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A PARALLEL-GROOVED AVONLEA VESSEL FROM THE FORKS, WINNIPEG (DILg-33)

Paul Speidel
Winnipeg, Manitoba

Background

In 1993, the construction of the Manitoba Travel Idea Centre building was scheduled to begin at The Forks, Winnipeg. Due to the archaeological importance of The Forks site in both postcontact and precontact materials (Kroker and Goundry 1994), all sub-surface construction was monitored by a trained archaeologist provided through Quaternary Consultants Ltd. (Q.C.L.). The sub-surface impact of the construction was limited to the driving of pilings and the excavation of soils in the elevator location in the southwest corner of the building, and to the upper portions of pilings for foundation pouring (Q.C.L. 1994).

Excavation

During construction, an archaeological horizon was encountered adjacent to the north wall of the Johnston Terminal Building (Fig. 1). The horizon primarily contained precontact ceramics, with a small number of associated lithic flakes and bones. All existing materials were excavated from the strata, which "appears to have been largely eradicated by the construction of the terminal in 1928" (Q.C.L. 1994:1). The mitigative excavation of the horizon covered approximately 2 square

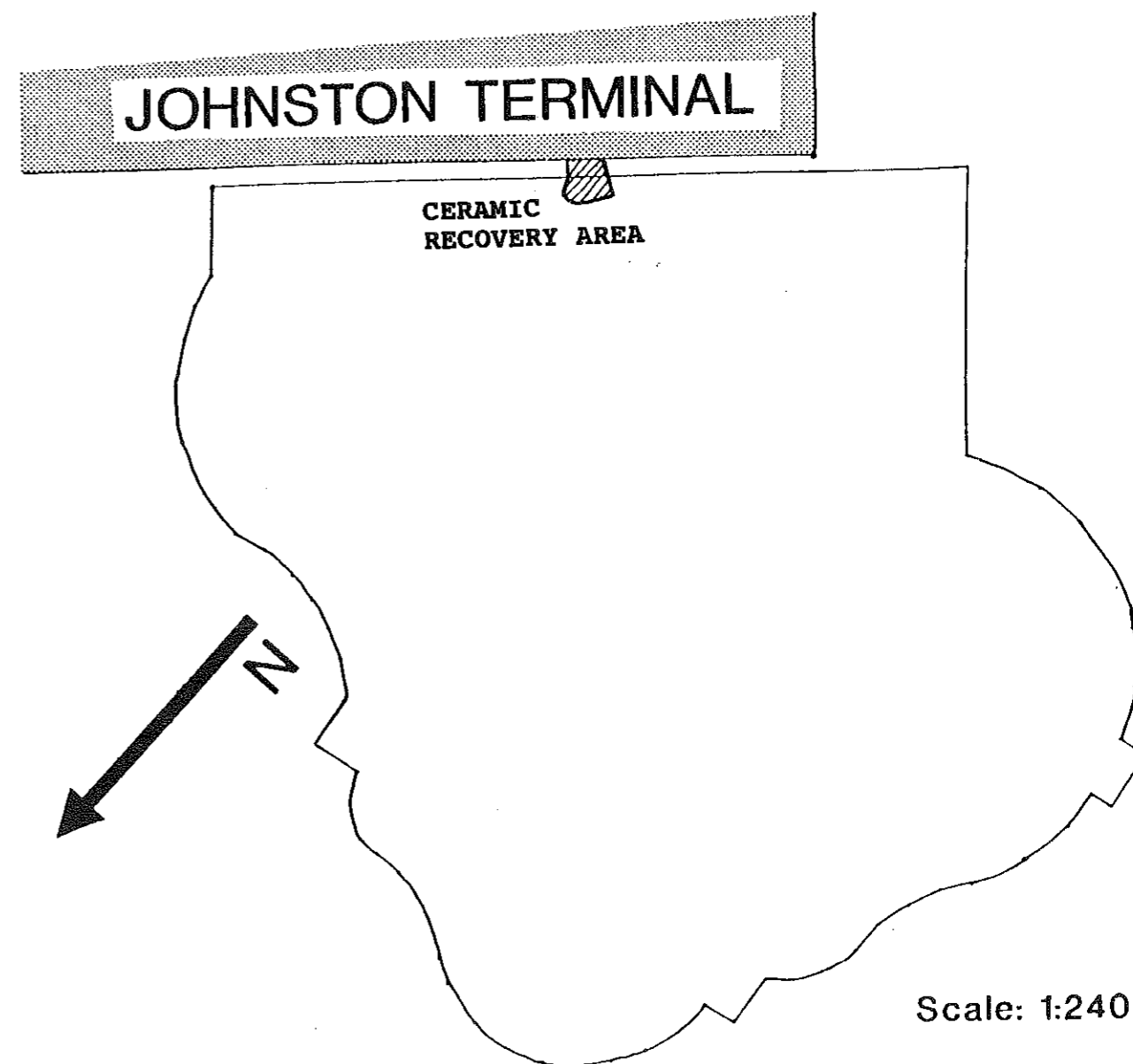


Figure 1. Location of the Travel Manitoba Idea Centre construction and ceramic recovery areas. From Q.C.L. 1994:4.

metres.

Stratigraphy

Excavation at The Forks invariably encounters an overburden of ash, cinders and refuse, primarily caused by the dumping of railway by-products at the site over the period between 1888-1988. This has resulted in a layer of fill up to 2 metres thick in some locations (Kroker and Goundry 1994:12). The construction of the Travel Idea Centre necessitated the removal of the

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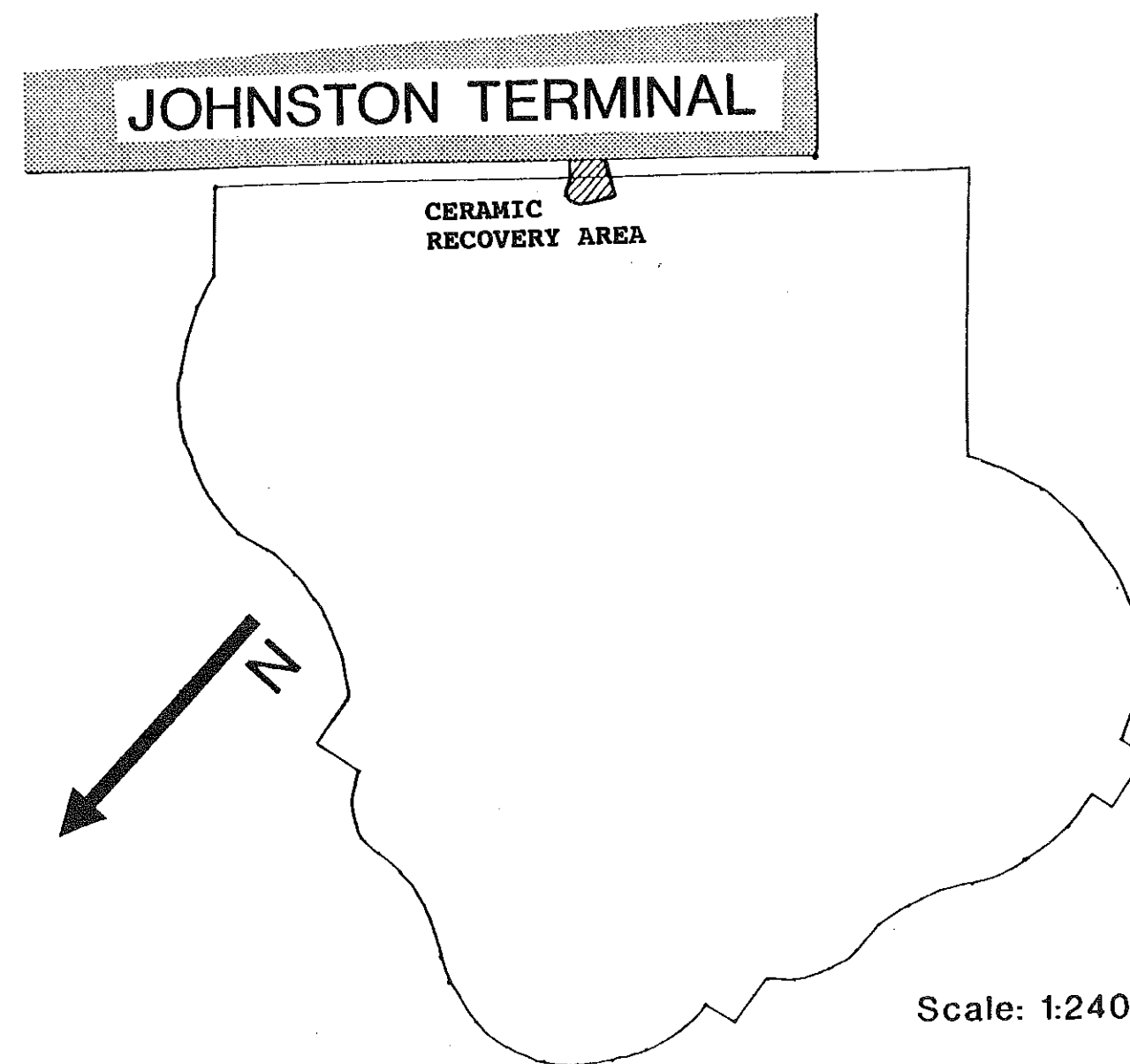


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cinder fill to the level of the natural deposition. "The ceramic bearing cultural horizon occurred within a black, charcoal-rich, buried soil layer at a depth of 45cm below the levelled working surface. A second black soil layer was present immediately below the cultural horizon" (Q.C.L. 1994:4). The second black layer contained no cultural material.

Ceramic Recoveries

The ceramic recoveries from the cultural horizon consisted of 912 sherds, 48 being identified as rimsherds, with a total weight of 3030 grams. During the initial cataloguing, it was observed that there were wide variations in thickness, colour, paste composition and surface treatment between groups of sherds. There were also wide variations in lip shape on the rimsherds, and lip thicknesses ranged from between 5.5 and 9.1mm. Based on the observable variations in the shape and curvature of the lip, the surface finish of the sherds and the texture of the paste, the initial conclusion was that "at least two and possibly three vessels are represented" (Q.C.L. 1994:5). However, some early attempts at reconstruction did reveal that variations in lip thickness were found on several sherds that fit together. It was also observed that "the variations of the flat lips [may] all occur on a single vessel and are the result of smoothing or flattening the lip" (Q.C.L. 1994:5-6). It was this ambiguity in the ceramic results that initiated the following analysis.

Reconstruction

The attempted reconstruction of the sherds was undertaken with the goal of discovering the number of vessels and nature of the ceramics recovered from the Travel Idea Centre mitigation project. The initial identification of the ceramics was tentative due to time and budgetary constraints involved with the initial mitigation contract. "The ceramic remains were identified as a Plains Woodland type of ceramic--mainly by a process of elimination rather than positive identification" (Q.C.L. 1994:11). Upon completion of the initial report, Quaternary Consultants Ltd and the Manitoba Museum of Man and Nature (the repository for artifacts recovered from The Forks) allowed the opportunity to attempt reconstruction of as many of the sherds as was possible in order to positively identify the ceramics recovered from this project. Reconstruction was undertaken during the author's personal time over the course of one year.

The Vessel

The analysis of the ceramic recoveries from this project resulted in the partial reconstruction of a single vessel. This included nearly the entire circumference of the shoulder, a large segment of the upper portion of the vessel from the shoulder to the lip (Fig. 2), and a 20.5cm segment of the lower body below the shoulder. Also, several sherds were identified as belonging to the base of the vessel, although few of these could be joined to the existing reconstructed sections.

The reconstruction was complete enough to estimate the overall size and diameter of the vessel. Estimates were obtained using the formula supplied by Olinyk (1978) for calculating the diameter of a vessel orifice. This was a large vessel, with a rim diameter of 33.53cm, and a shoulder diameter of 35.81cm. The height of the vessel from shoulder to lip measured 15.03cm.

The portion of the vessel from shoulder to base was incomplete, but estimates derived from the existing reconstruction provide an approximation of that measurement. The largest portion of reconstructed lower body wall measured 20.5cm. At this point, the vessel diameter near the base

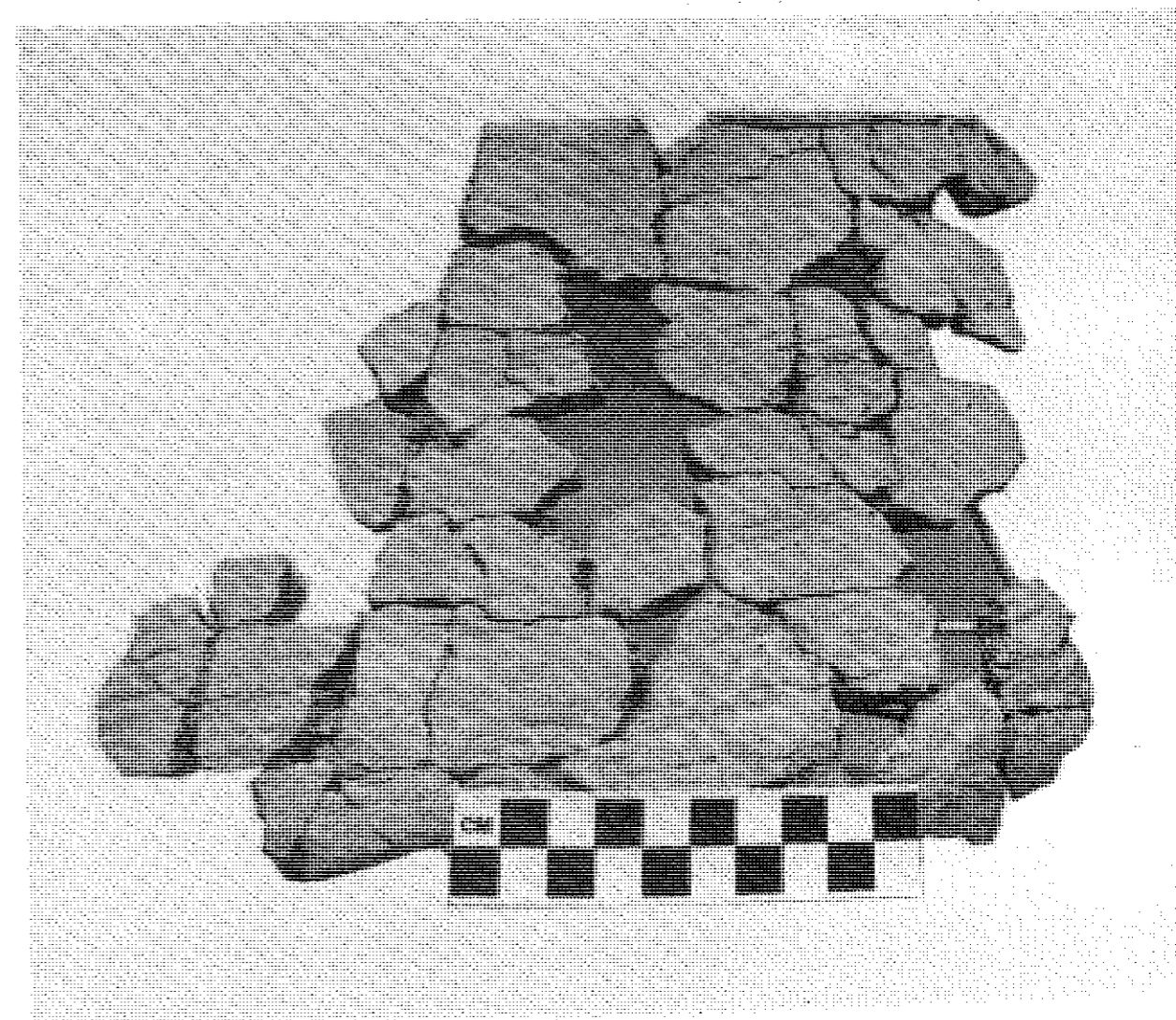


Figure 2. Upper body of vessel.

was 17.85cm. This indicates a lower body angle of approximately 25 degrees. Assuming that the base was originally rounded, as pictured in Figure 3 (Dyck 1983:124), I estimate the distance from shoulder to base on this vessel to be approximately 25-30cm, or nearly double that of the distance from shoulder to rim. This would make the overall height of the vessel approximately 55-60cm, with a maximum diameter at the shoulder of nearly 36cm (Fig. 4).

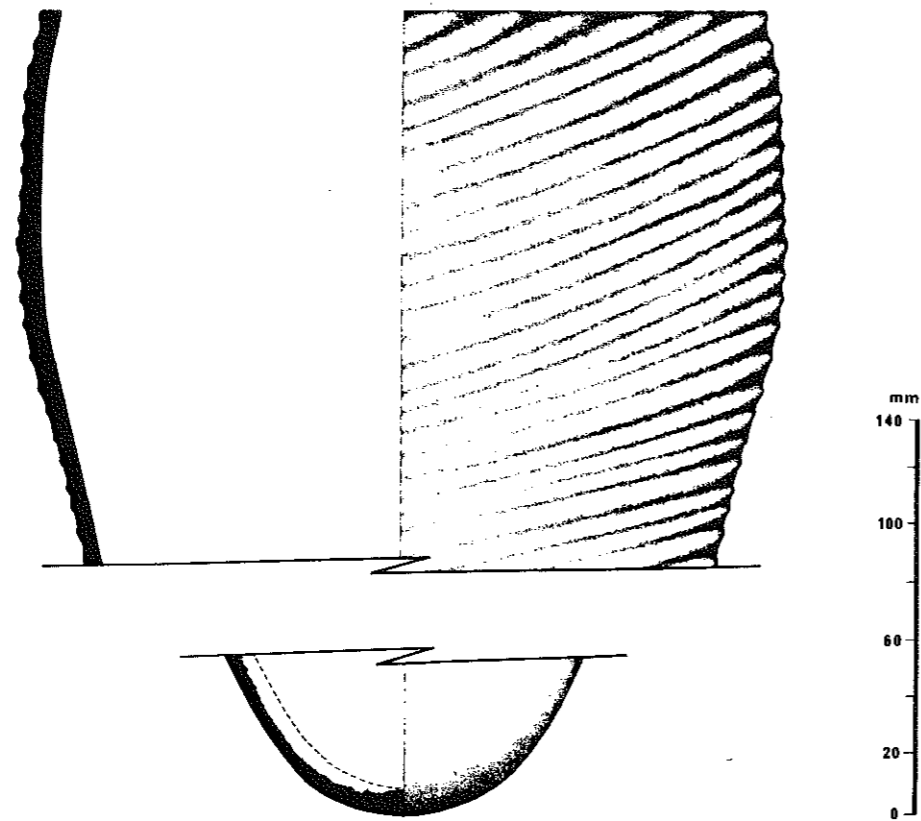


Figure 3. Avonlea Complex pottery. From Dyck 1983:124.

Vessel Description

During reconstruction, numerous coil breaks were observed in the sherds, and these were often used to direct the reassembly of several of the body and rim segments. The overall shape of the vessel is generally conoidal, with a nearly straight or somewhat incurving body above the shoulder and a sloping, cone-shaped body below the shoulder (Fig. 5, 6). Generally, the upper body sherds were thicker than the lower body sherds, with an average thickness of 9mm and 6mm, respectively. The exceptions were the basal sherds, which measured up to 10mm thick.

The temper was coarse-grained, 1mm or greater in size, and consisted of quartz, limestone pebbles and mica. The temper appeared to be poorly mixed with the paste, often clustering within the sherds or protruding from the surface.

The shoulder join between the upper and lower body sections was reinforced on the interior of the vessel with extra applications of clay. In some sections, this reinforcing was only crudely smoothed over, appearing lumpy and coarse.

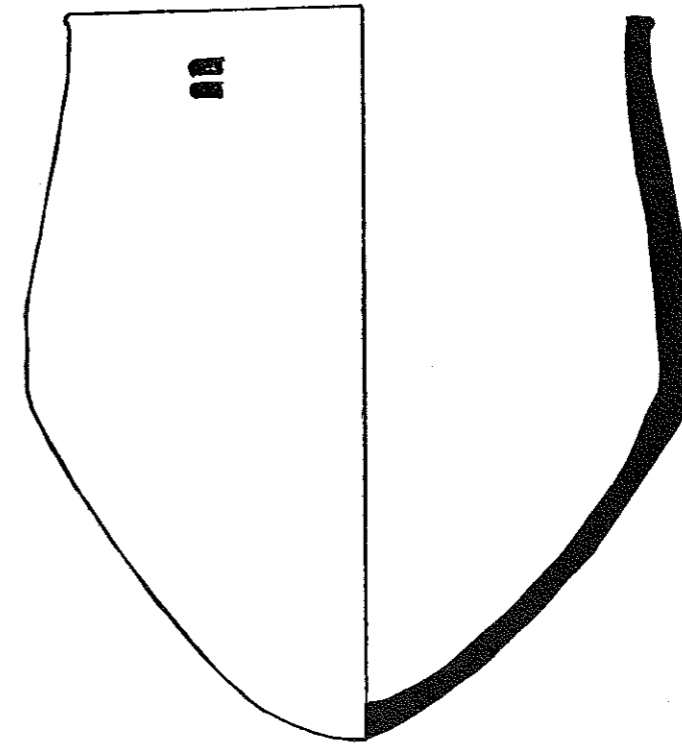


Figure 4. Estimated vessel profile.



Figure 5. Vessel upper body profile.

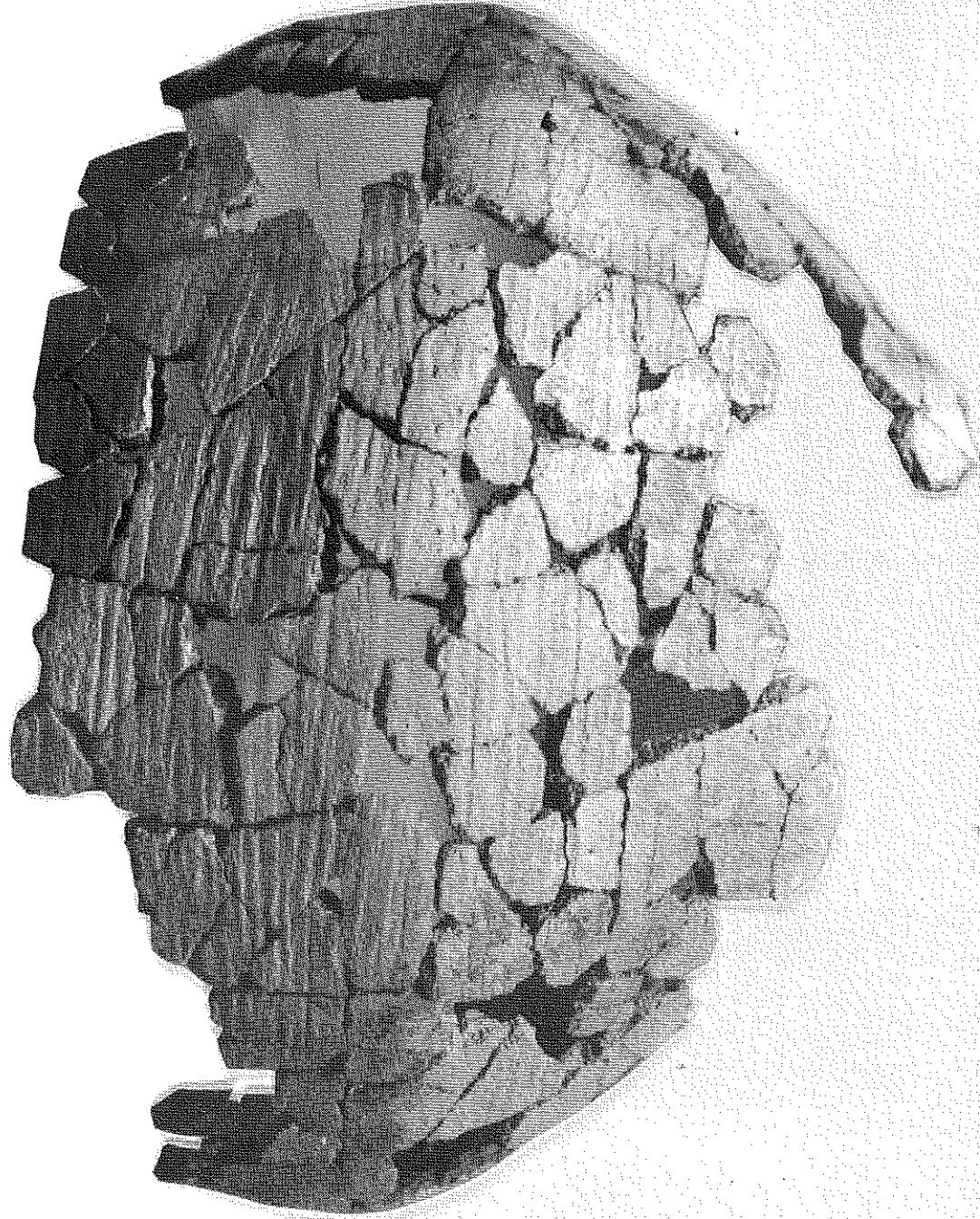


Figure 6. Vessel shape.

Decorative Elements

Decorative elements on this vessel were minimal. There were four complete or partial pairs of parallel, horizontal punctates, two of which were reconstructed in association with rim or body and shoulder sherds. The paired, rectangular punctates are approximately 1cm in height, and located approximately between 3-4cm below the lip (Fig. 7). The lack of other punctated sherds suggests that there were possibly only four of these elements on the vessel originally. They were most likely made by "obliquely impressing the moist clay with a squarish instrument" (Q.C.L. 1994:6). There is either no, or only minimal, bossing associated with the punctates.

Nearly the entire surface was marked by parallel or slightly angled and flattened grooves. These grooves may have been produced by some type of dragged cord-wrapped paddle or other tool that simultaneously channelled and flattened the surface of the vessel.

Many sherds show evidence of containing or having contained a surface slip. "The specimens with evidence of a clay slip have a red-orange tinge, indicating that either the clay was iron-rich, resulting in the formation of ferrous oxide during firing, or that pulverised hematite (red ochre) was added to the slurry" (Q.C.L. 1994:8). There is some hematite embedded in the surface of some sherds, with one sherd containing a grain 2.66mm in diameter. This may indicate that a poorly-mixed slurry of clay and crushed hematite was applied to this vessel.



Figure 7. Vessel decorative elements.

Discussion

This vessel closely resembles ceramics attributed to Avonlea assemblages found in Saskatchewan, Manitoba and other parts of the northern plains. Avonlea pottery has been described as generally conoidal in shape, large in size (some vessels are up to 34cm in diameter at the shoulder), possibly constructed using the coiling technique, with large particles of temper and a paste described as "blocky, unconsolidated and friable" (Klimko and Hanna 1988:28). Three types of surface treatment have been described: net-impressed, spiral-channelled, or flattened versions of both (Dyck 1983). The vessel from The Forks most closely resembles the channelled variety, or as described by Johnson (1988) as parallel-grooved. "Parallel grooved pottery is characterized by equidistant linear lines and intervening troughs which encircle the vessel and cover the entire exterior" (Johnson 1988:137). Decorative elements are rare on Avonlea vessels, their having either

no decoration, or only one or more rows of punctates or parallel incisions near the rim (Dyck 1983).

There are some slight variations in this vessel from other Avonlea vessels described in the literature. Dyck notes that "Decoration near the rim seems to be absent on spiral channelled varieties" (Dyck 1983:123). Johnson has stated that "The shoulder is very poorly defined and never has a sharp angle", and that vessel walls tend to be fairly thin (Johnson 1988:137, 140). Despite these minor discrepancies, this vessel fits well within the parameters applied to Avonlea ceramics.

Dating

Based upon the depth of the ceramic-bearing stratum and the estimated soil accretion rate at The Forks, the vessel was initially dated at circa AD 1550 (Q.C.L.1994:11). This date, however, was assigned prior to reconstruction and examination of the ceramic recoveries. Taking into account the cultural affiliation of the vessel, an earlier date would seem to be appropriate.

Johnson has stated that "Radiocarbon dates from six sites suggest that parallel grooved pottery has a time span from A.D. 380 to A.D. 1140" (Johnson 1988:139). Avonlea pottery in Manitoba has usually been associated with the later part of the Avonlea time period. At the Stott Site (near Brandon), Avonlea ceramics are associated with strata dated at AD 840 +/- 60 and AD 975 +/- 150; and at the Avery Site (in the Pembina Valley), parallel-grooved pottery is associated with dates between AD 500-870 (Joyes 1988).

Joyes (1988) suggests that Avonlea was not established in Manitoba until relatively late in the Avonlea time scale. This, he claims, would account for the "ephemeral nature of Avonlea in Manitoba" (Joyes 1988:232). This would seem to indicate that the Avonlea vessel from The Forks dates to an earlier time than AD 1550, but from a time near the end of the Avonlea time scale, which has been estimated at around 1800-800 BP (Linnamae *et al.* 1988:166). This would suggest an approximate date of between AD 800-1100 for the Avonlea vessel from The Forks.

Observations

During the reconstruction of this vessel, some observations were made regarding its original construction. As mentioned above under "Vessel Description", it appeared that the shoulder of the vessel was reinforced with extra clay. This may indicate that its the upper and lower portions were constructed separately, using the coiling technique, and then joined prior to firing. This may also explain the 3mm average difference in sherd thickness between the upper and lower halves of the vessel. This disparity in vessel wall thickness may also indicate the work of more than one potter. Perhaps vessels of this size, using the coiling technique, involved two potters working simultaneously to create their respective halves of the vessel, in order to join the two halves prior to firing before the clay became too dry and unworkable.

It has been assumed that the parallel grooving on the surface of these vessels was the decorative technique of choice for the potter. The presence of a clay/ochre slip on the surface, however, would tend to obliterate the groove markings, and on some sherds it has done exactly that. Perhaps the parallel grooves were not intended to be primarily a decorative technique, but an attempt to prepare the surface of the vessel to accept and hold the slip that was to be applied later. This would be for much the same reason a wall or ceiling plasterer will groove one layer of plaster before applying a second layer -- to provide a better surface for the adhesion of the second layer.

Conclusion

Based on measurements and observations made on the partial reconstruction of the ceramics from The Forks, it seems apparent that the vessel is a parallel grooved-type Avonlea vessel. Further, the assigned date of AD 1550 is much too late for a vessel of this type, and an adjusted date of approximately AD 800-1100 is suggested. This vessel is the first occurrence of Avonlea ceramics at The Forks, and is the most easterly example of Avonlea ceramics ever recovered in Manitoba. As such, it is an important addition to the archaeological record of the province.

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