pushing a tool into the wet surface of clay. This impression is deeper than it is wide which differs from a stamp that is wider than it is deep.
Boss	A raised node or bump produced by displaced clay as the result of a punctate impression. In some instances the boss is the intended decorative element. Punctates and bosses often, but not always, occur together.
Twisted Cord-Impression	A mark left by the strand of a single twisted cord impressed into the wet clay.
Trailed Line	A broad shallow line drawn across the wet surface; in cross section these impressions are wider than deep.
Cord-wrapped Tool Impression (CWTI)	A form of stamp decoration where a tool such as a stick or sliver of bone is wrapped with a fine or coarse twisted cord and impressed into the clay.
Rod Impression	The impression left by a smooth, round undecorated tool (same as smooth-tool or dowel impressed).
Sharp-edge Tool Impression. (SET)	The impression of the thin edge of a tool into the clay producing an acute, non-rounded mark.
Pinching	A form of decoration where narrow mounds or knobs are produced by squeezing clay between the fingertips. Fingernail-pinched refers to the impressions of the fingernails on either side and slightly under the displaced clay leaving distinct crescent-shaped marks.

(From Anfinson 1979; Lenius and Olinyk 1990; Paquin 1995; Syms et al. 1986).

2.6.4 Quantitative Attributes

Digital calipers were used to obtain metric measurements during the analysis to enhance vessel descriptions and allow quantitative comparisons with other sites and pottery traditions. Multiple measurements of one attribute were taken where possible depending on the extent of reconstruction or number and size of sherds, and values represent an average of these measurements. The attributes measured and necessary criteria are define in Table 2.4.

Where sufficient rim reconstruction was present, interior orifice diameter was calculated using the widely employed formula: $C^2 /4\ A + A = D$, where C is the cord distance between the ends of a rim sherd, A is the longest perpendicular distance from

Round ExteriorPunctates

Interior Bosses

Single Twisted Cord Impression

Trailed Line

Cord Wrapped Tool Impressions

Coarse Cord Wrapped
Tool Plasticine Impression

Smooth Rod Impression

Sharp-edge Tool Impression

Finger Pinched

Fingernail Pinched

Figure 2.7: Examples of decorative stylistic attributes.

the cord to the inner surface of the rim, and D is the resultant diameter (Gibson 2001; Olinyk 1978). Lip to Rim Ratio was also calculated by dividing the lip thickness by the rim thickness where measurable (Lenius and Olinyk 1990:87). Values approaching 1.0 indicated an even thickness, values less than 1.0 indicate a narrowing lip and values greater than 1.0 indicate a thickening lip.

Table 2.4: Select Metric Attributes Considered in Pottery Analysis.

Lip thickness	The average distance between the interior lip edge to the exterior lip edge.
Rim thickness	The average distance between the exterior and interior surface 25 mm below the lip edge.
Neck Thickness	The average distance between the exterior and interior surface at the neck juncture or apex.
Shoulder Thickness	The average distance between the exterior and interior surface at the shoulder juncture or apex.
Body/Base Thickness	The average distance between the intact exterior and interior surface of a sherd.
Rim Height	The vertical distance between the neck juncture and the lip surface in straight or excurvate rim forms; and the distance between the rim inflection and lip surface in angled or S-shaped rims.
Punctate Diameter	The average distance from one edge of the punctate to its opposite edge in round examples; in instances where impressions are elongate punctate length is considered the longest distance from one edge of a punctate to its opposite edge, and punctate width is considered the shortest distance from one edge of a punctate to its opposite edge.
Punctate Depth	The distance between the exterior surface of the vessel and the interior surface of the punctate.
Punctate Spacing	The distance between the edge of one punctate and the nearest edge of the adjacent punctate.
Punctate Distance Below Lip	The vertical distance between the lip edge and the nearest edge of the punctate.

(From Gibson 2001; Paquin 1995).

Quantitative attributes of temper particles were also examined using a hand lens at 10X magnification. Following Syms et al. (1986:9) particle size was recorded according to three categories: fine (particles up to 1mm diameter), medium (particles between 1 to 3mm diameter), and coarse (particles greater than 3mm). One size category was employed if the majority of temper particles fell within that range; however, if a high degree of variability was observed multiple categories were used.

Grit temper density was also noted and recorded in one of three categories: fine (1-5%); moderate (7-20%); and heavy (>20%) (after Terry and Chillingar (1955)). An additional category of sparse was employed to describe the very rare presence of angular grit fragments in an otherwise sandy paste. Due to the small particle size of sand inclusions and the difficulty in determining density macroscopically, density estimates were not attempted for natural temper.

2.6.5 Vessel Descriptions

The ceramic vessel rather than the individual sherd constitutes the basic unit of description and analysis in this study. Grouping sherds into a single vessel designation was achieved through reconstruction as well as by observing correspondence in paste, exterior finish, form and decorative attributes among individual sherds. Three advantages of using this approach are summarized by Ahler and Swenson (1985:9):

> 1) vessels of different sizes and functions probably fragment in different ways; because of this, analysis of individual vessels is thought to be quantitatively less biased than rim sherds; 2) data on vessel form and geometric relationships of vessel parts which may not be evident in individual rim sherds can be collected from refitted vessel parts; and, 3) refitting provides data on linkages among provenience units within the site and potentially important data concerning site history and site formation processes.

Chilton (1998:146) further observes that the vessel as a unit of analysis makes sense because it represents the most common unit of meaning in precontact societies, more so than its constituent parts.

In this study, sherds within a site were first examined in relation to their provenience information. Those that clustered together and refit or exhibited similar decorative, form or technological attributes were considered to belong to the same vessel. Sherds from other provenience locations were considered part of the same vessel only if refits were possible, or if attributes were distinct enough to indicate a relation. Vessels were identified primarily on the basis of rim sherds, as these tended to be the most diagnostic zone. Due to similarities in paste and finish characteristics it was not

always possible to associate lower, less diagnostic neck, shoulder and body sherds to specific vessels as represented by rim sherds. These were considered separately.

Vessel descriptions are summarized in Chapter Four on a site-by-site basis and presented in prose form along with images in the body of the text. Vessels were classified according to existing types and wares based on the co-occurrence of previously defined attributes. Previously unrecorded attributes encountered were also noted. Vessel summaries generally begin with a description of paste and exterior finish characteristics, followed by a description of form and decorative attributes. A summary of a few salient metric measurements is also provided. Qualitative and quantitative data for individual vessels are presented in tabular form in Appendix A.

2.7 Summary

This chapter presented the theoretical framework and methodology employed in the current study. The Culture History paradigm emphasizes description and classification, and is considered the foundation of most archaeological studies. This paradigm is appropriate at this stage of analysis because our knowledge of Narrows pottery and related assemblages is still very much in its infancy. That is to say, the attributes of this pottery (form), its distribution throughout the region (space), and its age (time) are still being delineated. The ware-type-variety system of pottery classification will be used to facilitate interpretations and comparisons with other pottery wares from the boreal forest of central Canada. The terms of this system were defined, as were the relevent pottery attributes that will be referred to throughout this study. Particular attention was paid to technological attributes, which are used to classify pottery wares. Finally, the format for pottery descriptions was presented, including the rationale for analysis based on vessel identification as opposed to individual sherd analysis.

CHAPTER 3
LATE WOODLAND OCCUPATIONS IN THE STUDY REGION

Before a discussion of the pottery bearing occupations from Peter Pond Lake is considered, it is necessary to review our current state of knowledge concerning the Late Woodland period in the region. Previous interpretations regarding archaeological complexes and related ceramics are presented below.

3.1 The Selkirk Composite

The best known Late Woodland occupation in the study region is represented by the Selkirk Composite. What we currently understand of the Selkirk Composite evolved as a result of decades of archaeological research and taxonomic revisions amply documented by Meyer and Russell (1987) and Lenius and Olinyk (1990). In these researchers' review of the Late Woodland period, they brought order to the archaeological record of the western Canadian boreal forest by formally employing the Syms taxonomic system. Within Syms' (1977) taxonomy, the units of organization follow the natural order of archaeological discovery. The basic archaeological unit is the *assemblage* which "refers to the surviving materials, features and evidence of activities of a single residential group over a short period of time at one site" (Syms 1977:70). This in turn can be subsumed within a larger *complex* which represents "the total expression of a number of assemblages left by the same group over a sufficiently narrow time period." (Syms 1977: 70-71). At the next conceptual level, related complexes can be grouped into a *composite* where technological and stylistic traits are "sufficiently similar to indicate a common and recent ancestry, but sufficiently different that microevolutionary changes have taken place" (Syms 1977:71). At yet a higher level, composites can be subsumed within a *configuration,* which represents a "cluster of composites sharing sufficient traits to indicate either a distant generic ancestry or co-

existence with a similar adaptive strategy that resulted in a cultural convergence" (Syms 1977:72).

Within this organizational scheme, the Selkirk Composite is recognized as spanning across a huge swath of boreal forest, extending from northwestern Ontario through northern Manitoba and Saskatchewan (Fig. 3.1) (Meyer 1987: 5). There are currently four regional expressions or complexes recognized including the Clearwater Lake complex, centered in west central Manitoba but also extending into adjacent Saskatchewan and Ontario (Hlady 1970,1971; Meyer 1978b); the Kame Hills complex, centered on Southern Indian Lake in northern Manitoba (Dickson 1980); the Pehonan complex found along the upper Saskatchewan River valley of east central Saskatchewan (Meyer 1981; 1984); and most relevant, the Kisis complex centered on the headwaters of the Churchill River (Paquin 1995; 1998). The unifying "cultural expression" of this composite lies primarily in the pottery, referred to as Winnipeg Fabric-impressed ware. This term was first introduced by MacNeish (1958) to describe Late Woodland pottery found in southeastern Manitoba and is retained in this study. Winnipeg Fabric-impressed ware is defined by vessels typically exhibiting an amorphous fabric impression considered the result of vessel formation inside a twined bag (Saylor 1978; Maclean 1995). The paste is usually hard, thin and layered containing crushed granite as the dominant tempering agent. The various regional complexes are included and differentiated within this composite based on variations of Winnipeg Fabric-impressed ware styles or types (Meyer and Russell 1987:4). In this regard Meyer (1984:45) observes: "In large part the various complexes of the Selkirk composite share the same ceramic types although each usually has its distinctive types as well. The shared types usually occur in differing frequencies from one complex to the next." The universally shared type amongst all Selkirk complexes is the Clearwater Lake Punctate type (Fig. 3.2) (Hlady 1971; Meyer 1978b). These vessels generally exhibit a complex profile with globular bodies and straight to excurvate rim profiles. Neck and shoulder inflections are usually round and vary from pronounced to almost imperceptible. The exterior neck is consistently decorated with a row of round to oblong punctates, and the lips may or may not be decorated with a variety of elements including cord wrapped tool impressions or incised lines.

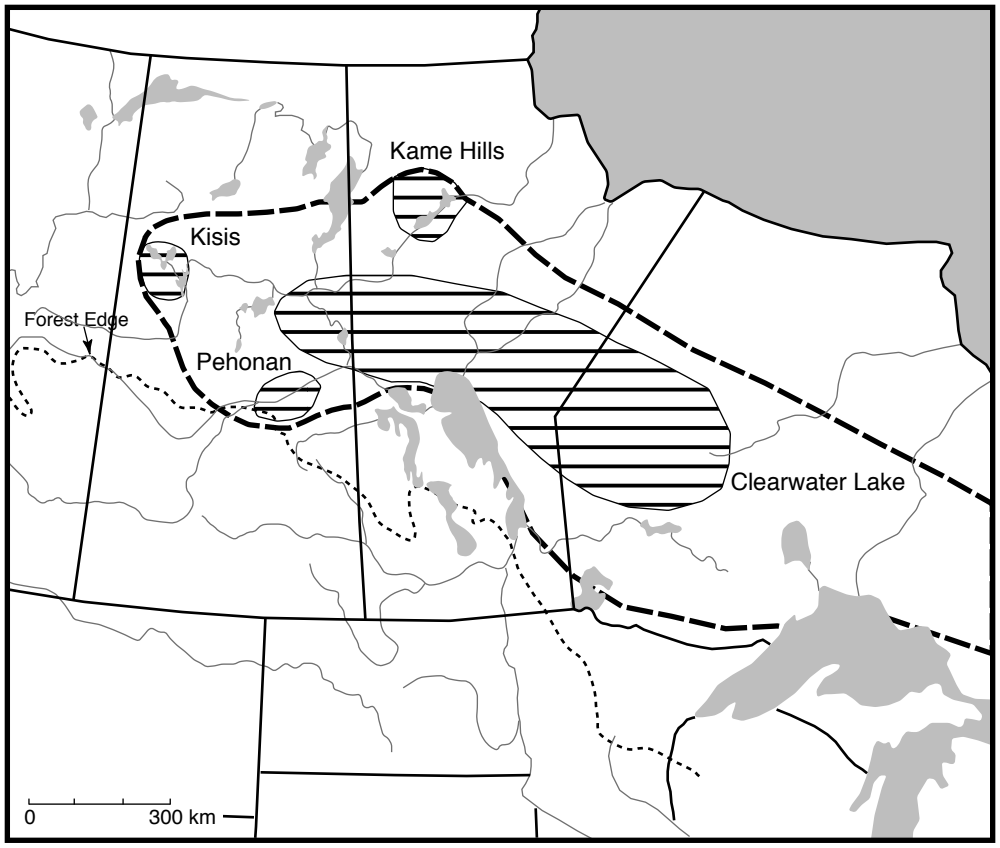


Figure 3.1: Map showing distribution of the Selkirk Composite and regional complexes (After Meyer and Russell 1987; Hamilton et al. 2003).

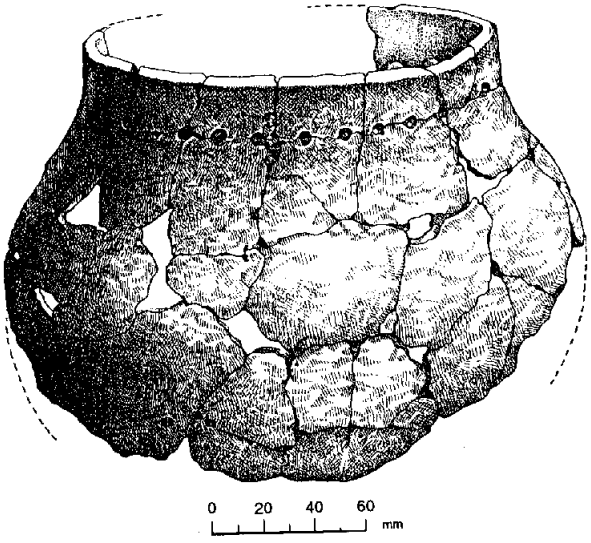


Figure 3.2: Clearwater Lake Punctate vessel from northern Saskatchewan (Drawing by Phyllis Lodoen; from Meyer 1993:62).

The Selkirk composite is believed to date from approximately A.D. 1100 to the late 1600's (Meyer and Russell 1987). The earliest dates are found in north central Manitoba where it is suggested that the Selkirk composite originated. Meyer and Russell (1987:24) propose that Selkirk developed out of the preceding Late Laurel composite present in the region around A.D. 1000, with significant influence from contemporaneous Blackduck groups. A new ceramic producing entity emerged at approximately A.D. 1100 exhibiting traits typical of Blackduck including globular vessel form, a tendency to employ cord-wrapped tool impressed decoration on the lip, and exterior textile impressions, although the latter attribute was done with a "new kind of fabric" (Meyer and Russell 1987:25). The simple, almost conoidal shape taken by some Selkirk vessels and the prominent single row of punctates were considered derived from Laurel. Following this formation, Selkirk then appears to have expanded outwards into adjacent regions where later dates are common. In Saskatchewan, for example, the Pehonan complex is considered to date no earlier than the mid to late A.D. 1300's (Meyer and Russell 1987:17), while similar dates have been obtained in southeastern Manitoba and Ontario (Meyer and Hamilton 1994:119,122; Rajnovich 1983:54).

Several authors suggest that Selkirk composite pottery was manufactured by people who eventually became known as the Cree during historic times (MacNeish 1958:47-49; Meyer and Hamilton 1994:127; Meyer 1987; Meyer and Russell 1987:25-26; Wright 1971: 20-24). This association is based largely on the correspondence between Selkirk sites and the distribution of historically known Cree groups throughout the region at the time of contact (Russell 1991). In addition, the presence of historical items in some Selkirk assemblages indicates continuity from precontact times through to the fur trade period. Meyer (1993:69) observes that while the Cree are the most likely candidates, it is possible that some of the woodland Assiniboine who were closely allied with the Cree may have adopted the same material culture.

3.1.1 Kisis Complex

Pottery recoveries from the Kisis Channel were recognized early on by Millar (1983) to share traits with what would eventually become known as the Selkirk

composite. Specifically, the presence of Clearwater Lake Punctate type vessels formed the basis for what he termed the Kisis complex. Subsequent analysis of pottery in the region by Paquin (1995) further elucidated the unique nature of this complex. Materials examined included pottery from the Martin and Bernadette Chartier sites (GlOc-20, 21), the Ice House site (GlOc-2), the McCusker Lake site (GhOe-1) and the Sandy Point site in Ile-a-la-Crosse (GiNm-2). Most notable was the identification of the previously undescribed Kisis Angled Rim type pottery (Fig. 3.3) (Paquin 1995: 104-107). As the name implies, this type exhibits a unique vessel form displaying a marked inflection point above the neck producing a distinct angled rim. Decoration on the rim angle consists of fingernail pinches and punctates occurring in a variety of motifs. This includes a row of fingernail pinches above a row of punctates, a single row of alternating fingernail pinches and punctates, and less frequently a single row of punctates or fingernail pinches occurring by themselves. Lip corners are commonly decorated with cord-wrapped tool and sharp-edge tool impressions as well as incised lines across the lip surface. The vessel form exhibits a marked neck constriction immediately below the rim angle, flowing into a prominently rounded shoulder and globular body form. The exterior surface is impressed exclusively with an amorphous twined textile that is variably smoothed, and the paste is tempered with crushed grit. Although Clearwater Lake Punctate type vessels dominated the Winnipeg Fabric-impressed ware examined by Paquin, the Kisis Angled Rim type comprised approximately one-quarter (9/38) of the total sample (Paquin 1995:104).

Another distinctive characteristic of the Kisis complex relates to the occurrence of Francois Punctate type vessels in the region. This type was first described from sites in the Nipawin Reservoir area of east-central Saskatchewan and is differentiated from Clearwater Lake Punctate vessels by the presence of angular and sometimes decorated shoulders (Meyer 1981:26). This modification of Winnipeg Fabric-impressed ware vessel form and decoration was also hypothesized to be the result of contact and interaction with parkland occupants to the south and was a contributing factor in defining the Pehonan complex (Meyer 1981; 1984a; Meyer and Russell 1987:17). Several such undecorated angled shoulder sherds were identified from the Ice House

Figure 3.3: Reconstruction of a Kisis Angled Rim type vessel from the Ice House site (GlOc-2) (From Paquin 1999:103).

site. The presence of the Francois Punctate type within the Kisis complex is not unusual in itself, however, some forms exhibit traits not typical of vessels found further to the east (Paquin 1995:104). Reconstructed pots from McCusker Lake and nearby Jacobson Bay (FkNl-3) exhibit shoulders that are markedly angular even for Francois Punctate types. They also possess notably constricted necks and outflaring rims. Another distinctive trait of these vessels is the purposeful application of crushed granite to the exterior surface. This has been interpreted as a form of decoration applied to the pot while still damp and is not known to occur elsewhere in the Selkirk composite.

The non-ceramic assemblage of the Kisis complex is known only from Millar's (1983) original excavations at the Bernadette and Martin Chartier sites. Unfortunately no projectile points were recovered, but the remaining fine lithic industry is characterized by variously shaped bifaces; small end and side scrapers; lateral unifaces; marginally retouched flakes and bifacial cores (Miller 1983:78). Lithic material was dominated by local quartz, quartzites and sandstone, with a minor amount of exotic material such as Knife River Flint, petrified wood, Beaver River Quartzite, and Swan River Chert (Miller 1983:105). A coarse lithic tool industry consisted of split cobble choppers, slab choppers and discoidal smoothing tools (Miller 1983:83). Split pebble cores and spalls were present indicating a bipolar technology, and a bone industry was also observed with a minor amount of shaped bone tools (Miller 1983:84).

Although a Late Woodland entity, the age of the Kisis complex is not known for certain. Based on the association of a few historic items including part of a clay pipe bowl and two pieces of unidentified metal at one site, Millar (1983:104) suggests this most western manifestation of the Selkirk composite was a late arrival into the region, dating to the protohistoric period. However, radiocarbon and thermoluminescence dates obtained from Selkirk occupations elsewhere in Saskatchewan indicate that the people responsible for this complex could have been in the upper reaches of the Churchill River anytime after A.D. 1300 (Paquin 1995:114; Meyer 1995:55).

3.2 The Narrows Assemblage

Unlike the Kisis complex, considerably less is known about the assemblages containing Narrows pottery in the study region. Prior to 2000 these ceramics had been

found at just two sites and received only limited attention. This research is presented below.

3.2.1 Millar's Identification: The Bernadette Chartier Site (GlOc-21)

Millar (1983) was the first to identify what he termed the "Narrows Assemblage" from excavations at the Bernadette Chartier site (GlOc-21). A total of 27 m^2 were excavated at this rare stratified site located along the banks of the Kisis Channel (Fig. 3.4), and four discrete levels of occupation were recognized. This included a modern occupation in the lower leaf litter of Component I; a Selkirk occupation in Component II; a second ceramic bearing occupation identified in Component III; and finally, an earlier aceramic Taltheilei occupation located within lower lacusterine silts of Component IV (Millar 1983; Fig. 11). The Narrows Assemblage was identified from materials in Component III, and considered to contain the largest collection of worked artifacts at the site (Millar 1983:101).

In describing the occupation of Component III, Millar (1983:) observed the majority of cultural materials were concentrated in activity areas near, or scattered around two small hearth features located approximately three meters apart. A complement of fragmented, burned and un-burned bone was also associated with these hearths indicating a varied diet typical of boreal forest subsistence consisting of moose, rabbit, unidentified bird, and at least six pike (Millar 1983:84). The fine lithic industry included three small side-notched projectile points of varying morphology less than 3 cm in length; variously shaped bifaces occurring in triangular, contracting, discoidal and straight-sided forms; small end and side scrapers including rectangular, contracting, thin and snub-nosed forms; lateral unifaces; marginally retouched flakes (including drills and beaked gravers); and bifacial cores (Millar 1983:78). The lithic material was dominated by white and clear vein quartz as well as substantial amounts of a distinct "'pepper' fused sandstone" that was nearly unique to this component (Millar 1983:102). Other lithic material included lesser amounts of local chert, quartzite and siltstone. A coarse lithic tool industry was also present consisting of slab choppers and numerous discoidal, elongate and D-shaped smoothers or chithos manufactured out of micaceous schist, gneiss and sandstone (Millar 1983:83). Many split pebble cores and spalls were present

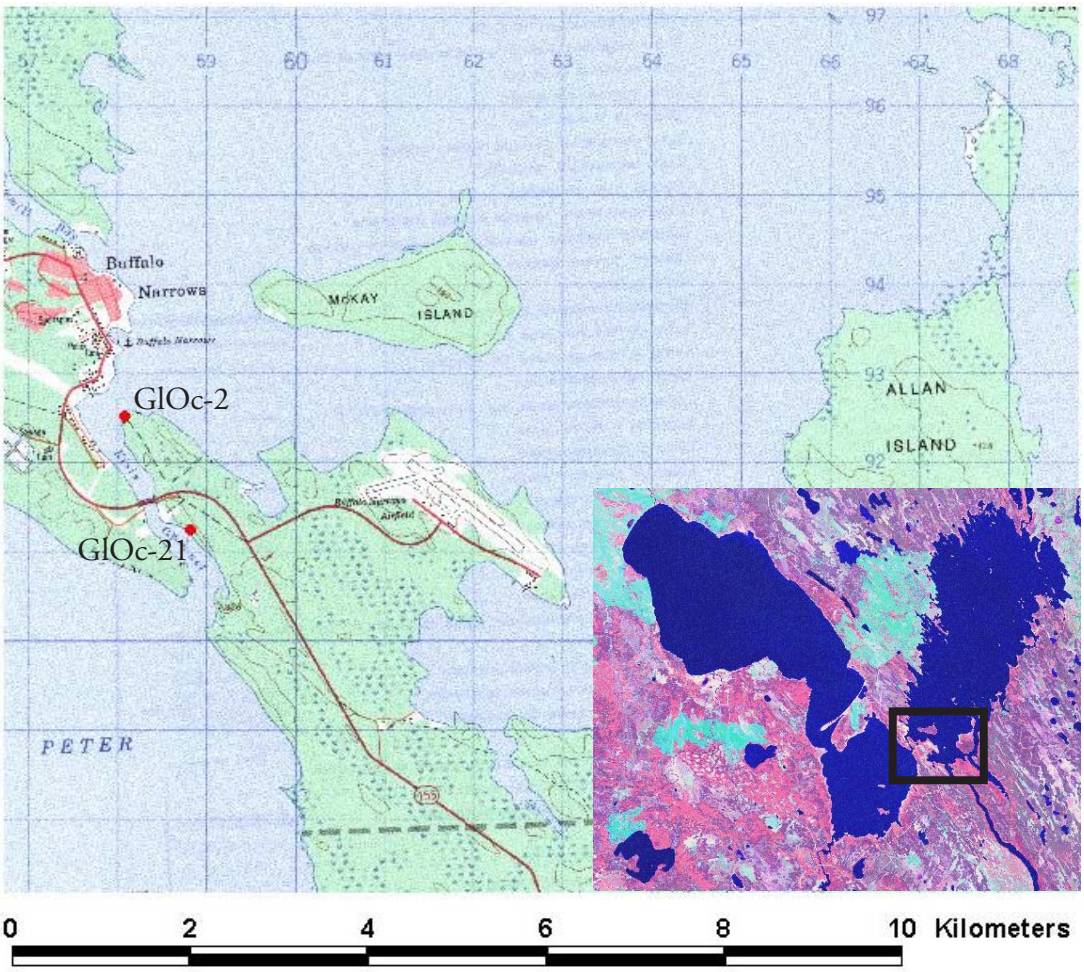


Figure 3.4: Location of the Bernadette Chartier (Gloc-21), and Ice House (GlOc-2) sites on the Kisis Channel (NTS Map 73N/16).

indicating a bipolar technology, and a bone industry was also observed with a few shaped and grooved bone tools (Millar 1983:84). A small concentration of pottery sherds was identified north of the southernmost hearth, and various additional fragments were scattered across the site, all possessing similar characteristics.

In interpreting this component, Millar (1983:96) considered the lithic and faunal assemblages to be relatively comparable to the succeeding occupation of Component II. The most significant difference, however, lay in the pottery industry. The Component II ceramics appeared to represent Clearwater Lake Punctate type pottery already known in the region and previously identified at five other sites found on the peninsula (Millar and Ross 1982:40). These vessels were described as large with flaring rims and globular bodies; exterior surfaces exhibited smoothed fabric impressions; wall sections were laminated; crushed granitic rock served as temper and punctate impressions were present on the upper part of the body (Millar 1983:104). Also noted was the decoration on the lip of some vessels consisting of a series of narrow, cord-wrapped tool impressions (Millar 1983:108). In contrast Millar (1983:108) observed that ceramics from Component III were "sand tempered, smooth rimmed, convex-conical in vessel shape, and [exhibited] either 'cord-wrapped stick impressed' [or] 'fabric impressed' outer surface finishes". To further elaborate on the exterior treatment, one vessel was described as exhibiting a *linear* fabric impression (Millar 1983:188), while sherds representing at least one other vessel bore cord wrapped markings variously interpreted as cord-wrapped stick or "cord wrapped paddle" impressed (Millar 1983:193). Sand temper was prevalent amongst all sherds; however, a mixture of sand and crushed "vein" quartz was also observed (Millar 1983:191). Rim sherds from two positively identified vessels indicated that orifice diameters were small ranging from 9 to 15 cm, and while no decoration was present on the lip surfaces, at least one vessel possessed a row of punctates below the lip (Millar 1983:103).

These attributes of surface finish, paste and vessel morphology were considered atypical of Selkirk pottery in the region. In conjunction with the projectile points this led Millar (1983:113) to propose non-Woodland origins for Component III stating that: "Evidence for a plains connection lies exclusively in the ceramics and small, side-notched projectile points." Although he was not confident in making specific

associations, he suggested that these materials may reflect a pattern that began during Paleo-Indian times of plains bison hunters making occasional or seasonal forays into this region. In a previous report Millar and Ross (1982:51) made more specific allusions when they commented that some of the small side-notched points found along the Kisis Channel "could well be related to the Old Women's Phase of the northwestern plains…" In an alternative scenario, Millar (1983:114) suggested that these plains characteristics could also be the result of acculturative influences on woodland adapted people as a result of contact with plains groups. In the end, Millar considered the pottery and assemblage from Component III distinct enough to warrant a separate designation, but because it was found only at the Bernadette Chartier site, he was forced to limit his interpretations. Employing Syms' taxonomy, the materials from this lone occupation were identified as the "Narrows Assemblage" (Millar 1983:96).

3.2.2 Paquin's Interpretations: The Ice House Site (GlOc-2)

The concept of the Narrows assemblage lay dormant for over ten years, and it was not until Paquin's (1995) Master's thesis research that some of Millar's original ideas were revisited. Although Paquin was focused on re-defining the Kisis complex, a secondary aspect of his research was an examiniation of "non-Selkirk" pottery found on the Kisis Channel. Paquin (1995:108) concluded that certain vessels from not only the Bernadette Chartier site, but also the Ice House site exhibited traits atypical of Selkirk pottery, supporting the premise that "a second ceramic ware was being made in the Kisis Channel region".

The Ice House site (GlOc-2) is situated on a point of land near the mouth of the Kisis Channel where it enters Churchill Lake (Fig. 3.4). Over 60m^2 were excavated at this site over the course of three separate field seasons (Rollans 1992: *i*, 6). Despite such extensive work, the natural and cultural stratigraphy of the site is not well understood. The original 1981 test pit findings by Millar and Ross (1982:49) suggested that a complex stratigraphy was intact at the site. Within this strata they were able to discern cultural occupations, with material from the Kisis complex found in the "upper parts of the black organic sands" and "two as of yet unidentified complexes found in the lower part of the black organic sand" (Millar and Ross 1982:50). They did not state,

however, if one of these unidentified complexes contained a second pottery industry. Subsequent excavations at the Ice House site by Scanlon in 1983 ultimately failed to confirm the cultural stratigraphy of the site. This was due primarily to the loss of provenience data and documentation relating to this work. Further excavations at the site in 1991 by Western Heritage Services, however, determined that much of the stratigraphy of the site was actually compressed or mixed, with historic to Taltheilei period artifacts occurring in the same levels (Rollans 1992:12, 33).

Although Paquin was unable to discern or describe discrete cultural assemblages at the Ice House site, a wealth of data existed within the hundreds of pottery sherds recovered. In examining these ceramics, he was able to identify approximately 50 vessels. Of these, 26 were designated as "Selkirk ware" and 21 were identified as "non-Selkirk" ware (Paquin 1995:77;92). With a larger sample size, Paquin was able to further explore Millar's concepts regarding a second pottery ware in the region, including an expanded description of the pottery itself.

The sample of non-Selkirk pottery from the Ice House site was characterized as highly fragmented with vessel identification based largely on lone rim or lip sherds and minimal reconstruction (Paquin 1995:92). Paquin (1995:94) described the exterior finish of these vessels as produced by a vertically oriented textile varying from tight and fine to loose and coarse, with three vessels exhibiting a "uniformly shaped" textile impression. The paste for the majority of the sample was characterized as soft and non-lamellar with temper consisting of sand and coarse rounded pebbles. A minority of vessels exhibited paste that was lamellar, prone to exfoliate and with coarse grit temper. Small depressions were noted on the interior surface of several vessels and interpreted as anvil impressions (Paquin 1995:125). Due to lack of large scale reconstructions, vessel shape was not known, although constricted necks and round shoulders were common. Where it could be determined, straight rim profiles dominated with a lesser number of excurvate rims. The lip shape, vessel thickness and general craftsmanship of this sample was considered highly variable even within one vessel (Paquin 1995:92). Although specific metrics were rarely indicated, Paquin (1995;126) did observe that the lips and shoulders were generally the thickest zone of the vessels and rarely exceeded 12mm. Decoration was completely absent on the lips of all vessels, while exterior

punctates were present on the rim of almost the entire sample occurring in two shapes, round and 3/4 circle. Punctate size varied from small and closely spaced to large and widely spaced. The corresponding interior bosses ranged from low to prominent. The only other form of decoration consisted of a single twisted cord impression below the lip occurring on only two vessels.

Based on decorative, morphological and paste characteristics, Paquin (1995:113) considered the Ice House site vessels similar to Narrows pottery found at the Bernadette Chartier site. A notable difference, however, was that the exterior surface of all vessels were identified as fabric impressed, with none considered treated with a cord wrapped paddle. In summary, Paquin (1995:126) observed:

> It appears one ware is represented and only one type is recognized in this sample. It is comprised of vessels with vertical or excurvate upper necks, gently to pronounced constricted necks, rounded shoulders, and decoration consisting of punctates a short distance below the lip and the uncommon impression of a single twisted cord line above the row of punctates.

In interpreting the Narrows pottery from the Kisis Channel, Paquin (1995:112) noted that a plains connection or influence was proposed by Millar, but "little effort was expended to establish a more precise relationship with plains archaeological constructs". Based on a lone radiocarbon date from a Taltheilei occupation at the Martin Chartier site, and the stratigraphic position of the Narrows assemblage between a later Selkirk occupation and an earlier Taltheilei occupation at the Bernadette Chartier site, Paquin (1995:114) estimated that the people responsible for the Narrows assemblage could have been in the region sometime between A.D. 630 and A.D. 1400. He further noted this time frame corresponded to the approximate occurrence of the Old Women's Phase found on the Saskatchewan plains to the south. In pursuing Millar's hypothesis of a southern plains connection, Paquin conducted a formal comparison of these two pottery traditions.

To briefly summarize, the archaeological remains of people who lived on the grasslands of central Saskatchewan from approximately A.D. 800 to 1300 have been assigned to the Old Women's Phase (OWP) (Meyer 1988; Walde et al 1995). It should be noted that unlike the boreal forest, plains archaeologists have traditionally employed the Willey and Phillips (1958) taxonomic system. A phase is roughly equivelent to a

complex in the Syms taxonomic system (Syms 1977:71). Old Women's phase assemblages were produced by plains-adapted people with a distinct lithic and pottery industry, who were skilled at communal bison hunting. Archaeologists have traditionally considered the Old Women's Phase to relate to ancestral Blackfoot groups of the northern plains (Byrne 1973:55; Reeves 1983; Meyer 1993:69; Wormington and Forbis 1965). The lithic tool assemblage is characterized by Prairie side-notched points "crafted from thin flakes, with a minimum of finishing effort and little attempt to produce a consistent style of side notching" (Meyer 1988:56). Local lithic material was emphasized in the manufacture of stone tools, with a split pebble and bipolar technology employed to produce blanks for endscrapers and projectile points (Reeves 1983:19). William Byrne (1973) was the first to define the ceramics of the Old Women's Phase and termed them Saskatchewan Basin complex, Late Variant. This pottery is typically described as being quite thick and crude. Vessel walls are often greater than 15mm thick with lip and upper neck portions sometimes approaching 20 mm (Meyer and Epp 1990:333; Paquin 1995:122). Vessel profiles are often complex with constricted necks, short, shallow rims that are either straight or outflaring, pronounced or angular shoulders, and rounded, globular bodies with occasional flattened bases (Fig. 3.5). Simple conoidal vessel forms also rarely occur (Linnamae 1988; Damkjar 1995). It has been suggested that many OWP vessels were manufactured using the paddle and anvil technique (Walde et al 1995:29). This idea appears to be supported by vessels with paste that is typically non-lamellar, interior surfaces bearing anvil impressions, and the dominance of cord-roughened exteriors exhibiting superimposed impressions as the result of beating with a cord wrapped paddle. However, textile impressed and plain exteriors are also known to occur (Meyer 1988:57; Paquin 1995:122). Decoration on vessels is sparse, but when it does occur can be highly variable employing punctates, coarse cord-wrapped tool impressions, and incised lines with motifs present on the lips, necks and occasionally shoulders (Byrne 1973:334-335; Meyer 1988:57; Walde et al 1995:29).

OWP sites are commonly found in the grasslands of south-central and southwestern Saskatchewan, but there is a very limited distribution of such sites in the northern parklands, and even fewer intrusions into the southern fringe of the boreal

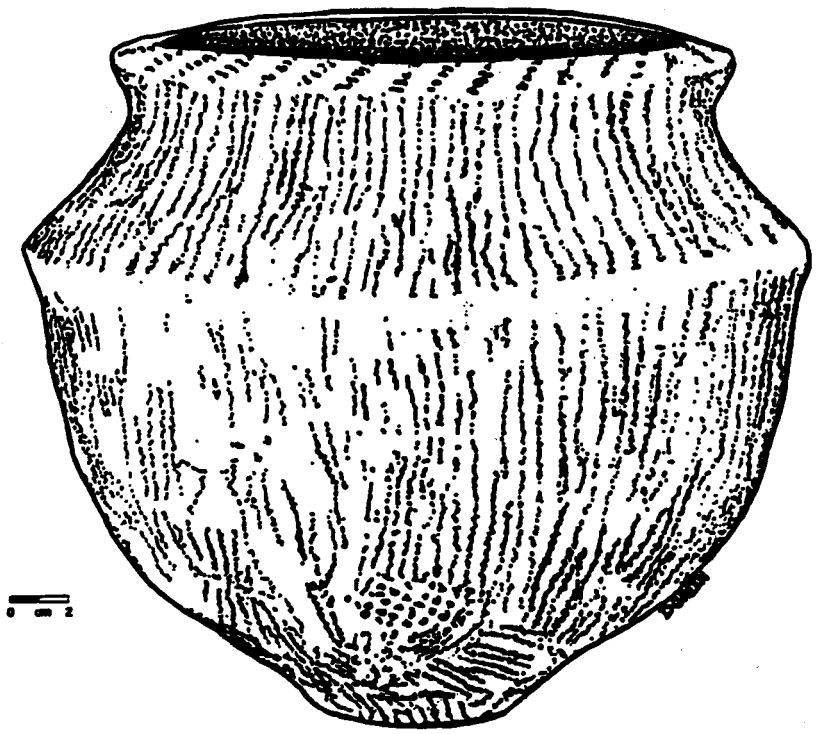


Figure 3.5: Old Women's Phase pottery vessel from Saskatchewan (Green 1993:20).

forest (Meyer 1988:61; Meyer and Epp 1990:333). It appears the forest edge was only a secondary zone of occupation for people producing OWP materials and occupations were very temporary when they did occur. In studying possible interactions between plains and woodland adapted peoples during this period, the general lack of OWP pottery in the forest led Meyer and Epp (1990:334) to conclude that it may "indicate contact between northerners and southerners was avoided."

Paquin (1995:122-124) cited three examples of sites in the boreal forest that potentially contained OWP ceramics. This included the Willis Creek site (FhNc-103) located on the Saskatchewan River near Nipawin (Finnigan et al 1983:141); GcNj-7 situated on Montreal Lake in central Saskatchewan (Forsman 1976); and the Black Fox Island site (GfPa-32) located in Lac La Biche, Alberta (Learn 1986). Both the Montreal Lake and Lac la Biche vessels were observed to share specific characteristics with a pot recovered from a cultivated field site (FgNe-3) located in the northern parklands of Saskatchewan and also interpreted as OWP pottery (Paquin 1995:124). Ceramics from these specific sites along with other OWP sites in Saskatchewan served as the basis for comparison with the Ice House sample.

Paquin (1995:124) concluded that 15 of the 21 Narrows vessels from the Ice House site bore a strong enough resemblance to this plains ware to support an affiliation. Many of these shared attributes related to the generally poor craftsmanship of both the Narrows and OWP pottery. This included walls of highly variable thickness, and lips with little attention paid to finishing. The latter was demonstrated by lips exhibiting irregular thickness and shape, as well as the presence of "pulled over" lip profiles. Other significant attributes included the presence of anvil impressions on the interior surface suggesting a shared production technique, and exterior surfaces impressed with a vertical oriented fabric similar to that found at the three OWP sites from the forests of Saskatchewan and Alberta. Additional attributes shared with OWP pottery related to general vessel form including flat and expanding lip profiles, straight and excurvate rim profiles, short constricted necks, and rounded shoulders.

Perhaps more interesting, however, were the attributes Paquin (1995:126) acknowledged were not shared with the Ice House sample. The sandy paste of Narrows pottery with few or no igneous inclusions contrasted with the coarse grit-tempered paste

pervasive in OWP pottery. The vessel walls and lip thickness of Narrows pottery, while variable, did not approach the notorious thickness of OWP pottery. The angular shoulders sometimes found in OWP vessels were entirely absent in the Ice House site sample. The exterior of Narrows pottery was impressed exclusively with a vertically oriented fabric and did not demonstrate the variety of treatments present in OWP pottery, most notably cord-roughened and the less common plain or smooth variety. In addition, although lip decoration on OWP pottery was generally sparse, it did occur. This also contrasted with the complete lack of lip decoration found on the Narrows pottery. Similarly, while punctates were only sometimes found on OWP pottery, they were ubiquitous within the Narrows assemblage.

In the end, Paquin (1995:135) rejected the idea of a plains influence on a forest adapted people and the possibility that Narrows pottery represented a woodland ware. There seemed to be little evidence for people of the OWP interacting with forest groups of this period as demonstrated by Meyer and Epp (1990). However, there did appear to be limited evidence for the incursion of OWP materials into the boreal forest. With regard to the Narrows pottery found on the Kisis Channel, Paquin (1995:135) concluded: "…it does appear that these materials represent a northern regional variant (the Narrows subphase, perhaps?) of this [Old Women's] phase. It remains to be seen to what extent, geographically and stylistically, this regional variant is present in the forest." At the time of writing his thesis Paquin (1995:114) noted that the OWP was a somewhat nebulous archaeological entity in which the pottery had no formal ware or types defined. As such he refrained from explicitly assigning the Narrows pottery to a specific ware or defining a type. It is clear, however, that Narrows and OWP pottery were perceived as regionally distinct versions of the same pottery tradition. Due to the lack of data regarding the occurrence of the OWP or this potentially new subphase in the boreal forest, Paquin (1995:159) was unable to attempt an explanation as to how it arrived in the study area.

3.3 Summary

The Late Woodland period in the study region is characterized by two pottery bearing cultures. The Kisis complex is the latest and best known of these and is

suggested to span from approximately A.D. 1300 through to the historic period. This complex is part of the Selkirk composite, which has an extensive distribution throughout the boreal forest of central Canada, and is characterized by Winnipeg Fabric-impressed ware. This pottery exhibits amorphous fabric impressions on the exterior surface and grit tempered paste. Pottery assemblages of the Kisis complex are distinguished primarily by the presence of Kisis Angled Rim type vessels, which are almost unique to the upper Churchill River basin.

The second pottery bearing culture has thus far been recognized at only two sites in the study region, and considerably less is known about it. The Narrows subphase is suggested to predate the Kisis complex and to span from approximately A.D. 1000 to 1300. The pottery of this subphase differs from Winnipeg Fabric-impressed ware by demonstrating linear or sprang fabric impressions, and paste that is typically sandy, with rare grit temper. Previous researchers have proposed that the origins of this archaeological entity lie in the northern plains of Saskatchewan and represent a regional variant of the Old Women's phase. Due to the limited nature of the data, however, these interpretations should be considered tentative and require further validation.

CHAPTER 4
SITES AND CERAMICS FROM STUDY AREA

4.1 Introduction: The 2000 – 2001 Survey

The materials analyzed in this study are the result of archaeological investigations carried out in the Peter Pond Lake region by Western Heritage Services Inc. of Saskatoon, Saskatchewan. The main objective of these surveys was to record and inventory archaeological sites exposed as a result of forest fires that had swept through the region in the previous decade (Dale Russell, personal communication, 2003). In August of 2000 archaeologist Dale Russell with the assistance of local band members from the Buffalo River Dene Nation of Dillon, Saskatchewan embarked on a five-day survey of the region. Select burn areas along the northwest shore of Peter Pond Lake and a portion of the Dillon River were examined, with the locations of several large sites provided by local informants. Due to the tremendous amount of archaeological materials recovered on this initial trip, subsequent surveys were carried out and expanded in September of that year, and again in August of 2001. In total, approximately 23 linear kilometers were examined along the northwest shore of Peter Pond Lake, with an additional 12 kilometers examined along a portion of the Dillon River and the east and west shore of Vermette Lake. Locations inland from the shores of these lakes were also examined. A total of 105 sites were recorded, ranging from traditional camp sites, to isolated precontact lithic find spots, to large scale precontact artifact scatter and feature sites. Over 3000 artifacts were collected, the majority coming from Late Precontact pottery bearing sites found along the northwest shore of Peter Pond Lake.

These surveys were regarded as a salvage operation due to limitations in time and resources. As a result, the work focused only on pedestrian surveys and surface collection, with no subsurface testing or excavation carried out. Horizontal provenience was recorded for all collected material using a hand held Global Positioning System (GPS). Provenience information consisted of two dimensional Universal Trans

Mercator (UTM) coordinate data that enabled plotting of artifact distributions with Arcview mapping software. Provenience points were recorded for individual artifacts, artifact concentrations, as well as observed features. Through this data, limited interpretations regarding site structure as well as artifact associations (specifically pottery sherd associations) were made possible. The collection process was not comprehensive, however, as systematic transect surveys were rarely employed over site areas, and collection results were affected by variable ground visibility. In addition, during the second season artifacts were collected only if identified as stone tools or diagnostic portions of ceramic vessels. These factors combined to produce a somewhat biased sample with artifacts such as lithic debitage rarely or inconsistently collected and only selected portions of pottery vessels recovered. Despite these limitations, however, the results of this preliminary investigation provide invaluable archaeological data for the region.

4.2 Site Areas

For the purpose of this study only those 22 sites containing pottery will be considered. These sites have been grouped into several defined areas based on site clustering and localized topographic and environmental features (Figure 4.1). Area A is located along the crest of a high terrace that rises dramatically above the current western shoreline of Peter Pond Lake. Four sites were found in this locality. Area B lies approximately 5km to the northwest of Area A and includes two large pottery bearing sites located near the mouth of twin drainages referred to locally as Jean Marie Creek (a third pottery bearing site, HaOh-4, was recorded in this area but the materials could not be located at the time of analysis). Area C begins approximately 560m north of Jean Marie Creek. Six sites are situated in this locale at or near the south end of a long, wide sandy beach that extends for several kilometers north towards the La Loche River. Area D begins approximately 2.4km northeast of Area C. Three sites were identified within a broad, 100 to 150m wide hollow located between two high sand beach ridges stretching for almost 1km along the shore. Area E begins approximately 1km north of Area D where two sites were found within a second extended hollow. A high, broad beach ridge

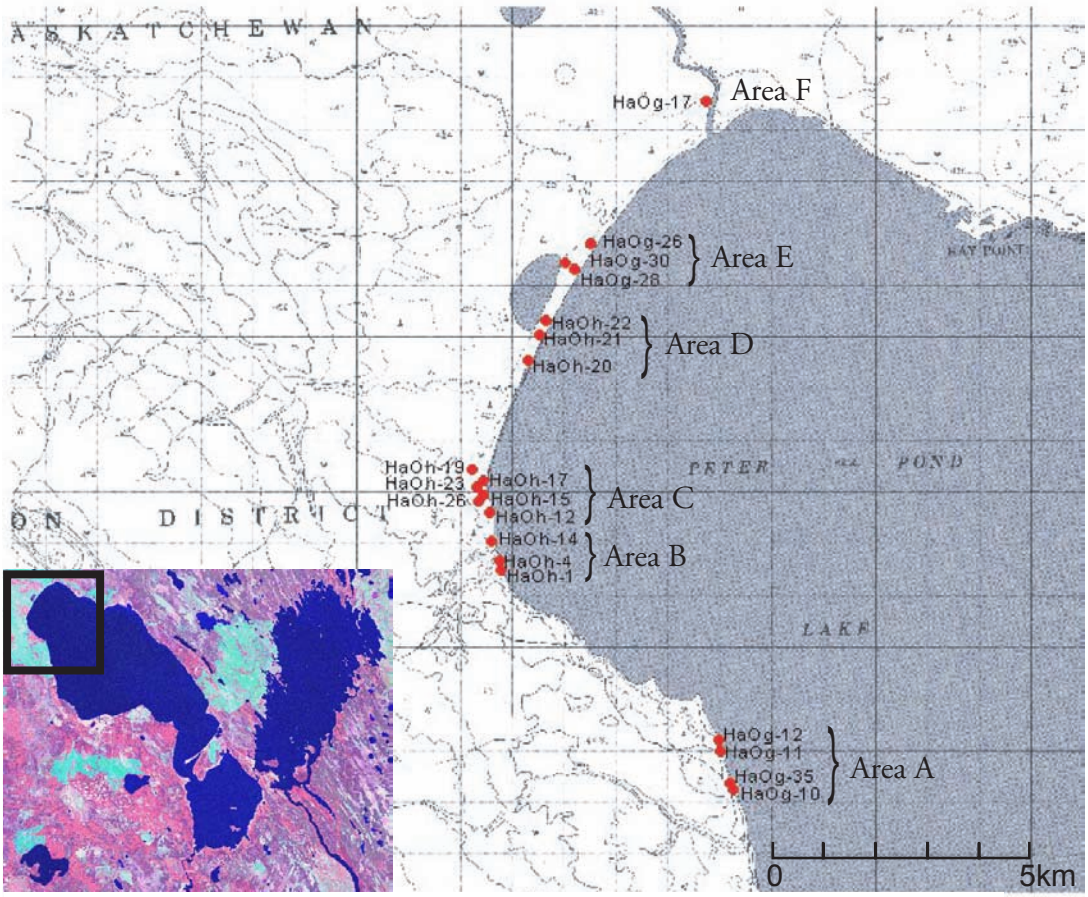


Figure 4.1: Pottery Bearing Sites located on Peter Pond Lake, Areas A-F (NTS Map 74C/3).

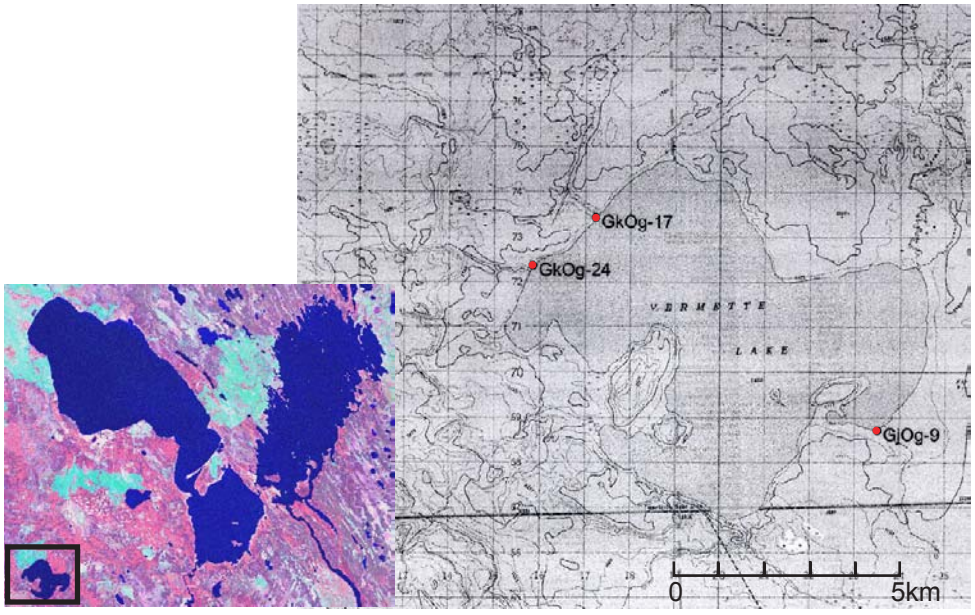


Figure 4.2: Pottery Bearing sites located on Vermette Lake, Area G (NTS Map 73N/11).

lies to the east bordering Peter Pond Lake, and irregular low ridges extend to the west. The hollow itself is 50m to 80m wide and stretches south and inland from the main beach ridge for about 1.2km. A third site is situated on a terrace above a small, inland lake further west.

Beyond Peter Pond Lake proper, Area F is found near the mouth of the La Loche River where it enters the north end of Peter Pond Lake. One pottery bearing site was found along this broad, shallow river that flows approximately 35 km south from La Loche Lake. Finally, Area G includes three sites on Vermette Lake located approximately 30 km southwest of the community of Dillon, and outside the major forest fire areas (Figure 4.2). It is connected to Peter Pond Lake via Vermette Creek and the Dillon River.

It should be noted that Area A was burnt only once during the most recent fires. As a result, subsurface exposures were generally poorer and were rapidly becoming overgrown with young alder bushes. The tree cover in this area consists primarily of poplar and white spruce within a sandy/silt loam matrix. In contrast, Areas B through E were subject to both the 1993 and 1998 fires resulting in excellent surface exposures. The vegetation for these more northerly areas consisted mainly of juvenile jack pine situated on very sandy soil with little ground vegetation.

The sites and ceramics will be discussed in the following chapter according to the above areas beginning with Area A on Peter Pond Lake, and progressing northward towards Area F on the La Loche River. The analysis will conclude with a discussion of pottery on Vermette Lake (Area G). Site descriptions were obtained from Saskatchewan Archaeological Resource Record forms provided by Western Heritage Services in lieu of a final report. Pottery vessels are classified according to wares and types previously defined in the region by Paquin (1995) and Millar (1983). The generic term "Narrows pottery" will be applied to ceramics exhibiting attributes consistent with Narrows assemblage or Narrows subphase vessels. The significant attributes are summarized for each classified group by site, with qualititative and quantitative data for individual vessels provided in Appendix A. A summary of lithic tool recoveries from each site can be found in Appendix B.

4.2.1 Area A

4.2.1.1 HaOg-10 (Peter Pond 00-16)

HaOg-10 is the most southern site located in Area A. It is situated on the crest of a steep embankment along the west shore of Peter Pond Lake, and immediately south of a shallow draw. Subsurface exposures were sporadic due to inconsistent burning of the subsoil, and subsequent herbaceous plant revegetation. Regardless, HaOg-10 is one of the most prolific sites in the study area with artifacts observed in an area approximately 120m long by 50m wide.

In addition to scattered debitage and fire cracked rock (fcr) observed on the surface, lithic recoveries included two small side-notched points, a point preform, two pecking stones and one whetstone (see Appendix B). Four hundred and eighty-five pottery sherds were collected from concentrations within the central area of the site. Rim sherds and reconstructions indicate at least 28 distinct vessels were present. The site is dominated by Winnipeg Fabric-impressed ware with the assemblage consisting of Kisis Angle Rim, Clearwater Lake Punctate, and Francois Punctate type vessels. Two small rim sherds are identified as Narrows pottery. It should be noted that several sherds refit from provenience points greater than ten meters apart indicating the site was subject to post depositional disturbance. However, many discrete concentrations were still intact, allowing for successful association of vessel sherds.

Kisis Angle Rim Type (n=16)

A total of sixteen Kisis Angle Rim vessels are identified at HaOg-10, represented by lone rim sherds and partial reconstructions. This type is discussed here in two groups, and includes 12 full sized vessels and four potentially miniature vessels. Attributes of the full sized vessels are described first (Figures 4.3a to 4.3d). The exterior surface of this pottery group is impressed with an amorphous textile impression typical of a twined weave. The finish varies from lightly smoothed (Vessel 1) to heavily smoothed (Vessel 27). Also notable is the presence of biotite mica and feldspar on the exterior surface of vessels 1, 17 and 28. This is quite distinct from other vessels in the assemblage where temper is rarely visible on the exterior, and suggests purposeful

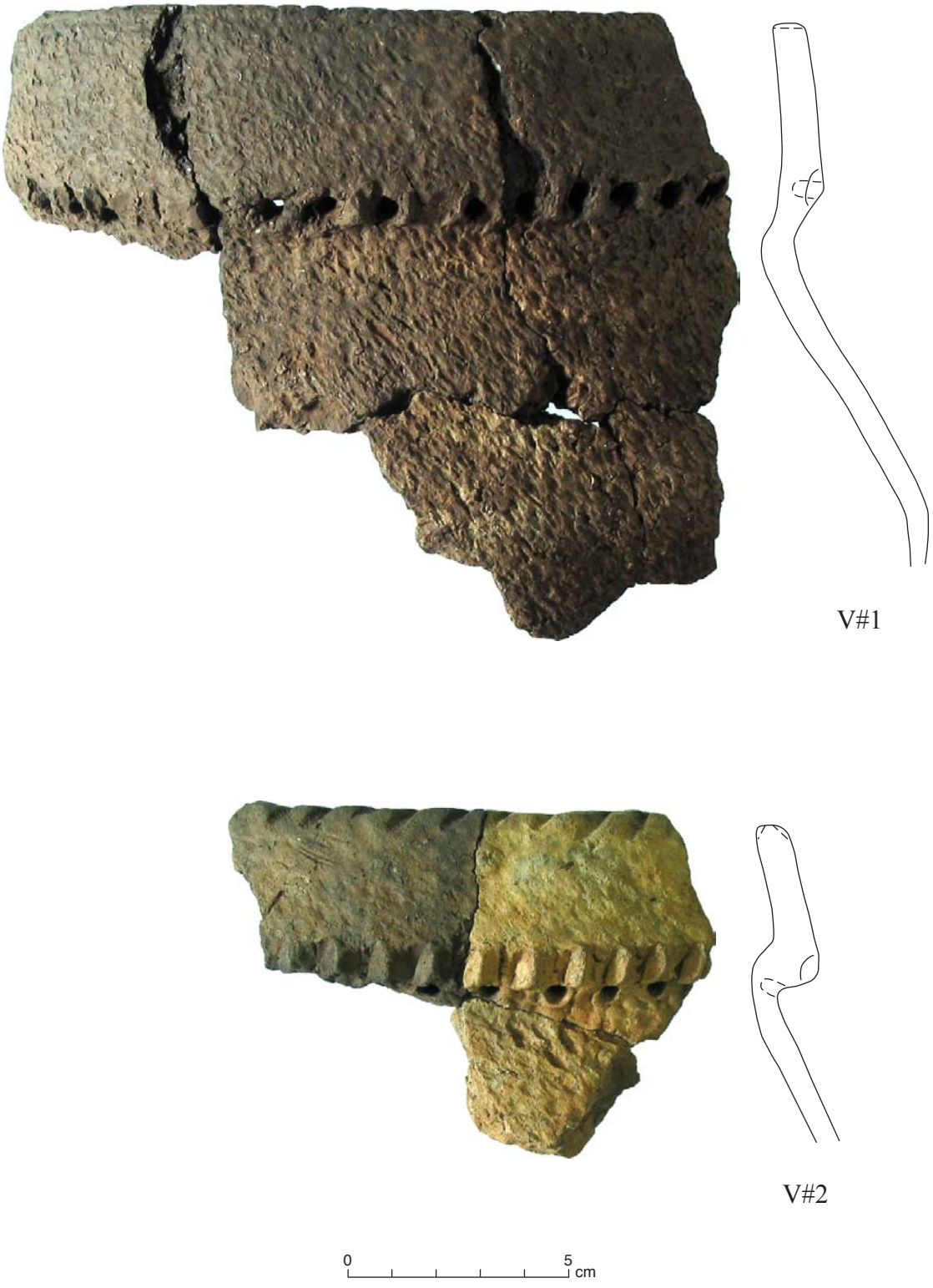


Figure 4.3a: Partially reconstructed Kisis Angled Rim vessels From HaOg-10 (Area A).

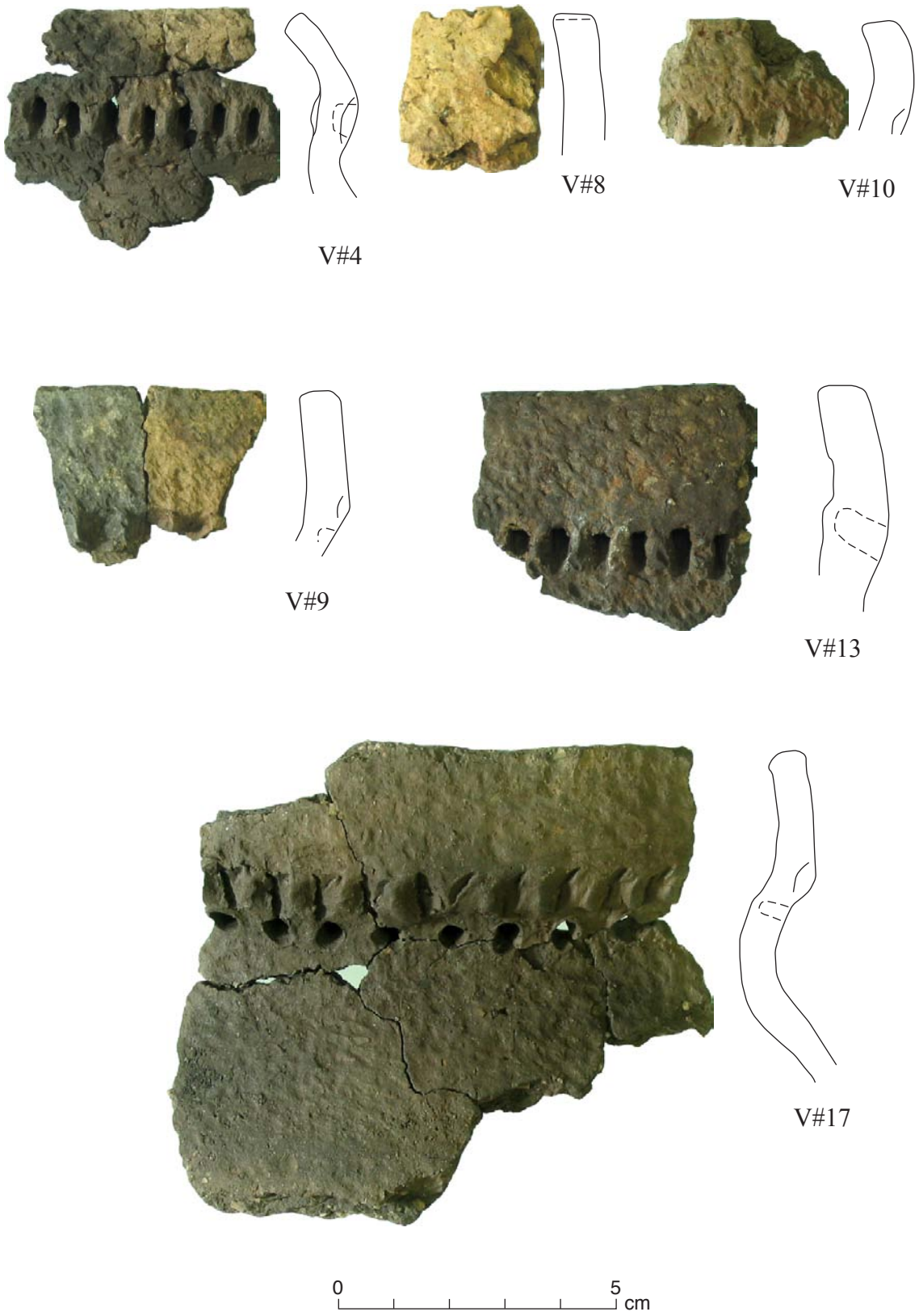


Figure 4.3b Kisis Angled Rim sherds from HaOg-10 (Area A).

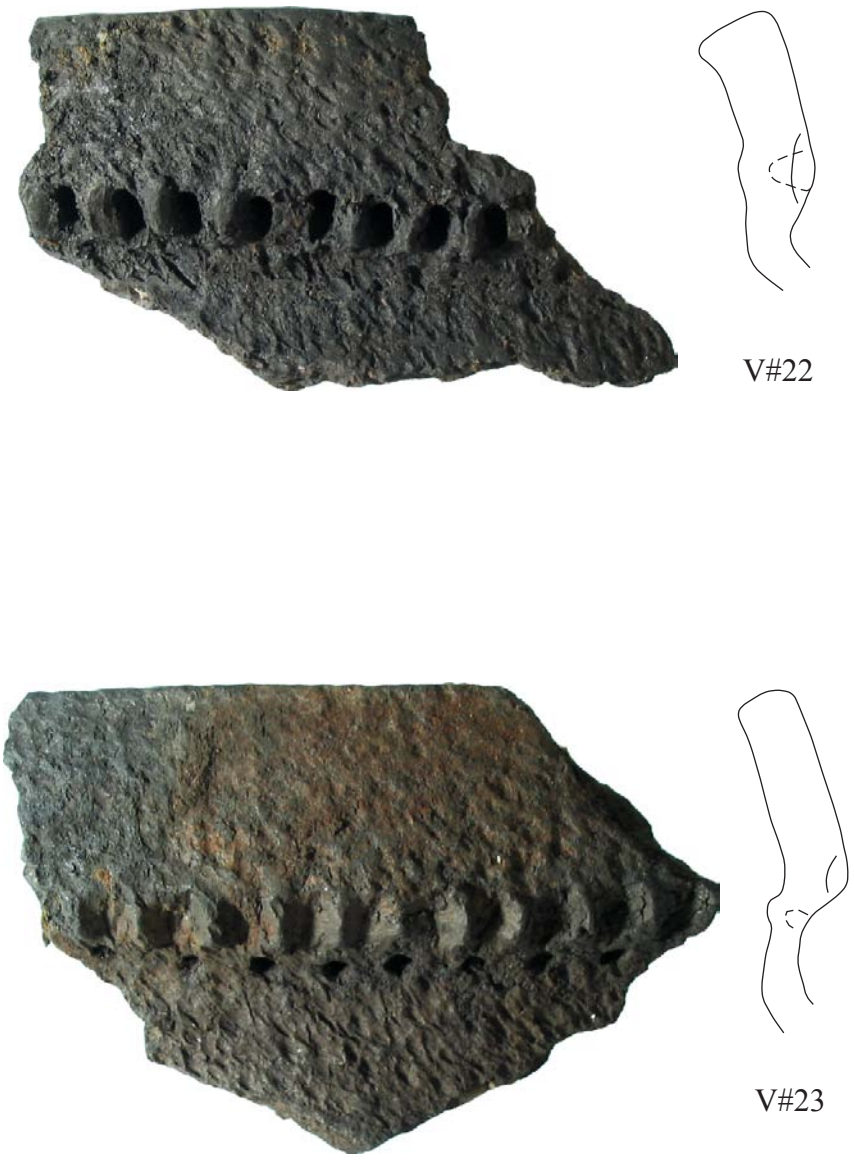


Figure 4.3c: Kisis Angled Rim sherds from HaOg-10 (Area A).

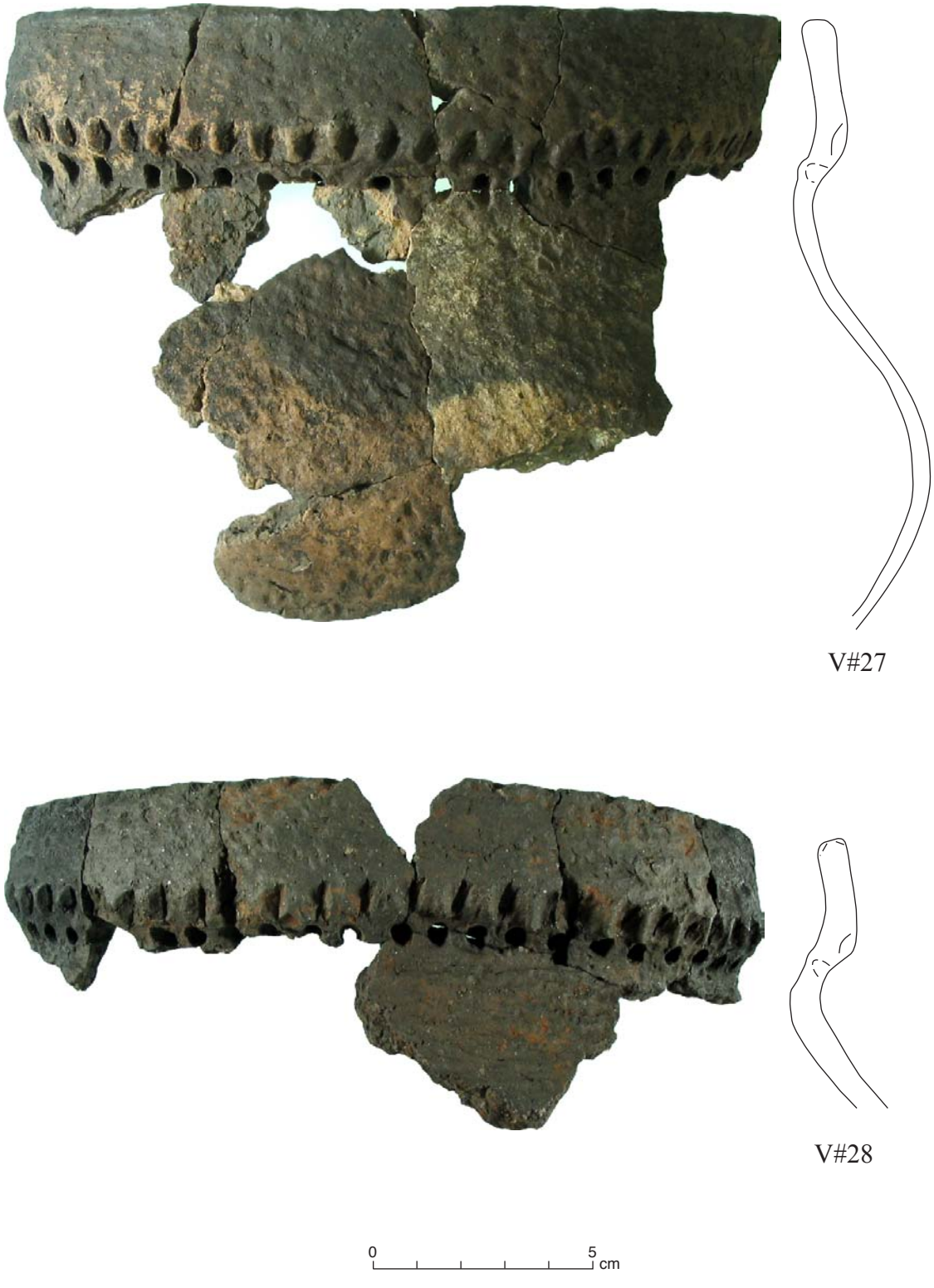


Figure 4.3d: Partially reconstructed Kisis Angled Rim vessels from HaOg-10 (Area A).

application. The effect gives the pots a sparkling appearance and may have served as decoration. The interior surface of 83% (10/12) of the vessels is heavily smoothed with horizontal wiping striations clearly visible.

The paste texture of all vessels is lamellar but generally well consolidated. Only two vessels are characterized as highly friable and prone to exfoliation. Angular grit temper occurs in all vessels and comprises various combinations of minerals found in granite including feldspar, quartz and biotite (2/12), feldspar and quartz (5/12), feldspar and biotite (2/12), and feldspar (3/12). Feldspar is the constant mineral in all vessels, suggesting it was purposefully selected. Particles medium to coarse in size occur in 75% (9/12) of the vessels, with temper amounts characterized as moderate (8/12), with heavy (1/12) and light (3/12) amounts also occurring. It should be noted that Vessel 27 exhibited a sandy paste in addition to grit temper, indicating that sand was either added or the clay source contained naturally occurring sand.

The rims of all vessels exhibit an angled profile with fairly consistent heights, averaging 28.8mm and ranging between 23mm to 38mm. All lip surfaces are flat reflecting smoothing of the brim, with lip profiles including square (5/12), sub square (1/12), inner expanding (3/12) and expanding (2/12). The upper portion of these vessels is typically thick with lips and rims averaging 8.2mm and 7.5mm respectively. The vessels exhibit marked neck constrictions immediately below the rim angle, with neck junctures averaging 8.3mm thick. Reconstruction to the shoulder was possible in only three instances with profiles consisting of sharply rounded and rounded forms averaging 8mm thick. Upper body sherds appear to thin away from the shoulder with thickness measurements averaging 6.3mm. Orifice diameters were calculated for three vessels and are quite large, ranging between 186mm and 233mm. Carbon residue is present on the interior or exterior of seven vessels, suggesting use as cooking pots. Vessel 10 is notable for the very faint red ochre wash present on both the exterior and interior surfaces.

Decoration is typical of Kisis Angle Rim vessels consisting of finger pinching, punctates and cord-wrapped tool impressions (CWTI), occurring in two varieties previously identified by Paquin (1995). The first variety includes vessels exhibiting a row of alternating finger pinch and punctate impressions on the rim angle (4/12). Vessel

1 is additionally notable because it has CWTI extending across the lip surface and an occasional punctate missing between pinches. The second variety consists of a row of finger pinches on the rim angle with a row of punctates occurring immediately below on the neck juncture (6/12). Vessels 2 and 28 exhibit additional CWTI placed on the outer and inner lip corners. The remaining two Kisis Angle Rim vessels are represented by rim sherds that are broken above the rim angle, and cannot be assigned to a specific variety. However, Vessel 10 does exhibit finger pinches approximately 17mm below the lip, and Vessel 8 has CWTI across the lip surface. Punctate shape in most vessels is typically round with diameters averaging 4.2mm, although Vessels 4 and 13 exhibit oblong impressions approximately 2mm wide by 7.5mm long. Corresponding interior bosses are present in most vessels ranging from slight to pronounced.

Four miniature Kisis Angle Rim type vessels are represented by Vessels 6, 7, 11 and 20 (Figure 4.3e). The exterior surface and paste of this sample is the same as the full size vessels, however there is a noticeable difference in metric attributes. The angled rims are very short, measuring between 15.5mm and 17.9mm in height, with lips 3.9mm to 5.2mm thick. Orifice diameters were measurable only in Vessels 6 and 20 and are quite small, estimated at 114mm and 102mm respectively. Decoration consists of a row of small fingernail pinches on the rim angle with no punctates in two instances, and a row of punctates below fingernail pinches in two instances. Punctate diameter averages 3.3mm. Vessel 7 exhibits additional decoration just below the lip in the form of a cluster of small poke marks less than 1mm in diameter. Vessel 11 has traces of red ochre staining on the exterior surface of the rim and two associated body sherds.

Clearwater Lake Punctate Type (n=6)

A total of six Clearwater Lake Punctate Type vessels were identified from this assemblage, as represented by distinct rim sherds (Figure 4.4). The exterior surfaces bear smoothed, amorphous textile impressions, while the interiors exhibit predominantly wiped surfaces (5/6) with one smoothed example. Paste texture is lamellar but well consolidated in all but Vessel 25 which is highly friable. Grit temper is common to all vessels, consisting of angular feldspar and quartz that is present in light to moderate amounts. Temper particles typically fall within the 1-3mm size range.

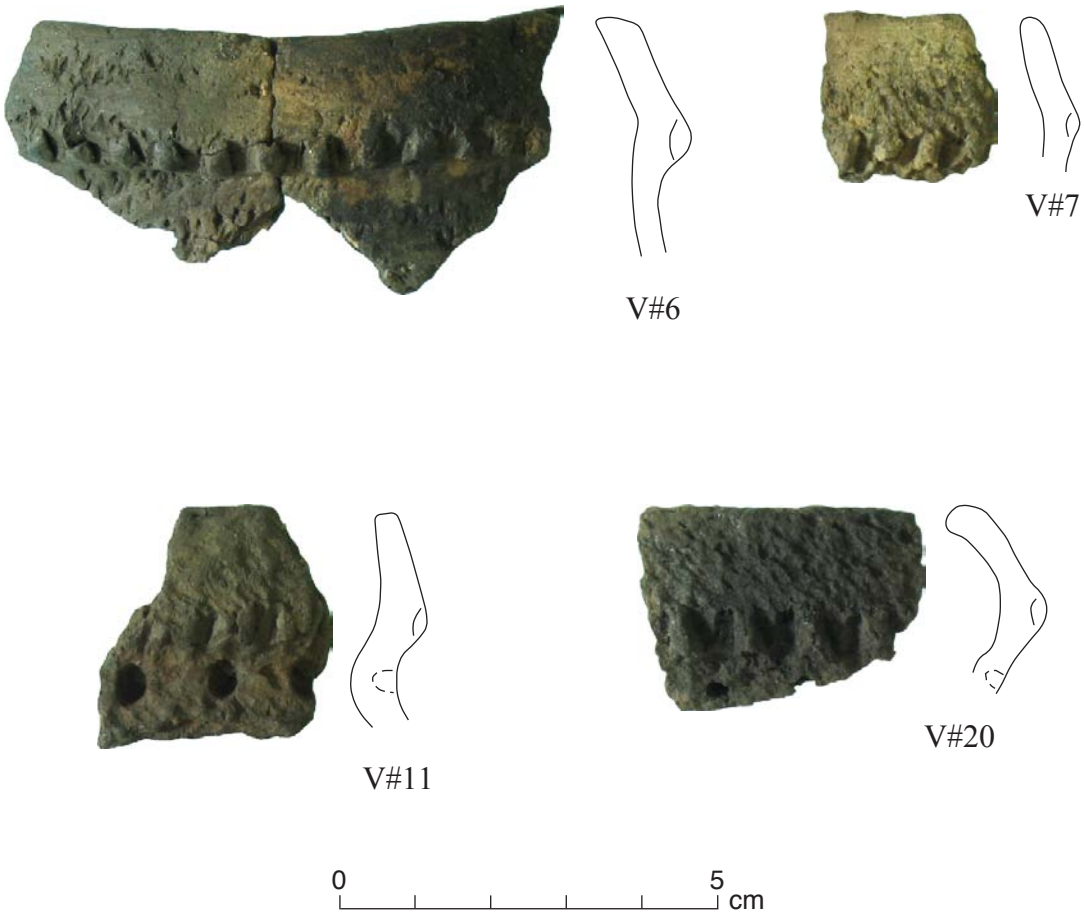


Figure 4.3e: Miniature Kisis Angled Rim sherds from HaOg-10 (Area A).

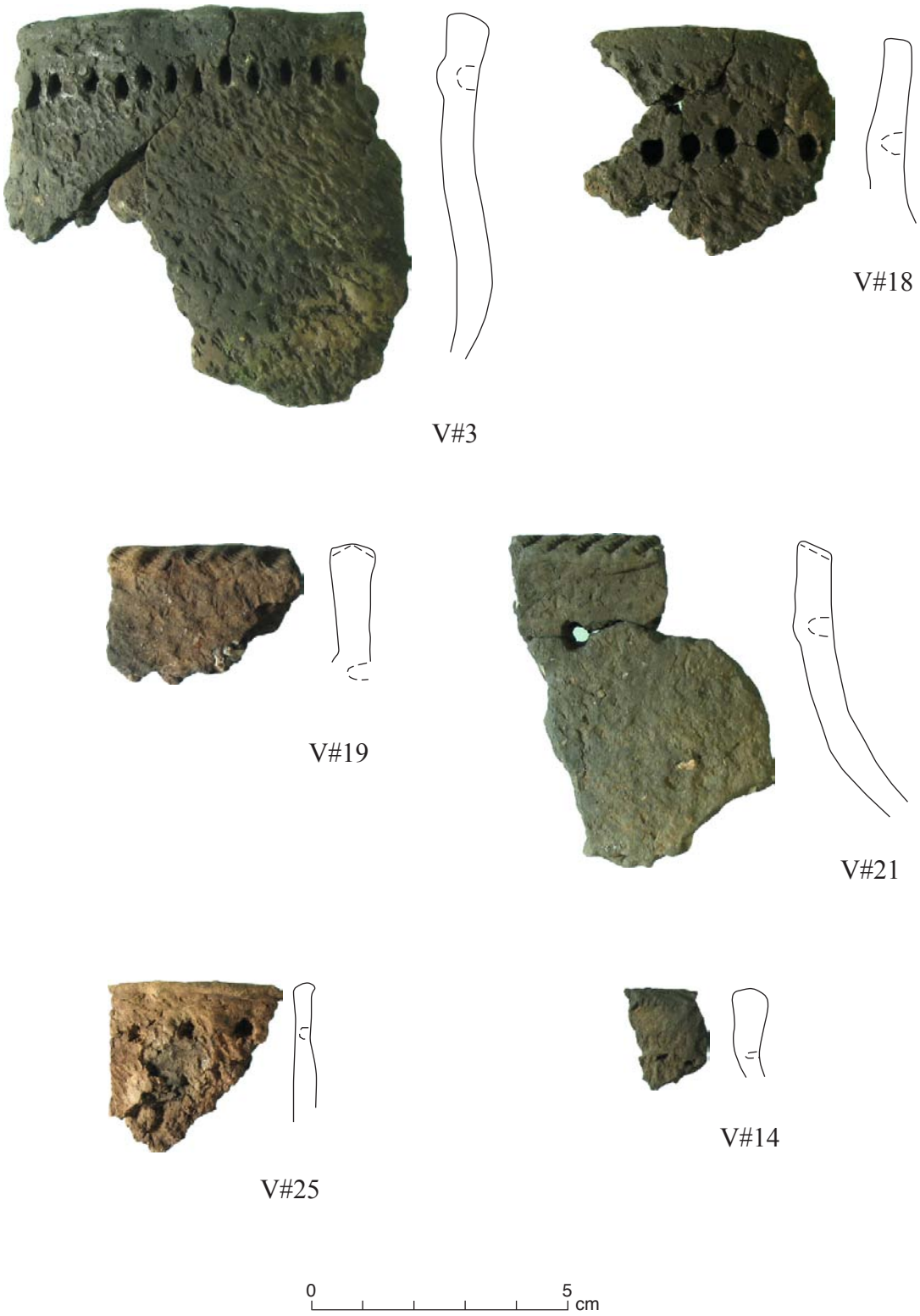


Figure 4.4: Clearwater Lake Punctate rim sherds from HaOg-10 (Area A).

Straight rim profiles are the most common, occurring in four vessels, with two excurvate forms also represented. Rim height is generally short, ranging from 11.9mm to 22mm. Lip profiles are varied and include expanding (3/6), outer expanding (1/6), square (1/6) and exterior bevel (1/6). Lip thickness averages 6.8mm and ranges from a very thin 4.9mm in Vessel 25 to 8.3mm in Vessel 19. Gentle neck constrictions are evident in two rim sherds, with Vessel 3 exhibiting an almost imperceptible neck constriction that flows out towards a gently rounded shoulder.

A single row of exterior punctates is found on the rim of all vessels. Punctate shape is typically round with diameters ranging from less than 2 mm and spaced 3.5 mm apart (Vessel 14), to approximately 5 mm in diameter and spaced 12.77 mm apart (Vessel 21). Vessel 3 exhibits elongate punctates measuring 4mm long by 2mm wide. Corresponding interior bosses are present on all rim sherds. Decoration is found on the lip surface of only two vessels and consists of CWTI on the inner and outer lip corner of Vessel 19 and across the lip surface of Vessel 21. These impressions are approximately 3.5mm wide and spaced the same distance apart. Once again the cord wrapped around the tool is quite thin measuring about 1mm wide. One tool has cords tightly wrapped around it while the other exhibits a space between each wrap creating a slightly different impression.

Carbon residue was visible only on the interior on Vessel 3, suggesting use as a cooking pot. The orifice diameter of this vessel is estimated to be approximately 132mm. The diminutive punctate decoration and short rim of Vessel 14 may suggest it is a miniature vessel.

Francois Punctate (n=1)

Vessel Five represents the only positively identified Francois Punctate type vessel from this site (Figure 4.5, V#5). This was possible due to extensive reconstruction from the lip through to the base. The overall dimensions of this vessel are quite small suggesting it is a miniature pot. Orifice diameter measures only 80mm and the overall vessel height is approximately 90mm. The straight rim is 13mm tall with a lip thickness of 4.7mm, while the shoulder has a sharply angled profile measuring approximately 120^{o}. The wall thickness of the body measures only 4mm, but thickens dramatically

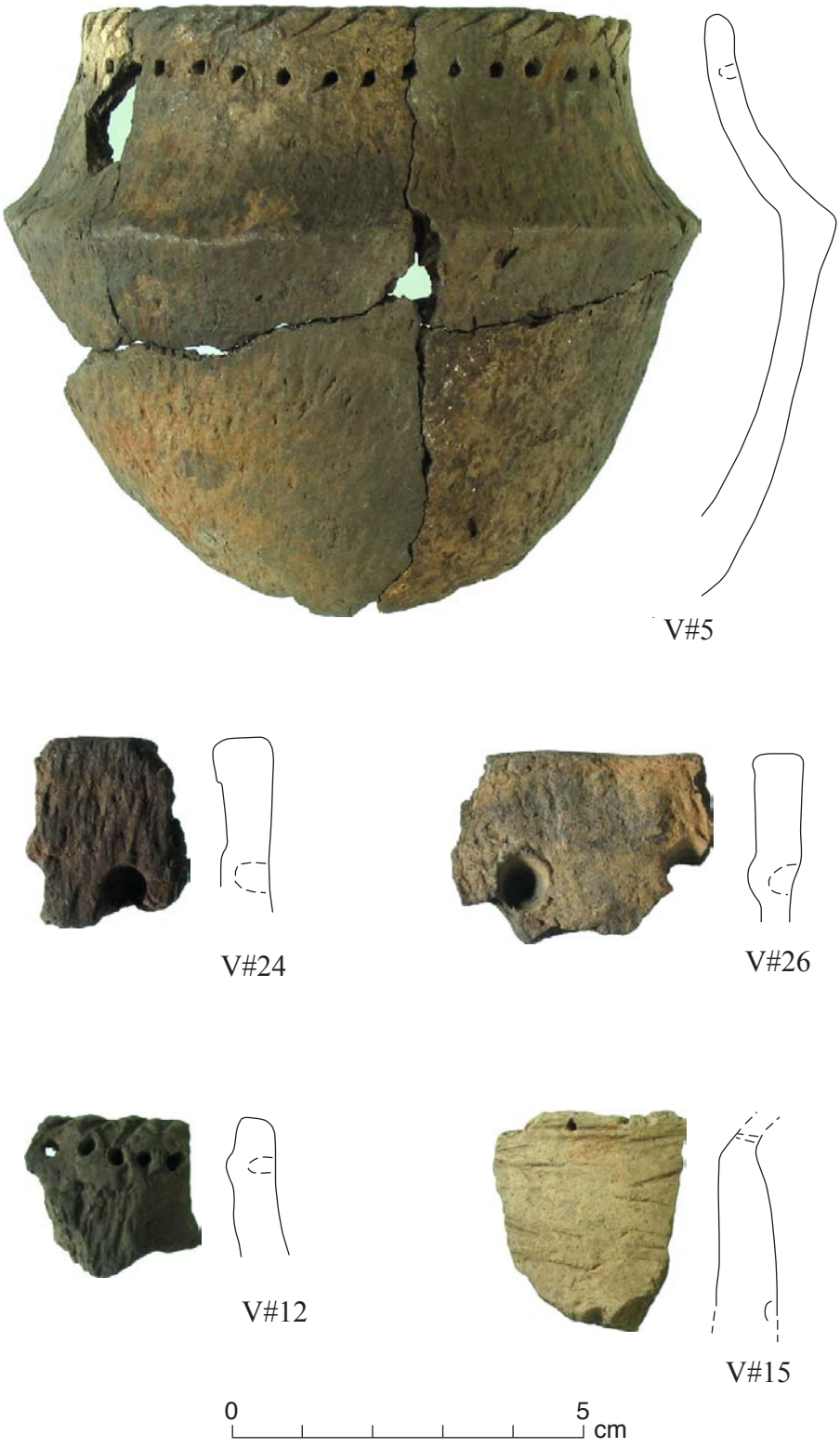


Figure 4.5: Francois Punctate Vessel (V#5); Narrows pottery rim sherds (V#24, 26); Narrows/Selkirk Syncretic rim sherd (V#12); Unclassified neck sherd (V#15) from HaOg-10 (Area A).

towards the base where it is 9.2mm. The exterior surface is impressed with a heavily smoothed and almost obliterated textile, and the paste is compact containing light amounts of grit temper. Decoration consists of narrow, sharp edge tool impressions (possibly a fingernail) on the inner and outer lip corners. A row of small, round punctates with a diameter of less than 2mm encircle the exterior of the rim, while corresponding bosses are present on the interior surface.

Nine additional angled shoulder sherds were identified from the site, representing at least four different vessels. The paste and exterior surface finish are typical of Winnipeg Fabric-impressed ware and suggest the presence of more Francois Punctate type vessels. Shoulder apex thickness ranges from 5.6 mm to 12.7 mm with relatively sharp angles ranging from 97^{o} to 100^{o} . Additional vessel identifications have not been made based on these shoulder sherds alone, however, because it is equally possible they relate to Kisis Angled Rim or Clearwater Lake Punctate type vessels already identified by rim sherds.

Narrows Pottery Vessels (n=2)

Two Narrows pottery vessels have been identified at this site based on the characteristics of two rim and associated body and neck sherds (Figure 4.5, V#24, 26). The exterior surface of these vessels is impressed with a distinctly vertically oriented sprang textile. Although the paste of Vessel 24 contains light amounts of grit temper, Vessel 26 exhibits natural, unsorted temper of fine sand and coarse rounded pebbles. The surface and paste characteristics of these vessels are not typical of Winnipeg Fabric-impressed ware which dominate the site. In addition, the interior surface of both rim sherds is smooth but lacks horizontal wiping striations that are typical of Selkirk vessels. The lips are also thick, measuring between 7mm and 8.7mm, and exhibit inner expanding and square profiles. The seemingly straight rims are decorated with round punctates with corresponding bosses on the interior surface.

Narrows/Selkirk Syncretic (n=1)

Vessel 12 is represented by one lone rim sherd that exhibits attributes common to both pottery traditions found in the region (Figure 4.5, V#12). The exterior surface is

impressed with a sprang fabric with no evidence of grit temper in the paste, which is typical of Narrows pottery. However, decoration consists of a row of small punctates on the rim exterior and sharp edge tool impressions on the outer lip corner. The latter attributes share remarkable similarities with the Francois Punctate vessel also identified from this assemblage. Due to this mixing of attributes it is classified as a syncretic Narrows/Selkirk vessel. The diminutive punctate decoration (with a diameter of only 2 mm) suggests it is also a miniature vessel, although the lip is thick, measuring 5.3 mm.

Unclassified and Indeterminate (n=2)

Two vessels could not be classified in this sample. Vessel 16 is represented by a small, exteriorly exfoliated rim sherd without sufficient attributes to allow a designation. Vessel 15 is represented by what appears to be a neck juncture sherd extending either towards a rim or shoulder (Figure 4.5, V#15). The exterior is completely smooth and bears no textile impression. Short, horizontal lines on the surface may represent wiping or brushing striations. The paste is compact with no signs of layering and completely lacks temper. A horizontal row of tiny poke holes just over 1mm in diameter is present at the neck juncture, and what appears to be the top portion of a fingernail pinch is present at the opposite end of the sherd. The neck juncture is quite thin measuring approximately 5.2mm thick, while just above the fingernail pinch the sherd measures 10.1mm thick. Although elements of the decoration are reminiscent of Kisis Angle Rim vessels, including punctate impressions at the rim juncture and fingernail pinches, the general morphology of the sherd and especially the exterior surface and paste is quite unusual for Winnipeg Fabric-impressed ware. It is possible this sherd also represents a miniature vessel.

4.2.1.2 HaOg-35 (Peter Pond 01-28)

HaOg-35 is located on a broad, level expanse of land immediately north of the shallow draw that borders HaOg-10. It lies between a bush road to the west, the crest of the steep embankment bordering Peter Pond Lake to the east, and another shallow draw to the north. Subsurface visibility was excellent due to extensive burning of the

vegetation. Artifacts were observed in an area approximately 100m by 100m, with the densest concentration bordering the north side of the southernmost draw.

Debitage and fcr were observed on the surface; however, only two lithic tools were recovered including an ovoid biface and an end/side scraper (see Appendix B). Pottery was also limited consisting of only 15 pottery sherds representing four vessels. Unlike the rest of the Area D sites, no Kisis Angled Rim vessels were found at HaOg-35, and all sherds have been classified as Narrows pottery. The vessels are represented by rim portions and one partial rim to shoulder reconstruction.

Narrows Pottery (n=4)

The exterior surfaces of all four vessels bear a vertical textile impression typical of a sprang weave (Figures 4.6a and 4.6b). This impression extends onto the lip surface of three pots. The interior surface of two vessels is plain and smooth, while Vessel 2 exhibits light horizontal wiping striations. Carbon residue is present on the interior or exterior of three of the vessels, suggesting use as cooking pots.

The paste texture is somewhat variable as two vessels have compact, well-consolidated paste and the other two have layered paste. Natural temper of sand and rounded pebbles dominates, with temper size being quite variable ranging from fine to coarse. Vessel 4 (Figure 4.6b) is quite exceptional in that it contains both sand inclusions less than 1mm in size and large rounded pebbles ranging from 8.6mm to 12.58mm. This suggests that the clay was not sorted prior to use and these pebbles are natural inclusions. However, there are also two large fragments of degraded granite (both over 10mm) indicating purposeful addition of these inclusions. Interestingly, these large fragments were not processed or crushed into smaller pieces allowing for the selection of specific minerals such as feldspar. Vessel 3 also contains a void greater than 7mm in size that appears to be the cast of a round pebble inclusion. Conversely, vessel 2 is notable for its complete lack of temper. The paste of this vessel also lacks the gritty, sandy feel typical of many of the sherds from this site.

Rim profiles include straight (3/4) and excurvate (1/4) forms, while lip profiles consist of rounded (2/4), square (1/4) and expanding (1/4) forms, with average thickness ranging from 5.36 to 8.09mm. Reconstruction through to the shoulder was possible only

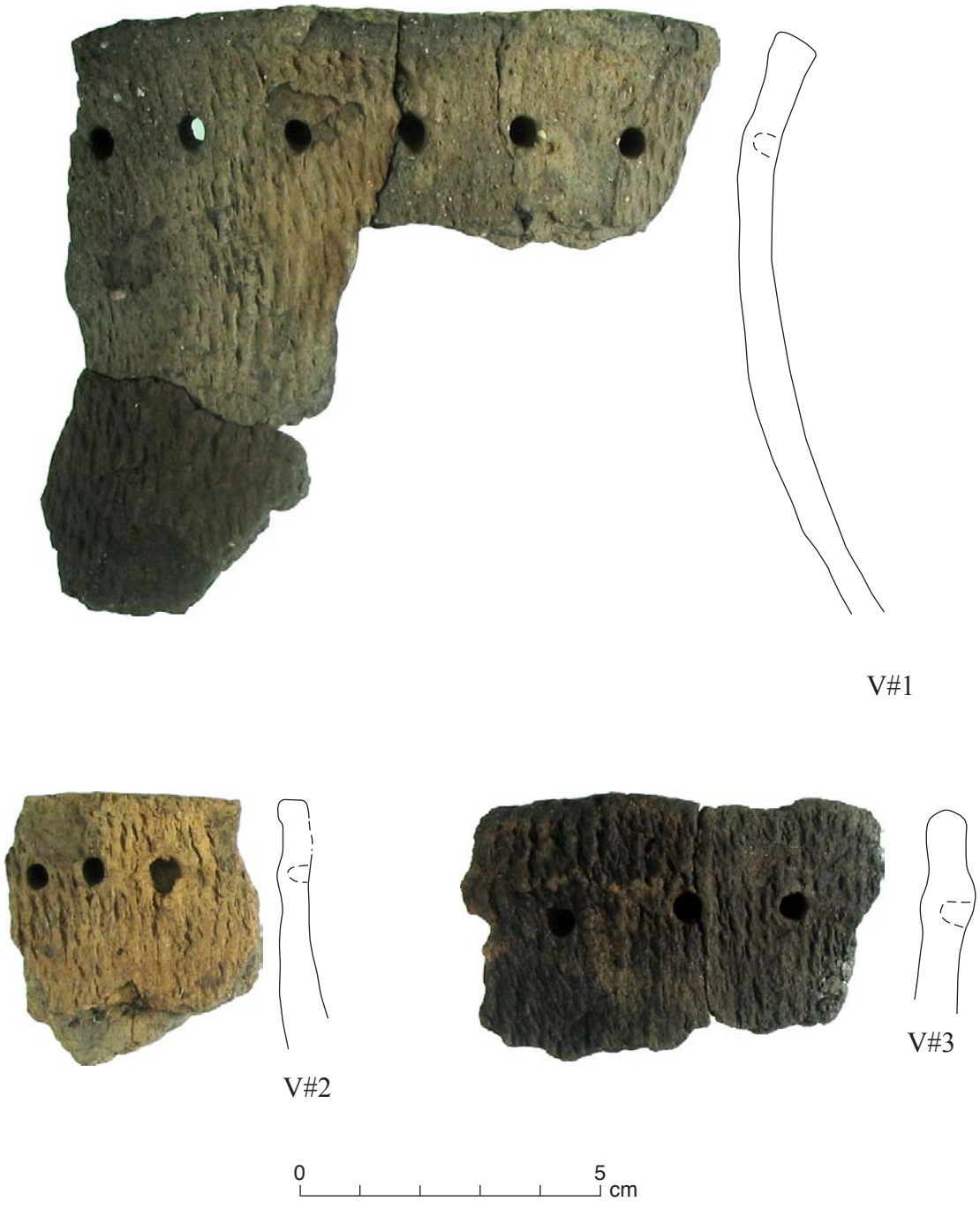


Figure 4.6a: Narrows pottery from HaOg-35 (Area A).

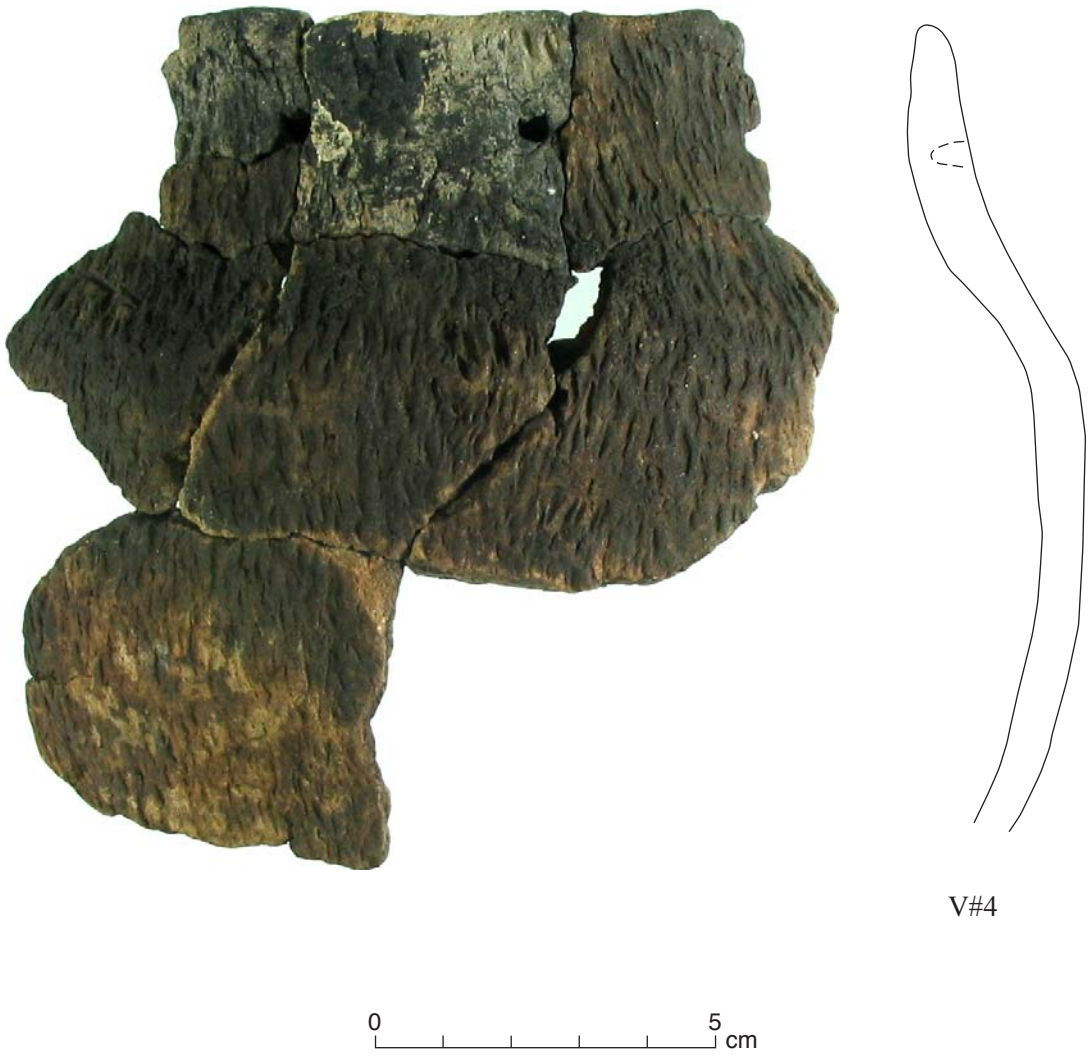


Figure 4.6b: Partially reconstructed Narrows vessel from HaOg-35 (Area A).

with Vessel 4, and it is characterized by a slightly constricted neck flowing out towards a rounded shoulder (Figure 4.7b). Wall thickness of this vessel is quite thick with the shoulder averaging 9.0mm and the body 8.71mm. Orifice diameters, where measurable, range from 95.6mm to 173.9mm.

Decoration on these vessels is limited to a single row of punctates on the rim exterior with corresponding interior bosses in three instances. Punctate diameters are consistent, with widths ranging between 4.64mm to 4.91mm. Round to ovate forms are the norm on Vessels 1 to 3, however, Vessel 4 exhibits semi-circular shaped punctates. As well, one of the three punctates on a rim sherd representing Vessel 2 was impressed with a separate notched tool exhibiting a wider diameter (Figure 4.7a). The result is a shallow impression with the notches creating an imperfect circular impression.

Generally speaking Vessels 3 and 4 appear to be crudely manufactured. The paste is generally porous and not well sorted with exceptionally large natural inclusions. The interior and exterior surfaces of these vessels undulate noticeably. This may be due to formation inside a mold such as a sprang bag, with the undulations created by finger impressions. There appears to have been no effort on the potter's part to smooth out these impressions or make the vessel wall thickness consistent. The lips of both vessels are also unfinished as the surfaces are left rounded. The rims are generally thick, measuring well over 8mm. These two vessels share such common traits that it may reflect production by the same potter. This contrasts with Vessel 1 where the temper inclusions are coarse, but under 4mm in size, and Vessel 2 where there is no temper at all. As well, more care was taken in finishing these vessels. This is evident in the treatment of the lip surfaces where they were purposefully flattened. The vessel wall surfaces do not undulate and are generally consistent in thickness. Vessel 2 is further finished by light wiping and smoothing of the interior surface.

4.2.1.3 HaOg-11 (Peter Pond 00-17)

HaOg-11 is located over 600m north of HaOg-35 along the steep crest of the west shore of Peter Pond Lake. It is immediately southeast of the junction of the "Low Road" leading to Poplar Point and a recently ploughed trail/fireguard. Surface visibility was generally poor due to incomplete forest fire burn and regrowth of vegetation.

Sparse material was found in a linear distribution about 150m long and 40m west of the steep crest. Two concentrations were observed about 55m apart, consisting of pottery, scattered debitage and fcr. Only the pottery was collected for analysis. A total of 82 pottery sherds were recovered from the site, representing two Kisis Angle Rim type vessels and one Narrows pottery vessel (Figure 4.7).

Kisis Angle Rim Type (n=2)

Two Kisis Angle Rim vessels were identified from separate sherd concentrations in proximity to each other. Vessel 2 is represented by two large rim sections and several shoulder and body sherds. The exterior bears an amorphous textile impression that has been heavily smoothed, while the interior is smooth with horizontal wiping striations visible. The paste is of uncharacteristically poor quality for Kisis Angled Rim vessels as it is highly friable and prone to exfoliation. The grit temper consists of a heavy amount of medium to coarse feldspar and quartz fragments ranging in size from 1mm to 8.61mm. The grit is readily visible in the paste, especially on the interior surface. The angled rim profile is 34.96mm in height, with a sub-rounded lip averaging 8.2mm thick. Decoration consists of a row of alternating punctates and fingernail pinches at the junction of the angled rim. Punctate diameter averages 5.3mm and they are placed approximately 5.97mm apart. There is no decoration on the lip. The associated shoulder sherds have a sharply rounded profile indicating a globular body form and average 9.19mm thick. Body sherds are slightly thinner averaging 8.01mm thick. The orifice diameter is estimated to be 156mm and carbon residue present on the exterior of rim sherds and several body sherds suggests use as a cooking pot.

Vessel 3 is generally a better quality pot than Vessel 2. The paste is compact and well consolidated and the walls are noticeably thinner. The exterior is impressed with an amorphous fabric impression that has been heavily smoothed and almost burnished. Decoration consists of a row of fingernail pinches at the rim angle, with a single row of widely spaced punctates immediately below. The lip surface is decorated with right oriented CWT impressions. What is most interesting about this vessel is that at least two rim sherds refit with a reconstructed vessel from a site over 200m to the north. This may be the result of a cataloguing error, or perhaps the relocation of artifacts

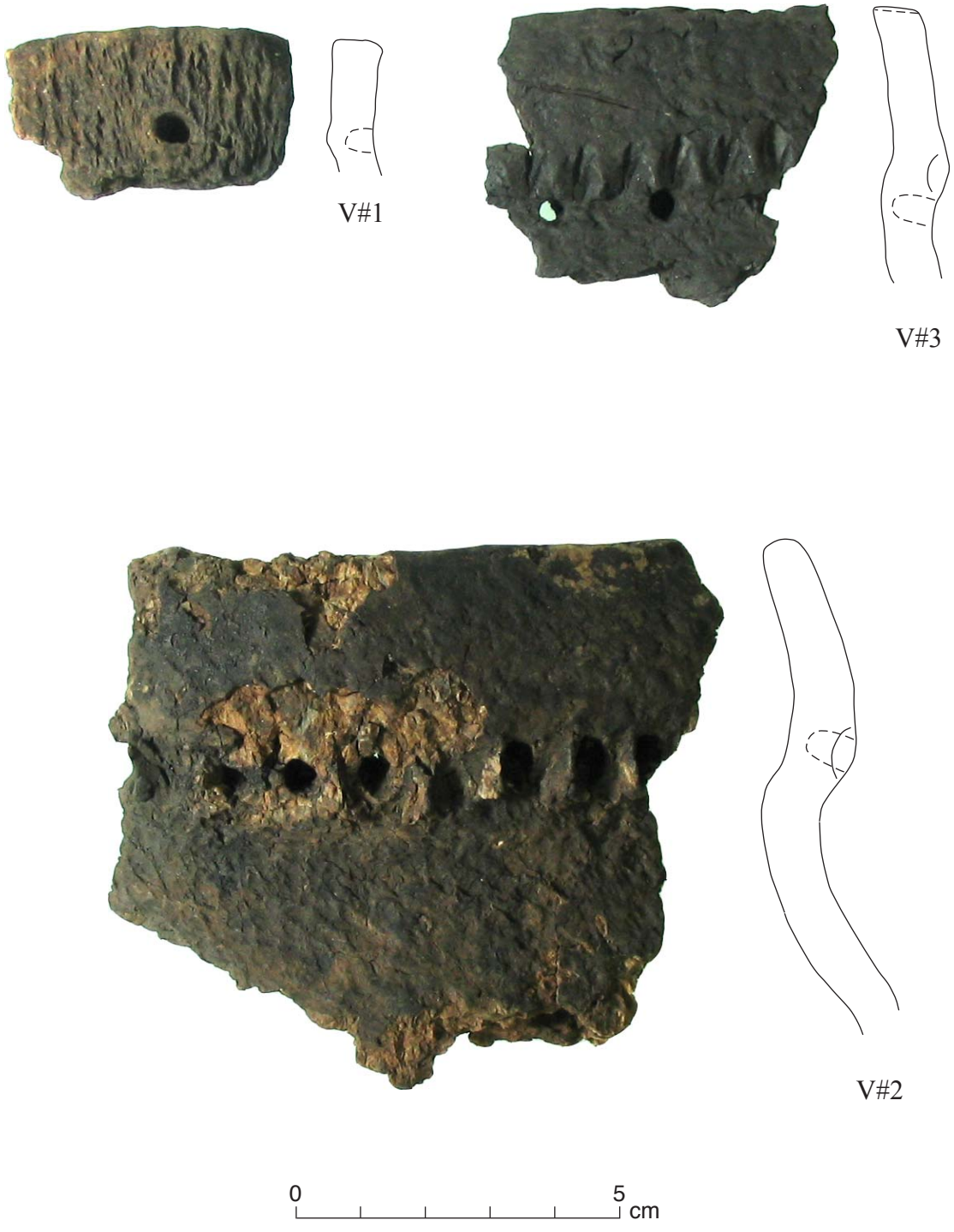


Figure 4.7: Narrows pottery rim sherd (V#1); Kisis Angled Rim Sherds (V#2, V#3) from HaOg-11 (Area A).

by collectors over large distances. The number of sherds (32) found at HaOg-11, however, suggest they are in situ. Precontact relocation of a broken vessel to another site should not be ruled out. A more detailed description of this vessel is provided in the discussion of ceramics from HaOg-12.

Narrows Pottery Vessel (n=1)

Vessel 1 bears a vertical sprang fabric impression and is represented by a sherd concentration containing three rim, one neck and three body sherds. The paste is lamellar with rounded sand particles ranging in size from less than 1mm to 3mm. The exterior is impressed with prominent vertical fabric impressions that extend onto the lip surface where they are lightly smoothed. The interior surface is smooth but not wiped. The small rim sherds exhibit a straight, short profile only 15.4mm in height, with a square lip profile measuring 7.05mm thick. The rounded neck sherd suggests a vessel profile with a slight neck constriction, while body sherds average 6.15mm thick. The lone decoration on this vessel consists of a single row of round punctates on the rim producing slight interior bosses. Only one punctate could be measured, exhibiting a diameter of 5.08mm, placed 13.45mmm below the lip.

4.2.1.4 HaOg-12 (Peter Pond 00-18)

HaOg-12 is located approximately 200m north of HaOg-11, along the steep embankment bordering the west shore of Peter Pond Lake, and adjacent to the "Low Road" leading to Poplar Point. Sparsely distributed artifacts were collected from an area approximately 130m long and extending 20m west of the crest of the embankment. Surface visibility was poor due to only sporadic burning. The site consisted of two artifact concentrations 85m apart and included pottery, one biface fragment and scattered fcr and debitage. A total of 179 pottery sherds were recovered representing at least three vessels (Figure 4.8). Both Kisis Angled Rim vessels and Narrows pottery were recognized.

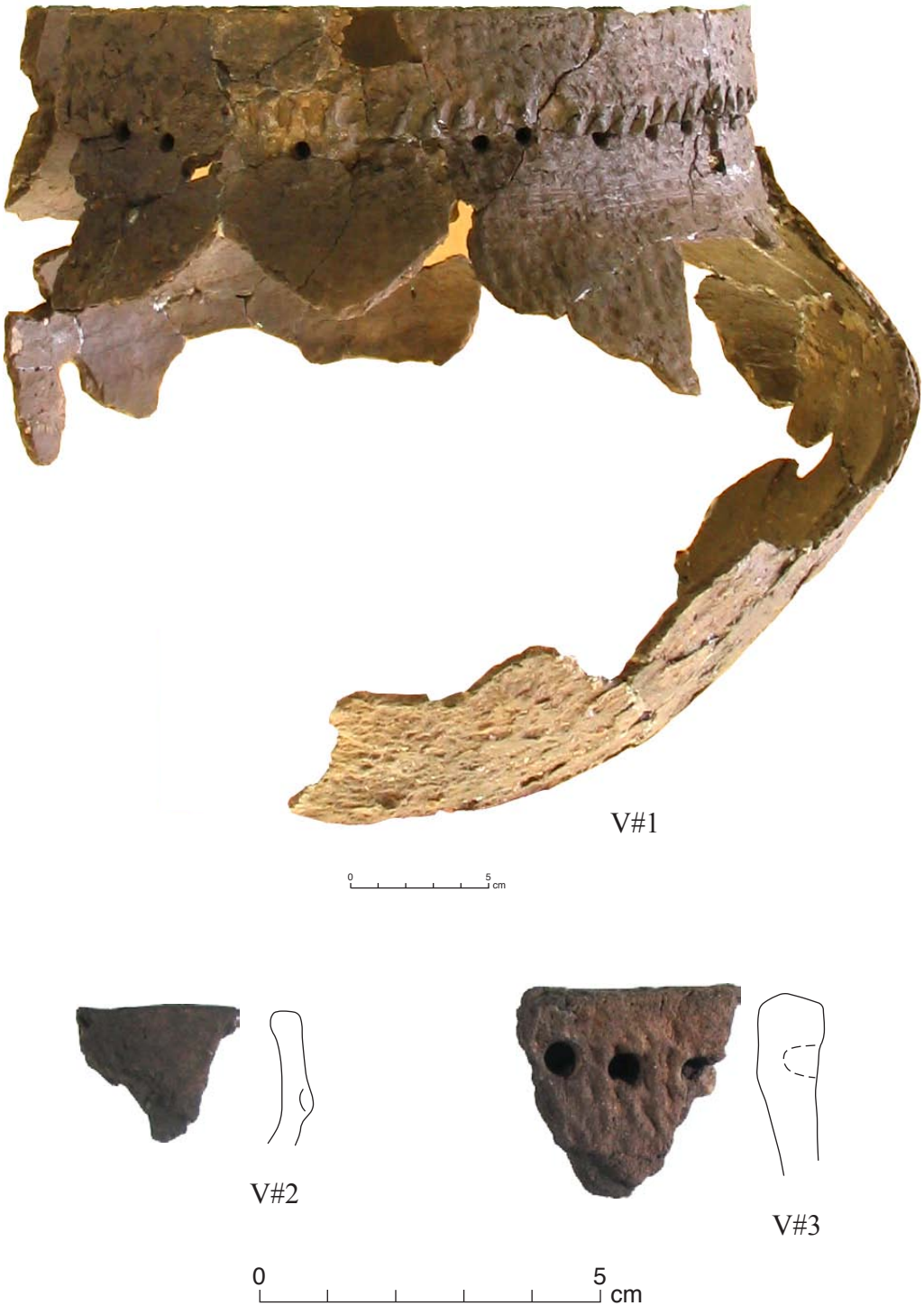


Figure 4.8: Partially reconstructed Kisis Angled Rim vessel (V#1); miniature Kisis Angled Rim sherd (#2); Narrows pottery rim sherd (V#3) from HaOg-12 (Area A).

Kisis Angle Rim Type (n=2)

Two distinct Kisis Angled Rim vessels were identified from this site. Vessel 1 is represented by 169 sherds, many of which refit to form a substantial reconstruction (Figure 4.8, V#1). Three quarters of the rim orifice is present as well as a profile from the rim through to the base in one section. Included in this reconstruction are at least two rim sherds from HaOg-11. The paste is lamellar and well consolidated near the rim; however, the body sherds are prone to exfoliate. Temper consists predominantly of medium-sized angular fragments of feldspar and quartz. The exterior is impressed with an amorphous fabric that has been heavily smoothed and almost burnished.

The angled rim measures 28.64mm tall, and exhibits a square lip profile approximately 7.3mm thick. Decoration consists of a row of fingernail pinches on the angled rim juncture, and a row of round punctates immediately below this. Punctates are spaced approximately 11.22mm apart, and their diameter averages 4.23mm. Most of the interior bosses have been flattened due to heavy smoothing of the interior, as evidenced by horizontal wiping striations. The lip surface is impressed with right oblique CWTI. The angle of this rim is more subtle than other similar vessels, with the profile enhanced by the fingernail pinching. The vessel is top heavy with the rim averaging 8.86mm in thickness and the body thinning dramatically, averaging only 4.05mm. The constricted neck flows out towards a sharply rounded shoulder producing a globular shape. The orifice diameter is quite large, measuring approximately 206mm.

In contrast to Vessel 1, the lone rim sherd representing Vessel 2 is considerably smaller and appears to be derived from a miniature vessel (Figure 4.9, V#2). The paste is laminated but well consolidated, with temper consisting of angular pieces of feldspar 1-3mm in size. The exterior is impressed with a heavily smoothed amorphous fabric, while the interior surface is smooth but not wiped. The lip exhibits an inner expanding profile due to the smoothing and flattening of the surface, and it is quite thin, averaging only 4.62mm. Although orifice diameter could not be calculated, the extreme curvature of the rim indicates it is quite small. There is a bulge about 11mm below the lip that appears to be the upper portion of a fingernail pinch decoration.

Narrows Pottery Vessel (n=1)

Vessel 3 is represented by one rim sherd and eight body sherds sharing similar paste and finish characteristics. The exterior is impressed with a coarse, vertically oriented sprang fabric that extends onto the lip surface where it is smoothed. The paste is lamellar but well consolidated. While there are a few angular fragments present in the paste (including one piece of quartz 4.7mm in size), they are very sparse and the paste is generally quite sandy. The rim profile expands noticeably towards the lip and averages 8.77mm thick. Decoration consists of a closely spaced, uneven row of round punctates with a diameter of 5.36mm and spaced 4.88mm apart. They are placed near the lip ranging anywhere from 5.8mm to 8.9mm below. These punctates produce only slight bosses on the interior surface which exhibits horizontal smoothing striations. Unfortunately the lack of neck and shoulder sherds does not allow for a description of vessel shape. Body sherds are relatively thick, however, averaging 7.7mm. Carbon residue on one body sherd suggests use as a cooking vessel.

4.2.2 Area B

4.2.2.1 HaOh-1 (Jean Marie 00-2)

HaOh-1 is located on the valley crest of the southernmost drainage of Jean Marie Creek. It is on a point of land lying between Peter Pond Lake and the mouth of the valley formed by the twin drainages. The site is over 100m south of the actual creek mouth and situated in dense jack pine. Recent fires were not as severe in this area, resulting in sporadic surface exposure and generally poorer visibility.

Despite the overgrowth, HaOh-1 was prolific, with cultural materials recovered from a small area approximately 30m long by 60m wide. Lithic tools included three small projectile points, two bifaces, a wedge, one end/sidescraper, and several chithos (see Appendix B). A total of 593 pottery sherds were also collected representing at least twelve vessels (Figure 4.9a to 4.9d) . Preservation of ceramics was excellent with large sherds allowing significant reconstruction of four vessels. The remaining vessels are represented by rim sherds, with a possible additional vessel represented by a shoulder to base reconstruction. Eleven of the vessels are classified as Narrows pottery while one is considered a syncretic Narrows-Selkirk vessel.

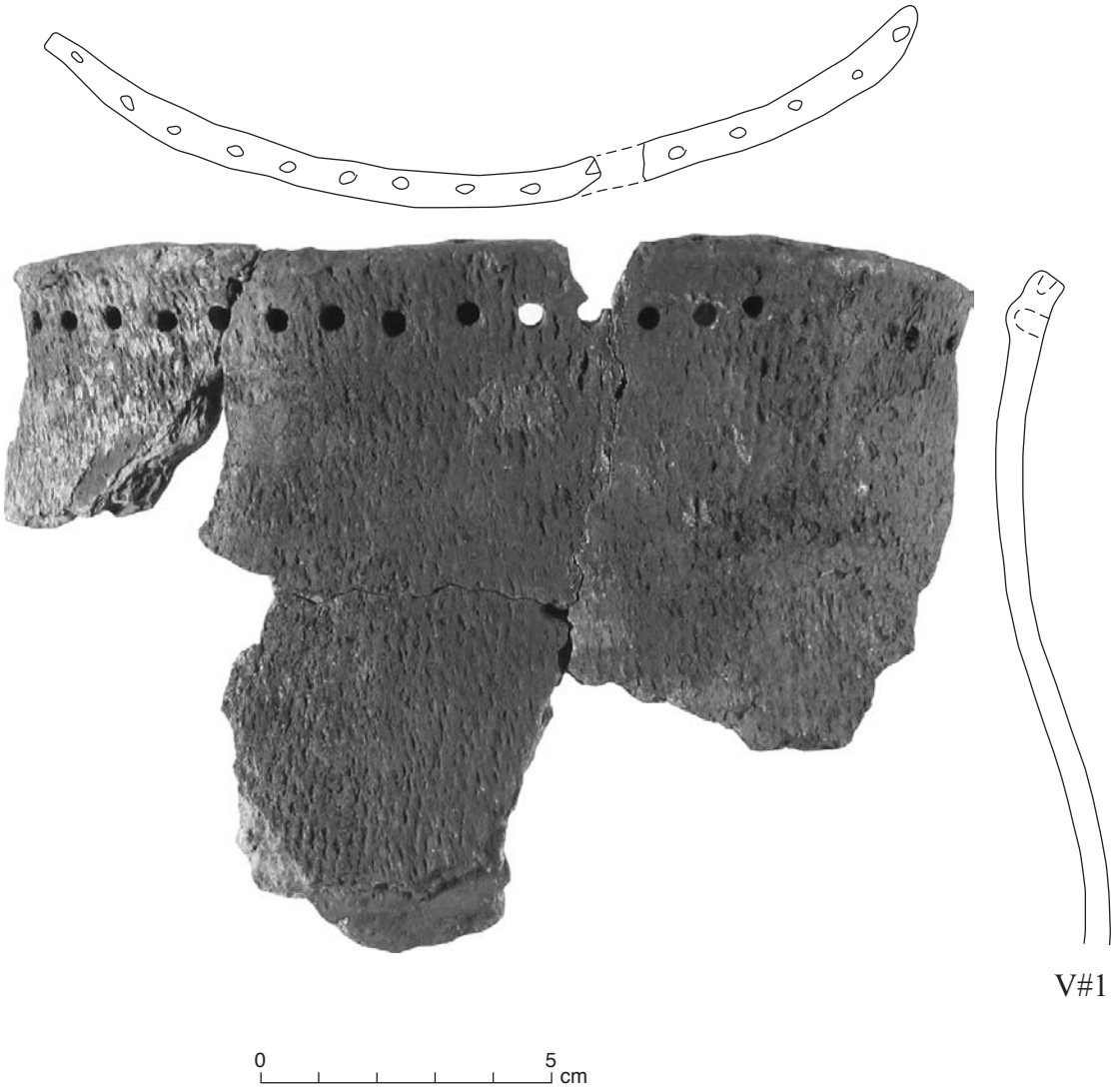


Figure 4.9a: Partially reconstructed Narrows pottery vessel from HaOh-1 (Area B).

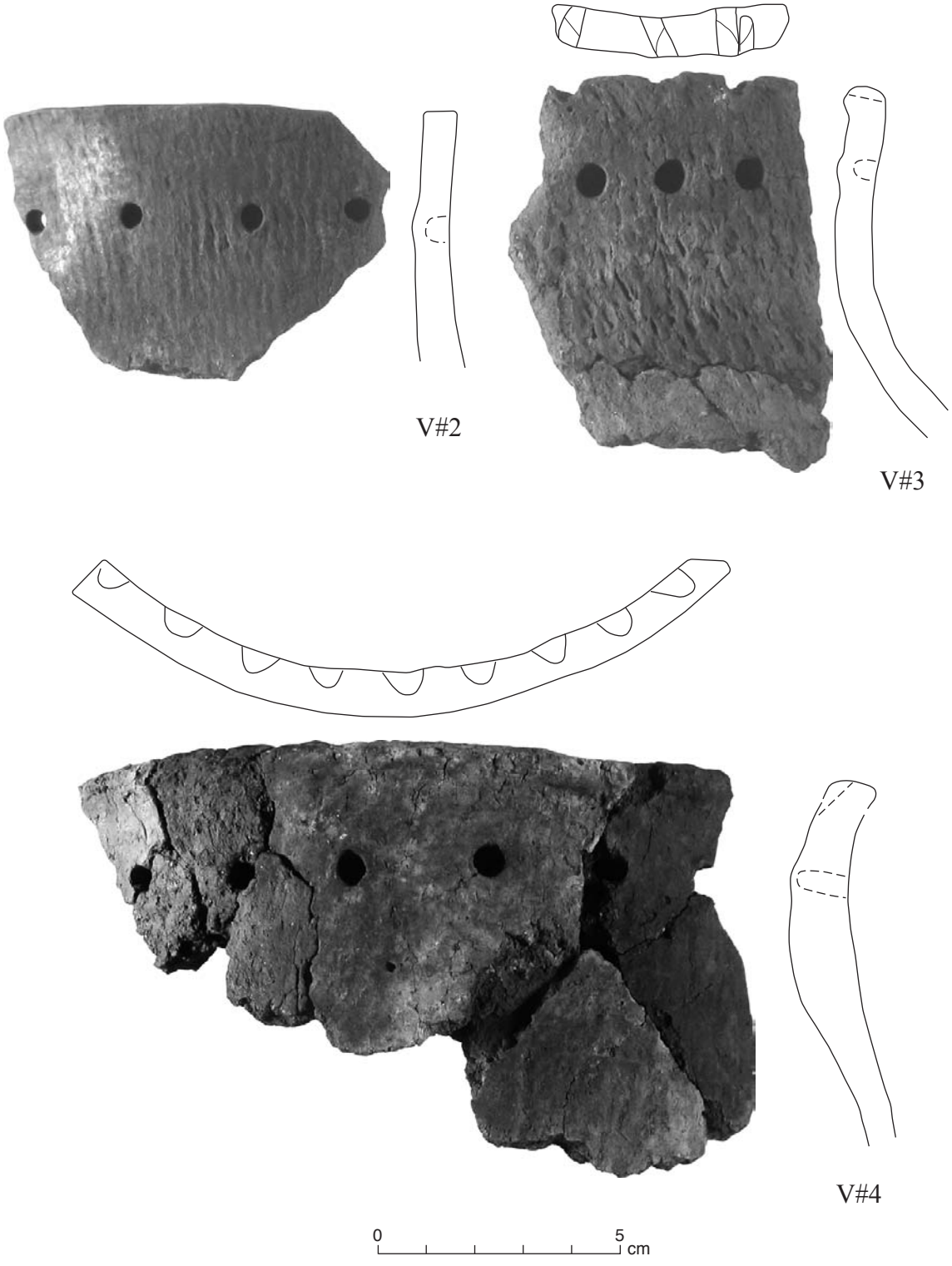


Figure 4.9b: Narrows pottery rim sherds (V#2, V#3); partially reconstructed
 Narro ws/Selkirk syncretic vessel (V#4) from HaOh-1 (Area B).

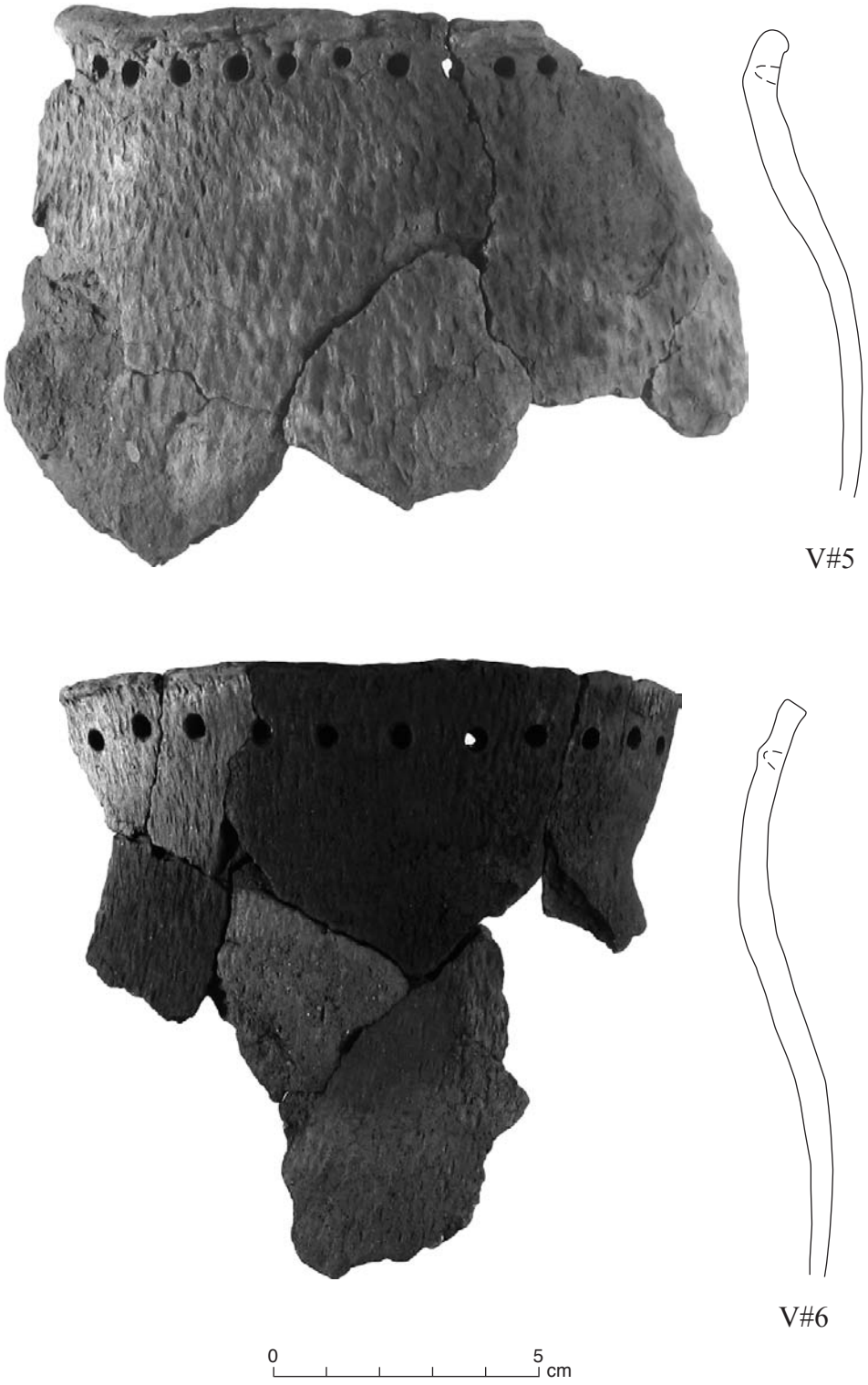


Figure 4.9c: Partially reconstructed Narrows pottery vessels from HaOh-1 (Area B).

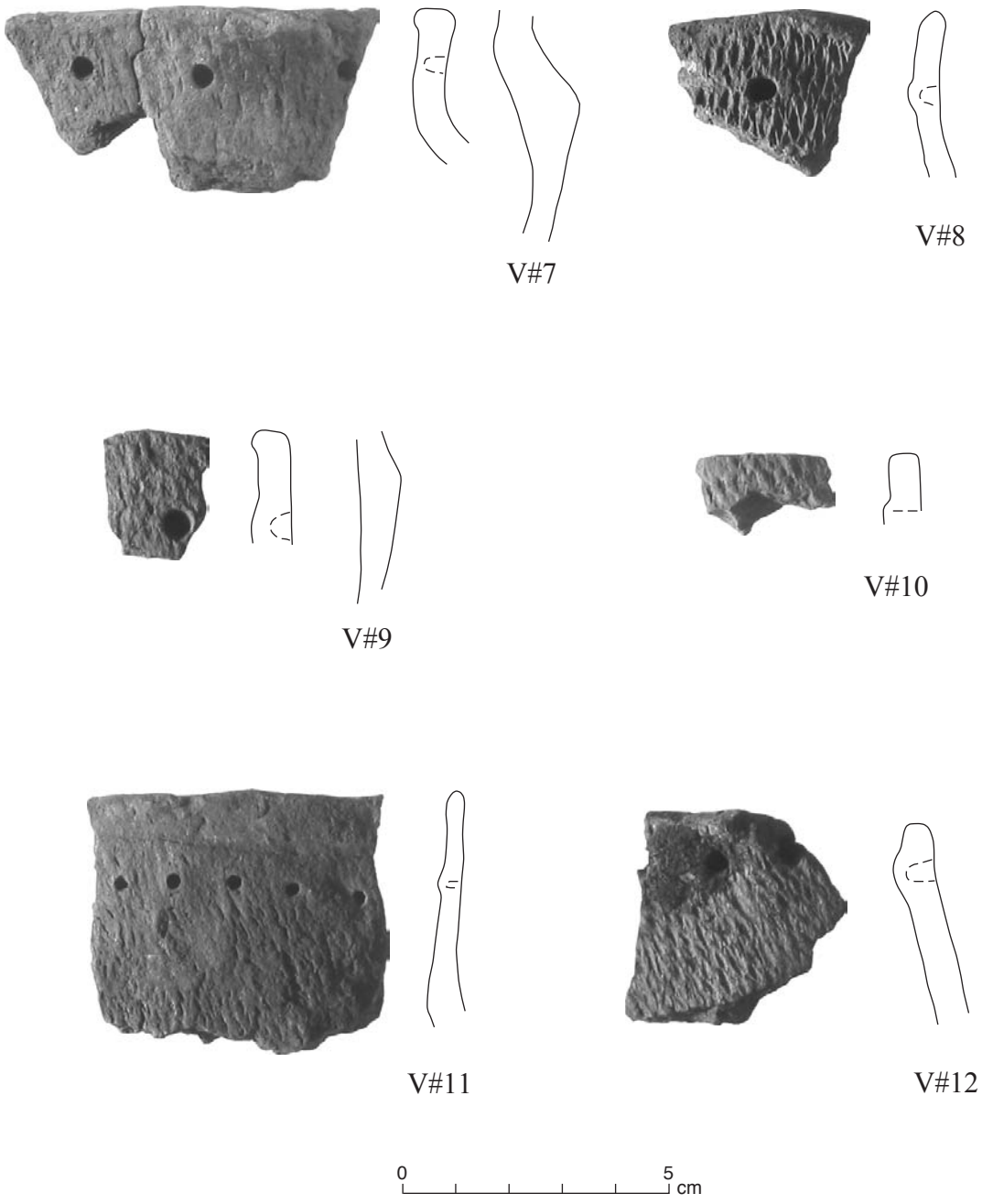


Figure 4.9d: Narrows pottery rim sherds and shoulder profiles (V#7, V#9) from HaOh-1 (Area B).

Narrows Pottery Vessels (n=11)

Eleven Narrows pottery vessels were identified in this assemblage, based largely on exterior finish. A vertical sprang textile was impressed onto the exterior surface of the vessels with the weave varying from fine, tightly twisted cord impressions (vessels 1 and 2) to more coarse cord impressions (vessels 3 and 5). This finish extends onto the lip surface of seven rims. The interior surface of most vessels is smooth (9/11), while the remaining two vessel interiors are wiped, with horizontal striations visible. Carbon residue is present on the interior of seven vessels, suggesting use as cooking pots.

Paste texture of all but one vessel is characterized as lamellar, and five of these are friable and prone to exfoliate. The remaining vessels, although layered, have a well consolidated paste. Vessel Two is quite well made with compact, crisp paste and no signs of layering. Temper within the assemblage is comprised predominantly of natural pebbles or sand (6/11), with most rounded particles ranging in size between 1-3mm. Four vessels contain primarily sand with very sparse angular quartz and feldspar. Most of these angular inclusions range between 1-3mm, but fragments in excess of 4mm also occur. Vessel 7 has at least one pebble inclusion over 6mm in size and one granite fragment almost 8mm in size. Vessel 1 contains a light amount of grit temper with no sand inclusions. The angular fragments of feldspar and quartz in this example are fine to moderate in size.

Rim forms include straight (6/11) and excurvate (4/11), with one indeterminate profile. Rim height, where measurable, ranges between 23.4mm and 45.72mm in most cases. Vessel 5 is notable for its very short rim, measuring approximately 5.87mm in height. Lip profiles include square (4/11), inner expanding (3/11), pulled over (1/11), rounded (2/11) and sub rounded (1/11). The square and inner expanding profiles reflect the smoothing and flattening of the lip surface on these vessels. The lone pulled over lip is represented on Vessel Five where the clay has been rolled out and over the outer lip corner. Lip thickness of most vessels ranges between 5.35mm and 8.7mm. Vessel 11 is the exception with a very thin lip measuring approximately 3.94mm

Sufficient reconstruction was possible on three vessels to determine the profile from the lip through to the shoulder. Vessels 1 and 6 have tall, gently excurvate rims, flowing out from slightly constricted necks into very gentle, rounded shoulders. The

profile of Vessel 5 displays a very short, almost indiscernible rim flowing out into gently rounded almost imperceptible shoulders. Rim/neck profiles of Vessels 3 and 7 also indicate constricted necks. Shoulder sherds were associated with, but not refitted to Vessels 7 and 9. These exhibit an angled profile averaging 9.44mm thick. Of note is that the exterior of these sherds is thickened or drawn out to produce the angle, while the interior surface is rounded. This creates the effect of an angled shoulder without the true profile of an angled shoulder. An additional shoulder to base reconstruction (possibly representing a thirteenth vessel) demonstrates a similar angled shoulder profile with an elongated globular body shape. Body sherds were associated with eight out of the eleven vessels, with thickness ranging between 4.86mm and 7.98mm.

Only two of the eleven vessels exhibit any form of lip decoration. Vessel 1 has punctates impressed on the lip surface around the entire orifice of the pot. These punctates have been impressed at a slight angle and then smoothed over, producing irregularly shaped impressions. Vessel 3 exhibits a notched lip surface produced by very coarse cords approximately 4.3mm thick, held taut, and impressed perpendicular across the lip surface. The double impressions clearly show a deep Z twist cord beside a shallow S twist cord indicating two cords were used to make the impressions.

A single row of round punctates is impressed on the rim of all vessels found at HaOh-1. Most diameters range between 3.34mm and 5.26mm, however, Vessel 11 exhibits very small punctates only 2.28mm in diameter. The spacing of punctates varies greatly from 5.23mm on Vessel 1 to 20.27mm on Vessel 7. Placement of the punctate row below the lip also varies from 5.88mm on Vessel 12 to 19.84mm on Vessel 2. Corresponding bosses were produced on the interior of all vessels ranging from pronounced to slight. Vessel 11 is the only pot to exhibit additional rim decoration. A shallow, horizontal trailed line is found between the lip and punctate row.

Syncretic Narrows/Selkirk Vessel (n=1)

Vessel 4 (Figure 4.9b) is represented by a significant reconstruction from the rim through to the shoulder. The exterior surface is highly smoothed, almost completely obliterating the underlying fabric impression. It cannot be determined with certainty if the fabric is vertically oriented or amorphous. The interior surface is smooth but

exhibits no wiping striations. The paste is very lamellar, soft and easily crumbles. Temper consists of a heavy amount of crushed grit, with angular pieces of feldspar and quartz ranging in size from fine to coarse. The paste is not sandy.

Perhaps most impressive is the thickness of this vessel. The lip averages 8.64mm while the lower rim averages 11.62mm. The rim has an excurvate profile and exhibits an outer expanding lip form. A gently constricted neck flows out towards rounded shoulders. Decoration is also notable because the interior lip corner is notched with smooth rod impressions. These impressions are approximately 7mm wide, extend 9mm below the lip onto the inner rim surface, and are impressed about 5.2mm into the lip. A single row of round punctates is present on the rim exterior, which produce a corresponding row of subtle bosses on the interior. Carbon residue is present on the interior, suggesting use as a cooking vessel.

The highly smoothed, fabric impressed exterior surface of this vessel combined with the heavy amount of grit temper is reminiscent of Winnipeg Fabric-impressed ware in the region. However, the thick vessel walls and interior lip decoration is not. As will become apparent, this decoration occurs more commonly on Narrows pottery, and although this vessel is thick, it does fall within the upper range of Narrows vessels in the region. Due to this combination of attributes, Vessel 4 is considered a syncretic Selkirk/Narrows vessel.

4.2.2.2 HaOh-14 (Jean Marie 00-1)

HaOh-14 lies on the north valley crest adjacent to the smaller northern most drainage of Jean Marie Creek where it enters Peter Pond Lake. The site stretches from the creek valley crest, north to the edge of a low-lying muskeg, and west inland from the lakeshore. The level valley crest provides excellent camping conditions and continues to be used for this purpose by local people. A bush trail passes through the site making it easily accessible. As a result, the site has been subject to collection efforts by local people over the last several years. A number of lithic and pottery artifacts from HaOh-14 were generously made available for this study by local collectors Monique, Jesse and James Sylvestre of Dillon.

During recent surveys, cultural materials were found in an area approximately 110m long by 80m wide. In addition to debitage and fcr observed on the surface, several lithic tools were recovered. This include 11 projectile points, as well as a number of bifaces, retouched flakes, pecking stones, a grooved maul, several chithos and one tube pipe (see Appendix B). A total of 482 pot sherds were also collected with at least twelve vessels represented by distinct rim sherds. The pottery from this site is generally more fragmented than HaOh-1, and extensive reconstruction was not possible in most instances. This fragmentation may reflect trampling and disturbance of the site through frequent use of the area by locals and visiting by collectors. Regardless, distinct artifact concentrations and activity areas were observed. All sherds and vessels from this site have been identified as Narrows pottery (Figure 4.10a to 4.10b).

Narrows Pottery Vessels (n=12)

The exterior surfaces of all twelve vessels found at the site are impressed with a vertical sprang textile impression. This finish extends onto the lip surface in five cases. The exteriors vary slightly from a fine (tightly twisted cords), smoothed fabric impression to more coarse, unsmoothed fabric impressions. The exterior of Vessel 3 is exfoliated, but remnant vertical textile impressions can be clearly seen. The interior of nine vessels are plain and smooth, while two are wiped, with horizontal striations visible. The interior of Vessel 10 is notable because 17mm below the lip on one rim sherd, and on several thick body/base sherds, it appears the surface has been scraped while leather hard leaving a rough, scaly appearance. Vessels 2, 4 and 11 exhibit interior surfaces that undulate due to narrow finger impressions. Carbon residue was present on the interior of three vessels.

Paste texture of most vessels (9/12) can be characterized as layered, and four of these are prone to exfoliation. The remaining three vessels have paste that is compact with no obvious signs of layering. Temper within this assemblage is comprised of both natural and grit inclusions. Five of the vessels contained natural temper of rounded sand particles varying in size from fine to medium. An additional five contain sparse grit temper of angular crushed feldspar and quartz, most ranging in size from moderate to

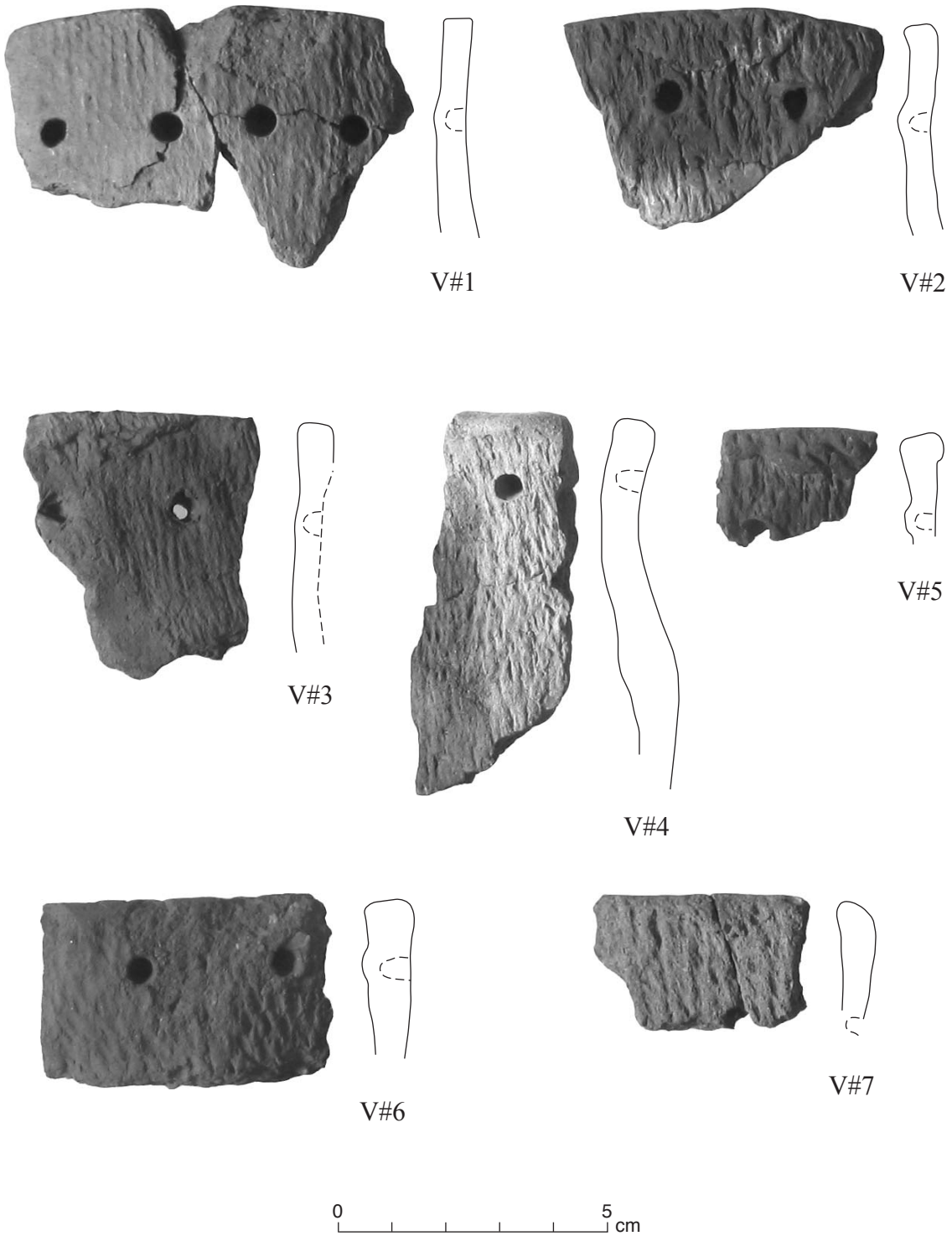


Figure 4.10a: Narrows pottery rim sherds from HaOh-14 (Area B).

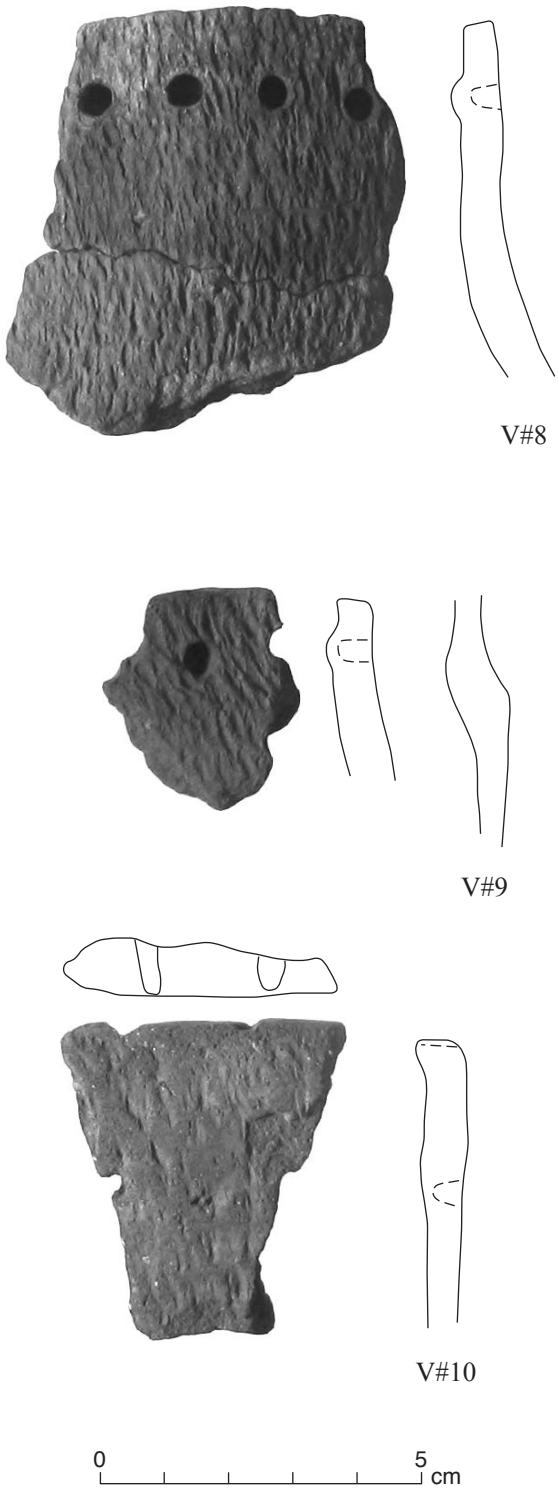


Figure 4.10b: Narrows pottery rim sherds and shoulder profile (V#9) from HaOh-14 (Area B).

coarse. Vessel 10 has fragments in excess of 5mm and Vessel 11 has fragments larger than 8mm in size. Two vessels contain both sand and grit temper (Vessels 7 and 9).

Rim forms of all twelve vessels are straight. Rim height could be measured in only three instances and ranged from 22.85mm (Vessel 4) to 46.56mm (Vessel 8). Lip profiles consisted of square (3/12), pulled over (3/12), inner expanding (3/12), expanding (1/12), rounded (1/12), and sub rounded forms. Lip thickness ranged between 5.8mm on Vessel 9 to 9.15mm on Vessel 6. In some instances the thick lip measurements were attributable to lips where clay was pulled over and smeared down either the interior or exterior surface of the rim.

Only Vessel 4 was represented from the lip through to the shoulder, indicating vessel form. The everted, straight rim flows into a slightly constricted neck, then out towards a gently rounded shoulder measuring 10.06mm thick. Shoulder sherds were associated with two additional pots. Vessel 9 exhibits a rounded shoulder while Vessel 11 exhibits an exteriorly thickened, angled shoulder. Body sherds were associated with most vessels in this assemblage, ranging from 3.87mm to 9.91mm in thickness.

Only two of the twelve vessels exhibit any form of lip decoration. Vessel 10 has rod impressions extending perpendicular across the lip surface, with the impression originating at the interior lip corner. The lip surface of Vessel 11 is decorated with left oriented CWT impressions. These impressions indicate that a coarse, loosely wound cord was wrapped around the tool. A single row of round punctates is impressed on the rim of all vessels. Punctate diameters are consistent, averaging 4.85mm wide, and they range in their placement below the lip from 7.39mm in Vessel 9 to 21.24mm in Vessel 10. The punctates produced a corresponding row of interior bosses on all vessels where it could be determined.

4.2.2.3 Vernon Sylvester Collection

Additional pottery from the Jean Marie Creek locality was collected by local resident Vernon Sylvester. Although exact provenience information is lacking, the pottery apparently comes from the same landform as HaOh-14 and possibly the same site. Due to uncertainty in locational information, however, this sample will be considered separately. Over 200 pottery sherds representing at least eight distinct

vessels were identified from this collection, all representing Narrows pottery (Figure 4.11a,, 4.11b).

Narrows Pottery Vessels (n=8)

The exteriors of all vessels exhibit vertically oriented, sprang impressions that extend onto the lip surface of three vessels. Paste is characterized as layered with natural temper occurring in all but one vessel. Light amounts of grit temper are found in Vessel 5. The interiors are generally smooth with carbon residue occurring in two vessels, suggesting use as cooking pots.

Significant rconstruction from the rim to lower body was possible only in vessel 8. The majority of sherds from the collection are associated with this vessel, which exhibits a sub-conical profile. The pot does not appear to have survived the firing process as the sherds are highly exfoliated with very soft paste. Only a very subtle neck constriction and turned out lip differentiates the rim of this large vessel from an otherwise conoidal body. Decoration consists of punctates impressed around the entire circumference of the lip surface, with a single row of closely spaced punctates immediately below the lip. The orifice diameter was calculated to be approximately 215mm.

The remaining vessels are represented only by rim sherds with minimal reconstruction to indicate vessel form. Rim profiles are either straight (5/7) or excurvate (2/7), with lip shapes consisting of expanding (5/7), inner expanding (1/7), and flanged (1/7). Round punctates are present below the lip in all but Vessel 7. The latter, however, may be attributed to small sherd size. The only other decoration present in the sample is found on Vessel 1 which exhibits broad, smooth tool impressions on the interior lip. These notches are deeply impressed creating slight bulges on the exterior.

4.2.3 Area C

4.2.3.1 HaOh-12 (Peter Pond 00-11)

HaOh-12 is located at the base of two low knolls approximately 50m inland from Peter Pond Lake, and immediately north of a low lying muskeg. Surface visibility was

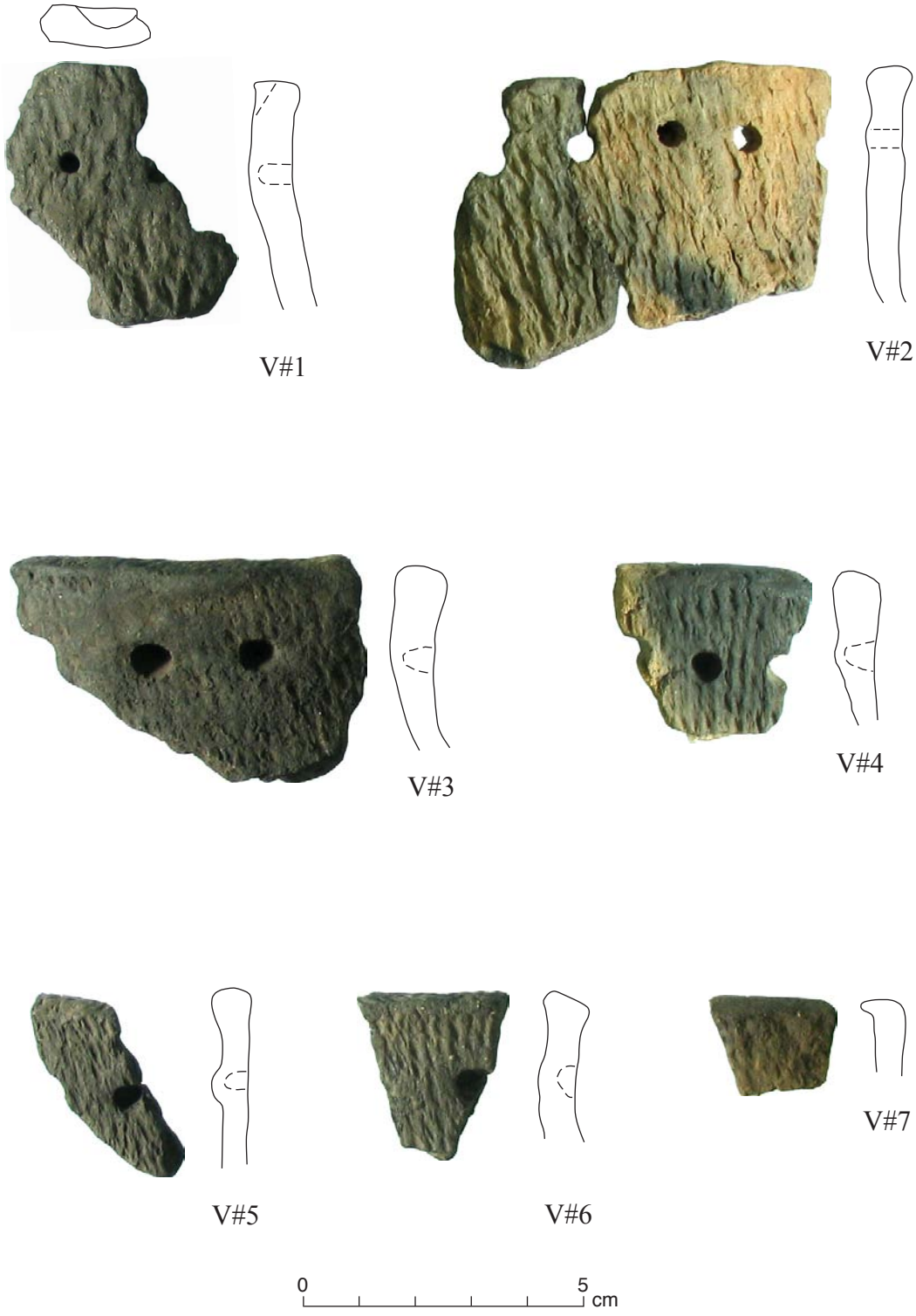


Figure 4.11a: Narrows pottery rim sherds from Vernon Sylvester collection (Area B).

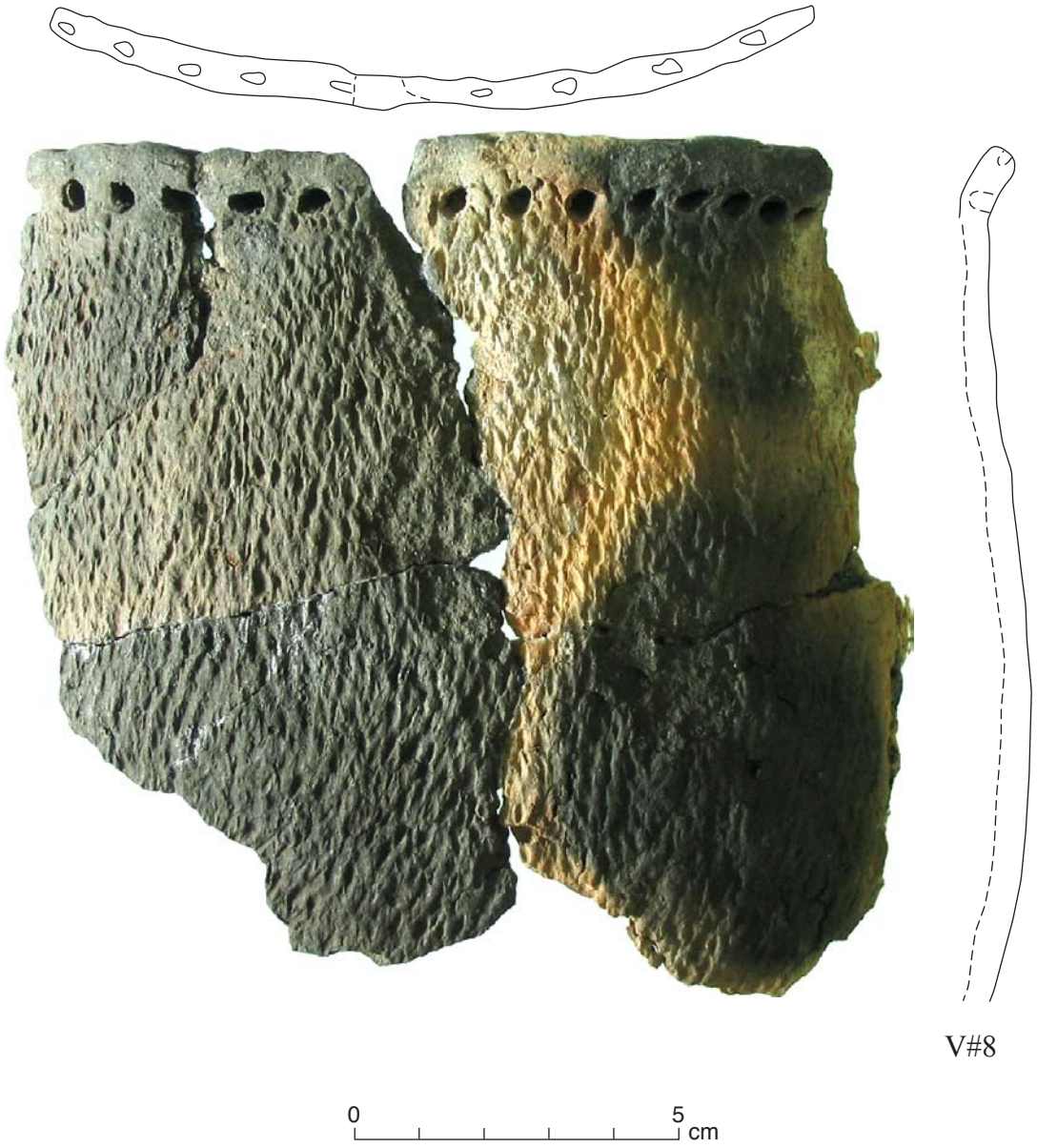


Figure 4.11b: Partially reconstructed Narrows pottery vessel from Vernon Sylvester Collection (Area B).

excellent in the immediate vicinity due to extensive burning of forest litter during the fires. The site consists of several artifact locales extending over an area 160m long by 60m wide. Lithic materials observed on the surface included debitage and fcr, while collected tools consisted of two projectile points, a biface, one celt, a retouched flake and one chithos (see Appendix B). A total of 32 pottery sherds were recovered with rim and associated sherds representing at least four vessels. Despite the presence of large rim sections, minimal reconstruction was possible. All of the sherds and vessels are classified as Narrows pottery (Figure 4.12)

Narrows Pottery Vessels (n=4)

The exterior surfaces of all four vessels are impressed with vertical sprang textile. The cords used in the sprang weave are coarse and the impressions have not been smoothed. This textile finish extends onto the lip surface of all vessels. The interior surface of rim sherds is smooth but not wiped. Carbon residue is present only on the interior of Vessel 2, suggesting use as a cooking pot. The paste is lamellar and friable with the exception of Vessel 2 where the paste is layered but very compact. Temper consists of light amounts of fine, rounded sand particles. Vessel 1 does, however, include very sparse amounts of angular feldspar and quartz, with some fragments in excess of 6mm.

Rim forms include straight (3/4) and excurvate (1/4) profiles, and range in height from a very short rim measuring 11mm in Vessel 4 to a very tall rim measuring 42.45mm in Vessel 2. Lip profiles include square (2/4) and expanding (1/4) while the lip of Vessel 1 varies from square to rounded. Lip thickness ranges from 6.57mm in Vessel 2 to 8.04mm in Vessel 3. Due to the small sample size and lack of reconstruction, not much can be said regarding vessel shape. The rim sherds of Vessels 2 and 4, however, indicate a neck constriction. No shoulder sherds were identified in this sample, and only body sherds were associated with Vessel 1. Body sherd thickness in this pot varies between 7.05mm and 11.98mm, with an average of 9.27mm.

Decoration consists of the ever present row of round punctates on the rim, with corresponding bosses on the interior surface. The punctates on Vessel 1 are not as precisely executed since the tool used to impress them was moved back and forth,

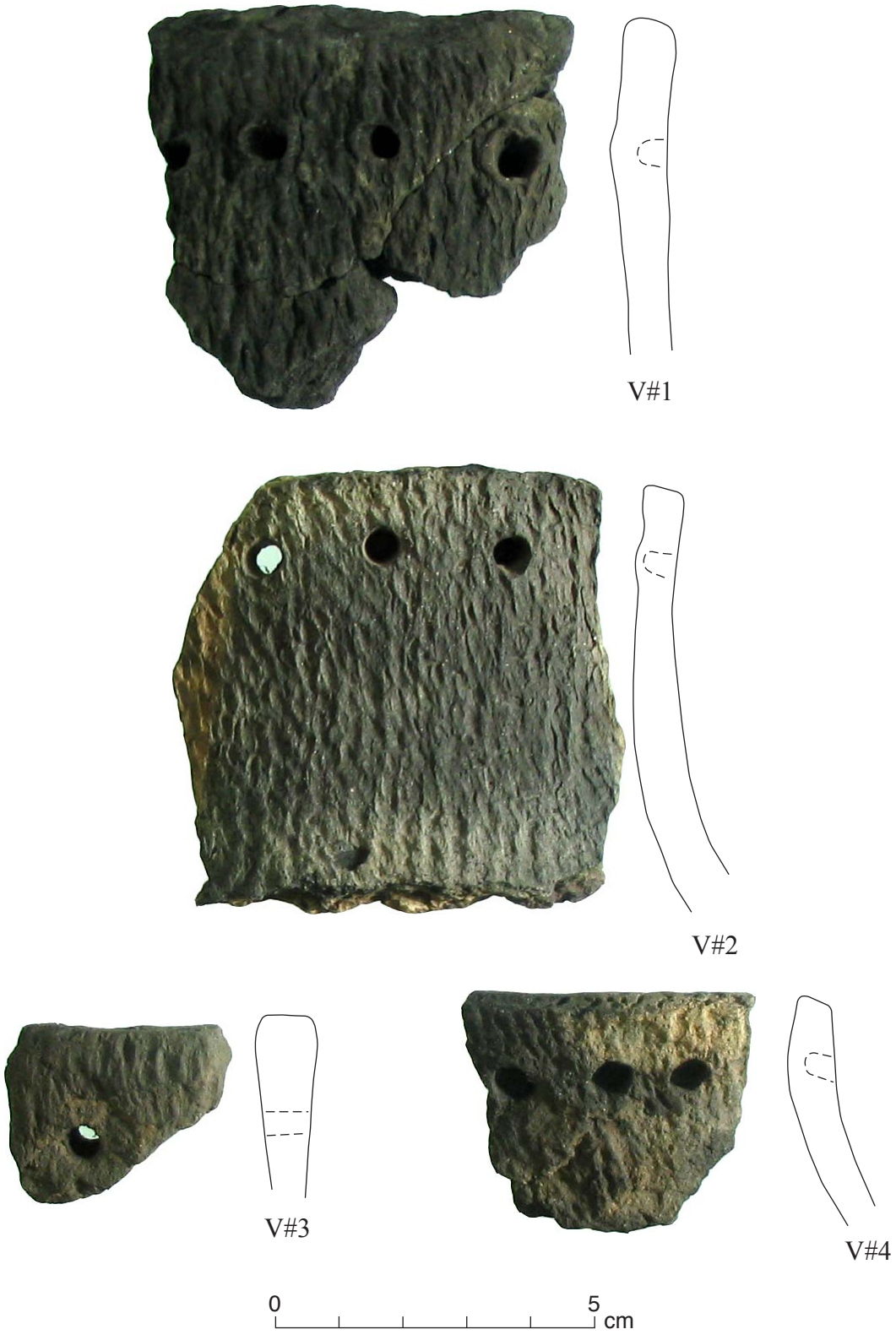


Figure 4.12: Narrows pottery rim sherds from HaOh-12 (Area C).

producing slightly irregular shapes. Punctate diameters are generally consistent on all vessels ranging between 5.56mm and 6.39mm. The spacing between punctates is more variable ranging from 7.32mm on Vessel 4 to 13.6mm on Vessel 2. Punctate distance below lip is also variable ranging from 8.25mm on Vessel 4 to 19.8mm on Vessel 1. No decoration was present on the lip.

As a general comment, the pottery from HaOh-12 is somewhat crude. The paste of most vessels is rather soft and porous, and the vessel walls are quite thick. In addition there is less variation in the exterior sprang impressions, with the use of coarse cordage being the norm.

4.2.3.2 HaOh-26 (Peter Pond 01-21)

HaOh-26 is located on a low ridge of land approximately 230m inland from the northwest shore of Peter Pond Lake. Although located in a forest burn, sub-surface exposure was sporadic due to the regeneration of alder. Artifacts were found in a small area 40m long by 20m wide and included pottery as well as a scatter of debitage and fcr. Although no lithics were collected, a total of 71 pottery sherds were recovered, representing at least two distinct vessels. Reconstruction was possible on these vessels allowing for significant description. Both have been classified as Narrows pottery vessels.

Narrows pottery Vessels (n=2)

Vessel 1 (Figure 4.13, V#1) is represented by two separate rim to shoulder reconstructions, and another neck to shoulder reconstruction. The exterior finish on this pot is distinct from Vessel 2 in that the sprang impression is quite fine, comprised of tightly twisted strands approximately 1mm wide, and more strongly vertical. The interior surface is smooth but not wiped. The paste texture is laminated but generally well consolidated with some exterior exfoliation. Temper consists primarily of sand with a minor amount of sparse angular feldspar averaging 1-3mm in size. The lip exhibits a sub-rounded profile and is approximately 6.4mm thick. It is undecorated, with fabric impressions extending onto the surface (although there is smoothing of the outer brim in one area). The slightly excurvate rim measures 25.17mm in height and is

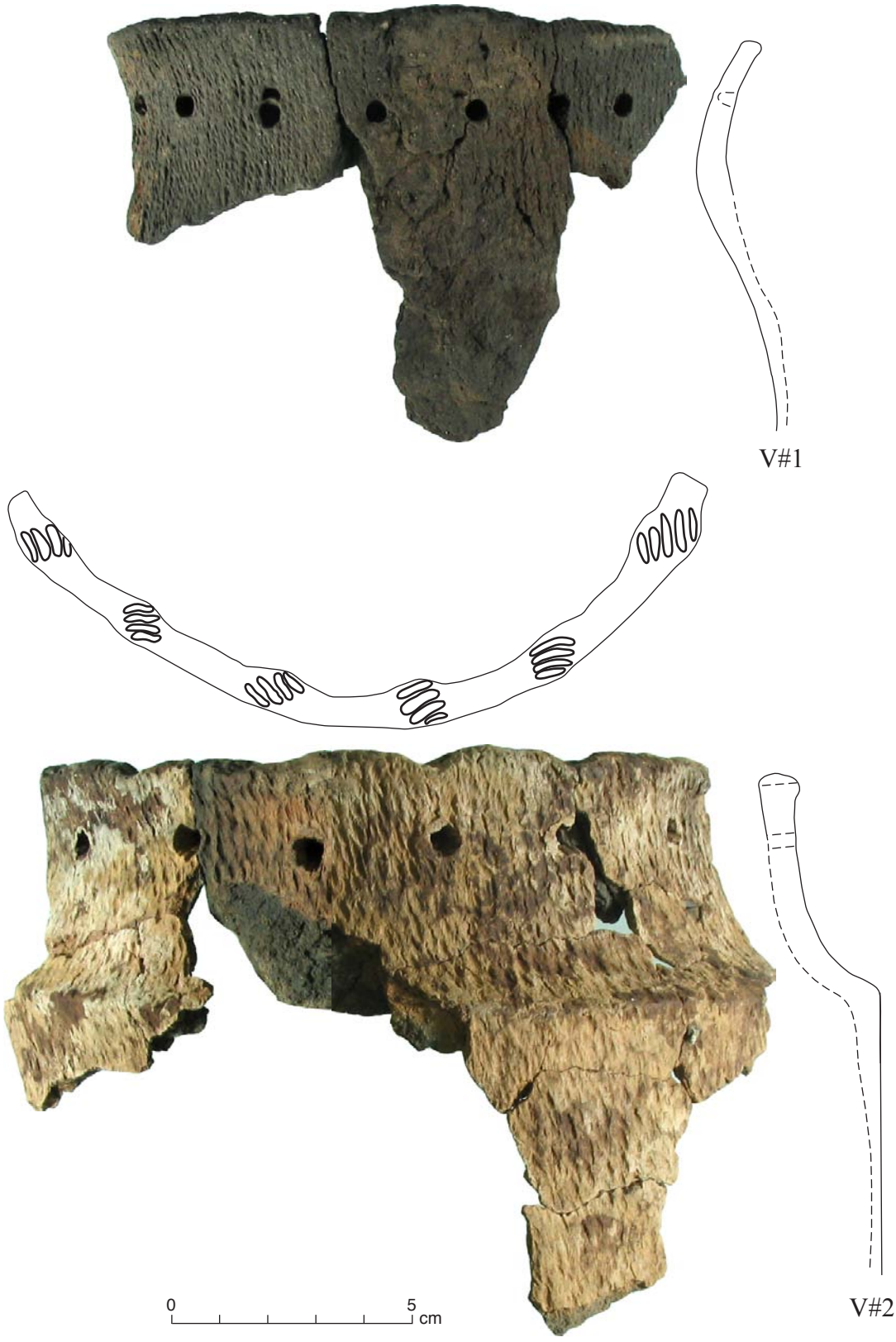


Figure 4.13: Partially reconstructed Narrows pottery vessels from HaOh-26 (Area C).

decorated with a single row of round punctates. Punctate diameter is approximately 4.38mm and the impressions are spaced 13.24mm apart and 13.4mmm below the lip. Vessel reconstruction indicates a rounded shoulder form measuring 8.27mm thick. Body sherds average 6.79mm thick and basal sherds average 10.16mm. The interior surface of the basal sherds undulate, likely as a result of finger impressions when forming the vessel. Carbonized residue encrusts the interior, suggesting use as a cooking vessel. Orifice diameter measures approximately 156mm.

Vessel 2 (Figure 4.13, V#2) is represented by a significant rim to shoulder reconstruction and many exfoliated sherds. It differs from Vessel 1 most notably in shoulder profile and decoration. The exterior is impressed with a coarse, vertical oriented fabric that extends onto the lip surface. The interior exhibits horizontal smoothing striations from wiping the surface. The paste is generally of poor quality as it is highly laminated, friable and porous. Many of the sherds that comprise this vessel exhibit some degree of exfoliation. Temper consists of angular pieces of feldspar that are generally 1-3mm in size. One pebble 7.5mm in diameter is also present. The clay was not well wedged as the grit temper is clustered in one area of the reconstructed rim. Decoration consists of cord wrapped tool impressions across the lip surface that alternate between a left and right oblique orientation. The tool impression is quite wide measuring over 8mm and the cord wrapped around the tool is coarse, averaging 2mm thick. The tool was deeply impressed, displacing clay and accounting for the range in lip thickness (6.53 to 13.9mm) and expanding profile. A single row of round punctates with an average diameter of 5.62mm encircles the straight rim. The tool used to create these impressions left striations perpendicular to the neck wall along the inside of the punctates. The distance between punctates ranges from 19.4 to 25.4mm, and they are placed approximately 12mm below the lip. Subtle bosses are present on the interior of the neck. The shoulder of the vessel is sharply angled at approximately 121^{o} with one non-exfoliated sherd measuring 14.43mm thick. Similar to other vessels in the region, the shoulder was thickened to create the appearance of an exterior angle. Extreme exfoliation did not allow for thickness measurement of the body sherds. Orifice diameter is approximately 144mm.

While these vessels are markedly different with regard to vessel profile and lip decoration, they still share similar exterior finish characteristics. As well, the general quality of paste with sand and pebble inclusions is consistent with Narrows pottery elsewhere in the region.

4.2.3.3 HaOh-15 (Peter Pond 00-20)

HaOh-15 is located on a low sandy shelf bordered to the west and north by a low-lying muskeg and to the south by a small, high knoll. The site is situated at the southern end of a long, wide sandy beach that extends north towards the La Loche River. The beginning of this beach also marks the terminus of the bush road that extends north from the community of Michel. It is a frequently visited area, often used as a campground by the local people. A little-used trail crosses the site to the west, apparently once joining the early commercial fisheries trail to Fort McMurray.

Artifacts were collected from an area approximately 80m long by 50m wide. Lithic tools include a biface, uniface, utilized flake, and chithos (see Appendix B). A total of 95 pottery sherds were recovered from the site, representing at least seven vessels (Figure 4.14). Extensive reconstruction was not possible due to the fragmentary nature of the pottery, likely as a result of disturbance from contemporary use of the site area. Six of the vessels are classified as Narrows pottery and the remaining vessel exhibits an amorphous fabric impression on the exterior atypical of Narrows pottery.

Narrows Pottery Vessels (n=6)

The exterior surface of these six vessels is impressed with a vertically oriented fabric that extends onto the lip surface in two instances. The interior surface is plain and smooth in four vessels, with the interior of only one vessel exhibiting horizontal wiping striations. Carbonized residue is present on the interior and exterior of sherds from two vessels, suggesting use as cooking pots. The paste of all vessels is lamellar but generally well consolidated. The exception is Vessel 5 which is more friable. Four vessels exhibit sand temper with fine particle size, and two contain medium to coarse grit temper of angular feldspar and quartz. The amount of grit temper is generally light with the exception of Vessel 2 where it is considered moderate.

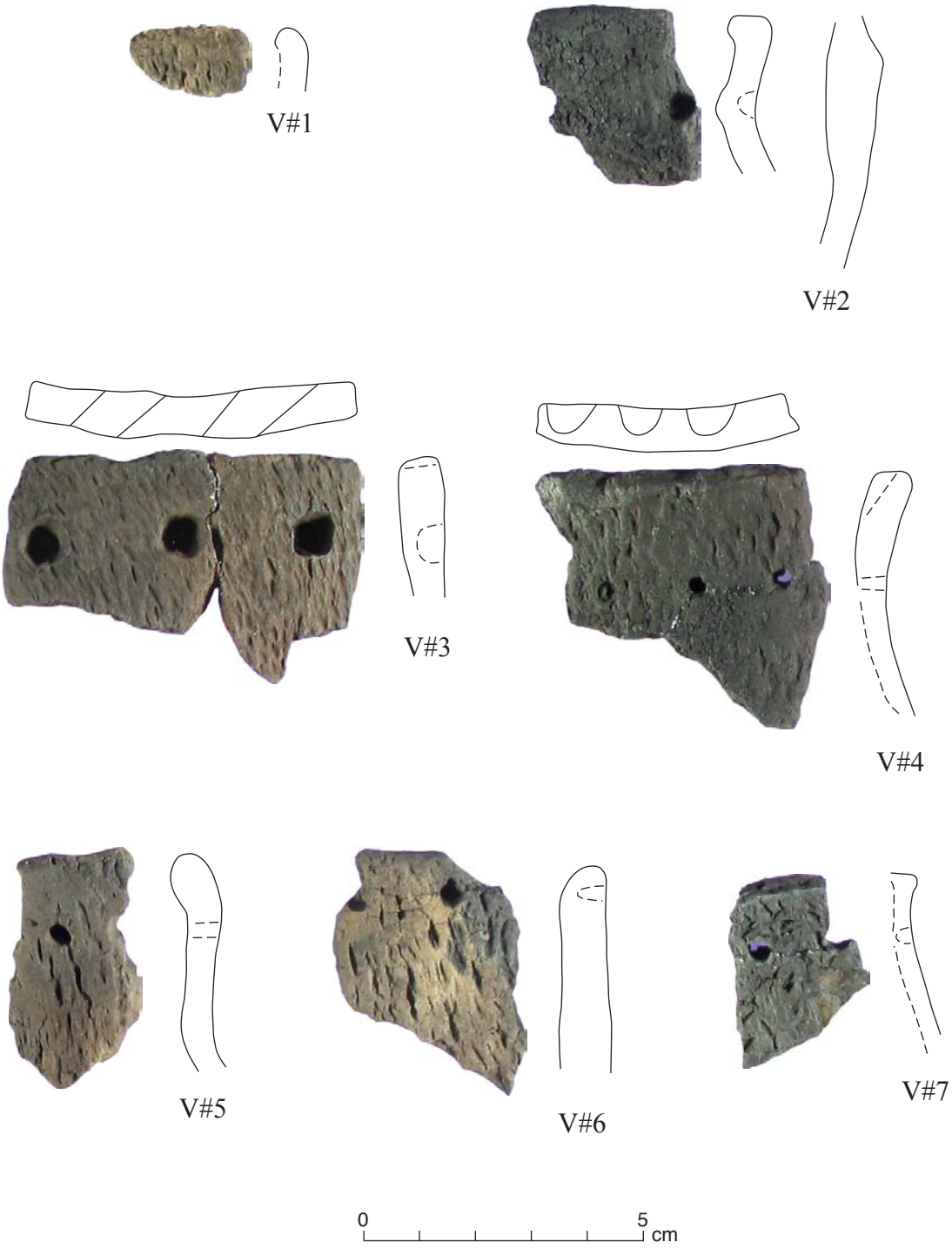


Figure 4.14: Narrows pottery rim sherds and shoulder profile (V#1-6); syncretic Narrows/Selkirk rim sherd (V#7) from HaOh-15 (Area C).

Rim forms include straight (2/6), excurvate (2/6), incurvate (1/6) and indeterminate (1/6). Rim height could only be recorded for Vessels 2 and 5 where they measured 22.2mm and 34.07mm respectively. Lip profiles consisted of a variety of forms including rounded (2/6), inner expanding (1/6), outer expanding (1/6), sub-rounded (1/6) and pulled over (1/6). The pulled over lip of Vessel 5 is additionally notable. The left edge of the broken lip appears to be a coil break, and the interior surface of the rim exhibits a horizontal crack approximately 10mm below the lip that appears to be along a join. This suggests the lip was added separately as a coil. The clay was subsequently rolled over the interior surface creating a beaded lip profile and an incurvate form on an otherwise straight rim profile.

Due to lack of reconstruction, only limited comment can be made regarding vessel form. Vessels 2, 4 and 5 exhibit neck inflections indicating constricted necks. Shoulder sherds were associated only with Vessel 2, and as seen elsewhere in the region, the exterior of these sherds has been thickened to form an obtuse angular profile of approximately 143^{o}. In some areas the shoulder was smoothed and the clay pulled down to create a more rounded profile. Body sherds were associated with five vessels with thickness averaging 6.7mm.

Lip decoration is present on only two vessels. Vessel 3 exhibits broad, shallow rod impressions across the lip surface with a right oblique orientation. The pressure of the tool appears to have originated from the inner corner, displacing clay and giving the lip an inner expanding profile in some areas. The tool impressions are approximately 6.62mm wide and spaced 8.58mm apart. Vessel 4 exhibits interior lip notching with impressions produced by a smooth, broad, rounded tool. The impressions measure 8.2mm wide, extend down the interior rim surface approximately 11mm and are spaced about 6.75mm apart. The impressions are deep, extending almost 6mm into the lip surface and create slight bulges on the exterior lip.

The rim exteriors of all vessels are decorated with a single row of round punctates. Three vessels exhibit punctates with very small diameters, averaging 3.58mm. The placement of punctates below the lip ranges markedly from 4.72mm on Vessel 6 to 21.1mm on Vessel 4. Vessel 3 has very large punctates measuring 8.06mm

in diameter. These punctates were impressed with a large tool that was then tilted to the four corners creating irregular, almost square shapes.

Syncretic Narrows/Selkirk Vessel (n=1)

Only one vessel from HaOh-15 did not exhibit a vertical sprang textile impression on the exterior surface. Vessel 7, represented by two rim, one neck and five exfoliated sherds, is impressed with an unusual amorphous textile that was smoothed over. Such a surface finish is more typical of Selkirk pottery; however, the impression may be the result of the fabric "bunching up" near the rim, thus obscuring its true pattern. The paste is similar to Narrows pottery with regard to temper. Fine to medium sized particles of sand are found throughout the sherds, while the texture of the paste is lamellar and prone to exfoliation. The lip surface, also fabric impressed, has been smoothed and flattened creating a slightly expanding profile measuring approximately 6mm thick. A single row of round punctates is present on the slightly excurvate rim. These impressions are approximately 4.44mm in diameter and placed 8.95mm below the lip.

4.2.3.4 HaOh-23 (Peter Pond 01-18)

HaOh-23 is located in a sandy exposure on a slightly elevated former strandline in a present day muskeg. It lies about 200m northwest of HaOh-15 and 180m west of Peter Pond Lake. The occurrence of artifacts in this locale is somewhat puzzling as several sites are situated on more suitable well drained ground to the north and south. The strandline supports small, linear stands of black spruce and jack pine. Cultural materials were found in a small area only 3m by 3m and include pottery sherds, debitage, and fcr. A total of 14 pottery sherds were collected from the site and all represent a single Narrows pottery vessel.

Narrows Pottery Vessel (n=1)

This lone vessel is represented by 4 rim, 3 neck/shoulder, and 7 body sherds (Figure 4.15). Despite the large fragments only 2 shoulder/neck portions successfully refit. The exterior surface of this vessel is impressed with a fine vertically oriented

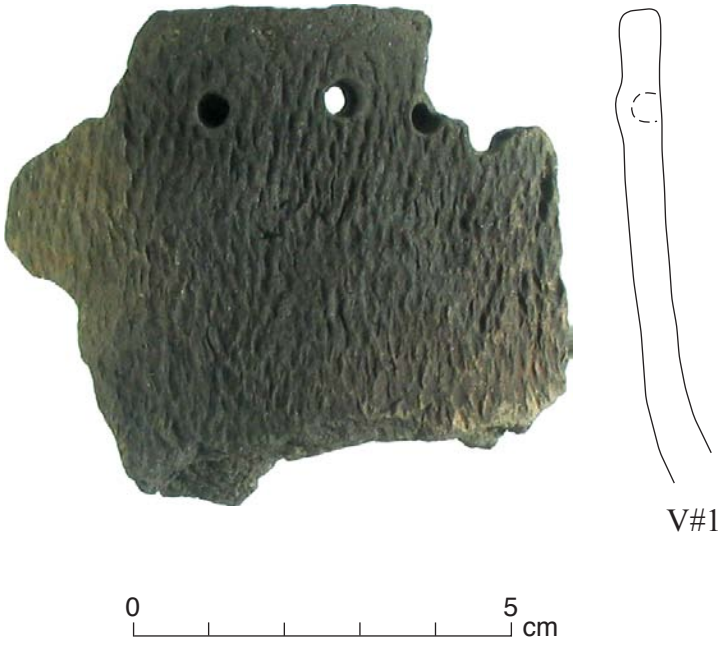


Figure 4.15: Narrows pottery rim sherd from HaOh-23 (Area C).

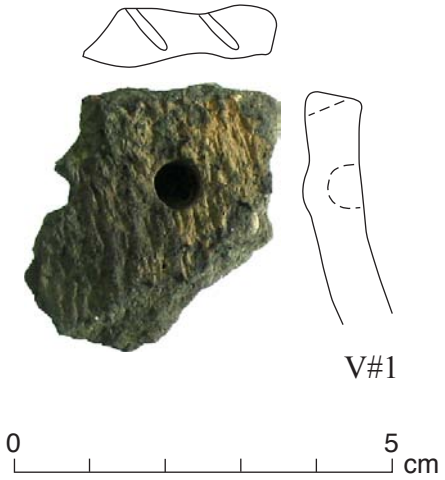


Figure 4.16: Narrows pottery rim sherd from HaOh-17 (Area C).

fabric that extends onto the lip surface. The interior is eroded but a smooth surface is apparent in some areas. The paste is quite lamellar and friable with temper consisting of sand and large rounded pebbles (some in excess of 5 and 8mm). The lip profile is irregular, varying from square to sub rounded and measures approximately 6.4mm thick. In some places the outer lip corner has been smeared down the front of the rim surface creating a slight outer flange. The tall, straight rim is approximately 54mm in height and flows from a slightly constricted neck out towards a gently rounded shoulder. Shoulder thickness averages 9.84mm, while the outer surface of the body sherds undulate noticeably, varying in thickness from 4.8 to 8.6mm. The only decoration is found on the rim which is impressed with an uneven row of round punctates ranging from 9.11mm to 14.5mm below the lip. Punctate spacing also varies greatly from 4.40mm to 16.46mm apart. Small but prominent bosses are present on the interior.

Generally speaking this vessel is not well made. The paste is soft and prone to exfoliate, while little effort has been exerted to consistently form the lip profile, wall thickness or execute the punctate decoration.

4.2.3.5 HaOh-17 (Peter Pond 00-22)

HaOh-17 is located approximately 130m northeast of HaOh-23 along the crest of a narrow sand ridge that stretches inland from the shore of Peter Pond Lake. The site is bordered on the north by a grassy muskeg. Surface visibility was excellent as a result of the ridge being severely burned by the forest fires. Sparsely distributed cultural materials were observed within an area approximately 110m long by 100m wide and include one rim sherd and several body sherds. Lithics included one retouched flake, one utilized flake made of pebble chert, and various debitage. No fully formed tools were observed and only the rim sherd was collected.

Narrows Pottery Vessel (n=1)

The lone rim sherd collected from HaOh-17 represents a Narrows vessel (Figure 4.16). The exterior is impressed with a vertically-oriented fabric that does not extend onto the lip surface. The paste is laminated but well consolidated, with a light amount of grit temper. The small, angular fragments of feldspar and quartz measure between 1-

2mm in size. The lip profile is square to slightly expanding and measures 7.8mm thick. Decoration consists of a sharp-edged tool impressed at a left oblique angle on the inner lip corner. The narrow impressions are only 1.7mm wide and spaced 7.4mm apart. They extend across the lip surface almost to the outer lip edge. The slightly excurvate rim is decorated with a single row of round punctates. Only one impression could be measured and it had a diameter of 5.9mm and was placed 9.2mm below the lip. A prominent boss is present on the interior surface as a result.

4.2.3.6 HaOh-19 (Peter pond 00-24)

HaOh-19 is a large site located about 200m northwest of HaOh-17 on a sand flat adjacent to a muskeg that borders several sites in the area. This muskeg is known to flood in some years, forming a small inland lake. The site consists of two major concentrations of artifacts 70m apart in an area 200m long by 60m wide. Although it is a large site consisting of two discernable concentrations, the artifact assemblages are similar.

The site was quite prolific producing several lithic tools which include 20 projectile points, bifaces, unifaces, a wedge, several chithos, and a tube pipe (see Appendix B). A total of 416 pottery sherds were recovered representing at least 14 vessels (Figure 4.17 a to 4.17bc). Although several large sherds were present in the assemblage, only limited reconstruction was possible. Eleven vessels exhibit vertically oriented textile impressions on the exterior surface typical of Narrows pottery, while one vessel exhibits an amorphous textile impression, another is plain and one is indeterminate due to exfoliation.

Narrows Pottery Vessels (n=11)

The vertical textile impressions on these vessels range from fine and lightly impressed (Vessel 3) to coarse and deeply impressed (Vessel 11). The exterior of Vessel 2 has been heavily smoothed, almost completely obliterating the underlying vertical fabric impressions. The remaining vessels exhibit only lightly smoothed to unsmoothed exteriors. None of the interior surfaces exhibit horizontal smoothing

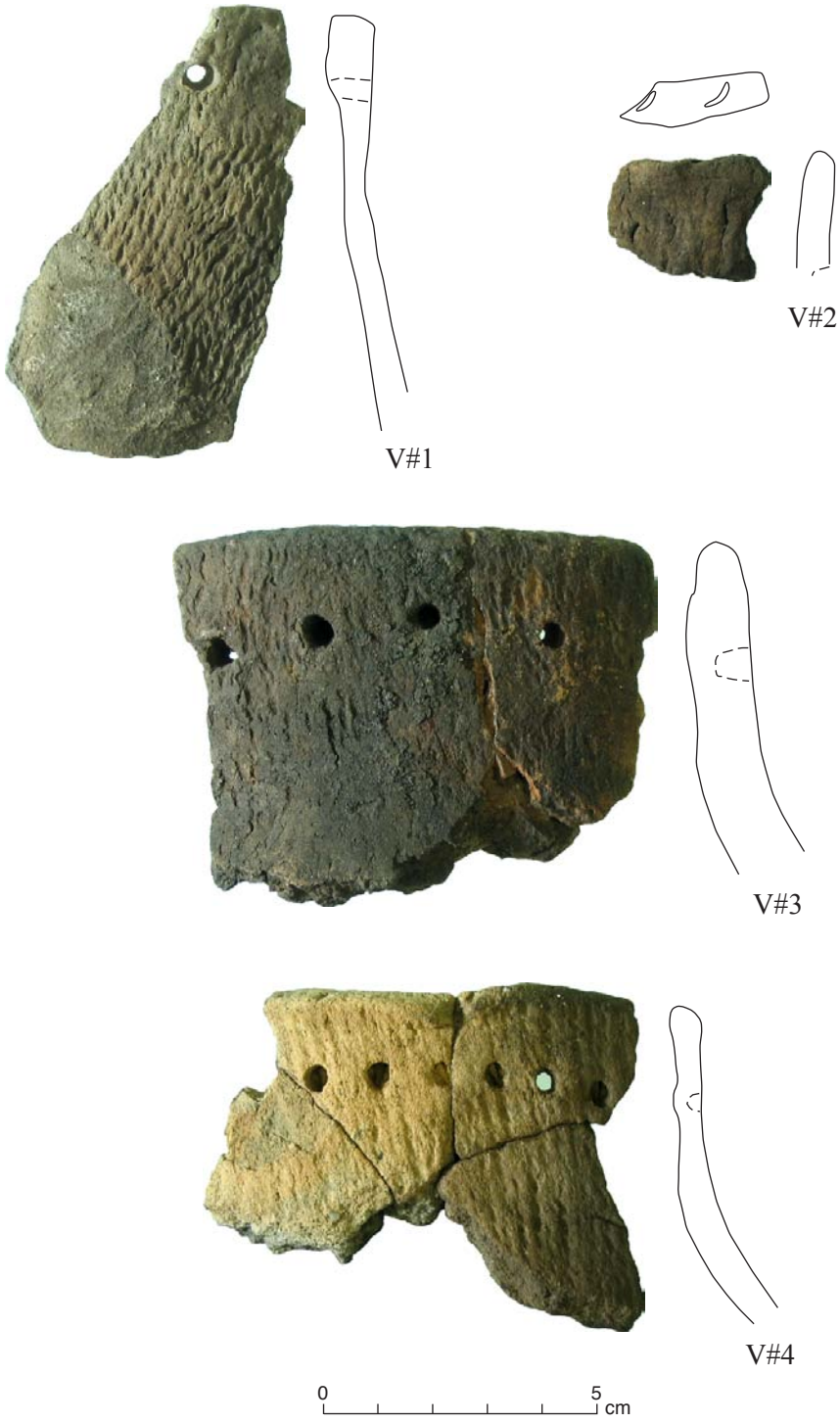


Figure 4.17a: Narrows pottery rim sherds from HaOh-19 (Area C).

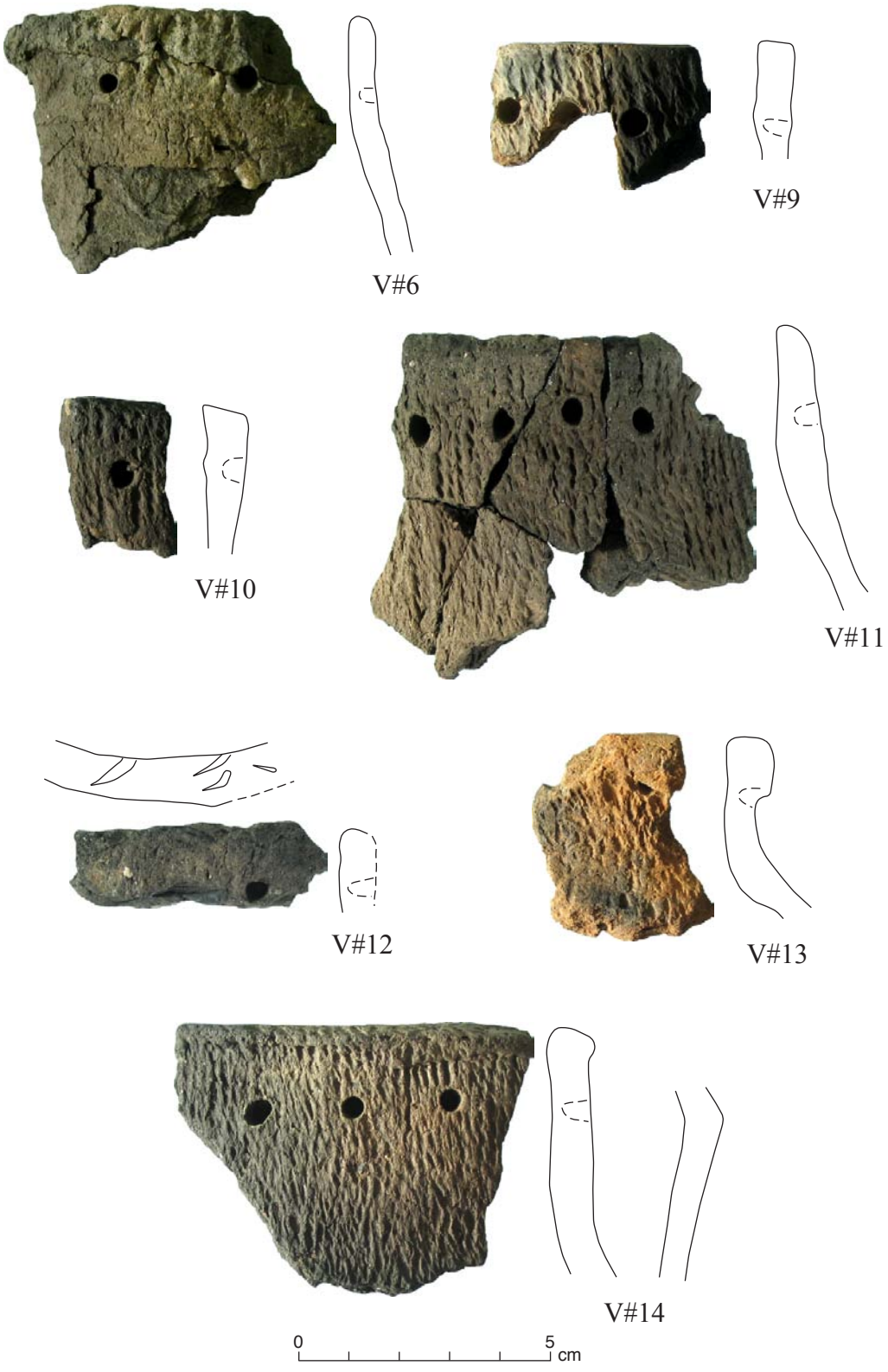


Figure 4.17b: Narrows pottery rim sherds and shoulder profile (V#14) from HaOh-19 (Area C).

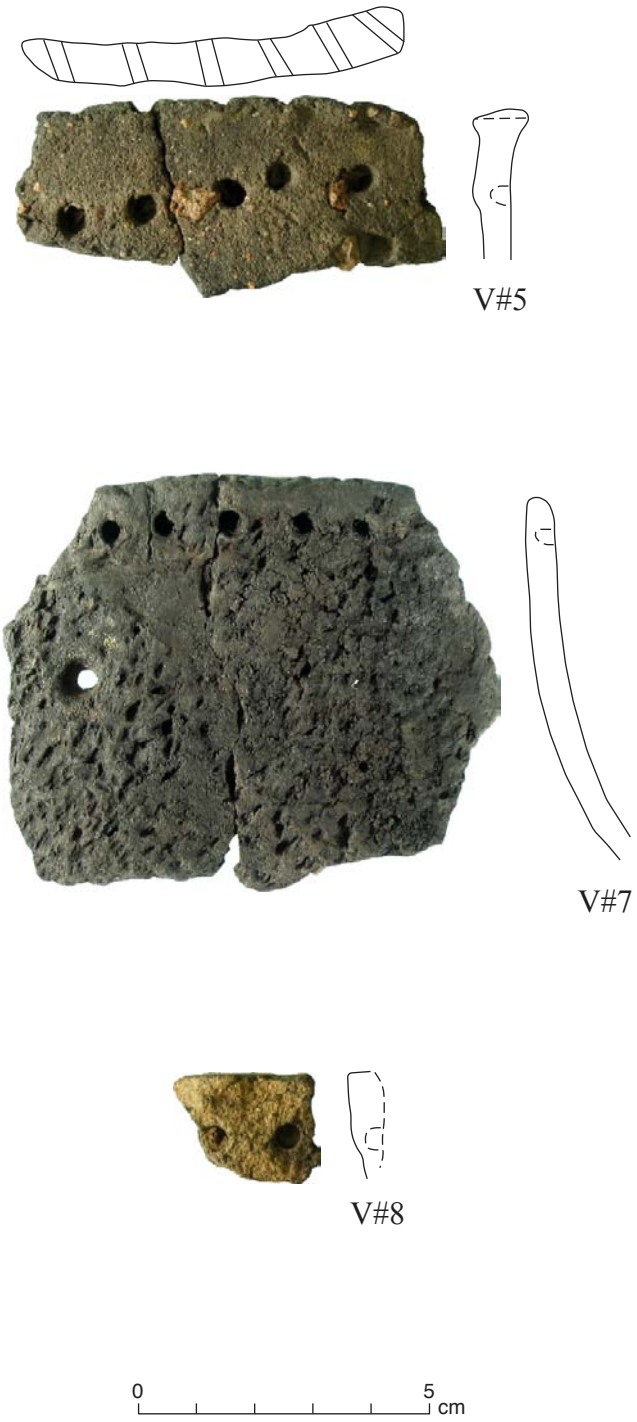


Figure 4.17c: Unclassified rim sherd (V#5); syncretic Narrows/Selkirk rim sherd (V#7); indeterminate rim sherd (V#8) from HaOh-19 (Area C).

striations from wiping. Six of the vessels have carbon residue present on the interior or exterior, suggesting use as cooking pots.

The paste of most vessels is lamellar, with five vessels particularly prone to exfoliation. Natural temper of sand is the most common (8/11) with rounded particles ranging from fine to coarse. Rounded pebbles in excess of 5mm occur in three of these vessels. Grit temper of angular feldspar and quartz is found in two vessels, with particle size ranging from medium to coarse. Amongst the grit temper in Vessel 2, a small fragment of silicified sandstone is visible on the interior surface. This lithic material is very similar to the salt and pepper quartzite used to manufacture stone tools found throughout the region.

The majority of vessels exhibit straight rim profiles (9/11) with Vessel 13 demonstrating a short excurvate profile. Rim height was measurable in seven vessels and ranged from 22mm (vessel 13) to 46mm (Vessel 14) with an average height of 31mm. Lip profiles were varied and indicate the lack of attention paid to finishing and smoothing the lip surfaces. Profiles consist of rounded (3/11), square (2/11), pulled over (2/11), sub-rounded (1/11), inner expanding (1/11) and contracting (1/11). The lip profile of Vessel 4 varies considerably and ranges from square to rounded to inner expanding. Evidence for the addition of coiled lips is present on two vessels. Vessel 12 is represented by a narrow lip/rim sherd that exhibits a coil break immediately under the punctate row, while Vessel 1 has horizontal fissures along the upper rim immediately below an obviously thicker lip. These fissures suggest the poorly joined seam of an added coil. Lip thickness averages 7.8mm in this sample and ranges from approximately 6mm to 10mm.

Due to lack of reconstruction only limited comment can be made regarding vessel form; however, the prevalence of straight rims with only slightly rounded neck profiles indicate vessels with gentle neck constrictions. Shoulder sherds were associated only with Vessel 14 and they exhibit an angled profile measuring approximately 134^{o}. The exterior is enhanced to produce this angle and the shoulder is approximately 10mm thick. Body sherds were associated with six vessels and these average 7.6mm thick, ranging from 6.3mm in Vessel 6 to 9.41mm in vessel 3. Body thickness varies noticeably in four vessels where narrow, parallel finger impressions are visible on the

interior. Sufficient reconstruction was possible in five vessels, allowing for interior orifice diameter calculations ranging from approximately 139mm to 192mm.

Only Vessels 2 and 12 exhibit lip decoration. Both have narrow, crescent-shaped impressions on the lip surface that appear to be made by a finger or thumbnail. In Vessel 2 these impressions have a right oblique orientation and are spaced about 9.8mm apart. In Vessel 12 there is no obvious pattern to the decoration as there are both right and left oriented impressions, as well as single and double impressions. The exterior rims of all vessels are decorated with a single row of round punctates. A slight variation occurs on Vessel 10 where it appears a notch was cut into the tool creating the punctate impression. Punctate diameter is consistent averaging 4.78mm, while punctate spacing varies between pots from 7.12mm to 22.7mm. Punctate distance below the lip also varies from 11.05mm to 19.75mm. A corresponding row of subtle bosses is present on the interior surface of most vessels where it could be determined. Only Vessel 11 did not exhibit any bosses.

Unclassified Vessel (n=1)

Vessel 5 (Figure 4.17) stands out from the rest of the assemblage primarily due to paste and surface finish characteristics. Temper is comprised of angular pieces of grit ranging from medium to coarse in size with several fragments in excess of 8mm. The grit is composed of degraded granite that has not been fully processed or crushed to sort for specific minerals (such as feldspar). A heavy amount of grit was used, far in excess of the sparse amounts typically found in Narrows pottery. The paste is compact with no signs of layering, although fissures and voids are visible.

The exterior surface of Vessel 5 is not textile impressed, but rather plain. However, this appearance is enhanced as a result of weathering possibly by sand erosion. The rough and unsmoothed surface with easily visible temper suggests that a thin veneer has eroded away on these rim sherds, obscuring the true exterior finish. It should be noted that body sherds from the same collection locale, and possessing similar distinctive grit temper, exhibit vertical fabric impressions that are completely smoothed and obliterated in some areas. It is possible that the reconstructed rim belongs to a

sprang-impressed vessel where the exterior surface has been smoothed over and obliterated near the orifice.

Decoration on this vessel consists of smooth rod impressions across the lip surface. These impressions measure 2.89mm wide and are spaced approximately 6.5mm apart. As a result of these impressions, displaced clay has created a lip profile that expands on both the interior and exterior producing a slight "T" shape. A single, uneven row of round punctates is present on the exterior of the neck. Punctate diameter is 4.44mm while distance between punctates ranges from 3.9mm to 10mm, and the distance below lip ranges from 11mm to 16mm.

Syncretic Narrows/Selkirk Vessel (n=1)

The exterior finish of Vessel 7 (Figure 4.17) is also distinct from the rest of the HaOh-19 assemblage. The surface is impressed with an amorphous textile more typical of Winnipeg Fabric-impressed ware. The interior is smooth but not wiped. Carbon residue encrusts both interior and exterior surfaces suggesting use as a cooking pot. The paste is lamellar but well consolidated with temper composed primarily of fine sand with very sparse fragments of angular feldspar.

The rim profile is straight and 42mm tall, with a rounded lip profile 5.7mm thick. Decoration consists of a single row of small, round punctates 3.5mm in diameter, spaced 8.6mm apart and placed only 6.3mm below the lip. A discontinuous trailed line is located below the punctate row but does not appear to be purposeful decoration. Two drill holes are found on two separate rim sherds. One is immediately below the lip apparently drilled through a punctate (as indicated by an expanded hole and circular striations on the interior wall), and another is approximately 31mm below the lip, measuring 5.2mm in diameter. These holes were drilled into the vessel after the pot was fired, but their purpose is not known. They do not appear to serve as mend holes to repair a crack nor occur at the terminus of a fracture to prevent further breakage as suggested elsewhere (Snortland-Coles 1979:50).

Generally speaking this vessel is thinner and better made than the majority of pots at HaOh-19. The exterior surface finish is typical of Winnipeg Fabric-impressed ware, but the remaining paste, temper and profile characteristics fit within the acceptable

range of Narrows pottery. Vessel 7 is, therefore, considered a syncretic Narrows/Selkirk pot.

4.2.4 Area D

4.2.4.1 HaOh-20 (Peter Pond 00-25)

HaOh-20 is located at the southernmost end of a sandy hollow located between two high sand beach ridges paralleling the western shore of Peter Pond Lake. Cultural materials were found on the surface along the western toe of the eastern ridge. The site consists of approximately twelve concentrations and find spots in a large area 420m long by 90m wide. Lithic tools collected include a small side-notch point as well as several bifaces and unifaces (see Appendix B). A total of 142 pottery sherds were recovered, with rim sherds representing at least four distinct vessels (Figure 4.18), and a reconstructed shoulder/lower body portion representing a fifth. Only minimal reconstruction was possible as the assemblage was highly fragmented. All of the vessels are identified as Narrows pottery.

Narrows Pottery Vessels (n=5)

The exterior surfaces of all five vessels are impressed with a vertical sprang textile. This ranges from fine, tightly twisted cords that are lightly impressed (Vessel 1) to deeply impressed, coarse cords over 2.5mm in width (Vessel 5). Textile impressions extend onto the lip surface of two vessels. The interior surfaces of four vessels are smooth, with horizontal wiping striations visible on the neck sherd of only one vessel. Carbon residue is present on three vessels suggesting use as cooking pots. The paste texture of all vessels is lamellar with a high degree of exfoliation. Temper consists of sand (2/5), sand and sparse grit (2/5) and grit (1/5), with moderate amounts of angular feldspar fragments found in the grit tempered vessel.

Rim profiles could be determined in only three instances and include two straight and one excurvate form. Only Vessel 2 had a sufficient rim to allow for a height measurement of 30.12mm. Lip profiles are varied and include pulled over (1/4), interior expanding (1/4), rounded (1/4), and exterior expanding (1/4). Lip thickness is variable

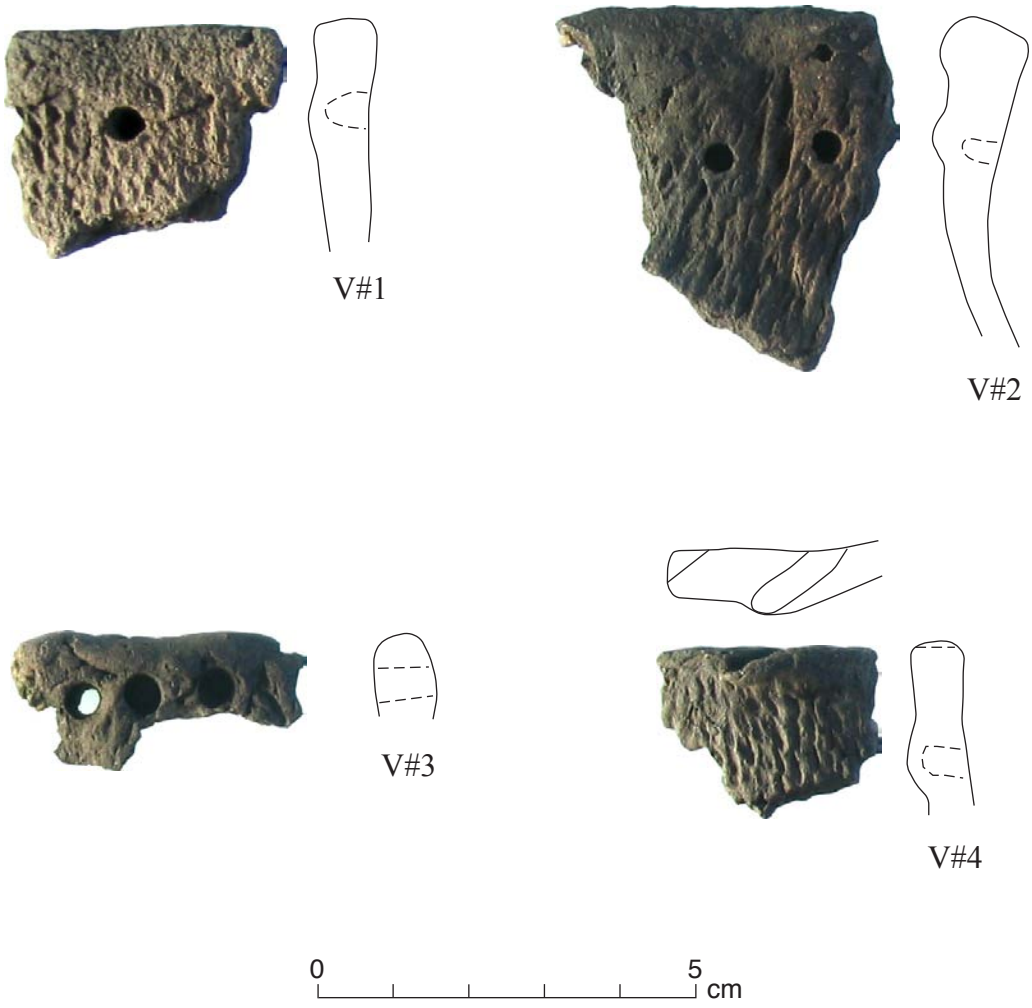


Figure 4.18: Narrows pottery rim sherds from HaOh-20 (Area D).

amongst vessels but averages 8.21mm, and ranges from 7.8mm in Vessel 4 to 9.11mm in Vessel 2. This lip thickness is noticeably greater than the rim thickness in vessels 1 and 2 where they measure 5.17mm and 6.51mm respectively.

Due to lack of reconstruction only limited comment can be made regarding vessel form. However, the rim profile and neck sherds from Vessel 2 indicate a gentle neck constriction with a rounded neck juncture. An exterior thickened, angled rim sherd measuring 9.17mm thick was found associated with Vessel 4, and Vessel 5 exhibits a gently rounded shoulder measuring 7.71mm thick. Body sherds were associated with three vessels, and thickness ranges from 6.3mm in Vessel 2 to 8.3mm thick in Vessel 5.

Lip decoration was present only on Vessel 4. Right oriented, smooth rod impressions extend from the inner corner of the lip across the lip surface. The impressions are approximately 4mm wide and are spaced 13mm apart. Displaced clay from this decoration results in variable lip thickness (6.3mm to 9.6mm) and gives the profile an irregular outer expanding profile. A single row of round punctates is present on the rim of all vessels where it could be determined. Vessel 3 is notable because the punctates are spaced very close together and immediately below the lip. This contrasts with Vessels 1 and 2 where punctates are spaced over 10mm apart and more than 11mm below the lip.

4.2.4.2 HaOh-21 (Peter Pond 00-26)

HaOh-21 is located over 200m north of HaOh-20 in the central portion of the sandy hollow. Artifacts were discovered in an area approximately 130m long by 70m wide and consist of seven discernable concentrations. Lithic tools collected include one point and point perform, a biface, pecking stone and two chithos. A total of 137 pottery sherds were collected from HaOh-21 with rim and associated sherds representing at least six distinct vessels (Figure 4.19). All are identified as Narrows pottery.

Narrows Pottery Vessels (n=6)

A vertical sprang textile impression is present on the exteriors of all vessels from HaOh-21. This finish extends onto the lip surface of four pots. The interior surface of three vessels is smooth, while horizontal wiping striations are present only on the

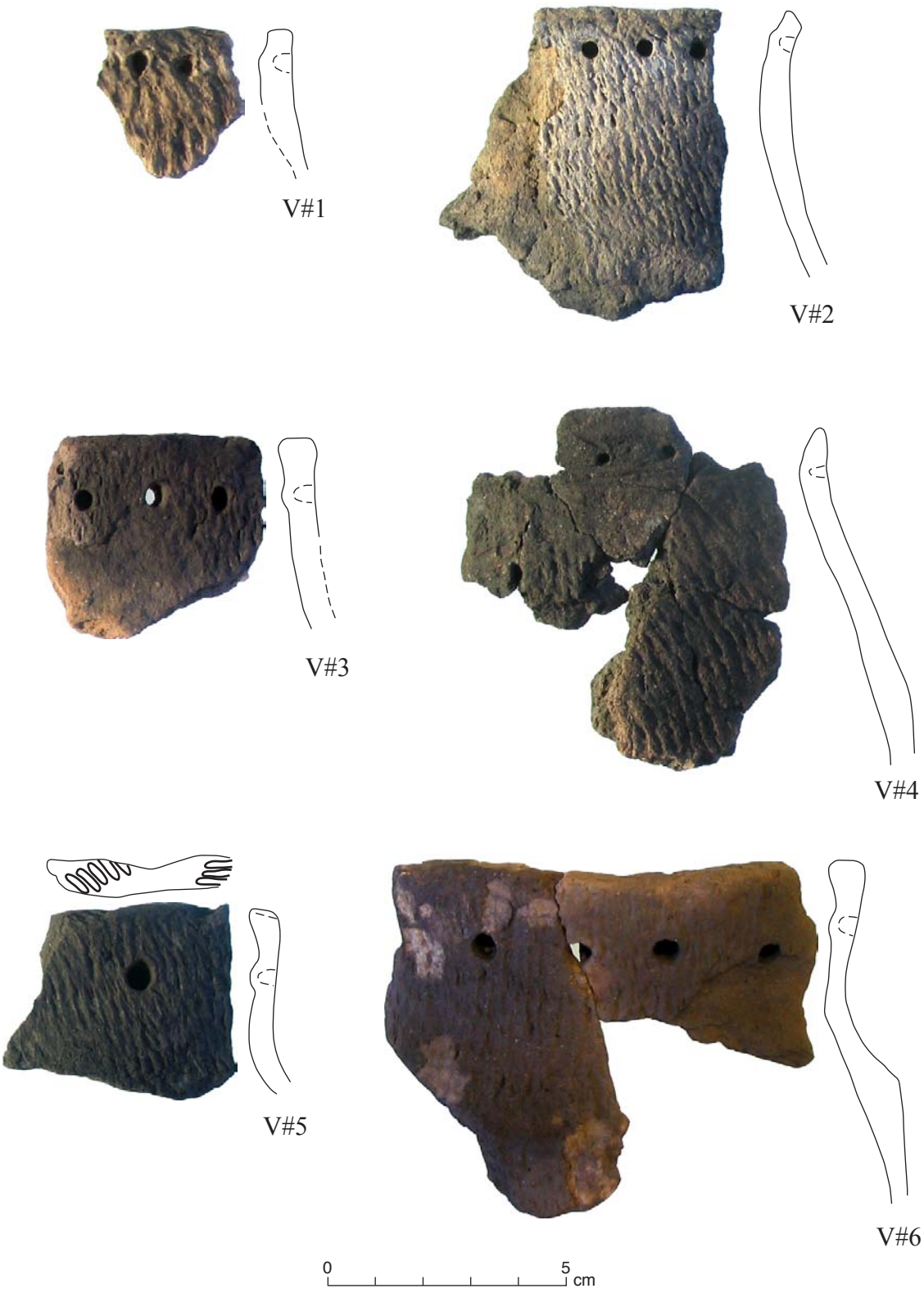


Figure 4.19: Narrows pottery rim sherds from HaOh-21 (Area D).

interior of Vessel 5, and the interior finish was indeterminate on two vessels due to weathering. Carbon residue is present on the exterior and interior of vessel 5, suggesting use as a cooking pot. Paste texture is lamellar in most vessels and highly friable in two. Temper consists primarily of fine rounded sand particles. Vessel 5 is the exception where the paste is compact and well consolidated, with grit temper of quartz and feldspar. These particles are angular and range in size from medium to coarse, with some fragments greater than 8mm in size.

Straight rim profiles are the most common in this assemblage and represented in four vessels, while the remaining two are excurvate. Rim heights are fairly consistent in three vessels, ranging between 28mm and 34mm, while Vessel 4 exhibits a very short rim approximately 11.5mm high. A variety of lip profiles are present including square (1/6), exterior bevel (1/6), expanding (2/6), contracting (1/6), and inner expanding (1/6). As a result lip thickness varies, ranging from 3.75mm in Vessel 4 to 8.42mm in Vessel 6.

Lip to shoulder reconstruction was possible on two vessels exhibiting quite different profiles. Vessel 4 has a very short, almost non-existent excurvate rim with a very slight neck constriction. The profile then flows out into a very gentle, rounded body with no discernable shoulder. It is very similar in profile to Vessel 5 from HaOh-1. Vessel 6 exhibits a tall, straight and everted rim that flows from a constricted neck out towards an angled shoulder measuring approximately 140^{o}. Constricted, round neck profiles are also found on the rim sherds of Vessels 2 and 5. Body sherds were associated with five vessels and range from 4.5mm to 7mm.

Lip decoration is present only on Vessel 5. Right oblique oriented CWTI begin on the outer corner of the lip and extend across the lip surface. The impressions are approximately 6.2mm wide and spaced 13.3mm apart. The cord wrapped around the tool is quite coarse measuring approximately 2mm wide. A single row of round punctates is present on the rim of all vessels, with punctate size, spacing and placement below the lip varying between pots. Corresponding interior bosses are present on all rims and quite pronounced on Vessel 5. The only other rim decoration is found on Vessel 4. A shallow, trailed horizontal line about 4mm wide occurs immediately below the punctate row, about 12mm below the lip.

4.2.4.3 HaOh-22 (Peter Pond 00-27)

HaOh-22 is located at the northern end of the sandy hollow approximately 265m north of HaOh-21. The hollow terminates here and the terrain returns to flat, irregular ground. The site lies mainly on the north side of a 200m portage trail leading to a small grassy lake west of Peter Pond Lake. Artifacts were found scattered on the surface in an area about 110m long by 50m wide. Considerably fewer artifacts were found at the site; however, this may be the result of collecting by visitors as the portage trail is still actively used and there is evidence of recent camping. Only 32 pottery sherds were collected from the site with a single rim and associated fragments positively identifying one vessel. Approximately 85m northeast of this vessel a concentration of mainly exfoliated sherds likely represent a second vessel, however, no rims are associated with this group. All pottery exhibit vertically oriented fabric impressions on the exterior, and Vessel 1 is identified as Narrows pottery (Figure 4.20).

Narrows Pottery Vessel (n=1)

This vessel is impressed with a vertical sprang textile which has been lightly smoothed. The interior surface is smooth but not wiped. Paste texture is characterized as lamellar and highly friable, with natural temper composed of fine sand giving the sherds a gritty feel. Very sparse inclusions of angular feldspar are also present, most measuring between 1-3mm, with a few greater than 4mm. The rim profile is straight, however, not enough is present to determine rim height. The lip profile is pulled over with clay rolled over and smeared down the exterior surface. The lip surface is also flattened and smoothed creating an interior expanding lip measuring approximately 7.4mm. The lip is obviously thicker than the much thinner rim, measuring only 4.27mm. One neck juncture sherd is present exhibiting a rounded profile indicating the vessel has a gentle neck constriction. At least ten body sherds were found associated with the rim displaying an average thickness of 6.33mm, and ranging between 4.8mm and 7.8mm. No decoration is present on the lip but a lone, round punctate is found on the rim exterior. Punctate diameter measures 5.2mm and it appears the tool used was rotated

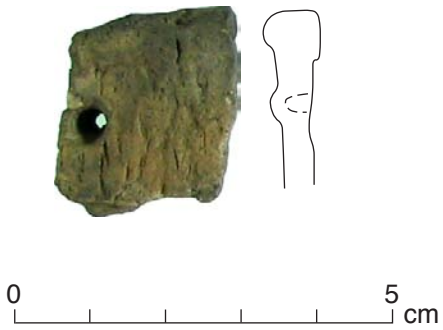


Figure 4.20: Narrows pottery rim sherd from HaOh-22 (Area D).

around to create a slightly larger impression. The punctate is placed 10.25mm below the lip, and a prominent boss is present on the interior surface.

4.2.5 Area E

5.2.5.1 HaOg-28 (Peter Pond 01-15)

HaOg-28 is located along the west shore of Peter Pond Lake at the south end of a second hollow, within a series of depressions and low ridges. The area is badly burned with moderate regrowth of alder and blueberry resulting in varying degrees of subsurface exposures. Cultural materials were found in an area approximately 100m long by 80m wide. Lithic tool recoveries were substantial consisting of 13 projectile points and point preforms, several bifaces, unifaces, one chithos and a pipe fragment (see Appendix B). A total of 34 pottery sherds were recovered from the site, with rim sherds representing at least six vessels (Figure 4.21). All have been identified as Narrows pottery.

Narrows Pottery Vessels (n=6)

The exterior surfaces of all vessels from this site are impressed with a vertically oriented sprang textile. This impression is smoothed and obliterated just under the lip of Vessel 5, and extends onto the lip surface of four vessels. The interior surfaces are smooth but exhibit no wiping striations. Carbon residue is present on the exterior and interior of two vessels suggesting use as a cooking pot. Paste texture is lamellar and highly friable in four vessels, while one vessel is lamellar but well consolidated, and another is compact with no obvious signs of layering. The temper within this assemblage consists of fine to medium sand particles giving the paste a gritty feel. Vessel 2 contains at least one large rounded pebble approximately 7.4mm long.

Rim profiles consist of four straight and two excurvate forms. Rim heights could only be measured in two instances and they varied from 28.7mm in Vessel 2, to 42.9mm in Vessel 6. Lip profiles include rounded (2/6), expanding (2/6), square (1/6) and pulled over (1/6). Lip thickness is generally greater than or equal to rim thickness with an average of 7.5mm and varying in thickness from 6.2mm in Vessel 5 to 9.5mm in Vessel

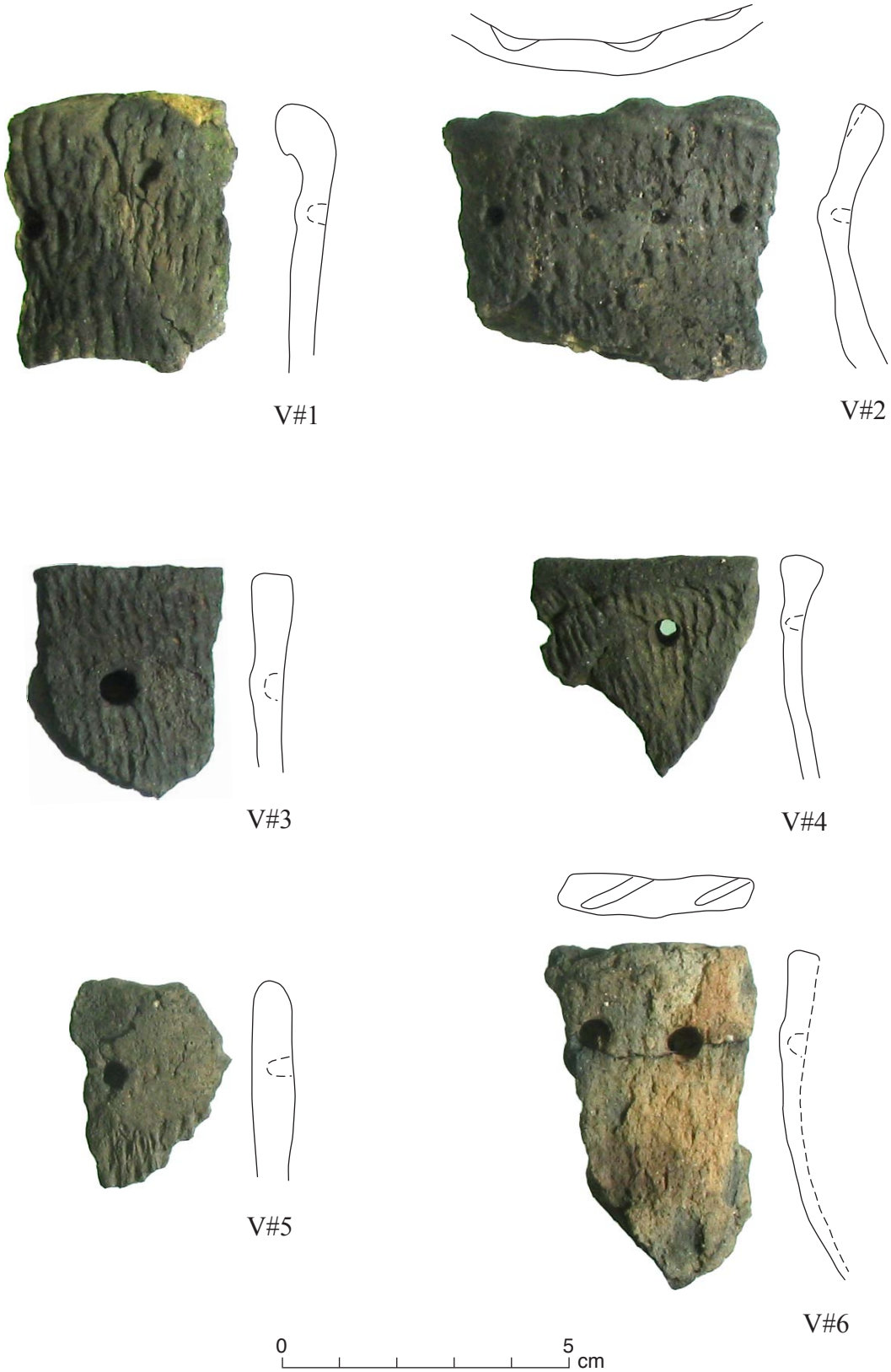


Figure 4.21: Narrows pottery rim sherds from HaOg-28 (Area E).

1. The result is a lip almost twice as thick as the rim. Rim thickness within the assemblage averages 5.9mm. Only limited comment can be made regarding vessel form due to lack of reconstruction. However, rim sherds from three vessels exhibit gentle neck constrictions with rounded profiles. Body sherds were associated with Vessels 4 and 5, with thickness measurements averaging 4.2mm and 6.3mm respectively.

Lip decoration occurs on two vessels. The inner lip of Vessel 2 is decorated with broad, vertically impressed rod impressions. These impressions are approximately 6.4mm wide, extend 10.14mm down the interior rim surface, and are spaced about 11.03mm apart. They are impressed deeply enough to produce slight bulges on the exterior lip. The lip surface of Vessel 6 is decorated with right oblique oriented rod impressions. These narrow impressions originate from the inner lip corner and are approximately 2.4mm wide and spaced 12mm apart.

The rims of all vessels are decorated with a single row of round punctates. Diameters are relatively consistent with an average of 4.5mm, but range from 3.6mm on Vessel 2, to 5.6mm on Vessel 5. Punctate spacing varies amongst vessels anywhere from 10.6mm to 18.39mm, and placement below the lip varies from 8.7mm in Vessel 4 to 16.8mm in Vessel 5.

4.2.5.2 HaOg-26 (Peter Pond 01-13)

HaOg-26 is located approximately 500m northeast of HaOg-28 within the sandy hollow. Artifacts were found in an area 135m long by 35m wide and include limited lithic tool recoveries comprised of one biface and three unifaces (see Appendix B). A total of 72 pottery sherds were recovered from the site, representing at least two vessels from three concentrations. Reconstruction was possible in one instance allowing for significant interpretation. Both vessels are identified as Narrows pottery (Figure 4.22).

Narrows Pottery Vessels (n=2)

The exterior surface of both vessels is impressed with a vertically oriented textile. Vessel 1 is impressed with a fine corded fabric that has been lightly smoothed, particularly on the neck juncture where horizontal smoothing striations are present. The interior surface of both vessels is smooth but not wiped. Paste texture is lamellar and

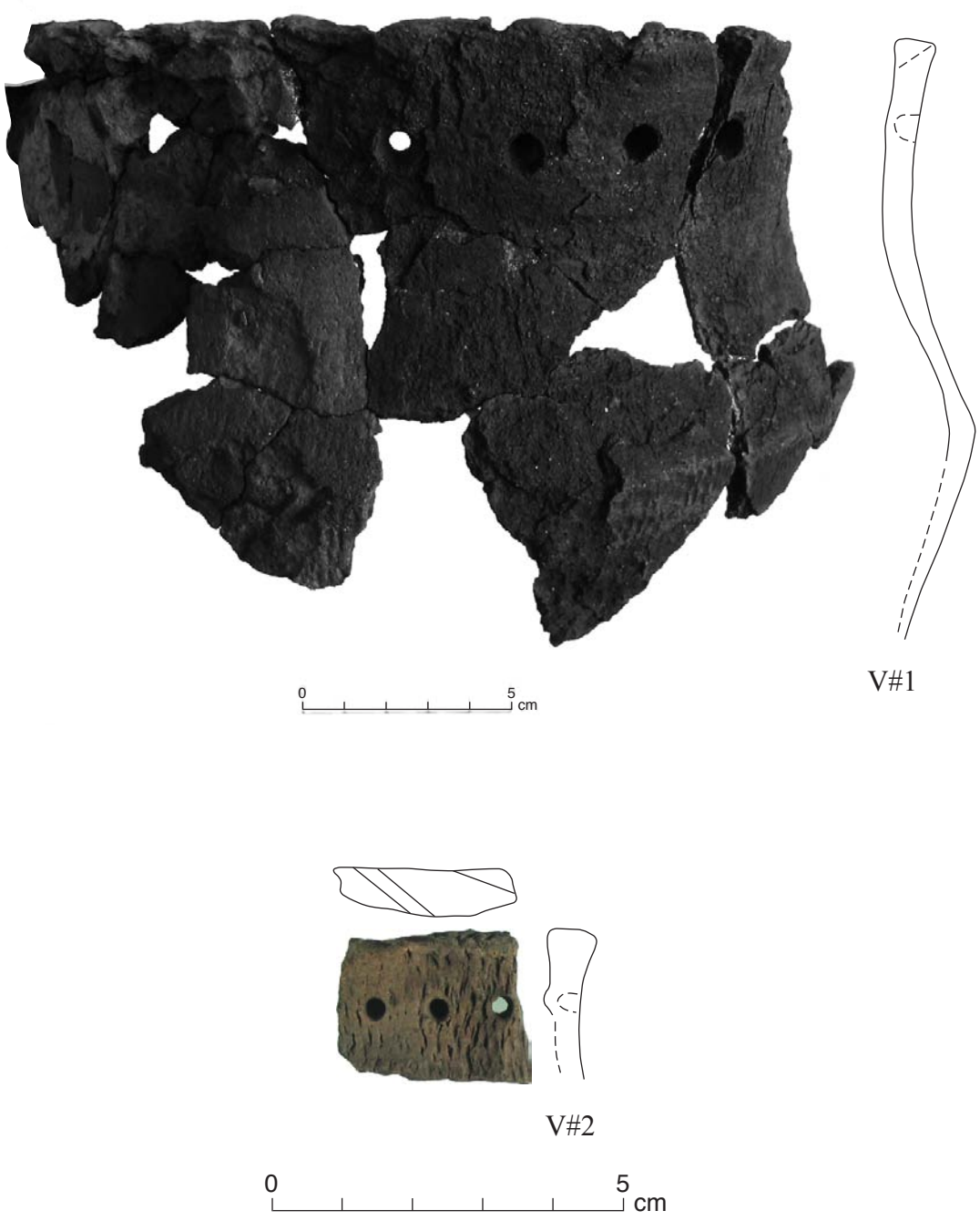


Figure 4.22: Partially reconstructed Narrows pottery vessel and rim sherd from HaOg-26 (Area E).

highly friable as both vessels are prone to exfoliation. The temper of Vessel 1 is composed of sparse angular fragments of feldspar and quartz, most between 3mm to 4mm in size. Vessel 2 appears to contain no temper as the paste is neither sandy nor contains angular grit fragments.

Due to the extensive reconstruction of Vessel 1, details of the full profile are known. This pot exhibits a tall, straight rim measuring just over 43mm in height and 7.3mm thick. The neck is gently constricted with a rounded profile that flows out towards a gently angled shoulder. The shoulder is thickened on the exterior to produce an angle measuring approximately 142^{o}. A separate shoulder/body reconstruction indicates a slightly elongate, rounded body form. Body sherds are thinner than the upper portion of the vessel, averaging 5.8mm thick. The interior orifice diameter is estimated to be approximately 153mm. Very thick carbon residue is encrusted on the interior surface (measuring 2.5mm thick in places) suggesting use as a cooking pot.

Lip decoration is present on this vessel in the form of interior notches. A broad, sharp edged tool was deeply impressed on the interior lip corner creating "V" notches extending almost to the exterior lip edge. This decoration resulted in an expanding lip profile measuring 11.6mm thick. The impressions are approximately 9mm wide and spaced 9mm apart. A single row of large, round punctates is present on the exterior rim, with an average diameter of 7.16mm, spaced 15mm apart and 16mm below the lip.

Vessel 2 appears to share similar profile characteristics although wall thickness is generally thinner. The rim form is straight; however, not enough is present to allow for height measurements. The lip exhibits an outer expanding profile measuring 6.97mm thick. Shoulder sherds associated with the vessel possess an exterior thickened, angle profile measuring 6.8mm, while body sherds average 5.2mm thick. Lip decoration is present and consists of narrow, smooth rod impressions across the lip surface. The impressions have a left oblique orientation, and are 2.3mm wide and spaced 10.5mm apart. A single row of round punctates is present on the exterior of the rim. They are noticeably smaller and placed closer together than those on Vessel 1, with a diameter of only 3.79mm, spaced 6.9mm apart and 9mm below the lip.

4.5.2.3 HaOg-30 (Peter Pond 01-17)

HaOg-30 is located on the upper slope of a low beach ridge/terrace 60m east of a small inland lake and 325m west of Peter Pond Lake. It is situatated west of the sandy hollow containing HaOg-26 and HaOg-28. The vegetation of the immediate vicinity consists of moss and Labrador tea with little subsurface exposure. The collection area was quite small measuring approximately 2m long by 1m wide and concentrated around the exposed base of a tree. Only six sherds were collected from this find spot and all relate to the same vessel identified as Narrows pottery (Figure 4.23).

Narrows Pottery Vessel (n=1)

This vessel is represented by two unconjoined rim to upper shoulder sherds, two exfoliated body sherds and one basal sherd. The paste is lamellar but well consolidated, with rounded sand inclusions generally between 1-3mm in size. The exterior is impressed with a fine, vertically oriented fabric that extends onto the lip surface. The interior is smooth and the surface undulates with what appears to be small finger impressions from vessel formation. The rim exhibits a straight profile measuring 19mm in height. The lip profile is square measuring 6.1mm thick and has a slight interior fold of clay in places. The rim is decorated with a single row of very small, round punctates that are approximately 2.5mm in diameter. They are widely spaced, averaging 17.59mm apart and placed about 10mm below the lip. One rim sherd exhibits a drill hole with a diameter of 4.58mm placed 9mm below the lip. It is situated between punctates and the obviously larger hole exhibits interior horizontal striations indicating it was drilled after the vessel was fired. The rim is short and straight and flows from a slightly constricted neck out towards a gently rounded shoulder. Unfortunately the body sherds are exfoliated preventing thickness measurements, but the lone basal sherd averages 8.97mm thick. Carbon residue is present on the interior surface of the rim sherds, suggesting use as a cooking vessel.

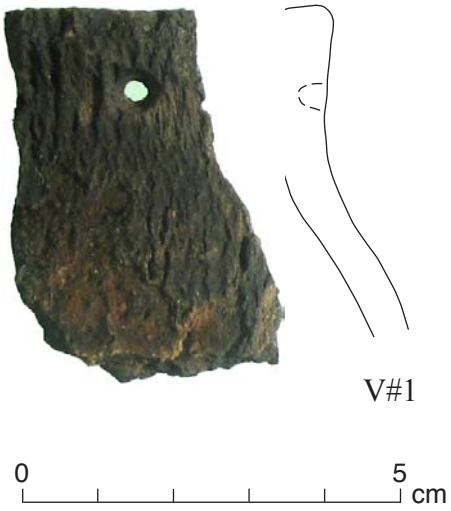


Figure 4.23: Narrows pottery rim sherd from HaOg-30 (Area E).

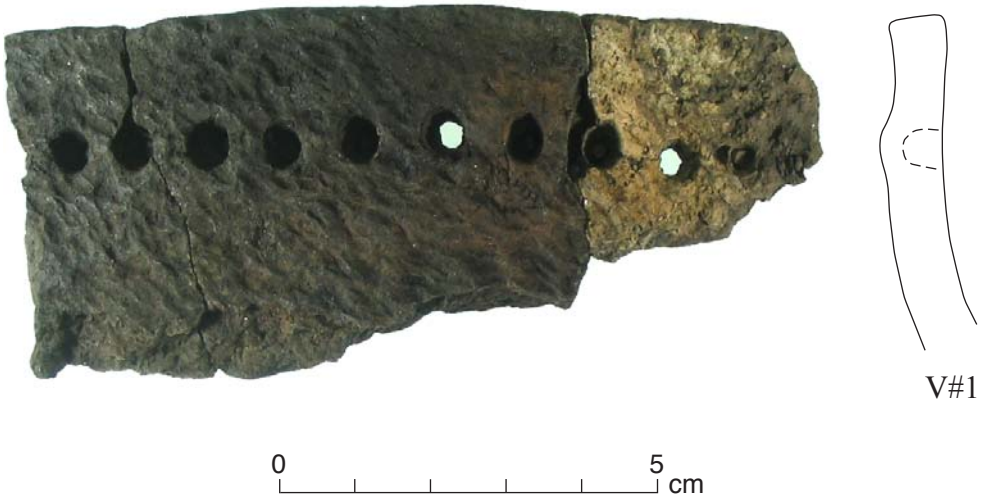


Figure 4.24: Partially reconstructed rim of a Clearwater Lake Punctate vessel from HaOg-17 (Area F).

4.2.6 Area F (La Loche River)

4.2.6.1 HaOg-17 (Peter Pond 01-04)

HaOg-17 was discovered adjacent to a bush trail running north along the west bank of the La Loche River. It is situated between two low, sandy ridges about 600m north of where the river enters Peter Pond Lake. The immediate vicinity was burned resulting in moderate surface visibility, with artifacts recovered from an area 80m long by 50m wide. Tools collected include three projectile points, one biface, a retouched flake, and one metal trade point. A small sample of pottery was also recovered consisting of five rim sherds, an exfoliated shoulder sherd and two body sherds, all representing a single Winnipeg Fabric-impressed ware vessel (Figure 4.24).

Winnipeg Fabric-impressed Ware Vessel (n=1)

The exterior of this vessel is impressed with an amorphous textile impression that has been lightly smoothed, while the interior exhibits horizontal wiping striations. The paste is laminated but very well consolidated. Temper consists of medium-sized fragments of grit temper with pink plagioclase feldspar and black mica visible throughout the paste, particularly on the interior surface. Temper is present in moderate amounts. The lip surface is completely smoothed and flattened, producing a very square lip profile measuring 6mm thick. The rim profile is straight with a height of 41mm and exhibits a gently rounded neck constriction.

The Rim is decorated with a single row of round punctates with an average diameter of 5.2mm. They are spaced approximately 4.7mm apart and placed 13mm below the lip. Corresponding bosses are found on the interior of the rim. A hollow tool was used to produce the punctates, possibly a feather quill, and their shape is slightly more elongate than round. The lone shoulder sherd is exfoliated on the exterior, but the interior surface is sharply rounded and smooth. The two body sherds are quite thin, averaging 4.89mm in thickness. The orifice diameter is large and estimated to be 215mm. Carbon residue on the interior surface suggests use as a cooking pot. This vessel is generally well made with a high quality paste exhibiting grit temper, thin body

walls, a twined exterior finish and rounded shoulders. It is identified as a Clearwater Lake Punctate Type vessel.

4.2.7 Area G (Vermette Lake)

4.2.7.1 GkOg-17 (Vermette Lake 01-19)

GkOg-17 is located on the northwest shore of Vermette Lake at the mouth of an unnamed creek. The low-lying point of land on the south side of the creek where the site is found was lightly burned resulting in only sporadic surface exposure. A small concentration of pottery sherds was observed at the base of a tree, and debitage was scattered over an area 60m long by 50m wide. Previous collecting activities were evident at the site in the form of recently piled debitage. No lithic tools were observed and only eight pottery sherds were collected from the site including one rim, two neck, one shoulder and two body sherds. All belong to one vessel identified as Narrows pottery (Figure 4.25).

Narrows Pottery Vessel (n=1)

The paste of this vessel is compact and contains natural temper of fine sand. The exterior is impressed with a prominent, vertically oriented fabric that is smoothed and obliterated just under the lip. The rim profile is straight, but not enough of the sherd is present to allow for a height measurement. The interior lip corner is decorated with broad, smooth rod impressions measuring 9.8mm wide and spaced 6.2mm apart. These notches extend over 18mm down the interior rim surface and are deeply impressed at an angle resulting in a bulge on the exterior lip corner. This decoration is responsible for the rounded and slightly expanding lip profile which measures approximately 8.66mm thick. One round punctate with a diameter of 4.5mm and placed 16.6mm below the lip is present on the rim sherd with no corresponding interior boss. The associated shoulder sherd is rounded and measures 6.28mm thick, while the body sherds are thinner, averaging 5.42mm thick. Carbon residue on the interior of the shoulder sherd suggests use as a cooking vessel.

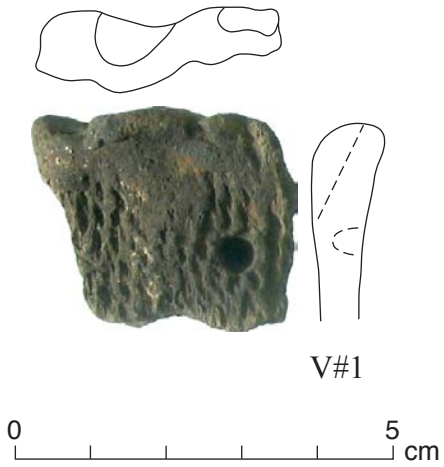


Figure 4.25: Narrows pottery rim sherd from GkOg-17 (Area G).

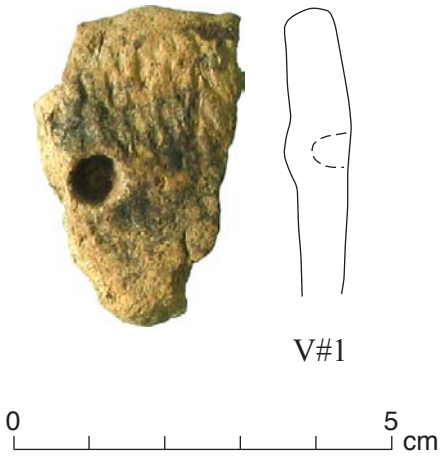


Figure 4.26: Narrows pottery rim sherd from GkOg-24 (Area G).

4.2.7.2 GkOg -24 (Vermette 01-26)

GkOg-24 is found on the west shore of Vermette Lake approximately 1.75km southwest of GkOg-17, also at the mouth of an unnamed creek. It is located in a large ploughed clearing on the north side of a broad muskeg streambed. Artifacts were found in a disturbed context in an area approximately 100m long by 60m wide and consisted of pottery sherds, 1 chithos and a scatter of debitage. Several small piles of debitage were noted in this clearing indicating recent collection activities at the site. Only six sherds were recovered including two rim, one neck and three body sherds. All are identified as belonging to the same Narrows pottery vessel (Figure 4.26).

Narrows Pottery Vessel (n=1)

The paste of this vessel is sandy and compact with little sign of layering. Inclusions consist of one angular fragment of quartz and a few rounded pebbles in the body sherds measuring 5mm to 7mm in diameter. Generally speaking the paste is quite light and porous. The exteriors of most sherds are weathered and sand eroded to some extent, but reveal a vertically oriented fabric impression that extends onto the lip surface. The lip surface itself undulates and is not well finished producing a rounded profile measuring 6.8mm thick. The rim sherd exhibits a straight profile and is noticeably thicker above the punctate row than below. The rim measures 5.7mm thick. The exterior rim of one sherd exhibits a large, round punctate placed 18mm below the lip with a diameter of 7mm. It produced a corresponding boss on the interior surface. The lone neck sherd indicates a vessel with a slightly constricted neck that gently flows out towards a shoulder. The body sherds are fairly thick averaging just over 7mm.

4.2.7.3 GjOg-9 (Vermette 01-09)

GjOg-9 is located in the southeast corner of Vermette Lake in a disturbed modern cabin clearing. It is situated about 20m from the lake on poorly drained land with limited subsurface visibility due to the overgrowth of moss and Labrador tea.

Artifacts were found along a trail leading to the shore and in the cabin clearing in an area approximately 25m long by 15m wide. Material observed consisted of pottery sherds and debitage.

Only limited comment can be made regarding the pottery from this site as only three small body sherds and two exfoliated sherds were recovered. They do, however, share traits typical of Narrows pottery. The exteriors bear a vertically oriented textile impression and the paste is sandy containing fine rounded particles. The average thickness of these sherds is 5.58mm.

4.3 Discussion of Ceramic Analysis

The results of the pottery analysis reveal an interesting pattern with regard to site distribution. The most striking feature is the dominance of Narrows pottery in the region (Table 4.1). Only three sites in Area A, the southernmost concentration of sites on Peter Pond Lake, and the lone site on the La Loche River in Area F, contained Winnipeg Fabric-impressed ware. The remaining 19 of 22 or 83% of sites in Areas B, C, D, E and G contained almost exclusively Narrows pottery. Most interesting is the complete lack of Kisis Angled Rim type vessels north of Area A or mixed with any of the Narrows dominated sites. This distinct separation of pottery in the region may indicate temporal separation, or at the very least, limited interaction between the producers of Selkirk and Narrows pottery. However, it should be observed that four vessels found in the study region were considered syncretic (exhibiting both Narrows and Selkirk pottery characteristics), and may indicate limited contact and interaction.

4.3.1 Narrows Pottery

The pottery analyzed in this study continues to support the idea that Narrows pottery represents a distinct ware in the region based on exterior finish and paste characteristics. Of the 122 identified pottery vessels in the study area, 86 are classified as Narrows pottery representing 70% of the total sample, and dominating most sites. Although this pottery conformed reasonably with previous descriptions, the substantial increase in site and ceramic sample size has allowed for a more comprehensive and

Table 4.1 : Summary of Classified Pottery Vessels By Site From Research Area.

Area	Site	Winnipeg Fabric-impressed Ware			Narrows Pottery			Other			
		Kisis Angle Rim	Clearwater Lake Pun.	Francois Punctate	Undec. Lip	Decorated Lip	Notched Lip	Sync.	Unclass.	Indet.	TOTAL
A	HaOg-10	16	6	1	2			1	1	1	28
A	HaOg-35				4						4
A	HaOg-11	1			1						2
A	HaOg-12	2			1						3
B	HaOh-1				9	2		1			12
B	HaOh-14				10	1	1				12
B	VS Col.				6	1	1				8
C	HaOh-12				4						4
C	HaOh-26				1	1					2
C	HaOh-15				4		2	1			7
C	HaOh-23				1						1
C	HaOh-17						1				1
C	HaOh-19				9	2		1	1	1	14
D	HaOh-20				3		1				4
D	HaOh-21				5	1					6
D	HaOh-22				1						1
E	HaOg-28				4		2				6
E	HaOg-26					1	1				2
E	HaOg-30				1						1
F	HaOg-17		1								1
G	GkOg-17						1				1
G	GkOg-24				1						1
G	GjOg-9									1	1
TOTAL		19	7	1	67	9	10	4	2	3	122

expanded definition of Narrows pottery, with the addition of form and decorative attributes previously unrecognized. A summary of qualitative attributes is presented in Table 4.2 and quantitative attributes are summarized in Table 4.3, with further elaboration below.

Table 4.2: Narrows Pottery Qualititative Attributes

Attributes	**Attribute States Represented**
Exterior Finish	Sprang textile impressed 85(98.8%); Indet. 1 (1.2%)
Interior Finish	Smooth 68 (79.1%); Wiped 10 (11.6%); Indet 7 (8.1%); Scraped 1 (1.2%)
Lip Surface Finish	Textile Impressed 54 (64%); Smooth 27(31.4%); plain 5 (5.8%)
Temper	Natural- Sand 41(47.7%); Natural- Sand and Pebble 14 (16.3%)Grit 17 (19.8%); Sand and Grit 12(14%); None 2 (2.3%)
Temper Size	Fine 23(26.7%); Fine-Med 26(30.2%); Medium 8(9.3%); Med-coarse 9(10.5%); Coarse 2(2.3%);Variable 16(18.6%) N/A 2(2.3%)
Temper Density	Light 32 (37.2%); Moderate 11(12.7%);sandy paste not estimated 41(47.7%) N/A 2(2.3%)
Paste Texture	Lamellar 70(81.4%); Compact 16(18.6%)
Rim Profile	Straight 61(70.9%); Excurvate 20(23.3%); Incurvate 1(1.2%)
Lip Profile	Expanding 31(36%); Square 18(20.9%); Round 15(17.4%); Pulled Over 10(11.6%); Sub Round 7(8.1%); Contracting 2 (2.3%); Irregular 2(2.3%);Bevel 1(1.2%);
Lip Surface Shape	Flat 55(64%); Round 27 (31.4%); Irregular 4 (4.7%)
Shoulder Profile	Indeterminate 61(70.9%); Round 15(17.4%); Angled 10(11.6%)
Lip Surface Decoration	None 67(77.9%); Rod Impressed 1 (1.2%); CWTI 3(3.5%); SET 2 (2.3%); Punctate 2(2.3%); Cord 1(1.2%)
Interior Lip Notching	Rod 8(9.3%); SET 2(2.3%)
Exterior Rim Decoration	Punctate 82(95.3%); Punctate/Trailed line 2(2.3%); Indet 2(2.3%)
Interior Rim Decoration	Boss 71(82.6); None 8(9.3%); Indet. 7(8.1%)
Residue	Carbon 38(44.2%); N/A 48(55.8%)

Table 4.3: Narrows Pottery Quantitative Attributes (mm).

	Mean	St. Dev.	Min	Max	Vessels
Lip Tickness	7.43	1.38	3.75	11.7	85
Rim Thick	6.79	1.55	4.02	10.8	60
Lip/Rim Ratio	1.14	0.34	0.55	2.14	60
Rim Height	29.5	11.7	5.87	54.4	39
Neck Thickness	7.72	1.69	4.55	12.9	37
Shoulder Thickness	8.69	2.26	4.3	14.4	22
Punct Length	4.77	1.04	2.28	7.91	78
Punct Width	4.81	1.05	2.28	8.06	78
Punct Spacing	12.9	5.29	3.79	28.9	70
Punct Dist. Below Lip	12.8	3.9	4.3	21.2	83
Tool Width	5.11	2.85	1.54	9.84	19
Tool Spacing	10.7	2.97	6.22	17.8	16
Body Thickness	6.67	1.33	3.87	9.91	52
Orifice Diameter	158	36.4	95.6	233	28

*Surface Finish***:** The exterior finish of all vessels recognized as Narrows pottery exhibits a distinct vertically-oriented impression typical of a sprang weave. This can vary from a fine, tightly twisted, strongly vertical cord impression, to a more coarse and loose cord impression that, while still vertical, is not as strongly parallel in orientation. The impression is fairly obvious as subsequent smoothing was rarely or only lightly performed. However, there are a few instances where the textile impression has been almost obliterated by smoothing. This textile impression extends onto the lip surface in the majority of instances. The interior surface is smooth and only rarely exhibits horizontal striations to suggest more intentional wiping or finishing.

Paste: Generally speaking, the paste of this pottery is not very dense or compact. Rather, the texture is often porous, lamellar, prone to exfoliate and in many instances of poor quality. This can be partly attributed to the high content of natural temper such as sand and pebbles found in the matrix. Shepard (1956:27) observes that "clay forms a poorer bond with smooth than with rough surfaces; thus grains of windblown sand will weaken a paste more than rough fragments of rock or sherd [grog] in the same grade size." The large rounded pebbles present in several vessels further indicate little effort was expended to prepare or sort the clay prior to vessel manufacture. This also accounts for the variable size of temper inclusions found in the paste.

However, it should be observed that vessels exhibiting grit temper and lamellar but well consolidated paste do occur. In these instances the temper density is quite light (often less than 5%) and consists of angular feldspar and quartz fragments. The density of sand temper in vessels was not calculated due to difficulties in obtaining accurate estimates with only a hand lens, but it was generally high as most pottery sherds in the sample had a distinct gritty feel to them and sand particles were visible. It cannot be known for certain if the dominance of naturally tempered paste reflects the exploitation of natural sandy clay sources or the purposeful addition of sand as temper. In either instance, it is apparent that grit temper was utilized in only minor amounts.

Form: Where more substantial reconstruction was possible, vessel form generally ranged from sub-conoidal to globular. Straight rim profiles are the most common in this sample with a lesser number of excurvate profiles. However, insufficient rim portions may have led to an over interpretation of straight forms. Lips are generally thicker than the lower rim, and profiles are dominated by expanding and square forms. The majority of lip surfaces are flat indicating an attempt to finish the lip; however, there is still a relatively high percentage of rounded and irregular surfaces when compared with Selkirk pottery. Neck junctures, where present, are characterized by a rounded profile with a very gentle inflection, although there are minor occurrences of vessels exhibiting a marked neck constriction. Rounded shoulders are the norm, however, a minor portion of the sample (about 12%) displays exteriorly thickened shoulders, with angled profiles ranging from 120^{o} to 144^{o}. This angularity indicates a complex vessel form previously unrecorded for Narrows pottery.

A further characteristic relating to the form of Narrows pottery was observed in previous studies and should be mentioned here. The walls of several vessels undulate and exhibit variable thickness. Although Paquin (1995:74) attributed this to handling of the vessels while still wet, it more likely relates to the manufacturing process. The undulations are created by a series of narrow, linear impressions found primarily on the interior surface of body sherds, although they can also occur on the exterior surface. These appear to be finger impressions produced by forming and pressing the clay into a textile bag mold. The corresponding exterior undulations may also reflect finger impressions from supporting the bag during this process. Such variable thickness and

lack of interior surface striations indicate there was little attempt to subsequently smooth the walls to create a uniform thickness. Generally speaking, however, Narrows vessels are relatively thin, with lips averaging just over 7 mm thick and body sherds just over 6 mm.

Decoration: All of the vessels from the sample bear a single row of round punctates on the exterior rim. In only two instances were there insufficient rims to determine if these impressions were present. Punctate size and placement range from small and closely spaced, with the row a short distance below the lip; to large and widely spaced, with the row well below the lip. The only other form of decoration present on the exterior rim consists of a single trailed line found on two vessels. In one instance the trailed line occurred above the punctate row, and in the other below. Bosses were present on the interiors of most rims, ranging from subtle to pronounced.

Prior to this study, lip decoration was not recorded in Narrows pottery assemblages. Although the vast majority of vessels in this sample do not exhibit decorated lips, this stylistic attribute is found on 22% (19/86) of vessels, and occurs in two varieties. The first is defined as interior lip notching, and includes a series of impressions that originate on the inner lip corner where they are more deeply impressed, and extend either across the lip surface, or down the interior surface of the rim (Lenius and Olinyk 1990:88). This is the most common form of decoration and is produced by smooth rod (8/10) or sharp edge tool (2/10) impressions, oriented either perpendicular to the lip, or at left or right oblique angles. These impressions are sometimes deep enough to produce a crimped or bulging effect on the exterior surface of the lip (Figure 4.27). The second group of decoration is restricted to the lip surface only, and consists of a series of smooth rod (1/9), coarse cord wrapped tool (3/9), or sharp edge tool (2/9) impressions, oriented at either perpendicular, left or right oblique angles, or alternating left and right oblique angles. Also included in this group are punctate impressions (2/9) placed around the circumference of the brim, as well as one example of a coarse cord deeply impressed perpendicular across the lip surface.

Narrows pottery was previously suggested to represent one ware consisting of only one type (Paquin 1995:126). The variable attributes observed in this sample,

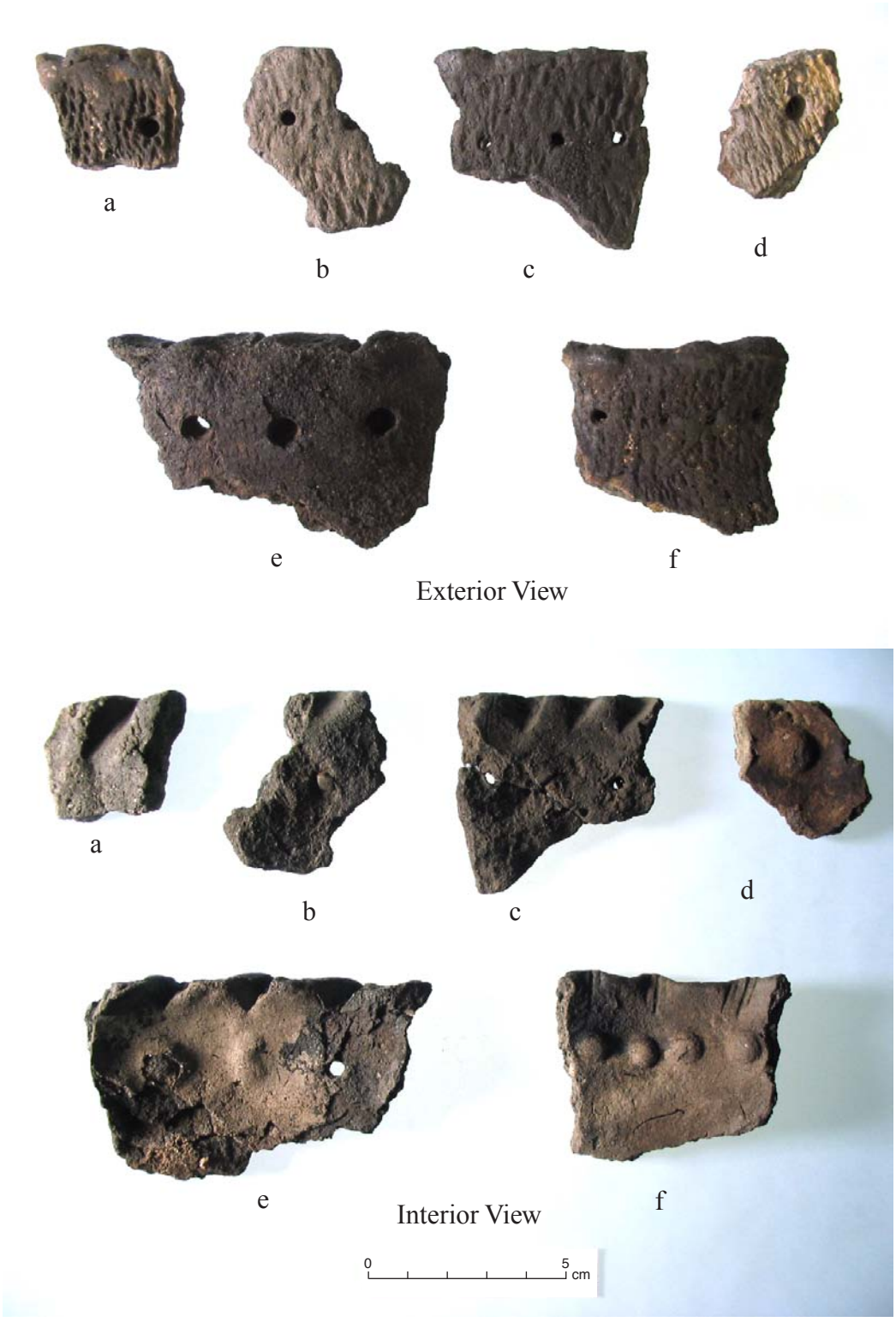


Figure 4.27: Examples of interior lip notched decoration found on Narrows pottery. a) GkOg-17, V#1; b) V. Sylvester collection V#1; c) HaOh-15, V#4; d) HaOh-17, V#1; e) HaOg-26, V#4; f) HaOg-28, V#2.

however, indicate that at least three types or varieties should be recognized. Attributes such as temper material and vessel form do not co-vary in a discernable pattern, but rather cross-cut not only each other, but stylistic attributes as well. The various states of lip decoration appear to be the only independent variables effective in making classifactory distinctions between vessels. As such, three types are proposed: Narrows Undecorated Lip, which is the most common, followed by Narrows Notched Lip which refers to vessels with interior lip corner decoration, and Narrows Decorated Lip which refers to vessels with lip surface decoration.

4.3.2 Winnipeg Fabric-impressed Ware

In contrast to Narrows pottery, Winnipeg Fabric-impressed ware was identified at only 18% (4/22) of sites in the region and accounts for approximately 22% (27/122) of the total ceramic sample. HaOg-10 contained the majority of this ware accounting for 23 of the 27 vessels. Most vessels conform to types already identified by Paquin (1995) and support his definition of Kisis Complex ceramics. As such they require a less detailed discussion. A summary of quantitative attributes is presented in Table 4.4 and a summary of qualitative attributes is presented in Table 4.5.

Table 4.4: Winnipeg Fabric-impressed Ware Quantitative Attributes (mm)

	Mean	St. Dev	Min	Max	Vessels
Lip Thickness	6.97	1.77	3.59	10.3	27
Rim Thickness	8.33	0.766	7.27	9.62	14
Lip/Rim Ratio	0.939	0.178	0.75	1.36	14
Rim Height	24.2	8.53	11.9	41	22
Neck Thickness	8.23	1.45	5.75	11	12
Shoulder Thickness	7.7	NR	6.22	9.72	8
Punctate Length	4.52	1.65	1.03	7.45	22
Punctate Width	3.55	1.14	1.65	5.3	22
Punctate Spacing	6.24	2.73	2.46	12.8	23
Punctate D-L	22.8	9.92	4.37	37	23
Tool Width	3	1.01	1.33	4.1	10
Tool Spacing	3.26	0.984	2.1	4.95	10
Body Thickness	5.37	1.38	3.82	8	12
Orifice Diameter	173	50	80.6	233	15

Table 4.5: Winnipeg Fabric-impressed Ware Qualititative Attributes

Attributes	Attribute States represented
Exterior Finish	Amorphous Textile 25(92.5%); smoothed over 2(7.4%)
Interior Finish	Wiped 22(82.14%); smooth 3(10.71%); Indet 2(7.14%)
Lip Surface Finish	Smoothed 19(67.87%); Textile Impressed 8(31.03%)
Temper	Grit 27(100%)
Temper Size	Med-coarse 11(40.7%); Fine-Med 9(33.3%); Medium 7(25.9%)
Grit Temper Density	Moderate 14(51.8%); Light 11(40.7%); Heavy 2(7.4%)
Paste Texture	Lamellar 19(67.86%); compact 8(32.14%)
Rim Profile	Angled 19(70.3%); Straight 6(25.9%); Indet 2 (7.4%); Excurvate 1(3.7%)
Lip Profile	Expanding 10 (35.71%); Square 9(32.14%); Sub Round 3(14.29%);Round 3(10.71%); Bevel 2(7.14%)
Lip Surface Shape	Flat 21 (75%); Round 5(17.86%); Indet 1(3.57%)
Shoulder Profile	Indet. 18 (67.9%);Rounded 4(14.29%); Sharply Rounded 4(14.29%); Angle 1(3.57%)
Lip Decoration	None 19(70.4%); Surface CWTI 4(14.8%); Inner/Outer corner CWTI 3(11.1%); Inner/Outer corner SET 1(3.7%)
Exterior Rim Decoration	Pinch over Punctate 9(33.3%); Alternating Pinch and Punctate 5(18.5%); Finger Pinch 3(11.1%); Punctate 6(22.2%); elongate punctates 2(7.4%); Poke Marks 1(3.7%); Indet 1(3.7%)
Interior Rim Decoration	Boss 18(67.86%); Flattened boss 2(7.14%); None 3(10.71%); Indet 4(14.29%)
Residue	Carbon 11(39.29%); Red Ochre 2(7.14%); None 14(53.57%)

The exterior finish of all vessels assigned to this ware is characterized by an amorphous fabric impression typical of a twined weave that demonstrates some degree of additional smoothing. The interior surfaces of almost all vessels exhibit horizontal striations indicating purposeful wiping or smoothing, possibly in an effort to create a more uniform thickness. The paste is lamellar, but of good quality as it is well consolidated and hard. Temper consists exclusively of crushed grit commonly present in moderate amounts, with feldspar being the most common mineral. In contrast to Narrows pottery, only one vessel exhibits a sandy paste with additional grit temper. As

a general comment, the paste of Winnipeg Fabric-impressed pottery in the region is of better quality than Narrows pottery.

Three types found in the Selkirk composite are represented in the study area, including Kisis Angled Rim, Clearwater Lake Punctate, and Francois Punctate. The most common is the Kisis Angled Rim type accounting for a remarkable 70.3% (19/27) of the total Winnipeg Fabric-impressed ware sample. This is a significantly higher frequency than recorded previously in the region, where Kisis Angled Rim vessels comprised only 24% (9/38) of the total Selkirk sample (Paquin 1995:104). It seems, therefore, that not only is this vessel type characteristic of the Kisis Complex, but it may comprise a greater percentage of the overall ceramic assemblage than previously recognized. Vessels belonging to this type conform with three of four varieties established by Paquin (1995:104-105). These varieties are based on the co-variation of stylistic attributes and include: 1) vessels exhibiting a row of finger pinches immediately above a row of punctates on the rim angle (9/19); 2) an alternating row of pinches and punctates along the rim angle (5/19); and 3) a lone row of finger pinches on the rim angle (3/19). The fourth variety, which displays a lone punctate row encircling the rim angle was not represented. A notable difference between the Kisis Angle Rim vessels found on Peter Pond Lake and those described by Paquin is the less frequent and less varied lip decoration. Paquin (1995:105) reported that 7/9 vessels in his sample bore lip decoration. This included incised lines, CWT and SET impressions placed on the inner and outer lip corners or across the lip surface. In contrast, only four vessels from this study possess decoration on the lip, consisting of CWT impressions on both the inner and outer lip corner (2/4) and CWT impressions across the lip surface (2/4). A further decorative attribute noted here is the application of feldspar and mica to the exterior surface of three Kisis Angle Rim vessels. This decorative attribute was previously noted only on Francois Punctate and Clearwater Lake Punctate vessels in the region and confirms that it is a characteristic common to all types in the Kisis complex.

Significantly fewer Clearwater Lake Punctate vessels were found on Peter Pond Lake, accounting for only 22% (6/27) of the total sample. This contrasts with previous studies where this type composed over half (22/38) of all Selkirk vessels (Paquin 1995:102). Lip decoration occurred on only 2/6 vessels from the study area and included

CWTI on the inner and outer lip corner in one instance, and CWTI across the lip surface in the other. The remaining attributes of these vessels conform to previous descriptions of the Clearwater Lake Punctate vessels found elsewhere, and need not be elaborated here.

Only one Francois Punctate vessel was positively identified from the study area. Although the limited presence of this type is not unusual for the region, the lone vessel from HaOg-10 is different from previous examples in that it is substantially smaller. Such miniature vessels are known to occur in Selkirk assemblages elsewhere in the province. The Bushfield East site located on the Saskatchewan River produced a vessel that displays comparable metric, decorative and form attributes (Slater et al 1998:130). Angled shoulder sherds representing at least four full-sized pots were also recovered from HaOg-10, suggesting additional Francois Punctate vessels were present. It should be pointed out, however, that the identification of this vessel type is problematic. Unlike most types where identifications can be made by rim sherds alone, the Francois Punctate type requires reconstruction from the rim to the shoulder. This becomes difficult in complex and highly fragmented assemblages where sherds from lower vessel zones cannot be confidently associated with corresponding rim sherds. Without this association, it is not possible to distinguish between Clearwater Lake Punctate and Francois Punctate types. This can result in the biased identification of the former type. From a classification perspective, therefore, it would make sense to drop the Francois Punctate type and recognize that angled shoulders are merely a characteristic of some Clearwater Lake Punctate vessels (David Meyer, personal communication, 2005). This would standardize the method of classification within the composite and eliminate erroneous type designations due to insufficient sherds or inconclusive associations.

A final comment should be made regarding the "miniature" vessels observed in the Selkirk assemblages from the study area. These vessels display comparably smaller orifice diameters, diminutive decorative motifs and sometimes thinner walls. Miniature vessels commonly occur in Woodland assemblages and are well known to Selkirk occupations. Depending on the context, these small pots have been variously identified as ceremonial mortuary vessels (Stoltman 1973:26), children's pots (Gibson 1998:261, 266, 267), or merely small cooking or boiling pots. The smaller vessels from the study

area do not appear to be children's pots as finger pinches on Kisis Angled Rim examples are only marginally smaller than the larger vessels. In addition, most pots are of reasonable quality suggesting the manufacture of a more mature hand, rather than that of a child learning the pottery craft. One vessel exhibits carbonized residue indicating use as a small utilitarian cooking pot. This is consistent with vessels from the Bushfield West site where pots with orifice diameters ranging between 62 and 109 mm were determined to be small cooking or boiling pots. One miniature vessel from HaOg-10, however, bears red ochre residue on the exterior. Red ochre is often associated with ceremonial body decoration and in the coloration of ceremonial objects (Gibson 1998:113). Its presence on a miniature vessel, therefore, may denote use in ceremonial activities. The exact function or potential significance of these small vessels from HaOg-10 is not known; however, it is noteworthy that they seem to occur with greater frequency than at sites located along the Kisis Channel.

4.3.3 Syncretic, Unclassified and Indeterminate Vessels

Although the vast majority of vessels identified in this study could be placed in existing ware categories, there were a few examples that either did not conform to these descriptions or were unclassifiable. Four vessels displayed traits common to both Narrows and Selkirk pottery and have been identified as Narrows/Selkirk syncretic. Vessel 12 from HaOg-10 appears to be a miniature vessel with paste and exterior sprang surface finish typical of Narrows pottery. However, the decoration of the exterior lip corner with a sharp edge tool is more common to Selkirk pottery, and is particularly similar to the miniature Francois Punctate vessel also found at the site. Vessel 4 from HaOh-1 possessed an exterior finish that was heavily smoothed, almost obliterating the underlying textile impression. This smoothed fabric exterior finish, combined with heavy amounts of coarse grit temper, is considered more typical of Selkirk ware. However, the interior notched lip decoration is typical of Narrows pottery found in the region. Vessel 7 from HaOh-19 and Vessel 7 from HaOh-15 are also considered syncretic because they bear distinct amorphous textile impressed exteriors common to Selkirk ware, but lack grit temper. The sandy paste of these vessels is more common among Narrows pottery. The merging of attributes found on these four vessels suggests

an exchange of technological and stylistic ideas regarding pottery production, and may be evidence for limited contact between individuals of these two pottery traditions.

Two vessels from the study area displayed exterior surfaces that were not fabric impressed, but rather completely smooth. Vessel 15 from HaOg-10 is represented by only a neck sherd, thus limiting interpretations. However, it is notable for the horizontal lines across the surface indicating extensive brushing or smoothing. The exterior surface of Vessel 5 from HaOh-19 is slightly rough and it appears a thin veneer has been weathered or eroded away, thus obscuring the true nature of its finish. However, unlike other sherds where slight exfoliation occurs but remnant fabric impressions are still visible (ie: HaOh-14, Vessel 3), there is no evidence of such impressions on this vessel. The smooth exterior of these two vessels is not typical of pottery from the region and precludes assignment to either Selkirk or Narrows pottery. They remain unclassified.

Sherds representing the remaining three vessels from the study area are considered indeterminate due to lack of attribute information. Two rim sherds have exfoliated exterior surfaces (HaOg-10, Vessel #16 and HaOh-19, Vessel #8), and at least one additional vessel consists of body sherds (GjOg-9) with no associated rim to make a positive identification. The latter, however, exhibits exterior finish and paste characteristics typical of Narrows pottery.

4.4 Summary

This chapter presented a summary of the archaeological surveys conducted on Peter Pond Lake during the course of the 2000 and 2001 field seasons, with an emphasis on the Late Woodland sites recorded. The results of the pottery analysis were presented. Both Narrows pottery and Winnipeg Fabric-impressed ware were identified in the study region; however, the vast majority of ceramics represent the former. Narrows pottery was recovered from 22 sites, producing a significant sample of over 80 vessels. This allowed for the most detailed description of this pottery to date, and resulted in the recognition of form and stylistic attributes previously unrecorded. Most significantly this included the rare presence of lip decoration, as well as a low incidence of angular shoulder profiles. Based on the stylistic attributes, three new types were proposed. In contrast, the smaller sample of Winnipeg Fabric-impressed ware was recovered largely

from one productive site. All vessels conformed to previously identified pottery types found in the Kisis complex, with only minor variation. Most notable was the high frequency of Kisis Angled Rim vessels, which further confirm that this type is characteristic of the Kisis complex. Although pottery assemblages at most sites were homogeneous and suggest temporal separation, the co-occurrence of some wares at a few sites, as well as the identification of potential syncretic vessels suggest there may have been limited interaction between the two pottery traditions. In summary, the Winnipeg Fabric-impressed ware from Peter Pond Lake seems to support previous interpretations regarding the Selkirk Composite in the region, and as a result requires no further elaboration. However, the additional data obtained for Narrows pottery presents a unique opportunity to further explore this lesser known pottery tradition.

CHAPTER 5
COMPARISON OF NARROWS POTTERY WITH EXISTING WARES

5.1 Introduction

With a more detailed and expanded definition of Narrows pottery presented in the previous chapter, comparisons with established wares from surrounding regions can be conducted with greater effectiveness. This will enable a reconsideration of similarities and associations not only with Old Women's Phase pottery of the northern plains, but also with Late Woodland wares. Recent studies conducted in the boreal forest to the south and east strongly suggest there are closer affinities between Narrows pottery and Woodland wares than previously recognized. Most pertinent to this latter discussion is a formal comparison with Winnipeg Fabric-impressed ware of the Selkirk Composite, as well as the related Duck Bay and Sandy Lake wares associated respectively with the Rainy River Composite and Psinomani culture.

5.2 Ethridge Ware (Old Women's Phase)

When Paquin (1995) initially compared Narrows pottery to Old Women's Phase pottery, he observed the latter did not have an official ware designation. However, when William J. Byrne originally defined OWP ceramics as "Saskatchewan Basin complex, Late Variant", he (Byrne 1973:379) indicated that his "complex" was essentially equivalent to a ware. More recently Walde and Meyer (2003:142) suggest that there are sufficient similarities between this Late Variant pottery to incorporate it into the previously established Ethridge ware, originally defined by Wedel (1951:131-133) for ceramic assemblages found in northern Montana. This ware is believed to have its origins in earlier Avonlea Horizon assemblages, but came to dominate the subsequent Old Women's Phase found across the Canadian plains (Walde and Meyer 2003:141). Therefore, the term Ethridge ware will be employed in this study to refer to Old

Women's phase pottery. The characteristics of this ware remain the same as described in Chapter 3.

In comparing Narrows pottery with that of the Old Women's Phase, Paquin (1995) observed a number of generic similarities, mainly relating to quality of production and some aspects of vessel form and exterior finish (see Chapter 3). Just as significant, however, was the greater list of attributes that were not held in common. A few of these more pertinent characteristics possessed by Ethridge ware and not by Narrows pottery included the occurrence of angular shoulders and lip decoration (Paquin 1995:126). As a result of this study these attributes are now recognized as occurring in Narrows pottery, albeit in minor frequencies.

In past studies when vessels bearing angular shoulders were found in woodland wares such as Winnipeg Fabric-impressed or Duck Bay, it was interpreted as reflecting influence or contact with plains groups (Meyer 1984; Lenius and Olinyk 1990). Recently, however, Meyer (1998:70) suggests the significance of this trait (and some others) has been over-emphasized when found in woodland assemblages, and notes it is "probably appropriate to regard these simply as traits which were shared by… contemporaneous and neighboring social groups…" of the Northern Plains and adjacent forest. As a result, the occurrence of angled shoulders in Narrows pottery should not necessarily be considered derived from a plains source. Further, although lip decoration has been observed on Narrows pottery, it is still considered rare and fairly conservative. This contrasts with Old Women's phase pottery where decoration is quite common and described as "highly variable, even idiosyncratic both in choice of attributes and motifs" (Walde et al. 1995:29).

The remaining differences noted by Paquin (1995:126) continue to persist. The extensive sample of pottery from Peter Pond Lake indicates that it is a relatively thin ware and does not approach the thickness of Ethridge ware. Vessel wall thickness averages between 6 and 7mm and never exceeds 12mm, whereas Ethridge ware commonly averages 10mm thick or more. Coarse grit temper is used exclusively in Ethridge ware, while natural temper dominates Narrows pottery. As well, punctate decoration on the rim exterior continues to be pervasive in Narrows pottery, while it is only sometimes present on Ethridge ware. Further differences are noted regarding the

manufacturing process. Interior undulations on Narrows pottery previously interpreted as anvil impressions by Paquin (1995) now appear to be the result of narrow finger impressions. The observance of this trait on vessels in consort with exterior surfaces that are exclusively fabric impressed and paste that is commonly laminated, suggest that bag molding was used to manufacture Narrows vessels. This contrasts with Ethridge ware, which was produced by the paddle and anvil technique.

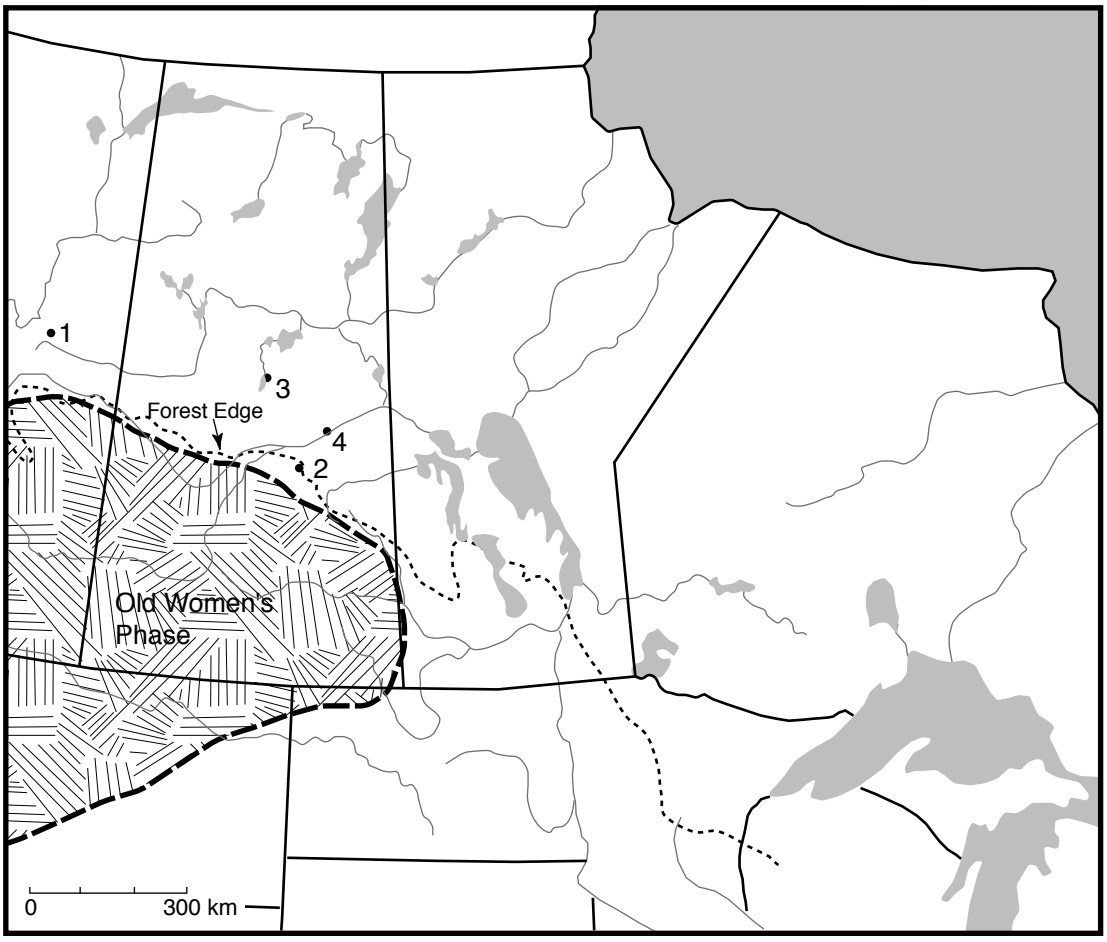
Generally speaking, then, there seems to be little evidence to support a connection between Narrows assemblages on Peter Pond Lake and the Old Women's phase as previously suggested (Millar 1983; Paquin 1995). It is argued here that the root of this hypothesis can be traced to two erroneous interpretations early on by Millar that led to an association with this plains archaeological culture. Firstly, Millar (1983:193) suggested the unique exterior surface of some Narrows vessels may have been produced by a cord-wrapped paddle. Paquin would later refute this in his analysis of the same Narrows sherds, indicating the distinct vertical impressions were the result of a textile. This confusion between the similar appearance of cord-roughened and textile-impressed exteriors is well known (Kehoe 2001:215; Saylor 1978:50). Many examples of pottery from Manitoba were originally identified by MacNeish (1958) in the 1950's as cord wrapped paddle impressed. It was not until subsequent analysis of large reconstructions that these vertical structures were shown to be the result of a specific type of interlinked fabric impression (Meyer 1987:8; Saylor 1977:19). The misinterpretation of exterior finishes on pottery found in the Kisis Channel had a significant impact, however, as it immediately drew comparisons to Old Women's Phase pottery from the plains to the south, where pottery was known to be manufactured by the cord wrapped paddle and anvil technique.

Secondly, some of the small side-notched projectile points in the region were interpreted as being "related to the Old Women's Phase of the northwestern plains" (Millar and Ross 1982:51). The projectile points associated with the Old Women's Phase are referred to as Prairie Side-notched (Kehoe 1966) or more recently Cayley series points (Peck and Ives 2001). Unlike Plains Side-notched points that are typically well manufactured and exhibit distinct square bases with narrow notches, Prairie side-notch points tend to be less descript with convex bases and splayed notches. Meyer

(1988:56) characterizes them as "crafted from thin flakes, with a minimum of finishing effort and little attempt to produce a consistent style of side notching." Projectile points found throughout the boreal forest and associated with the Late Woodland period also exhibit a similar, non-descript morphology and have been referred to merely as "generalized side-notch forms" (Meyer 1981:30). Dickson (1980:93) and Rollans (1992:33) note a further problem lies in the difficulty in distinguishing between Late Taltheilei and Late Woodland points in regions where they co-occur. Both include small corner and side-notch forms which are often only unifacially or marginally retouched. Similarly, Ives (2003:278) observes that Taltheilei projectile points originating from northern Alberta during the Late Precontact Period are virtually indistinguishable from Old Women's Phase projectile points. An essential problem, therefore, lies in the fact that projectile points associated with Late Taltheilei and Late Woodland assemblages of the forests, and the Old Women's Phase of the northern plains are very similar in appearance and easily misidentified out of context. It seems most likely, therefore, that the small side-notch points observed by Millar in the Kisis Channel assemblages reflect Late Woodland or Taltheilei occupations rather than plains related occupations.

After the seeds of an Old Women's Phase origin had been sewn, Paquin (1995) furthered this hypothesis in his analysis of Narrows ceramics. Beyond general attribute similarities, much of Paquin's (1995:123-124) interpretation also hinged on the rare presence of Old Women's Phase pottery reported elsewhere in the boreal forest. This included pottery from the Black Fox Island site (Learn 1986), the Willis Creek Site (Finnigan et al. 1983) and GcNj-7 on Montreal Lake (Forsman 1976) (Figure 5.1). Aspects of this pottery are considered in more detail below.

Of the three examples cited, perhaps the most compelling is the Black Fox Island site (GfPa-32) found on Lac La Biche in northern Alberta (Learn 1986). The recovery of a lone vessel from this site is significant due mainly to the paucity of ceramics found in northern Alberta. Unlike the forests of Saskatchewan and Manitoba where pottery is common, only small, mostly undiagnostic sherds have been recovered from four other sites in Alberta's north (Fedirchuk and McCullough 1992; Gruhn 1981:65; Learn 1986; Pollock 1978b; 1979). Pottery fragments from GfPa-32 were originally interpreted as



1. Black Fox Island (GfPa-32)
2. Cumberland Reserve (FgNe-3)
3. GcNj-7 (Montreal Lake)
4. Willis Creek (FhNc-103)

Figure 5.1: Map showing distribution of the Old Women's Phase prior to A.D. 1300 and woodland sites reported to contain Ethridge ware.

representing a Clearwater Lake Punctate vessel (McCullough 1982). Subsequent research recovered additional sherds and allowed for significant reconstruction and analysis by Learn (1986). This partially reconstructed vessel exhibits a thickened lip with a pulled over profile, a short, vertical neck and sharply angular shoulders (Figure 5.2). Learn (1986:39-40) describes the exterior finish as fabric-impressed and observes that unlike cord-roughened exteriors that produce interrupted and overlapping impressions, the surface finish of this vessel exhibits a "continuous series of cordage impressions" (contra Walde and Meyer 2003:136). The paste is lamellar and tempered with coarse grit, and vessel wall thickness ranges from 9 to 15mm, with an average thickness of 10mm (Learn 1986:178). Lip decoration was described as "a series of short, diagonally-oriented lines impressed at irregular intervals on the interior of the rim adjacent to the lip. The size of the impressions vary, but on average are 1.0cm in length." Large, widely spaced punctates also encircle the exterior of the rim. Based on attribute characteristics Learn (1986:32) noted there were some general similarities with Clearwater Lake Punctate vessels found in Saskatchewan, mainly relating to the exterior fabric impressions and the punctate decoration. However, she ultimately rejected a woodland origin for the pottery based largely on the thick vessel walls and angled shoulder profile. Both of these traits were considered atypical of Clearwater Lake Punctate vessels but similar to what Byrne (1973) described in Late Variant Saskatchewan Basin pottery of the OWP (Learn 1986:44). As part of her research Learn (1983; 1986) also conducted a technical analysis of the paste from the vessel and compared it with clay sources found on the island. The results suggested the pot was not made from local sources, although she acknowledged this did not necessarily mean other clay sources within the general region were not exploited. The combination of pottery attributes and differences in local clays led Learn (1986:9) to tentatively suggest the pottery was imported from the southern plains through intermarriage or trade.

Further support for this interpretation was later provided by Walde and Meyer (2003:137), who, when commenting on the Black Fox Island pot stated: "…there are indeed general resemblances to certain pottery recovered in southern Alberta, but one of us (Meyer) notes specific affiliations with an early variant of Ethridge Ware present in

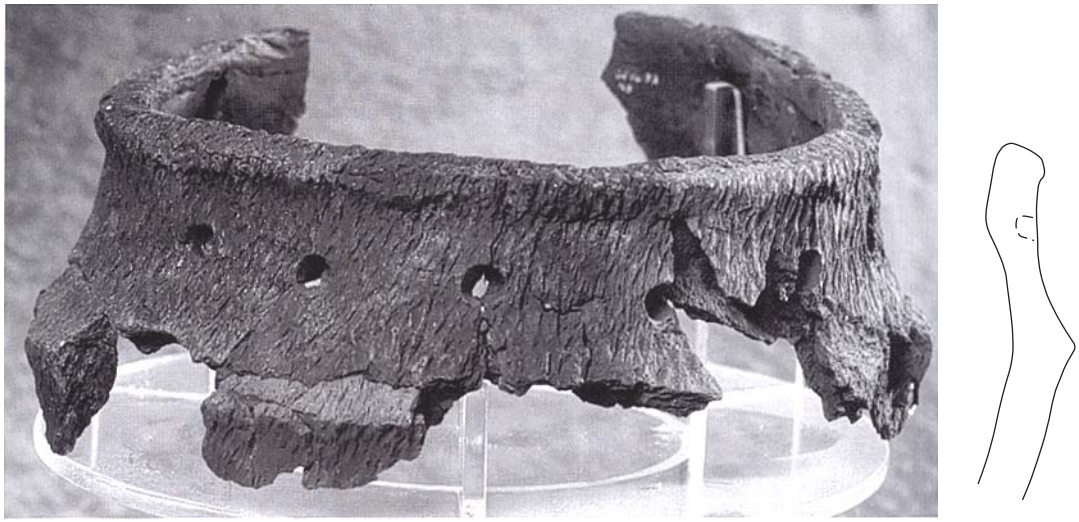


Figure 5.2: Partially reconstructed vessel from the Black Fox Island site (GfPa-32). (From Walde and Meyer 2003; profile adapted from Learn 1986:190).

central Saskatchewan, especially with a vessel from FgNe-3 (Meyer and Epp 1990:333)." Indeed, this latter vessel was identified as OWP pottery recovered from a disturbed site in a cultivated field located near the northern edge of the parklands near Gronlid, Saskatchewan (Meyer and Epp 1990:333). Similar to the Black Fox Island vessel, it also displays an angular shoulder, vertically oriented impressions on the exterior surface, and punctate decoration on the rim (Figure 5.3). Additional decoration consists of incised lines on the lip surface and shoulder. Paquin (1995:124) noticed a further similarity between these two vessels and a third excavated by Forsman (1976) from site GcNj-7 located on Montreal Lake in the boreal forest of central Saskatchewan. This pot is described as exhibiting an "angular, thickened shoulder, an upright upper neck decorated with large, widely spaced punctates, highly laminated and exfoliated paste which is sparsely tempered with coarse grit, and vertically oriented textile impressions" (Paquin 1995:124). Based on these attributes, this vessel was also identified as OWP pottery.

More recently, however, Meyer (personal communication 2004) has expressed doubts about his original interpretation of the vessel from FgNe-3 as representing Ethridge ware. A re-examination of this pot indicates it is quite thin compared to Ethridge ware typically found on the plains, with body thickness measuring approximately 6mm and portions of the neck as thin as 4 to 5mm. As well, the exterior does not exhibit superimposed impressions typical of cord-roughening, but rather continuous impressions representative of a sprang textile. When taken into consideration with its location beyond the fringes of OWP occupation in Saskatchewan, it raises questions as to its original classifiaction.

Similarly, the lone OWP occupation previously recorded in the boreal forest of Saskatchewan has been re-evaluated in this study. The Willis Creek site (FhNc-103) is located on the Saskatchewan River in the Nipawin Reservoir research area. It is a single occupation site containing what was identified as a Prairie Side-notched point and a few sherds merely described as "poor quality pottery" (Finnigan et al 1983:141). Meyer and Epp (1990:333) subsequently identified this site as an OWP occupation. A more formal analysis of the pottery was undertaken during this study and the pottery assemblage was observed to consist of two rim sherds, one neck sherd and two cross mended body

Figure 5.3: Partially reconstructed vessel from FgNe-3 (image courtesy of D. Meyer).

sherds representing one vessel. The exterior surface is impressed with what appears to be a sprang textile and the paste is generally compact and sandy with sparse amounts of grit temper. The lip surface is impressed with coarse CWT impressions approximately 8mm wide, with the cord exhibiting a diameter of over 2 mm. The lone neck sherd displays a punctate impression. Vessel and rim form cannot be determined but the body sherds average only 6.95mm thick. This is similar in thickness to the vessel from FgNe-3 and GcNj-7, and considered thin when compared with typical OWP pottery.

With the identification of Ethridge ware found on the northern fringes of the parkland and into the boreal forest brought into question, it seems these few vessels have more in common with each other than they do with the OWP proper. In addition, the expanded definition of Narrows pottery found on Peter Pond Lake demonstrates even closer affinities with these examples than previously observed. The angled shoulders of Vessel 2 from HaOh-26, and Vessel 1 from HaOg-26 compare favourably with the forms from FgNe-3 and GcNj-7 as well as the Black Fox Island pot on Lac La Biche. This latter example, although generally thick, is still within the acceptable upper range of Narrows pottery. Combined with attributes such as punctate row, exterior sprang impressions and interior lip/rim decoration, the Black Fox Island vessel would fit comfortably in the Peter Pond Lake assemblages.

It is suggested, therefore, that these examples of "northern Old Women's pottery" be reconsidered. Based on attribute characteristics and site distribution, it seems more likely that these vessels represent a woodland rather than a plains tradition. The removal of these vessels and sites from the OWP further reinforces Meyer and Epp's (1990) observation that there is little evidence for the presence or influence of the OWP in the boreal forest of Saskatchewan, and further weakens the argument that Narrows pottery is derived from this plains entity.

5.3 Winnipeg Fabric-impressed Ware (Selkirk Composite)

With a plains origin now brought into question, a closer scrutiny of Late Woodland archaeological wares is required to help interpret the pottery of Peter Pond Lake. Although Narrows pottery has been distinguished from Winnipeg Fabric-impressed ware throughout this and previous studies, a formal comparison has never

been conducted. In addition, a closer scrutiny of Millar's (1983:62) description of the stratigraphy at the Bernadette Chartier site reveals that the temporal and cultural separation between these two pottery traditions may not be as distinct as originally perceived. Occupation levels actually "merge" in some areas of the site resulting in co-occurring pottery, and within the discrete Selkirk occupation, Narrows pottery sherds were identified that were explained as "probably displaced" from the lower Narrows occupation. Potential contemporaneity may also explain the examples of syncretic Narrows/Selkirk vessels identified in this study. Further, while the distinctness between Narrows pottery and Kisis Angled Rim types in the region may be obvious, these differences tend to be more subtle when compared with other pottery types found throughout the Selkirk composite. Therefore, a discussion of similarities and differences between Narrows pottery and Winnipeg Fabric-impressed ware attributes is appropriate.

Although the Selkirk composite is characterized by pottery that exhibits amorphous, twined impressions on the exterior (see Section 3.1), additional surface finishes have been recognized. When MacNeish (1958:69) first defined Winnipeg Fabric-impressed ware, he considered the unique exterior finish to reflect manufacturing of vessels by paddling, suggesting that "the paddle was usually covered with a tightly-knit woven babiche but occasionally (particularly in the early stages of the Selkirk focus) a cord-wrapped paddle was used". As discussed previously, these impressions are now considered the result of textile bag molds. Therefore, much of what has been identified as 'cord-marked' in the past actually reflects a sprang fabric impression similar to what is found on Narrows pottery in the upper Churchill River basin.

This latter finish is known to occur in minor frequencies throughout the Selkirk composite. At the Clearwater Lake type site Hlady (1971:18) indicated that 86.7% of the body sherds were "Winnipeg-fabric impressed", while 3% were "cord-wrapped paddle". He (Hlady 1971:19) further noted that these percentages were similar to what MacNeish reported in southeastern Manitoba. Meyer (1978b:14) observed the minor presence of "cord-impressed" exteriors on the eastern Churchill River system of Saskatchewan. This exterior finish was present on sherds from only eight of 53 sites in the region, with rim sherds positively identifying four vessels. In northern Manitoba, Dickson (1980:56) reports only one vessel from the Kame Hills site as possessing a "corded" exterior.

Within the Pehonan complex, a review of vessels from the Bushfield West site reveals sprang-impressed exteriors on four of 97 vessels (Gibson 1998), while at the neighboring Bushfield East site only one out of 43 vessels exhibits a sprang-impressed exterior (Slater 1998:126). Farther west, Hanna (2002:33) reports two apparently sprang-impressed vessels out of 14 Selkirk pots from the Pickerel Bay site located on Lac La Ronge. At only one Selkirk component site along the Kisis channel were both twined and sprang textile impressions recorded. Paquin (1995:80) identified four out of 22 Clearwater Lake Punctate vessels from the Ice House site as bearing "vertically-oriented textile" impressions.

Despite this minor occurrence of sprang-impressed exteriors observed in Selkirk assemblages, it contrasts with Narrows sites found on Peter Pond Lake where this surface finish represents almost 100% of pottery assemblages. In total, 16 out of 19 Narrows sites contain vessels with exclusively sprang impressed exteriors, while in the remaining three sites, 35 out of 38 vessels bear this finish. Such a dramatic difference in exterior surface finish indicates that makers of Narrows and Selkirk pottery preferred distinctly different textile weaving technologies.

A similar difference was observed regarding paste attributes. Although Hlady (1971:7) noted the occurrence of "fine to medium sand" as one of the tempering agents at the Clearwater Lake Type site, Winnipeg Fabric-impressed ware is generally dominated by crushed grit temper throughout the boreal forest. Meyer (1978b:7) specifically observed that along the Eastern Churchill River in Saskatchewan sand temper was rare, appearing in only two sherd*s*. Likewise all the Selkirk pottery found on the Kisis Channel (Paquin 1995:103, 106) and Peter Pond Lake contained grit temper. This differs from Narrows pottery where sand or natural temper is prevalent, occurring in 64% of the total sample. If this dominance of natural temper in Narrows pottery was strictly environmentally determined either by local, sandy clay sources, or limited granitic tempering material, one would expect the makers of Selkirk pottery in the region to be under the same restrictions. The fact that this does not occur suggests the makers of Narrows and Winnipeg Fabric-impressed pottery were preparing clay in a distinctly different manner.

When considering some of the form and stylistic attributes of Winnipeg Fabric-impressed ware, the difference between the Kisis Angle Rim type and Narrows pottery in the study region is quite apparent. The angled rim profile and finger pinch decoration are decidedly unique to the former. However, several characteristics are held in common with other types of this ware. Similarities in vessel form can be found in the Clearwater Lake Punctate type that often exhibits a gentle, globular vessel profile with rounded shoulders and straight to excurvate rims. In addition, the occasional angled shoulder profile represented in Narrows pottery is comparable to Francois Punctate vessels found in both the Pehonan and Kisis complex. Perhaps the most obvious similarity between Narrows and Selkirk pottery, however, lies in the consistent presence of an exterior punctate row around the rim. Significant emphasis has been placed on this decorative attribute by archaeologists dealing with the Late Woodland period. After MacNeish (1958) originally defined Winnipeg Fabric-impressed ware from southeastern Manitoba, a regional distinction was soon recognized. Most notable was the consistent decoration of vessels found in northern Manitoba and Saskatchewan with a single row of punctates on the exterior rim (Hlady 1971; Mayer-Oakes 1970; Wright 1971) . This contrasted with the Winnipeg Fabric-impressed ware of southeastern Manitoba where punctate decoration rarely occurred (MacNeish 1958:170). Hlady (1971:18) considered this northern tier of pottery to represent a distinct manifestation, and introduced the Clearwater Lake Punctate type, which now serves as the hallmark of the Selkirk composite. Types belonging to the southern tier of Winnipeg Fabric-impressed ware have subsequently been placed in the separate, but related, Rainy River composite (Lenius and Olinyk 1990). One of the requirements for vessels belonging to this latter composite is the absence of punctate decoration (Lenius and Olinyk 1990:102). The consistent presence of punctates on Narrows vessels, therefore, suggests a possible connection with the Selkirk composite.

Another stylistic similarity shared between Narrows pottery and Winnipeg Fabric-impressed ware relates to lip treatment. An attribute emphasized in Narrows pottery descriptions is the rare occurrence of lip decoration. A similarly low frequency of lip decoration has also been observed in some Selkirk assemblages. Meyer (1978b:29) notes that lip decoration on Clearwater Lake Punctate vessels found in

western Manitoba and eastern Saskatchewan is "elaborated to an unusual degree". In the Clearwater Lake region of Manitoba, Hlady (1971:8-14) identified over 20 different "modes" of decoration present on 69.3% of the rim sherds analyzed. This included a variety of cord-wrapped, sharp edge and smooth tool impressions, incised lines, and punctates located on the inner and outer lip corners or lip surface of vessels. Similar decoration was also observed on vessels found at the Limestone Point site on Amisk Lake in eastern Saskatchewan (Meyer 1978b:14). In contrast, on the western Churchill and Reindeer River systems where Clearwater Lake Punctate types are well represented, Meyer (1978b:28) noted that lip decoration was "impoverished" in comparison to the former regions. Although a smaller sample size was suggested as a possible explanation, it seemed apparent that undecorated lips were more common farther west on the Churchill River system. This trend was also noted by Paquin (1995:102) in the headwaters region where Clearwater Lake Punctate vessels found in the Kisis complex were characterized by the "paucity of lip decoration". Only 40% (9/22) of the vessels exhibited any form of lip decoration. In the current research area Clearwater Lake Punctate vessels are represented by a very small sample; however it is notable that only two out of seven vessels possess decorated lips.

Despite this seemingly common trend of sparse lip decoration along the western Churchill River, the complete absence of this trait in approximately 78% (67/86) of Narrows vessels from Peter Pond Lake suggests an even greater conservative attitude toward vessel decoration. A further differentiation between the two pottery traditions is noted in the placement of lip decoration. In Selkirk assemblages, impressions are commonly found on either the outer lip corner, or both the inner and outer lip corners. Within the Kisis channel, 8/9 decorated Clearwater Lake Punctate vessels and 6/7 Kisis Angled Rim types displayed tool impressions on both the inner and outer lip corners (Paquin 1995: 102;105). Similarly, 1/2 decorated Clearwater Lake punctate vessels and 2/4 decorated Kisis Angle Rim types found on Peter Pond Lake exhibit this decoration. Impressions on the outer lip corner are particularly common in the Pehonan complex found on the Saskatchewan River, where almost 47% (45/97) of the vessels at the Bushfield West site were decorated in this manner (Gibson 1998). This contrasts with Narrows pottery where impressions on the outer lip do not occur at all. Rather,

decoration consists exclusively of lip surface impressions and interior lip notching. The latter decoration is also observed in Selkirk assemblages, although it is rare. Hlady (1971:11) identified this motif in minor amounts (1.9%) at the Clearwater Lake type site, as did Gibson (1998) at the Bushfield West site where it occurred in only five of 97 vessels. Hanna (2002:34) reports one Clearwater Lake Punctate vessel from the Pickerel Bay site as bearing "pie-shell" crimping on the interior lip angle. Within Narrows pottery assemblages interior notching is also rare occurring in only 11.6% (10/86) of the total sample; however, it accounts for over half of all decorated lips. Given the limited decoration found on these vessels in general, this motif occurs with greater frequency than would be expected in typical Selkirk assemblages.

A final observation relates to the cord wrapped tool impressions. Winnipeg Fabric-impressed ware in the study region commonly exhibits tool impressions that are wrapped in what appears to be a very fine sinew thread 1 mm or less in width. In contrast, CWT impressions rarely occur in Narrows pottery (3/86), and when they do they consist of coarse cordage often greater than 2mm in width. When comparing rim sherds from the region this difference is visually quite obvious. Further, the alternating left and right oblique orientation of CWT impressions found on Vessel 2 from HaOh-26 is a motif not known to Selkirk pottery.

In summary, Narrows pottery does exhibit limited similarities with Winnipeg Fabric-impressed ware. The most prevalent attributes include the ever-present single row of punctates encircling the rim, and gentle globular vessel form with occasional angled shoulders. In addition, some of the differences could be interpreted as more of a contrast in attribute percentages. While sprang textile weave does occur in minor amounts in the Selkirk composite, it completely dominates Narrows assemblages. Similarly, grit temper occurs in both Selkirk and Narrows pottery; however, natural temper dominates the latter. Despite these commonalities, a lack of fit still exists between Narrows and Selkirk pottery, most notably in the different approach to vessel manufacture as demonstrated in finish and paste characteristics. In addition, stylistic differences are noted with regard to lip decoration. CWT impressions placed on the exterior corner are common on Winnipeg Fabric-impressed ware, but are unknown in

Narrows pottery. In contrast, lip surface decoration and interior lip notching are exclusively represented in Narrows pottery.

5.4 Pottery Wares from the Southern Boreal Forest

Although Narrows pottery is considered distinct from Winnipeg Fabric-impressed ware, some of the common attributes seem to suggest a closer connection with Late Woodland wares than previously realized. Recent studies by Meyer (1998) and Taylor-Hollings (1999) have brought attention to archaeological cultures from the southern boreal forest that may have relevance to this study. Several of the more prominent attributes present in Duck Bay ware of the Rainy River Composite and Sandy Lake ware of the Psinomani culture are also found in Narrows pottery. These archaeological complexes and ceramics are discussed below.

5.4.1 Duck Bay Ware (Rainy River Composite)

The Rainy River composite was proposed by Lenius and Olinyk (1990) to more effectively encompass related archaeological assemblages found across the southern forests of Manitoba and adjacent northwestern Ontario. This composite is comprised of temporally and regionally defined complexes suggested to span from approximately A.D. 1100 to A.D. 1650 and include the Duck Bay, Bird Lake and Winnipeg River complexes (Lenius and Olinyk 1990:82). These complexes are bound by similarities in ceramics and are suggested to have shared similar social, religious, and political activities as reflected in the construction and use of Late Woodland burial mounds found along the Rainy River, bordering Minnesota and Ontario. A significant criteria for inclusion in the Rainy River composite is that at least one definitive ceramic type belonging to a complex must be represented within these mounds (Lenius and Olinyk 1990:82).

Similar to Selkirk origins, the Rainy River composite is considered the result of a coalescence of the Blackduck and Laurel cultures (Lenius and Olinyk 1990:83). These two cultures coexisted in the Rainy River region beginning from at least A.D. 700; however, around A.D. 1000 the pottery of these archaeological entities disappear and

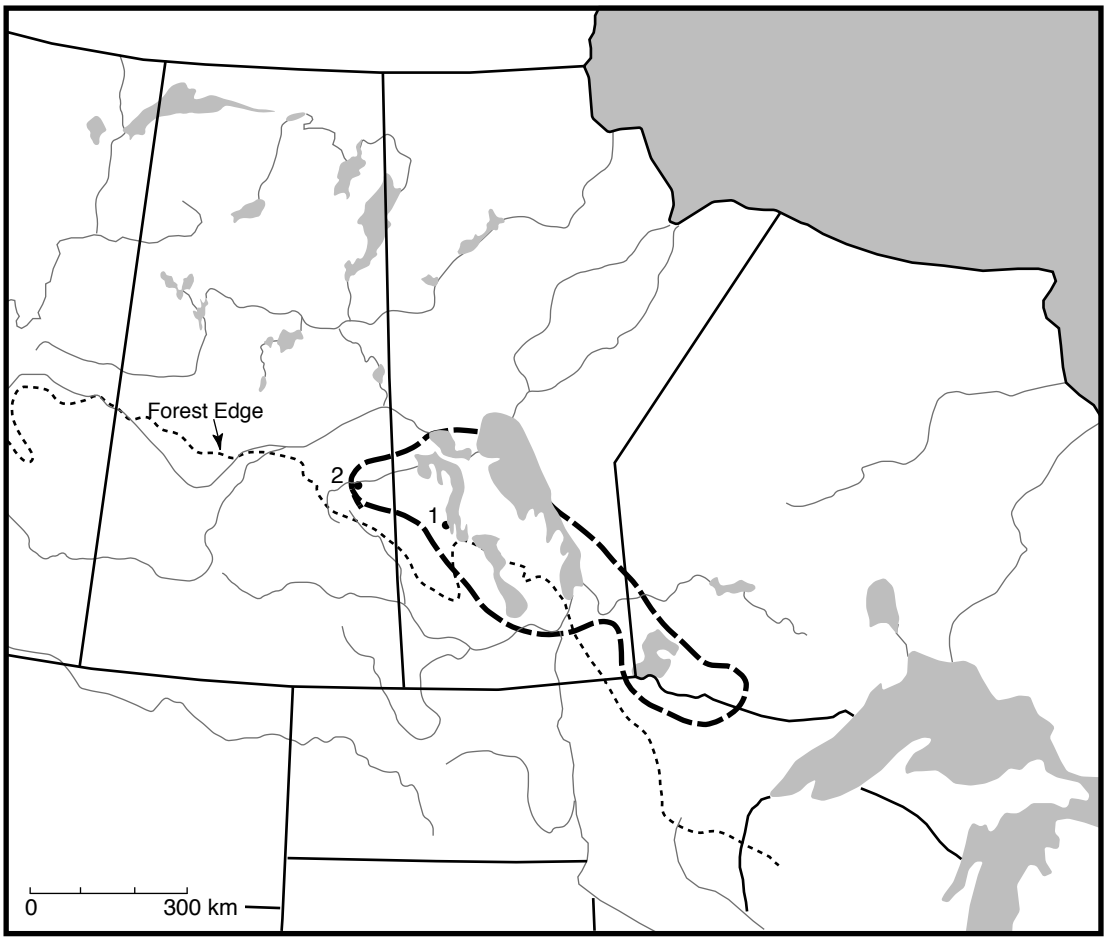
the Rainy River Composite ceramics emerge. These ceramics are considered to exhibit traits acquired from both Laurel and Blackduck wares:

> Ceramic traits inherited, in a general sense, from Blackduck include oblique and horizontal CWOI design elements, globular vessel form, and cord marked or textile impressed bodies… Generalized ceramic traits inherited from the Laurel culture include stamped design elements, plain or smooth surface finish (Stoltman1973;26), and decoration located on the shoulder/body (Zone 1) area of the vessel… (Lenius and Olinyk 1990:83-84).

After a century referred to as the Rainy River Coalescence, the succeeding Rainy River complexes of Duck Bay and Bird Lake emerged about A.D. 1100 and lasted until approximately A.D. 1350. After this cultural peak, the Rainy River Composite collapsed back to the central area of the Winnipeg and Rainy River regions to form the Winnipeg River Complex spanning from approximately A.D. 1350 to A.D. 1650 (Lenius and Olinyk 1990:84).

The Rainy River Complex most pertinent to this study is Duck Bay (Figure 5.4). This complex is unique in that the pottery that characterizes it has a ware designation separate from the rest of the composite. Duck Bay pottery was defined by several researchers (Gibson 1976; Hanna 1982, 1984; Snortland-Coles 1979) prior to its inclusion in the Rainy River Composite and was elevated to the status of a ware based on stylistic or decorative attributes that were observed to be very distinct from both Selkirk and Blackduck wares in the region (Hanna 1984: 116). The distribution of this ware occurs in isolated finds and in minor percentages at sites throughout Manitoba and adjacent Ontario, Minnesota and Saskatchewan, but it is best represented at the Aschkibokahn site (FbMb-1) found on west central Lake Winnipegosis (Hanna 1982:6). It is only at this site where Duck Bay ware dominates the large ceramic assemblage, and accounts for 73% of the total sample. This compares with less than 20% and usually less than 5% at all remaining sites containing this ware. Two uncalibrated radiocarbon dates are accepted from the Aschkibokahn site, A.D. 1255+/-175 (GX-5516) and A.D. 1180 +/- 110 (Gx-5517) (Hanna 1982:5).

Duck Bay ware is characterized by “a globular body, shoulder angles which may be sharply demarcated or more rounded, a sharply demarcated neck, and an outflaring



1. Aschkibokahn (FbMb-1) 2. Goldsworthy (FdMw-1)

Figure 5.4: Map showing distribution of the Duck Bay complex and relevent sites (After Mantey and Pettipas 1996:48; Meyer 1998).

rim" (Hanna 1984:115). Additional rim forms observed include straight (Snortland-Coles 1979:28) and S-shaped (Lenius and Olinyk 1990:87). Unlike earlier Blackduck vessels, the lips do not thicken but are relatively even in thickness from the lower rim to the lip (Lenius and Olinyk (1990:87). The exterior surface can be textile impressed or smoothed, but significantly, Lenius and Olinyk (1990:87) observe "the most common surface finish is vertical textile impressed or 'cord-marked". Hanna (1984:115) is more specific when she states that exterior vessel surfaces are "impressed with a vertically oriented, fine twisted (sprang) fabric" (Hanna 1984:115). The temper and paste characteristics of Duck Bay ware are better known than most wares considered in this study due to chemical and mineralogical analyses conducted by Hanna (1982; 1984). At the Aschkibokahn site almost all paste is characterized by a low proportion (6% or less) of added feldspar, while vessels at all other sites contain between 10% and 14% added feldspars. Also notable is the elevated presence of P_2O_5, which is interpreted as the result of the addition of pulverized bone as a second tempering agent.

Four types are recognized within this ware: Duck Bay Stamp, Duck Bay Notched Lip, Duck Bay Decorated Lip and Duck Bay Undecorated Lip (Meyer 1998:50). The most distinctive of these is the Duck Bay Stamp type which is characterized by multiple rows of impressions placed on the exterior rim that sometimes extend down to the shoulder, with similar decoration commonly found on the lip. (Lenius and Olinyk 1990:97; Hanna 1982:4). Stamps are differentiated from punctates in that they are wider than they are deep, longer than they are wide, and generally spaced closer together (Lenius and Olinyk 1990:112). Stamp shape consists of ovoid, square, rectangular, crescentric, triangular and irregular forms. Meyer (1998:50) observes that only at the Aschkibokahn site does this type dominate. Assemblages found in northern and southern Lake Winnipegosis have reduced numbers of Duck Bay Stamp type vessels, but a higher frequency of the remaining three.

Duck Bay Notched Lip type vessels are characterized by "decoration [that] is confined to the inner lip angle. Wedge-shaped impressions are the most common, but cord wrapped object, pseudo-cord wrapped object, "pie-shell" crimping, and incising also appear" (Hanna 1984:115). Lenius and Olinyk (1990:88) further note that notches on Duck Bay vessels can be "applied at an angle, resulting in an impression which is

close to parallel with the lip surface. The notches on Duck Bay ceramics can sometimes be mistaken for lip surface rather than lip edge decoration. As these notches form the only decoration on this type, the exterior and interior of the vessels are undecorated."

The remaining types include Duck Bay Decorated Lip, which bears impressions such as CWT impressions and punctates or stamps on the lip surface but no exterior rim decoration (Snortland-Coles 1979:34); and Duck Bay Undecorated Lip which maintains the overall vessel shape and exterior finish characteristics of Duck Bay ware but completely lacks decoration on the rim or lip (Hanna 1984:115).

The core area of the Duck Bay complex appears to be centered in the Manitoba Lowlands, while it is suggested that sites outside this region may represent seasonal movements into tertiary or secondary territories (Snortland-Coles 1979:51). Hanna (1982:198) proposes that the Duck Bay complex represents an endogamous population that spent most of the year at the Aschkibokahn site. Secondary areas of occupation include mound sites on the Rainy River and along the corridor route leading to this region, with tertiary areas found to the north and west of Aschkibokahn as far as The Pas area (Lenius and Olinyk 1990:93). One Duck Bay Stamp type vessel was found further northwest at the Drinking Falls site located on the eastern Churchill River of Saskatchewan (Meyer 1978b; Meyer and Smailes 1975).

A re-examination of ceramics from the Goldsworthy site in east central Saskatchewan, however, suggest that the Rainy River Composite may have a presence farther west than previously recognized (Meyer 1998). This site is located on a major tributary of the Red Deer River, south of Bjorkdale, Saskatchewan (Figure 5.2) (Meyer 1998:47-48). Most of the site is within a cultivated field and has been the subject of surface collecting efforts by avocational and professional archaeologists over several decades. A substantial amount of Late Woodland pottery was recovered and out of the 43 vessels represented, Meyer (1998:43) assigned 38 to the Rainy River Composite. This consisted of a lone Duck Bay Stamp type vessel with the remainder represented by Duck Bay Notched, Duck Bay Decorated Lip and Duck Bay Undecorated types. Also notable were seven vessels bearing Selkirk characteristics, six of which were regarded as Rainy River/Selkirk syncretic.

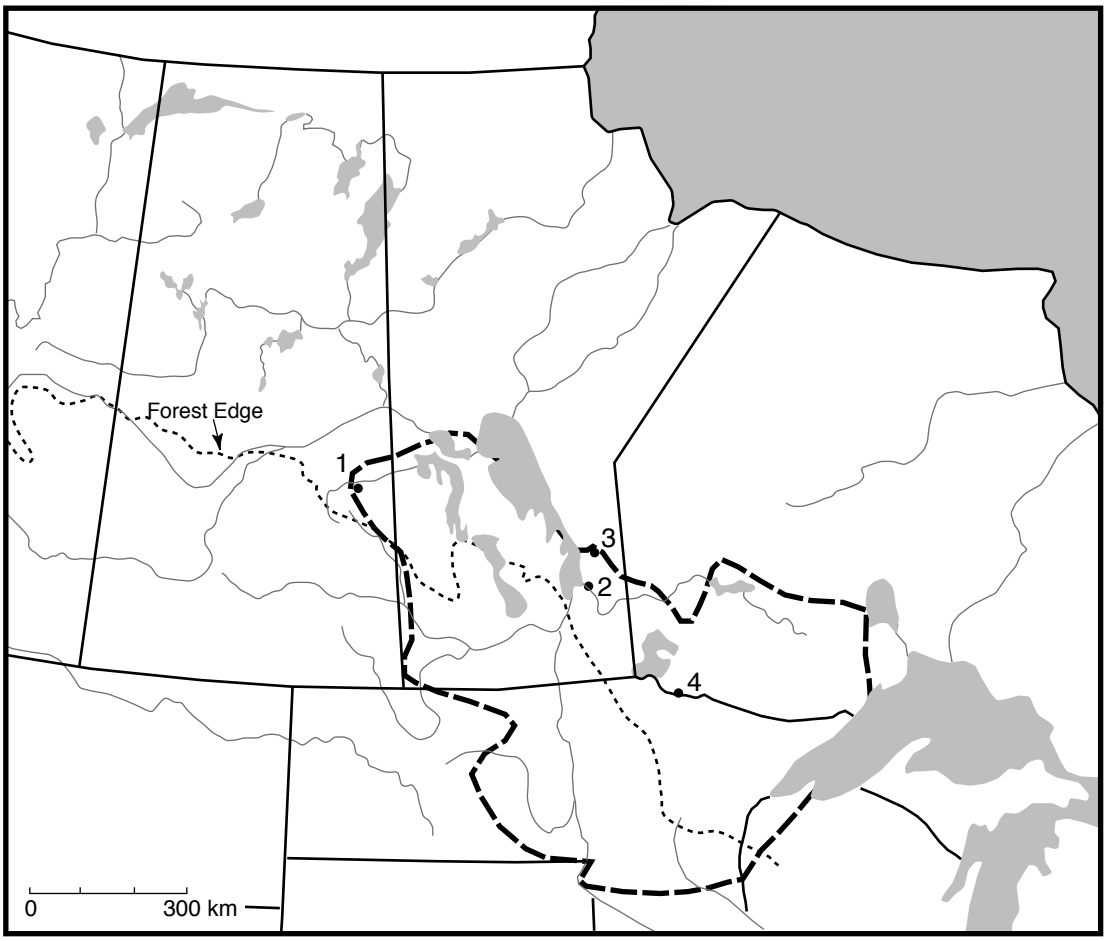
With Duck Bay sites also found in the Swan River valley to the east, the Rainy River composite is now recognized as extending from the Lake Winnipegosis/Lake Manitoba regions through the forests of west central Manitoba and into adjacent Saskatchewan (Meyer 1998:74). The westernmost Duck Bay occupation at the Goldsworthy site remains undated, but is suggested to be contemporaneous with similar materials found in the Swan River valley that date to the A.D. 1300 and 1400's (Meyer 1998:75).

5.4.2 Sandy Lake Ware (Psinomani Culture)

Recent evaluations by Taylor-Hollings (1999), however, suggest that much of what has been defined as Duck Bay Ware should, in fact, be recognized as Sandy Lake ware, or at least as having developed out of Sandy Lake Ware. This latter ware is best known for its occurrence in Minnesota where it was first defined by Cooper and Johnson (1964). It is now recognized to occur in adjacent Wisconsin, North Dakota, northwestern Ontario, south-central Manitoba, and east central Saskatchewan (Figure 5.5) (Taylor-Hollings 1999). Sandy Lake ware is considered a characteristic of the Psinomani culture (Gibbon 1994:146) and dates from approximately A.D 1000 to 1750 (Birk 1979:175). The Psinomani culture (formerly the Wanikan culture) found in Minnesota is characterized by Birk (1977:31) as including:

> Sandy Lake ceramic wares; intrusive mound burials; exclusive circular conical mounds with shallow burial pits; primary flexed interments with associated mortuary vessels; small triangular projectile points (predominantly quartz?); formally prepared ricing jigs or threshing pits; fire hearths and pits; middens; small seasonally occupied sites in recognizable lakes area pattern; and the inferred use of wild rice as a staple food crop.

Taylor-Hollings observes (1999:266) that this definition with emphasis on wild rice harvesting and burials, while apt for the regions where Sandy Lake ware was originally defined, becomes less relevant outside of wild rice zones. In adjacent regions where Sandy Lake Ware occurs, subsistence focused on a variety of resources including bison on the northeastern plains, and moose, deer, fish and waterfowl commonly found in the



1. Goldsworthy (FdMw-1)
2. River Mouth (EcKx-37)
3. Wanipigow Lake (EgKx-1)
4. Long Sault (DdKm-1)

Figure 5.5: Map showing distribution of Sandy Lake Ware and relevent sites (After Taylor-Hollings 1999:258).

boreal forests further north (Taylor-Hollings 1999:84; 94). Sandy Lake Ware found at sites in Manitoba is suggested to reflect either seasonal incursions of people who manufactured this ware, or the movement and adaptation of some groups to this region (Taylor-Hollings 1999:84).

Although there has been much speculation over the origins of Sandy Lake ware, Taylor-Hollings (1999:123) suggests this ware developed out of the transitional Middle/Late Woodland pottery of the Lake Benton Phase. Pottery of this phase is found in southern Minnesota, South Dakota and Iowa and spanned from approximately A.D. 700 to 1200 (Anfinson 1997:75). Many of the attributes found in Sandy Lake ware can be traced to this precursor, as well as the closely related ware of the St. Croix-Onamia series found in middle Minnesota. Equal consideration has been give to the ethnic affiliation of the people responsible for producing Sandy Lake ware. Radiocarbon dates and the association of Sandy Lake ware with trade goods indicate people were manufacturing this pottery through to contact with Europeans. This data, combined with early historic accounts of encounters with eastern Dakota groups in the Boundary Waters region by Jesuits Missionaries have led to the consensus that Sandy Lake ware was produced by ancestral Siouans, specifically the eastern Dakota in Minnesota (Gibbon 1994) and the Nakota (Assiniboine) in the more northern regions (Participants 1987:57).

Sandy Lake ware pottery is characterized by very gentle globular to semi-conical forms with only slightly developed neck or shoulder inflections (Figure 5.6) (Cooper and Johnson 1964). Rim shapes tend to be straight and vertical with the occasional occurrence of incurved, outflaring and incipient S-shapes (Cooper and Johnson 1964; Gibbon 1994; Peterson 1986). The lips of most vessels are not thickened and exhibit predominantly square and rounded lip profiles (Peterson 1986:80). Neck profiles, when present, are curved (rounded); however, internal thickening of this zone can occur resulting in an internal angled profile (Peterson 1986:81). Shoulder forms are poorly defined and tend to be rounded, although angular shoulders have been rarely observed in Minnesota (Justin and Schuster 1994:81). The paste of Sandy Lake ware vessels tends to be lamellar (Gibbon 1994:146), but fine, compact textures also occur (Cooper and Johnson 1964).

Figure 5.6: Partially reconstructed Sandy Lake ware vessel from Big Sandy Lake, Minnesota. Note gentle Vessel profile (from www.civilization.ca/archaeo/ceramiq/pot8e.html).

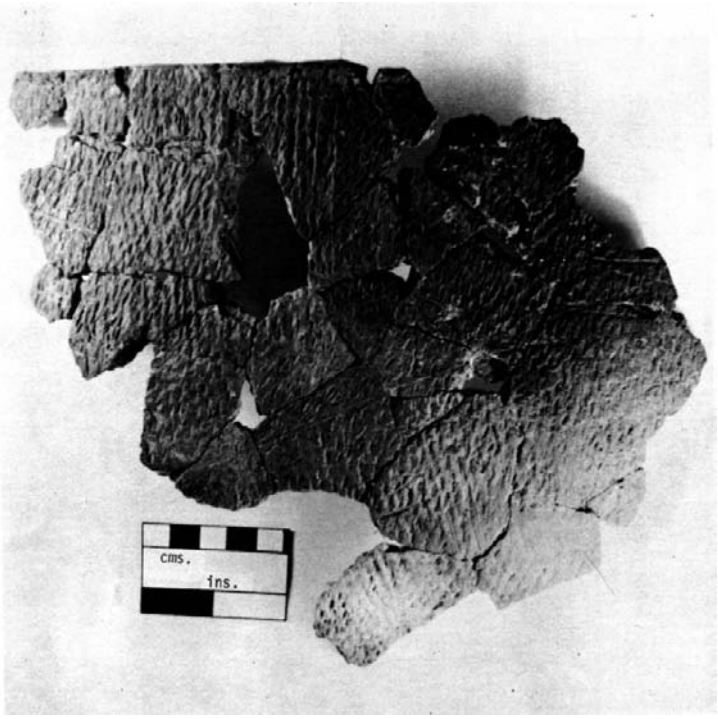


Figure 5.7: Partially reconstructed Sandy Lake ware vessel from the Wanipigow Lake site (EgKx-1). Note sprang fabric impression (from Saylor 1976, Fig. 15).

In the more southerly range of Minnesota and Wisconsin a large percentage of vessels are shell tempered, while in the northern range of Ontario and Manitoba the ware is almost entirely grit tempered (Arthurs 1978:59). Examples of mixed grit and shell tempering are also noted (Taylor-Hollings 1999:48). Although multiple surface finishes have been identified in Sandy Lake ware assemblages including smoothed, cord-roughened and check/simple stamped, Goltz (1991:1) proposes that all Sandy Lake ware with the exception of smooth and stamped types were manufactured inside sprang woven textile molds. Taylor-Hollings (1999:63) concurred observing that the majority of exterior finishes on SLW vessels in Manitoba bear "parallel vertical textile impressions" likely as a result of formation inside a sprang woven bag (Figure 5.7). Arthurs (1979:32) indicates that construction inside a mold (such as a fabric bag) better accounts for the extreme thinness of some Sandy Lake ware vessels that generally range from 3.0 - 7.0mm thick (Cooper and Johnson 1964).

Sandy Lake ware vessels are typically not decorated, but when they are this most often takes the form of interior lip notching. As a result, two variants of Sandy Lake ware are recognized: plain and notched (Cooper and Johnson 1964: Peterson 1986). The notched variety consists of impressions placed on the inner lip corner that extend about 1 cm down the interior rim (Cooper and Johnson 1964:475). Various tools were used to make these impressions including cord wrapped tool, dowel and square dowel (Peterson 1986:62-63). Interior rim notching was also observed to produce a crimped effect in some cases when impressions were deep enough to produce slight exterior bulges (Cooper and Johnson 1964; Peterson 1986). Lip surface decoration occurs to a lesser extent consisting of a variety of round, sharp or cord wrapped tool impressions, as well as trailed lines and cut notch decoration (Peterson 1986:57-58). Even more rare were examples of exterior or interior rim decoration consisting of smooth object, CWT and dowel tip impressions, a single trailed line and exterior bosses (Birk 1979:176; Peterson 1986:82). In contrast to the Minnesota examples, Sandy Lake ware found in northwestern Ontario often exhibits punctate decoration on the exterior rim (Arthurs 1978:62).

In her extensive analysis of pottery collections from various sites across south and central Manitoba, Taylor-Hollings (1999) was able to elucidate the northwestern

distribution of SLW. She concluded that there was much more of this pottery than previously documented. Similar to northwestern Ontario where Sandy Lake ware occurs as a thin veneer across the Boundary Waters region, low amounts of Sandy Lake ware are scattered across south and central Manitoba (Taylor-Hollings 1999:267). Rarely is it found as a "pure" occupation, but rather SLW is commonly found at sites with many other contemporaneous archaeological cultures (Meyer and Hamilton 1994; Taylor-Hollings 1999:8). As a result it has often been overlooked or misidentified by many Canadian archaeologists.

5.4.3 Duck Bay/Sandy Lake Ware Discussion

In a comparison between Duck Bay ware of Manitoba and Sandy Lake ware, Taylor-Hollings (1999:164-165) observed that there was a general temporal and geographic overlap as well as a remarkable number of similarities in ceramic attributes. Both exhibit a general globular vessel shape with Duck Bay and northern Sandy Lake ware exterior surfaces most commonly impressed with a fine vertical sprang textile (however, smooth exteriors are also known). Duck Bay ware is grit tempered, as are the majority of northern Sandy Lake ware vessels. Both wares are thin and have straight or S-shaped rims. Duck Bay ware necks are described as exhibiting "a distinct edge to the interior" (Lenius and Olinyk 1990:87) and Sandy Lake ware vessels occasionally have a similar “rib-like” appearance (Cooper and Johnson 1964). As well, three of the four Duck Bay pottery types parallel Sandy Lake ware variants (Taylor-Hollings 1999:164). A notable characteristic of SLW is the notched variant with round, CWTI or sharp edge tool impressions found on the inner rim and lip (Cooper and Johnson 1964:475). Duck Bay Notched types exhibit similar kinds of decoration. The Duck Bay Undecorated type was also observed to parallel Sandy Lake plain, and Duck Bay Decorated Lip shared similarities with occasional lip surface decoration found on Sandy Lake ware (Taylor-Hollings 1999:164). The Duck Bay Stamp type, however, was considered unique and not known to SLW. This led Taylor-Hollings (1999:166) to suggest that the:

> …three types, Notched, Undecorated, and Decorated Lip which were originally included with Duck Bay ware are likely SLW…These conclusions suggest that Sandy Lake notched and plain variants (Cooper

> and Johnson 1964), which take precedence in the literature, are found in some sites of the Duck Bay complex. Duck Bay Stamped, the most common type of Duck Bay ware, remains classified as it was previously.

This proposal does not negate the Duck Bay complex, as it is still distinctive enough to stand on its own, but rather suggests the presence of Sandy Lake ware within the Rainy River Composite. This appears to account for some of the more distinctive aspects of the Duck Bay complex including the sprang exterior finish and notched lip decoration. As well, the distribution of Duck Bay pottery outside of the Aschkibokahn type site is consistent with the generally sparse amounts of SLW found in assemblages throughout Manitoba and Ontario.

Following Taylor-Hollings (1999), much of the pottery found in the Duck Bay complex (aside from the stamped type) is considered here to be Sandy Lake ware. With the recent identification of a Duck Bay assemblage at the Goldsworthy site, the western extent of SLW has been expanded into east central Saskatchewan (Taylor-Hollings 1999:254). It is this ware that exhibits several notable similarities with Narrows pottery. Unlike Winnipeg Fabric-impressed ware, northern Sandy Lake ware exhibits almost exclusively sprang fabric impressions similar to that found on Narrows pottery. Further, the stylistic attributes which define the types or varieties in this ware are consistent with Narrows pottery. This includes interior lip notching and lip surface decoration, with the vast majority of vessels exhibiting no decoration on the lip at all. Further, the deeply impressed interior lip notches found on Narrows pottery are comparable to the "crimped" lip decoration commonly found in Sandy Lake ware from Minnesota, as well as examples from the Wanipigow site in southeastern Manitoba (Figure 5.8) (Taylor-Hollings 1999:208). Similarities are also recognized in vessel form. Complex profiles with angular shoulders are known in pottery from the Duck Bay complex, while more simple profiles with gently round to non-existent shoulders are typical further south throughout the SLW distribution. Both of these profiles are found in Narrows pottery, the latter is particularly notable in the almost conical profiles of Vessel 5 from HaOh-1 and Vessel 8 from the Vernon Sylvestre collection.

Differences between Sandy Lake ware and Narrows pottery do exist, however. While grit and shell temper are common in Sandy Lake ware, natural temper with lesser

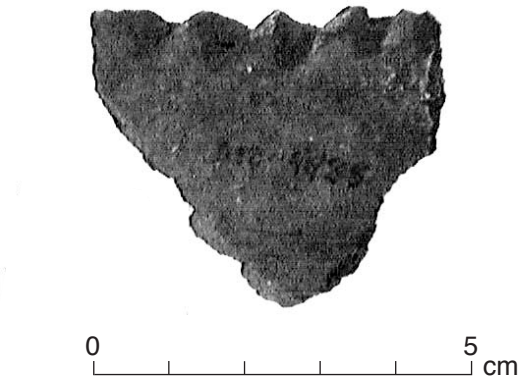


Figure 5.8: Example of interior notched lip decoration from a Sandy Lake ware rim sherd, Wanipigow Lake site (EgKx-1) (Image courtesy of J. Taylor-Hollings).

amounts of grit temper are typical of Narrows pottery (it is not known at this level of analysis if pulverized bone was added to the paste of either Narrows pottery or more southerly Sandy Lake ware). Regarding vessel profile, the inner neck angularity sometimes found in Sandy Lake ware of central Manitoba does not occur in Narrows pottery. Rather, neck profiles are consistently rounded with the inflection varying from pronounced to subtle. Rim profiles are most often straight which is typical of Sandy Lake ware; however, there are no examples of incipient S-shapes in Narrows pottery. A further distinction is observed regarding general craftsmanship. Although Narrows pottery is considered a thin ware, it is somewhat thicker and exhibits greater variation than typical Sandy Lake ware. The rim and body thickness of Narrows pottery ranges from 3.87 to 10.8 mm with a mean of 6.73 mm. Taylor-Hollings (1999:161) observes the rim and body thickness of southern SLW ranges from 3.0 to 7.0 mm with a mean of only 5 mm. However, this difference is negligible in comparison to Duck Bay assemblages where thickness ranges from 4.5 to 8.5 mm with a mean of 6.5 mm (Lenius and Olinyk 1990:87). Another characteristic feature of SLW relates to the lip profile, which is typically non-thickened in relation to the lower rim. This is demonstrated by vessels from the Duck Bay complex that have a lip to rim ratio of 0.95 (Lenius and Olinyk 1990:87). In contrast, Narrows pottery exhibits lips that tend to be slightly thicker than the lower rim, as indicated by a lip to rim ratio of 1.14. This difference is especially noticeable in comparison to Sandy Lake ware from the Goldsworthy site where lips are visibly narrower and exhibit a ratio of only 0.86 (Meyer 1998:71). In addition to differences in general thickness, the paste of Sandy Lake ware observed from the Goldsworthy and Aschkibokahn sites tend to be of good quality. It is more dense and well consolidated, while the paste of Narrows pottery tends to be light, porous and prone to exfoliation. Stylistic differences are also noted. Sandy Lake ware exhibits a wider variety of tool impressions located on the interior lip not found on Narrows pottery, including cord wrapped tool, square dowel and incised lines. In addition, although punctate decoration has been observed on some Sandy Lake ware vessels, it is not common, especially in Minnesota and throughout the Duck Bay complex where it rarely if ever occurs.

5.5 Discussion

Narrows pottery was compared with four previously defined wares from the northern plains and boreal forest. The association of Narrows pottery with the Old Women's phase was first explored with a consideration of Ethridge ware attributes and concepts regarding its northern distribution. The initial interpretation that Narrows pottery is derived from the Old Women's phase is rejected here, and considered the result of initial erroneous interpretations of the pottery and projectile points from the Kisis Channel. There is little evidence for the incursion of this plains adapted people into the boreal forest, and beyond a few generic attribute similarities, Narrows pottery is considered to represent a ware which is distinctly different from that of the Old Women's phase.

In contrast, most of the attributes found on Narrows pottery also occur on pottery found in the boreal forest. A reconsideration of similarities with Winnipeg Fabric-impressed ware from the Selkirk composite indicates that attributes such as punctate decoration, general vessel shape and aspects of exterior finish and temper were also common to Narrows pottery. However, more compelling were similarities observed in related wares of the southern boreal forest. As a result of recent studies, most of the pottery types recognized in the Duck Bay complex are now considered Sandy Lake ware. With this latter ware extending further west into east central Saskatchewan than previously realized, it has brought attention to a pottery tradition never before considered in the interpretation of Narrows pottery. Several of the more prominent attributes found on Sandy Lake ware are also common to Narrows pottery, including the ubiquitous exterior sprang fabric impressions, and the stylistic treatment of lips including the unique interior notched decoration. The similarities shared with both Selkirk pottery and Sandy Lake ware strongly suggest that Narrows pottery has origins in the boreal forest, with possible influences extending all the way from the Boundary Waters region of northwestern Ontario and Minnesota. This is not unreasonable considering that many archaeological cultures recognized in the boreal forest of Saskatchewan are believed to have origins in the eastern woodlands. For example, the preceding Middle Woodland Laurel and Late Woodland Blackduck cultures found in eastern Saskatchewan are considered to originate in the boundary waters region and to

have subsequently expanded north and west (Rajnovich and Reid 1991; Meyer et al. 1999).

Although most of the attributes found on Narrows pottery can be traced to Late Woodland pottery, taxonomic difficulty still exists because it does not fit neatly into any one ware category. The ware definition employed in this study emphasizes technological attributes, including paste and especially exterior surface finish. From this perspective Narrows pottery most closely resembles Sandy Lake ware. However, there are problems in classifying Narrows pottery as Sandy Lake ware. Firstly, although the distribution of Sandy Lake ware has been greatly expanded, it only extends just into east central Saskatchewan. Without any occurrences in the intervening regions, the direct association between the pottery of the upper Churchill River and Sandy Lake ware is tenuous. Secondly, despite the similarities in exterior finish and lip decoration, the paste characteristics of Narrows pottery (with a tendency towards natural temper) indicate a different technological approach to clay preparation and the manufacturing process. And thirdly, there are obvious differences between the composition of assemblages found in the study region and those containing Sandy Lake ware. Sandy Lake ware found in sites outside of the Minnesota heartland most commonly occurs in minor amounts along with other wares. This contrasts with the study region where Narrows pottery occurs as the dominant and almost exclusive pottery at most sites. Such homogeneous assemblages, combined with pervasive punctate decoration are more characteristic of Selkirk occupations found throughout northern Saskatchewan. However, the dominance of sprang impressed exteriors and general lack of grit temper is decidedly uncharacteristic of Winnipeg Fabric-impressed ware in the region, and precludes Narrows pottery from this classification.

One of the unique aspects of Narrows pottery, then, is that it seems to exhibit attributes of both Sandy Lake Ware and Selkirk pottery. This phenomenon has been observed elsewhere in the boreal forest, most notably northwestern Ontario. Sandy Lake ware in this region demonstrates unique characteristics that set it apart from its counterparts in Minnesota (Figure 5.9) (Arthurs 1978:59). Firstly, all of the Ontario vessels are grit tempered. This differs from southern examples where a large percentage is shell tempered, an attribute suggested to reflect a Mississippian influence. Secondly,

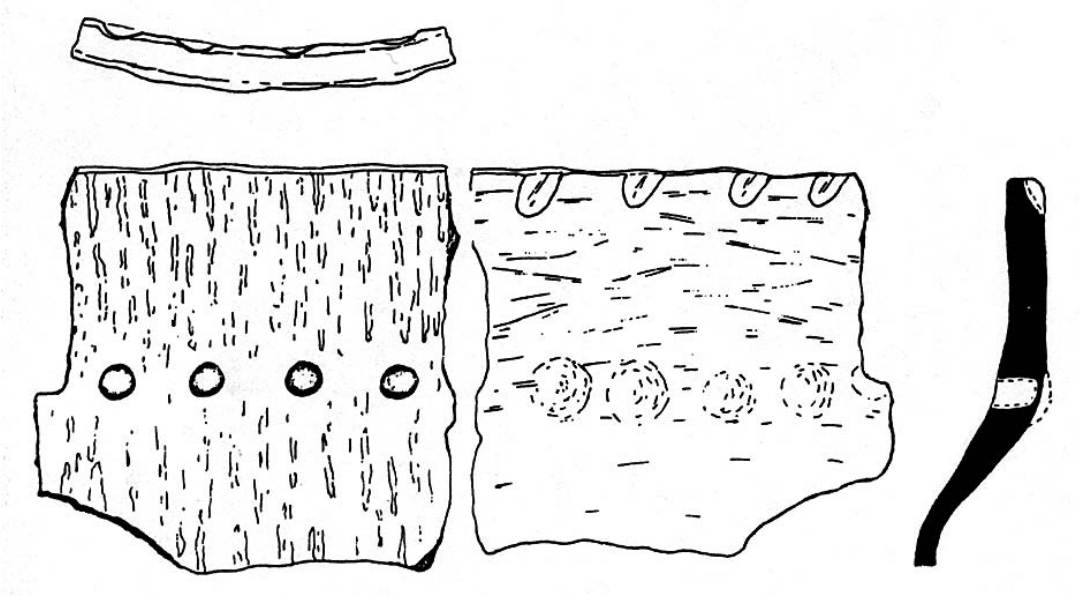


Figure 5.9: Example of a typical Sandy Lake ware rim sherd from northwestern Ontario, found at the Long Sault site (DdKm-1). Note exterior sprang fabric impression and punctates (left), and interior lip notching (right) (from Arthurs 1978:58).

the variety of exterior surface finishes found in Minnesota Sandy Lake ware are not present on Ontario examples. Most obvious is the complete absence of smooth and check/simple stamp exteriors. Although Arthurs does not explicitly state the common surface finish found in his sample, Taylor-Hollings (1999) subsequently observed that the vast majority of Sandy Lake ware vessels in Manitoba and Ontario exhibit vertically oriented textile impressions. In a later report, Arthurs (1986:264) noted that a minor percentage of Sandy Lake ware vessels from the Boundary Waters region shared similarities with Selkirk ceramics, most notably in fabric impressed surfaces. This implies that twined impressions were also identified. The final disparity relates to the presence of exterior punctate decoration on the rim of "many" Ontario vessels. This attribute occurs rarely, if ever on SLW vessels found in Minnesota (Arthurs 1978:62).

Meyer and Hamilton (1994:124) suggest that these atypical attributes could be the result of contact with and attribute borrowing from makers of Selkirk pottery. The southern extent of the Selkirk composite overlaps spatially and temporally with Sandy Lake ware, and the textile surface impressions, grit temper, and punctate decoration share obvious similarities with Clearwater Lake Punctate type vessels. At the Long Sault site (DdKm-1) these two wares are found in association with each other (Arthurs 1978:59), and additional sites such as Lady Rapids (Reid 1984:39), French Lake (Reid 1978), Potato Island (Koezur and Wright 1976), and Spruce Point (Rajnovich 1983) contain both wares, which may also suggest cohabitation. The result of such interaction seems to have been the production of syncretic vessels that exhibit attributes of both Sandy Lake and Winnipeg Fabric-impressed wares. As Arthurs (1986:199) observes:

> Many of the ceramics in the upper Long Sault component may be subsumed comfortably within the Selkirk ceramic typology. A large number of fabric [impressed] vessels in the component, classified as Winnipeg Fabric Impressed Ware variants, resemble Clearwater Lake ceramics in that they are very thin, fabric impressed, and are generally undecorated except for exterior punctates and a variety of lip treatments. They do not fit comfortably within the Hlady typology, however (Hlady 1971). The rather straight rim profiles and interior lip notching on some of the Long Sault specimens might suggest similarities with Sandy Lake ware…

This merging of attributes has also been observed in southeastern Manitoba at the River Mouth site (EcKx-37) (Taylor-Hollings 1999:215). One partially reconstructed

vessel associated with a human burial exhibits a sprang textile impression on the exterior surface, and similar to Narrows pottery, the interior surface displays undulations that suggest formation inside a bag mold (Taylor-Hollings 1999:215). The interior of the lip is decorated with cord wrapped tool impressions, and a row of punctates encircles the exterior rim (Figure 5.10). Taylor-Hollings (1999:216) observes that while the punctate row is typical of Clearwater Lake Punctate vessels, the remaining attributes conform with Sandy Lake ware. Such co-mingling of attributes throughout northwestern Ontario and southeastern Manitoba makes pottery classifications in the region problematic and may have resulted in the misidentification of some southern Selkirk
pottery as Sandy Lake ware or vice versa (Meyer and Hamilton 1994:126). One such example is the Wanipigow Lake site where Saylor (1978) first identified sprang textile impressions in the archaeological literature. Much of this material was originally considered “late Selkirk ware” but has since been reclassified as Sandy Lake ware (Participants 1987).

Additional syncretism has been observed further northwest at the Goldsworthy site in east central Saskatchewan. Although the majority of the assemblage consists of vessels representing what we would now consider Sandy Lake ware, there is at least one Clearwater Lake Punctate vessel and six Rainy River/Selkirk syncretic vessels (Meyer 1998:64). The latter are represented by three rim sherds exhibiting exterior sprang impressions typical of Sandy Lake ware, as well as decoration typical of Selkirk pottery, including exterior punctates on the rim. The remaining vessels display twined fabric impressions and punctates typical of Selkirk pottery, in addition to lips decorated with either interior notches or stamped impressions characteristic of Sandy Lake ware. Although Meyer (1998:73) ultimately assigned this assemblage to the Rainy River composite, he noted the occurrence of some Selkirk traits and syncretic vessels at the Goldsworthy site "provide evidence that the distinction between Rainy River and Selkirk Composite assemblages may not always be clear, especially in zones of contact (or transition?) between the two."

The relevance of this syncretic pottery found in the southern boreal forest is that it brings together several of the more significant attributes observed on Narrows pottery, including sprang exterior finish, interior notched lip decoration, and punctate impressed

Figure 5.10: Partially reconstructed vessel from the River Mouth site (EcKx-37). Note exterior sprang fabric impression, punctates and interior lip notching (image courtesy of J. Taylor-Hollings).

rims. Further, it provides a possible mechanism for the merging of these traits. However, there are also problems in interpreting pottery from the study region as merely syncretic. Firstly, although Winnipeg Fabric-impressed ware is known to the Upper Churchill River, Sandy Lake ware has yet to be identified this far northwest. Therefore, the study area is not considered a zone of contact between producers of these two wares. Further, assemblages in such a context would be expected to include some classic examples of both Sandy Lake and Winnipeg Fabric-impressed wares, in addition to a few syncretic vessels. This pattern does not exist in the study region. Rather, Narrows assemblages found on Peter Pond Lake are very homogeneous, with vessels exhibiting a consistent co-variation of attributes. This contrasts with assemblages at the Goldsworthy site and northwestern Ontario, where not only is there evidence for co-occurring wares, but the syncretic examples are more varied in their combination of attributes. This includes the presence of both punctated and non-punctated rims, both sprang and twined fabric impressed exteriors, as well as more variation in lip decoration. Therefore, although the origins of Narrows pottery may ultimately lie in the southern boreal forest as a result of this interaction, it appears to have developed into a distinct ware, demonstrating unique paste and temper characteristics, as well as a consistent combination of surface finish and stylistic attributes not seen in other regions. It is proposed, therefore that Narrows pottery be placed within its own ware designation.

5.6 Summary

This chapter compared Narrows pottery with existing wares from both the northern plains and boreal forest. It was concluded that Narrows pottery demonstrated closer affinities with boreal forest pottery making traditions than that of the plains. As a result, a plains origin and association with the Old Women's Phase is rejected. Parallels in technological and stylistic attributes were observed in both Sandy Lake ware and Selkirk pottery; however, the unique combination of these traits prevented confident assignment of Narrows pottery to either of these wares. Further, this blending of attributes was rejected as merely representing occasional syncretism, and is considered consistent enough to warrant a separate classification. As a result, it is suggested that a

new ware designation be established for this unique pottery found in the upper Churchill River basin.

CHAPTER 6
THE BUFFALO LAKE COMPLEX

6.1 Introduction

In the previous chapter it was argued that Narrows pottery found in the upper Churchill River basin does not fit into existing ware definitions. Despite exhibiting attributes found in both Sandy Lake and Winnipeg Fabric-impressed wares, it appears to represent a unique woodland manifestation that is temporally and geographically distinct in its consistent combination of technological and stylistic attributes. It is proposed, therefore, that Narrows pottery be recognized as a distinct ware. In recognizing the initial identification and terms used by Millar (1983), this pottery is now formally labeled Narrows Fabric-impressed ware. This follows the rules of pottery ware nomenclature established by Gladwin and Gladwin (1930), whereby the name of the geographic locale where the pottery was first discovered is followed by a description of the exterior surface treatment. Further, because Narrows Fabric-impressed ware is no longer considered related to the Old Women's phase, the Willey and Phillips taxonomic system used to classify plains archaeological cultures, and previously applied to Narrows pottery assemblages (ie: the Narrows subphase), is no longer considered appropriate. Following the common practice of archaeologists working in the boreal forest of central Canada, the Syms (1977) taxonomic system will be employed here. According to this system, a *complex* represents the "total expression of a number of assemblages left by the same group over a sufficiently narrow time period that the cultural expressions undergo only minor changes" (Syms 1977:70-71). Because Narrows Fabric-impressed ware is characteristic of assemblages found at multiple sites throughout the Peter Pond Lake region, they are formally subsumed within the newly proposed Buffalo Lake complex**.** This name recognizes the traditional aboriginal term for the lake upon which this ware appears to be centered. The purpose of the following chapter is to formally define this new archaeological complex, and provide details concerning the artifact assemblage, distribution, age and origins.

6.2 Pottery Assemblage

The Buffalo Lake complex is defined primarily on the basis of unique pottery referred to here as Narrows Fabric-impressed ware. This ware exhibits exterior surface treatment consisting of vertically oriented textile impressions produced likely as the result of vessel formation inside a sprang woven bag. The paste is characterized by a lamellar texture with predominantly natural (sand and rounded pebbles) or less frequently light amounts of grit temper. Vessel forms are generally globular to sub-conoidal in profile, with rims that are either straight or slightly excurvate; necks with subtle and gently rounded or occasionally pronounced neck constrictions; shoulders that are gently rounded or in rare instances exteriorly thickened to produce an angled profile; and rounded lower bodies. A single row of punctates encircles the rim of all vessels, with rare additional rim decoration consisting of a single twisted cord impression or a shallow trailed line either above or below the row of punctates. Lip decoration is rare, but when it does occur can be broken down into two groups. The first is considered interior lip notching, produced by rod or SET impressions. These consist of either deep notches placed on the interior lip corner that extend down the interior rim, or of shallower impressions placed on the interior lip corner that extend across the lip surface. The second group consists of impressions placed exclusively on the lip surface produced by smooth rod, CWT, SET, punctate or a single cord. Based on lip decoration, three pottery types are proposed within this ware: Narrows Undecorated Lip, Narrows Decorated Lip and Narrows Notched Lip. As a general comment it is not uncommon for vessels to exhibit generally poor workmanship in the form of undulating lip surfaces, varying wall thickness, large pebble inclusions and poor quality paste. However, it should be noted that better quality vessels with well consolidated paste and uniform, thin walls were also produced.

6.3 Lithic Assemblage

The lithic assemblage for the Buffalo Lake complex has yet to be fully defined. As discussed in Chapter 1, due to the nature of the surficial archaeological deposits and lack of stratigraphic data, lithic tools found on Peter Pond Lake cannot be confidently associated with Narrows Fabric-impressed ware. However, the Bernadette Chartier site (GlOc-21), now considered the type-site for the Buffalo Lake complex, was excavated with stratigraphic control and provides some insight. Here, the fine lithic tool industry consisted of small, side-notched projectile points; bifaces of variable morphology including triangular, contracting, discoidal and straight sided forms; small end and side scrapers including rectangular, contracting and thin snub nosed forms; lateral unifaces; and marginally retouched flakes including drills and beaked gravers (Millar 1983:108). The lithic material utilized indicates the exploitation of local resources consisting primarily of white and clear vein quartz, and lesser amounts of chert, quartzite and sandstone. A distinct lithic material described as "'pepper' fused sandstone" was also present in significant amounts, and observed to be unique in its association with Narrows Fabric-impressed ware. A coarse lithic industry was also present consisting of slab choppers and discoidal chithos manufactured out of micaceous schist, gneiss and sandstone (Millar 1983:83).

Lithic tools recovered during the course of the Peter Pond Lake surveys (summarized in Appendix B) conform reasonably with that described at the Bernadette Chartier site, but also include additional tool forms not previously recorded. A total of 173 lithic tools were collected from 13 of 22 sites containing Narrows Fabric-impressed ware. This included an array of small to medium sized side-notched points and point preforms; unifaces in the form of rectangular, triangular, and ovoid end and side scrapers; bifaces including large triangular, tear drop, and ovoid knives; small, hafted knives exhibiting asymmetric bodies, as well as pièce esquillées or wedges. A coarse lithic industry was well represented by ovoid and D-shaped chithos as well as several pecking stones and one grooved maul. Ground tools consisted of one celt, and perhaps most interesting, three stone tubes interpreted as either smoking pipes or sucking tubes.

The lithic material utilized in the manufacture of these tools consisted largely of local material common to the northern forests and Precambrian Shield of the region.

This included silicified sandstone, generic chert, quartzite, vein quartz, siltstone, siltstone pebbles, sandstone, granite, and limestone. These materials accounted for 55% (96/173) of all tools. However, it is the unique "pepper fused sandstone" previously described at the Bernadette Chartier site that was the most common. This lithic was found at nine of thirteen sites and comprises 32.9% (57/173) of the tools. This material is fairly localized within the region and has yet to be identified beyond the headwaters of the Churchill River in Saskatchewan. However, similar material has been observed in the Birch Mountains locality of northeastern Alberta (Clarke 2002; McCullough et al 1982;). Clarke (2002:75) describes a fine-grained material with "distinctive small black flecks in a white to cream coloured matrix" identified as a "salt and pepper quartzite". Some examples are observed to grade into a grey-brown quartzite, and the cortex, when present, is often weathered with evidence of fluvial reworking (Clarke 2002:200-2001). McCullough et al. (1982:146) suggest this material is derived from glacially transported material from the Precambrian Shield, with cobbles collected either directly from till outcrops or from river gravels reworked from tills. In intervening regions, this material is found in limited amounts along the Clearwater River in Alberta (Pollock 1978a: Figure 38 nos. 5,6,8 and 10; Figure 39, nos. 1 and 2), as well as Methy Portage, which links the Clearwater River with the Churchill River system (Steer 1977: Figure 85, e). Due to the abundance of this material in the study region, it seems most likely that it is derived from local till deposits or river cobbles, as opposed to being traded or transported into the region from the northwest.

In addition to these local materials, minor amounts of exotic lithics (11.6% or 20/173) are present that do, in fact, indicate some contact or trade with peoples from areas outside the study region. The most common includes Muskeg Valley Silicified Limestone or what was previously described as Beaver River Sandstone. A quarry source for this material has recently been identified near the confluence of the Muskeg and Athabasca Rivers in northeastern Alberta and is the dominant lithic in that region (Saxberg and Reeves 2004). Minor amounts of Swan River Chert are also represented. This material has a bedrock source in the Mafeking area of west-central Manitoba, but is distributed over a vast area as a result of glacial re-deposition (Grasby et al. 2002). It is found across the northern plains, parklands and into the southern boreal forest,

extending from north of Lake Winnipeg to southeastern Manitoba in the east, to southeastern Alberta in the west (Low 1996: 167-168 Figure 1). Additional non-local material includes Gronlid siltstone, which has a quarry source located on the upper Saskatchewan River (Johnson 1986:88); a brown chalcedony similar to silicified peat common to the plains of southwestern Saskatchewan (Johnson 1986:75) and a white chalcedony of unknown origin.

Given the ubiquity of ceramics in the region it is likely that many of these lithic tools are associated with Narrows Fabric-impressed ware. The repeated occurrence of the distinct salt and pepper quartzite at sites with Narrows Fabric-impressed ware is consistent with previous observations at the Bernadette Chartier site, as are many of the tool types. However, automatic associations cannot be assumed. As previously discussed there are difficulties in making distinctions between non-descript Late Woodland and Late Taltheilei side-notched points. Particularly troublesome are Late Taltheilei points identified from the Birch Mountain locality of Northeastern Alberta, manufactured out of salt and pepper quartzite (Ives 2003:278). Such examples are comparable with specimens found on Peter Pond Lake as well as the Bernadette Chartier site where they are associated with Narrows pottery. Further, the abundance of chithos at pottery bearing sites in the region also complicates matters. This tool type was found at seven of 13 sites containing Narrows Fabric-impressed ware and comprised 13.1% (22/173) of tools recovered. Chithos are described as medium to large, ovoid abrading tools typically manufactured out of coarse material such as sandstone, schist, quartzite and gneiss (Gordon 1996:37). They are most commonly associated with historic Dene groups who used these tools to soften hides, and are also characteristic of Early to Late Taltheilei archaeological assemblages found throughout the northern forests and barrenlands of Canada (Gordon 1996: 55,85, 116). Although this tool form has also been associated with Narrows Fabric-impressed ware at the Bernadette Chartier site, their presence at unstratified sites on Peter Pond Lake could equally be interpreted as evidence for assemblage mixing with Taltheilei occupations. Until additional stratified sites are found, little more can be said regarding the lithic industry of the Buffalo Lake complex and its distinctness from either the Taltheilei or Selkirk assemblages in the area.

6.4 Dating the Buffalo Lake Complex

Two methods of dating were considered when determining the age of Narrows Fabric-impressed ware and the Buffalo Lake complex: relative and absolute. It was through relative dating at the Bernadette Chartier site that a time frame of approximately A.D. 1000 to 1300 was first suggested for the Narrows assemblage (Meyer 1995; Paquin 1995). This was based on its stratigraphic position below a Selkirk occupation and above a Taltheilei occupation of a known age. The Narrows assemblage was, therefore, considered to predate the Kisis complex in the region.

Although the current study dealt only with surface collections, the distribution of pottery suggests there was, to a large degree, a distinct separation of the two wares. Sixteen out of 22 sites contained exclusively Narrows Fabric-impressed ware, and at three sites where both wares occur, the horizontal distribution could be interpreted as different episodes of occupation. At HaOg-10, Narrows vessels were found beyond the main concentration of Selkirk pottery, with one vessel up to 45 m away. At HaOg-11, vessels representing the two wares were separated by approximately 55 m; and at HaOg-12, the lone Narrows Fabric-impressed vessel was located approximately 85 m to the north of the Selkirk vessels. In the latter two sites there were few intervening artifacts to suggest site continuity. This seemingly distinct separation of pottery at an inter and intra site level further suggests there was little interaction, and thus temporal separation between the people responsible for the Kisis complex and those of the Buffalo Lake complex. However, it should be observed that three sites dominated by Narrows Fabric-impressed ware also contained vessels identified as syncretic Narrows/Selkirk. Such vessels exhibiting traits of both wares could only occur as a result of contact and interaction.

In an effort to better elucidate the age and chronology of the pottery wares found in the study region, three samples were submitted to Beta Analytic Laboratories for absolute dating by Accelerator Mass Spectrometry (AMS). This included organic carbon residue from the interior surface of Vessel 1 from HaOg-26, a partially reconstructed Narrows Fabric-impressed pot (Beta-192664); organic carbonized residue from the exterior surface of Vessel 1 from HaOg-10, a partially reconstructed Kisis

Angle Rim pot (Beta-200108); and a charcoal inclusion found in the clay matrix of Vessel 9 from HaOh-19, a second Narrows Fabric-impressed vessel represented by a rim sherd (Beta-200109). The results are illustrated in Table 6.1.

Table 6.1: Accelerator Mass Spectrometry (AMS) Dates Obtained from Pottery in the Study Region.

Lab No.	Vessel	Material Dated	Measured Radio Carbon Age	13C/12C Ratio	15N/14N Ratio	2 Sigma Calibration
Beta-192664	HaOg-26 Vessel 1 Narrows Notched Lip	Carbon Residue	730 +/-40 BP	-25.0 o/oo	+11.8 o/oo	Cal AD 1240 to 1300 (Cal BP 710 to 650)
Beta-200108	HaOg-10 Vessel 1 Kisis Angled Rim	Carbon Residue	550 +/-40 BP	-26.8 o/oo	+9.1 o/oo	Cal AD 1320 to 1340 (Cal BP 630 to 600) Cal AD 1390 to 1440 (Cal BP 560 to 510)
Beta-200109	HaOh-19 Vessel 9 Narrows Undecorated Lip	Charcoal Inclusion	480 +/-40 BP	-25.9 o/oo	N/A	Cal AD 1410 to 1470 (Cal BP 540 to 480)

(Calibrated ages based on Stuiver et al. 1998; Talma and Vogel 1993)

The Narrows Fabric-impressed vessels reported calibrated dates ranging from A.D. 1240 to 1300 and A.D. 1410 to 1470. These dates indicate a slightly younger period of occupation than previously estimated, and are contemporaneous with both Selkirk and Sandy Lake ware occupations elsewhere in the boreal forest. The Kisis Angle Rim vessel reported two possible calibrated dates ranging from A.D. 1320 to 1340 and A.D. 1390 to 1440. This is consistent with radiocarbon dates associated with Selkirk assemblages found in Saskatchewan and conform to the temporal estimate of A.D. 1300 to 1700 suggested by Meyer (1995:55) for the Kisis complex. These results, however, do not indicate a clear-cut chronological difference between the two complexes. Rather, they all cluster within an approximate 250-year range, with the two dates obtained from Narrows Fabric-impressed ware bracketing the lone Winnipeg Fabric-impressed ware date. Based on these data it suggests there was some overlap and contemporaneity between the makers of the two wares. If so, this would have facilitated

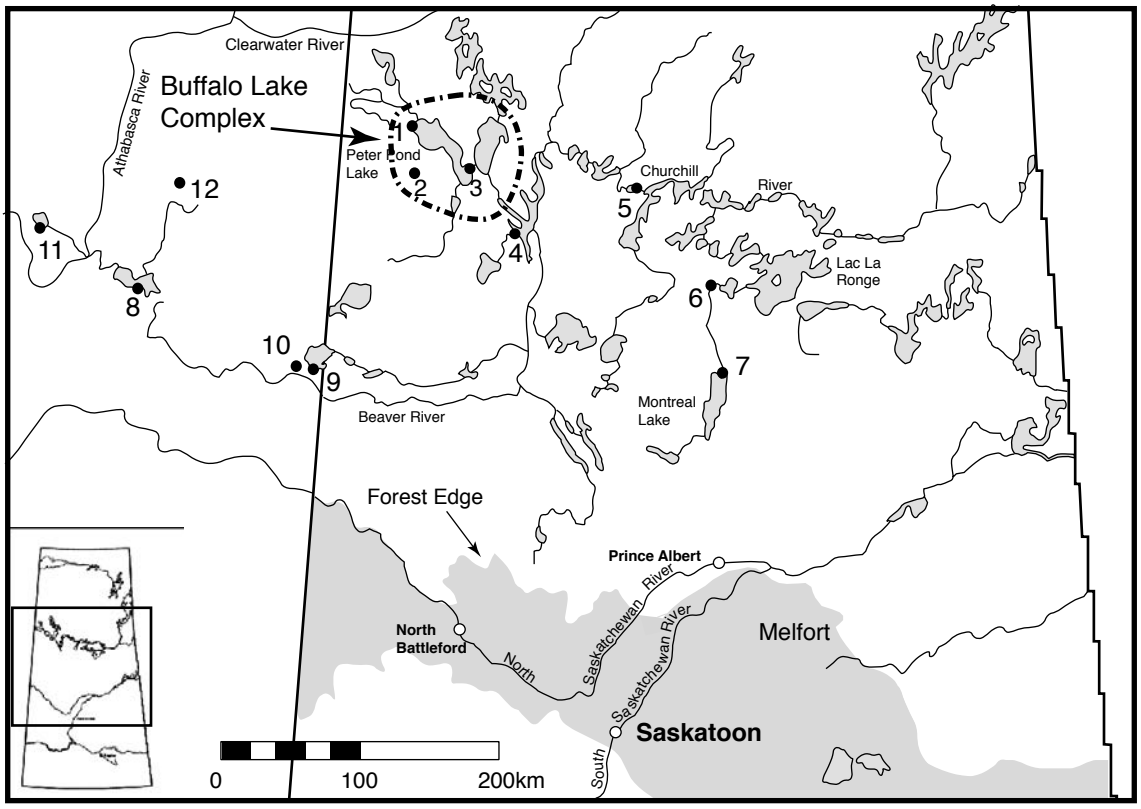
interaction and may explain the few examples of syncretic vessels in the region. Undoubtedly, additional dates and firmly stratified sites will help to further clarify the chronology of, and relationship between, the two complexes. Based on the present data, however, it is suggested that the Buffalo Lake complex dates from approximately A.D. 1200 to 1500. It is not known at this time if it extended through to the historic period.

A word of caution should be expressed when using the above dates for interpretive purposes. Obtaining accurate radiocarbon dates from the Late Precontact period is already problematic due to the greater fluctuations in atmospheric 14C within the last 500 years (Meyer and Russell 1987:5; Morlan 1993:41). A further problem only recently discovered has specific ramifications in boreal forest environments. A phenomenon known as the freshwater reservoir effect has been observed in both Europe and North America resulting in the production of erroneously old dates (Fischer and Heinmeier 2003; Lanting and van der Plicht 1996; Syms 2004). Similar to the Marine Reservoir effect, it involves the contribution of fossilized carbon to the freshwater food chain. This can result in dates that are as much as 200 to 300 years older than corresponding terrestrial sources (Syms 2004:7). This has implications in the study region where fish were known to form a significant part of the traditional diet of boreal forest adapted peoples. If fish were cooked in the vessels where carbon residue samples were obtained, they may be subject to this effect. As a result, the two dates obtained from organic residue may not be as reliable as the charcoal inclusion. To help address this problem, additional 15N/14N ratio analysis was requested on the carbon residue samples submitted. Fischer and Heinemeier (2003:463) note that fish from lakes and rivers are characterized by relatively high 15N values when compared to terrestrial animals. Measurement of this stable nitrogen isotope can provide important information in determining if dates are significantly influenced by the freshwater reservoir effect. It is hoped that by reporting these nitrogen isotope ratios, this information can be used in the future to better evaluate the dates obtained and help correct for the freshwater reservoir effect as is currently possible with the marine reservoir effect (Stuiver et al. 2003).

6.5 Distribution of the Buffalo Lake Complex

As a result of this study, the known distribution of Narrows Fabric-impressed ware has been significantly increased. No longer is it limited to the rare occurrences on the Kisis Channel, but it is now recognized as having a significant presence throughout the region. This pottery has been identified from over twenty sites found on Peter Pond Lake, the Kisis Channel as well as Vermette Lake, and seems to be more prevalent than Selkirk pottery in the area. It is apparent that people manufacturing Narrows Fabric-impressed ware were intensively inhabiting and exploiting resources from the land and water systems surrounding Peter Pond Lake. Therefore, the Buffalo Lake complex is considered centered on the upper Churchill River basin (Figure 6.1).

Recent discoveries and examinations of previously excavated assemblages, however, indicate that Narrows Fabric-impressed ware also occurs in isolated examples outside the study area (Figure 6.1). Jones (2002:42) identified Narrows pottery further downstream on the Churchill River System from site GiNx-16. This site is situated on a narrow peninsula along the east shore of the Canoe River where it enters Lac Ile a la Crosse. Although only limited shovel testing was conducted at this site, 104 pottery sherds, including two rims were recovered. As a result of this discovery, further testing at the site was carried out in 2003 by Gary Brewer, a government archaeologist with the Heritage Resource Branch, as well as this author in advance of proposed cottage subdivision development. The expanded excavations indicate the site is multi-component, with a pottery bearing occupation lying just below the leaf litter and root mat, and two aceramic occupations at approximately 10 cm and 25 cm below surface. An additional 496 pottery sherds were recovered, all of which appear to represent the same vessel identified from the previous year. Due to extreme fragmentation and exfoliation only limited reconstruction was possible, however, one rim sherd found in 2002 did refit with six rim sherds found in 2003 (Figure 6.2). The laminated paste of this vessel is very soft and friable and contains no grit temper, but rather several large pebble inclusions measuring greater than 10 mm in size. The exterior finish consists of unsmoothed, deeply impressed sprang fabric impressions, while the interior is smooth but bears no wiping striations. The lip profile is variable, but generally rounded with clay folded back on the interior in some places. The vessel wall undulates noticeably



1. Peter Pond Lake
2. Vermette Lake
3. Kisis Channel
4. GiNx-16
5. GkNp-2 McCallum
6. GgNk-1 Simon Eninew
7. GcNj-7 Montreal lake
8. GfPa-32 Black Fox Island
9. GcOm-7
10. GdOo-16 Duckett
11. GhPh-107 Calling Lake
12. GiOc-1 Wappau lake

Figure 6.1: Map Showing distribution of Buffalo Lake complex and additional sites potentially containing Narrows Fabric-impressed ware.

Figure 6.2: Partially reconstructed vessel from GiNx-16.

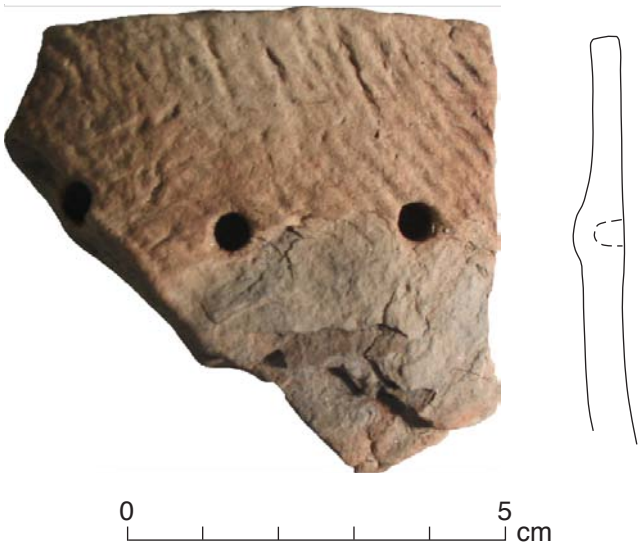


Figure 6.3: Rim sherd from the McCallum Site (GkNp-2).

with lip thickness ranging greatly from 7 to 13 mm, and body sherds ranging from 10.6 to 16.9 mm. Decoration consists of a single row of punctates placed unevenly a short distance below the lip. Due to limited reconstruction, vessel form is not known; however, the vertical rim and lack of obvious constricted neck sherds may suggest a conoidal profile. Orifice diameter is approximately 148 mm. This vessel is very similar to some of the more poorly made Narrows Fabric-impressed ware pots found on Peter Pond Lake, specifically Vessel 16 from HaOh-15 and Vessels 3 and 4 from HaOg-35.

Further east on the Churchill River, the McCallum site (GkNp-2) is located on a point of land on the north side of the entrance to the Snake Rapids channel. This site was discovered by Saskatchewan Research Council archaeologists during the Key Lake Road Access Survey of 1979 and 1980 (Meyer et al. 1981). Test excavations revealed the presence of at least two occupations as represented by an Oxbow projectile point and fabric impressed body sherds interpreted as Selkirk Ware (Meyer et al 1981:108). Of interest here, however, is a single rim sherd recovered from the river's edge at the McCallum site (Figure 6.3). Although obviously water worn, the exterior surface exhibits a linear sprang impression with a slightly left oblique orientation that extends onto the lip surface. The paste is layered and highly friable, with natural temper of sand making the paste light and porous with a distinct gritty feel. The lip profile is square with a flat surface measuring 4.35mm thick, while the lower rim is noticeably thicker measuring 6 mm. The rim profile appears straight and tall with no obvious neck juncture. Decoration consists of a single row of uneven, round punctates placed well below the lip. Very prominent bosses are found on the interior surface. This rim sherd was originally interpreted as representing a Clearwater Lake Punctate type vessel (Meyer et al. 1981:113), but in light of recent analysis, it is suggested here to represent Narrows Fabric-impressed ware. Similarities are specifically noted with Vessel 2 from HaOh-1, and Vessel 1 from HaOh-14.

More recently, Hanna (personal communication, July, 2004) has reported Narrows pottery from west of Lac la Ronge. The Simon Eninew site (GgNk-1) is situated on a small point of land on the north side of the Montreal River where it exits Sikachu Lake. Pottery sherds were discovered in a garden plot by the namesake of the site and reported to the Royal Saskatchewan Museum. Further testing and analysis by

Hanna indicates that one partially reconstructed vessel is similar to pottery found on Peter Pond Lake. This vessel is characterized by an exterior surface impressed with vertical sprang fabric, and paste described as porous but hard, containing fine sand particles and sparse amounts of larger, rounded to sub-rounded inclusions. The profile exhibits a straight to slightly excurvate rim, with a gentle neck constriction and rounded shoulders. The upper part of the vessel is somewhat thick with the rim measuring 11.6 mm and the neck ranging between 9.9 and 13.1 mm. Decoration consists of a single row of large, round punctates placed well below the lip. Also of interest was the recovery of a few pieces of Muskeg Valley Silicified Limestone, an exotic lithic also known to occur in the Peter Pond Lake region. Hanna (personal communication, December, 2004) also indicates that a reconnaissance conducted by her in 1996 on the Montreal River between Sikachu Lake and Lac la Ronge revealed pottery sherds with a sprang exterior finish from at least two sites. This may suggests the further presence of Narrows Fabric-impressed ware in the area.

A closer examination of pottery from site GcNj-7 located on the north end of Montreal Lake suggests this sample may actually represent Narrows Fabric-impressed ware. Although originally recorded by Forsman (1976), pottery from this site was subsequently examined by Paquin (1995:122) who suggested that "a miniature Selkirk ware pot was found associated with one OWP pot…" As previously discussed, this latter vessel was offered as a rare example of Old Women's Phase pottery found in the boreal forest, and thus a possible link between Narrows pottery and this plains tradition. In contrast to this original interpretation, both of these vessels are considered here to represent Narrows Fabric-impressed ware. They are quite similar to each other and exhibit attributes that place them more comfortably within a single Narrows Fabric-impressed ware designation than the two disparate wares previously suggested. Attributes shared with pottery from the upper Churchill basin include exterior surfaces impressed with a sprang fabric, and paste that is characterized as untempered to very sparsely tempered with grit particles. Profiles of both vessels exhibit straight rims with constricted necks and angled shoulders. The only form of decoration consists of a single row of exterior punctates on the rim. Both vessels are relatively thin, and although orifice diameters could not be calculated, they do not seem to represent miniatures. Lip

thickness ranges from 4.8 to 6.7mm with lower rims approximately 7 mm thick, and shoulders averaging 11.48 mm in one vessel and 6.45 in the other.

A brief mention should be made regarding the pottery bearing sites of northeastern Alberta (Figure 6.1). The lone reconstructed vessel from the Black Fox Island site (GfPa-32) located on Lac la Biche demonstrates closer affinities with pottery from the upper Churchill River than previously realized. As discussed in Chapter 5, this vessel was first identified as a Clearwater Lake Punctate vessel, and subsequently reinterpreted as a rare example of OWP pottery in the northern forests of Alberta (Learn 1986). The expanded definition of Narrows Fabric-impressed ware suggests this pot should again be considered to have woodland origins. All of the main attributes of Narrows Fabric-impressed ware are present, including sprang exterior finish, punctate impressed rim and interior lip decoration. In addition, the angled shoulder profile and thicker vessel walls are especially comparable to Vessel 2 from HaOh-26 and Vessel 1 from HaOg-26 on Peter Pond Lake. The Duckett site (GdOo-16) located in Cold Lake Provincial Park also produced somewhat similar pottery. This sample consists of fifty sherds, including two small rims, representing one vessel (Figure 6.4) (Fedirchuk and McCullough 1992:25-26). The latter appear to exhibit sprang-like fabric impressions, with temper consisting of large inclusions of crushed granite, as well as sand particles. Vessel thickness measures approximately 8 mm at the lip, with body sherds varying in thickness to a maximum of 12.8 mm. Decoration consists of a row of punctates placed a short distance below the lip, and diagonal CWTI across the lip surface. The remaining pottery bearing sites in the region, including GhPh-107 on Calling Lake (Gruhn 1981), GcOm-7 on Cold Lake (Pollock 1979), and GiOc-1 on Wappau Lake (Pollock 1978b), produced only minor amounts of ceramics that received little descriptive attention in the literature and, therefore, cannot be adequately discussed here.

Based on the current distribution of these sites in northeastern Alberta, it seems plausible that people manufacturing pottery could have entered the forests of Alberta from the east via the Beaver or Water Hen River systems. The Beaver River was a well-known route used by early fur traders as another link between the Churchill River system and more southerly portions of the Athabasca River (McCullough and Maccagno 1991). From Lac Ile a la Crosse, the Beaver River could be followed all the way to its

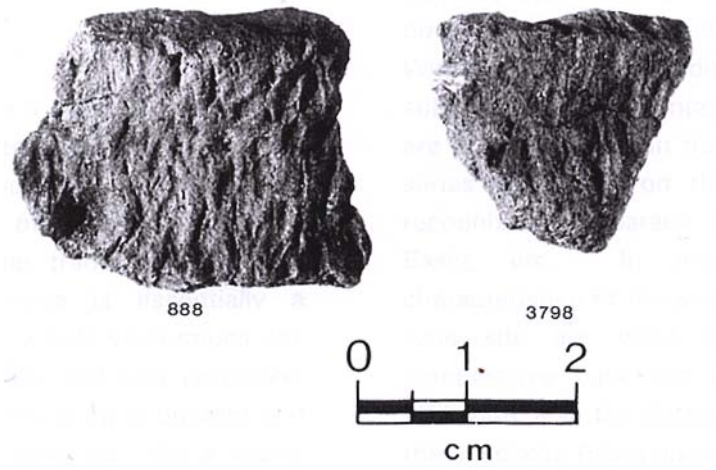


Figure 6.4: Pottery rim sherds from the Duckett site (GdOo-16) (From Fedirchuk and McCullough 1992).

western terminus at Beaver Lake where a two-mile portage linked it with Lac la Biche. From here the Athabasca River could be accessed via the La Biche River. This route was undoubtedly known and utilized during precontact times, and the limited number of pottery bearing sites found in the forests of Alberta suggests this possibility. The sites on Cold Lake (GcOm-7) and neighboring Ethel Lake (GdOo-16) could be easily accessed by the Beaver River which flows immediately to the south but is connected by smaller tributaries. The Black Fox Island site (GfPa-32) is similarly connected to the Beaver River by the La Biche portage. Once on the lake, a route to site GhPh-107 on Calling Lake exists via the La Biche River to the Athabasca River, then westward on Calling River. Likewise, the Wappau Lake site (GiOc-1) may have been accessed from Lac La Biche by traveling north on the Owl River. However, the latter site is located along a tributary of the Christina River, which eventually joins the Clearwater River, so access to this site from the north should also be considered. Although it may be premature to suggest a connection between the Buffalo Lake complex and these pottery bearing sites in northern Alberta, it remains an intriguing possibility.

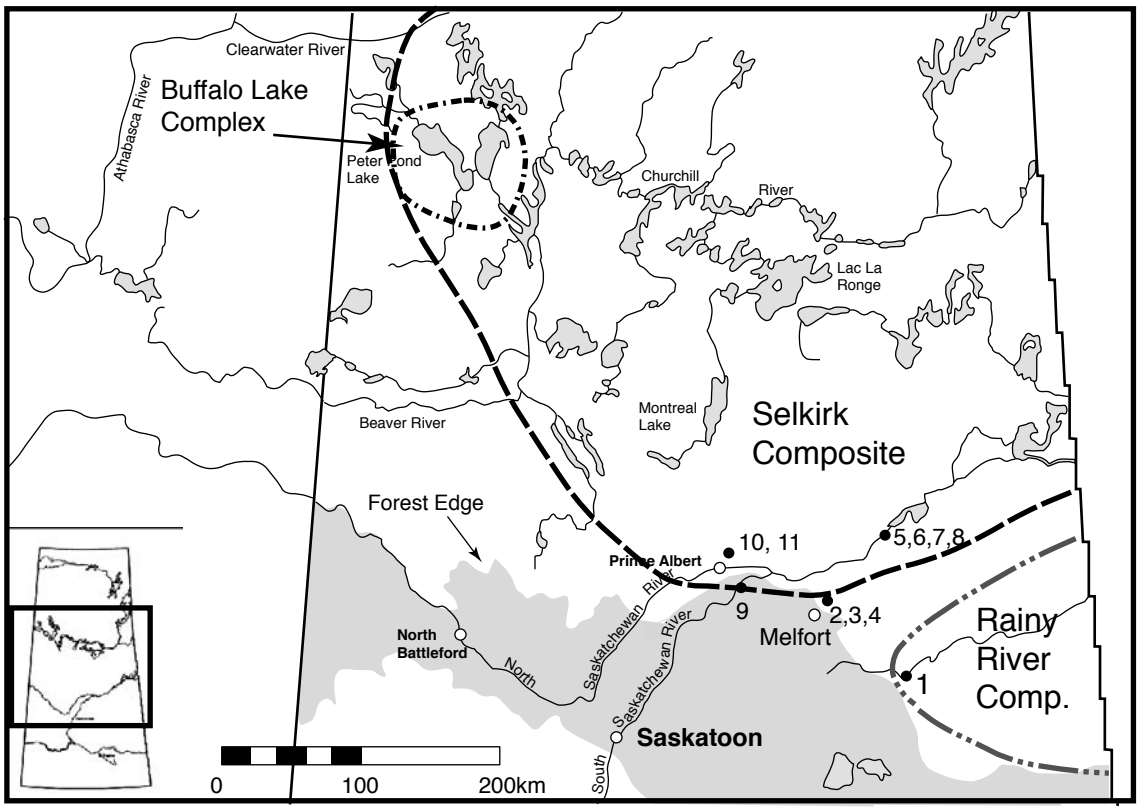
The identification of Narrows Fabric-impressed ware outside of the research area indicates that with a greater awareness of this pottery it is more readily visible in the archaeological record. Future research and scrutiny of existing collections will undoubtedly expand the distribution of this ware. For the time being, however, there are only a handful of sites in Saskatchewan containing this pottery beyond the headwaters region. Therefore, the core area for this ware and complex must be restricted to the upper Churchill River region, with the recognition that isolated vessels occur further east along the Churchill and Montreal River systems.

6.6 Origins of the Buffalo Lake Complex

As the earliest pottery bearing culture recognized in the upper Churchill River basin, the Buffalo Lake complex is considered to represent the first westward expansion of woodland adapted people into the region. More specifically, this complex appears to have origins in the southern boreal forest as a result of interaction between producers of Sandy Lake ware and Selkirk pottery. Evidence for this can be found in the technological and stylistic attributes of Narrows Fabric-impressed ware, which

demonstrate characteristics of both these contemporaneous pottery traditions (see section 5.5). Such interaction and exchange of ideas was previously considered to occur only as far as northwestern Ontario and southeastern Manitoba by A.D. 1500, as a result of the northward expansion of Sandy Lake ware people into this region where they encountered producers of Selkirk pottery (Meyer and Hamilton 1994:123). However, subsequent recognition of many Duck Bay ceramics as Sandy Lake ware indicates this expansion occurred not only much earlier, but was also more extensive. Duck Bay assemblages producing Sandy Lake ware are suggested to date from the A.D. 1300 and 1400's in west central Manitoba and east central Saskatchewan (Meyer 1998:75), and if AMS dates from the Buffalo Lake complex ceramics are accurate, a Sandy Lake ware influence could have extended all the way into the upper Churchill River basin by at least A.D. 1400, and likely earlier. This greater influence of Sandy Lake ware throughout the boreal forest is not unreasonable when one compares it with the widespread distribution accepted for other Woodland archaeological cultures such as the Selkirk composite.

The possible connection between Sandy Lake ware and the upper reaches of the Churchill River becomes more feasible when one considers that the presence, or at least influence, of Sandy Lake ware may extend even further into central Saskatchewan than previously thought (Meyer and Russell n.d.). Three cultivated sites north of the Melfort area (Fig. 6.5) collected by local resident Victor Vigrass contain pottery assemblages which appear to reflect attributes of both Selkirk and Sandy Lake ware. The Cumberland Indian Reserve site (FgNe-3) is perhaps most interesting in this regard. This assemblage has not been formally analyzed, and only the partially reconstructed vessel previously interpreted as Ethridge ware has received attention in the literature (see Chapter 5; Walde and Meyer 2003:137). A cursory examination of this assemblage reveals there are at least six additional Late Woodland vessels represented by small rim sherds. Surface finishes include both sprang (2/6) and smoothed amorphous textile (4/6) impressions, as well as one example of a smooth finish. Punctate decoration is completely lacking on the rims. Lip decoration consists of impressions on the surface including punctates (1/6), stamp (1/6), and smooth rod (2/6), with one example of



1. FdMw-1 Goldsworthy
2. FgNe-3 Cumberland Reserve
3. FgNd-2 Lenvale Corner
4. FgNe-4 Brockington
5. FhNc-103
6. Lloyd
7. Bushfield West
8. Bushfield East
9. FgNh-51 Bees
10. FhNi-90
11. FiNi-5

Figure 6.5: Map showing sites with possible Sandy Lake ware influenced pottery and relevant composites.

interior lip notching, and one example of CWTI on the outer lip corner extending across the surface. All vessels are relatively thin with lips ranging between 5 to 8 mm, and all are tempered with light to moderate amounts of grit. The remaining vessel previously identified as Ethridge ware fits well within this assemblage as it is thin walled, bears similar sprang exterior finish, and the lip surface is decorated with incised lines. Partial reconstruction indicates an angled shoulder profile and punctate decoration on the rim. Given the greater context of the pottery assemblage, this vessel is not considered here to represent Ethridge ware, but rather a Late Woodland vessel demonstrating Selkirk and Sandy Lake syncretisms.

The Lenvale Corner site (FgNd-2) represents a similar assemblage with at least five Late Woodland vessels identified by small rim sherds. Smoothed twined exterior finishes dominate, however, one sprang impressed vessel is present. Two vessels exhibit punctates on the rim, while lip decoration is found on three vessels and consists of interior lip notching (2/5) and lip surface impressions (1/5). Vessels are thin with lips measuring from 6 to 8 mm thick, and all are tempered with grit. The Brockington East site (FgNe-4) also demonstrates similar mixed attributes. At least six Late Woodland vessels are represented here by small rim sherds. One vessel bears sprang fabric impressions while the rest exhibit amorphous fabric-impressed exteriors. Punctates do not occur in this assemblage, however, the lips of all vessels are decorated. This includes notching on the interior lip corner (2/6), punctate impressions on the lip surface (1/5), CWTI across the lip surface (1/6), and one lip that is incised along the mid-line, with exterior lip corner impressions (1/6). Once again these vessels are thin and grit tempered.

The small pottery sample represented by these three sites is unique for the region. If they were Selkirk assemblages, one would expect punctate decoration, the hallmark of Selkirk, to dominate. Instead it occurs on only a few vessels. In addition, sprang impressed exteriors and interior lip notching occur with greater frequency than would be expected from a comparable sample of Selkirk pottery. Conversely, the dominance of twined exteriors and the presence of punctate decoration, regardless of how minimal, would not be expected if these sites represented typical Duck Bay occupations. These assemblages, therefore, are offered as further evidence for the

contact and interaction between producers of Selkirk and Sandy Lake ware in central Saskatchewan. This resulted in the production of vessels and assemblages demonstrating attributes of both pottery traditions.

Additional evidence for Sandy Lake ware influences is present in the Nipawin Reservoir Study Area on the Saskatchewan River. As previously discussed in Chapter 5, the lone vessel from the Willis Creek site was originally considered an OWP pot (Meyer and Epp 1990:333). However, in light of new interpretations, the thin walls, sprang impressed exterior surface, and punctate decoration (Figure 6.6) appears more similar to syncretic Selkirk/Sandy Lake ware vessels found at other sites in the region, than the intrusion of a plains ware into the forest. Within this same area, a Clearwater Lake Punctate vessel from the Lloyd site is notable for exhibiting shell temper (Quigg 1983:164-165). This attribute is unknown in the Selkirk composite but common in the southern range of Sandy Lake ware. In addition, the minor amounts of sprang impressed vessels found in Selkirk assemblages such as the Bushfield West and Bushfield East sites may be the result of influences from makers of Sandy Lake ware (Meyer and Russell n.d.). Further west, additional sprang impressed sherds have been recovered from the Saskatchewan River Forks study area at the Bees site (FgNh-51) (Wilson 1982:973), and avocational archaeologist Doug Frey has collected at least two sprang impressed rim sherds from sites FhNi-90 and FiNi-5 (Figure 6.7) in the Garden River region northeast of Prince Albert.

Although sparse, the above examples are significant because they push the potential influence of Sandy Lake ware further into Saskatchewan, thus providing an ever-closer link to the upper Churchill River basin. However, it is also possible that the origins of the Buffalo Lake Complex do not lie in the southern fringes of the Saskatchewan forests, but represent the rapid movement of a group of people from regions even farther to the southeast where Sandy Lake ware influences were more dominant. This may explain the sparse intervening ceramics, and the strong southern boreal forest influence on pottery assemblages found in the far reaches of the Churchill River. Once in the region, geographic and perhaps temporal isolation would have resulted in the technological and stylistic innovations that characterize Narrows Fabric-

Figure 6.6: Sherds from sprang impressed vessel, Willis Creek site (FhNc-103).

Figure 6.7: Sprang impressed rim sherd from FiNi-5.

impressed ware. This seems to be reflected most obviously in a general degradation in clay preparation and paste quality, as well as the consistent use of sprang woven bag molds and punctate decoration.

Although the Buffalo Lake complex is believed to have origins in, and be closely related to woodland composites found in Saskatchewan, it is considered premature at this time to assign it to a more encompassing archaeological entity. The unique combination of attributes found on Narrows Fabric-impressed ware places the Buffalo Lake complex in an intermediate position between the existing Selkirk and Rainy River composites, and precludes explicit inclusion in either. Further, it appears that some reorganizing of existing archaeological constructs may be in order. The recognition of Sandy Lake ware in the Duck Bay complex raises questions about the validity of its inclusion in the Rainy River composite. Likewise, Sandy Lake ware assemblages found in the boreal forest of Canada seem to display significant enough differences in pottery attributes and associated subsistence practices from the Psinomani culture in Minnesota, that a formal regional distinction should be recognized. The Buffalo Lake Complex may eventually be placed within one of these existing, or potentially newly created constructs, but this will have to await future research and taxonomic refinements.

6.7 The Buffalo Lake Complex in a Cultural Context

As discussed in Chapter 2, the practice of equating a one to one relationship between archaeological complexes and ethnographically discreet social units has been strongly cautioned against (Lyman 1997b:80; Wood 2000:43; Wright 1968:65, 2004:1517). However, since people were ultimately responsible for producing the pottery under study, we eventually have to consider what it may reflect in terms of human social groups. In fact, the taxonomic system employed here defines a *complex* as representing the activities of the "same group" of people (Syms 1977:70-71). It would be remiss, therefore, not to touch on what the Buffalo Lake complex may represent in terms of human social organization.

Previous studies have suggested a possible correlation between archaeological complexes of the boreal forest and a social construct referred to as the *regional band* (Meyer and Russell 1987:26; Paquin 1999). More recently Meyer and Russell

(2004:246) have suggested that it is the larger *macro band* that likely has archaeological implications and visibility. These inter-related levels of hunter-gatherer organization are discussed below.

The regional band is a form of socio-political organization well documented among hunting and gathering populations throughout the Canadian subarctic (Helm 1968; Leacock 1969; Meyer and Thistle 1995; Meyer and Hutton 1998; Morantz 1986; Rogers 1969). As summarized by Meyer and Thistle (1995:407-409), the regional band was usually composed of members varying in number from less than one hundred to a few hundred persons, who occupied a defined geographical area such as a particular drainage basin. Although there was a network of kin ties binding the group together, it was the geographic region occupied that established the total group identity. As a result, these bands often took their name from the most prominent river or lake in the region. Leadership within the band was informal, with one prominent individual serving more as a representative of the group to outsiders (Meyer and Russell 2004:244). Through much of the year members of the regional band lived in smaller family units referred to as "local bands" that were scattered throughout the territory (Helm 1965:375). Once or twice a year all the members of a regional band came together at a traditional location or "ingathering" center (Meyer and Thistle 1995:406). These significant meetings were necessary to maintain the social, political, economic and spiritual life of the group.

It has been observed that in order for a human group to be viable, the population from which to find a suitable number of spouses cannot be smaller than 175 persons (Wobst 1974, 1976), and usually requires a membership of between 200 to 800 persons (Meyer 1984b:4). As a result, Meyer and Russell (2004:244) have proposed that regional bands were part of yet a larger social group known as the *macro band.* It was this larger association of multiple regional bands that guaranteed the appropriate number of spouses, and formed the marriage universe for that group. By way of example, the Ft. a la Corne and historically known Pegogamaw Cree of central Saskatchewan were comprised of at least four regional bands, with a total population in excess of 500 persons (Meyer and Russell 2004:228, 244). It was this larger entity that formed an outwardly recognizable social and cultural unit that could be regarded as a distinct "nation" (Meyer and Russell 2004:244). Such macro bands emerged in the historic fur

trade records as specifically named groups and were observed to maintain formal diplomatic relations with other aboriginal groups.

It is this larger macro band concept that is suggested to be evidenced archaeologically (Meyer and Russell 2004:246). If members of a macro band participated in a largely endogamous marriage pattern that resulted in a distinct identity, one might expect to see this also reflected in the material culture (Conkey 1985; Paquin 1999:108). It is conceivable, therefore, that the archaeological assemblages of the Buffalo Lake complex were produced by a socio-political organization akin to that of the macro band. Further, the series of pottery bearing sites found along the northwest shore of Peter Pond Lake indicate this specific locale figured prominently in the seasonal round of the inhabitants. Paquin (1995) has suggested the Kisis Channel linking Peter Pond and Churchill Lakes served as an ingathering center for members of the Selkirk composite in the region. It is possible the farther reaches of Peter Pond Lake served a similar function for members of the Buffalo lake complex. If so, this region would have been occupied by one regional band of a macro band that occupied a larger section of the upper Churchill River drainage basin.

Despite the potential similarities with the macro band model, there are also problems with applying such an interpretation to the Buffalo Lake Complex. The currently known distribution of sites containing Narrows Fabric-impressed ware assemblages indicates this complex is quite restricted. In order for the Buffalo Lake complex to be part of a viable and sustainable population on the scale of a macro band, additional evidence for the distribution of this pottery must be found. The isolated pottery occurrences from Lac Ile a la Crosse, the western Churchill River, Montreal River and potentially Lac la Biche may indicate the presence of additional regional bands; however, until more archaeological research is conducted in these areas to determine the frequency of occurrence of Narrows Fabric-impressed ware, this remains uncertain.

Aspects of the Social Field theory discussed in Chapter 2 may also explain the isolated occurrence of Narrows pottery beyond Peter Pond Lake. This theory emphasizes the building of a network of economic and political relations in order to build alliances, and often involved the exchange of goods or marriage partners across

ethnolinguistic boundaries (Welsch and Terrel 1998:52). It has been noted that the macro band served as a marriage universe in which the vast majority of unions within a group were brokered. However, a small percentage of marriages were also contracted with outside groups (Meyer 2001:7). The establishment of kin ties with neighbouring groups was important because it served to reduce conflict along mutual borders, and also increased the survival rate during difficult economic times through shared resources and cooperation (Hanna 1982:110; Syms 1980:137; Wertman 1976: 36). In such instances, it was most often the women who moved between groups (Meyer 1984; Wertman 1976). In addition, ethnographic and historic evidence indicate that it was almost exclusively the women who manufactured pottery (Syms 1977:59). In archaeological terms, therefore, the occasional occurrences of Narrows Fabric-impressed ware outside the recognized core area of Peter Pond Lake could be evidence of these less frequent exogamous marriages.

Ultimately it is not possible to confidently correlate the Buffalo Lake complex in social and cultural terms at this time. Additional archaeological research needs to be conducted to clearly delineate the geographic distribution of this complex and related Narrows Fabric-impressed ware. As our archaeological knowledge increases, so too will our ability to more fully interpret this Late Woodland manifestation.

6.8 Summary

In this chapter it was proposed that Narrows pottery be given the official designation of Narrows Fabric-impressed ware. Further, this ware is considered characteristic of assemblages found in the upper Churchill River basin that are subsumed within the newly proposed Buffalo Lake complex. Aspects of the pottery and lithic assemblage of this complex were summarized and the distribution was discussed. Although the core area for the complex remains in the Peter Pond Lake region, isolated examples of Narrows Fabric-impressed ware were identified further east on the Churchill and Montreal Rivers. In addition, a possible relationship was suggested between the pottery of the study region and that found in northeastern Alberta. Radiocarbon dates indicate the complex spanned from approximately A.D. 1200 to 1500, and is contemporaneous with archaeological manifestations that produced both

Winnipeg Fabric-impressed and Sandy Lake wares. Origins for this complex are considered to lie in the southern boreal forest and to have emerged out of the interaction between the producers of these latter two wares. Subsequent movement into the study area resulted in the unique development of what we now refer to as Narrows Fabric-impressed ware and the Buffalo Lake complex. However, due to our limited understanding of the distribution of this pottery and complex, efforts to discuss it in social and cultural terms is considered premature.

CHAPTER 7
CONCLUSIONS AND SUMMARY

7.1 Introduction

As Saxberg and Reeves (2004:133) observe: "Archaeological knowledge is cumulative. Every discovery adds to our understanding of what happened in the distant past and, in some instances, may totally transform it." Recent research in the upper Churchill river basin, as well as other regions of the boreal forest, has similarly provided an opportunity to expand our knowledge and revisit interpretations regarding a little known archaeological entity found in northwestern Saskatchewan. The analysis presented here is not considered definitive, but rather the next step in our ever-evolving understanding of the precontact history of the region. As this was largely a descriptive study, the objectives were formulated by Culture History theory and dealt with issues of form, space and time. Three research goals were outlined in Chapter One, the results of which are discussed below.

7.2 Discussion of Results

7.2.1 Objective 1

The first objective was to provide the most detailed and expanded definition of Narrows pottery to date based on recent recoveries from Peter Pond Lake. Combined with previous studies, the current analysis increased the total number of sites containing this pottery from two to 24, with a vessel count increased from 17 to 103. As a result, this study represents not only the most comprehensive compilation of quantitative and qualitative data ever presented for Narrows pottery, but also the first to present detailed images and profile drawings. Most significant in this expanded definition was the recognition of form (angled shoulder profile) and stylistic (lip decoration) attributes not previously recorded. It is hoped that the extensive descriptions provided here will serve

as an effective reference tool for future pottery analysis and interpretations in the region. Although Narrows pottery has been adequately detailed in Chapter 4, and summarized again in Chapter 6, a brief highlight of significant attributes is presented below.

Narrows pottery is characterized by exterior surfaces that bear sprang fabric-impressions, and paste that is predominantly naturally (sand) tempered, although sparse grit tempering is also known. Vessel shape ranges from globular to sub-conoidal, with straight to slightly excurvate rims, gently constricted necks and gently rounded shoulders with a few examples of angular shoulder profiles. Although the vast majority of vessels bear no lip decoration, it does occur. This decoration consists of a series of smooth rod, sharp edge, or cord-wrapped tool impressions, as well as punctate and single cord impressions placed either on the interior lip corner or on the lip surface. The rim exterior of all vessels bears a single row of round punctates. Although this pottery is considered a thin ware, several vessels exhibit variable wall thickness and generally poor quality paste in the form of unsorted and friable clay. This indicates a slightly lower level of craftsmanship than has been observed in other wares from the boreal forest.

7.2.2 Objective 2

The second goal, once a description had been formulated, was to compare Narrows pottery with existing wares from the boreal forest and northern plains. This would determine if the pottery could be placed in an existing ware category, or stand on its own as a unique entity. In doing so, it would confirm or refute previous interpretations, and enable an appropriate ware designation.

Comparisons were first made with Ethridge ware from the Old Women's Phase to determine if Narrows pottery represented a regional variant of this plains entity as originally proposed. Attribute characteristics were considered insufficiently similar to warrant this classification, and the association of Narrows pottery with the Old Women's phase was rejected. This original classification was considered the result of erroneous interpretations early on of both projectile points and pottery from the Kisis Channel assemblages, which heavily influenced subsequent efforts at analysis. Next, a comparison with Winnipeg Fabric-impressed ware from the Selkirk composite and what

is now considered Sandy Lake ware found in both the Rainy River composite and Psinomani culture was conducted. The results suggested there were closer affinities with woodland wares than previously recognized. Most notably the exterior finish and lip decoration found on Narrows pottery were similar to northern Sandy Lake ware, while the punctate decoration and aspects of vessel form were also common to Selkirk pottery. In the end it was concluded that Narrows pottery demonstrated sufficient similarities to be considered a woodland ware; however, it did not fit into existing categories. Its unique combination of technological and stylistic attributes warranted a separate designation. As a result, this pottery was formally labelled Narrows Fabric-impressed ware.

7.2.3 Objective 3

The final objective, once a ware designation had been determined, was to place assemblages containing this pottery into a broader taxonomic context. Following the Syms (1977) taxonomy, assemblages containing Narrows Fabric-impressed ware were subsumed within the newly proposed Buffalo Lake complex. In assessing the spatio-temporal parameters of this complex, radiocarbon dates were obtained from residue and charcoal samples from two vessels. The results returned dates of 730 +/- 40 BP and 480 +/- 40 BP, and when calibrated suggest that the complex spanned from approximately A.D. 1200 to 1500. This is slightly younger than previous estimates for this ware, but also indicates some contemporaneity with the Kisis complex in the region. Examination of pottery from within and beyond the study area indicates that the Buffalo Lake complex is centred on the upper Churchill River basin; however, isolated occurrences of Narrows Fabric-impressed ware are found further east along the Churchill River, and as far as the north end of Montreal Lake. The origins for the Buffalo Lake complex are suggested to lie in the southern boreal forest of east central Saskatchewan and adjacent Manitoba as the result of interaction between producers of Sandy Lake and Winnipeg Fabric-impressed wares. It is considered premature at this time, however, to place the Buffalo Lake complex into a broader composite until our archaeological knowledge has been expanded. However, there seems to be little doubt that it is related to

contemporaneous archaeological entities found in the woodlands of Saskatchewan and Manitoba including the Selkirk and Rainy River composite.

A secondary aspect of this research involved the analysis of Winnipeg Fabric-impressed ware also found in the study area. Four more sites containing this ware were identified and can be added to the database. The results of this analysis support Paquin's (1995) original concept of the Kisis complex and associated pottery descriptions. All of the vessels belonging to this ware found on Peter Pond Lake conformed to types previously described, with only minor variation. Perhaps most notable was the significant recovery of Kisis Angled Rim types, which especially dominate the assemblage at HaOg-10, and represent approximately 70% (19/27) of the total Winnipeg Fabric-impressed ware sample. Such assemblage composition is not typical of previous Kisis complex sites where this type comprised only one-quarter of the total sample (9/38). This not only confirms that Kisis Angled Rim vessels characterize the Kisis complex, but that this type may be more common than previously realized. Another significant contribution of this study was obtaining the first radiocarbon date for the Kisis complex. Carbon residue from the interior of one vessel returned an AMS date of 550 +/- 40 years BP. When calibrated it suggests that people responsible for this complex were in the region sometime between A.D. 1340 and A.D. 1440, and similar to Selkirk occupations elsewhere in Saskatchewan, likely continued through to the protohistoric period.

7.3 Conclusions

The ultimate significance of this research is that it alters our previous perceptions of the culture history in the upper Churchill River basin. Since Narrows pottery was first described almost twenty-five years ago, it was suggested that cultures from the northern plains had a strong influence or presence in this region during the Late Woodland period. In the intervening years since this initial discovery, additional research conducted in the upper Churchill River Basin and elsewhere in the boreal forest suggests the influences recognized in Narrows Fabric-impressed ware do not originate in the northern plains, but rather the southern boreal forest. In fact, the Buffalo Lake complex may be related to a greater pattern only now being recognized across the southern boreal

forest. A zone of contact or interaction existed along the southern fringe of the Selkirk composite and the northern edge of Sandy Lake ware distribution. It is here that these archaeological cultures overlapped temporally and spatially, as demonstrated by pottery assemblages that exhibit a unique blending of attributes found in both woodland wares. As noted in Section 5.5 examples of these syncretic vessels can be found in northwestern Ontario, southeastern Manitoba, and east central Saskatchewan. Although the headwaters of the Churchill River is not considered a zone of interaction between the makers of these two wares, it is similarly situated at the very fringes of the Selkirk composite, and along this northwest-southeast axis. The Buffalo Lake complex appears, therefore, to represent a unique extension of this woodland pattern into the study area, with subsequent geographic isolation resulting in the distinct entity recognized in this analysis. Such a proposal is significant because it greatly extends the influence of southern boreal forest archaeological cultures into Saskatchewan, as far as the upper reaches of the Churchill River.

Another aspect of this analysis that should be addressed relates to the inherent difficulties encountered with typological classification. In a system where differences are emphasized in creating distinct groups of artifacts, transitional or syncretic forms can be troublesome because they create unwanted noise in simplistic classification schemes. The pottery of the Buffalo Lake complex presents a similar problem because it displays attributes of both Winnipeg Fabric-impressed and Sandy Lake ware. It is hoped that the new designation proposed here will recognize the unique position of Narrows Fabric-impressed ware in relation to existing ware definitions, and that future research will eventually determine the appropriate placement of the Buffalo Lake complex within the Late Woodland taxonomic scheme.

7.4 Recommendations for Future Research

Although this study has enhanced our knowledge of Late Woodland occupations in the upper Churchill River basin and resulted in the proposal of a new archaeological complex, there is still much that is not known. Because the material analyzed was the product of surface collections, the greatest impediment to more comprehensive interpretations concerns the lack of contextual information associated with Buffalo Lake

assemblages. Therefore, future research should focus on finding ever elusive, intact stratified sites. This would involve surveying and testing in areas of high potential where riverbank flood deposition occurs, similar to that of the Kisis Channel. Formal excavations at such sites would provide more details regarding the non-ceramic aspects of the Buffalo Lake complex, specifically the lithic and faunal assemblage. This would not only allow more confident and comprehensive descriptions of the complex, but also provide vital data regarding seasonality and subsistence strategies. In addition, well-stratified, multi-component sites would further solidify the cultural chronology of the region, and address unresolved questions concerning potential contemporaneity and possible interaction between peoples who produced the archaeological complexes of the Late Woodland period.

Related to the latter, additional radiocarbon dates are needed to refine our chronological interpretations. Although this study provided a significant step in obtaining the first radiocarbon dates for the Late Woodland period in the region, there still seems to be some disparity between this data and the archaeological evidence. The AMS dates suggest a temporal overlap between the Buffalo Lake and Kisis complexes; however, the lone stratified site in the Kisis Channel and the ceramic assemblages found on Peter Pond Lake suggest there was temporal separation. As additional radiocarbon dates are compiled, a clearer picture will undoubtedly emerge. Important in this pursuit will be the submission of samples that minimize erroneous results. If possible, terrestrial faunal samples should be submitted to compare with carbon residue samples that may be negatively influenced by the freshwater reservoir effect. Further, the impact of this latter phenomenon could be avoided by first conducting residue analysis to determine if terrestrial mammals or fish were cooked in certain vessels (i.e. Malainey 1997). Such analysis could aid in selecting samples that would produce the most accurate results.

Another aspect of pottery studies worthwhile exploring is a rigorous technological analysis of the paste of both wares found in the research area. Mineralogical analysis in conjunction with clay sourcing similar to that conducted by Learn (1986) and Hanna (1982) would provide valuable insight into the obvious paste and tempering differences of Narrows and Winnipeg Fabric-impressed wares. Specifically it could determine if the producers of the two wares were exploiting

different, potentially non-local clay sources, and to what degree cultural choice versus environmental factors influenced clay composition and preparation.

On a broader scale, questions still linger regarding the geographical distribution of the Buffalo Lake complex. Current data indicate it is fairly restricted to the headwaters of the Churchill River; however, the actual distribution of Narrows Fabric-impressed ware is only just emerging. With a better awareness of this pottery and complex it may become more visible in the archaeological record. Continued examination of existing collections may reveal more of this pottery that has been misidentified or otherwise overlooked. Future research should also focus on regions where isolated examples of this pottery seem to occur, such as the western Churchill and Montreal River systems. These waterways have not been subject to the same rigorous survey and mitigation programs as conducted on the Saskatchewan River or eastern portions of the Churchill River. Although comparable surveys would be a significant undertaking, they would contribute immeasurably to our archaeological knowledge of the region in general and potentially to our understanding of the Buffalo Lake complex specifically. Subsequent discoveries of Narrows Fabric-impressed ware in such intervening regions may provide more clues to the origins and relationship between the Buffalo Lake complex and southern boreal forest archaeological cultures.

Looking westward, another area for future research concerns the potential relationship between the assemblages of the Buffalo Lake complex found in the upper Churchill River basin, and those pottery bearing sites found in the boreal forest of adjacent northeastern Alberta. Similarities in pottery attributes have been observed between these two regions, and the current distribution of sites in Alberta suggest that people producing pottery could have entered the region from the east via the Beaver or Water Hen River systems. Although an examination of Alberta pottery was beyond the scope of the current study, a formal comparison of these assemblages would be worthwhile. Further, in determining if such a connection between these two regions existed, attention should be focused on conducting a comprehensive survey along the Beaver River.

On a final note, unlike other pottery studies, no effort has been made here to assign an ethnic affiliation to the Buffalo Lake complex. As discussed in Chapter Two

this is a problematic and somewhat controversial endeavor. Rather, this study has focused on the archaeological manifestation of the Buffalo Lake complex as a necessary first step in our understanding of this entity. The apparent influence of both the Selkirk composite, which has been associated with ancestral Cree, and the Psinomani culture, which has been related to ancestral Nakota (Assiniboine) groups, offer tantalizing avenues to explore. However, such investigations into ethnic membership and the development of models to better explain the limited distribution and origins of the Buffalo Lake complex are left to the pursuit of future, and perhaps braver researchers. Ideally they will be armed with additional archaeological data to successfully develop such interpretations. In the meantime, it is hoped that the analysis presented here will be a positive contribution in our continuing efforts to understand the Late Woodland precontact history of northern Saskatchewan.

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APPENDIX A
INDIVIDUAL VESSEL QUALITATIVE AND QUANTITATIVE DATA

Attribute Abbreviations used in Appendix A

Abbreviation	Definition
Exterior Finish	
Temper	
Temp Amt.	Temper Amount
Temper Sz.	Temper Particle Size
Paste Text.	Paste Texture
Int. Fin.	Interior Finish
Rim Profile	
Lip Profile	
Lip Surf. Pr.	Lip Surface Profile
Lip Surf. Dec.	Lip Surface Decoration
Lip Surf. Finish	Lip Surface Finish
Inner Lip Dec.	Inner Lip Corner Decoration
Outer Lip Dec.	Outer Lip Corner Decoration
Outer Rim Dec.	Outer Rim Decoration
Inner Rim Dec.	Inner Rim Decoration
Shoulder profile	
Residue	
Lip Thick.	Lip Thickness
Rim Thick.	Rim Thickness
L/N Ratio	Lip to Neck Ratio
Rim Height	
Neck Th.	Neck Thickness
Shoul. Th.	Shoulder Thickness
Punct. L.	Punctate Length
Punct. W.	Punctate Width
Punct. D.	Punctate Depth
Punct Sp.	Punctate Spacing (distance between punctates)
Punct D-L	Punctate Distance Below Lip
Tool W.	Tool Width (width of impression)
Tool Sp.	Tool Spacing (distance between impressions)
Body Thick	Body Thickness
Orifice Diam.	Orifice Diameter

*All measurements are in millimetres (mm).

Area	A	A	A	A	A	A	A
Site	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**
Vessel No.	1	2	3	4	5	6	7
Exterior Finish	amorphous fabric	amorphous fabric	amorphous fabric	amorphous fabric	sm.amorphous fabric	amorphous fabric	amorphous fabric
Temper	grit	grit	grit	grit	grit	grit	grit
Temp Amt.	moderate	light	light	moderate	light	light	moderate
Temper Sz.	med-coarse	fine-med	fine-med	med-coarse	fine-med	fine-med	fine-med
Paste Text.	laminated	laminated	compact	laminated	compact	compact	compact
Int. Fin.	wiped	wiped	wiped		smooth	smooth	wiped
Rim Profile	angled	angled	straight	angled	straight	angled	angled
Lip Profile	square	sub square	slightly expand.	square	rounded	ext. bevel	rounded
Lip Surf. Pr	flat	flat	flat	flat	rounded	flat	rounded
Lip Surface Decoration	CWTI	n/a	n/a	n/a	n/a	n/a	n/a
Lip Surface Finish	smoothed	smoothed	smoothed	textile imp.	smoothed	smoothed	smoothed
Inner Lip Decoration	n/a	CWTI, right	n/a	n/a	SET, right	n/a	n/a
Outer Lip Decoration	n/a	CWTI, left	n/a	n/a	SET, left	n/a	n/a
Outer Rim Deoration.	punctate/ pinch row	pinch over punctate	punctate row	punctate/ pinch row	punctate row	fingernail pinched	fingernail pinched
Inner Rim Decoration	slight boss row	pron. boss row	slight boss row	slight boss row	boss row	n/a	n/a
Shoulder profile	sharply rounded	indet	rounded	indet	angled	indet	indet
Residue	carbon, int/ext	n/a	carbon, interior	n/a	n/a	n/a	n/a
Lip Thick.	9.18	9.91	8.09	7.43	4.67	5.08	3.91
Lip Min.	8.19	9.38	7.36	6.87	3.89	4.75	3.38
Lip Max.	9.87	10.25	9.33	8.16	5.38	5.59	4.19
Rim Thick.	9.62	7.27		9.3	n/a	indet	indet
Rim Min.	9.37	6.73					
Rim Max.	9.95	7.8					
L/N Ratio	0.95	1.36	?	0.80	?	?	?
Rim Height	38.05	37.3	22.2	23.26	13	17.94	15.51
Neck Th.	9.24	9.46		7.44	n/a	indet	indet
Shoul. Th.	7.36	indet	7.48	indet	8.11	indet	indet
Punct. L.	4.6	4.5	4.43	7.45	2.17	n/a	n/a
Punct. W.	3.15	4.5	2.19	2.14	1.65	n/a	n/a
Punct. D.	6	5.74	3.2	4.69	1.4	n/a	n/a
Punct Sp.	6.08	8.08	3.79	4.15	4.89	n/a	n/a
Punct D-L	36.03	37.01	10.6	20.81	8.53	n/a	n/a
Tool W.	3.93	4.1	n/a	n/a	1.5	n/a	n/a
Tool Sp.	2.1	4.95	n/a	n/a	4.12	n/a	n/a
Body Thick.	4.98	indet	3.82	indet	4	indet	indet
Body Min.	3.13				3.16		
Body Max.	7.43				4.88		
Orifice Diam.	188.84	186.88	132.84		80.64	114.42	

Area	A	A	A	A	A	A	A
Site	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**
Vessel No.	8	9	10	11	12	13	14
Exterior Finish	amorphous fabric	amorphous fabric	amorphous fabric	amorphous fabric	sprang fabric	amorphous fabric	amorphous fabric
Temper	grit	grit	grit	grit	none	grit	grit
Temp Amt.	moderate	moderate	moderate	light	n/a	moderate	light
Temper Sz.	medium	medium	medium	fine-med	n/a	med-coarse	fine-med
Paste Text.	laminated	laminated	compact	compact	compact	laminated	laminated
Int. Fin.	wiped	wiped	wiped	wiped	wiped	wiped	
Rim Profile	straight	angled	incurvate	angled	straight	insipient S	excurvate
Lip Profile	square	square	inner expand.	square	sub square	sub square	expand.
Lip Surf. Pr	flat	flat	flat	flat	irregular	flat	rounded
Lip Surface Decoration	CWTI	n/a	n/a	n/a	n/a	n/a	n/a
Lip Surface Finish	smoothed	textile imp.	smoothed	smoothed	textile imp.	smoothed	textile imp.
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	SET, right	n/a	n/a
Outer Rim Deoration.	indet	pinch over punctate	fingernail pinched	pinch over punctate	punctate row	punctate row	small poke marks
Inner Rim Decoration	indet	indet	indet	boss row	boss row	boss row	n/a
Shoulder profile	indet	indet	indet	indet	indet	indet	indet
Residue	carbon, interior	n/a	red ochre int/ext	red ochre exterior	n/a	carbon, interior	n/a
Lip Thick.	6.9	7.56	7.6	3.59	5.31	9.23	6.79
Lip Min.	6.69	7.51		3.49		8.27	
Lip Max.	7.11	7.6		3.7		9.74	
Rim Thick.	9.16	indet	indet	indet	indet	8.86	indet
Rim Min.						8.21	
Rim Max.						9.5	
L/N Ratio	0.75	?	?	?	?	1.04	?
Rim Height	indet	indet		15.72	12.74	indet	11.91
Neck Th.	indet	indet	indet	5.75	indet		indet
Shoul. Th.	indet	indet	indet	indet	indet		indet
Punct. L.	indet	indet	indet	4.81	2.06	6.91	1.03
Punct. W.	indet	indet	indet	3.75	1.8	2.97	1.95
Punct. D.	indet	indet	indet	2.77	indet	5.17	~1
Punct Sp.	indet	indet	indet	7.62	2.46	4.27	3.46
Punct D-L	indet	indet	indet	20.34	4.37	25.02	12.8
Tool W.	3	n/a	n/a	n/a	1.33	n/a	n/a
Tool Sp.	3.5	n/a	n/a	n/a	2.34	n/a	n/a
Body Thick.	indet	indet	indet	4.85	indet		indet
Body Min.				4.07			
Body Max.				5.86			
Orifice Diam.							

Area	A	A	A	A	A	A	A
Site	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**
Vessel No.	15	16	17	18	19	20	21
Exterior Finish	smooth	amorphous fabric	amorphous fabric	amorphous fabric	amorphous fabric	amorphous fabric	amorphous fabric
Temper	none	grit	grit	grit	grit	grit	grit
Temp Amt.	n/a	moderate	heavy	moderate	moderate	light	light
Temper Sz.	n/a	med-coarse	med-coarse	med-coarse	med-coarse	fine-med	med-coarse
Paste Text.	compact	laminated	laminated	laminated	laminated	compact	laminated
Int. Fin.	plain		wiped	wiped	wiped	wiped	wiped
Rim Profile	indet	indet	angled	straight	straight	angled	excurvate
Lip Profile	indet.	square	expand.	square	expand.	rounded	exterior bevel
Lip Surf. Pr	indet	flat	flat	flat	round	rounded	flat
Lip Surface Decoration	indet	n/a	n/a	n/a	n/a	n/a	right oriented
Lip Surface Finish	indet	smoothed	textile imp.	smoothed	smoothed	textile imp.	smoothed
Inner Lip Decoration	indet	n/a	n/a	n/a	CWTI, right	n/a	n/a
Outer Lip Decoration	indet	indet	n/a	n/a	CWTI, right	n/a	n/a
Outer Rim Deoration.	punctate row	indet	pinch over punctate	punctate row	punctate row	pinch over punctate	punctate row
Inner Rim Decoration	indet	indet	boss row	slight boss row	boss row	boss row	boss row
Shoulder profile	indet	indet	rounded	indet	indet	indet	rounded?
Residue	n/a	carbon, int/ext	carbon, int/ext	n/a	n/a	carbon, interior	n/a
Lip Thick.	indet	indet	7.63	6.11	8.3	5.2	7.11
Lip Min.			6.48	5.17	7.87	4.48	6.57
Lip Max.			8.31	6.9	8.73	5.68	7.49
Rim Thick.	indet	indet	indet	8.02	indet	indet	7.7
Rim Min.							
Rim Max.							
L/N Ratio			?	0.76	?	?	0.92
Rim Height		indet	25.78	26.48	indet	17.97	16.68
Neck Th.	indet	8.12	8.88	indet	indet	indet	7.21
Shoul. Th.	indet	indet	9.72	indet	indet	indet	indet
Punct. L.	1.4	indet	5.33	5.02	indet	2.35	4.88
Punct. W.	1.2	indet	4.56	4.09	indet	2.87	4.48
Punct. D.	indet	indet	6.08	4.97	indet	3.34	6.48
Punct Sp.	4.69	indet	6.67	3.4	4.97	6.14	12.77
Punct D-L	indet	indet	33.84	20.15	24.11	22.41	15.26
Tool W.	n/a	indet	n/a	n/a	4.08	n/a	2.96
Tool Sp.	n/a	indet	n/a	n/a	2.91	n/a	2.74
Body Thick.	indet	9.84	7.45	4.64	6.16		indet
Body Min.			5.96	4.4	5.75		
Body Max.			8.62	4.88	6.59		
Orifice Diam.			203.49			102.05	217.74

Area	A	A	A	A	A	A	A
Site	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**	**HaOg-10**
Vessel No.	22	23	24	25	26	27	28
Exterior Finish	amorphous fabric	amorphous fabric	sprang fabric	indet	sprang fabric	amorphous fabric	amorphous fabric
Temper	grit	grit	grit	grit	natural (s/pbl)	grit	grit
Temp Amt.	light	light	light	light	light	moderate	moderate
Temper Sz.	fine-med	med-coarse	med-coarse	med-coarse	fine/coarse	medium	med-coarse
Paste Text.	laminated	laminated	laminated	laminated	laminated	laminated	laminated
Int. Fin.	wiped	wiped	smooth	smooth	smooth	wiped	
Rim Profile	angled	angled	straight	straight	straight	angled	angled
Lip Profile	inner expand.	square	inner expand.	outer expand.	square	inner expand.	slightly expand.
Lip Surf. Pr	flat	flat	flat	flat	flat	flat	flat
Lip Surface Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lip Surface Finish	smoothed	textile imp.	textile imp.	smoothed	smoothed	textile imp.	textile imp.
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	CWTI, right
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	CWTI, right
Outer Rim Deoration.	punctate/ pinch row	pinch over punctate	punctate row	punctate row	punctate row	pinch over punctate	pinch over punctate
Inner Rim Decoration	boss row	pron. boss row	boss row	slight boss row	boss row	boss row	slight boss row
Shoulder profile	indet	indet	indet	indet	indet	rounded	indet
Residue	carbon, exterior	carbon, int/ext	n/a	n/a	n/a	carbon, interior	carbon, interior
Lip Thick.	10.26	7.96	8.76	4.88	7.01	8.96	7.03
Lip Min.	8.8	7.83		4.34	6.29	8.1	6.83
Lip Max.	10.9	8.18		5.34	8.05	9.52	7.44
Rim Thick.		7.35	indet	indet	indet	7.46	8.29
Rim Min.		7.2					
Rim Max.		7.5					
L/N Ratio	?	1.08	?	?	?	1.20	0.85
Rim Height	24.35	27.6	indet	indet	indet	27.39	28.24
Neck Th.	indet	6.2	indet	indet	indet	8.36	
Shoul. Th.	indet	indet	indet	indet	indet	7.06	indet
Punct. L.	5.84	2.96	indet	3.53	7.74	6.47	4.71
Punct. W.	2.88	3.17	5.9	3.66	6.42	4.27	4.96
Punct. D.	5.17	4.1	5.68	2.19	4.1	5.52	6.84
Punct Sp.	4.86	6.18	7.88	7.23	16.89	7.11	5.13
Punct D-L	24.14	33.32	17.65	7.64	12.38	33.68	32.98
Tool W.	n/a	n/a	n/a	n/a	n/a	n/a	3.75
Tool Sp.	n/a	n/a	n/a	n/a	n/a	n/a	4.42
Body Thick.	indet	indet	indet	indet	5.18	6.61	indet
Body Min.					3.89	6.08	
Body Max.					6.46	7.14	
Orifice Diam.		209.71		122.00		219.59	233.33

Area	A	A	A	A	A	A	A
Site	**HaOg-35**	**HaOg-35**	**HaOg-35**	**HaOg-35**	**HaOg-11**	**HaOg-11**	**HaOg-11**
Vessel No.	1	2	3	4	1	2	3
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	amorphous fabric	amorphous fabric
Temper	natural (s/pbl)	none	natural (sand)	natural (s/pbl)	natural (sand)	grit	grit
Temp Amt.	light	n/a	light	moderate	light	heavy	moderate
Temper Sz.	variable	n/a	fine-med	variable	fine-med	med-coarse	medium
Paste Text.	compact	laminated	laminated	compact	laminated	laminated	compact
Int. Fin.	smooth	wiped	sm/eroded	eroded	smooth	wiped	wiped
Rim Profile	excurvate	straight	straight	straight	straight	S-rim	incipient
Lip Profile	expand.	square	indet	rounded	square	sub square	square
Lip Surf. Pr	flat	flat	rounded	rounded	flat	flat	flat
Lip Surface Decoration	n/a	n/a	n/a	n/a	n/a	n/a	right oriented
Lip Surface Finish	textile imp.	textile imp.	textile imp.	smoothed	textile imp.	smoothed	smoothed
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row	punctate row	punctate/pinch	punctate over pinch
Inner Rim Decoration	boss row	pron. boss row	slight boss row	n/a	slight boss row	flattened boss row	flattened boss row
Shoulder profile	expanding	square	rounded	rounded	indet	sharply rounded	sharply rounded
Residue	carbon, interior	n/a	carbon, int/ext	carbon, exterior	carbon, interior	n/a	carbon, int/ext
Lip Thick.	7.86	5.36	8.09	6.52	7.05	8.2	7.25
Lip Min.					6.4	7.3	6.63
Lip Max.					8.7	9.1	7.75
Rim Thick.	7.88	7.24	8.85	9.58	indet	8.7	8.15
Rim Min.						7.41	7.59
Rim Max.						9.69	8.7
L/N Ratio	1.00	0.74	0.91	0.68	?	0.94	0.89
Rim Height	49.67	indet	indet	31.57	15.4	34.96	26.61
Neck Th.	7.17	indet	indet	9.9	7	11.03	7.89
Shoul. Th.	indet	indet	indet	9.0	indet	9.19	6.8
Punct. L.	5.11	4.68	5.2	3.9	4.7	5.87	4.45
Punct. W.	4.91	4.64	4.84	4.83	5.08	5.3	4.38
Punct. D.	6.56	4.49	5.6	4.75	5.42	6.09	5.28
Punct Sp.	13.25	6.63	12.66	28.87	indet	5.97	12.26
Punct D-L	4.91	4.64	4.84	4.83	13.45	30.94	28.16
Tool W.	n/a	n/a	n/a	n/a	n/a	n/a	2.52
Tool Sp.	n/a	n/a	n/a	n/a	n/a	n/a	2.2
Body Thick.	indet	indet	indet	8.71	6.15	8.01	4.99
Body Min.					5.17	6.73	3.34
Body Max.					7.2	9.96	6.39
Orifice Diam.	172.99		95.63	129.95		155.93	

Area	A	A	A	B	B	B	B
Site	**HaOg-12**	**HaOg-12**	**HaOg-12**	**HaOh-01**	**HaOh-01**	**HaOh-01**	**HaOh-01**
Vessel No.	1	2	3	1	2	3	4
Exterior Finish	amorphous fabric	amorphous fabric	fabric, coarse	sprang fabric	sprang fabric	sprang fabric	indet. fabric, sm
Temper	grit	grit	natural (sand)	grit	natural (sand)	natural (sand)	grit
Temp Amt.	moderate	moderate	light	light	light	light	heavy
Temper Sz.	medium	medium	fine-med	fine-med	fine-med	fine-med	med-coarse
Paste Text.	laminated	laminated	laminated	laminated	compact	laminated	laminated
Int. Fin.	wiped	smooth	wiped	wiped	smooth	smooth	smooth
Rim Profile	angled	incurvate	straight	excurvate	straight	straight	excurvate
Lip Profile	square	inner expand.	expand.	square	square	inner expand.	outer expand.
Lip Surf. Pr	flat	flat	flat	flat	flat	rounded	flat
Lip Surface Decoration	right oriented	n/a	n/a	punctates	n/a	cord impressed	n/a
Lip Surface Finish	smoothed	smoothed	textile imp.	textile imp.	smoothed	textile imp.	plain
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	rod impressed
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	pinch over punctate	fingernail pinched	punctate row	punctate row	punctate row	punctate row	punctate row
Inner Rim Decoration	flattened boss row	indet	slight boss row	pron. boss row	boss row	boss row	boss row
Shoulder profile	sharply rounded	indet	indet	rounded	indet	indet	rounded
Residue	n/a	n/a	carbon, interior	carbon, int/ext	carbon, interior	carbon, interior	carbon, interior
Lip Thick.	7.33	4.62	8.77	6.74	6.00	8.87	8.64
Lip Min.	6.07	0.00	8.47	4.80	5.19	7.20	7.96
Lip Max.	8.57	0.00	9.10	8.21	6.62	10.95	9.42
Rim Thick.	8.86	indet	5.67	6.17	5.53	9.58	11.62
Rim Min.	8.68			5.14	5.49	8.50	10.13
Rim Max.	8.98			7.94	5.56	10.66	13.10
L/N Ratio	0.83	0.00	1.55	1.09	1.08	0.93	0.74
Rim Height	28.64	indet	indet	35.53	indet	45.72	32.65
Neck Th.	8.77	indet	indet	4.55	indet	9.53	14.54
Shoul. Th.	6.22	indet	indet	4.30	indet	indet	7.03
Punct. L.	3.95	n/a	5.07	3.44	4.64	6.24	5.99
Punct. W.	4.23	n/a	5.36	3.34	4.81	6.14	6.20
Punct. D.	4.4	n/a	5.59	5.16	4.69	5.59	10.63
Punct Sp.	11.22	n/a	4.88	5.23	17.40	9.52	19.79
Punct D-L	29.44	n/a	7.7	8.68	19.84	16.38	19.45
Tool W.	2.8	n/a	n/a	3.39	n/a	4.31	7.25
Tool Sp.	3.35	n/a	n/a	8.56	n/a	11.67	9.13
Body Thick.	4.05	indet	7.73	5.44	indet	indet	7.30
Body Min.	2.49		5.56	3.31			6.03
Body Max.	5.01		10.26	9.14			7.94
Orifice Diam.	206.45			220.61	208.35		197.22

Area	B	B	B	B	B	B	B
Site	**HaOh-01**	**HaOh-01**	**HaOh-01**	**HaOh-01**	**HaOh-01**	**HaOh-01**	**HaOh-01**
Vessel No.	5	6	7	8	9	10	11
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric
Temper	sand and sparse grit	natural (sand)	sand and sparse grit	sand and sparse grit	natural (sand)	natural (sand)	sand and sparse grit
Temp Amt.	light	light	light	light	light	light	light
Temper Sz.	variable	fine	variable	medium	fine	fine	variable
Paste Text.	laminated	laminated	laminated	laminated	laminated	laminated	laminated
Int. Fin.	smooth	smooth	smooth	smooth	smooth	smooth	smooth
Rim Profile	excurvate	excurvate	excurvate	straight	straight	indet	straight
Lip Profile	pulled over Ext.	square	inner expand.	rounded	inner expand.	square	rounded
Lip Surf. Pr	rounded	flat	flat	rounded	flat	flat	rounded
Lip Surface Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lip Surface Finish	textile imp.	textile imp.	textile imp.	smoothed	textile imp.	textile imp.	smoothed
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row	round punctate	round punctate	punctate row
Inner Rim Decoration	slight boss row	pron. boss row	slight boss row	pron. boss row	slight boss	boss	boss row
Shoulder profile	rounded	rounded	angled	indet	angled	indet	indet
Residue	carbon, interior	carbon, int/ext	n/a	n/a	n/a	n/a	carbon, interior
Lip Thick.	5.81	5.20	7.71	6.21	6.83	5.80	3.94
Lip Min.	4.73	4.60	6.79	5.83	6.38	5.53	3.31
Lip Max.	6.56	5.75	8.97	6.58	7.27	6.07	4.62
Rim Thick.	n/a	6.58	7.01	5.48	indet	indet	4.40
Rim Min.		5.91	6.67				4.03
Rim Max.		7.24	7.42				4.76
L/N Ratio	?	0.79	1.10	1.13	?	?	0.90
Rim Height	5.87	30.61	23.41	indet	indet	indet	>42
Neck Th.	6.98	6.65	7.91	indet	indet	indet	indet
Shoul. Th.	6.66	6.69	10.71	indet	8.17	indet	indet
Punct. L.	3.75	4.19	4.45	4.85	5.14	indet	2.28
Punct. W.	3.51	4.20	4.02	5.09	5.26	indet	2.28
Punct. D.	4.78	6.33	4.98	8.17	5.43	indet	3.75
Punct Sp.	5.44	9.03	20.27	10.99	indet	indet	8.81
Punct D-L	6.65	10.05	8.96	12.34	14.20	10.66	15.68
Tool W.	n/a	n/a	n/a	n/a	n/a	n/a	3.20
Tool Sp.	n/a	n/a	n/a	n/a	n/a	n/a	
Body Thick.	4.86	5.66	7.73	6.69	5.26	indet	6.18
Body Min.	3.71	5.27	7.02	4.13	4.62		4.65
Body Max.	5.02	6.08	9.00	8.25	6.24		7.48
Orifice Diam.	127.58	150.63	113.23				

Area	B	B	B	B	B	B	B
Site	**HaOh-01**	**HaOh-01**	**HaOh-14**	**HaOh-14**	**HaOh-14**	**HaOh-14**	**HaOh-14**
Vessel No.	12	13	1	2	3	4	5
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric
Temper	natural (sand)	grit	grit	natural (sand)	natural (sand)	natural (sand)	natural (sand)
Temp Amt.	light	light	light	light	light	light	light
Temper Sz.	fine-med	med-coarse	fine-med	fine	fine-med	fine-med	fine-med
Paste Text.	laminated	laminated	compact	laminated	laminated	compact	laminated
Int. Fin.	wiped	smooth	smooth	smooth	smooth	wiped	smooth
Rim Profile	straight	indet	straight	straight	straight	excurvate	straight
Lip Profile	sub square	indet.	square	pulled over	square	sub square	pulled over
Lip Surf. Pr	flat	indet	flat	flat	flat	flat	flat
Lip Surface Decoration	n/a	indet	n/a	n/a	n/a	n/a	n/a
Lip Surface Finish	plain	indet	smooth	textile imp.	textile imp.	smooth	smooth
Inner Lip Decoration	n/a	indet	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	indet	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	indet	punctate	punctate	punctate	punctate	punctate
Inner Rim Decoration	boss row	indet	boss	boss	boss	boss	boss
Shoulder profile	indet	angled	indet	indet	indet	rounded	indet
Residue	carbon, int/ext	carbon, interior	n/a	n/a	n/a	n/a	n/a
Lip Thick.	5.35	indet	5.85	7.22	7.11	7.61	7.76
Lip Min.			5.36	6.73	0.00	7.27	6.95
Lip Max.			6.28	7.76	0.00	7.95	8.93
Rim Thick.	7.53	indet	7.03	6.21	indet	8.18	4.82
Rim Min.				5.85		7.8	
Rim Max.				6.56		8.56	
L/N Ratio	0.71						
Rim Height	>39	indet	indet	>38.11	>49	22.85	indet
Neck Th.	indet	indet	6.91	indet	indet	8.56	indet
Shoul. Th.	indet	10.69	indet	indet	indet	10.06	indet
Punct. L.	3.92	indet	5.15	5.37	4.99	4.48	indet
Punct. W.	3.94	indet	5.14	5.14	5.66	5.01	5.12
Punct. D.	6.08	indet	5.86	6.49	indet	5.28	indet
Punct Sp.	9.49	indet	13.35	18.76	17.95	indet	indet
Punct D-L	5.88	indet	18.34	13.31	14.54	10.22	17.11
Tool W.	n/a	n/a	n/a		n/a	indet	n/a
Tool Sp.	n/a	n/a	n/a		n/a	indet	n/a
Body Thick.	7.98	7.54	6.59	6.61	3.87	9.91	6.07
Body Min.	7.25	5.87	4.09	3.81	3.51		
Body Max.	8.47	8.78	7.83	9.76	4.22		
Orifice Diam.			205.70				

Area	B	B	B	B	B	B	B
Site	**HaOh-14**	**HaOh-14**	**HaOh-14**	**HaOh-14**	**HaOh-14**	**HaOh-14**	**HaOh-14**
Vessel No.	6	7	8	9	10	11	12
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric
Temper	grit	sand/grit	natural (sd/pbl)	sand/grit	grit	grit	grit
Temp Amt.	moderate	light	light	light	light	moderate	light
Temper Sz.	med-coarse	variable	fine-med	medium	med-coarse	coarse	medium
Paste Text.	laminated	laminated	laminated	laminated	laminated	laminated	compact
Int. Fin.	wiped	smooth	smooth	smooth	ooth	smooth	smooth
Rim Profile	straight	straight	straight	straight	straight	straight	straight
Lip Profile	rounded	pulled over	square	inner exp.	inner exp.	expand.	inner exp.
Lip Surf. Pr	rounded	rounded	flat	flat	flat	flat	rounded
Lip Surface Decoration	n/a	n/a	n/a	n/a	rod impressed	CWTI, left oriented	n/a
Lip Surface Finish	smooth	smooth	textile imp.	smooth	smooth	textile imp.	textile imp.
Inner Lip Decoration	n/a	n/a	n/a	n/a	rod impressed	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate	punctate	punctate	punctate	punctate	punctate	punctate
Inner Rim Decoration	boss	indet	boss	boss	boss	boss	boss
Shoulder profile	indet	indet	indet	rounded	indet	angled	indet
Residue	n/a	n/a	carbon, int.	carbon, int.	carbon, int.	n/a	n/a
Lip Thick.	9.15	7.39	6.09	5.8	8.6	7.92	7.49
Lip Min.	8.09	6.75	5.56	5.27	7.81	7.03	7.04
Lip Max.	9.86	8.03	6.67	6.33	9.32	8.80	8.23
Rim Thick.	8.4	indet	6.5	7.87	8.67	n/a	8.4
Rim Min.	7.78		6.45			5.85	
Rim Max.	9.01		6.55			6.56	
L/N Ratio							
Rim Height	>31	indet	46.56	indet	>49.56	n/a	33.85
Neck Th.	indet	indet	7.42	indet	7.98	9.08	indet
Shoul. Th.	indet	indet	indet	9.74	indet	10.94	indet
Punct. L.	4.86	4.86	4.49	4.97	3.65	4.17	4.84
Punct. W.	5.17	4.77	4.59	4.87	3.71	4.17	4.84
Punct. D.	7.87	4.61	5.31	6.07	5.98	indet	4.5
Punct Sp.	21.51	indet	7.87	9.17	23.81	21.81	8.54
Punct D-L	9.19	20.99	10.35	7.39	21.24	11.83	20.44
Tool W.	n/a	n/a	n/a	n/a	2.52	6.89	n/a
Tool Sp.	n/a	n/a	n/a	n/a	11.66	13.27	n/a
Body Thick.	8.12	7.76	6.12	5.45	8.86	8.39	indet
Body Min.	6.22	6.36	5.46	3.86	8.44	6.6	4.09
Body Max.	8.92	10.32	7.02	6.92	9.38	10.1	7.83
Orifice Diam.	142.68	0.00	0.00	0.00	0.00	0.00	0.00

Area	B	B	B	B	B	B	B
Site	**V.S. Col.**	**V.S. Col.**	**V.S. Col.**	**V.S. Col.**	**V.S. Col.**	**V.S. Col.**	**V.S. Col.**
Vessel No.	1	2	3	4	5	6	7
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric
Temper	natural (s/pbl)	natural (s/pbl)	grit	natural (sand)	natural (sand)	natural (sand)	natural (sand)
Temp Amt.	n/a	n/a	light	light	light	light	light
Temper Sz.	n/a	n/a	coarse	fine	fine	fine	fine
Paste Text.	laminated	laminated	laminated	laminated	compact	compact	compact
Int. Fin.	smooth	sm/eroded	smooth	eroded	smooth	smooth	smooth
Rim Profile	excurvate	straight	excurvate	excurvate	straight	straight	straight
Lip Profile	expand.	expand.	expand.	expand.	inner expand.	expand.	inner flange
Lip Surf. Pr	flat	flat	flat	rounded	rounded	flat	flat
Lip Surface Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lip Surface Finish	smoothed	smoothed	textile imp.	smoothed	textile imp.	textile imp.	smoothed
Inner Lip Decoration	rod impressed	n/a	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row	indet
Inner Rim Decoration	slight boss row	pron. boss row	slight boss row	slight boss row	pron. boss row	slight boss row	indet
Shoulder profile	indet	indet	indet	indet	indet	indet	indet
Residue	n/a	n/a	carbon, exterior	n/a	n/a	carbon, interior	n/a
Lip Thick.	7.78	6.83	9.14	9.26	7.64	8.94	8.99
Lip Min.		5.8	6.61	8.47		7.61	8.74
Lip Max.		7.6	10.66	9.71		10.59	8.91
Rim Thick.	7.71	5.59	5.85	4.32	5.01	7.8	indet
Rim Min.			5.82				
Rim Max.			5.89				
L/N Ratio	1.01	1.22	1.56	2.14	1.52	1.15	?
Rim Height	16.1	31.8	20.6	15.97	? >31	18.39	indet
Neck Th.	indet	indet	indet	indet	indet	indet	indet
Shoul. Th.	indet	indet	indet	indet	indet	indet	indet
Punct. L.	3.65	4.45	5.71	4.93	4.65	5.93	indet
Punct. W.	3.42	5.03	6.18	5.74	4.5	indet	indet
Punct. D.	3.7	6.2	5.38	4	indet	6.13	indet
Punct Sp.	7.52	10.22	16.32	8.38	9.28	indet	indet
Punct D-L	15.45	10.75	14.12	14.22	13.95	12.53	indet
Tool W.	indet	indet	n/a	n/a	n/a	n/a	n/a
Tool Sp.	5.59	indet	n/a	n/a	n/a	n/a	n/a
Body Thick.	indet	indet	indet	indet	indet	indet	indet
Body Min.							
Body Max.							
Orifice Diam.		232.90	163.39			122.00	

Area	B	C	C	C	C	C	C
Site	**V.S. Col.**	**HaOh-12**	**HaOh-12**	**HaOh-12**	**HaOh-12**	**HaOh-26**	**HaOh-26**
Vessel No.	8	1	2	3	4	1	2
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric
Temper	natural (sand)	sand and sparse grit	natural (sand)	natural (sand)	natural (sand)	sand and sparse grit	grit
Temp Amt.	light	light	light	light	light	light	light
Temper Sz.	fine	variable	fine	fine	fine	medium	variable
Paste Text.	laminated	laminated	laminated	laminated	laminated	laminated	laminated
Int. Fin.	indet	smooth	smooth	smooth	smooth	smooth	wiped
Rim Profile	excurvate	straight	straight	straight	excurvate	excurvate	straight
Lip Profile	sub square	rounded	square	expand.	square	sub square	expand.
Lip Surf. Pr	flat	rounded	flat	flat	flat	flat	rounded
Lip Surface Decoration	punctates	n/a	n/a	n/a	n/a	n/a	& lft oriented
Lip Surface Finish	smoothed	textile imp.	textile imp.	textile imp.	textile imp.	textile imp.	textile imp.
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	round punctate	punctate row	punctate row	punctate row
Inner Rim Decoration	boss row	boss row	pron. boss row	boss	slight boss row	boss row	slight boss row
Shoulder profile	rounded	indet	indet	indet	indet	rounded	angled
Residue	n/a	n/a	n/a	n/a	carbon, interior	carbon, int/ext	n/a
Lip Thick.	6.71	7.89	6.57	8.04	6.74	6.40	9.47
Lip Min.	3.44	6.95	6.11	7.97	6.52	5.19	6.53
Lip Max.	8.34	8.53	7.72	8.11	7.18	6.84	13.39
Rim Thick.	5.88	8.59	7.05	indet	7.55	5.80	9.13
Rim Min.		7.27	6.17			5.73	9.09
Rim Max.		10.98	8.41			5.87	9.16
L/N Ratio	1.14	0.92	0.93	?	0.89	1.10	1.04
Rim Height	10.32	>40	42.45	indet	11.00	25.17	34.57
Neck Th.	6.05	indet	7.75	indet	7.00	6.82	9.71
Shoul. Th.	6.94	indet	indet	indet	indet	8.27	14.43
Punct. L.	3.73	4.73	5.48	5.71	5.38	4.29	5.51
Punct. W.	4.11	6.39	5.56	6.05	5.57	4.38	5.62
Punct. D.	5.86	7.26	6.47	indet	3.67	4.41	7.32
Punct Sp.	5.47	11.60	13.64	indet	7.32	13.24	21.48
Punct D-L	7.42	19.80	9.87	15.62	8.97	13.40	12.30
Tool W.	n/a	n/a	n/a	n/a	n/a	n/a	8.69
Tool Sp.	n/a	n/a	n/a	n/a	n/a	n/a	17.80
Body Thick.	5.94	9.27	indet	indet	indet	6.79	indet
Body Min.	4.86	7.05				6.12	
Body Max.	7.03	11.98				7.45	
Orifice Diam.	215.68	154.45	167.19			156.23	144.67

Area	C	C	C	C	C	C	C
Site	**HaOh-15**	**HaOh-15**	**HaOh-15**	**HaOh-15**	**HaOh-15**	**HaOh-15**	**HaOh-15**
Vessel No.	1	2	3	4	5	6	7
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	amorphous fabric
Temper	natural (sand)	grit	grit	sand and sparse grit	natural (sand)	natural (sand)	natural (sand)
Temp Amt.	light	moderate	light	light	light	light	light
Temper Sz.	fine-med	med-coarse	med-coarse	fine-med	fine	fine	medium
Paste Text.	laminated	laminated	laminated	laminated	laminated	laminated	laminated
Int. Fin.	indet	smooth	smooth	smooth	smooth	wiped	wiped
Rim Profile	indet	excurvate	straight	excurvate	incurvate	straight	excurvate
Lip Profile	rounded	inner expand.	sub round	outer expand.	pulled over	rounded	slightly expand.
Lip Surf. Pr	rounded	flat	flat	flat	rounded	rounded	flat
Lip Surface Decoration	n/a	n/a	rod impressed	n/a	n/a	n/a	n/a
Lip Surface Finish	textile imp.	textile imp.	textile imp.	textile imp.	smooth	smoothed	textile imp.
Inner Lip Decoration	n/a	n/a	rod impressed	rod impressed	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	indet	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row
Inner Rim Decoration	indet	pron. boss row	slight boss row	indet	n/a	n/a	slight boss row
Shoulder profile	indet	sharply rounded	indet	indet	indet	indet	indet
Residue	n/a	carbon, int/ext	n/a	carbon, int/ext	n/a	n/a	n/a
Lip Thick.	6.50	9.62	8.93	8.84	7.41	8.23	6.03
Lip Min.		9.29	8.13	8.67	6.77		5.95
Lip Max.		10.04	9.80	8.30	8.04		6.14
Rim Thick.	indet	indet	indet	indet	5.22	7.95	indet
Rim Min.					5.11		
Rim Max.					5.32		
L/N Ratio	?	?	?	?	1.42	1.04	?
Rim Height	indet	22.20	indet	indet	34.07	indet	indet
Neck Th.	indet	6.66	indet	indet	6.49	indet	indet
Shoul. Th.	indet	11.54	indet	indet	indet	indet	indet
Punct. L.	indet	5.55	7.91	3.13	3.65	4.69	4.45
Punct. W.	indet	indet	8.06	2.84	4.10	3.82	4.44
Punct. D.	indet	6.63	5.51	5.34	3.76	6.37	5.59
Punct Sp.	indet	18.90	16.61	12.76	6.86	12.27	9.03
Punct D-L	indet	14.02	11.60	21.10	11.39	4.72	8.95
Tool W.	n/a	n/a	6.62	8.22	n/a	n/a	n/a
Tool Sp.	n/a	n/a	8.58	6.75	n/a	n/a	n/a
Body Thick.	5.80	6.49	7.38	6.09	indet	7.78	indet
Body Min.	4.53	3.39	6.95	4.94		6.58	
Body Max.	7.80	7.77	8.16	7.05		8.59	
Orifice Diam.			128.09				

Area	C	C	C	C	C	C	C
Site	**HaOh-23**	**HaOh-17**	**HaOh-19**	**HaOh-19**	**HaOh-19**	**HaOh-19**	**HaOh-19**
Vessel No.	1	1	1	2	3	4	5
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	indet. textile	sprang fabric	sprang fabric	plain
Temper	natural (s/pbl)	grit	natural (sand)	grit	natural (s/pbl)	sand and sparse grit	grit
Temp Amt.	moderate	light	moderate	moderate	moderate	moderate	heavy
Temper Sz.	variable	fine-med	fine-med	medium	variable	variable	med-coarse
Paste Text.	laminated	laminated	laminated	laminated	laminated	laminated	compact
Int. Fin.	sm/eroded		smooth	sm/eroded	sm/eroded	smooth	sm/eroded
Rim Profile	straight	excurvate	straight	straight	straight	curvate	excurvate
Lip Profile	irregular	square	square	rounded	rounded	variable squ/rnd	expand.
Lip Surf. Pr	irregular	irreguler	flat	rounded	rounded	flat/round	rounded
Lip Surface Decoration	n/a	n/a	n/a	SET	n/a	n/a	rod impressed
Lip Surface Finish	textile imp.	plain	textile imp.	smoothed	textile imp.	textile imp.	smoothed
Inner Lip Decoration	n/a	SET, left	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	remnant punctate	punctate row	punctate row	punctate row
Inner Rim Decoration	pron. boss row	ron. Boss ro	indet	indet	slight boss row	slight boss row	slight boss row
Shoulder profile	rounded	indet	rounded	indet	indet	indet	indet
Residue	n/a	n/a	carbon, interior	n/a	carbon, exterior	carbon, interior	n/a
Lip Thick.	6.41	7.8	8.08	7.19	8.26	6.77	7.33
Lip Min.	5.92			5.67	6.70	5.72	6.31
Lip Max.	7.06			8.65	10.14	8.22	9.22
Rim Thick.	6.5	6.86	5.95	indet	10.38	7.95	4.55
Rim Min.	5.86		5.69		9.07	6.56	
Rim Max.	7.41		6.20		11.38	10.12	
L/N Ratio	0.98	1.14	1.36	?	0.80	0.85	1.61
Rim Height	54.37	indet	28.33	indet	40.94	25.64	indet
Neck Th.	7.7	indet	indet	indet	12.95	8.38	5.35
Shoul. Th.	9.84	indet	indet	indet	indet	indet	indet
Punct. L.	4.9	6.21	4.59	indet	4.50	4.42	4.44
Punct. W.	4.7	5.91	6.26	indet	4.50	4.46	5.13
Punct. D.	6.23	7.19	indet	indet	7.06	3.59	3.82
Punct Sp.	11.19	10.99	13.62	indet	15.48	7.12	7.50
Punct D-L	10.12	9.21	11.22	19.75	16.12	13.97	13.86
Tool W.	n/a	1.7	n/a	1.54	n/a	n/a	2.89
Tool Sp.	n/a	7.4	n/a	9.82	n/a	n/a	6.55
Body Thick.	7.07	indet	7.11	indet	9.41	8.35	indet
Body Min.	4.87		4.55		6.81	5.87	
Body Max.	8.65		10.20		12.13	11.68	
Orifice Diam.					192.47	179.28	229.94

Area	C	C	C	C	C	C	C
Site	**HaOh-19**	**HaOh-19**	**HaOh-19**	**HaOh-19**	**HaOh-19**	**HaOh-19**	**HaOh-19**
Vessel No.	6	7	8	9	10	11	12
Exterior Finish	sprang fabric	amorphous fabric	indet	sprang fabric	sprang fabric	sprang fabric	indet
Temper	natural (s/pbl)	sand and sparse grit	natural (sand)	natural (sand)	sand and sparse grit	natural (s/pbl)	natural (sand)
Temp Amt.	light	light	light	light	light	light	moderate
Temper Sz.	coarse	fine-med	fine	fine	variable	fine-med	fine-med
Paste Text.	laminated	laminated	laminated	compact	laminated	laminated	compact
Int. Fin.	smooth	sm/eroded	indet	smooth	smooth	smooth	smooth
Rim Profile	straight	straight	indet	straight	straight	straight	indet
Lip Profile	rounded	rounded	indet.	square	inner expand.	contracting	sub round
Lip Surf. Pr	rounded	rounded	indet	flat	flat	rounded	irregular
Lip Surface Decoration	n/a	n/a	n/a	n/a	n/a	n/a	sharp edge tool
Lip Surface Finish	textile imp.	textile imp.	plain	textile imp.	textile imp.	textile imp.	plain
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	indet	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row	round punctate
Inner Rim Decoration	slight boss row	n/a	slight boss row	slight boss row	slight boss row	slight boss row	slight boss
Shoulder profile	indet	indet	indet	indet	indet	indet	indet
Residue	n/a	carbon, int/ext	n/a	n/a	n/a	carbon, interior,	carbon, interior
Lip Thick.	6.28	5.73	indet	8.60	7.86	6.01	10.01
Lip Min.	5.03	5.19		7.51	6.67	6.10	9.30
Lip Max.	7.53	7.32		9.33	8.87	6.29	10.72
Rim Thick.	6.76	6.10	indet	indet	4.42	10.85	indet
Rim Min.	5.67	5.24					
Rim Max.	7.85	6.42					
L/N Ratio	0.93	0.94		?	1.78	0.55	?
Rim Height	25.00	42.05	indet	indet	indet	28.52	indet
Neck Th.	6.76	7.26	indet	indet	indet	11.40	indet
Shoul. Th.	indet	indet	indet	indet	indet	indet	indet
Punct. L.	4.22	3.76	4.63	5.29	5.15	5.25	3.83
Punct. W.	4.08	3.56	4.67	4.97	4.21	5.00	5.54
Punct. D.	5.76	3.79	indet	5.58	5.28	6.93	5.79
Punct Sp.	22.40	8.65	8.97	8.09	indet	10.07	indet
Punct D-L	11.65	6.32	9.21	11.71	11.05	14.34	11.44
Tool W.	n/a	n/a	n/a	n/a	n/a	n/a	1.57
Tool Sp.	n/a	n/a	n/a	n/a	n/a	n/a	indet
Body Thick.	6.30	7.82	indet	indet	indet	7.31	indet
Body Min.	4.74	5.00				5.68	
Body Max.	8.25	9.61				9.30	
Orifice Diam.						139.71	142.04

Area	C	C	D	D	D	D	D
Site	**HaOh-19**	**HaOh-19**	**HaOh-20**	**HaOh-20**	**HaOh-20**	**HaOh-20**	**HaOh-21**
Vessel No.	13	14	1	2	3	4	1
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	indet	sprang fabric	sprang fabric
Temper	natural (sand)	grit	natural (sand)	natural (s/pbl)	grit	sand and sparse grit	natural (sand)
Temp Amt.	light	moderate	light	light	moderate	light	light
Temper Sz.	fine	med-coarse	fine	fine-med	medium	fine-med	fine
Paste Text.	laminated	laminated	laminated	laminated	laminated	laminated	laminated
Int. Fin.	sm/eroded	smooth	smooth	smooth	wiped	smooth	indet
Rim Profile	excurvate	straight	straight	excurvate	indet	straight	straight
Lip Profile	pulled over	pulled over	pulled over	Int. expand.	rounded	outer expand.	square
Lip Surf. Pr	flat	flat	flat	flat	rounded	rounded	flat
Lip Surface Decoration	n/a	n/a	n/a	n/a	n/a	rod impressed	n/a
Lip Surface Finish	textile imp.	textile imp.	smoothed	textile imp.	smoothed	textile imp.	textile imp.
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	rod impressed	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row
Inner Rim Decoration	n/a	pron. boss row	boss row	boss row	indet	pron. boss row	boss row
Shoulder profile	indet	angled	indet	indet	indet	angled	indet
Residue	n/a	carbon, interior	carbon, interior	carbon, interior,	n/a	n/a	n/a
Lip Thick.	8.51	8.56	7.73	9.11	8.21	7.80	5.80
Lip Min.		6.89	7.05	6.93		6.31	
Lip Max.		10.25	7.99	10.41		9.68	
Rim Thick.	indet	8.55	5.17	6.51	indet	indet	indet
Rim Min.		7.82					
Rim Max.		9.87					
L/N Ratio	?	1.00	1.50	1.40	?		?
Rim Height	22.17	46.31	indet	30.12	indet	indet	indet
Neck Th.	10.81	9.66	indet	6.55	indet	indet	indet
Shoul. Th.	indet	10.51	indet	indet	indet	9.17	indet
Punct. L.	indet	4.16	4.43	4.11	5.68	indet	4.39
Punct. W.	indet	4.01	4.77	3.93	4.95	indet	4.21
Punct. D.	5.78	6.05	6.63	5.79	4.81	6.71	3.50
Punct Sp.	15.98	15.38	13.02	10.00	3.79	18.62	6.82
Punct D-L	indet	12.03	11.26	14.66	4.30	14.35	5.72
Tool W.	n/a	n/a	n/a	n/a	n/a	4.02	n/a
Tool Sp.	n/a	n/a	n/a	n/a	n/a	13.10	n/a
Body Thick.	indet	7.23	6.56	6.30	indet	indet	4.50
Body Min.		3.90	5.56	5.24			
Body Max.		10.36	7.75	7.48			
Orifice Diam.		192.46					

Area	D	D	D	D	D	D	E
Site	**HaOh-21**	**HaOh-21**	**HaOh-21**	**HaOh-21**	**HaOh-21**	**HaOh-22**	**HaOg-28**
Vessel No.	2	3	4	5	6	1	1
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric	sprang fabric
Temper	natural (sand)	natural (s/pbl)	natural (sand)	grit	natural (sand)	sand and sparse grit	natural (sand)
Temp Amt.	light	light	light	moderate	light	light	light
Temper Sz.	fine	variable	fine	med-coarse	fine-med	fine-med	fine
Paste Text.	laminated	laminated	laminated	compact	laminated	laminated	laminated
Int. Fin.	smooth	indet	smooth	wiped	smooth	smooth	sm/eroded
Rim Profile	excurvate	straight	excurvate	straight	straight	straight	straight
Lip Profile	exterior bevel	expand.	contracting	inner expand.	expand.	pulled over	pulled over
Lip Surf. Pr	flat	flat	rounded	flat	flat	flat	rounded
Lip Surface Decoration	n/a	n/a	n/a	right oriented	n/a	n/a	n/a
Lip Surface Finish	textile imp.	textile imp.	smoothed	smoothed	textile imp.	smoothed	plain
Inner Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row
Inner Rim Decoration	boss row	boss row	boss row	pron. boss row	boss row	pron. boss row	n/a
Shoulder profile	rounded	indet	rounded	indet	angled	indet	indet
Residue	n/a	n/a	n/a	carbon, int/ext	n/a	n/a	n/a
Lip Thick.	4.42	8.14	3.75	6.97	8.42	7.48	9.57
Lip Min.	4.05		3.60	5.87	7.03	7.32	8.35
Lip Max.	4.78		3.90	8.07	10.23	7.64	10.78
Rim Thick.	5.99	7.38	indet	7.08	5.81	4.27	5.86
Rim Min.					4.99		
Rim Max.					6.38		
L/N Ratio	0.74	1.10	?	0.98	1.45	1.75	1.63
Rim Height	28.04	indet	11.50	34.88	31.60	indet	>42.83
Neck Th.	6.81	indet	7.30	6.31	6.21	7.12	indet
Shoul. Th.	6.68	indet	7.21	indet	9.77	indet	indet
Punct. L.	3.40	4.67	2.70	6.66	4.83	4.35	4.88
Punct. W.	3.49	3.97	2.62	6.17	5.13	5.28	4.24
Punct. D.	3.46	6.49	3.62	5.44	5.56	5.49	3.06
Punct Sp.	7.89	10.75	10.86	17.81	13.75	indet	18.39
Punct D-L	7.35	10.39	9.55	11.07	11.39	10.25	13.86
Tool W.	n/a	n/a	n/a	6.21	n/a	indet	n/a
Tool Sp.	n/a	n/a	n/a	13.33	n/a	indet	n/a
Body Thick.	5.08	indet	7.01	6.16	7.00	6.33	indet
Body Min.				4.71	5.45	4.8	
Body Max.				8.33	10.30	7.83	
Orifice Diam.	142.56				146.52		

Area	E	E	E	E	E	E	E
Site	**HaOg-28**	**HaOg-28**	**HaOg-28**	**HaOg-28**	**HaOg-28**	**HaOg-26**	**HaOg-26**
Vessel No.	2	3	4	5	6	1	2
Exterior Finish	sprang fabric	sprang fabric	sprang fabric	sprang fabric	indet	sprang fabric	sprang fabric
Temper	natural (s/pbl)	natural (sand)	natural (sand)	natural (sand)	natural (sand)	grit	none
Temp Amt.	light	light	light	light	light	light	n/a
Temper Sz.	variable	fine	fine	fine-med	fine-med	med-coarse	n/a
Paste Text.	laminated	compact	laminated	laminated	laminated	laminated	laminated
Int. Fin.	smooth	smooth	sm/eroded	smooth	smooth	smooth	smooth
Rim Profile	excurvate	straight	slight	straight	straight	straight	straight
Lip Profile	rounded	square	expand.	rounded	expand.	expand.	outer expand.
Lip Surf. Pr	rounded	flat	flat	rounded	flat	flat	flat
Lip Surface Decoration	n/a	n/a	n/a	n/a	rod impressed	n/a	rod impressed
Lip Surface Finish	textile imp.	textile imp.	textile imp.	smoothed	smoothed	smoothed	textile imp.
Inner Lip Decoration	rod impressed	n/a	n/a	n/a	rod impressed	SET, right	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row	punctate row
Inner Rim Decoration	pron. boss row	boss row	pron. boss row	n/a	pron. boss row	slight boss row	pron. boss row
Shoulder profile	indet	indet	indet	indet	indet	angled	angled
Residue	carbon, int/ext	carbon, int/ext	n/a	n/a	n/a	carbon, interior,	n/a
Lip Thick.	6.32	6.94	8.41	6.24	>7	11.65	6.97
Lip Min.	4.59	6.3	7.29			11.32	6.34
Lip Max.	8.53	7.79	10.17			11.98	7.6
Rim Thick.	6.69	6.11	4.02	6.88	indet	7.37	5.05
Rim Min.	5.74	5.75	3.76				
Rim Max.	7.46	6.46	4.28				
L/N Ratio	0.94	1.14	2.09	0.91	?	1.58	1.38
Rim Height	28.73	indet	indet	indet	42.95	43.19	indet
Neck Th.	6.72	indet	indet	indet	indet	6.84	indet
Shoul. Th.	indet	indet	indet	indet	indet	7.53	6.8
Punct. L.	3.69	5.65	4.75	4.31	5.41	7.04	4.02
Punct. W.	4.16	5.92	4.93	3.57	5.36	7.16	3.79
Punct. D.	5.75	5.37	4.99	4.07	>4.24	5.82	4.48
Punct Sp.	10.6	15.3	17.22	16.62	10.62	15.62	6.94
Punct D-L	14.04	16.83	8.75	13.72	12.85	16.59	9.53
Tool W.	6.39	n/a	n/a	n/a	2.43	9.1	2.3
Tool Sp.	11.03	n/a	n/a	n/a	11.98	9.05	10.52
Body Thick.	indet	indet	4.25	6.31	indet	5.81	5.28
Body Min.			3.4	5.33		5.06	
Body Max.			5.09	6.42		6.56	
Orifice Diam.	102.87					153.73	

Area	E	F	G	G
Site	**HaOg-30**	**HaOg-17**	**GkOg-17**	**GkOg-24**
Vessel No.	1	1	1	1
Exterior Finish	sprang fabric	amorphous fabric	sprang fabric	sprang fabric
Temper	natural (sand)	grit	natural (sand)	natural (s/pbl)
Temp Amt.	light	moderate	light	light
Temper Sz.	medium	medium	fine-med	med-coarse
Paste Text.	laminated	laminated	compact	compact
Int. Fin.	smooth	wiped	sm/eroded	smooth
Rim Profile	straight	straight	straight	straight
Lip Profile	square	square	outer expand.	sub rounded
Lip Surf. Pr	flat	flat	rounded	rounded
Lip Surface Decoration	n/a	n/a	n/a	n/a
Lip Surface Finish	textile imp.	smoothed	smoothed	textile imp.
Inner Lip Decoration	n/a	n/a	impressed, left	n/a
Outer Lip Decoration	n/a	n/a	n/a	n/a
Outer Rim Deoration.	punctate row	punctate row	punctate row	punctate row
Inner Rim Decoration	boss row	boss row	n/a	boss row/ cord imp?
Shoulder profile	rounded	indet	rounded	indet
Residue	carbon, interior	carbon, interior	carbon, interior	n/a
Lip Thick.	6.12	6.07	8.66	6.83
Lip Min.	6.10	7.47	7.41	
Lip Max.	6.13	8.47	9.9	
Rim Thick.	indet	7.82	5.88	5.76
Rim Min.		7.57	5.63	
Rim Max.		8.02	6.13	
L/N Ratio		0.78	1.47	1.19
Rim Height	19.09	41.03	indet	indet
Neck Th.	5.96	8.48	indet	8.18
Shoul. Th.	indet	indet	6.28	indet
Punct. L.	2.5	6.07	4.78	6.97
Punct. W.	2.65	5.19	4.75	7.06
Punct. D.	3.42	4.32	5.16	5.73
Punct Sp.	17.59	4.75		
Punct D-L	10.07	13.22	16.65	18.1
Tool W.	n/a	n/a	9.84	n/a
Tool Sp.	n/a	n/a	6.22	n/a
Body Thick.	indet	4.89	5.42	7.38
Body Min.		4.36	4.99	6.49
Body Max.		5.42	5.84	7.74
Orifice Diam.		215.29		

APPENDIX B
NON-CERAMIC TOOLS FROM STUDY AREA

Table B1: Non-Ceramic Tool Types by Site.

Area	Site	Points/Preforms	Metal Point	Biface	Wedge	Uniface	Retouched Flake	Chithos	Celt	Grooved Maul	Pecking Stone	Tube Pipe	Whetstone	Musketball	Core	Total
A	HaOg-10	3									2		1			**6**
A	HaOg-35			1		1										**2**
A	HaOg-11															
A	HaOg-12			1												**1**
B	HaOh-1	3		2	1	1		3								**10**
B	HaOh-14	11		3			3	8		1	1	1				**28**
B	VS Collection															
C	HaOh-12	2		1			1	1	1							**6**
C	HaOh-26															
C	HaOh-15			1		2	1	3						1		**8**
C	HaOh-23															
C	HaOh-17															
C	HaOh-19	20		5	1	11	1	4				1			1	**44**
D	HaOh-20	3		4		13	2									**22**
D	HaOh-21	2		1				2			1					**6**
D	HaOh-22					1										**1**
E	HaOg-28	13		5		13	2	1				1				**35**
E	HaOg-26			1		3										**4**
E	HaOg-30															
F	HaOg-17	3	1	2			1									**7**
G	GkOg-17															
G	GkOg-24															
G	GjOg-9															
TOTAL		**60**	**1**	**27**	**2**	**45**	**11**	**22**	**1**	**1**	**4**	**3**	**1**	**1**	**1**	**180**

Table B2: Lithic Material by Site.

Area	Site	SPQ	SiSd	MVSL	Qtz	Qtze	SdSt	SiSt	SRC	Chert	SiStPbl	Gronlid SiSt	SiPeat	Chal	Shale	Granite	Lst	Steatite	Total
A	HaOg-10			1			2			1			1		1				**6**
A	HaOg-35									2									**2**
A	HaOg-11																		
A	HaOg-12	1																	**1**
B	HaOh-1	2		1	1		3		1		1				1				**10**
B	HaOh-14	8	1		3	2	7	1	1	1	1					2	1		**28**
B	VS Collection																		
C	HaOh-12	1		2			1	1									1		**6**
C	HaOh-26																		
C	HaOh-15	2			1	1	2	1											**7**
C	HaOh-23																		
C	HaOh-17																		
C	HaOh-19	23	7		1		4		1	4	2	1		1					**44**
D	HaOh-20	5	5	1	2	2			3	2	2								**22**
D	HaOh-21		1	2			3												**6**
D	HaOh-22		1																**1**
E	HaOg-28	14	2	2	1	5	1	4	1	3	1							1	**35**
E	HaOg-26	1		1						2									**4**
E	HaOg-30																		
F	HaOg-17	1	1	1	2	1													**6**
G	GkOg-17																		
G	GkOg-24																		
G	GjOg-9																		
TOTAL	**Total**	**58**	**18**	**11**	**11**	**11**	**23**	**7**	**7**	**15**	**7**	**1**	**1**	**1**	**2**	**2**	**2**	**1**	**178**

SPQ: Salt and Pepper Quartzite; SiSd: silicified sandstone; MVSL: Muskeg Valley Silicified Limestone; Qtz: quartz; Qtze: quartzite; SdSt: sandstone; SiSt: siltstone; SRC: Swan River Chert; SiStPbl: silicified siltstone pebble; Gronlid silt stone; SiPeat: silicified peat; Chal:chalcedony; Lst: limestone

Table B3: Tools by Material Type.

Lithic Material	Points/Preforms	Metal Point	Biface	Wedge	Uniface	Retouched Flake	Chithos	Celt	Grooved Maul	Pecking Stone	Tube Pipe	Whetstone	Musketball	Bifacial Core	Total
SPQ	34		9		14	1									**58**
SiSd	7		3		5	2								1	**18**
SdSt							18		1	3	1				**23**
Chert	4		3	1	7										**15**
MVSL	4		4		2	1									**11**
Qtz	3		3	1	1	1	2								**11**
Qtze	1		2		5	2				1					**11**
SiSt	2		1		2	2									**7**
SRC	3		1		2	1									**7**
SiStPbl	1				5	1									**7**
Shale			1									1			**2**
Granite							2								**2**
Lst								1			1				**2**
Gronlid SiSt					1										**1**
SiPeat	1														**1**
Chal					1										**1**
Steatite											1				**1**
Lead													1		**1**
Ferrous Metal		1													**1**
Total	**60**	**1**	**27**	**2**	**45**	**11**	**22**	**1**	**1**	**4**	**3**	**1**	**1**	**1**	**180**

SPQ: Salt and Pepper Quartzite; SiSd: silicified sandstone; SdSt: sandstone; MVSL: Muskeg Valley Silicified Limestone; Qtz: quartz; Qtze: quartzite; SiSt:siltstone; SRC: Swan River Chert; SiStPbl: silicified siltstone pebble; Lst: limestone; Gronlid silt stone; SiPeat: silicified peat;Chal:chalcedony