ARCHAEOLOGY OF MAIN STREET ROADWORKS: YORK AVENUE TO TACHE AVENUE 1996 - 1998

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EXECUTIVE SUMMARY

The construction of road linkages between the new Norwood and Main Street bridges, as well as the rebuilding of the existing roadways, required considerable excavation. Due to the potential for impact upon heritage resources, all mechanized excavation was archaeologically monitored. Stratigraphic profiles were recorded and diagnostic artifacts were curated. In most cases, the depth of excavation was approximately 1.5 metres. This was sufficient to result in impact upon sub-surface archaeological resources, especially along the south portion of Main Street north of the Assiniboine River.

In 1885, the eastern wall of Upper Fort Garry was demolished in order to straighten the road. Early road building, and later reconstruction, did not reach the depth required for this project and *in situ* archaeological resources relating to the structures within the fort are present. The structural remnants of the walls, the northeast bastion, and several internal buildings were recorded and accurately surveyed. Artifacts relating to the fur trade activities within Upper Fort Garry (1836-1883) were recovered and analyzed. Both the structural data and the artifactual information will provide considerable impetus to future academic research on the Fur Trade period in Manitoba.

The excavations on South Point consisted of the removal of soil alongside the Canadian National Railway Main Line embankment. The upper portion of the excavations encountered historic deposits, similar to those encountered during the excavations for the C.N. Rail Overpass Reconstruction Project. Original soil was present below the historic layers and showed evidence of sequential riverine deposition. The artifacts recovered from the historic layers add to the assemblage recovered from adjacent projects and will help future researchers interpret the commercial and cultural activities of early 20th century Winnipeg.

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1.0 INTRODUCTION

The construction of the new Main and Norwood Bridges required the construction of a new roadway system to link the new structures with the existing streets (Figure 1). This new route, built during 1996/1997, required the reconfiguration of the north end of St. Mary's Road and the Goulet/Marion intersection, with widening of Goulet Avenue into the parking lot area of the Dominion Shopping Mall. To link the new Norwood Bridge and the new Main Street Bridge, a new roadbed across South Point, parallel to the existing Main Street, was constructed. The new Main Street Bridge was tied into the current street system through a combination of widening and reconfiguring the current roadway. During the reconfiguration, the roadbed, as far north as York Avenue, was reconstructed.

The original Main and Norwood Bridges were replaced with new structures during 1997/1998 and the original road linkages were reconstructed in 1998. The scope of the reconstruction was considerably less than the 1996 program. Main Street was rebuilt from Assiniboine Avenue to the Bridge of the Old Forts and then across South Point to the Norwood Bridge. A short section of road was rebuilt between the Norwood Bridge and St. Mary's Road.

In the years leading up to this phase of construction, several archaeological investigations in or near the projected impact areas have occurred:

- In June 1989, surface inspection of the northwest and southeast banks of the Red River was undertaken (Quaternary 1989:8). Recent strata and artifacts post-dating the construction of the Low Line rail embankment were observed.
- A subsequent heritage resource impact assessment program on South Point, consisting of four trenches east of Main Street, was conducted in October 1990 (Quaternary 1990). These trenches were located within the impact zone for the new roadbed across South Point (Quaternary 1990: Figure 2).
- A series of geo-technical test holes, drilled during December 1993 on South Point, were monitored (Quaternary 1994a). Stratigraphic data was recorded.
- The excavation components of the C.N. Rail Overpass Reconstruction Project on the north bank of the Red River were monitored (Quaternary 1995). Large quantities of secondary deposits of recent artifacts were recovered.
- The excavations for the north and south abutments of the new northbound Main Street Bridge were monitored (Quaternary 1996a). Recent historical strata overlay sterile sand and silt layers at the south abutment, while historic, artifact-laden fill extended to Lake Agassiz clay at the north abutment.
- Excavations for the north and south abutments of the new northbound Norwood Bridge were monitored (Quaternary 1996b). Debris deriving from demolition of the Arctic Ice Company and Rat Portage Lumber Company structures occurred at the south abutment. Secondary deposits of recent artifacts, similar to those recovered during the C.N. Rail Overpass Reconstruction Project, were present in the upper portion of the north abutment area. A Precontact occupation horizon and a Precontact burial site, in the lower strata at the north abutment, were mitigated.

- Excavations for a retaining wall alongside the new C.N. Rail Overpass, adjacent to the new Main Street right-of-way, were monitored (Quaternary 1996c).
- Installation of primary sub-surface services (sewer, land-drainage, hydro, telephone) within the impact zone were monitored (Quaternary 1996d). Recent strata were observed on South Point and two Precontact horizons were recorded at a sewer control unit in Bonnycastle Park.

The construction excavation for the road project was monitored by Quaternary Consultants Ltd. under the terms of Heritage Permits A8-96 and A24-98 (Appendix A). The construction involved different companies for the different components and occurred throughout the summers of 1996 and 1998.

1.1 Location and Scope of the Project

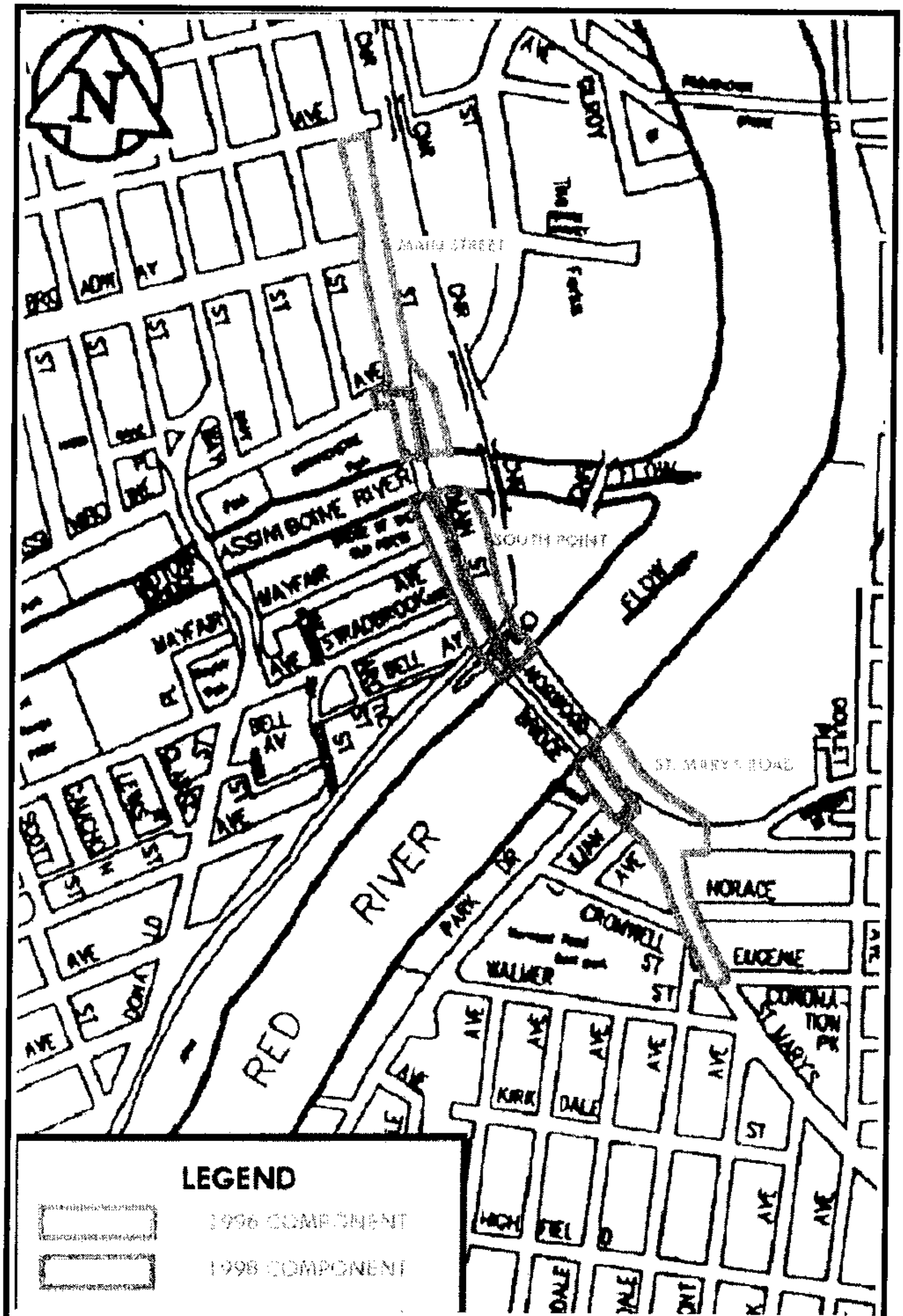
As depicted in Figure 1, the 1996 project was located to the east of Main Street, linking the existing roadways to the new northbound bridges across the Red and Assiniboine Rivers. There were three distinct components: the St. Mary's Road section; the South Point section; and the Main Street section. In the St. Mary's Road section, the existing roads (St. Mary's Road, Goulet Avenue, and the Goulet/Marion intersection) were rebuilt and reconfigured to link with the south abutment of the new Norwood Bridge. Further details will be provided in Chapter 2.

On South Point, an entirely new road was constructed, parallel to, and east of, the current placement of Main Street. This new road, linking the two new bridges, was built by excavating the matrix to an adequate depth and building the roadbed. Stratigraphic observations and analyses of the recovered artifacts will occur in Chapter 3.

The Main Street component was the most extensive, with the existing road being rebuilt from York Avenue to Assiniboine Avenue and a new configuration of the road to connect the existing street with the new Main Street Bridge. This portion of construction excavation consisted of removing the road surface and lowering the elevation of the roadbed. The stratigraphy will be described in Chapter 4, as well as details concerning recent features and artifacts from this component of the project.

The 1998 operations occurred along the original roads (Figure 1) with reconstruction within the existing rights-of-way. Inasmuch as the Main Street and St. Mary's Road rights-of-way have been in existence for more than a century, successive road reconstructions had deepened the existing roadbed to approximately 75 cm in many locations. All known historic structures, post-1885, were set back from the original right-of-way. Details of observations and recoveries for each section of the project will occur within the relative chapter, as denoted above.

The new depth of excavation for both the 1996 and 1998 phases of the Main Street component resulted in the uncovering of sub-surface features relating to the existence of Upper Fort Garry (1836 to 1883). Prior to rebuilding the road, the features were surveyed, mapped, and photographed. These features, consisting of remnants of the walls, cellars, and building footings, are described in Chapter



N
MAIN STREET
ASSIM BOINE RIVER
SOUTH POINT
MAYFAIR
STRADBROOK
BELL
NORWOOD
BRIDGE
FLOW
ST. MARYS ROAD
RED
RIVER
PARK
HORACE
CROMWELL
EUGENE
WALMER
CORONA TION PK
ST. MARYS
KIRK
DALE
HIGH
FIEL
D
LEGEND
1996 COMPONENT
1998 COMPONENT

Figure 1: Location of Project Impacts

5. Analysis of the artifacts, recovered through mitigative actions at the various loci within the impact zone is presented in Chapter 6, with a detailed examination of the imported European dinnerware in Chapter 7.

1.2 Study Team

The entire archaeological resources management program was directed by Sid Kroker (Senior Archaeologist). The monitoring of construction excavations was conducted by Sid Kroker.

The recovered artifacts from the Upper Fort Garry component under Main Street required specialized analyses. Faunal analysis of recoveries from Upper Fort Garry has been undertaken by Kate Peach. Seed identification and analysis of recoveries from Upper Fort Garry was conducted by Margaret Kapinga. Ceramic dinnerware of the Fur Trade period was analyzed by Pam Goundry.

Computer cataloguing of the recovered artifacts was completed by Pam Goundry. Analysis of all recovered specimens were completed by Pam Goundry and Sid Kroker. Documentation and interpretation has been undertaken by Sid Kroker and Pam Goundry.

1.3 Excavation Monitoring Methodology

The excavation for the project was implemented with large backhoes and the soil was hauled away from the site. Archaeological monitoring consisted of continual visual observation of the face of the excavation with hand-retrieval of artifacts from the historic fill layers. Arrangements had been made with the backhoe operators whereby the monitoring archaeologist could, if necessary, ask the operator for brief (two to five minutes) cessations of excavation for additional examination of the excavation face.

The primary focus for recoveries from the historic fill horizons was diagnostic artifacts, i.e., those specimens which could provide evidence of time period, company of manufacture, and/or function. Accordingly, glass and ceramic containers which often have diagnostic markings were curated. Also, metallic objects which could be identified to function were recovered. However, recovery was selective in that non-diagnostic structural items, such as generic bricks, eavestrough, iron pipes, wire-cut nails, etc. were not generally curated. Collection of quantities of these types of artifacts would not add to the existing knowledge base. It is already known what types of materials were used to construct buildings in the early years of Winnipeg. The collection and curation of fragmented components deriving from the demolition of different buildings from unknown locations would not provide new information, while adding considerably to the laboratory processing time and ultimate museum storage space requirements.

When the excavations extended into undisturbed original sediments below the 1885 soil horizon, the monitoring archaeologist watched for buried soil horizons and changes in soil texture which could indicate possible former ground surfaces. The soil profiles were mapped and all instances which

suggested potential archaeological horizons were carefully examined. Indicators of archaeological horizons are charcoal layers, ash lenses, and/or reddish stained soil. The colour change is usually indicative of oxidation of the iron particles in Red River silt by heat—the more intense the heat, the redder the soil. These features can denote either a natural event such as a brush fire in the gallery forest lining the banks of the rivers or a cultural event such as a campfire. When evidence of fire was observed, the layer was investigated to ascertain if the cause was natural or cultural. The presence of food remains, particularly mammal or fish bones, resting upon a buried soil is a positive indicator of an archaeological occupation horizon. Other positive indicators would be the presence of lithic tools, flakes resulting from tool manufacture, and/or fragments of earthenware containers.

A special case occurred on the north side of the Assiniboine River, where the deepening of the existing roadbed encountered sub-surface components of the walls and internal structures of Upper Fort Garry. The base of current excavations averaged 60 cm below the depth of previous impact. The backhoe operator cleared the undisturbed matrix from around the footings, enabling photography, mapping, and artifact retrieval. When all data had been recorded, the protruding component of the footings were removed. The limestone blocks which had been used to construct the footings for the fort wall and the northeast bastion were salvaged and stored with the ultimate intention of re-use in an interpretive reconstruction.

1.4 Archaeological Site Designation

Each artifact is assigned a Borden designation as part of its catalogue number. The Borden designation, consisting of a four-letter prefix and a numerical suffix, is a Canada-wide system of identifying archaeological sites based upon latitude and longitude (Borden 1954). The four letter identifier, DlLg, designates a geographical block between 49° 50' and 50° 00' North latitude and 97° 00' and 97° 10' West longitude. Within each block, archaeological sites are assigned sequential numbers upon discovery.

South Point, the section of land bounded by the Red and Assiniboine Rivers and Main Street, had been given the Borden designation of DlLg-32 as a result of archaeological discoveries in the 1960s. It was the location of the thirty-second archaeological site recorded within the geographical block. Because this area has, in the past, been the site of more than one archaeological project in a year, a suffix consisting of a year and a sequential project designator has been assigned. For the material recovered in 1996 from the South Point location, the designator is 96A, resulting in a complete site designation of DlLg-32:96A. Similarly, the 1998 recoveries received the designation DlLg-32:98A.

The site of Upper Fort Garry had been previously designated as DlLg-21. As this was a new project, the sequential project designator, 96A, was appended, resulting in a site designation of DlLg-21:96A for recoveries made during the 1996 reconstruction of Main Street north of the Assiniboine River. The 1998 phase was given the designator 98A, resulting in a site designation of DlLg-21:98A.

A similar situation occurs with the southern end of the Main Street reconfiguration where the roadway ties into the new northbound Main Street Bridge. This location falls within the site boundaries of DlLg-33, again requiring the project suffix, resulting in a complete site designation of DlLg-33:96A.

1.5 Laboratory Procedures

All recovered artifacts were brought to Quaternary Consultants laboratory facilities. While most artifacts had been individually retrieved, the matrix from an uncribbed refuse pit (Locus 4) at DlLg-21:96A was removed *en bloc*. The matrix was screened through sequentially finer meshes—½ inch, ¼ inch, 2 mm, and 1 mm. The recovered specimens from this locus as well as those from all other components of this project were washed and/or brushed clean, depending upon the material. All artifacts were sorted by material class and identified by the lab personnel. Material of the same type (e.g., white porcelain sherds, clear windowpane) within the location were combined under a single catalogue number. Identification was carried to the limit obtainable by available reference works and staff expertise. Faunal and floral remains were, where possible, identified to element and species.

Pam Goundry of Quaternary Consultants Ltd. wishes to acknowledge the assistance of Jennifer Hamilton and David Arthurs of Canadian Heritage (Parks Canada) in the identification of the historic ceramic material. They provided their knowledge and access to archaeological collections from York Factory for comparative purposes. Quaternary Consultants Ltd. and Kate Peach wish to acknowledge the assistance of the Manitoba Museum of Man and Nature, the University of Manitoba, and the University of Winnipeg who provided access to comparative faunal collections. In addition, Quaternary Consultants Ltd. and Margaret Kapinga wish to acknowledge the Department of Botany at the University of Manitoba for allowing access to their seed collections. Selected timber from structural components was provided to Erik Nielsen for dendrochronological dating. The data obtained by Mr. Nielsen (Appendix B) provided temporal ranges and/or beginning dates for several of the structures thereby enhancing the interpretation of the recovered information.

Each artifact received a catalogue number consisting of the Borden designation for the site—DlLg-32:96A and DlLg-32:98A (South Point), DlLg-33:96A (extreme south Main Street), or DlLg-21:96A and DlLg-21:98A (Main Street north of the Assiniboine River) plus a sequential number for permanent identification. All pertinent data associated with the artifact was entered into the computer cataloguing system. The cataloguing system is based upon the Canadian Heritage Inventory Network (CHIN) system (Manitoba Museum of Man and Nature 1986; Kroker and Goundry 1993:Appendix B). The computer cataloguing program is derived from **DBASE3®** and generates individual artifact catalogue cards.

Processed artifacts were prepared for storage by inserting the specimens and the catalogue card into standard plastic storage bags, then stapling the bags closed. At the end of the project, all recovered artifacts will be delivered to the Manitoba Museum of Man and Nature. This institution is the

repository designated by the City of Winnipeg for archaeological artifacts recovered during construction projects undertaken on behalf of the City of Winnipeg.

After cataloguing, analysis of the individual artifacts and their contexts was undertaken. The results are detailed in the following sections of this report:

- Chapter 2 will discuss the stratigraphy and historic data for the area south of the new Norwood Bridge (St. Mary's Road);
- Chapter 3 will be devoted to the stratigraphy and artifact recoveries from DlLg-32:96A (South Point);
- Chapter 4 will concentrate upon the upper, recent strata from the Main Street (DlLg-21:96A and DlLg-33:96A) component;
- Chapter 5 will detail the stratigraphy and features dating to the occupancy of Upper Fort Garry (DlLg-21:96A) between 1836 and 1883;
- Chapter 6 will be the analysis of the artifacts recovered from the various loci within Upper Fort Garry (DlLg-21:96A);
- Chapter 7 will be a detailed examination of the ceramic recoveries deposited during the occupancy of the fort; and
- Chapter 8 will present a summary of the project and provide recommendations for future heritage resource management.

2.0 ST. MARY'S ROAD RECONSTRUCTION

While the reconstruction and reconfiguration of the street system on the south side of the Red River was extensive (Figure 1), most of it occurred within the existing rights-of-way. The existing roadbed on St. Mary's Road was removed, the base was lowered through mechanized excavation, and a new road was built between the Marion/Goulet intersection and the intersection with Eugenie Avenue. Within the roadway excavations, prior construction had removed the loam horizon which had been recorded during monitoring of the primary pipes installation (Quaternary 1996d:5-6). This recent soil horizon, dating to the late 1800s, only occurred at the edges of the excavation where the sidewalks were located. The stratigraphic profile of the excavation area along St. Mary's Road is characterized by undisturbed riverine deposits of medium reddish brown silty clay. No relict soil horizons were observed within the excavations which extended to a depth of 1.4 metres below existing surface.

In order to link Goulet Avenue with the approach to the new northbound Norwood Bridge, the curvature of the street was altered. The southern edge of the Dominion Centre parking lot was moved to the north and a new roadbed constructed. The strata, under the asphalt surface, consisted of gravel overlying undisturbed riverine silty clay.

Large (45 cm diameter) wooden piles, representing the foundation of a former structure, were encountered immediately east of the intersection with St. Mary's Road. Archival research indicates that there were several structures on the north side of Marion Avenue as of 1919, but only two were immediately adjacent to the road. The Arctic Ice Company had two ice houses north of Marion approximately 300′ from the bank of the Red River, the southernmost abutting Marion Avenue. The 1919 St. Boniface Fire Insurance Atlas (Provincial Archives of Manitoba) shows a large (200′ x 120′) building on the north side of Marion Avenue at the east edge of the St. Mary's intersection. This structure is identified as the Sash and Door Factory of the Rat Portage Lumber Company. It was approximately 200′ east of the ice houses. By 1949 (Provincial Archives of Manitoba), this structure was used for auto storage by Dominion Motors. It was demolished in 1964, probably due to the reconfiguration of Goulet Avenue.

3.0 SOUTH POINT ROAD CONSTRUCTION

One of the major components of the construction of the roadway system, linking the new northbound Norwood Bridge and the new northbound Main Street Bridge, was a new road crossing South Point (Figure 2). This new road is four lanes wide and is parallel to the existing Main Street. Considerable previous excavation has occurred at both the north and south termini, during the construction of the two bridges, as well as the construction of the C.N. Rail Overpass. The sector south of the Overpass had been excavated to the required depth during these previous projects (Quaternary 1995, 1996b). The western periphery had been excavated for the construction of the retaining wall adjacent to the railroad embankment. This particular component extended from the north end of excavations for the overpass to the south end of the excavations for the northbound Main Street Bridge.

In 1998, the original section of Main Street was reconstructed from the new Donald Street connection (Quaternary 1998) to Mayfair Avenue. Linkages between this rebuilt road and both bridges were constructed as part of the bridge rebuilding components.

The excavations extended from the original surface, approximately 231.0 metres above sea level to a base depth of approximately 228.5 metres. The excavations were undertaken with large backhoes and the extracted soils were trucked off-site. The excavations were continuously monitored by an archaeologist.

The stratigraphy of the upper strata on South Point has been described in detail in reports from other projects in the immediate vicinity:

- the original impact assessment (Quaternary 1990);
- the C.N. Rail Overpass Reconstruction Project (Quaternary 1995:10-12);
- the northbound Main Street Bridge Project (Quaternary 1996a:42-44);
- the northbound Norwood Bridge Project (Quaternary 1996b:9-11);
- the Main Street Retaining Wall (Quaternary 1996c:3); and
- the Primary Pipes Installation Project (Quaternary 1996d:16).

Briefly, the upper two metres consisted of gravel overlying relatively recent fill. The basal strata consisted of unmodified riverine silts. No evidence of relict soil horizons were observed below the beginning of the riverine sediments.

Considerable prior impact was observed in the original Main Street right-of-way where gas, water, hydro, and telephone lines had been placed. Minimal evidence of undisturbed sediments was observed. Fill, underlying the concrete road surface, extended to 76 cm with a well-developed A horizon below it. Layers of different coloured silty clay, clayey silt, and sandy silt extended to base with faint, intermittent relict soil horizons at differing levels. None of these relict soil horizons had any evidence of Pre-Contact cultural occupations.

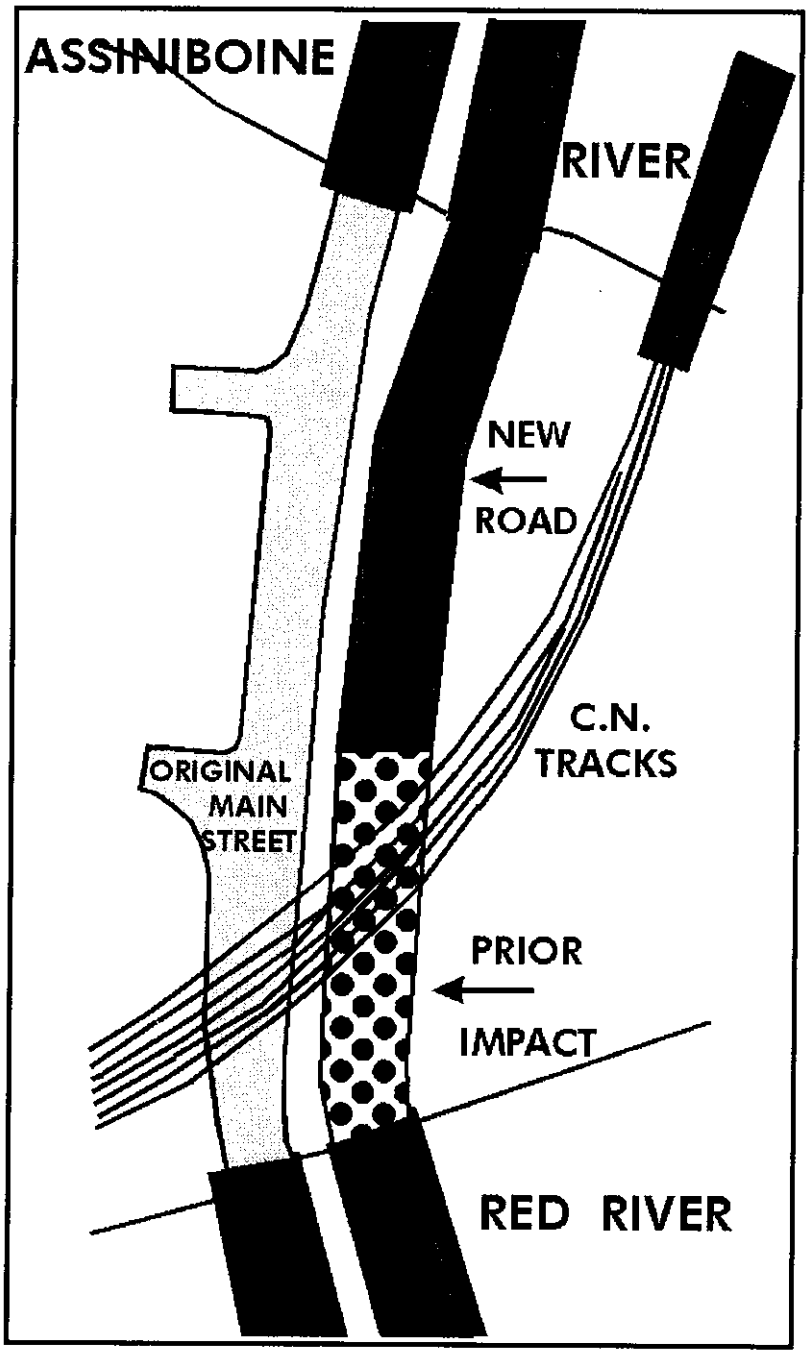


Figure 2: Construction Zone on South Point

The strata of secondary deposition, encountered during the 1996 phase, contained numerous artifacts: structural debris such as bricks, concrete, and lumber fragments; railroad cinders; and household refuse. Hand retrieval of diagnostic artifacts was conducted, focusing on those artifacts which could provide information about past activities, albeit from unknown locations.

Cluster cataloguing techniques permitted the documentation of these 342 artifacts within 282 catalogue numbers, where several identical specimens were given the same catalogue number. The historic artifacts have been analyzed within functional categories based on the CHIN cataloguing format. All manufacturing equipment or all hardware will be examined together, rather than examining all glass artifacts and then all metal artifacts, as is often the case in reports of historic archaeological recoveries.

3.1 Architectural Objects

This functional category includes all artifacts which are used for the construction, the maintenance, and the furnishing of structures. These items can be made of many different materials: metal, glass, wood, etc. Due to corrosion and fragmentation, many architectural objects are seldom identifiable to manufacturer or time period. For the purpose of this analysis, the following sub-categories will be used: Hardware, Structural Elements, Accoutrements, and Furniture.

3.1.1 Hardware

Hardware consists of items used for the construction of a structure. Recovery methodology precludes the collection of non-diagnostic artifacts often resulting in under-representation in this category.

3.1.1.1 Door Knob

DlLg-32:96A/158 is a complete, white, porcelain door knob which measures 56.3 mm in diameter. The iron spindle portion of the knob is missing. Door knobs are not unique finds in this area. Another white knob was recovered during the C.N. Rail Overpass Reconstruction Project (Quaternary 1995:17), while portions of a brown porcelain knob were recovered from the Assiniboine Riverfront Quay Project (Kroker and Goundry 1993:15).

3.1.1.2 Eavestrough

DlLg-32:96A/271 is a tube made of rolled sheet iron, possibly originally galvanized. The artifact, 107.7 mm (4¼ inches) in length, would have served as a spacer within the eavestrough to prevent compression when nailed to a roof.

3.1.1.3 Miscellaneous Electrical

A partial overlap occurs between the Lighting Equipment (Electric Lighting) category and those electrical components which can be assigned to the hardware sub-category. This is a function of the

cataloguing hierarchy and can be remedied by considering all electrical components as a sub-category under Architectural Object.

DlLg-32:96A/169 is a circular, white, porcelain electrical fixture, possibly the base of a ceiling socket or a wall switch. It measures 73.8 mm in diameter and has two short copper bands, affixed with iron screws, attached to it. The information "PRINGLE" and "147" is stamped on the underside of this artifact. Pringle could be the manufacturer while 147 may be the mold number. No information could be found in the references pertaining to the name Pringle.

3.1.2 Structural Elements

This category consists of elements of the structure. As most incomplete or broken structural artifacts are minimally diagnostic, a similar recovery restriction as that in the Hardware section applies. At the South Point site only tile and linoleum fragments were recovered.

3.1.2.1 Tile

Two fragments of a single piece of black, plaster tile were catalogued (DlLg-32:96A/174). The specimen, measuring 102.7 mm, is broken along its length with one end being the finished flattened end. The width of the artifact measures 52.2 mm and this is its complete width as the edges are rounded down on the exterior surface. The interior surface has slightly raised edges bounding a recessed portion.

3.1.2.2 Linoleum

Eleven fragments of linoleum were recovered. DlLg-32:96A/267 appears to have originally been black in colour, although the canvas backing is very rust-stained which may have altered the colour. By 1627, oilcloth was being used to cover floors (Deutsche Linoleum-Werke 1997). Later, a product was developed using a mix of cork and rubber shreds. In 1864, Frederick Walton, of England, developed an oxidized linseed-oil base to replace the rubber component. He mixed this with a cork powder and hessian (burlap) and developed linoleum (Giscard d'Estaing 1985:171).

3.1.3 Accoutrements

Artifacts ascribed to this category pertain to the finishing touches of a structure. Five catalogue numbers were designated as accoutrements, four consisting of windowpane and one consisting of a portion of a bathroom fixture.

3.1.3.1 Windowpane

Five pieces of different windowpane were catalogued. DlLg-32:96A/159 is a single piece of clear plate glass reinforced with iron. DlLg-32:96A/160 is a single piece of clear plate glass, while DlLg-32:96A/161 consists of two piece of standard-thickness, clear windowpane. The remaining single piece of windowpane is quite different. DlLg-32:96A/269 is an opaque blue sherd which measures

65.7 mm in length, 41.6 mm in width, and 4.7 mm in thickness. One edge of the specimen is smoothed and rounded where it would have fit into a flange.

3.1.3.2 Bathroom Fixtures

DlLg-32:96A/173 is an incomplete, L-shaped, white porcelain sherd, which measures 58.6 mm in total height. The thickness of either arm of the L measures 10.5 mm. There is no apparent method of attachment to another piece visible on this specimen. The shape, the thickness, and the coarseness of the paste tend to preclude assigning this artifact to either the Container or the Dinnerware categories. The material resembles that of sinks or other bathroom fixtures, thus it was assigned to this category.

3.1.4 Furniture

One brass artifact, DlLg-32:96A/273, was catalogued as a component of a piece of furniture. It is a complete, globular finial, probably from the post of a brass bed. The globular-shaped top narrows to a constricted neck which has a flaring mouth that would fit over the post. The neck has an approximately _ inch thread on the inside. In addition, there is a decorative, raised ring just above the start of the neck constriction on the body of the artifact. The specimen is completely patinated green.

3.2 Lighting Equipment

Lighting techniques evolved rapidly at the beginning of the 20th century and artifacts in this category can represent candlelight, gaslight, electric light, and battery powered light. Only artifacts which fit into the electric light and battery categories were recovered during this project.

3.2.1 Electric Lighting

Three catalogue numbers were assigned to the sub-category of electric lighting—one light bulb and two portions of lamp shades. The light bulb, DlLg-32:96A/167, is a complete specimen which includes the glass globe, the internal filaments, and the copper base. The globe is globular in shape and appears to have been frosted white in colour. No markings are present to indicate the wattage, voltage, or manufacturer.

The two portions of lamp shades are very different. DlLg-32:96A/168 is a green-on-white glass sherd from a lamp shade style known as an Emeralite lamp. It measures 37.8 mm by 47.4 mm with a thickness of 2.6 mm. Livingstone (1979:20, 34) describes these shades as being made of rich emerald green glass with an inside coating of white opal glass. The lamps were produced by the H.G. McFaddin Company of New York from 1909 until the 1940s. Reproductions of this style of lamp shade are still being manufactured today.

DlLg-32:96A/210 is a much larger (91.9 mm by 60.6 mm), thicker (5.9 mm) sherd. This artifact is quite decorative and is composed of a translucent material very similar to vaseline glass. The majority of the exterior surface is covered with a pattern of converging ribs separated with a horizontal raised

band from an incomplete pattern of scrolls encompassing sprays. The shape and configuration of the design suggests that the sherd derives from a ceiling mounted light shade.

3.2.2 Battery

One dry cell battery core was recovered. DlLg-32:96A/170 is a round, black, carbon core which measures 142.0 mm in length with a diameter of 24.7 mm. A small (4.2 mm) copper anode is inserted in the proximal end.

3.3 Manufacturing Equipment

This category refers to tools, implements, or parts of machinery which are used to manufacture other artifacts. One artifact was catalogued in the sub-category of Industrial. DlLg-32:96A/162 is a flat, 5.1 mm thick, iron disc, measuring 198.8 mm in diameter. The centre hole (88.4 mm in diameter) is cut away in a square-notched pattern. It appears that this disc would fit over a splined shaft, perhaps acting as a buffer plate or a slip clutch.

3.4 Communication

Two Telecommunication artifacts were curated. DlLg-32:96A/171 and 172 are glass, plastic, and iron vacuum tubes. DlLg-32:96A/171, the smaller of the two, has eight prongs on the base. It is cylindrical in shape, measuring 82.6 mm in length with a diameter of 32.1 mm. DlLg-32:96A/172 measures 109.0 mm in length with a diameter of 39.2 mm. It has six prongs at the base and the glass bulb expands from the base to two-thirds of the height and contracts to a straight-walled cylinder topped with a small glass nipple through which a fine copper wire extends. Neither specimen has imprints or markings indicating manufacturing company and/or parts number.

3.5 Food Processing

DlLg-32:98A/1, a fork, was recovered from South Point during the 1998 portion of the project. This specimen is a complete, four-tined, patinated dinner fork. The tip of the handle is crenellated and there appears to be a pattern, at the tip, underneath the heavy patination. The phrase "ROGERS NICKEL SILVER" is stamped on the back of the handle. Rogers manufactured various patterns of cutlery. The Ashdown Hardware Company catalogue (1909) illustrates some of these patterns as being made by Rogers' 1847 [sic] and describes them as "...extra plate on nickel silver" (Ashdown 1909:1091-1093). The pattern on DlLg-32:98A/1 could not be found in the available references.

3.6 Clothing

Only one clothing specimen was recovered. DlLg-32:96A/112 is a complete leather shoe. It is a man's shoe with five eyelets surmounted with four hooks for laces. The specimen has a separate leather piece sewn on as the tip, similar to the illustrations of styles prevalent in 1902 (Amory 1969:1042-1048). The heel has been fitted with a lunate iron heel plate. It would appear that this is a narrow size eight shoe. No indication of manufacturer is present.

3.7 Transportation

Three modes of transportation are represented by the recovered artifacts. These are discussed under the sub-categories of Draught, Railroad, and Vehicle.

3.7.1 Draught

Horse-drawn carriage activities were prevalent, in Winnipeg, at the turn of the century. Two railroad companies, Canadian Northern Railway and Grand Trunk Pacific Railway had stable facilities at The Forks (Guinn 1980). However, the presence of artifacts relating to horses does not necessarily imply solely cartage activities as, until the automobile became commonplace, horses and buggies were the main form of private transportation.

Horseshoes are a common find at various sites in the surrounding area—the North Assiniboine Node Archaeological Impact Assessment (Kroker 1989:47), the Stage I Construction project (Kroker and Goundry 1990a:52), and the 1994 impact assessment for the C.N. Rail Overpass Reconstruction Project (Quaternary 1994b:12-13). One more horseshoe was recovered during this project. DlLg-32:96A/163 is a complete, very corroded iron horseshoe. It measures 154.0 mm in length and 158.0 mm in width.

3.7.2 Railroad

One artifact, DlLg-32:96A/164, is an example of track hardware commonly found in this area. It is a complete, 182.7 mm long, railway spike. The tapered, square shaft, 12.0 by 12.0 mm, is surmounted by a flat domed square head. These artifacts are not unexpected due to the proximity of the rail lines and the fact that The Forks, where several archaeological projects have occurred (Kroker 1989; Kroker and Goundry 1990a, 1993; Quaternary 1993), was a major rail centre between 1888 and 1988.

3.7.3 Vehicle

Two artifacts were assigned to this sub-category. DlLg-32:96A/165, is a complete leather and iron bicycle seat. The molded saddle fits over an iron frame which is mounted on coil springs. Although heavily corroded and stained, it would appear that the original colour of the leather was black.
DlLg-32:96A/113 is a complete, somewhat chipped and corroded, license plate (Plate 1). It has a core of iron with a baked enamel surface. Imprinted on the face, in black lettering on a white background, are a Manitoba coat of arms shield, the word "MAN", the year, possibly "1913", and the plate

number "3458". The shield contains a cross of St. George with a detailed depiction of a bison, facing left, standing on prairie.

Plate 1: License Plate

3.8 Recreation

The recreation category can include items such as smoking equipment, games, musical instruments, and toys. The single artifact recovered during this project is a toy. DlLg-32:96A/166 is a broken, plastic locomotive. The body is blue with yellow wheel mounts and red front wheels. The manufacturer's name (or locomotive name), "RELIABLE", in script, is applied in yellow plastic on the left side of the engine. Perusal through various references has not yet yielded any information on the name or the toy.

3.9 Unknown

This category is reserved for artifacts, of all materials, which are incomplete or not well enough preserved for a positive identification to be made. Further in-depth research may elicit an identification of these artifacts.

DlLg-32:96A/272 is a crushed, open-ended tube or cylinder, probably composed of tin. The highly corroded surface was originally coated with a pale blue paint. Traces of dark blue printed text are visible although most of it is illegible. The only recognizable portion of lettering consists of "NEO-A..." and "MILL...E...". The evidence is inconclusive but suggestive that this is a medicinal artifact.

3.10 Faunal Remains

All nineteen of the recovered faunal remains are the residue from food resources. The specimens were identified using standard references: Clarke (1981), Gilbert (1973), Olsen (1960, 1964), and Schmid (1972). All faunal remains were examined and identified as specifically as possible: body part, age of individual, and species. Evidence of butchering techniques, such as cutting or sawing, was recorded as was the condition of the specimens, i.e., charred, broken, chewed, or gnawed.

As noted in Table 1, most of the recovered mammal specimens show evidence of butchering activities: sawn, axed, or spiral fractures. The fourteen cow (*Bos taurus*) elements are all adult. Only one artifact, DlLg-32:96A/129, the humerus, was complete with some chipping.

Four limb specimens of pig (*Sus scrofa*), two juvenile and two adult, were recovered. Three artifacts show evidence of butchering remains with DlLg-32:96A/119 having been gnawed by a carnivore, most likely a dog.

TAXON	ELEMENT	CAT. #	AGE	QTY	WT	COMMENTS
Cow (*Bos taurus*)	Vertebra	122	Adult	1	23.6	Axed
	Rib	123	Adult	2	70.9	Spiral fracture
	Femur	124	Adult	2	246.0	Sawn
	Tibia	125	Adult	2	208.5	Sawn
	Long bone	126	Adult	3	231.1	Sawn
	Metacarpal	127	Adult	1	244.5	Axed
	Scapula	128	Adult	2	412.6	Sawn
	Humerus	129	Adult	1	566.2	Complete, chipped
Pig (*Sus scrofa*)	Humerus	118	Juvenile	1	28.2	Spiral fracture
	Rib	119	Adult	2	11.3	Axed, carnivore chewing
	Tibia	120	Juvenile	1	12.6	Incomplete
	Femur	121	Adult	1	20.7	Sawn
TOTAL FOOD REMAINS				19	2076.2	

Table 1: Mammal Recoveries from South Point Road

3.11 Natural Objects

A large cobble of diorite, DlLg-32:96A/274, was recovered. This artifact, showing evidence of spalling, probably derives from the gravel ballast on the surface of the railroad embankment.

3.12 Containers

This category includes all artifacts, or portions of artifacts, which are used to contain products. As such, it tends to cross-cut other functional divisions, with assignment to the category based upon form, as much as function. The category contains several sub-categories (Manitoba Museum of Man and Nature 1986), four of which are applicable to the artifacts recovered during this project:

- Storage - the purpose of the container is to hold material, e.g., bottles, jars, tin cans;
- Cooking - containers used in the preparation of food, e.g., pots and pans;
- Ornamental - decorative items such as vases; and
- Dinnerware - the artifact is used in the serving or eating of food.

Within the analytical and computer cataloguing hierarchy, dinnerware is considered as a sub-category of containers. However, for discussion purposes, it is usually treated as a distinct and separate group. In part, this is due to the large quantities usually recovered, as well as the detail of information that can be derived from dinnerware specimens. Accordingly, the dinnerware recoveries are discussed in Section 3.13.

3.12.1 Storage

Storage containers include most of the commonly used artifacts in today's material culture. Many products are sold, transported, carried, or stored in a container of some type: box, jar, sealer, can, bottle. The containers will be examined by material composition: ceramic and glass.

3.12.1.1 Ceramic Containers

Five ceramic sherds were assigned to this category. These represent three flowerpots and one bottle.

3.12.1.1.1 Flowerpots

DlLg-32:96A/42 and 43 are single pieces of red, undecorated, terracotta flowerpots. DlLg-32:96A/42, the smaller of the two, consists of a body,base sherd with a small drainage hole in the base. The complete pot probably measured 4 inches in diameter. DlLg-32:96A/43 is a lip,body sherd from a much larger flowerpot, possibly a 6 inch pot. The braced lip has a sloping interior and a vertical exterior profile.

The two sherds, a body,base sherd and a body sherd, in DlLg-32:96A/175 are very different from the terracotta flowerpots. These two sherds are composed of a soft paste stoneware with a yellow glaze which occurs on both the interior and exterior surfaces. The artifact is a composite style, wherein the interior pot and the external low-walled drainage tray have been molded as a single entity. A trace of a manufacturer's mark, in blue ink, is printed on the base. The text "P...", "MEDI...", and "CAN..." indicate that the object was manufactured by Medalta Potteries in Medicine Hat, Alberta. Symonds (1974:12) identifies this mark as type number 17 which was used in the 1940s and 1950s.

The first pottery factory in Medicine Hat, Alberta was the Medicine Hat Pottery Company which was established, in 1912, by the Western Porcelain Manufacturing Company of Spokane, Washington. This company eventually failed. In 1915, a local group took over the plant and incorporated under the name of Medalta Stoneware Limited (Getty 1982:31-32). Chow *et al.* (1983:15) note that "In 1921, Medalta Stoneware's stamp marked the first carload of manufactured goods...to be shipped east of the lakehead". For nearly half a century, the company produced a variety of wares from utilitarian crocks, jugs, bowls, dishes, and hotelware to decorative items such as lamps, vases, and knickknacks. Medalta ware became well-known and used in many areas:

> *By the late 1920's nearly three-quarters of the stoneware used in Canada was fired in Medalta's kilns. The company supplied all of the market west of Winnipeg, and was doing a brisk trade as far east as Prince Edward Island...By 1930 Medalta's name was known throughout North America...By the end of the thirties, Medalta was shipping large quantities of goods to points coast-to-coast and in the United States. Some Medalta wares were ordered from places as far away as Australia, New Zealand and Africa.* (Chow *et al.* 1983:15-16)

In 1959, the Medicine Hat company went bankrupt but a company in nearby Redcliff, Alberta resurrected the name and continued operations until 1988 when this company, too, closed its doors (Symonds 1974:4; Kroker and Goundry pers. comm.).

3.12.1.1.2 Bottles

One brown and tan, stoneware bottle sherd (DlLg-32:96A/41) was recovered. It consists of the neck and upper body portion of a ginger beer bottle (Chopping 1978:158-159). A portion of the black, oval logo, "...S & KING...", identifies the artifact as a product of Douglas & King Limited of Winnipeg , Manitoba. The marking is too incomplete to firmly identify the specimen to a Chopping type, although the remnant matches either MWIN CE5 or MWIN CE6. According to Chopping (1978:157), Douglas & King began producing ginger beer in 1923 at 47 Higgins Avenue. In 1931, their name changed to King's Old Country Ltd. and, in 1943 and 1944, the company moved first to 283 Henry Avenue and then to 666 Portage Avenue. The company ceased production in 1945.

3.12.1.2 Glass Containers

Several sherds and many complete glass containers were recovered from the South Point road construction area. Indications of the method of manufacture, which provide information about time period and technology, are often present on these artifacts. Where possible, the specimens have been identified to type of container, i.e., bottle, sealer, jar. Jars are defined as containers which have a generally cylindrical body and a mouth which is greater than 2/3 of the diameter of the widest part of the base or body, while bottles have a constricted mouth and neck. Further identification, to a functional sub-type such as ink bottle, milk bottle, or soft drink bottle, has been done where possible.

3.12.1.2.1 Canning Sealers

Canning sealers were introduced in the late 19th century. A variety of brand names—Crown, Gem, Perfect Seal—competed for those customers who could now preserve large quantities of food on a household basis. Two artifacts fall into this category. DlLg-32:96A/ 46 is the lip,body portion of a

clear, wide-mouthed sealer. The sealer would have been closed with a glass lid and a metal screw cap. The incomplete sherd has no evidence of brand name extant. The second artifact, DlLg-32:96A/47, is a white, rubber sealing ring used to provide an airtight seal between the lip of the sealer and the glass lid. Many companies manufactured these rings but, as a generic disposable product, no firm bothered identifying these products with a mark.

3.12.1.2.2 Condiment and Food Produce Containers

Representatives of this class are often difficult to identify as many producers used unmarked bottles to which paper labels were affixed. Sometimes the shape of a sherd or a bottle can identify the product, such as the distinctive Ketchup bottle. Some producers had bottles manufactured in private molds which were embossed with their name, e.g., the Heinz Company. The material recovered during this project includes 18 catalogue numbers comprising 18 complete artifacts identified as Condiment bottles or jars. Some of the recovered specimens could be assigned to specific types of food products such as jams, jellies, sauces, and foods.

3.12.1.2.2.1 Jams and Jellies

One small jar, DlLg-32:96A/263, is a complete, clear jar which would have had a jelly-cap closure. This jar has a tapered cylindrical body with a basal diameter of 41.3 mm and a lip diameter of 52.5 mm. The height is 63.1 millimetres. The artifact is relatively thick walled with a body thickness of 4.3 mm. The absence of a mold seam and the presence of concentric striae on the lip suggest that the jar was turned in the mold. The base is embossed with the Dominion Glass Company logo, a D in a diamond, representing one of the dominant Canadian glass manufacturers. Beginning in 1939, this company added date codes and plant designators to their logo. This practise continued into the 1950s (Miller and Jorgensen 1986:3-4).

3.12.1.2.2.2 Sauces and Liquids

This group consists of bottles which contained a variety of products such as flavour-enhancing sauces, oils, and other liquids used during food preparation or in the consumption of food.

Three clear bottles have the distinctive panelled configuration recognized as the ketchup-type bottle. DlLg-32:96A/266 has an octagonal panelled body. The closure would have been a snap cap wherein the cap is pushed down over a projecting horizontal band to effect a seal, as opposed to the more standard screw cap closure. The base is embossed with a series of data: "HEINZ"; "MADE IN CANADA"; the mold number "257"; and the Dominion Glass Company logo with date and place indica. The markings indicate that the bottle was made at Hamilton, Ontario in January, 1942.

DlLg-32:96A/219 is another ketchup-type bottle with the octagonal panelled body and a more attenuate neck than the previous specimen. It has a screw cap closure. The metal cap, coated with white enamel, is screwed in place. Traces of a white paper label showing red tomatoes and a portion of the word "LIBBY" in script is present on the neck. A very severely traumatized paper label (white,

red, yellow, and grey) occurs on the body. The text is illegible. The base is embossed with "LIBBY MCNEILL & LIBBY OF CANADA LIMITED", a "9", and "RD 1932".

DlLg-32:96A/108 is also a ketchup-type bottle with a screw cap closure. This specimen is distinctive in that a recessed oval panel is superimposed over the octagonal panelling, as a place for pasting a paper label. No trace of the label or any identifying markings are present, with only a mold number, "7", embossed on the base.

A small flavouring extract bottle, DlLg-32:96A/212, is square in cross-section and has a screw cap closure. Remnants of a paper label still adhere to the front panel. A portion of the company name, "NAB...", possibly Nabob, occurs in red on a blue background. The back panel is embossed with "CONTENTS 2 FL. OZ.". The Dominion Glass Company logo and the mold number "3" is embossed on the base.

The final specimen in the sauces and liquids category is DlLg-32:96A/215, a nearly complete, clear jug. This artifact is the traditional oval maple syrup jug with a handle on the neck. As the lip is missing, it is unknown if the jug had a pouring spout or what type of closure was present. Traces of a gold and red paper label occur on the front while embossing is present on the front, the back, and the base. A large maple leaf is embossed on the back and "RD. 1936" is embossed, on the front, below the label. The company name "PRODUCTEURS SUCRE D'ERABLE" of "QUEBEC" is embossed on the base along with "MADE IN CANADA", a "3", and a faint Dominion Glass Company marking. The Dominion Glass mark indicates that the bottle was produced in Wallaceburg, Ontario in early 1940.

3.12.1.2.2.3 Foods

This group contains jars or bottles which were used for foodstuffs such as olives, pickles, etc. Many of these containers were generic styles purchased in bulk from glass manufacturers and customized with the addition of a paper label identifying the product and brand name. Within the recoveries from this project, only a small percentage had embossed company names. There are twelve catalogue numbers which consist of twelve complete or nearly complete bottles and jars of varying shape and size (Table 2).

Only three containers have embossings or other markings which indicated the producer. DlLg-32:96A/143 is embossed with "HORLICK'S MALTED MILK", "RACINE, WIS. U.S.A.", and "SLOUGH. ENGLAND" . The mold number "11" is embossed on the base. The bottle is misshapen due to partial melting from heat. The contents would have been a powder which was added to milk. This is a long-standing company. Toulouse (1971:252) notes that hand blown bottles of Horlicks (without the apostrophe) are known. The product is still available today.

DlLg-32:96A/216 is a dodecagonal (twelve-sided) figural jar with portions of a paper label and considerable embossed text. The base is embossed with "MATTHEWS WELLS CO. LIMITED", "EST. 90", a rose design, and a very faint "D in a diamond". The body, near the base, is embossed

with "CANADA" and "16 FL. OZ. SIZE". The white label, with black text, reads, in part, "SWEET MIXED P...LES".

The third container, with producer information, is DlLg-32:96A/110. It has eight sides and a decorative band of short vertical ribs, on the body, near the base. The base is embossed with "H.J. HEINZ CO.", a "D in a diamond", and a series of mold/date markings—"423", "H", and "15". This jar probably contained pickles or a similar preserved food product.

CAT. #	COLOUR	SHAPE	CLOSURE	MARKINGS
107	aqua	tall cylindrical	cork	1232
109	clear	cylindrical	cork	5021;16; H over A
110	clear	chamfered square	snap cap	H J HEINZ; D in ♦;423;H;15
111	clear	square	cork	DES. REG. 1928;3
143	clear	cylindrical	screw cap	HORLICK'S MALTED MILK
178	clear	cylindrical	interrupted lug	D in♦;V-433;6 FL. OZ.
179	clear	cylindrical	interrupted lug	M in O;2
181	clear	chamfered square	interrupted lug	D in ♦;4
182	clear	cylindrical	screw cap	D in ♦;9
183	clear	cylindrical	screw cap	C in∇;16 FL. OZ.
216	clear	panelled cylindrical	interrupted lug	MATTHEWS WELLS;16 OZ.
220	clear	cylindrical	snap cap	D in ♦;V-497;12 FL. OZ.

Table 2: Glass Food Containers from South Point Road

The remaining containers can be categorized by shape. Two cylindrical olive jars (Chopping 1978:244) were curated. The larger of the two, DlLg-32:96A/107, is 254.7 mm in height. The base, showing evidence of a two-piece post mold, is embossed with a mold number "1232". The smaller version, DlLg-32:96A/109, measures 160.0 mm in height and was produced in an Owens automatic machine. The logo, "H over A", represents the Hazel-Atlas Glass Company of Wheeling, West Virginia. This mark was used from 1920 to 1964 (Toulouse 1971:239-242) by this company which was "primarily known for its household glassware" (Weiss 1981:50).

DlLg-32:96A/111 is a style that is called a round cornered square (Sydenham 1908:27). The body flares slightly from the base to the shoulder and the container was probably closed with a cork. This design of a bottle was registered in 1928 providing a minimum date of manufacture.

The three other jars with the interrupted lug closure are different sizes. The largest, DlLg-32:96A/181, also has a decorative chamfering at the base of the tapering square body. The presence of an Owens scar on the base indicates manufacture prior to 1940 (Miller and Jorgensen 1986:4) as does the lack of evidence concerning plant and date of manufacture adjacent to the Dominion Glass

logo. The second jar, DlLg-32:96A/178, is straight-sided cylindrical with embossed markings on the side and base which provide volumetric and manufacturing information. The markings include "CANADA" and "6 FL. OZ. SIZE" on the body. The manufacturing information indicates that the jar was produced at Redcliff, Alberta in September, 1950. This is confirmed by the use of the V prefix for the mold number which began in late 1945 (Miller and Jorgensen 1986:4). The smallest jar, DlLg-32:96A/179, has an "M in a circle" embossed on the base identifying it as a product of Maryland Glass Corporation after 1916. This company was, and still is, located in Baltimore, Maryland (Toulouse 1971:339).

DlLg-32:96A/220 has traces of a multicoloured paper label, none of which is readable. The size, "12 FL. OZ." and the country, "CANADA", are embossed on the body, near the base. Basal markings indicate manufacture by the Dominion Glass Company in December, 1948 at Hamilton, Ontario from mold number "V-497". The lip of this specimen is chipped.

The final two food jars are characterized by screw cap closures. DlLg-32:96A/182 has a minimal shoulder. The base is embossed with the Dominion Glass mark and a mold number "9" which does not match any of the mold number descriptions in Miller and Jorgensen (1986). DlLg-32:96A/183 has miniscule remnants of a paper label. The body is embossed with "CANADA" and "16 FL. OZ. SIZE" while the base has only the Consumers Glass Company logo.

3.12.1.2.3 Ink Bottles

There are eight catalogue numbers, representing six complete artifacts and three sherds. Seven catalogue numbers could be assigned to ink companies—Reliance, Skrip, Stafford, and Watermans.

Five of the specimens are products of the Reliance Ink Company of Winnipeg, Manitoba. These specimens range from individual desk-size containers to retail bulk bottles. Chopping (1978:246) identifies some Reliance Ink bottle types. DlLg-32:96A/93 is a clear, complete, desk-size specimen with a screw cap lip and the identifying text "RELIANCE INK CO. LTD. WINNIPEG", "2", and the Dominion Glass Company logo on the base. The basal diameter measures 52.7 mm with a height of 63.1 mm. The body has a projecting horizontal band at the base and the shoulder. This artifact matches Chopping type MWIN MD1. DlLg-32:96A/95 is very similar to DlLg-32:96A/93 with some minor variations. There is no mold number on the base, the text is in a different font, and the severely corroded metal screw cap is present. The basal diameter for DlLg-32:96A/95 is 52.0 mm with a height of 63.0 millimetres.

DlLg-32:96A/92 is a complete, clear, medium-sized retail bottle. The height is 164.0 mm with a basal diameter of 58.9 millimetres. The base is embossed with "RELIANCE INK CO. LTD. WINNIPEG" and the mold number "870". Chopping (1978:246) describes MWIN MD4, with this mold number, as a sun-coloured glass and a smaller diameter. The bottle is decorated with two horizontal ribs at the base and the shoulder and would be closed with a metal screw cap. The final Reliance specimen, DlLg-32:96A/97, consists of two aqua sherds from a large bulk retail bottle. As with the other bottles, the base is embossed with "RELIANCE INK CO. LTD. WINNIPEG" and a mold number

"86?" which is obscured by a glass flaw. Chopping (1978:246) assigns a similar, albeit clear, bottle with the same basal diameter (88.0 mm) as type MWIN MD2. The base is decorated with two horizontal ribs and it is probable that the shoulder had a similar decorative element as depicted by Chopping (1978:246) and also as exemplified by DlLg-32:96A/92. As Reliance Ink is a local firm, it is not surprising that their artifacts are commonly found in most secondary deposition areas, i.e., the fill layers on South Point, at the north end of the new Main Street bridge (Quaternary 1996a:20), and at The Forks (Kroker and Goundry 1993:42-43).

DlLg-32:96A/144 is a complete, clear, desk-sized ink bottle. This straight-walled container has a diameter of 53.0 mm and a height of 61.6 mm and has a spiral screw collar. The name of the manufacturer "SKRIP" is embossed, in script, on the front of the body, as is the additional text "THE SUCCESSOR TO INK" and "MADE IN CANADA". The base is embossed with the mold number "3" and a very faint Consumers Glass Company logo.

DlLg-32:96A/98 is the body,base portion of a large retail bottle measuring 93.1 mm in diameter. Similar to the Reliance bottles, this artifact has two horizontal bands at the base. The base is embossed with "S.S. STAFFORD INC." and "MADE IN CANADA". The glass has a faint pale green tinge. Previously recovered artifacts of this company had indications of a place of manufacture, i.e., New York (Kroker and Goundry 1993:44).

The Watermans Ink Company is represented by DlLg-32:96A/94, a complete, clear bottle. This desk-sized artifact has the same configuration as the Reliance bottles with ribs at the base and shoulder. The primary difference, which indicates earlier manufacture, is the lack of a screw cap collar and the presence of a round string collar which would have been closed with a cork—portions of which are present in the bottle. The base is embossed with "WATERMANS INK" and the mold number "1". The dimensions of this artifact are 55.3 mm in diameter and 65.4 mm in height. Other Watermans specimens have been recovered in this area (Kroker and Goundry 1993:43; Quaternary 1995:40).

The final specimen in the ink sub-category is DlLg-32:96A/96, a complete, clear, desk-sized bottle. It's shape is radically different from the Reliance and Watermans bottles. The straight-walled, cylindrical body has a sharp shoulder leading to a concentric stepped dome from which extends a straight-walled neck surmounted with a flat string collar. This bottle would have been closed with a cork. The straight outer rim of the base extends downward while the indented centre is convex providing both the rim and the centre as resting points. The dimensions of this specimen are 53.1 mm in diameter by 66.6 mm in height. There are no marks on this bottle to identify the manufacturer or the company.

3.12.1.2.4 Milk (or Dairy) Bottles

Two sherds from milk bottles were curated. One clear, body sherd, DlLg-32:96A/48, is from a local Winnipeg dairy—the City Dairy. It has "CITY" embossed, in script, on it. The City Dairy was in operation, in Winnipeg, from 1915 until 1952 (Kroker 1989:66). Other examples from this company have been found at various sites (Kroker and Goundry 1993:45; Quaternary 1995:41).

DlLg-32:96A/235 is also a clear body sherd which cannot be assigned to any specific company. The embossed text consists of portions of two words "...NT..." and "...LK", suggesting Laurentia Milk Company (Chopping 1978:168, 170).

3.12.1.2.5 Medicine Bottles

Forty-five catalogue numbers representing complete or incomplete specimens were assigned to the medicine category. These artifacts were divided into colour groupings—aqua, brown, and clear.

Two, incomplete, aqua body,base sherds are generic, short Blake prescription bottles (Chopping 1978:317). Neither DlLg-32:96A/149 (the smaller of the two) or DlLg-32:96A/151 have manufacturer or product information on them.

The brown specimen, DlLg-32:96A/189, consists of two large sherds of a round shouldered panel bottle. The side panels are faintly embossed with what could be a product or a pharmacy name. The partially decipherable text reads "...N... HANBURYS" on one panel and "...ANB..." on the other.

The last colour grouping— clear—consists of forty-two catalogue numbers comprising complete bottles and sherds. The artifacts were divisible into three analytic categories: those which could be ascribed to a specific product or medicinal firm; graduated bottles which normally were used solely for prescription or patent medicine; and generic bottles which may or may not have manufacturer information on them.

The containers listed in Table 3 represent several different companies. Except the Lambert Pharmacal Company, which is represented by two specimens (DlLg-32:96A/56 and DlLg-32:96A/70), all identified firms have only a single artifact. The two Lambert containers are different sizes of the same type of bottle with the company name "LAMBERT PHARMACAL COMPANY" embossed on the body near the base. The smaller of the two, DlLg-32:96A/56, is complete with a square ring finish (Stevens 1967:138). The larger specimen, DlLg-32:96A/70, is incomplete but would have had the same finish. The mold numbers, embossed on the base, appear to be size specific. A previously recovered Listerine bottle (Quaternary 1995:44) has the identical company name embossing and the identical mold number as DlLg-32:96A/56. It is probable that DlLg-32:96A/56 also contained Listerine albeit denoted by a paper label rather than embossed text on the container.

DlLg-32:96A/64 is a small (1 fluid ounce), complete bottle with an applied prescription lip. The only indication of bottle manufacturer or product manufacturer is an enigmatic logo on the front panel consisting of a background diamond outline and a superimposed wide "H" or a horizontal "I" composed of raised dots. An unadorned diamond has been used as the trademark of the Diamond Glass Company of Royersford, Pennsylvania since 1924 (Toulouse 1971:550-553). This seems to post-date the applied lip technology although the company has been in existence since 1888 and the mark may have been used earlier than listed. Further complicating matters, there was a Diamond Glass Flint Company at Hartford City, Indiana between 1903 and 1912. The time frame fits the

applied lip, however, the use of a trademark by this company is not recorded. Finally, the mark may be the emblem of a pharmaceutical company or a dispensing chemist.

CAT. #	TYPE	PRODUCT	MANUFACTURER	COMMENTS
55	ball neck panel	-	W.T. Rawleigh	O in □;4
56	round shoulder prescription	-	Lambert Pharmacal	857
57	panelled oval - screw cap	Aspirin	Bayer	D in ♦
58	jar - screw cap	Vaseline	Chesebrough	New York
64	American panel	-	-	H in ♦
66	Victory oval	-	Brathwaite	-
70	round shoulder prescription	-	Lambert Pharmacal	858
138	London oval	-	Wampole	H.K.W. CO.
202	Union oval	-	United Drug Co.	3A
211	rectangular - screw cap	Phenobarbital	Winthrop	paper label
230	round	Lavoris	Lavoris	Toronto
276	round - cork	-	Marlatts	paper label

Table 3: Identified Clear Medicinal Containers from South Point Road

DlLg-32:96A/138, a large bottle, estimated to be an 8 fluid ounce container, has an applied square ring finish. The basal embossing, "H.K.W. CO. LTD." probably applies to the pharmaceutical company of Henry K. Wampole, as no combination of these initials are recorded as the logo for a glass manufacturing firm. The cork closure is still present in the mouth of this specimen.

DlLg-32:96A/202 is a partially complete bottle with a narrow round extract finish and a cork still in place in the mouth. The base is embossed with the marking "U D CO.", signifying the United Drug Company, and a mold number "3A". Toulouse estimates this mark was in use from 1910 to 1930 (Toulouse 1971:509). The type of product is unknown.

DlLg-32:96A/55 also can be identified to the pharmaceutical company rather than the brand name of the product. The complete bottle has a double ring finish which would have closed with a cork closure. The company name "W.T. RAWLEIGH CO." is embossed on one side panel with the corporate headquarters "FREEPORT, ILL." on the other side panel. The front panel is embossed with "RAWLEIGH'S", in script, and the phrase "TRADEMARK". The base has the embossed mark of the Owens Bottle Company which was in existence from 1911 to 1929 at which time it merged with Illinois Glass (Toulouse 1971:393-397).

Five of the recoveries have evidence of the brand name of the contents. DlLg-32:96A/58 is a jar which contained "VASELINE" produced by the "CHESEBROUGH" company of "NEW YORK". The complete artifact has no markings indicating the jar manufacturer. DlLg-32:96A/57 is a small bottle which would have contained "ASPIRIN" tablets produced by "THE BAYER CO. LTD.".

These phrases are embossed on the side panels while paper labels would have been affixed to the front and/or back panels. Markings on the base indicate that the artifact was made in December 1949 by the Dominion Glass Company at Hamilton, Ontario using mold number "6". DlLg-32:96A/211 is only identifiable due to the presence of most of the paper label. The producer is "WINTHROP - S..." and the product is "...UM..." brand of "PHENOBARBIT..." "PROD... FOR U S AND CA...D...". The label also notes that this is the original brand and that the size of the capsules are ½ grain? or milligram?. Perusal on the Internet revealed that Winthrop Laboratories has undergone various name alterations, is now a Division of Eastman Kodak, and still produces drugs under its own name. DlLg-32:96A/230 is a basal sherd embossed with text which identifies the company as "LAVORIS C... CO. ...TED" based in "TORONTO". This cylindrical bottle may have contained Lavoris mouth wash A clear, body,base sherd (DlLg-69/240) from a Lavoris bottle was previously recovered and assigned to the Chemical sub-category (Quaternary 1996e:43). This product may have had other uses in addition to mouth wash. DlLg-32:96A/276 is a cylindrical bottle with a prescription lip with a cork closure which is still present. Traces of liquid and a gummy substance are present inside the bottle. Portions of a yellow paper label with black text adheres to the body. The minimal portion of the text that remains reads: "BO...S MI..."; "MARLATTS..."; and "BOWEL".

The final artifact in this grouping, DlLg-32:96A/66, a body,base sherd, is a personalized prescription bottle dispensed by Winnipeg chemist W.F.C. Brathwaite. The portion of the text on the front panel, "...ATHWAITE" and "...SING", matches the logo listed by Chopping (1978:307) as type MWIN PXE1. This pharmacy was located at 286 Main Street on the corner of Graham Avenue and was in operation from 1903 to 1919. The bottle is a distinctive type with the oval side panels sub-divided into four small vertical panels. A recessed horizontal panel occurs on the back. The bottle type is denoted by the embossing on the base as a "VICTORY OVAL" "REGD.". A clear body,base sherd, DlLg-32:90A/116, from the same company, was recovered from South Point (Quaternary 1990:27). That sherd was a Queen Oval bottle type.

Ten specimens were identified as clear, graduated medicine bottles (Table 4). Six are complete artifacts, one (DlLg-32:96A/52) is chipped, and three are incomplete (DlLg-32:96A/71, 72, 148).

CAT. #	VOLUME	SHAPE	CLOSURE	MARKINGS
49	4 Fl. Oz.	Wallaceburg oval	screw cap	Dominion Glass; 3
50	6 Fl. Oz.	Wallaceburg oval	screw cap	Dominion Glass; 4
51	4 Fl. Oz.	Wallaceburg oval	narrow round; cork	Consumers Glass; 1
52	6 Fl. Oz.	Wallaceburg oval	prescription; cork	"KIN... OVA..." in diamond
53	6 Fl. Oz.	Wallaceburg oval	narrow round; cork	-
62	1 Fl. Oz.	National oval	prescription; cork	"NATIONAL OVAL 1091"
63	1 Fl. Oz.	Wallaceburg oval	narrow round; cork	-
71	4 Fl. Oz.	Wallaceburg oval	unknown	-
72	6 Fl. Oz.	Wallaceburg oval	unknown	-
148	8 Fl. Oz.	Wallaceburg oval	unknown	-

Table 4: Graduated Clear Medicine Bottles from South Point Road

The closure is present on two of the bottles. DlLg-32:96A/51 has a cork in place in the mouth and DlLg-32:96A/50 is closed with a dark brown, plastic screw cap. The two screw cap closures were manufactured later than the cork closures as evidenced by the presence of Owens scars on the base of most of the cork closure specimens. The bottle manufacturer can be identified for three of the artifacts. DlLg-32:96A/51 was made by Consumers Glass Company. DlLg-32:96A/49 was produced by the Dominion Glass Company at Redcliff, Alberta in March of 1941 or 1951. DlLg-32:96A/50 was also made by Dominion Glass at Hamilton, Ontario in January 1958.

The remaining twenty catalogue numbers contain clear non-graduated medicine bottles which cannot be attributed to a product manufacturer (Table 5). All but three are complete specimens. DlLg-32:96A/147 and 277 are lip,neck,shoulder sherds, while DlLg-32:96A/150 is two body,base sherds.

CAT. #	SHAPE	LIP	CLOSURE	MARKINGS
54	Erie oval	prescription	cork	-
59	Erie oval	prescription	cork	HANDY
60	Erie oval	prescription	cork	415A
61	Erie oval	prescription	cork	-
65	Blake	prescription	cork	-
67	Erie oval	square ring	cork	?
68	Erie oval	prescription	cork	416B
69	Philadelphia oval	prescription	cork	-
137	Blake	none; string collar	cork	-
139	Blake	prescription	cork	139C
147	Wallaceburg oval	prescription	cork	-
150	American panel	-	-	-
180	jar	screw cap	screw cap	1032
184	round shouldered prescription	prescription	cork	applied lip
185	round shouldered prescription	prescription	cork	405A
186	round shouldered prescription	prescription	cork	C
187	round shouldered prescription	prescription	cork	applied lip
188	round shouldered prescription	prescription	cork	applied lip
223	chamfered oval	screw cap	screw cap	D in ♦;B
277	Wallaceburg oval	narrow round	cork	-

Table 5: Nonspecific Clear Medicine Bottles from South Point Road

The cork closure is present in DlLg-32:96A/59, 69, 137, 184, 186, and 188. The earliest manufactured bottles are the three specimens with applied lip—DlLg-32:96A/184 and 187 were made in a two-piece post mold, while DlLg-32:96A/188 was made in a two-piece cup mold. The latest specimens are the two screw cap containers. DlLg-32:96A/180 has a mold number which matches the

product description in the Toronto and Hamilton plant mold number lists of the Dominion Glass Company. Mold number "1032" is identified as a "2 oz. round Vaseline pomade screw top" (Miller and Jorgensen 1986:42). DlLg-32:96A/223 was also produced by Dominion Glass at Hamilton, Ontario in July, 1943.

3.12.1.2.6 Chemical Containers

Five catalogue numbers (four bottles and one sherd) were designated as chemical containers. All are brown. Three of the complete specimens are round Javex bottles. All have screw cap closures and the brand name "JAVEX" is embossed in innumerable locations on the shoulder, the body, and the base. DlLg-32:96A/265 and 275 are the same size container, while DlLg-32:96A/106 is 50% larger. DlLg-32:96A/265 has traces of a red and white paper label. This bottle was manufactured by Dominion Glass in October of 1941 or 1951 at Redcliff, Alberta from mold number "3". DlLg-32:96A/275 has the metallic screw cap rusted in place and was manufactured at the same place and time as DlLg-32:96A/265 but from mold number "5". DlLg-32:96A/106 has slightly different basal embossings with "JAVEX" and "REGD" in a diamond outline. It was manufactured in May of 1941 or 1951 at Redcliff using mold number "8".

DlLg-32:96A/157 is a small, incomplete, square bottle missing the lip and neck. The body is embossed with "NONTOXO", "CHEMICAL CO.", and "SO. BEND, IND.". The company name and brand name appear to be identical although the function of the product is unknown.

The final chemical bottle is assigned to this category due to glass colour and shape. DlLg-32:96A/217 resembles the smaller Javex bottles but has no marking which would identify the product. The base is embossed with a mold number "5301-A" and the Dominion Glass Company logo indicating manufacture in January of 1944.

3.12.1.2.7 Cosmetic Containers

Fourteen catalogue numbers representing fifteen artifacts were assigned to this category. These consist of bottles, jars, and sherds of clear and white glass.

Two complete jars and two complete bottles are made of clear glass. DlLg-32:96A/104 and 105 are identical, cylindrical, screw cap jars, measuring 65.2 mm high and 69.6 mm in diameter. DlLg-32:96A/105 still has remnants of the iron cap attached to the lip. Both jars are embossed with the same information—the product "PERFECT COLD CREAM" with cold cream in a decorative banner, the product manufacturer "DAGGETT & RAMSDELL'S CHEMISTS", and "TRADE MARK". As seems to be the tradition in cosmetic jars, the body is decorated with narrow, rounded horizontal rings at the base and shoulder. An earlier container from this firm was recovered during the C.N. Rail Overpass Reconstruction Project (Quaternary 1995:47). That specimen, DlLg-32:94B/15, had a truncated mold seam indicating pre-1920 manufacture. Both current jars were made after 1920 although still in a two-piece cup mold. DlLg-32:96A/105 has a mold number "16" embossed on the base. DlLg-32:96A/104 has no mold number and a difference in the text layout and the font sizes.

DlLg-32:96A/213 is a very unusual screw cap bottle. The cross-section is a chamfered diamond where the front is divided into four panels producing a somewhat rounded outline while the back has two large panels meeting at an obtuse angle. The front has a recessed panel in the upper portion of the body which contains remnants of a white paper label. The black text, on the label, reads "TA...LO...", "...OGNE", "LENTHERIC", and "PAR... ...C...". The name "LENTHERIC" is also embossed on the base. The product is in all likelihood a cologne made by the Lentheric Company of Paris, France. This interpretation is supported by the narrow aperture of the bottle at the lip.

The last clear specimen, DlLg-32:96A/214, is a cylindrical bottle with a cream-coloured, plastic screw cap in place. Remnants of a paper label on the front and painted white text on the back identify the manufacturer as "DOROTHY GRAY" based in "NEW YORK" and "TO...". The brand name is indiscernible, as is the type of product. However, the partially legible text on the back implies that the product is a skin toner, astringent, or tightener to be used before applying makeup. The base is marked with an "S in a keystone" indicating that it was manufactured by Seaboard Glass Bottle Company of Pittsburgh, Pennsylvania. This company was in operation between 1943 and 1947 (Toulouse 1971:455). The mold number "599" is also embossed on the base.

The remaining artifacts in the cosmetic category are all portions of white glass jars (Table 6). This type of artifact cross-cuts categories. Other projects have yielded these types of jars that contained a variety of materials. Some have had a product name, such as Pond's, that identify the jar as containing cold cream (Kroker 1989:63; Kroker and Goundry 1993:53), others have had script and a logo that identifies the jar as containing a food product, i.e., MacLaren's Imperial Cheese (Kroker and Goundry 1990a:61). In addition, white glass jars were also used for holding unguents and ointments, precursors to the plastic jars dispensed at pharmacies today.

Table 6 indicates that there is an industry standard, even for generic containers which would have been identified to product by paper labels. All of the square jars are decorated with horizontal bands at the base and shoulder. Two of the three round jars have the same decorative element; only DlLg-32:96A/100 and 156 are smooth bodied.

CAT. #	CONDITION	SHAPE	CLOSURE	MARKINGS
99	incomplete	square	metal screw cap	POND...
100	complete	oval	metal screw cap	POND'S; Reg'd 1935; Canada
101	chipped	square	missing	POND'S; Made in Canada
102	incomplete	square	missing	...OND'S; Made in Canada; D in ♦
103	incomplete	square	missing	PON...
152	complete	square	missing	vertical ribs; D in ♦
153	complete	squat round	missing	MUM; Made in Canada; D in ♦; 5
154	complete	round	metal screw cap	D in ♦; 10
155	incomplete	large	missing	-
156	incomplete	square	missing	-

		round?		

Table 6: White Glass Cosmetic Jars from South Point Road

Five jars are emblazoned with the marking of the Pond's Cold Cream Company. The difference in shape may be a function of time or difference in the product in the container. The Dominion Glass Company logo is present only on DlLg-32:96A/102, although the other square jars probably were made by the same firm even though the base is missing. There is no mark identifying the container manufacturer on the oval jar, DlLg-32:96A/100. The metal (zinc ?) cap on DlLg-32:96A/99 is severely corroded, while the one on DlLg-32:96A/100 is in better condition and coated with a flaking green paint. The company name is embossed on the lid.

DlLg-32:96A/153 is also marked with a company or brand name "MUM" on the base. In addition, the Dominion Glass Company logo is present, as well as the mold number "5".

The remaining four jars have no corporate identifying marks. Both DlLg-32:96A/152 and 154 were produced by the Dominion Glass company, while DlLg-32:96A/155 and 156 are too incomplete, i.e., the base which would contain the manufacturer's mark is missing. All of the products of Dominion Glass pre-date 1939, as no date markings are present. Beginning in 1939, Dominion Glass introduced date codes, a practice that continued into the 1950s (Miller and Jorgensen 1986:3-4).

3.12.1.2.8 Juice Containers

DlLg-32:96A/44 is a complete, clear, small bottle. It measures 131.4 mm in height and has a crown closure. The word "WELCH'S" is embossed on one side of the body and the word "JUNIOR" is embossed on the opposite side. In addition, the mold number "482" is embossed on the base. This is a miniature juice (possibly grape) bottle. The mold seam extends to the lip indicating manufacture after 1921. Specimens of Welch's bottles have been found at other locations (Kroker and Goundry 1993:54, Plate 26a; Quaternary 1995:48).

3.12.1.2.9 Soft Drink Bottles .

Many bottling firms produced alcoholic and non-alcoholic beverages, often using the same bottles which were identified by paper labels. Archaeologically recovered specimens can only be assigned to the Soft Drink category if the artifact is identified with a brand name or a company name of a firm which only produced non-alcoholic beverages. Those specimens which could not be identified as soft drink containers are discussed in the more generic Beverage section. Within the soft drink sub-type, several brand names could be identified (Table 7).

Bell Bottling Company originally began as Boroditsky Brothers Aerated Water Company in 1917. The original company is represented by DlLg-32:96A/78 and 140, two pale aqua sherds with a portion of the company name and Winnipeg embossed on the surface and a "B" on the base. In 1924, the name was changed to Bell Bottling Company and continued into the 1970s. The firm produced such brands as Bromo Cola, Sunny Brook, Wynola, Nu Grape, Sun Crest, Keystone, and 2-Way (Stock 1978:35). An early product of the company, which does not have a brand name identifier, is represented by DlLg-32:96A/79. This body sherd is embossed with the company logo—an outline of a bell enclosing the text "THE BELL BOTTLING CO. WINNIPEG, MAN". The bottle is a decorative specimen with short vertical ribs at the base and above the identification panel. There are

raised, horizontal bands between the lower ribs and the identification panel and extending from above the upper ribs past the shoulder into the base of the neck.

BRAND NAME	CAT. #	COLOUR	MARKINGS
BELL BOTTLING	79	clear	6½ FL. OZ;WINNIPEG, MAN.
BORODITSKY	78	aqua	BOROD...;B;W
	140	aqua	B; fits with DlLg-32:96A/78
CANADA DRY	77	green	CDL;RD 1930; D in ♦
COCA COLA			
Aqua Straight-sided	73	aqua	PROPERTY OF, CANADA
Blue Straight-sided	74	blue	PROPERTY OF, CANADA
Clear Ribbed	75	clear	6 FL. OZ; D in ♦
DREWRYS GINGER ALE	81, 82	green	D in ♦;embossed figure
HIRES ROOT BEER	76	clear, label	12 FLU. OZ;D in ♦;REG 1937
UNASSIGNABLE COLA	80	clear	ribbed;10 FL. OZS.
UNASSIGNABLE GINGER ALE	141	green, white	EST, 1877, PRIDE
UNASSIGNABLE	142	clear, blue	...FACTION, BOTTLE...

Table 7: Identified Soft Drink Containers - South Point Road

DlLg-32:96A/77, a body,base sherd, is a product of Canada Dry Ginger Ale Limited. It appears that the bottle design was registered in 1930, this being a straight-sided bottle with the company name on the tapering neck surmounted by a necklace of raised diamonds. In addition to the corporate logo, "CDL", embossed on the base, the logo of the Dominion Glass Company, as manufacturer of the bottle, is also present.

Three catalogue numbers were assigned to the Coca Cola company. All of the specimens have all or part of several embossed phrases: "COCA COLA" in script on the shoulder; "TRADEMARK REGISTERED" in block letters on the shoulder; "PROPERTY OF THE COCA-COLA COMPANY CANADA" in block letters around the body at the base; and "COCA COLA" in script on the base. The complete blue bottle, DlLg-32:96A/74, was manufactured by an Owens machine, while the complete aqua bottle, DlLg-32:96A/73, was manufactured by a machine mold process. The only bottle which post-dates the introduction, in 1917 (Davis 1967), of the familiar ribbed, 'pinched-waist' or 'Mae West' bottle is a clear incomplete specimen, DlLg-32:96A/75. This was produced by the Dominion Glass Company of Canada at Redcliff, Alberta in December, 1948. The embossing on the body includes the trade name as well as "TRADEMARK REGISTERED" and "CONTENTS 6 FL.OZS.".

Two body,base sherds, DlLg-32:96A/81 and 82, are products of the same firm. The identifying information consists of the phrase "PROPERTY OF DREWRYS MAY NOT BE SOLD" on the body

near the base. The base of both specimens is embossed with "THE DREWRYS LIMITED" and the "D in a diamond" mark of the Dominion Glass Company. The sides of the bottles are embossed with the portions of the characteristic boots and riding breeches of the Royal Canadian Mounted Police. Drewrys used this symbol as an identifier for their Dry Ginger Ale (Stock 1978:16-17). The date information associated with the Dominion Glass mark indicates that both specimens were produced in Redcliff, Alberta in January, 1944, although two different molds were used—"2" for DlLg-32:96A/81 and "5" for DlLg-32:96A/82.

DlLg-32:96A/76 is an incomplete, clear, body,base sherd with a white and orange painted label on the front and white text on the reverse. The straight-walled bottle is decorated by a series of four undulating, stippled, horizontal bands at the base. The applied label has portions of text identifying the product as Hires Root Beer as well as the phrase "WITH REAL ROOT JUICES" and "NET. CONT. 12 FLU. OZ.". The back of the bottle has a portion of a scroll as well as box listing the ingredients:

CARBONATED WATER :- SUGAR -
DEXTROSE - CARAMEL - PLANT
EXTRACTIVES OF BIRCH-SASSA
FRAS-LICORICE-VANILLA-SPIKE
NARD - SARSPARILLA - HOPS -
WINTERGREEN - PIPSISSEWA -
GINGER AND FLAVOR.

The basal embossing includes the corporate name, "REGISTERED 1937" and markings by the Dominion Glass Company indicating manufacture of the bottle at Redcliff, Alberta in May, 1948.

The remaining three specimens cannot be firmly attributed to any company. DlLg-32:96A/80 is a clear body sherd with vertical ribs which probably, but not necessarily, identifies the artifact as a product of Coca Cola. DlLg-32:96A/141 is a body sherd made of the standard Ginger Ale shade of green glass. Portions of text from the back of the bottle are present which are insufficient to identify the manufacture or the brand name. The phrase "EST. 1877." suggests that the product may be one produced by the Drewry Company which was founded in 1877 by E.L. Drewry (Quaternary 1996a:31). DlLg-32:96A/142 is a clear body sherd with badly eroded portions of blue text and design. The text reads "...FACTION" and "...BOTTLE...". The design cannot be identified beyond having a curved exterior boundary.

3.12.1.2.10 Beverage Bottles

As noted earlier, breweries bottled soft drinks, as well as beer, and often used the same type of bottle for both products. Thus, the bottles assigned to the generalized Beverage class could have contained either beer or soft drinks. Within this sub-type, depending upon the data embossed on the artifact, it may be possible to identify the producer of the contents, the manufacturer of the container, both, or neither. Based on the extracted information, the recovered specimens are discussed in two subsequent

sections: those attributable to Winnipeg bottling firms and those for which neither the manufacturer nor the producer could be identified.

3.12.1.2.10.1 Winnipeg Bottling Firms

There was an active beverage industry in Winnipeg with several firms vying for the market. Recoveries from this project include bottles representing two of these companies: Blackwoods and Drewry. These two firms dominated the local market or, at least, their bottles are the most commonly found (Table 8). Blackwood Brothers, later Blackwoods Limited, is better known as a bottler of soft drinks while E. L. Drewry Limited appears to have concentrated on brewing beer. The passage of the Manitoba Temperance Act in 1916 resulted in both firms, and other Winnipeg brewers, concentrating on the manufacture of soft drinks and beer for export. The local market for 'Temperance Beer' and medicinally prescribed spirits was further diminished by the 1918 Federal War Measures Act which was in force for one year and prevented importation of alcohol. Broad-based restrictions were eliminated by the introduction of the Liquor Control Act in 1923.

Blackwoods has a long and involved history. In 1882, it began as the Manitoba Brewing Company and became Blackwoods Brothers shortly after. In 1901, the name was changed to Blackwoods Limited. Another name change occurred in 1921, this time to Blackwoods Beverages (Aerated Water Manufacturing Company Limited). In 1923, the Whistle Bottling Company was formed to take over Blackwoods' business and, in 1934, the name reverted to Blackwoods Beverages Limited (Stock 1978:19; Chopping 1978:99-109).

COMPANY	CAT. #	CONDITION	COLOUR	CHOPPING TYPE
BLACKWOODS	85	complete	clear	MWIN BA19-1
	86	complete	aqua	MWIN BA20-4*
	87	body, base	aqua	MWIN BA19-5
	83	complete	aqua	MWIN BG15
DREWRY	84	complete	blue	MWIN BG35*
UNASSIGNED	91	body	aqua	MWIN

Table 8: Identified Winnipeg Beverage Bottles - South Point Road

Three different types of Blackwoods bottles were recovered and identified using Chopping (1978). In one instance, the recovered bottle was different from the type defined by Chopping. This new sub-type number was assigned and denoted by a single asterisk following the Chopping number. The single new number, DlLg-32:96A/86 (MWIN BA20-4), is sequential following the designation of a previous additional sub-type, MWIN BA20-3 (Quaternary 1995:55). This new sub-type is

characterized by being produced in an automatic bottling machine, as is the remainder of the BA20 complex (Chopping 1978:108). DlLg-32:96A/86 differs in that there is a "5" embossed on the body above "WINNIPEG" and the orientation of the trademark has the apex pointing to the "B" of "BLACKWOODS".

All of the specimens have the standard Winnipeg ownership clause, "THIS BOTTLE IS OUR PROPERTY ANY CHARGE MADE THEREFOR SIMPLY COVERS ITS USE WHILE CONTAINING GOODS BOTTLED BY US AND MUST BE RETURNED WHEN EMPTY", embossed on the side. This clause is complete on DlLg-32:96A/85 and 86, with only portions of the text occurring on DlLg-32:96A/87.

The Drewry company began in 1877 when E. L. Drewry leased the Redwood Brewery and produced beverages labelled with his name. In 1904, the company name was changed to E. L. Drewry Limited and, in 1921, it became Drewrys Limited. As well as beers and ales, the firm produced several brands of soft drinks (Stock 1978:11-13).

Two different types of Drewry bottles were recovered from the site and were identified using Chopping (1978). In one instance, a recovered bottle was made of glass which was a different colour than that recorded by Chopping, and it has been denoted by a single asterisk following the Chopping number. Drewry products are extremely useful as temporal markers in that the date of manufacture is embossed on the base of the bottles. The recovered artifacts represent the years 1908 and 1919.

The complete ownership clause is embossed on the body of DlLg-32:96A/83. The company name and Winnipeg are embossed in various locations—most often on the shoulder and the base. The most recent bottle (1919) in the temporal sequence, DlLg-32:96A/84, differs in that the body is plain (without text) while the phrase "PROPERTY OF" has been added to the company name embossed on the shoulder. Chopping (1978:126) lists this type as clear, while the recovered specimen is blue.

DlLg-32:96A/91 is an aqua body sherd with a portion of the ownership clause present. This ownership clause appears to have only been used by Winnipeg firms. As noted above, Blackwoods and Drewry marked their bottles in this manner as did other Winnipeg firms: Pelissier and Sons, Manitoba Brewing Company, Krusen Company, Imperial Brewers Limited, and American Soda Water Company (Chopping 1978).

3.12.1.2.10.2 Unascribed Beverage Bottles

In some cases, embossed markings cannot be traced to the manufacturer or producer. Some specimens have only mold numbers which do not provide any of this information and some recovered specimens have no markings whatsoever. Table 9 lists those artifacts, assigned to the Beverage sub-type, which could not be assigned to a bottling firm.

The standardization of bottle forms is evident within this category. Most of the specimens are the standard cylindrical shape with a crown lip. DlLg-32:96A/88 is earliest in the temporal sequence as

Hutchinson closures were superceded by crown caps in the early 20th century (Jones and Sullivan 1985:162-163). All of the other specimens have crown finishes and represent a range of colours of glass. DlLg-32:96A/89 would have been identified with a paper label and probably would have contained beer rather than a soft drink based on the volume of the bottle. DlLg-32:96A/192, based on colour and configuration, also probably contained beer.

CAT. #	PORTION	COLOUR	COMMENTS
88	lip, neck	aqua	Hutchinson closure
89	complete	clear	2-piece post mold
90	complete	green	D in ♦; 2-piece cup mold; 13
146	complete	olive green	portion of paper label
192	body, base, neck	brown	2-piece post mold; 6
247	lip, neck	brown	crown cap present
248	lip, neck	blue	automatic bottling machine
249	lip, neck	brown	automatic bottling machine

Table 9: Characteristics of Unidentified Beverage Bottles - South Point Road

Conversely, DlLg-32:96A/90 is a small bottle (6 to 7 fluid ounces) and probably contained a soft drink. The colour is the same shade as most ginger ale bottles. This bottle was produced by the Dominion Glass Company of Canada prior to 1939.

DlLg-32:96A/146 is a complete green bottle with a moderately recessed base. The specimen was made in a deep cup mold and rotated so that no seams are evident on the neck. The crown closure suggests that the contents were a carbonated beverage, although the colour is that associated with wine bottles. A miniscule portion of a paper label containing the letter "A" is present on the shoulder.

3.12.1.2.11 Wine Bottles

Early wine bottles had an identifying feature known as a kick-up. The kick-up is a raised section of the base which originated as a sediment trap, and is currently retained as a tradition. During the manufacture of bottles with a kick-up, a downward pointing dome of glass occurs at the top of the kick-up—this element is known as a mamelon. The only artifact curated in the wine sub-type has a kick-up. DlLg-32:96A/193 is a body,base sherd composed of olive glass.

3.12.1.2.12 Gin Bottles

Only one artifact was assigned to the gin sub-type. DlLg-32:96A/45 is clear body sherd embossed with "...ORDON'S DRY GI...". The curvature of the specimen suggests that the bottle was the large (26 ounce) size.

3.12.1.2.13 Whisky Bottles

Whisky bottles are often identifiable by the embossing on the specimens or, in some cases, by remnants of paper labels adhering to the artifact. DlLg-32:96A/218 is a complete, green bottle with a short neck and an applied flattened side lip (Jones and Sullivan 1985:92). The bottle was made in a two-piece cup mold. The adhering paper label has been severely traumatised and only isolated portions of the text can be discerned. The phrase "...ISKIES..." and "...OTLA..." suggest that the product contained Scotch whisky and was imported in bottle.

3.12.1.2.14 Liquor Bottles

This sub-type is a catchall for bottles that held some type of spirits but could not be assigned to whisky, gin, etc. There are thirteen bottles and/or sherds assigned to the Liquor sub-type. Table 10 lists the specimens and salient characteristics.

CAT. #	COLOUR	PORTION	CLOSURE	BOTTLER	COMMENTS
131	brown	2 complete bottles	screw cap	Dominion	July 1950; V-811-A
132	brown	complete	screw cap	Consumers	2003; 2
133	brown	complete	screw cap	Dominion	-
134	brown	body, base	-	Dominion	9447S; 8
135	clear	complete	cork	Consumers	171; 3; 2
136	clear	complete	screw cap	Consumers	2003; 1
145	brown	complete	cork	Forsters	5
190	green	lip, neck, shoulder	screw cap	Glass	-
191	clear	body, base	-	-	two-piece cup; 9; 26
226	brown	body, base	-	Consumers	2002; 2; ...ZS
229	green	body, base	-	Consumers	V-475-A; Jan. 1950
237	brown	body	-	Dominion	text and design
253	olive	lip, neck, shoulder	cork	-	-
254	green	lip, neck	screw cap	-	-
				-	

Table 10: Information on Liquor Bottles from South Point Road

The most distinctive specimen is DlLg-32:96A/145. The marking identifies the bottle as a product of Forsters Glass Company of St. Helens, Lancashire, England. This company was formed in 1902 and the mark was used until World War II (Toulouse 1971:205). The artifact is a heavy, oval bottle with a two-part rounded side finish (Jones and Sullivan 1985:93).

Five large, brown bottles, all with "25 OZS" embossed on the body, were recovered. Two distinct styles of finish are present. The style with a flat, horizontal ring below the screw cap finish is

represented by the two bottles in DlLg-32:96A/131. This type, with the same mold number (V-811-A), was recovered from the north abutment of the Northbound Main Street Bridge Project (Quaternary 1996a:34). The other style of finish lacks the flat ring but has a narrow rounded ring at the base of the neck (DlLg-32:96A/132, 133, and 134). A bottle with the same mold number ("8") as DlLg-32:96A/134 was also recovered from the north abutment of the Northbound Main Street Bridge Project (Quaternary 1996a:34). The two specimens produced by Dominion Glass, DlLg-32:96A/133 and 134, pre-date the introduction of the V mold numbers in late 1945 (Miller and Jorgensen 1986:4).

DlLg-32:96A/136 is a clear specimen identical to the previously described type, i.e., a screw cap closure, a narrow rounded ring at the base of the neck, and "25 OZS". The mold number, "2003", matches that on the brown specimen, DlLg-32:96A/132. DlLg-32:96A/135, also embossed with "25 OZS", was produced earlier than DlLg-32:96A/136, based on the type of closure, i.e., cork, and the lower mold number.

Another specimen with a mold number (2002) that has been previously recorded is DlLg-32:96A/226. This basal sherd, deriving from a brown, 12 ounce, oval bottle matches the mold number markings of a clear, mickey-sized liquor bottle (DlLg-95C/122) recovered from the north abutment of the Northbound Main Street Bridge project (Quaternary 1996a:34). A green basal sherd, DlLg-32:96A/229, has a very similar mold number to those recovered during that previous project. The difference being that DlLg-32:96A/229 has the suffix A rather than C or D. As with the majority of the Main Street Bridge bottles, this specimen was manufactured at Point St. Charles, Quebec.

DlLg-32:96A/237 is a body sherd of a flask-type brown bottle which has portions of embossed text—"DIS[tilled] OVE[r]..." surmounting a multi-branched candelabra. The distillery that used this design has not yet been ascertained.

Of the remaining four specimens, only DlLg-32:96A/191 has a base which contains some information. This oval bottle, produced by Consumers Glass Company of Canada, may have been a 26 ounce container and the marking on the base refers to size rather than mold number. DlLg-32:96A/253 has a two-part finish consisting of an upper down-tooled segment above a V-shaped string (Jones and Sullivan 1985:92-93). DlLg-32:96A/190 has a screw cap closure similar to the complete bottles, although the size, "26 OZS.", is embossed on the shoulder. DlLg-32:96A/254 is similar, and may be identical, although the sherd does not contain the shoulder element which would have the size embossing, if present.

3.12.1.2.15 Unassignable Bottles

Artifacts in this grouping have some identifying characteristics, such as shape or manufacturer's marks. However, the data is insufficient to permit identification of the function of the container; sealer versus milk bottle or medicine bottle versus condiment bottle. Some specimens with marks could be attributed to a manufacturer but not to a functional grouping. Occasionally, the style of manufacture of the neck and lip of bottles suggests the possible contents of the container. Also, the type of closure and evidence of manufacturing technique can provide approximate dates. For

example, the length of the mold seam can indicate a general age—if the seam extends to the lip of the bottle, it was produced after 1920.

There are forty-eight catalogue numbers in this sub-type representing sixty-five specimens. The sherds vary in colour: amber, amethyst, aqua, blue, brown, clear, and green and vary in shape. The specimens were divided into two groups—one group which has markings and a second group which has no markings whatsoever.

3.12.1.2.15.1 Marked Unassignable Bottles

Twenty-six of the 48 catalogue numbers have some type of marking on them. Table 11 details the colour, quantity, shape, finish, marks, and any other information that could be ascertained from these specimens.

CAT. #	TYPE	QTY	COLOUR	SHAPE	FINISH	MARKS	COMMENTS
194	sherd	1	clear	cylindrical	missing	painted design	soft drink?
195	bottle	1	clear	rectangula	narrow round	C;195	medicinal?
196	bottle	1	clear	r	square ring	F;733;5	medicinal?
197	bottle	1	clear	cylindrical	square ring	CC	cup mold;applied lip
198	bottle	1	clear	cylindrical	screw cap	? in ♦;4932;2	ribbed
199	bottle	1	clear	rectangula	missing	C in O of dots	chamfered
200	sherd	1	clear	r	missing	M over M;220	ribbed
203	sherd	1	green	rectangula	missing	dot	beverage?
205	sherd	1	clear	r	missing	C in V	food?
207	sherd	1	green	hexagonal	missing	reversed 1	beverage?
208	sherd	1	amber	cylindrical	missing	honeycomb	liquor?
209	sherd	1	blue	cylindrical	missing	32 OZ.	medicinal?
222	sherd	1	aqua	cylindrical	prescription	174	medicinal?
224	sherd	1	clear	cylindrical	missing	C	medicinal?
225	sherd	1	clear	cylindrical	missing	M in O;...DE	milk?
227	sherd	1	amethyst	square	missing	1291	patent date
228	sherd	1	clear	rectangula	missing	D in ♦;1928	food?
236	sherd	1	clear	r	missing	...UR	-
238	sherd	1	brown	cylindrical	missing	D in ♦;V-1466-E	liquor?
239	sherd	1	green	cylindrical	missing	duck feet	-
240	sherd	1	clear	cylindrical	missing	? in O	-
241	sherd	2	brown	cylindrical	missing	32	chemical?
259	bottle	1	clear	cylindrical	screw cap	D in ♦; *it* in O	chemical?
260	bottle	1	clear	cylindrical	narrow round	PENSLAR; P 52	-
261	bottle	1	clear	cylindrical	narrow round	C;4	ink?; cork
262	sherd	1	clear	cylindrical lozenge rectangula r cylindrical square	missing	39;scrolls;diamonds	salt shaker?

Table 11: Marks on Unassigned Bottles from South Point Road

Most of the recoveries provided insufficient data for amplification. Only those artifacts which yielded more than the minimal data in the table or which could be found in the references are discussed below. The finishes noted in the table are based upon those illustrated in Jones and Sullivan (1985), Stevens (1967), and Sydenham (1908).

Two specimens, DlLg-32:96A/195 and 224, have a blocky "C" embossed on the base. The complete bottle has a slightly rounded rectangular vertical cross-section of the body and a raised ridge around the shoulder. The manufacturing firm has not been identified. A similar style of bottle, albeit with no markings, is represented by DlLg-32:96A/264 (a complete bottle) and DlLg-32:96A/244 (two sherds). This would indicate a recognized type of bottle manufactured by more than one company. DlLg-32:96A/261 has the same embossed mark but the contents would have been different. The other specimens with this mark have a small mouth compared to DlLg-32:96A/261. In addition, DlLg-32:96A/261 has a black residue in the interior. This may derive from the product, i.e., ink or shoe polish, or from railroad coal dust being deposited by ground water in the bottle after deposition.

DlLg-32:96A/197 is characterized by an applied lip and mold seams which indicate manufacture by being blown into a deep cup mold. A faint logo of two joined "C's" occurs on the base. Toulouse (1971) does not list this mark. The finish and squat shape of the bottle suggest that the contents may have been medicinal liquids or flavouring extracts.

DlLg-32:96A/196 can be identified to the manufacturing firm which is Fairmount Glass Works of Indianapolis, Indiana. The company used an "F" as their logo from 1930 to 1945 (Toulouse 1971:200-202).

One of the more unique specimens is DlLg-32:96A/260. This complete bottle with a domed shoulder has a company or brand name "PENSLAR" written, in script, in an ascending diagonal on the front panel. There are domed recessed panels on both lateral sides which may have been decorative or have contained a paper label.

DlLg-32:96A/203 and 207 are basal portions of what appear to be beverage containers. This assessment is based on diameter and colour. DlLg-32:96A/207 has a slightly domed base suggesting that it possibly contained wine, although the diameter would be equivalent to a 7 to 10 fluid ounce beverage bottle.

DlLg-32:96A/194 is probably also a beverage container, more specifically a soft drink bottle. A painted partial design of a man wearing a black tuxedo, highlighted with some white markings, is present. This logo/advertising design could not be located in the available literature.

DlLg-32:96A/209 is the shoulder portion of a large blue bottle (32 ounces) where it rises from the body to the neck in a series of stepped domes. Based upon the colour, which resembles the blue of

Bromo-Seltzer and Milk of Magnesia bottles, it is assumed that this bottle would have also contained a medicinal product.

Two specimens have some markings on the side of the body. DlLg-32:96A/236 has "...UR" as part of the product name or company name, as yet undetermined. DlLg-32:96A/239 is a pale yellow-green body,base sherd with vertical rows of small patterns which resemble duck's feet. The texture of the glass and quantity of air bubbles suggest that this was an early container blown in mold. As no base seams are present, it may have been a Ricketts or cup mold.

DlLg-32:96A/198 has an indiscernible manufacturer's logo on the base. The exterior diamond is visible but the interior letter is blurred and could be an "I" representing the Illinois Glass Company (1916-1929) or a "D" representing the Dominion Glass Company (post-1913). The bottle has slightly concave front and back panels and expanding decorative ribs on the side panels providing a secure hand grasp. This design would function well for a product that is meant to be handled with wet hands and, as such, may have contained a product used in toiletry. A similar comment can be applied to DlLg-32:96A/259, wherein the body, excepting the front and back panels where paper labels would be applied, is covered with a raised stippled design. In addition, there is a slight expansion of the tapering body at the shoulder which would prevent slippage. The logo, on the base, suggests an advertising slogan similar to "Use *it* for best results" where the product name is part of the slogan.

DlLg-32:96A/227 has a slight amethyst tinge suggesting manufacture prior to 1914. The information "PATENTED - APRIL 25TH, 1882" is embossed on the base, in addition to the mold number "1291". This is insufficient to identify the product although a portion of the body has a raised horizontal ridge similar to that observed on commercial-sized ink bottles (Chopping 1978:246).

DlLg-32:96A/225 was produced by the Maryland Glass Corporation of Baltimore, Maryland. The "M in a circle" logo has been used since 1916 (Toulouse 1971:339).

Four of these artifacts were manufactured in Canada. DlLg-32:96A/205 has the Consumers Glass logo. DlLg-32:96A/228 was produced by Dominion Glass in 1944. DlLg-32:96A/238 was also manufactured by Dominion Glass in September 1956 at Wallaceburg, Ontario. DlLg-32:96A/259 was manufactured by Dominion Glass at Redcliff, Alberta in 1944 or 1954.

The remaining two artifacts may not be bottles, but may in fact be dinnerware items. The shape and decorative pattern of DlLg-32:96A/262 suggests a salt shaker. This artifact, missing the upper portion, has a tapering body with extensive decoration. DlLg-32:96A/200 also has a completely decorated body with each of the hexagonal panels consisting of vertical ribs. Again, the upper portion of the specimen is missing. The logo of an "M over an M" is illustrated by Toulouse (1971:365) but unidentified. The function of both of these containers could perhaps be firmly determined if the finish was present. Currently, the options are salt and/or sugar shakers, cruets, condiment containers, or perfume bottles.

3.12.1.2.15.2 Unmarked Unassignable Bottles

The remaining twenty-two catalogue numbers have no embossing or marks to indicate a manufacturer or the contents. Table 12 details the quantity, colour, shape, finish, and any applicable comments for these artifacts. Only a few of the specimens merit further discussion.

DlLg-32:96A/250 was manufactured after 1920 and has a club sauce finish with an interior seating for a glass stopper. The finish is the generic club sauce type, commonly identified with Lea & Perrins (Jones and Sullivan 1985:152).

A second common style of finish, the Perry Davis style, is present on DlLg-32:96A/252. This type of finish is extremely common on patent medicine bottles, such as Castoria.

CAT. #	TYPE	QTY	COLOUR	SHAPE	FINISH	COMMENTS
201	sherd	1	clear	square	missing	Owens scar
204	sherd	1	clear	square	missing	-
206	sherd	1	blue	cylindrical	missing	beverage?
221	sherd	1	clear	rectangular	missing	braced side panel
231	sherd	6	green	cylindrical	missing	soft drink?
232	sherd	2	clear	cylindrical	missing	-
233	sherd	1	green	cylindrical	missing	beverage?
234	sherd	1	aqua	square	missing	post mold
242	sherd	1	aqua	rectangular	missing	-
243	sherd	4	clear	?	missing	3 different bottles
244	sherd	2	clear	rectangular	missing	resembles 96A/195
245	sherd	2	green	rectangular	missing	melted
246	sherd	6	clear	cylindrical	missing	-
250	sherd	1	aqua	cylindrical	club sauce	neck and finish
251	sherd	1	clear	cylindrical	prescription	medicinal?
252	sherd	1	clear	cylindrical	Perry Davis	neck and finish
255	sherd	1	green	rectangular	champagne	neck and finish
256	sherd	1	brown	?	prescription?	medicinal?
257	sherd	1	brown	cylindrical	screw cap	chemical?
258	sherd	1	aqua	cylindrical	rounded	glass stopper;cork
264	bottle	1	clear	oval	narrow round	resembles 96A/195
278	sherd	1	brown	oval? rectangular cylindrical?	missing	neck

Table 12: Unmarked Unassigned Bottles - South Point Road

DlLg-32:96A/255 has an applied lip with the type of finish known as champagne, flat top (Jones and Sullivan 1985:88). In spite of the name, this finish occurs on wine and liquor bottles.

3.12.2 Cooking

Eight artifacts (four catalogue numbers) were assigned to the cooking sub-category (Table 13). Seven of the sherds are portions of bowls, while one sherd may be a portion of a pie plate.

DlLg-32:96A/40 consists of five sherds from a small, off-white mixing bowl with a six inch diameter. An exterior braced rounded lip with a lower horizontal rounded ridge, extending 23.0 mm below the rim, are the only decorative elements. A green maker's mark, consisting of a church with "T.G. GREEN & CO. LTD." printed above it and "CHURCH GRESLEY" and "MADE IN ENGLAND" printed below it, occurs on the base. In addition, there is a "C" stamped over the company name. The style of the church is identical to the mark which was used during the 1930s (Godden 1964:289-290) and into the present (Kovel 1986:32), although the placement of the maker's name is different. Godden notes that this firm began circa 1864 at Church Gresley, near Burton-on-Trent, Derbyshire and that the church mark was first registered in 1888. Variations of the church design do occur over the years. Kovel states that the company manufactured cookware and oven-to-table ware and that variations in the wording also occur on these marks. The C may represent a potter's mark.

CAT.#	OBJECT	QTY	MATERIAL	COLOUR	INFORMATION
40	Bowl	5	Porcelain	White	T.G. Green & Co.
177	Bowl	1	Stoneware	White;Yellow	-
268	Plate	1	Glass	Clear	? Pie Plate
270	Bowl	1	Plastic	White; Purple	wavy lines

Table 13: Cooking Containers from South Point Road

The remaining two bowl sherds may also be from mixing bowls. DlLg-32:96A/177 is a porcelain body sherd with a yellow exterior and a white interior. There are no distinguishing marks on this artifact. DlLg-32:96A/270 is a white plastic body sherd with three irregular-sized painted, wavy purple lines on the interior surface. The material of this sherd indicates very recent manufacture and it may actually not belong in this category.

The final sherd, DlLg-32:96A/268, is the lip,body,base portion of a clear glass pie plate. This determination is based on the steepness of the shallow body wall (25.1 mm on the interior), the flat base, and the thickness of the glass. Although the small portion of the circumference represented by the sherd precludes a more accurate determination of the diameter, this pie plate is estimated to be a nine or ten inch dish.

3.12.3 Ornamental

The two artifacts assigned to this sub-category were primarily used for their decorative features rather than any utilitarian function. DlLg-32:96A/130 consists of two green sherds—one is a molded base,body sherd that appears to be an animal form and the other is a basal sherd which appears to be a flat base with a foot on it. Although the pieces do not fit together, they are identical in paste, colour, and proportion. The original ornament may have been a frog sitting on a lily pad.

3.13 Dinnerware

Although Dinnerware, which consists of plates, cups, bowls, etc., are types of containers and technically are a sub-category within the container hierarchy, the number of recoveries and the distinct information that is gleaned from these specimens is conducive to describing them in a separate section. Dinnerware items can be composed of different materials. The specimens recovered from the new road excavations across South Point are made of metal, glass, and ceramic.

3.13.1 Metal Artifacts

DlLg-32:96A/116 and 117 are enamelware cups. DlLg-32:96A/116 is a complete, slightly-rusted, blue and white specimen. Ashdown (1909:753) lists this style, with a flaring body and a smaller handle, as a tea cup. DlLg-32:96A/117 is an incomplete, straight-walled, very rusted blue cup with most of the handle missing. Ashdown (1909:753) calls this style a mug.

3.13.2 Glass Artifacts

DlLg-32:96A/114 and 115 are both portions of clear, glass tumblers. DlLg-32:96A/114 is a tall, nearly complete tumbler with a portion of the lip and body missing. The body flares up slightly from the base and the specimen measures 137.6 mm in height with a diameter of 73.5 mm. This tumbler is decorated with eleven, 19.8 mm wide, vertical panels, running 58.0 mm from the base up the body. The remainder of the body has a continuous narrow ribbed pattern on the interior surface. DlLg-32:96A/115 is a body,base portion of a plain, non-decorated tumbler. The lip and a large portion of the body are missing from this specimen. The complete tumbler would have been approximately the same height as DlLg-32:96A/114, but the diameter would have been approximately 65.1 mm. DlLg-32:96A/115 has a "3" embossed on the base.

DlLg-32:96A/176 consists of two clear, glass sherds from a bowl. The lip diameter of this bowl would have measured approximately 6+ inches. The base has a sunburst decoration, while the sides of the body are domed panels. This bowl may have been used as a small serving bowl, a cereal bowl, or possibly a berry bowl. The Sears, Roebuck Catalogue depicts much more ornate glassware patterns that include eight inch berry bowls (Amory 1969:800).

3.13.3 Ceramic Artifacts

Ceramic dinnerware includes place settings—plates, small bowls, cups and saucers—and serving pieces—platters, large bowls, creamers. Because dinnerware is usually manufactured in sets of the same patterns, the decorative features of a set cross-cut the types of objects. The recoveries are separated into groups based on colour and, within each colour category, decorative design and any information such as manufacturer, jobber, company of use, etc. will be discussed.

3.13.3.1 White Ceramics

The white colour group consists of 17 catalogue numbers comprising 23 sherds. As noted in other reports, these white sherds are only fragments of complete objects—there may be patterns with other colours that fit onto these sherds.

Of the 17 catalogue numbers in the white ceramics, seven (consisting of eleven sherds) have no maker's marks, no indications of a pattern, or any other marks (Table 14). None of these sherds appear to go together.

CAT. #	OBJECT	QTY	PORTION	COMMENTS
34	Cup	2	body;base	different cups
35	Saucer	2	lip;body	different saucers
36	Plate	3	body;base	different plates
37	Bowl?	1	body	-
38	Lid	1	top;flange	small teapot?
39	Bowl	1	lip;body;base	oval, shallow, serving dish?
281	Cup	1	lip;body	-

Table 14: Plain White Ceramics from South Point Road

Only two of the specimens merit further attention. DlLg-32:96A/38 is an incomplete lid with an approximate diameter of 52.3 mm. It may be the lid from a small teapot (one to two cup) or the lid from a sugar bowl. DlLg-32:96A/39 is a lip,body,base sherd from a shallow, 29.8 mm deep, oval dish typical of the kind found as part of the serving set from restaurants or railway dining cars.

The remaining ten catalogue numbers, totalling twelve sherds, could be divided into two groups—those which have maker's marks on them and those which have no maker's mark but have some form of decoration or another mark on them.

3.13.3.1.1 Manufacturers of White Ceramics

Information printed, usually, but not always, on the base of ceramic vessels can provide the country of origin of the piece, the pottery firm, the pattern name, and the year of manufacture. Three sherds could definitely be assigned to manufacturers, while a fourth sherd is currently unassignable.

A) ENGLAND

DlLg-32:96A/26 is a large body,base sherd from a dinner-sized plate. The majority of the upper surface of this artifact has exfoliated off. A black maker's mark consisting of the Royal Arms mark, "IRONSTONE CHINA", "J&G MEAKIN", "HANLEY", and "ENGLAND" is printed on the base.

This company began producing pottery in Hanley, Staffordshire in 1851 and this particular mark has been used since circa 1890 (Godden 1964:427).

B) UNITED STATES

Two sherds have been assigned to the Hall China Company of East Liverpool, Ohio. DlLg-32:96A/8, a body,base cup sherd, and DlLg-32:96A/9, a basal plate sherd, both have a blue maker's mark consisting of a circle with "HALL" printed inside it and portions of "MADE IN U.S.A." printed below the circle. In addition, DlLg-32:96A/9 has "...E IN ...S.A" printed, in gold, on the left side of, and perpendicular to, the maker's mark. While the Hall Company began in 1903 and is still in business, this mark was used from 1903 to 1972 (Kovel 1986:41).

C) UNIDENTIFIABLE

DlLg-32:96A/30 is a basal sherd from a plate. The letters "SL..." are printed, in gold, on the base of this sherd. Currently, this cannot be identified as a manufacturer of porcelain and may, in fact be part of a pattern name instead.

3.13.3.1.2 Decoration or Marks on White Ceramics

Eight sherds have some form of decoration or marks on them (Table 15). In addition to an embossed leaf on the body, DlLg-32:96A/27 has two blotches of green paint on the base which may be an obliterated maker's mark. DlLg-32:96A/28 consists of two sherds of an ornate plate with the body divided into panels giving the outline of the lip a polygonal (possibly twelve-sided) shape. A row of embossed dots occurs just below the edge of the lip. DlLg-32:96A/31 consists of two sherds of a thicker, coarser dinner-sized plate. The mold number "2" is stamped at the edge of the base near the body on the exterior surface. DlLg-32:96A/29 and 33 are both portions of bowls with a molded curved body. DlLg-32:96A/33 would have been the larger of the two, perhaps a serving bowl, while DlLg-32:96A/29 may have been a sugar bowl. DlLg-32:96A/279 is a small body sherd from a cup with the embossed pattern on the exterior surface.

CAT. #	OBJECT	QTY	PORTION	DECORATION
27	Cup	1	body;base	leaves?
28	Plate	2	lip;body	panelled;dots
29	Bowl	1	body;base	molded
31	Plate	2	lip;body;base	2
33	Bowl	1	body;base	molded
279	Cup	1	body	curlicues

Table 15: Decoration or Marks on White Ceramics - South Point Road

3.13.3.2 Gold-on-White Ceramics

Three catalogue numbers, consisting of three sherds, have a gold line pattern on them. The gold line pattern has been recovered from many nearby sites (Kroker and Goundry 1993:92-93; Quaternary 1995:75, 1996b:73). DlLg-32:96A/2 and 280 are both single saucer sherds. DlLg-32:96A/2 has a single gold line 25.1 mm down from the lip on the body, while DlLg-32:96A/280 has a single gold line just below the lip and a second gold line 20.1 mm below it on the body. Neither one of these sherds has any manufacturer information on it.

DlLg-32:96A/1, also a saucer sherd, has the gold line just below the lip as well as a gold double circle, in the form of a belt, with a crown logo atop it, on the body. The centre of the circle has an illegible figure in it and the information "MANITOBA CLUB ...874" is printed inside the double circle (Plate 2a).

The Manitoba Club has a long and illustrious history in the City of Winnipeg and is noted for being the oldest private club in Western Canada. It was formed as a "Gentleman's Club" (ladies and families were allowed to attend by 1930, however women were not allowed into the club as full members until 1991) on July 16th, 1874 with the first clubhouse being located in Red River Hall (McDermot Block) on the corner of Main Street and Lombard Avenue. In 1875, this location burned to the ground and the club was moved to a rented house on the east side of Main Street. Six years later, a new clubhouse was built on Garry Street, midway between Portage Avenue and Graham Avenue. In 1902, the club bought land from the Hudson's Bay Company and proceeded to build a new clubhouse on Broadway and Fort Street, just off Main Street. This clubhouse was officially opened on October 11, 1905, by Earl Grey, and stands in the same location today (Benham 1995).

Many members of the Manitoba Club have played an integral part in the history of this province and of Canada. Some of the earlier members included W. Osborne Smith, A.G.B. Bannatyne, Jas McKay, James Ross, W.F. Alloway, Hugh John Macdonald, Charles N. Bell, E.L. Drewry, and many more. Distinguished visitors to the club have included numerous Canadian Prime Ministers, many Governor-Generals of Canada, members of royalty, and other well-known guests such as Mark Twain, Thompson Seton, H. M. Stanley, Joseph Tyrell, and many more (Benham 1995).

In 1887, the club installed a stained glass window in the Garry Street location. The window commemorated the Diamond Jubilee of Queen Victoria and incorporated the emblems of various countries—England, Scotland, Ireland, and France— that represented the membership along with the initials "VR" (Victoria Regina). In addition, one of the members was asked to make a sketch of a crest for the club to be included in the window. This crest is the double circle belt with a crown above it and a bison head inside it, plus the words Manitoba Club 1874 inside the double circle (Plate 2b). The window was eventually moved to the Broadway Street location in 1909 (Benham 1995).

Dll-32:96A/1 is obviously part of one of the dinnerware sets from the Manitoba Club. Although, there is no indication of a maker on this sherd, the sherd had to have been produced after 1887. Given

the general temporal range of materials on this site, the end date for production of this piece could vary from the 1920s through to the 1990s. Further research, through one of the members of the club or the staff who may recognize the pattern, might elicit this information..

Plate 2: Manitoba Club Emblem

3.13.3.3 Blue-on-White Ceramics

The blue-on-white colour category consists of three catalogue numbers representing seven sherds. All of the patterns on these sherds are unique and there are no indications of any maker's marks.

Dll-32:96A/4 is three lip,body sherds of a plate. The lip is scalloped and the decoration consists of winding branches of leaves falling from the lip down onto the body, with a pattern of hops and leaves on the body. In addition, an embossed leaf pattern is superimposed over the upper leaf pattern.

DlLg-32:96A/7 is a single lip,body sherd from a cup. The exterior pattern on this sherd is quite ornate. A 5.9 mm band of vertical lines falls from the lip. Superimposed on this band are sequential patterns of curlicues interspersed with patterns of sprays of flowers, with leaves, and ribbons. Portions of the blue colour of this pattern are very dark and could be identified as a dark indigo shade of blue, or in some cases as black. Numerous shades of various colours are used in ceramic decoration and there is a propensity for individual eyesight to see differing zones of demarcation for each primary colour.

DlLg-32:96A/10, three lip,body,base sherds of a plate, are blue colour-slipped artifacts. The blue iridescent patina on these sherds is referred to as lustre. Lustre is defined as a "...pottery that has a brightly shining metallic overglaze that has become iridescent" (Cox 1970:305). This is obtained from "a thin metallic sheen [being] applied...over a tin glaze. It consists...of finely divided metals of various sorts, and is fired at low, reducing atmosphere" (Cox 1970:page XIV).

3.13.3.4 Blue and Gold-on-White Ceramics

There are three catalogue numbers consisting of three shreds that have a blue and gold-on-white pattern. Two of these sherds are from the same set of china, although not from the same dish. DlLg-32:96A/3, a lip,body,base sherd from a saucer and DlLg-32:96A/6, a lip,body sherd from a plate both have the same royal blue band, edged on both sides with gold, just below the lip. The band measures 10.0 mm on the saucer and 11.0 mm on the plate. In addition, DlLg-32:96A/3 has a portion of a maker's mark on the base. This is a crown logo with "...SLEM" and "...ENGLAND" printed below it. Many pottery firms were located in Burslem, England and many of these used the crown logo—Dunn Bennett & Co., Keeling & Co., Wood & Sons to name a few. The mark on DlLg-32:96A/3 cannot be assigned to any of the companies in Burslem at this time.

DlLg-32:96A/5 is the lip,body portion of either a plate or saucer with a scalloped lip. The exterior and interior surfaces are decorated. The exterior surface has a blue wash over the white body. There is a dark blue line following the lip and falling down onto the body to form a band, 5.7 mm wide, on the interior surface. Lighter large blue flowers, with ribbons on the stalks, are painted below the darker band. A pattern of embossed curlicues occurs over the dark band with a single cross-like pattern overlying the floral pattern. The gold is painted willy-nilly over the embossed pattern.

3.13.3.5 Ceramics of Various Colours

Black (DlLg-32:96A/32)

DlLg-32:96A/32 is a lip,body,base sherd from a cup. The entire exterior and interior is blackened from having been in contact with a fire. The original colour, or any pattern, cannot be discerned from this sherd due to the charring.

Black-on-White (DlLg-32:96A/17, 22)

DlLg-32:96A/17 is a basal sherd from a plate. A small portion of a painted flower and a vine of leaves appears on the interior base. A stamped "V" mark occurs on the base. This may be a potter's mark. DlLg-32:96A/22 is a body sherd from either a bowl or a cup. A black flower with leaves is the only pattern on the exterior of this specimen. Neither sherd has any indication of a manufacturer.

Brown-on-Yellow (DlLg-32:96A/18)

DlLg-32:96A/18 is a small base sherd from a plate. The exterior and interior glaze is a yellowish cream colour. A small portion of two brown leaves occurs on the interior surface.

Green and Black-on-White (DlLg-32:96A/12)

This is a single lip,body,base saucer sherd. A green wash occurs on the lip and upper part of the interior body. Four thin (0.9 mm) painted green lines are closely spaced together, approximately 2.4 mm apart, on the lower half of the body, while a single, thin (0.8 mm) black line defines the break between the body and the base. The base is covered with a green wash.

Green and Brown-on-White (DlLg-32:96A/14)

DlLg-32:96A/14 is a single lip,body sherd from a plate. The decoration occurs just below the lip and consists of a band of green joined inverted "Y's" between a straight brown line on the top and a scalloped brown line on the bottom. This band measures 6.2 mm in width. Below the band are alternating patterns of green dots outlined in brown and small brown loops. Every second dot has a three-leafed pattern falling from it. Interestingly, there is an overlap of the end of a pattern—one half of a Y has been obliterated and one of the loops is missing.

Orange and Black-on-White (DlLg-32:96A/21)

DlLg-32:96A/21 is a single lip,body,base sherd of a cup with a complete handle still attached. A crudely painted lustre-like orange band, with a black line edging the bottom, occurs on the body falling from the lip. The band measures 10.3 mm in width. The exterior of the handle is painted the same orange colour. The finish of this specimen, on the interior surface, is a white lustre sheen. This lustre is not obvious on the exterior surface.

Pink-on-White(DlLg-32:96A/13)

A single lip,body sherd, possibly from a bowl, has five pink lines painted in concentric circles on it. The lines vary in width, from 3.3 mm to 1.7 mm, with the thickest nearest to the lip and the thinnest at the bottom. The lines appear to be fairly evenly spaced at 3.1 mm apart.

Pink, Green and Blue-on-White (DlLg-32:96A/24)

DlLg-32:96A/24 is a large portion of a saucer. The pattern consists of a pink rose and green leaves joined, with garlands of green leaves, to more rose patterns. In between each rose, above the garland of leaves, is a spray of small blue flowers and green leaves. Two marks occur on the base—the first mark is the initials "GDA" over "FRANCE" , in green lettering, while the second mark is a double red circle with "CH FIELD HAVILAND" and "LIMOGES" printed, in red, inside the double circle.

The green mark belongs to a company founded by Charles Field Haviland, son of one of the four brothers who founded various porcelain factories in the 19th century. Charles Field Haviland first worked at Limoges with an uncle (David) in 1852. In 1859, he formed a competing company with another uncle (Richard), formed a new company with his father (Robert) in 1865, and in 1870, founded the Charles Field Haviland & Co. Various other machinations and name changes of this firm took place and eventually, in 1902, it became GDA—Gérard, Dufraisseix & Abbot (Kovel 1986:175, 258). Kovel (1986:175) lists this particular mark as having been used from 1937 on.

The red mark was an early mark of Charles Field Haviland & Co. (post-1870). Robert Haviland, who was born in 1898, was a great-grandson of one of the four Haviland brothers and a grandson of Charles Field Haviland. He began his own factory in 1924 and bought the rights to his grandfathers mark, the red Charles Field Haviland mark, in 1942. This factory still operates under the Robert Haviland & C. Parlon name (Kovel 1986:258).

DlLg-32:96A/24 had to have been manufactured by the Gérard, Dufraisseix & Abbot company after 1937. At some point the specimen may have been shipped to the Robert Haviland & C. Parlon firm, where their maker's mark was placed on it. This would have occurred post-1942.

In addition to the manufacturer's information, this sherd also has what appears to be a partial "E" in a diamond with "TORON..." printed below it on the base below the red Charles Field Haviland & Co. mark. This could indicate that this china was distributed by the T. Eaton Company out of Toronto.

Pink, Green and Gold-on-White (DlLg-32:96A/20)

DlLg-32:96A/20 is a lip,body,base sherd from a cup. The pattern consists of intertwined garlands of pink roses and green leaves on the exterior body. A single, thin gold line occurs just below the lip. There is no indication of a maker's mark on this sherd.

Purple and Green-on-White (DlLg-32:96A/19)

DlLg-32:96A/19 is three body,base sherds from a large plate. The pattern, which occurs on the base and runs up onto the body, consists of clematis-like purple flowers on green vines. A maker's mark occurs on the base of one of the sherds. This mark consists of a double red circle with "CH FIELD HAVILAND" and "LIMOGES" printed, in red, inside the double circle. As previously noted, this mark could be the post-1870 mark of Charles Field Haviland & Co., however, given the temporal range of the archaeological stratum, it is more likely that the mark dates post-1942 when it was reinstituted by the Robert Haviland & C. Parlon company of Limoges, France.

Multicolour (DlLg-32:96A/11, 15, 16, 23, 25)

The multicolour category consists of those artifacts which have a pattern of more than three colours on a white background. Table 16 outlines the information for these specimens.

Dll-32:96A/11 is a lip,body sherd with a blue band (14.6 mm wide) which falls from the lip down onto the body and is separated from the orange body by a thin black line. This piece is a typical lustreware sherd similar to those made by Noritake prior to WWII and by other Japanese firms during the Allied occupation of Japan from 1945 to 1952.

Dll-32:96A/15 has a gold line following the lip and a band of multiple decoration below that. The band, outlined in yellow, includes panels of pink rose sprays, interspersed with panels of purple flowers surrounded by purple dots on white backgrounds and placed on green backgrounds. The band is topped by a row of dots and a thin yellow line lies below it.

CAT. #	QTY	OBJECT	COLOUR	COMMENTS
11	1	Plate?/Saucer?	blue,black,orange	lustreware
15	1	Plate	gold,yellow,pink,purple,green	geometric, floral
16	1	Bowl	pink,yellow,red,black	floral
23	1	Cup	yellow,black,pink,blue,green	floral,Johnson Bros.
25	1	Bowl	gold,pink,blue,green,orange,black,yellow	floral,line

Table 16: Multicoloured Ceramics from South Point Road

Dll-32:96A/16 is a body,base sherd from a large bowl, perhaps a fruit bowl. A large pink flower is painted on the bottom. The centre of the flower is yellow with black and red dots.

DlLg-32:96A/23 is a lip,body,base sherd of a cup. The cup has a molded body, in four segments, and the pattern consists of a yellow wavy band, just below the lip. The bottom of the yellow band is outlined with a line of black leaves. The floral spray, consisting of one pink rose, one yellow buttercup, and one blue morning glory surrounded by green leaves, occurs at each junction of the molded body just below the lip. A mark, "JOHNSON ..." of "ENGLAND" is impressed in the base. This is likely the mark of the Johnson Bros. firm of Hanley, Staffordshire which has been producing porcelain from 1883 until the present (Godden 1964:355). The mark cannot be found in the references, but, based on the associated artifacts, it more than likely post-dates WWI.

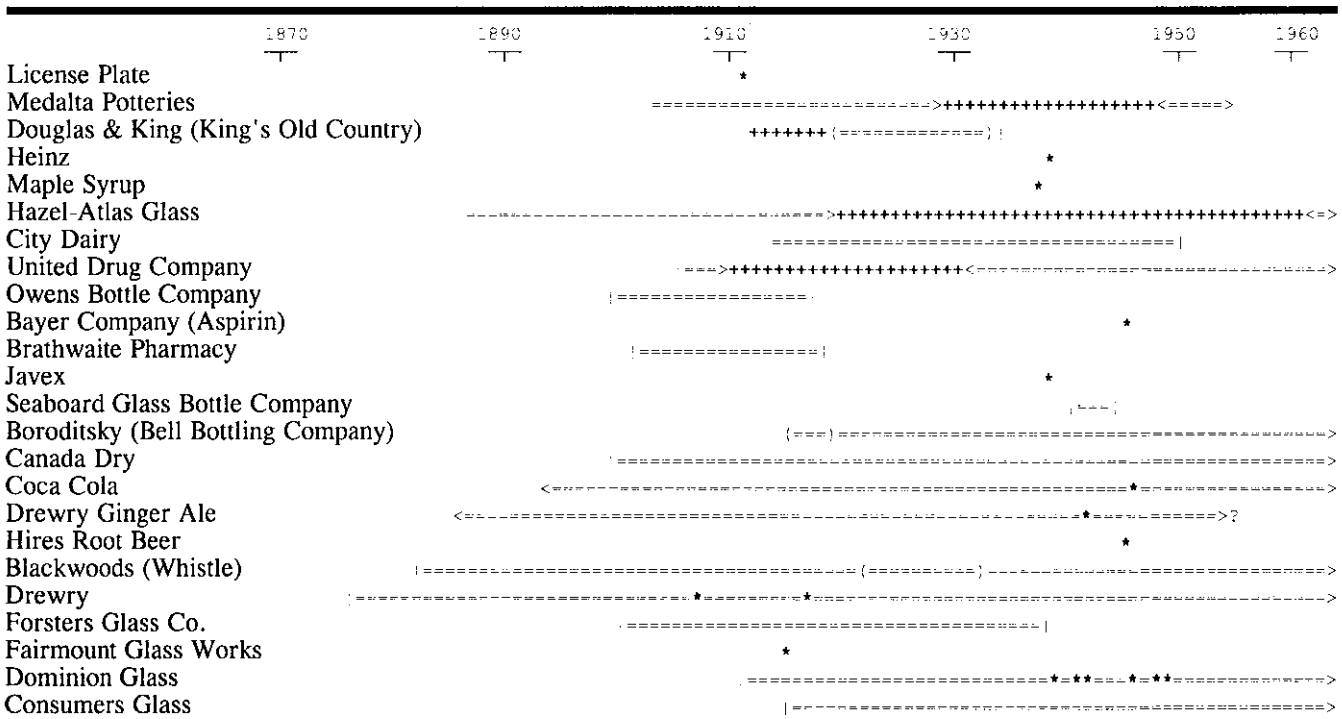
DlLg-32:96A/25 is a lip,body sherd, with a complete handle attached. The diameter of this bowl (approximately 150.0+ mm) and the shallowness of it (approximately 79.1+ mm) indicate that it probably was a serving bowl such as a covered vegetable dish. There is an interior shelf where a lid might have sat. The C-shaped handle ends in a shell shape at the bottom and has a continuous gold

line outlining it. Another thin gold line follows the lip of this bowl, while the body has sprays of pink, blue, and orange flowers on green vines spaced intermittently around it.

3.14 Summary

The types of recovered artifacts are indicative of a mixture of activities. Storage containers (e.g., bottles, jars, crocks, etc.) and dinnerware (plates, cups, etc.) dominate the assemblage. The architectural evidence, in terms of *in situ* structures within the impact area, was non-existent. The uppermost soil horizon (1890-1910) underlay the recent fill which contained quantities of structural debris and the diagnostic artifacts described in the preceding sections.

Many artifacts, such as bottles and ceramic dinnerware, provide time ranges for their manufacture. These derived dates can provide information relating to the period of deposition at an historic archaeological site. Examination of the recovered artifacts (Figure 3) shows a slight pattern. As some artifacts (nails, railroad spikes) maintain a similar form for several decades, it is impossible to ascertain when they were manufactured. However, other specimens (e.g., Drewry or Dominion Glass bottles) have marks which can be dated to the exact year of manufacture. Deposition of bottles usually occurs soon after the container is emptied, whereas deposition of dinnerware specimens usually occurs a considerable time after the object was manufactured. After manufacture, the plate, for example, is shipped to a wholesaler who ships it to a retail outlet where it is purchased by an individual who uses it until an accident results in damage, at which time it is usually discarded. This time span can range from under a year to several decades.



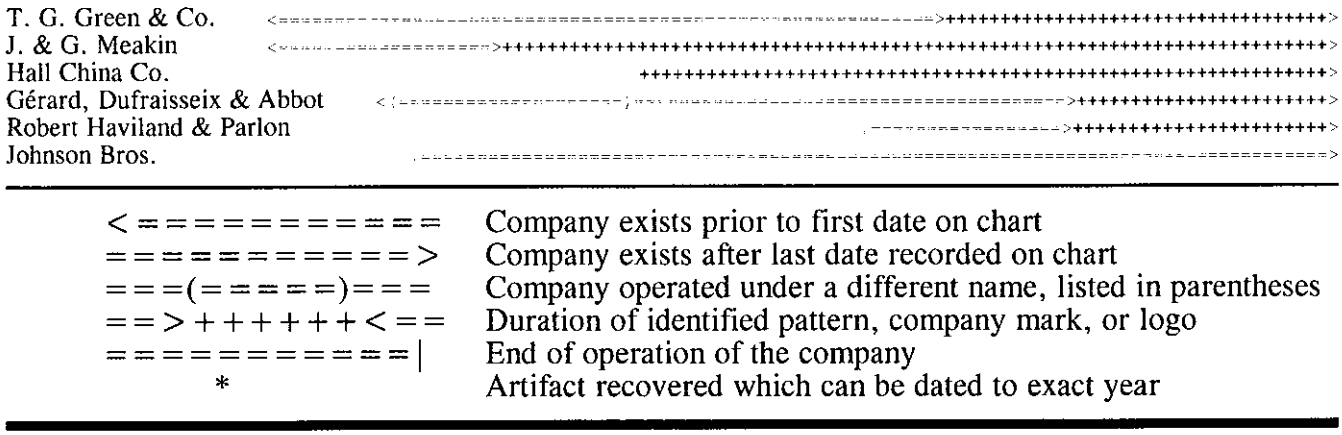


Figure 3: Temporal Chart of Recovered Historic Artifacts - South Point

When examining the time ranges and specific dates derived from glassware, there appears to be a concentration in the 1940s with a few specimens dating to the earlier part of the century (1903, 1913, 1919, 1928) (Figure 3). The ability to derive specific dates is limited to certain glassware artifacts. With regard to ceramic dinnerware recoveries, the time ranges of the identified company marks are generally several decades. Even if one assumes that the effective time of manufacture of the artifacts occurred at the middle of the time range, there is no pattern. Rather, the ceramic artifacts appear to be temporally scattered—the result of sequential dumping of household, restaurant, and railroad debris in the unoccupied area adjacent to the railroad line. The artifact recoveries fit with the stratigraphic data which consists of evidence of numerous fill horizons of different material being deposited in the area, either as widespread layers or localized dumps of waste material.

4.0 MAIN STREET - RECENT RESOURCES

In conjunction with the construction of the new roadway system, Main Street was refurbished from York Avenue south to the connection with the new northbound Main Street Bridge. The 1996 construction (Figure 1) occurred in two phases with the west half of the street being rebuilt first with traffic using the east half. The second phase reversed the process. The south end of the new Main Street connection curved eastward to align with the bridge. This entailed encroachment into lots which had previously been occupied by buildings up until the late 1950s. The 1998 construction extended from Assiniboine Avenue to the original location of the Bridge of the Old Forts over the Assiniboine River (Figure 1).

Excavations to construct the new road bed extended to 1.3 metres below the existing road surface in most cases. Catch basins for linkage to the storm sewer drainage system were deeper. Ancillary excavations for the land sewer system had occurred previously where shafts were bored and the linking pipes were pushed underground. The sub-surface services installations occurred in 1996 (Quaternary 1996d:18-19).

The construction activities exposed sequential evidence of previous modifications within the right-of-way. The existing configuration of Main Street dates to 1885 when the last remnants of the east wall of Upper Fort Garry were demolished to develop a straight road between Broadway Avenue and the bridge across the Assiniboine (Bridge of the Old Forts). Initial road building activities consisted of little more than grading and smoothing the surface. Over the decades, several reconstructions of the street were required due to heavier traffic and the need for less annual maintenance. The final result was a gravel bed (0.5 metres below current surface) which supported a concrete road surface. The presence of electric street car lines is denoted by ties and iron tracks cemented into the existing concrete road surface, with a thin concrete and thicker asphalt layer above them (Plate 3).

In 1881, Albert William Austin began the organization of a company to provide public transportation to Winnipeg. The first set of horsecar tracks was laid, by the new Winnipeg Street Railway Company, on the west side of Main Street from near the site of Upper Fort Garry northward to the City Hall at William Avenue. On October 20, 1882 a regular service began (Blake 1971). A two-storey roundhouse stable and other buildings were located on the north side of Assiniboine Avenue, at Main Street, while the car shed, used for repairing and maintaining the rolling stock, and the business office were on the south side of Assiniboine Avenue (Baker 1982:10). Throughout the following years many more lines were added and the operation continually expanded within the growing city. Blake notes that, in the first years, the company maintained "twenty closed cars, fifteen open cars, four sleighs...and over eighty horses". In 1892, a new company, the Winnipeg Electric Street Railway Company, began running electric cars in Fort Rouge. This new system eventually moved throughout the city replacing the horsecar routes. On September 19, 1955, a final parade of four cars journeyed to the corner of Portage and Main for a ceremony officially ending the era of electric rail service in Winnipeg. Baker (1982:101-105) writes:

> *Car No. 374 [was] decorated with tearful eyes, a sad mouth and banners, and carried the RCHA band...hundreds of children placed coins on the rails to have them flattened by the last car...mayors and reeves of twelve municipalities joined together as a track gang and [removed] a short section of rail....severing forever a link with the past.*

Several other sub-surface impacts have occurred within the construction area in the past. The major feature is the concrete-encased steam pipe which crosses Main Street perpendicularly at the south end of Union Station. The date of the installation of the pipe is indeterminate. It could have been constructed to heat the Hotel Fort Garry as early as 1910-11 when a steam heat plant was installed in the basement of Union Station (Winnipeg Historical Buildings Committee 1987:27). It may date as late as 1947 when the East Yards Steam Plant was constructed (Winnipeg Historical Buildings Committee 1987:27-28). The latter date may be more reasonable as the Manitoba Club purchased steam heat, between 1957 to 1988, from Canadian National Railways, whose pipeline to the Hotel Fort Garry traversed the Manitoba Club property (Benham 1995:9). The pipe was approximately one metre below surface which meant that portions of it were left intact as they lay below the depth of excavation required for the construction of the new roadbed.

Another major intrusive feature was the installation of Manitoba Telephone System (MTS) sub-surface lines along the east side of Main Street, immediately adjacent to the sidewalk. The copper lines were encased in conduits leading to a major junction box near the north abutment of the new Main Street bridge. These lines then continued across the Assiniboine River on, or below, the bottom of the riverbed (Quaternary 1996a:11).

Excavations along Assiniboine Avenue, in 1998, encountered several instances of prior impact—gas lines, telephone lines and ductlines, and hydro wires. Major impact within the right-of-way appears to have occurred during the time that this area was used by the Winnipeg Street Railway Company. Expected foundations of structures from Upper Fort Garry were not present. In their probable location, a flattened pile of limestone rubble containing occasional short segments of structural timbers was observed. Immediately west of the rubble, a rectangular wooden feature (Feature 14) was recorded at the base of the roadbed excavation.

Other smaller sub-surface impacts occurred over the decades. Most are short, narrow, rectangular trenches from backhoe excavations which were later infilled with extra-local material. This material was usually of a different texture and/or colour.

In three instances (all south of the Broadway Avenue intersection), the fill contained artifacts which post-date the demolition of Upper Fort Garry in 1883. Diagnostic artifacts were recovered from these locations:

- Union Station location, east side of Main Street immediately north of the steam line (Figure 4-V);
- West Main Street (Figure 4-W), approximately seven metres north of the original north wall of Upper Fort Garry; and

- Locus 3 (Figure 4-X), approximately 35 metres south of the original north wall of Upper Fort Garry.

These three locations were assigned the Borden number for Upper Fort Garry (DlLg-21/96A) as they occurred within or immediately adjacent to the footprint of the expanded, post-1850 fort walls.

A feature is an archaeological term used to identify a complex of artifacts and/or structural remains that are the result of a specific human activity. Several features were identified during the excavation process and were numbered sequentially. Most features are associated with the construction and/or operation of Upper Fort Garry and will be discussed in Chapter 5.

Two features were identified which appear to post-date the demolition of Upper Fort Garry. Feature 1, identified in 1996, positively post-dates the demolition. Feature 14, recorded in 1998, appears to result from activity by the street car company although, pending future dendrochronological analysis, it is possible that this feature may relate to activities during the latter phases of the occupation of Upper Fort Garry.

- Feature 1, a rectangular outline of morticed logs, is situated between the West Main Street historic artifact deposit and the north wall of Upper Fort Garry (Figure 4-1). This feature, which contained no artifacts, appears to date after the demolition of Upper Fort Garry. The date was determined through dendrochronological analysis of one of the logs (DlLg-21:96A/1) that was collected during the excavation. This feature will be discussed in the West Main Street section (Section 4.2).
- Feature 14 is located in the centre of Assiniboine Avenue to the west of Main Street (Figure 4-14). This feature is rectangular, measuring 8′ by 12′, and consists of morticed, tongue-and-groove planks (19 cm wide by 3.5 cm thick) set into a frame of squared timbers. Three specimens of the planks (DlLg-21:98A/22, 23, and 24) were collected for species identification and dendrochronological analysis. This feature will be discussed in the Assiniboine Avenue section (Section 4.6).

Two other locations produced artifacts in post-1885 contexts. The dating is based upon stratigraphic position as well as the artifacts themselves. These are:

- Locus 5 (Figure 4-Y) consists of recent deposits which lay immediately above the truncated south wall footing. These would have been deposited during the initial phases of road construction shortly after 1885 or at some subsequent road rebuilding prior to the pouring of the current concrete roadbed. The location is immediately adjacent to the Upper Fort Garry perimeter and accordingly was assigned the Borden number associated with Upper Fort Garry (DlLg-21/96A).
- South Main Street location (Figure 4-Z) is situated between the south wall of Upper Fort Garry and the north abutment of the new Main Street Bridge. This location was assigned the Borden number DlLg-33/96A, to conform with the designation of the remainder of the fill deposits which were investigated during the construction of the bridge (Quaternary 1996a:1-6, 9-41).

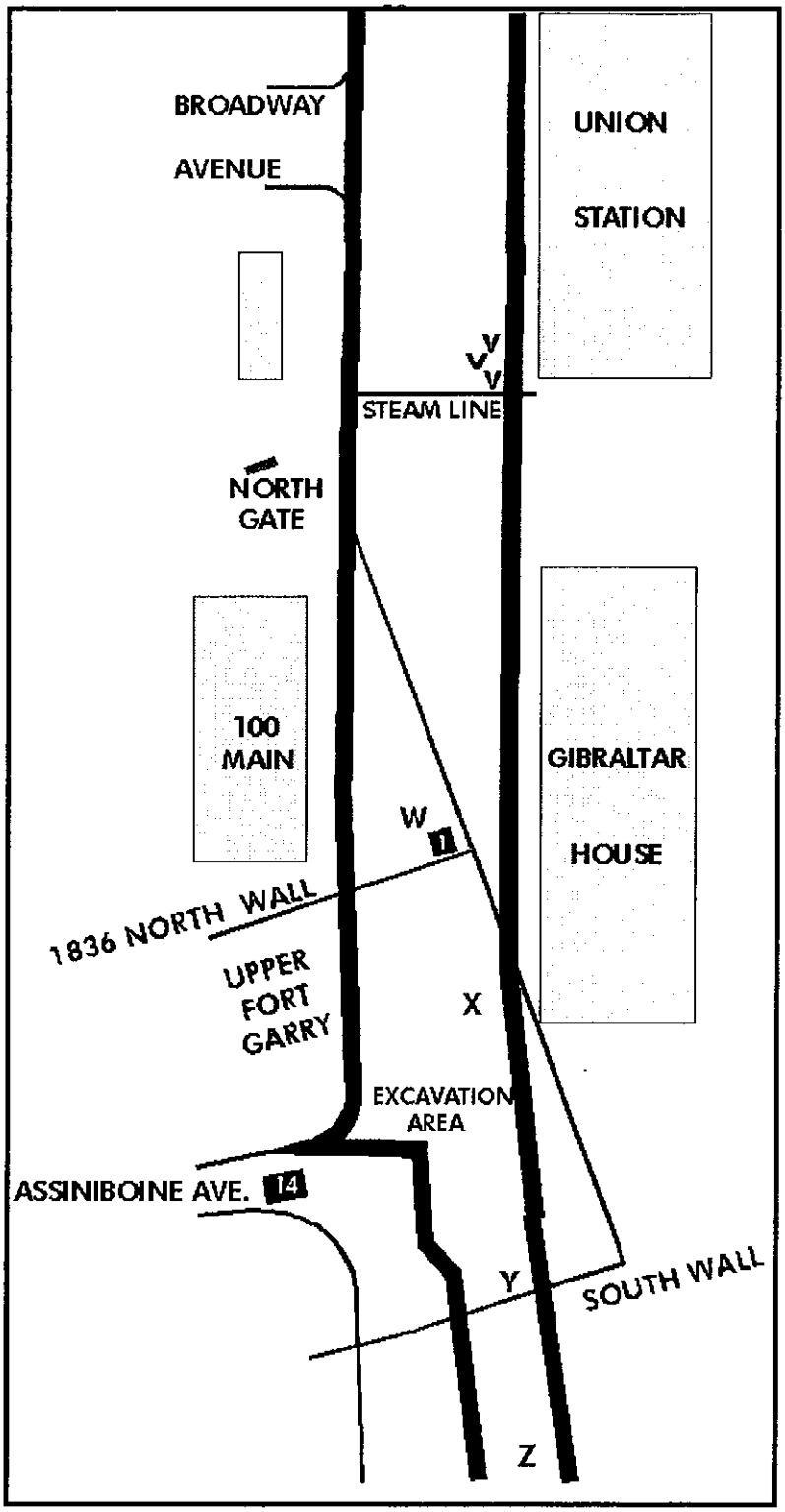


Figure 4: Construction Zone on Main Street

As each of the locations are the result of separate events and different time periods, the recoveries from each component are analyzed as a discrete unit. The sequence of map designations and analytic sections are predicated on geographical location (north to south) and do not reflect chronological age of the deposits.

4.1 Union Station Location

The artifact-bearing deposits consisted of three small pockets located north of the steam line on the east side of Main Street, near the sidewalk (Figure 4-V). The artifacts were located in a disturbed context at the base of the excavation for the roadbed (approximately 85 cm below surface). It is possible that these deposits are the result of infill of irregular holes which had been dug into the road surface. Alternatively, these deposits could be the result of refilling excavated areas after the installation of the steam pipe, wherein original artifact-bearing sediments were relocated. The event which caused the placement of these artifacts would have occurred after 1885 and probably not later than the placement of the steam pipe. The artifacts themselves would have been deposited in an original location earlier than their subsequent redeposition at this location. The derived dates from identifiable ceramics suggest an original deposition near the beginning of the 20th century.

4.1.1 Artifacts

Fifty-nine artifacts were recovered from the Union Station location. Ceramic dinnerware sherds predominate (50) with small representations of faunal remains (2), ceramic containers (3), and glass containers (4).

4.1.1.1 Faunal Remains

As noted in Chapter 3, all faunal specimens from any site are identified using some of the standard references, Clarke (1981), Gilbert (1973), Olsen (1960, 1964), and Schmid (1972), and the artifacts are examined and identified to body part, age of individual, and species. The condition of each specimen (charred, broken, chewed, gnawed, or stained) and butchering techniques, such as cut marks or sawing, are recorded.

Both recovered faunal specimens are portions of cow (*Bos taurus*) remains. DlLg-21:96A/155 is a rib, with a weight of 59.8 grams, while DlLg-21:96A/156 is the distal end of a humerus with a weight of 215.7 grams. Both the bones have been sawn and, in addition, the rib has cut marks on it.

4.1.1.2 Containers

Again, this category includes all artifacts, or portions of artifacts, which are used to contain products. Of the several sub-categories within the Container category (Manitoba Museum of Man and Nature 1986), two are applicable to the Union Station location artifacts:

a. Storage - the purpose of the container is to hold material, and
b. Dinnerware - the artifact is used in the serving or eating of food.

4.1.1.2.1 Storage

Storage containers include most of the commonly used artifacts in today's material culture. Products are sold, transported, carried, or stored in a container of some type. Only containers made of ceramic and glass were recovered from this location.

4.1.1.2.1.1 Ceramic Containers

DlLg-21:96A/150 is a body section of an orange-brown stoneware bottle. It is 9.0 mm thick with an expanded circular ring which may be at the base or the shoulder of the specimen. Stoneware bottles of this size were used as ink containers, chemical containers, and in some cases ginger beer bottles.

DlLg-21:96A/154 consists of two sherds, one lip,body and one body sherd, from a stoneware crock. The exterior is grey, although it is somewhat stained, and the interior is brown. The size of this complete specimen would have been a 1 gallon crock. There is a single incised line around the circumference of the exterior, 35.7 mm below the lip.

4.1.1.2.1.2 Glass Containers

The four glass sherds, from this location, have all been assigned to the Unassigned category. Table 17 delineates any possible information that could be gleaned from these sherds.

DlLg-21:96A/151 appears to have a wide mouth and may be a jar, but not enough of the sherd is present to be certain. The applied lip consists of poorly annealed strips of flat glass as an exterior brace. DlLg-21:96A/152 has an embossed "...E". The letter appears on a convex surface which grades into the beginning of a flat surface. It is possible that the original bottle was generally rectangular and had a convex panel bearing the name of the product. The olive colouring of DlLg-21:96A/153 may indicate it came from a liquor or wine bottle but this sherd cannot be definitely assigned to either of these categories.

CAT. #	QTY	COLOUR	PORTION	COMMENTS
151	2	green	lip,neck,body	wide mouth, ? jar
152	1	aqua	body	"...E"
153	1	olive	neck	? liquor/wine bottle

Table 17: Unassigned Glass Containers from the Union Station Location

4.1.1.2.2 Dinnerware

Dinnerware items, which are types of containers, can be composed of metal, glass, ceramic, and plastic. However, only artifacts made of ceramic were curated from the Union Station location.

All of the curated sherds are white in colour. As these white sherds are only fragments of complete objects, there may be patterns with other colours that fit onto these sherds, however none were found at this site. Of the 50 sherds (28 catalogue numbers), 34 sherds have no maker's marks, no indications of a pattern, or any other marks (Table 18).

CAT. #	OBJECT	QTY	PORTION	COMMENTS
165	Bowl	1	lip,body	-
167	Bowl	3	lip,body,base	-
168	Bowl	1	lip,body	-
169	Bowl	1	lip,body	-
170	Bowl	1	body	-
171	Bowl	1	body,base	-
172	Bowl?/Cup?	1	lip,body	-
173	Bowl?	2	body	-
174	Pitcher	6	body	exfoliated
175	Cup	2	body,base	-
176	Plate	2	base	-
177	Bowl?/Cup?	1	body,base	-
178	Plate?/Saucer?	2	body,base	-
179	Sugar Bowl?/Creamer?	2	lip,body	-
180	Plate	3	lip,body,base	-
181	Plate	5	lip,body,base	-

Table 18: Plain White Ceramics from the Union Station Location

Within the plain white ceramics, several sherds, DlLg-21:96A/165, 167, 168, 169, 171, 172, 173, 180, and 181, could be from the same set of dishes. This assumption is based on the thickness and coarseness of the paste plus the similar crazing pattern observed on the sherds.

The remainder of the 16 sherds in the white colour category can be divided into two groups, those which have a maker's mark on them (but no pattern) and those which have a pattern on them (but no maker's mark).

In the first group, eight sherds (six catalogue numbers) have some manufacturer's information on them (Table 19). DlLg-21:96A/157 has the mark, W. & E. Corn Company, stamped into the base. The firm was located in Burslem from 1864 to 1891 as well as having a factory at the Top Bridge Works in Longport Staffordshire (Godden 1964:175; Sussman 1985:22). Sussman notes that the company made white graniteware almost exclusively for the foreign market. Although it does not fit with any of them, this base sherd may belong to one of the Wheat patterned sherds (Table 20). Both Godden and Sussman state that the wares from this factory were generally unmarked before 1900,

however, since the factory was located in Burslem from 1864 until 1891 and this is stamped on this sherd, it can be assumed that this piece was produced in that period and is one of the marked sherds.

CAT. #	OBJECT	QTY	MARK	COMMENTS
157	Plate	1	W. & E. C., BURSL...	W. & E. Corn
158	Plate	1	Royal Arms; ROBERT COCHRAN & CO.	Robert Cochran
159	Plate	1	J. & G. MEA...; ENGLAND	J. & G. Meakin
160	Plate	1	Royal Arms; ...MEAKIN	? Meakin
164	Bowl	3	Royal Arms; IRONSTONE CHINA	?
735	Plate	1	? mark	?

Table 19: Maker's Marks on Plain White Ceramics - Union Station Location

DlLg-21:96A/158 has a black Royal Arms mark with the Robert Cochran & Co. name above it as well as "IMPERIAL" and "IRONSTONE CHINA" printed, in black, below it. Sussman (1985:20-21) depicts an identical mark with the additional word 'Glasgow' following the Cochran & Co. name. The Wheat pattern was produced by this company after 1863 up until 1918 and this plate sherd may also belong to one of those in the group of sherds listed in Table 20. In addition to the maker's mark, there is a stamped mark consisting of an anchor in an oval outline. It appears that this mark was impressed first, with the black logo placed partially over it prior to glazing and firing. The significance of this mark cannot be ascertained at this time—it may be a potter's mark, a jobber's mark, or another, as yet unidentified, maker's mark used by the Cochran company. Sussman does not show the anchor mark on any of the Robert Cochran specimens.

DlLg-21:96A/159 and 160 are both products of one of the Meakin firms and again, both sherds may fit onto the sherds with the Wheat pattern (Table 20). DlLg-21:96A/159 is definitely from the J. &. G. Meakin company, who, while producing many other types of ware, were, according to Sussman (1985:31), "one of the largest producers of the Wheat pattern in Staffordshire". This company produced the Wheat pattern from approximately 1860 until the 1930s. In addition, the Wheat pattern from J. &. G. Meakin was sold through the T. Eaton Company mail-order catalogues from 1897 to 1904 (Sussman 1985:32). DlLg-21:96A/160 is missing the first initials from the Meakin name and could be from the J. & G. Meakin company or from the Alfred Meakin Limited which also produced the Wheat pattern (Sussman 1985:31) and also used the Royal Arms mark (Godden 1964:425).

DlLg-21:96A/164 is a plain, white, oval-shaped bowl with only the upper portion of the black Royal Arms mark and "IRONSTONE CHINA", printed above it, on the base. The bowl is shallow, 31.2 mm deep, and is similar to DlLg-32:96A/39 (found at the South Point Road location). The Royal Arms mark has been used by many firms in many countries. It is likely that, given the other material from this location, this mark could be attributed to a British firm, possibly one of the Meakins, but this is only speculation.

DlLg-21:96A/735 has a small portion of a black mark, that could be a circle, a tail, a letter or some other symbol. Not enough of the mark is present to assign it to a company.

The final group of white sherds have some form of decoration on them but no indication of a manufacturer. Table 20 outlines these sherds.

CAT. #	OBJECT	QTY	PATTERN	COMMENTS
161	Plate	1	Wheat - 2 rows of kernels	many possible makers
162	Plate	1	Wheat - 2 rows of kernels	many possible makers
163	Plate	2	Wheat - 2 rows of kernels	? J. & G. Meakin
166	Plate	1	Wheat - 3 rows of kernels	many possible makers
733	Plate	1	Wheat - unknown	many possible makers
734	Plate	2	? loops	-

Table 20: Decoration on Plain White Sherds - Union Station Location

Six sherds (five catalogue numbers) all have variations of the Wheat Pattern (Sussman 1985). Several manufacturers produced their own versions of this pattern, and, without a maker's mark, the sherds could not be assigned to any one of these firms. DlLg-21:96A/163 does resemble the pattern manufactured by the J. & G. Meakin company, as depicted in Sussman (1985:32), but again, this cannot be definitely confirmed. As noted above, all of these sherds could be part of those specimens with a maker's mark (Table 19), although at this time none fit directly onto those sherds.

DlLg-21:96A/734 does not have a Wheat pattern but does have what could be a pattern of embossed loops halfway down the body, 17.7 mm from the lip.

4.2 West Main Street

The recoveries on the west side of Main Street encompass two different time periods. The earliest manifestation is the rectangular feature (Feature 1) composed of morticed logs. The more recent time period is represented by the artifacts encompassed within the rectangular trench fill (Figure 4-W).

4.2.1 Feature 1

This feature consisted of four, partially-squared logs comprising a rectangular outline (Plate 4) measuring 5 foot x 7 foot (151 cm x 214 cm). The orientation of this feature was such that the long side was parallel with the rectangular pads representing the outer perimeter of the east wall of Upper Fort Garry. The logs had had minimal squaring and most of the corners were still round from the original shape of the tree. The diameter of these timbers is approximately 20 cm. The short north log

(DlLg-21:96A/1) was collected for dendrochronological analysis (Appendix B).The ends of the log were morticed to fit into the corresponding female feature of the north/south logs.

Plate 3: Electric Streetcar Tracks Below the Surface of Main Street

Plate 4: Outline of Feature 1

The four logs, composing the outline, lay directly on an undisturbed dark, grey-brown silt. This same sediment occurred in the interior of the outline which means that the feature was not cribbing for a privy and/or a garbage pit. It would appear that a narrow slit trench was excavated into which the logs were placed. This interpretation is not feasible in that the morticed components of the logs could only have been joined together all at the same level. Thus the four logs had to have been joined on the surface and lowered, as a unit, into a rectangular trench or the entire rectangle was excavated, the logs joined together, and the interior infilled with the original soil matrix. No indication of soil disturbance occurred in the profile above this single course of logs. The rationale for the placement of this feature is not determinable as it does not seem to be the base of a structure—nothing occurred above this single course of logs—or cribbing for an excavation for the placement of street drainage systems—nothing occurred below this single course of logs.

The stratigraphic position of the basal logs of this feature—no upper logs were present—led to an initial identification of the feature as the powder magazine of the Hudson's Bay Company at Upper Fort Garry. The original HBC powder magazine had been appropriated by the Sixth Foot and a new structure, roughly 12 feet square, was built between 1846 and 1848 (Loewen and Monks 1986:75). The location of the logs was near the historically recorded position of the magazine (Loewen and Monks 1986:Figure 23). The position of Feature 1 does not exactly correspond with the historical maps and the dimensions were too small. The tree ring date of 1888 (Appendix B) indicates that the feature was constructed after the straightened Main Street was built in 1885.

4.2.2 Artifact Recoveries from a Recent Trench

A deposit of recent material was encountered at base of excavation in the centre lane of the west side of Main Street. The deposit was intrusive into original soil and had a rectangular pattern 3.6 m x 0.7 m (12 foot x 2 foot). This is a standard backhoe bucket width and the excavation represented by this deposit may have occurred during some sub-surface road activity.

One hundred and forty-three artifacts were located at this site. The majority (110) are the residue of food resources, with the remainder consisting of a variety of items.

4.2.2.1 Architectural Objects

As noted in Chapter 3, this category includes all artifacts which are used for the construction, the maintenance, and the furnishing of structures. Seven artifacts were curated as Architectural Objects: three in the Hardware sub-category and four in the Structural sub-category.

4.2.2.1.1 Hardware

DlLg-21:96A/14 consists of three very corroded, wire-cut, round nails of differing lengths. Wire-cut nails were produced about 1850, became prevalent about 1900, and are the most common variety found today (Nelson 1968:10). Steel is extruded to form a wire, which is then cut to the appropriate length, and the flat, circular head is added by another machine operation.

4.2.2.1.2 Structural Elements

DlLg-21:96A/13 consists of four fragments of exfoliating, severely corroded sheet metal. Although placed in this sub-category, they may derive from an object in a different functional grouping.

4.2.2.1.3 Accoutrements

DlLg-21:96A/50 is a single, small, clear, triangular-shaped piece of windowpane. It measures 26.7 mm in length and is 1.9 mm thick.

4.2.2.2 Clothing

DlLg-21:96A/16 is a carbonized section of a piece of fabric. The specimen, appearing to consist of several layers, demonstrates a diagonal weave of flat strips composed of multiple strands.

4.2.2.3 Recreation

DlLg-21:96A/3 is a short, 25.9 mm long, section of kaolin pipe stem. The diameter of this remnant, 8.8 mm, suggests that it originated near the bowl rather than close to the mouthpiece. While tending to be identified as indicative of the Fur Trade era, the clay pipe "held out well into the twentieth century, generally in industrial centres but also in rural areas" (Walker 1977:262). Walker (1977:263) notes that, as late as 1969, the firm of John Pollock of Manchester was exporting clay tobacco pipes to Canada, as well as other countries.

4.2.2.4 Faunal Remains

There are 110 faunal recoveries, all representing food remains, from the West Main Street location. These artifacts were identified using the standard references. Table 21 lists the species, size, element, quantity, catalogue number, marks, and any other comments for all of the specimens.

While identifications of some of the avian remains could not be taken to species level, it is probable that they all derive from domesticated birds, i.e., chicken, turkey, duck, or goose. The eggshell is probably chicken but this cannot be firmly ascertained.

The mammalian remains again are those of domestic animals. Cattle are the dominant species with many of the cuts (sacrum and innominate) indicating butchering as large roasts. Some of the other remains indicate that medium to thick steaks and/or chops were produced. DlLg-21:96A/47 would be the remains of round steaks, while DlLg-21:96A/39 would represent rib steaks.

Both adult and juvenile specimens are represented in all taxa. Immature birds could be poulets and/or capons which were roasted. The majority of the cow remains, while having large bones, indicate immaturity as epiphyseal endings are missing on most specimens. The pig femur also derives from a juvenile specimen. The sheep remains appear to be solely from an adult animal.

TAXON	ELEMENT	CAT. #	QTY	WT	COMMENTS
Aves					
Large	Ulna	19	1	4.7	Cut marks
	Skull	24	1	2.4	-
	Tarsometatarsus	38	2	7.5	Juvenile
Medium/Large	Rib	17	1	0.1	-
	Innominate	18	1	0.5	-
	Ulna	23	1	0.9	Spiral fracture
Medium	Tarsometatarsus	20	1	1.0	-
	Femur	21	1	0.7	Cut marks
	Radius	22	1	0.2	-
Undifferentiated	Eggshell	25	35	10.0	-
Chicken (*Gallus gallus*)	Skull	26	1	0.8	-
	Vertebra	27	7	2.8	-
	Humerus	28	1	2.5	Copper stained, tooth puncture
	Ulna	29	2	1.9	Rust stained
	Scapula	30	1	0.7	Copper stained
	Coracoid	31	2	3.1	Cut marks, one juvenile
	Femur	32	1	3.3	Immature
TOTAL BIRD				43.1	
Mammal					
Large	Rib	36	2	45.4	Sawn, cut marks
	Unidentifiable	34	7	20.0	Sawn, cut marks
Medium/Large	Vertebra	35	1	6.1	Sawn
	Vertebra (lumbar)	39	10	44.3	Sawn
Medium	Rib	33	3	8.4	Sawn
Small/Medium	Skull	37	1	0.3	-
Pig (*Sus scrofa*)	Femur	40	2	53.1	Proximal end, distal epiphysis, spiral fracture, cut marks
Sheep (*Ovis aries*)	Scapula	41	1	41.6	-
	Innominate	42	1	33.3	Sawn
Cow (*Bos taurus*)	Scapula	43	1	10.2	Sawn
	Mandible	44	1	11.9	Sawn
	Tibia	45	3	167.0	Sawn, juvenile
	Vertebra (cervical)	46	2	62.7	Sawn
	Femur	47	5	132.4	Sawn
	Sacrum	48	5	532.9	Sawn
	Innominate	49	5	913.0	Sawn, cut marks
TOTAL MAMMAL				2082.6	
TOTAL FOOD REMAINS			110	2125.7	

Table 21: Faunal Remains from Recent Trench at West Main Street Location

Post-depositional conditions have produced some effects upon the bone. Spalling, exfoliation, and flaking has occurred on several of the specimens. Proximity to metallic objects has caused copper and iron staining, particularly evident on the chicken bones.

4.2.2.5 Floral Objects

DlLg-21:96A/15 is a sample of charcoal fragments. The majority of these fragments appear to derive from local deciduous trees.

4.2.2.6 Containers

The artifacts, recovered from the West Main Street location and catalogued in the Container category, fit into the sub-categories of Storage and Dinnerware.

4.2.2.6.1 Storage

As noted earlier, storage containers can include boxes, jars, sealers, cans, and bottles. Many different devices are used to close these containers and, if not found with a specimen, are discussed separately.

4.2.2.6.1.1 Closures

Containers have a variety of closure types—modern ones often have metal or plastic screw-caps, while older containers used corks or glass stoppers. DlLg-21:96A/737 is a carbonized fragment of a cork. The diameter is 20.5 mm and it would have been a closure for a bottle.

4.2.2.6.1.2 Metal Containers

Five catalogue numbers, containing 15 fragments of metal cans, were curated. Table 22 lists these artifacts.

CAT. #	QTY	PORTION	COMMENTS
8	2	lid	circular, diameter approx. 70 mm, circular reinforcing ring on interior, puncture hole in centre, roughly cut out from can with can opener.
9	1	body,base	cylindrical, diameter 73.5 mm, height 60.2 mm, encrusted residue in base.
10	5	body	cylindrical, height 66.0+ mm, calculated diameter approx. 103.0 mm.
11	1	body,base	rectangular base with fold-over body seam, width 48.0 mm, length 48.5+ mm.
12	6	body,lid	miscellaneous fragments from cylindrical? cans.

Table 22: Metal Containers from the West Main Street Location

Certain characteristics such as reinforcing rings and fold-over seams, can provide dating information. This type of detailed analysis falls beyond the range of this project. However, tin cans as product containers have been in existence for at least two centuries.

4.2.2.6.1.3 Ceramic Containers

DlLg-21:96A/5 consists of two sherds from a yellow-brown stoneware bottle. The larger sherd is the body, shoulder, and part of the neck, while the smaller sherd is a body section. The diameter, at the shoulder, is 62.0 mm. This bottle may have been an ink bottle.

4.2.2.6.1.4 Glass Containers

Sherds representing two glass containers were recovered, both catalogued in the Unassigned sub-category. DlLg-21:96A/6 consists of two pieces of a clear, cylindrical bottle. The diameter is approximately 40 mm. A portion of the shoulder is present on one of the sherds but it has no mold seams which would indicate the type of manufacture.

DlLg-21:96A/7 is an ornate, green bottle missing only the upper finish. The cross-section is hexagonal. The vertical profile begins at a short vertical base, expanding, petal-like, to a wide mid-body, and then tapering with a concave slope to the top of the neck where the missing finish would begin. There is a very obvious pontil scar on the base and the finish probably was applied as a subsequent process. Given the colour and ornate design of this specimen, it probably was a perfume bottle or, perhaps, a cruet from a fancy dining set.

4.2.2.6.2 Dinnerware

DlLg-21:96A/4 is a small body sherd with a blue pattern transfer printed onto a white surface. The pattern consists of wide-bodied curlicues, on a blue background, with what appears to be a portion of a blue floral wreath falling from the curlicue pattern onto the white background. Comparison with the Spode/Copeland patterns illustrated by Sussman (1979a) revealed a degree of resemblance with the border design of Continental Views (1979a:92) and Louis Quatorze (1979a:145). The smallness of the sherd does not allow definite identification and, in fact, the sherd may derive from a bowl produced by a different manufacturer.

4.3 Locus 3

Locus 3 (Figure 4-X) is a recent intrusive disturbance which affected the northeast corner of Feature 8 (Figure 5). This disturbance occurred 34.15 metres southeast of the original north wall of Upper Fort Garry. The configuration of the deposit was amorphous and terminated slightly below the base of roadbed excavations. In addition to the curated artifacts, quantities of wood chips were observed.

4.3.1 Artifacts

Eleven artifacts were located at this site. These consisted of representatives of Architectural Objects, Clothing, Detritus, and Containers.

4.3.1.1 Architectural Objects

As noted earlier, this category includes all artifacts used in the construction, maintenance, and furnishing of structures. Only items of hardware were catalogued—nails and a strip of steel.

Two very corroded, complete, sheet-cut, square nails were curated. Both specimens have a T-head. Sheet-cut nails were developed ca. 1790 and were mass produced (Nelson 1968:8). Sheets of iron were rolled to a uniform thickness, then cut with a taper from top to bottom. The thickness of the nail remains constant from head to point, while the width tapers. The heads, often T-shaped or L-shaped, were added to the individual shanks.

As noted in other reports, sheet-cut nails were produced in the early part of the 19th century in Montreal. They likely became common in The Forks area post-1860 (McLeod 1983:148) when steamboats transported large quantities of American goods (Kroker *et al.* 1991:105). Collard (1967:39) notes that the Anson Northup was the first steamboat to arrive in Winnipeg, in June of 1860 via the Red River, from Minnesota. A variety of products, including nails, hardware, crockery, and groceries, would have been delivered to Winnipeg for distribution throughout the area.

One strip of steel was catalogued. DlLg-21:96A/136 measures 190.3 mm long and tapers, in width, from 11.8 mm at one end to 9.6 mm in the centre to 21.9 mm at the other end. The thickness ranges from 4.2 mm at the narrower end to 6.7 mm at the wider end. There is a minimal amount of corrosion on this specimen. For lack of a better term, the artifact has been identified as bar stock.

4.3.1.2 Clothing

DlLg-21:96A/137 is the sole and heel portion of a leather shoe. The iron studs in the heel are visible on this specimen. The size of the shoe appears to be an 8 to 8½ and could be a woman's shoe although it looks more like the sole of a man's shoe. Shoes are a very common recovery throughout this area (Kroker 1989:46; Kroker and Goundry 1990a:51, 1990b:37, 1993:24, Quaternary 1988a:18, 1994c:12-13, 1995:24-25, 1996b:15).

4.3.1.3 Detritus

The detritus category originated during cataloguing of Pre-contact artifacts. It was devised to record the residue from the manufacture of lithic tools. A change in the definition became necessary when applied to historic materials. With regard to historic artifacts, it includes residue of manufacturing operations, as well as referring to specimens which are too broken or corroded to be identified. This

is in contrast to the Unknown category, where it is felt that, with further research, the artifact could be identified. Historic detritus is designated as scrap in the hierarchical code.
DlLg-21:96A/135 consists of four pieces of very corroded iron. Three of the pieces have small circular holes through them where these pieces may have been attached to another entity. The specimens are too corroded to identify their exact usage.

4.3.1.4 Containers

As noted earlier, this category includes all artifacts, or portions of artifacts, which are used to contain products. Three artifacts, from Locus 3, were cataloged in the sub-categories of Storage and Dinnerware.

4.3.1.4.1 Storage

DlLg-21:96A/135 is a body,base sherd and a body sherd of an olive-coloured bottle. The base has a kick-up which becomes a flat bottom on the interior surface. This kick-up, which served as a sediment trap, is a feature of early wine bottles and is still retained as a tradition even though the original function is no longer necessary. During the manufacture of this specimen, the artisan gathered too much glass at the end of the blow pipe. This resulted in the kick-up in the interior of the bottle being filled with glass and producing the flat bottom.

4.3.1.4.2 Dinnerware

Only one, small sherd was catalogued as an item of dinnerware. DlLg-21:96A/133 is a plain white body sherd from a bowl. It has a molded form but no other decoration and no maker's mark.

4.4 Locus 5

Locus 5 (Figure 4-Y) occurs at the south wall of Upper Fort Garry. The stratum immediately above the footing of the wall contained late 19th century artifacts in a matrix of silt, heavily impregnated with railroad cinders and coal dust. The stratum was relatively thin, averaging 10 cm, and was sandwiched between the top of the remaining wall footing and the base of the existing road bed. The artifacts were probably deposited as part of the fill during the first construction of the straightened Main Street in 1885 or at a reconstruction event shortly thereafter.

4.4.1 Artifacts

A total of twenty-two artifacts, from Locus 5, were catalogued. These specimens vary from hardware items to food sources, recreational items, and containers.

4.4.1.1 Architectural Objects

Thirteen artifacts were curated—four in the sub-category of Hardware and nine in the sub-category of Accoutrements.

4.4.1.1.1 Hardware

DlLg-21:96A/146 is a round, wire-cut nail, measuring 84.5 mm long. The head of this corroded 3½ inch nail is missing. DlLg-21:96A/147 consists of two heavily corroded, sheet-cut, square nails. The longer, more complete specimen, measures 79.8 mm and has a corroded unidentifiable head. The shorter specimen is a shaft fragment.

A section of corroded, stiff wire, DlLg-21:96A/149, was recovered. The diameter of this artifact measures 3.2 mm.

4.4.1.1.2 Accoutrements

DlLg-21:96A/144 consists of nine pieces of aqua windowpane. A few of the pieces are large, i.e., 132.6 mm long by 85.7 mm wide (this being the largest piece). All nine sherds are 3.4 mm thick and they all probably derive from the same piece of glass.

4.4.1.2 Recreation

A single, kaolin pipe stem, DlLg-21:96A/138, measures 58.3 mm long. No manufacturer's marks occur on this stem fragment. The distal end of the stem expands as if this were the point of juncture with the bowl and/or spur. The minimum diameter, at the proximal end, is 6.8 mm.

4.4.1.3 Detritus

A single piece of iron, measuring 71.5 mm long, 52.2 mm wide, and 12.3 mm thick, was recovered. DlLg-21:96A/148 is roughly rectangular in shape and probably represents scrap iron cut from a larger piece during a construction project.

4.4.1.4 Faunal Remains

DlLg-21:96A/143 is an astragalus from a horse (*Equus caballus*). The specimen weighs 77.0 grams and has a uniform pale brown staining with some evidence of weathering. It was more than likely a surface deposit prior to becoming incorporated into the buried stratum. No butchering marks are present and the location of original deposition is indeterminable.

4.4.1.5 Containers

Artifacts that fit into the Storage sub-category and the Dinnerware sub-category were recovered. All of the specimens were incomplete and a few of them had identifiable manufacturer information on the sherds.

4.4.1.5.1 Storage

Storage containers can come in many different types of material, metal, glass, ceramic, plastic, and paper. One metal fragment and four glass sherds were recovered from Locus 5.

4.4.1.5.1.1 Metal Containers

DlLg-21:96A/145 is a single, severely corroded fragment from an iron can. This cylindrical can appears to have an overlapped body,base juncture as well as a fold-over vertical body seam.

4.4.1.5.1.2 Glass Containers

Four glass sherds (three catalogue numbers) were assigned to two different sub-categories—Beverage (DlLg-21:96A/140 and 141) and Wine (DlLg-21:96A/142).

DlLg-21:96A/140 is a body sherd from a very pale green bottle. Embossed, in block letters, are "N.W.A.W..." and "WINNIP...". This is sufficient to identify the bottle as a product of North West Aerated Water Company of Winnipeg. The size and spacing of the downward reading letters coincides with Chopping's type MWIN BI2 (Chopping 1978:140). It would appear that the company used only Hutchinson-type bottles during its existence. This firm started in 1889 and continued until 1894 with an office in the Cauchan Building on Main Street at York Avenue (Stock 1978:26). A panorama of Main Street, by Clarence Steele in 1892, depicts the North West Aerated Water Company at the north end of the block (Quaternary 1994d:46).The Cauchan Building eventually became the Empire Hotel which was demolished in May of 1982 (The Winnipeg Sun 1982:5).

DlLg-21:96A/141 is the lower half of a thick-walled aqua bottle. The sides are embossed with "...ANE & CO" and "...EG MAN.". Chopping (1978:140) identifies a Hutchinson-type bottle embossed with the name J.F. McFarlane & Company of Winnipeg, Manitoba (Type MWIN BZB1). The recovered specimen was manufactured in a two-piece cup mold which had a company name plate inserted on the vertical side. Chopping erroneously identifies the manufacturing process as automatic bottling machine while this specimen has the characteristics of a bottle which was blown-in-mold. Chopping does not write any history of this particular firm. Perusal, by the authors of this report, through the City of Winnipeg Henderson Directories did not turn up any evidence of this company being listed there. The authors then went to the Department of Consumer and Corporate Affairs to see if the J.F. McFarlane & Company had ever been registered with them. It hadn't. There could be two explanations for the lack of paper trail: it was a small local firm that never bothered to register the company and may have only been in business for a very short period of time or it was an extra-local firm that experimented with the Winnipeg market and produced a single series of product with J.F. McFarlane & Company, Winnipeg, Man. on the bottle as a promotion.

Two olive sherds, a larger body,base sherd and a smaller body sherd, were assigned to the Wine sub-category. DlLg-21:96A/142 is a dark olive-brown colour and the larger sherd has a kick-up.

4.4.1.5.2 Dinnerware

A single blue-on-white bowl sherd was curated. DlLg-21:96A/139, a lip,body sherd, has a pattern of large white rose-like flowers with blue leaves on the interior and exterior surface. This pattern could not be identified in the references.

4.5 South Main Street

This area lies south of the south wall of Upper Fort Garry, immediately north of the abutment of the new Main Street Bridge (Figure 4-Z). To retain consistency of designation with that previous project (Quaternary 1996a), artifacts from this location were designated as deriving from DlLg-33. The location is east of the existing road and the fill deposits that were encountered would represent previous bridge construction and riverbank upgrading activities.

4.5.1 Artifacts

Eight artifacts were curated from this location. The majority (5) were faunal remains with the remainder being assigned to the Architectural Objects, the Manufacturing Equipment, and the Communication categories.

4.5.1.1 Architectural Objects

One artifact was identified as a miscellaneous electrical item. DlLg-33:96A/2 is a portion of a rectangular-shaped, white, ceramic electrical fixture. It measures 85.7 mm in length, 34.9 mm in width, and 27.8 mm in thickness. An identical piece may have fit together with this specimen as the interior centre of the fixture is recessed where something would have been screwed into it. The fixture has two holes, each one 16.2 mm in from an end, through which it would have been attached to a post or a wall. A complete, very corroded, long (116.6 mm) square nail, with an L-shaped head, is still present in one of the holes. The information "CAT. NO. 21662" and "SEP. 6. 1904" are embossed on the top surface. This would indicate the patent date as well as a serial number for ordering the piece.

4.5.1.2 Manufacturing Equipment

This category refers to tools, implements, or parts of machinery which are used to manufacture other artifacts. One artifact was catalogued in the sub-category of Industrial. DlLg-33:96A/3 is a 235.3 mm long iron rod which is thicker at one end, tapers down in the middle, and increases in thickness at the opposite end. This artifact is very corroded.

4.5.1.3 Communication

One artifact was curated. DlLg-33:96A/4 is a complete rectangular metal sign. It measures 43.5 cm long by 20.0 cm wide and is 4.5 mm thick. One end has three vertically aligned holes where the sign would have been attached to a building or a post. The sign, aside from being slightly bent, is in very good condition. Both sides have brown lettering on a white background and indicate that this sign

advertised "BROOKE BOND'S TEA". On one side of the sign, the information that the specimen was made by "FALKIRK IRON CO." is printed, in brown, below the brand name.

4.5.1.4 Faunal Remains

All five of the recovered faunal remains, DlLg-33:96A/1, are the residue from food resources, oyster shells. The combined weight of all five specimens is 146.5 grams. Oysters would have been imported into Winnipeg as a delicacy. Oyster shells have been recorded from other sites in the area: either from rail transport centres (Kroker 1989:145; Kroker and Goundry 1990a:123; Quaternary 1996b:61) or high-quality hotels, i.e., the Quebec Hotel at the Tourist Hotel site (Quaternary 1988:29).

4.6 Assiniboine Avenue

This location encompasses that portion of the 1998 roadbed excavations west of Main Street within the Assiniboine Avenue right-of-way. At the base of the excavation (130 cm) a rectangular wooden structural remnant was recorded. Feature 14 consists of a framework of squared timber, measuring 8′ by 12′, with the long axis oriented east/west. The external timbers, in extremely friable and partially decomposed condition, encompassed a series of morticed tongue-and-grooved planks. The planks measuring 19 x 3.5 cm (7½″ x 1_″) appear to be milled rather than hand-shaped. Three of these planks were curated: DlLg-21:98A/22 (130 cm long), DlLg-21:98A/23 (121 cm long), and DlLg-21:98A/24 (173 cm long). This feature could represent a floor or a collapsed wall.

A large, squared log (262 x 20 x 20 cm) rested on the planking at the southern edge of the feature. This log (DlLg-21:98A/21) was also collected. The shape and slight notching of the log suggest a function as a supporting tie for railroad and/or streetcar track.

Immediately adjacent to the west edge of Feature 14 is a narrow (6″) trench infilled with limestone chips, reminiscent of the footings encountered under Upper Fort Garry buildings during the 1996 project. This filled trench, designated Feature 15, lies 60 cm (2′) from the edge of the timbers and extends a short distance to the south paralleling the south edge of Feature 14. No trace is evident on the north edge. A thin layer (3-5 cm) of limestone chips similar to that filling the trench was present overlying the wooden feature. In two or three locations where the planks had disintegrated and where the samples had been removed, a similar layer of limestone chips was observed below the feature.

The trench component and the limestone layers contribute to the indecisiveness about the date of this feature because of its similarity to footings of fur trade structures. However, the milled characteristics of the planks plus the degree of disruption evident in the sediments overlying the feature suggest a date after the demolition of the fort. Dendrochronological analysis of the curated wooden artifacts may provide an answer. Feature 15 will be further discussed in Section 5.1.12.

4.7 Summary

The artifacts recovered from the six different locations—Union Station, West Main Street, Locus 3, Locus 5, South Main Street, and Assiniboine Avenue (Figure 4)—do not appear to be temporally related, although there are some similarities in the dates which were determined from the few diagnostic artifacts. A log from the wooden cribbing (Feature 1), just north of the 1836 wall of Upper Fort Garry, has a dendrochronological date of 1888. All other determinations are less exact. The bottle sherd from the North West Aerated Water Company derives from a five year time span, 1889 to 1894. The ceramic sherds from the Union Station location have a broader range, with the beginning dates in the 1860s and the termini of the identified maker's marks in 1891 (W. & E. Corn), 1918 (Robert Cochran), and 1930 (J. & G. Meakin). The electrical part recovered at the South Main location post-dates 1904. The datable artifacts all appear to derive from the latter part of the 19th century or the first part of the 20th century.

The origin of the deposits vary. All seem to be intrusive, especially Locus 3 and the trench at the West Main location, and some may be directly linked to specific construction events.

- The deposits at the Union Station location may have occurred as infill during the installation of the steam pipe crossing Main Street, although they are displaced slightly to the north.
- Feature 1 must have been constructed by excavation into Main Street after the demolition of Upper Fort Garry and the straightening of the road in 1885.
- The artifacts recovered from the trench adjacent to Feature 1 (West Main location) are dominated by faunal remains from domestic animals with some representation of metal containers. This deposit appears to result from secondary deposition where elements from a garbage midden were mixed with the lithic trench fill.
- The artifacts from Locus 3 are temporally vague and are probably the result of secondary deposition as infill into an excavation into the road.
- The material at Locus 5, which rested upon the truncated footing of the south wall of Upper Fort Garry, could have been deposited during a construction episode, either of a structure on the east side of Main Street or a modification of the road, during the 1890s.
- The South Main artifacts may have originated as garbage disposal on the bank of the Assiniboine River at some time in the first decades of the 20th century.
- The Assiniboine Avenue feature probably resulted from activity by the Winnipeg Electric Street Railway Company either during dismantlement of some of the original Upper Fort Garry buildings or as a result of construction and/or modification of their facilities prior to the construction of Assiniboine Avenue as a paved street.

5.0 UPPER FORT GARRY

One of the major components of the construction of the new roadway system, linking the new northbound Norwood Bridge and the new northbound Main Street Bridge, was the redevelopment of Main Street. The majority of the construction took place in 1996 with a smaller component south of Assiniboine Avenue in 1998 (Figure 1). During the excavations for the new roadbed, numerous remnants of the sub-surface components of Upper Fort Garry were exposed. These cultural exposures consisted of structural features, waste storage features, and artifacts associated with the period of the occupation of the fort—1836 to 1883. Historic documents can provide temporal constraints on many of the structures that had existed within the walls of the fort, as well as describing their function. This section will examine the archaeological remains and link them with known data derived from archival sources.

The excavations for the roadbed extended to 1.3 metres below the existing road surface. The location of the fort was relatively firmly known (± 3 or 4 metres in horizontal displacement). Further, the locations of the various structures within the fort were well established, relative to the walls of the fort (Loewen and Monks 1986). The fort walls were dismantled over time, with the east wall being removed in 1885 to permit the straightening of Main Street which had previously looped around the southeast bastion. Only the North Gate remains standing and it has been refurbished as a monument to the original fort.

The construction of the new roadbed was seen as an opportunity to ascertain the type of sub-surface features that were associated with the fort walls and the interior buildings. Prior reconstructions of Main Street had not extended to as great a depth so that intact footings would be exposed if, in fact, any had existed. Additionally, the construction project was seen as an opportunity to tie the location of the fort firmly in space, using current pin-point surveying accuracy.

A final benefit of the project was the opportunity to enhance public knowledge of this important facet of Manitoba history. During the first phase in 1996, Mr. Bernie Wolfe of Heritage Winnipeg contacted the senior archaeologist to ascertain if it was feasible to have exposed features remain open for public viewing for a limited time. The question was raised with Reid Crowther and Partners (Project Manager) and JC Paving Ltd. (the contractor). Both firms agreed that a two or three day exposure was feasible without cutting into project deadlines. As features, especially the footing for the northeast bastion, were exposed, they were outlined with flagging tape (Plate 6) for visual enhancement. Many tourists and Winnipeg residents made special trips to view the exposed features, after exposure on all the local television outlets and some national news programs.

The downside of the public exposure of the previously buried resources occurred around midnight on July 31, 1996, when unauthorized (and unknown) individuals dug into one of the features in order to obtain artifacts. This vandalism was discovered at 7:00 AM on August 1. The individuals had excavated the eastern third of the privy/waste pit (Feature 6) located adjacent to the northeast bastion and discarded faunal remains and other material around the perimeter. The disturbance was

approximately 45 cm wide and extended to a depth of 1.1 metres. The presence of a buried thick plank lying across the wooden cribbing probably prevented more extensive looting. Later, the artifacts obtained from this unauthorized activity were brought to the Manitoba Museum of Man and Nature by Mr. Herman Holla and provided to the Curator of Archaeology, Dr. E. Leigh Syms. When apprized of the situation, Dr. Syms returned the artifacts to Quaternary Consultants Ltd. for cataloguing and analysis, as the recovery, albeit unauthorized and unwarranted, could be construed as part of this project. These artifacts are discussed separately as deriving from Locus 2A (Section 6.3).

5.1 Architectural Features

The archaeological term *feature* is used to identify complexes of artifacts which are the result of human activity. The term is not defined by types of artifacts or size of the complex and can refer to a concentration of small flakes at a lithic tool manufacturing location or a foundation of a large industrial structure, e.g., the Northern Pacific and Manitoba Railroad roundhouse at The Forks (Quaternary 1994c:16). A feature's "significance may lie not in the object or the objects which constitute the feature, but rather in the relationship of the objects to each other" (Manitoba Culture, Heritage and Recreation 1989). In this report, the term is used to identify structural remnants while the term *locus* is used to refer to the locales at which concentrations of artifacts were recorded. Both types of manifestations are depicted on Figure 5.

As the structures described in this section were built during the 19th century, British Imperial measurements will be used with metric conversions where relevant. Much of the archival data is derived from Loewen and Monks (1986), who made extensive use of the Hudson's Bay Company Archives (HBCA) including the post journal and letters of George Simpson, as well as other sources in the Provincial Archives of Manitoba.

5.1.1 Feature 2: North Wall of 1836

The excavations on the west side of Main Street encountered the footings of the original north wall of Upper Fort Garry. This feature extended across the west half of the street, from the sidewalk to the median curb (Figure 5:2). The centre line of the feature was surveyed, using the City of Winnipeg benchmark at the north end of the Bridge of the Old Forts, south of the intersection of Main Street and Assiniboine Avenue. The centre of the trench, at the sidewalk, lies 50.3 metres north of the north curb of Assiniboine Avenue.

This sub-surface component of the original wall, built in 1836, consisted of the outline of a trench 122 cm wide. The portion of the trench remaining below prior impact zone contained rounded river boulders (up to 50 cm diameter) and irregular limestone cobbles (Plate 5). The spaces between the rock material had been infilled with sand and clay. A soil profile was recorded at the west curb, immediately north of the trench. A second profile was recorded at the median curb, 60 cm south of the trench (Table 23).

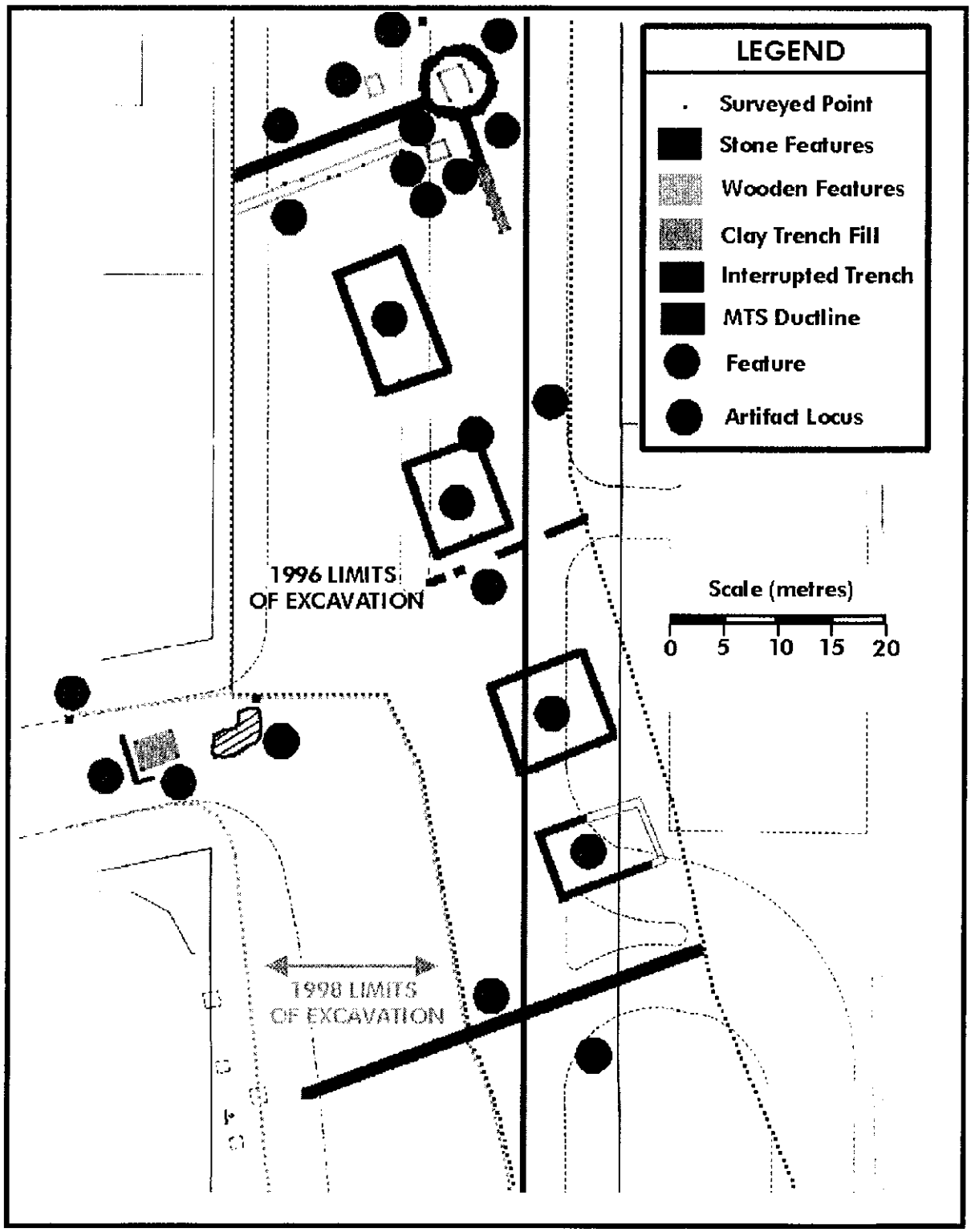


Figure 5: Recorded Features During the Excava

SIDEWALK PROFILE		MEDIAN PROFILE	
DEPTH	DESCRIPTION	DEPTH	DESCRIPTION
0 -33	Brick/gravel	0 -31	Asphalt/gravel/concrete
33 - 46	Sandy gravel	31 - 46	Fill clay/gravel
46 - 91	Black loamy soil	46 - 51	Black loamy soil
		51 - 51	Ash layer (0.3 cm thick)
		51 - 65	Grey black mottled silty clay
91 - 113	Grey black B Horizon	65 - 112	Dark grey silty clay
113	Base of excavation	112	Base of excavation

Table 23: Soil Profiles at the North Wall

Original, and subsequent, road construction appears to have resulted in impact extending to a depth of approximately 0.5 metres below the current road surface. The black soil represents an original A Horizon which would pre-date the construction of the fort. Road clearing activities in 1885 would have scraped and leveled the upper soil with subsequent construction excavating deeper and deeper. However, during the period of the fort's existence, three major floods (1852, 1861, and 1882), could have deposited silt within the confines of the walls, raising the ground level. These deposited riverine sediments would have been incorporated into the upper levels of the current ground surface. Daily activities within the fort would have provided some mixing of the underlying original soil surface with the new sediments, blurring or eliminating any clear demarcation of the flood deposits. The ash horizon noted at the median profile probably is one of the soil surfaces covered by flood deposition during the occupancy of the fort.

The footing from the original north wall terminated at the beginning of the northeast bastion (Section 5.1.3), underlying the median strip between the two sections of Main Street. The cobble/boulder footing of the wall abutted the limestone block footing of the bastion.

5.1.2 Feature 3: Wooden Fence

The remnants of a wooden, linear structure are located 7 feet south of the original 1836 north wall (Figure 5:3). The structure consists of parallel rows of sawn boards with remnants of vertical posts between them (Plate 6). This component continues from the west sidewalk to the median divider. The feature is composed of paired 1.5" x 6" inch boards spaced with vertical 4" x 4" posts, averaging six feet apart. Original speculation during exposure was that this feature could represent a support structure for a catwalk along the north wall. Loewen and Monks (1986:56) note that

> *inside the wall, a wooden gallery about 8.5 feet (2.49 m) off the ground ran all the way around the fort. It was supported by eight foot (2.44 m) high wooden posts placed at four foot (1.22 m) intervals, about three feet (0.91 m) from the walls. A rail 3.5 feet (1.07 m) in height ran along the inward side of the gallery. Access to the gallery may have been by way of the corner bastions, each of which contained a second floor.*

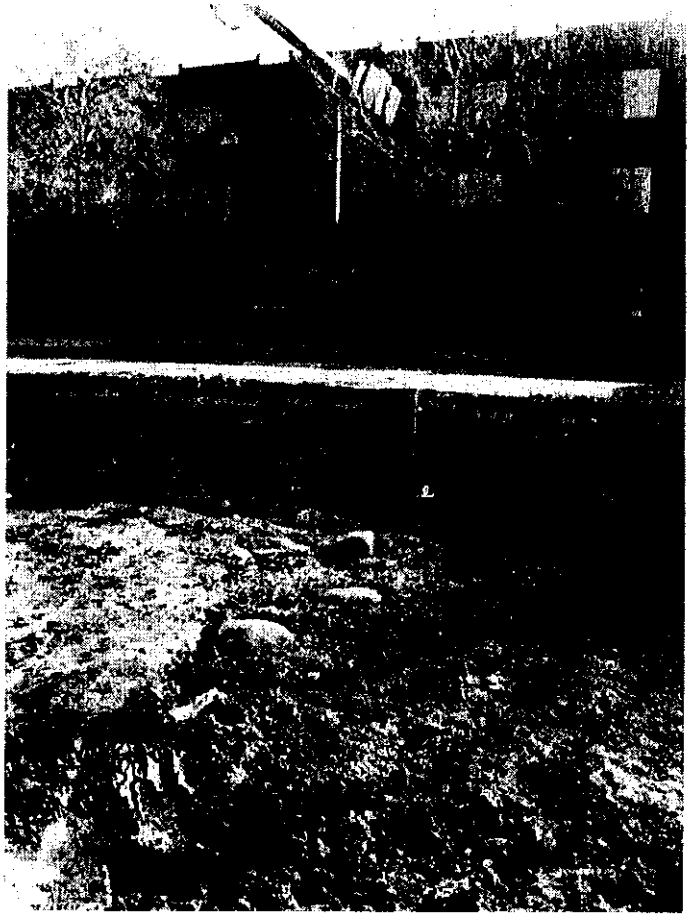


Plate 5 : Footing of the 1836 North Wall

Plate 6: Wooden Fence

During the military occupation of 1846-49 by the Sixth Regiment of Foot, a fence was built to separate the western portion of the fort (used by the soldiers) from the eastern portion which remained the domain of the Hudson's Bay Company. This fence is portrayed in an 1846 sketch by Beatty (Loewen and Monks 1986:61), as well as a sketch by George Finley ca. 1846 (Loewen and Monks 1986:79), and shows that the military had access to the eastern bastions by a passageway between the fence and the stone walls. The wooden fence was built with "posts driven into the ground and planks nailed horizontally to a height of 8-10 feet (2.44-3.05 m) (Loewen and Monks 1986:85).

Sections of two different boards (DlLg-21:96A/2 and 736) were submitted for dendrochronological analysis. The examination determined that they derived from the same tree, having slightly different thicknesses (DlLg-21:96A/2 = 3.5 cm, DlLg-21:96A/736 = 3.2 cm) which would indicate individual hand manufacture rather than mechanical production. As neither sample possessed bark, the determined ages can only be considered as minimum dates. DlLg-21:96A/2 yielded a minimum date of 1850 while DlLg-21:96A/736 has a minimum date of 1839 (Appendix B). Both boards derive from a tree cut after 1850. This rapidly eliminates the possibility of the timber being part of the catwalk (gallery) support structure, as it was built during the first phase of the fort (ca.1835-1837). Based on Beatty's map, the interior fence of the military period was in place by September 1846. Again, the documented construction pre-dates the wood. Also, Beatty's map places the fence 11'7" south of the north wall, while Loewen and Monks' reconstruction plan of the fort, as it would have been in 1850, places the military fence at 15'5" south of the wall (Loewen and Monks 1986:59).

After the departure of the military, the perimeter of the fort was expanded to the north and the original north wall was demolished. It appears that this occurred during the summer of 1853 (Loewen and Monks 1986:103) and it is probable that the interior fence was removed around the same time.

As the archival data does not correlate with the archaeological data, one is left in the uncomfortable position of having to reject the dendrochronological date of 1850+ or hypothesizing undocumented construction. The boards cross-dated with the other samples from the fort, showing internal consistency (Appendix B). Therefore, the dendrochronology minimum date of 1850 is accepted as valid. This requires the conjecture of the construction of a wooden fence parallel to the original north wall after the military departed in 1849. A possible clue can be found in a quotation in Loewen and Monks where the post journal contains the notation that "now that the wall is nearly completed all gates must be shut and locked every night" (HBCA, B.235/a/15, fo.19, cited in Loewen and Monks 1986:103), suggesting that even though the new northward expansion was not completed and the original north wall had been partially removed, an enclosure of the company's buildings still existed. It is possible that a temporary wooden fence was constructed to provide a secure perimeter while the expansion was being undertaken. Such a fence would be ephemeral—being built after the flood of 1852 when expansion commenced and demolished after the new walls had been completed by 1854. This timing would correlate with the dendrochronology dates. Also, the style of construction suggests that this was not planned as a permanent structure, i.e., 4 inch posts would not long support a solid wooden wall facing strong prevailing winds from the northwest. Alternatively, the dated boards could represent patching of the military period interior wall during the expansion period, although the location of the structure does not correlate with any of the archival data.

5.1.3 Feature 4: Northeast Bastion

The bastion (Plate 7) was placed such that the centre lines of the north wall and the east wall passed through the interior of the bastion. The actual alignments were such that the continuations of the outer edges of the walls intersected at the centre of the bastion. The walls joined to the curve of the bastion (Figure 5:4).The entranceway into the bastion was in the corner of the fort, with arcs of the bastion protruding into the interior of the fort. However, the sub-surface footing of the bastion is a complete circle of semi-dressed blocks of limestone (Figure 6).

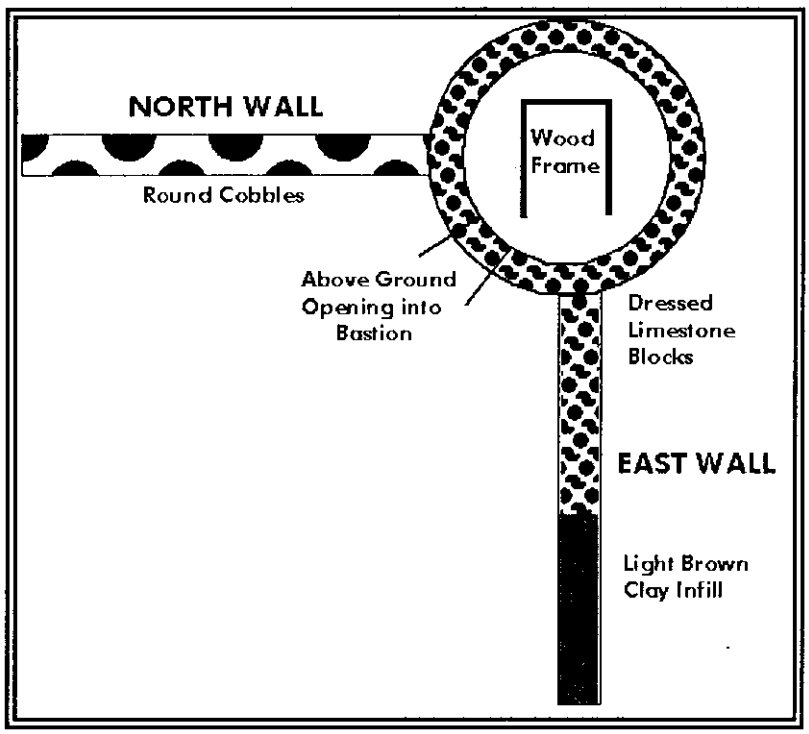


Figure 6: Sub-surface Structural Components at the Northeast Bastion

The measurements of the bastion have been compiled by Loewen and Monks (1986:56), using several sources. The interior diameter was 18 feet (5.5 m) which, with three foot thick walls, yields an external diameter of 24 feet (7.3 m). The external diameter of the footing was recorded as 23.8 feet, 24.2 feet, and 25.1 feet—depending upon the degree of irregularity of the perimeter at the point of measurement. Upon construction, the cylindrical bastion had a conical roof, about 24 feet (7.3 m) high at the eaves and 31 feet (9.5 m) high at the peak. There were two floors with the upper floor probably accessed by a stair or ladder. Considerable underpinning of the second floor would have been necessary as each bastion was equipped with four field pieces.

A drawing of the southwest bastion, ca. 1870, shows a thick line or seam midway up the structure (Loewen and Monks 1986:147). It is possible that the planks for the second floor were seated between the courses of the limestone/sandstone blocks. This would be unlikely due to the potential for wood rot at the outer ends and the difficulty of replacing planks. Even if this had been the case, the upper floor would have needed internal support, especially with the weight of the four field pieces.

During the excavations, a wooden component was uncovered in the centre of the northeast bastion (Plate 7). A three-sided rectangle, measuring 9'6" (2.90 m) by 8' (2.45 m), of squared wooden timber was situated with the open side oriented toward the east wall (Figure 6). The wood, severely decomposed, was left *in situ*. The timbers measured 7 cm (2¾ inches) wide—obviously insufficient for a support structure for the second floor. Also, no vertical timbers were present. It is more likely that this component represents a framework for a set of stairs for access to the upper level.

It must be noted that numerous modifications probably occurred since the initial construction in 1836. The Sixth of Foot had access to all bastions during their occupancy (1846-49) and used the southeast bastion as the guardhouse from which a "continual watch was maintained along the gallery around the fort" (Loewen and Monks 1986:85). At this time the northeast bastion was used as a magazine for the military while the Hudson's Bay Company constructed a powder magazine just north of the north wall (Loewen and Monks 1986:65, 75). While the Royal Canadian Rifles were stationed at the fort (1857-62), two bastions were set aside for their use—one as a guardhouse and a second as a prison with the second floor of the latter for tailors and shoemakers (Loewen and Monks 1986:130). Which two bastions these were is unrecorded, although Loewen and Monks (1986:131) speculate that they may have been the western ones.

In addition to modifications by the military during their occupations, internal reconfiguration of the bastions and/or changes in usages probably occurred many times. The post journal and other sources continually mention lack of space, even when the soldiers were not stationed at the fort. Thus, the bastions, although designed for a military defensive purpose, probably were normally used as storage locations, even after the demolition of the original north wall and the northward expansion of the fort.

5.1.4 Feature 5: East Wall

The east wall is situated at a 90° angle to the north wall and abuts against the outer side of the northeast bastion (Figure 5:5). The northern end of the east wall footing consists of several layers of dressed limestone blocks, laid in courses (Plate 8). This stone component extends 19'6" (5.35 m) southward. At this point, the stonework ceases and the outline of the trench is present, but infilled with a light brown clayey silt. The silt trench filling extends southward and gradually disappears about thirty feet (9.5 m) from the end of the stonework. From this point southward, no trace of any trench outline is present. It would appear that no sub-surface preparation for the east wall was undertaken for most of the length of the wall.

Plate 7: Northeast Bastion with Internal Wood Feature

Plate 8: Coursed Limestone Construction of North Portion of East Wall

The most major modification of the east wall occurred during the occupation of the Sixth of Foot. As the military portion of the compound included both the main south gate and the north gate, a gate was built into the east wall to permit access into the company portion of the fort. This postern gate was built "into the east wall some 100 feet (30.48 m) from the southwest bastion" (Loewen and Monks 1986:84). This is a geometric impossibility and the probable result of a typographic error wherein the authors meant the southeast bastion. Using the calculated north/south dimension of 311.5 feet (Loewen and Monks 1986:51) and subtracting the bastion portions (2 x ½ x 24 feet), the gate would have been approximately 185 feet south of the northeast bastion. This is considerably south of the disappearance of the sub-surface trench for any potential sub-surface footing.

Two possibilities exist for the lack of a footing:

i. the material was mined from the trench during the demolition of the east wall in 1871 (Loewen and Monks 1986:154), or
ii. a footing was never constructed during the 1835-37 building period.

If the first possibility is examined, problems arise due to the archaeological evidence. The trench outline (1.13 m wide) with the light brown infill would not have straight vertical walls on both sides. Removal of limestone blocks and/or river cobbles would have necessitated digging a sloped trench on either side to drag the stone material out. Secondly, the trench outline, in some format, would have extended the entire length of the east wall.

The second possibility is the more likely. A trench was started, heading south from the northeast bastion, but stone was only laid in the first twenty feet. The reasons for discontinuance of the construction methods observed for the north wall and the north portion of the east wall are only speculative. Two possibilities come to mind. The first is that there was a shortage of stone, especially limestone, and that which was available was required for the above ground portion of the wall. Given the availability of limestone at St. Andrews Rapids and Stony Mountain (see Hind's 1858 Topographic Map of Red River Settlement in Warkentin and Ruggles 1970:212) and river cobbles at numerous riffle locations along the Assiniboine River, this is not likely, even though there appears to have been a race

between the HBC and the Catholic Church for the collection of suitable stone for building (Loewen and Monks 1986:25).

The second possibility is that weather determined the construction method. George Simpson, as governor of the HBC, on June 30, 1836, urged Alexander Christie, the chief officer at Red River, to get "on with the buildings, walls and bastions, likewise the jail, as expeditiously as possible" (HBCA, D.4/22, fo. 34 cited in Loewen and Monks 1986:25). Winter would have made obtaining river cobbles or quarrying limestone very difficult and time consuming. In addition, excavating a three foot deep, three foot wide trench in frozen soil would not have been easy. In order to comply with Simpson's directive, Christie must have had the east stone wall laid directly on the soil. This lack of a footing would have made the east wall more susceptible to frost heaving and wall-adjacent erosion, perhaps contributing to the collapse of the wall in 1871 (Loewen and Monks 1986:154).

5.1.5 Feature 6: Northeast Privy

This feature (Figure 5:6) consists of a rectangular outline of interlocked logs. The external measurement of the north side (oriented parallel to the north wall of the fort) is 8'6" (260 cm) and that of the east side is 5'8" (173 cm). The east side of the feature is parallel to the east wall of the fort, located 6'6" (210 cm) west of the inner side of the wall. The feature is only one course of logs above the base of excavations and is filled with a grey sandy gravel (Plate 9). The north side of the feature, adjacent to the northeast corner, consisted of a black soil which contained faunal material and ceramic sherds, in conjunction with other artifacts. This artifact-bearing area was designated as Locus 2.

The sandy gravel layer extended from the base of the concrete road surface to the upper layer of logs of the feature, suggesting that an intrusive activity was responsible for the presence of the gravel on top of a fur trade period structure.

To obtain a date on the construction of this feature, the upper eastern log (DlLg-21:96A/773) was removed for dendrochronological dating. The date obtained (Appendix B) was 1839, with the original tree having been cut in the summer. The tree-ring analyst noted no traces of urine in the log, suggesting that the feature may not have been a privy. However, Nielsen notes (Appendix B) that the upper logs from the privy at Bonnycastle Park (also within the confines of Upper Fort Garry and dating to the same time period) contained minimal amounts of urine in the large, open earlywood cells. Logs from lower down in the structure may contain evidence that the structure was, in fact, built to function as a privy and later became used as a waste pit.

During the period that the entire bastion complex was left exposed for public viewing, unauthorized individuals, during the midnight hours of July 31, 1996, haphazardly dug within the confines of the feature. The perpetrators burrowed one metre down along the eastern edge of the cribbing (Plate 10). The upper 40 centimetres consisted of sand mixed with ash at which point a wide (12 inches+), two inch thick plank was positioned diagonally across the pit. This narrowed the area that was removed to approximately 45 centimetres wide. The soil on the walls of the pit consisted of a black soil matrix containing wood chips and small ceramic fragments. Artifacts not deemed collectable by these individuals were scattered near the pit. These included faunal remains, windowpane, and bottles

produced in automatic bottling machines. The artifacts taken away from the site eventually ended up at the Museum of Man and Nature from whence they were taken to Quaternary Consultants for cataloguing and analysis. This location was designated as Locus 2A to keep these artifacts separate from the professionally excavated materials. The description of the recoveries will be found in Section 6.3.

Analysis of the materials left behind (Section 6.3) shows that there is an admixture of material dating to the occupation period of the fort with later artifacts deriving from the period during or after the demolition of the fort. Most of the glass containers are blown-in-mold although the length of the neck seams indicate that they were manufactured after 1880. One specimen (DlLg-21:96A/253) was produced in an automatic bottling machine, dating into the 20th century. It would appear that intrusive

Plate 9: Cribbed Wood Feature - Northeast Privy

Plate 10: Evidence of Unauthorized Excavation at Locus 2

road works had occurred at this specific location after Main Street had been straightened in 1885 and that the excavation had been infilled with gravel which also contained contemporary garbage, i.e., broken bottles, etc. Analysis of the recovered artifacts and their temporal connotations are presented in Section 6.3.

5.1.6 Feature 7: Men's House

The footings of a structure (Plate 11) were uncovered 40'4" (12.3 m) south of the north wall (Figure 5:7). The external sides of the rectangular footprint measure 42'2" x 24'9" (12.85 x 7.5 m). This conforms with the recorded dimensions of the men's house of 42' x 24' (Loewen and Monks 1986:208), as it is expected that the footing would be slightly larger than the actual structure. The north and south walls are 2'5" (75 cm) thick and the east and west walls are 2'2" (65 cm) thick. The footings are composed of limestone spalls with some sand, ash, and silt filling the interstitial spaces (Plate 12).

Loewen and Monks (1986:208) describe the building as lying 28' from the east wall and 18' north of the Recorder's House which is listed as being 160' from the south wall. Adding this distance plus the 36' length (or 30' length) of the Recorder's House plus the 18' between buildings plus the 42' length of the Men's House yields the calculation that the north wall of the Men's House would lie 256' (or 250') north of the south wall. If the external north/south dimension of the fort is 290' (Loewen and Monks 1986:55), the internal distance would be 284', placing the north wall of the Men's House 28' (or 34') south of the north wall. Measurements of Loewen and Monks (1986:28) scale reconstruction yields a distance of 32'9". This measurement derives from a photo-reduced copy of their original map, probably introducing error of scale. However, both measurements—the compilation of distances and the scale reconstruction—place the Men's House slightly north of the actual surveyed position. Discussion of the discrepancies between recorded data of the different sources will be provided in Section 5.1.14.

5.1.7 Feature 8: Recorder's House

The footings for the Recorder's House were exposed south of the Men's House. The north wall of the footing was measured at 112' from the interior of the north wall or 29'6" from the south wall of the Men's House (Figure 5:8). This does not conform with the data provided by Loewen and Monks (1986:208) which places the Recorder's House 18' south of the Men's House.

The second discrepancy occurs with the dimensions of the footings. The east/west measurement was recorded as 24', as listed within the archives. A major difference is the north/south distance which was measured at 28'2" (8.62 m). Loewen and Monks list the measurements of this building as 36'x 24' (1986:208) or 30' x 24' (1986:46). It would seem that the latter measurement is closer to that which was recorded when the feature was exposed.

Plate 11: Footing of the Men's House

Plate 12: Composition of the Footing of the Men's House

This structure is referenced many times in the archives, especially with comments by the various recorders. As well, it has been depicted in many illustrations, the earliest being the 1840 painting by Findlayson (Loewen and Monks 1986:46). In addition to the main structure, a one-storey lean-to, measuring 12′ x 8′, was attached on the east side (Loewen and Monks 1986:46). No representation of this attached structure was evident. Comparative data will be discussed in Section 5.1.14.

5.1.8 Feature 9: Drainage System?

A series of interrupted, in-filled, rectangular excavations were recorded approximately five feet (1.5 m) south of the Recorder's House (Figure 5:9). The components are parallel to the south wall of the Recorder's House and perpendicular to the east wall of the fort. They extend across the entire excavation area of the east side of Main Street. The width of each of the components is constant at two feet (60 cm) but the lengths vary considerably. From the west, the lengths are 1.4 m, space of 0.85 m, 1.15 m, space of 2.4 m, 2.5 m, space of 2.4 m, and 3.6 m. At the eastern edge, the component continued under the unexcavated sidewalk on the east side of Main Street.

This feature is difficult to interpret. The composition of the fill is similar to that of the footings under the Men's House and the Recorder's House, i.e., chips and spalls of limestone with some sand. The alignment is consistent with the internal structural orientations within the fort. However, the width of the components is that of the standard bucket size of a rubbermount backhoe and coarse limestone fill is often used to fill the base of excavations. No artifacts were present in, or adjacent to, this feature.

The orientation and alignment suggest that this represents a construction feature during the building of the fort. It is highly unlikely that sub-surface operations after the paving of Main Street would be oriented at an angle to the Street. Most services are placed parallel with, or perpendicular to, existing streets. If the feature dates to the occupation period of the fort, determining its function could be next to impossible. A possible function could be that of an internal drainage system. Loewen and Monks (1986:105) note that

> *a system of drains lay underneath the surface of the soil. These drains backed up as the floodwaters (1852) rose, forcing water into the cellars inside the compound. In normal times they were connected to those buildings which had cellars*

The alignment of this trench does not appear to join with any of the structures within the fort and appears to run from higher ground outside the east wall. It would not be likely that the drainage system would extend perpendicular to the east wall, but would more likely take the shortest route from the structure containing a cellar to low ground or the Assiniboine River bank. Based upon this argument, it appears that Feature 9 probably derives from a post-1885 excavation beneath the surface of Main Street.

5.1.9 Feature 10, Feature 11: Sales Store

A rectangular outline of the footing of a structure (Feature 10) was exposed 47′ south of the south wall of the Recorder's House (Figure 5:10). The north/south measurement is 25′7″. A second rectangular footing outline (Feature 11) was exposed to the south of Feature 10 (Figure 5:11). The west walls of the two features are in alignment and the two features are probably both footings for the same building, albeit separated by a distance of 17′9″ (5.4 m). The overall distance between the north wall of Feature 10 and the south wall of Feature 11 is 72′2″ (22.0 m), almost exactly the north/south dimension of the Sales Store provided by Loewen and Monks (1986:208) who list the building as 72′ x 30′. The east/west measurements of both features are 30′4″ (9.25 m), which conforms with the archival data. The west walls of the footings are aligned with the west walls of the Men's House and the Recorder's House, meaning that the east wall of the Sales Store was six feet closer to the East Wall than those two structures. This conforms with Balsillie's map (Loewen and Monks 1986:90-93) which show the western walls of all three structures to be aligned. The south wall of Feature 11 is narrower than the other walls, only 18″ (46 cm) whereas the walls of Feature 10 and the west wall of Feature 11 were 32″ (84 cm). The south wall of Feature 11 is located 26′ 2″ (7.95 m) north of the south wall. This is 8′ more distant than posited by Loewen and Monks (1986:208).

Considerable prior disruption was present at both features. The MTS ductline (Plate 13) ran through the west side of Feature 10, as did a Centra gasline which ran perpendicular to Main Street. Delays in the arrival of the surveyors on site resulted in only minimal survey points (6), as Centra and MTS crews were working on the gasline and ductline with mechanized equipment. The dimensions of the feature were measured prior to disturbance, but only small portions of the footing outline remained undisturbed by the time the surveyors arrived. The entire eastern wall and most of the north wall of Feature 11 had been previously eradicated by subsurface operations prior to this project. The disruption could have occurred during the 1950s when the land immediately east was occupied by a service station.

Loewen and Monks (1986:39-41) conclude that the construction of the Sales Store was completed in 1839. However, details of construction are almost totally lacking. Loewen and Monks (1986:40) suggest that the Sales Store did not have a stone foundation. They base their conclusion on two lines of evidence:

1. Simpson's letters to the Bishop of Juliopolis and to Christie stated that only two stores and a dwelling would be built with stone foundations (Loewen and Monks 1986:25), and
2. an entry in the post journal that stated, in 1858, that "Gadoua [was] carting sand round the Sale Shop foundation" (HBCA, B.235/a/16, fo. 12 cited in Loewen and Monks 1986:40).

From the first piece of evidence, they deduce that, as the fur store in the northwest corner and the warehouse in the southwest corner had stone foundations (Loewen and Monks 1986:37), the Sales Store would not have. From the second piece of evidence, they feel that it is probable that the structure had a sunken, stacked timber foundation with the foundation trench filled with sand for drainage and frost-heaving stabilization.

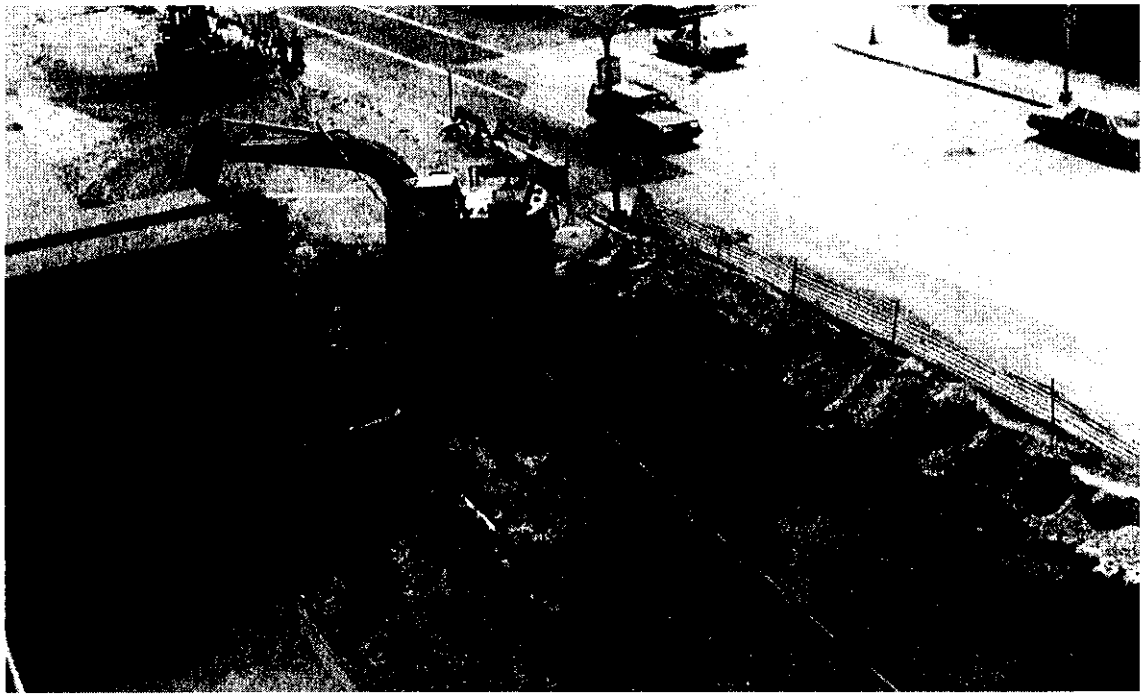


Plate 13: MTS Ductline running parallel to the east curb of Main Street

Plate 14: Limestone Block in the South Wall of Feature 11

The question of what constitutes a stone foundation appears to be answered by the description provided by (Loewen and Monks 1986:37). It is "three feet (0.92 m) deep and three feet wide made of cobbles collected from the Red River, upon which crosswise beams about one ell (45" or 1.38 m) apart and a floor of planks were suspended". This description matches the structural evidence located for the north wall, but not for any of the other structures, including the Sales Store. The underpinning of the Men's House, the Recorder's House, and the Sales Store are similar in that a narrower trench (46 to 85 cm) was excavated to a depth approximating three feet and filled with stone debitage from wall and bastion construction. The buildings were then constructed over these footings, upon which wooden beams were probably placed. Feature 10 has a single limestone block at the southeast corner (Plate 14), otherwise the remainder of the footing is composed of small lithic fragments.

The disjunct nature of the two sections of footings for the Sales Store raises questions about the method and sequence of construction of this building. Was it originally built as two separate structures with a subsequent addition joining them into one building? Loewen and Monks note that the northern end of the Sales Store served as an office (1986:42) and it may have originally been envisioned as a separate building, to further separate customers from the internal operations of the company. However, early depictions (Findlayson, ca. 1840; Murray, 1845) illustrated in Loewen and Monks (1986) show the building to be a single entity.

It is possible that the initial construction plan was for two separate buildings for which the trenches were dug and the footings prepared. During construction, it may have seemed expedient to combine the two buildings into a single structure by building through the gap between the two footings. As the external walls, except for a short (17'9" or 5.4 m) distance, were underpinned by an existing footing, it may have been deemed unnecessary to trench and prepare a footing for the gap. Secondly, there may have been a shortage of limestone chips to fill a trench and complete the footing on the east and west walls. In any event, the building appears to have been constructed as a single structure and existed until 1883.

5.1.10 Feature 12: South Wall

The footing of the south wall was exposed near the southern end of the excavations on Main Street (Figure 5:12). It is situated 26'2" south of the south wall of Feature 11. The construction of the wall footing was similar to that of the northern portion of the East Wall—several series of roughly dressed limestone blocks producing a linear wall approximately 3'4" (102 cm) wide (Plate 15). The continuity of the wall was breached by the MTS ductline at the western edge of the construction area and also was missing at the eastern edge of the construction excavation.

5.1.11 Feature 13: Northeast Wall of 1852

The size of the fort was nearly doubled in 1852-53 with the construction of a three-sided walled rectangle adjoining the north side of the existing fort perimeter (Loewen and Monks 1986:102-104). The new eastern wall (Figure 5:13) continued north from the northeast bastion, in alignment with

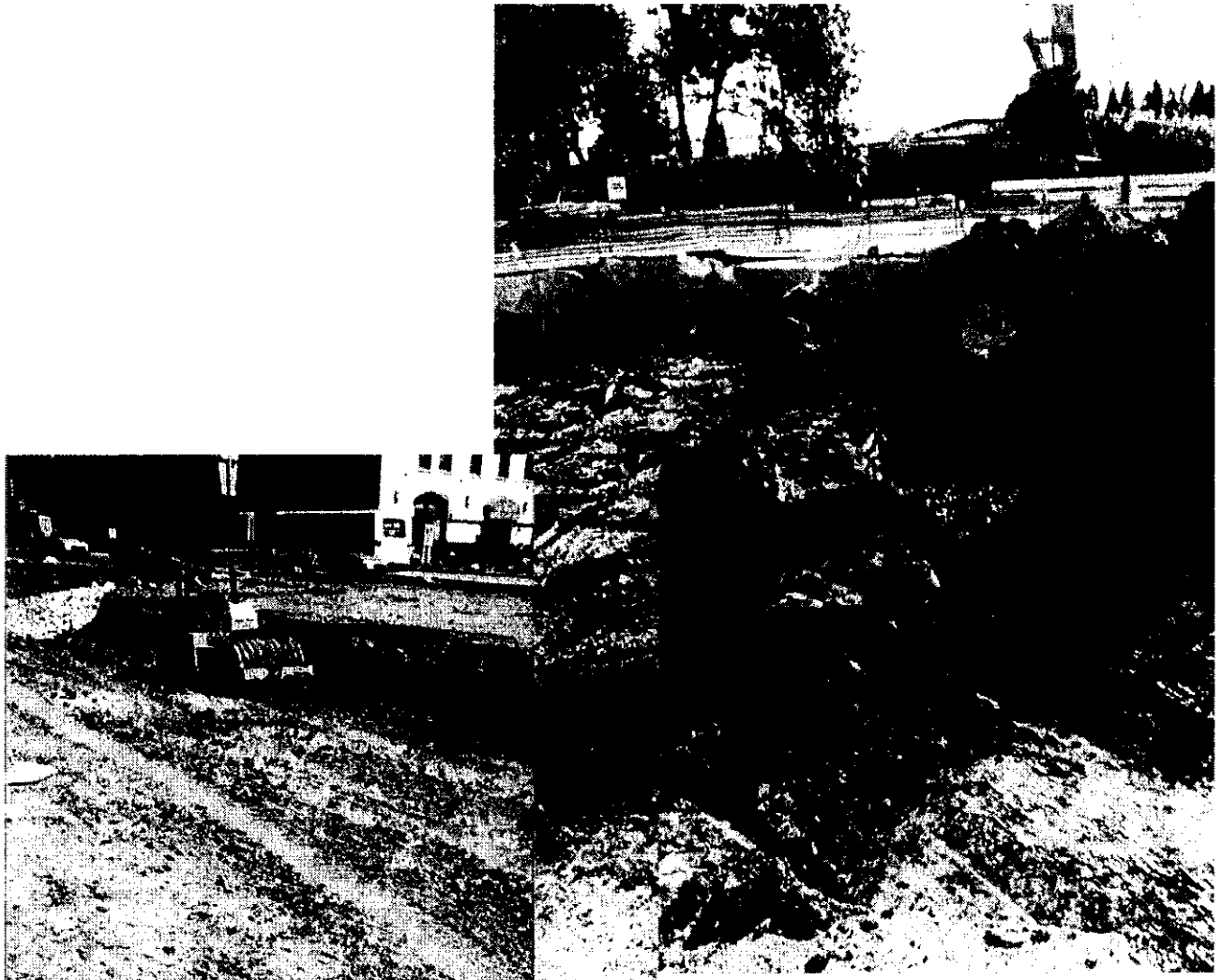


Plate 15: South Wall

Plate 16: Limestone Slab Pad for
Uprights of 1852 Northeast Wall

the existing stone east wall. This "new wall was only ten feet (3.05 m) high and consisted of a hollow wooden structure three feet (0.91 m) in width, secured upon a stone foundation and braced inside with 14 inch (0.36 m) oaken planks running horizontally and a rammed earth core" (Loewen and Monks 1986:102). The vertical uprights appear to have rested on tabular limestone slabs (Plate 16) which were spaced approximately 11'6" (3.5 m) apart. The slabs occurred at the base of the roadbed excavation and had no other material above them. It would appear that the vertical uprights would have been pulled when the wall was demolished. The surviving remnant of this type of construction is at the still extant North Gate west of Main Street.

5.1.12 Feature 15: Main House?

A narrow (6") trench infilled with limestone chips, reminiscent of the footings encountered under Upper Fort Garry buildings during the 1996 project, was located south and west of Feature 14 (Figure 5:14). This filled trench, designated Feature 15 (Figure 5:15), lies 60 cm (2') from the edge of the timbers and extends a short distance to the south paralleling the south edge of Feature 14. No trace is evident on the north edge.

Loewen and Monks (1986:45) state that the Main House measured 70' by 35' and rested on a stone foundation. It also had a cellar and two flanking one-story structures on the east and west sides. They also indicate that the total length of the Main House and lean-to was "more that 100 feet" suggesting that each of the lean-tos would measure approximately 16' wide (east/west). However, examination of their reconstructed plan (Loewen and Monks 1986:Figure 1) shows that the depiction of the lean-tos have only a 10' width, with a north/south length of 24'.

The footings of this building were not encountered during the 1996 excavation of the west side of Main Street nor the Assiniboine Avenue intersection excavation in 1998. As previously discussed, a stone foundation is massive and would have been obvious during the excavation procedures if at all present. The narrow trench would not have been a sufficient foundation for a three-story large building but may have been the footing for the west lean-to. The orientation of the south and west portions of the trench coincide with those of footings of other structures encountered within the confines of Upper Fort Garry. Loewen and Monks (1986:45) speculate that the lateral lean-tos, built before 1846, may have housed privies and storage rooms. No evidence of privy pits was encountered adjacent to Feature 15 although they may have been present under the wooden plank construction designated as Feature 14. This wooden component, described in Section 4.6, may represent the floor of this lateral lean-to rather than a result of construction during the electric street car period. The dimensions of the planking feature (8' by 12') do not appear to match any of the potential dimensions of the lean-to. In addition, the wooden feature would have been below the original soil level of 1836.

The nails in all three planks (DlLg-21:98A/22, 23, and 24) are all hand-wrought with either rose or dome heads. Even though sheet-cut nails would have been available in the 1890s, hand-wrought nails were still manufactured by local blacksmiths. As noted during the discussion of Feature 14, the dating of both of these features is indeterminate and they may be part of the same structure or coincidentally juxtaposed.

5.1.13 Feature 16: "Yellow" Store?

The designation of a single block of limestone at the northern edge of the limits of excavation on Assiniboine Avenue (Figure 5:16) may be a result of wishful thinking rather than an artifact of reality. No other structural elements were observed within the roadbed excavation area and no evidence of a trench in which this single block occurred was present. The "Yellow" Store, so-named because of the colour of its plaster coating, was built between 1840 and 1845 (Loewen and Monks 1986:38-39). Archival documentation does not indicate whether the building had a stone foundation although Loewen and Monks (1986:39) suggest that it rested on a piled wood foundation.

The designation of this feature is primarily due to its location at a position near where the east wall of the "Yellow" Store would have been. It is also quite probable that land modifications during the electric street car period, as well as later developments involving the northwest corner of Main Street and Assiniboine Avenue, would have resulted in relocation of isolated blocks of limestone, perhaps from the southwest Ware House which was known to have a stone foundation.

5.1.14 Summary of Fur Trade Features

The locational data of the described features was obtained by surveying numerous points with the survey datum being the City of Winnipeg benchmark at the northeast corner of Bonnycastle Park. The compiled data was depicted on Figure 6. During the description of each feature, discrepancies between the survey data and previously published information was noted. To further illuminate the differences, Figure 7 has been composed by using Figure 5 and superimposing the map of Upper Fort Garry in 1846, as compiled by Loewen and Monks (1986:28). The two maps were enlarged to the same scale to enable comparisons.

There appears to be a slight difference in the location of the Northeast Bastion (Feature 4). Loewen and Monks (1986:53) suggest that "it is possible to infer that the centre of the three foot (0.91 m) walls lined up with the exact centre of the bastions". The surveyed data indicates that the outer edges of the walls intersected at the centre of the bastion (Figure 6). This is a minor positional variation resulting in the extreme edges of the bastions projecting 1.5 feet (0.45 m) further from the walls than determined by Loewen and Monks (1986:49-55).

The superimposition shows that the cookhouse was located in the extreme northeast corner, adjacent to Feature 6. The earliest archival mention of this structure is on a sketch by Warre, dated June of 1845, which places the building in the northeast corner, adjacent to the bastion (Loewen and Monks 1986:30). A scaled plan, which is Warre's official plan of the fort published by the British War Office in 1860, shows a small rectangular building in the extreme northeast corner, between the Men's House and the bastion (Loewen and Monks 1986:32), labelling it as Servants's Quarters. The cookhouse is portrayed on both the Beatty map of 1846 (Loewen and Monks 1986:61) and the subsequent Moody map of 1848 (Loewen and Monks 1986:63, 65). These maps show this building in alignment with the Men's House and the Recorder's House. The reconstruction by Loewen and Monks places the building close to both walls and it is evident that they placed most credence in the

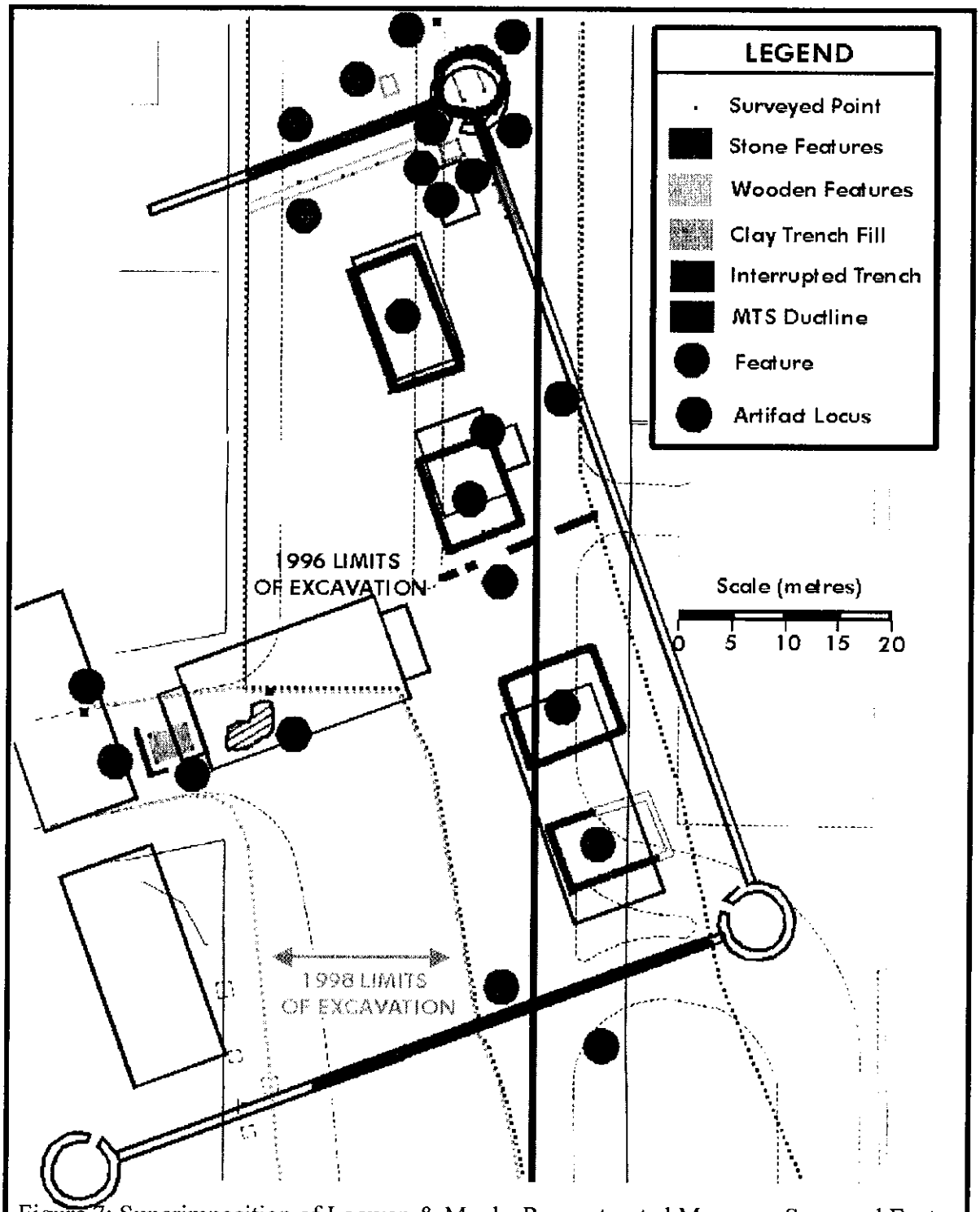


Figure 7: Superimposition of Loewen & Monks Reconstructed Map over Surveyed Features

Warre sketch and the subsequent scaled map of 1845-46. The 19th century maps show considerable variation in the size of the building—Beatty has it the same size as the Men's House (a problem noted by Loewen and Monks (1986:84)) while scaling Moody's map provides dimensions of approximately 24′ by 24′. Warre's sketch shows a structure about one-fourth the size of the Men's House and the scaled plan provides the measurements 12′ by 16′ (3.62 m by 4.88 m), which are the dimensions stated by Loewen and Monks (1986:48).

The position of the Cookhouse immediately adjacent to Feature 6 may be a coincidence but it may also help identify the function of the cribbed feature. As the log from the upper tier of the feature provided a dendrochronology date of 1839, it was probably constructed around the same period as the cookhouse which predates 1845. If the feature had been excavated and the cribbing constructed with green logs, the earliest it could have been built would be the summer or fall of 1839. Given the small complement of personnel wintering at the fort and residing in the nearby Men's House (see Loewen and Monks 1986:44-45), it is unlikely that a privy would have been used until filled and then a cookhouse built immediately beside the abandoned structure. A more probable explanation, and one that complements Nielsen's observation of the absence of urine in the log (Appendix B), is that the cribbed feature was a cellar for food storage. It was a common practice for root cellars to be dug within new buildings before the floor was laid (Loewen and Monks 1986:105). If the juxtaposed Cookhouse were to be located five feet north and three feet east, the cribbed feature would be in the northeast corner of the building. It is more probable that the cribbed cellar would have been inside rather than abutting the exterior north wall of the Cookhouse, thereby obviating the necessity of going outside to retrieve root vegetables for cooking. Secondly, by being indoors, the temperature extremes—both winter and summer—would be lessened, increasing the storage life of the vegetables. Thus, it is suggested that the Cookhouse was situated slightly north and east of the position portrayed by Loewen and Monks.

The surveyed dimensions of the Men's House (Feature 7) confirm those stated by Loewen and Monks (1986:208) as 42′ x 24′. The location of the structure is the major discrepancy between the actual position of the sub-surface footing and the reconstruction based upon archival sources and photogrammetry. As is evident from Figure 7, the east/west location relative to the east wall of the fort matches perfectly but the north/south location differs. On Loewen and Monks' map, the north wall of the Men's House is 32′9″south of the north wall of the fort while calculations based upon distances presented would place the structure either 28′ or 34′ south of the wall. The distance between the interior of the north wall of the fort and the north wall of the Men's House footings was measured at 40′4″.

The footings of the Recorder's House are aligned with the footings of the Men's House and confirm the east/west location of the building as reported by Loewen and Monks (1986:208). The north/south location is considerably different. They place the structure 160′ north of the south wall or 18′ south of the Men's House. The footing was measured at 29′6″ south of the Men's House, a difference of nearly 12′. A contributing factor to the locational problem is the difference of the size of the footprint of the structure. The north/south dimension of the footing were measured at 28′2″, while Loewen and Monks alternatively provide measurements of 36′ (1986:208) or 30′ (1986:46). The latter

measurement is similar to the one obtained from their scaled reconstruction plan. Part of the problem of determining the dimensions would be the construction of a one-storey passageway between the Men's House and the Recorder's House between 1846 and 1848. The Beatty map of 1846 shows two separate structures as does the earlier Warre sketch (1845) while the Moody map of 1848 depicts a continuous structure (Loewen and Monks 1986:70). Problems of scale have already been noted with the Beatty map concerning the size of the Cookhouse, so his depiction of the Recorder's House as similar to the Men's House (scaled calculation = 37'6") should not be heavily relied upon. The Warre map, as published in 1860, again indicates that the Recorder's House was only slightly smaller than the Men's House (Loewen and Monks 1986:32). The Warre map shows the eastern lean-to positioned at the northeast corner of the building (Loewen and Monks 1986:32) while Loewen and Monks' map place it at the centre of the east side. No sub-surface component of this addition was observed, leaving the exact placement of this addition still undetermined. Additionally, no evidence of the passageway of 1848 was observed so that it cannot be confirmed that the addition resulted in a single continuous structure as depicted on the Moody map (Loewen and Monks 1986:65) and the 1868 Balsillie map (Loewen and Monks 1986:93) or as an offset passageway extending along the eastern face of the two buildings as shown on Loewen and Monks' map of the probable plan in 1850 (1986:59).

The most surprising discovery concerned the footings of the southeast Sales Store. Two separate rectangular footings 25'7" x 30'4" (Feature 10) and 29'2" x 30'4" (Feature 11). These two features were separated by 17'9", providing an overall footprint of 72'2" x 30'4" which almost exactly matches the archival data of 72' x 30' (Loewen and Monks 1986:208). The implications of the two footings under a single building have been previously discussed. The composite footprint is displaced north and east from Loewen and Monk's placement. The western wall of both features is aligned with the western walls of the Men's House and the Recorder's House. This conforms with the depictions on Warre's map, Moody's map, and Balsillie's map. However, the Beatty map and the Hazel map (Loewen and Monks 1986:166) show the eastern walls to be aligned with the west wall of the Sales Store jutting 6' into the interior compound. Loewen and Monks' map appears to have split the difference, aligning the centre line of the Sales Store with the centre lines of the Men's House and the Recorder's House, although their structural inventory (1986:208) lists the two residences as 28' from the east wall and the store as 22' from the east wall. This would mean that the west walls of all three structures would be aligned, contrary to the appearance on the map. The second discrepancy concerns the north/south position which Loewen and Monks (1986:208) state to be 18' north of the south wall while the footing was measured at 26' north of the wall. The Warre map depicts the Sales Store to be approximately 18' north and aligned with the western Store. As a comparative note, Warre also places the Fur Store (in the northwest corner) the same distance south of the north wall, a distance recorded by Loewen and Monks in their structural inventory (1986:208). Beatty's map has the same placement of the three buildings, while the Moody map shows the distance between the south wall and the southern two buildings to be at least 130% that of the distance (approximately 24') between the north wall and the Fur Store. Inasmuch as Monks (1984) did not uncover the footing of the south wall during his excavations in Bonnycastle Park (1981-83) it is unknown how far north of the wall the western Store was situated. If it is aligned with the Sales Store, it too is probably 26'.

The lack of evidence of any structural remnants of the Main House was unexpected. The most important building within the fort, it was also the largest and most carefully constructed. Due to the three-story height of this building, a stone foundation was imperative. A letter from George Simpson to the Bishop of Juliopolis, during a dispute over use of river cobbles, notes that "we determined on building two stores and a dwelling house on stone foundations" (Loewen and Monks 1986:25). However, no traces of limestone and/or river cobble foundations were present in the vicinity of where this building had to have been. Three features may be minimal evidence of the existence of this building—Feature 14 (a wooden plank wall/floor); Feature 15 (a narrow footing trench); and Locus 6 (a pile of limestone rubble). Feature 14 and 15 have previously been discussed and their relationship to the Main House, if indeed they are part of it, would have been as part of the west lean-to attached to the main building. The limestone rubble, which contained isolated artifacts and some wooden structural remnants, may have been infill into the cellar of the Main House. Mitigating against this interpretation is the irregular shape of the rubble pile. A cellar used for vegetable and meat storage would have been cribbed with wooden timbers, usually in a rectangular shape. An isolated limestone block occurred at the edge of the 1998 excavations immediately north of Locus 6. This limestone block is situated in the middle of the footprint of the building (Figure 7) and its position probably is a result of previous modification of the area. The total absence of stone in the footprint of the Main House may be a result of quarrying the footings during the demolition of this building in 1872 or 1873 (Loewen and Monks 1986:153). When the east stone wall was removed in 1871, the stone was used for the construction of the Land Titles Building on Main Street north of Upper Fort Garry (Loewen and Monks 1986:154). A similar requirement for dressed or semi-dressed limestone, for construction of other buildings, may have resulted in total quarrying of the entire footings of the Main House. Unusable fragments of limestone from these footings and/or the tall chimneys which "rose from each end of the level peak of the roof" (Loewen and Monks 1986:45) may have accumulated and become the pile of rubble designated as Locus 6.

Minimal evidence, if any, exists for confirmation of the location of the "Yellow" Store. Feature 16, an isolated block of dressed limestone, is situated near where the east wall of the building would have been located. No other confirming evidence, in terms of footings or infilled trenches or sub-surface pilings was present in the vicinity.

To capitulate, Loewen and Monks provided a useful reference work based upon archival data. The slight discrepancies between their information and the recorded sub-surface features uncovered during the Main Street reconstruction have been detailed above. These consist mostly of building placements relative to the walls and each other. One structure (the Recorder's House) has been found to be slightly smaller than archivally determined. Although the actual building could have been constructed larger than the footing, this is very unlikely as the benefits provided by the footing for frost heaving and drainage would be negated.

6.0 ARTIFACTS FROM UPPER FORT GARRY

Artifacts were recovered from several loci within the confines of the original fort, as defined by the north wall of 1836. As each loci has its own depositional and associational context, the artifacts are analysed by location. Two of the loci—Locus 3 (Figure 4-X) and Locus 5 (Figure 4-Y)—result from activities and deposition after the abandonment of the fort in 1883. These have already been discussed in Chapter 4. The recoveries from the remaining loci (1, 2, 2A, 4, and 6) are detailed in this chapter.

6.1 Locus 1

The area defined as Locus 1 is at the junction of the east wall and the inner curve of the northeast bastion. A small quantity of artifacts were immediately adjacent to the lithic footing of the bastion and possibly derive from trench fill after the course of limestone for the bastion footing had been laid. The deposit is very localized, extending only 12 cm out from the limestone footing and having a linear distance of 30 cm along the curve. Fifty-three artifacts were recovered from Locus 1.

6.1.1 Architectural Objects

Artifacts used for the construction, the maintenance, and the furnishing of structures are catalogued as Architectural Objects. These can consist of different materials such as metal, glass, and wood. Six artifacts, four in the Hardware sub-category and two in the Accoutrement sub-category, were curated.

6.1.1.1 Hardware

Three nails, representing two different manufacturing techniques—hand-wrought and sheet-cut—were catalogued. DlLg-21:96A/51, a single, very corroded, iron, hand-wrought nail is disintegrating rapidly in its bag. Hand-wrought nails are individually made by hammering. This produces a shank that tapers on all sides to a point and the tapering varies in thickness along the length (Noble 1973:125).The degree of disintegration of this nail makes identification of the head type very difficult, but it appears to have had a rose head.

DlLg-21:96A/52 consists of two very corroded, square, iron, sheet-cut nails which are also disintegrating in the bag. Sheet-cut nails were mass produced from ca. 1790 (Nelson 1968:8). Sheets of iron or steel were rolled to a uniform thickness and then cut with a taper from top to bottom producing a nail with a constant thickness from head to point and a width that tapers. While sheet-cut nails were produced in Montreal in the early part of the 19th century, they became common in The Forks region after 1860 (McLeod 1983:148). Steamboats coming up the Red River from Minnesota would have brought supplies, including nails, into the Winnipeg area.

A single piece of wire was curated. DlLg-21:96A/54 is a thin, 1.6 mm, section which has a surficial coating of iron oxide and cupric compounds. The composition of the wire is undeterminable without spectographic analysis although a bare section has a silvery steel colour. The specimen is bent into a

rectangular shape, 55.0 mm by 16.7 mm. The shape is probably original rather than being caused by post-depositional trauma. A possible hardware function could be for a wall hanging bracket for pictures or other items displayed on walls. Other possible functions could include a bracket loop for ends of belts, sashes, or webbings if it is part of a clothing accessory.

6.1.1.2 Accoutrements

Two, thin (1.7 mm thick), aqua windowpane sherds were recovered. Both of the sherds in DlLg-21:96A/53 are plain with no decoration and one sherd is encrusted on one surface.

6.1.2 Recreation

DlLg-21:96A/56 consists of four short sections of different kaolin pipe stems measuring 36.9, 39.4, 54.0, and 58.1 mm in length respectively. The maximum diameters for these four pipe stems are 5.8, 6.1, 6.3, and 6.7 millimetres. The shortest pipe stem, with a maximum diameter of 5.8, tapers to a minimum diameter of 5.0 mm suggesting that it may be from near the mouthpiece of the pipe, while the other three stems are mid-section pieces. None of these artifacts have any indication of maker's marks. As noted earlier, the clay pipe is considered to be an indicator of the Fur Trade era, however it "held out well into the twentieth century, generally in industrial centres but also in rural areas" (Walker 1977:262). Walker (1977:263) notes that, as late as 1969, the firm of John Pollock of Manchester was exporting clay tobacco pipes to Canada, as well as other countries.

6.1.3 Detritus

DlLg-21:96A/55 is a rectangular section of thin, iron scrap. The thickness is 0.9 mm, the width is 21.6 mm, and the length is 83.4 mm. This artifact was probably cut from a larger object. The exact use for this fragment of iron scrap is unknown at this time.

6.1.4 Faunal Remains

There are 24 faunal recoveries, all representing food remains, from Locus 1 (Table 24). These artifacts were identified using the standard references and the species, element, quantity, weight, catalogue number, marks, and any other comments for all of the specimens are noted. The term undetermined, in the element column, refers to fragments which have some landmarks and may, with sufficient time and adequate reference collections be identified to either element or species or both.

The avian skull could not be taken to species level, although it may derive from a domesticated bird, i.e., chicken, turkey, duck, or goose. The fish remains represent a minimum of two individuals, one is a catfish (*Ictalurus* sp.) while the other cannot be determined.

The mammal remains represent different sizes and ages of individuals. Five specimens were identified as Bovidae (either bison or cow) with both adult and juvenile being present. The medium/large and medium-sized specimens, that could not be identified to a species, may derive from the adult and

juvenile Bovidae. However, due to the incompleteness of the bones, there are insufficient landmarks to positively identify the family or genus. Several of the specimens show butchering marks, primarily cutting with an axe. Post-deposition modification through carnivore chewing, which implies the presence of domestic dogs, is evident on DlLg-21:96A/69.

TAXON	ELEMENT	QTY	WT	CAT. #	COMMENTS
Aves					
Medium	Skull	1	1.4	75	-
TOTAL BIRD		1	1.4		
Fish					
Undifferentiated	Scale	1	0.1	76	-
	Haemal Spine	1	0.1	77	-
	Cleithrum	1	0.1	78	-
	Hyomandibular	1	0.5	79	-
	Rib	1	0.1	81	-
	Undetermined	3	0.7	82	-
Ictalurus sp.	Vertebra	1	1.4	73	-
(Catfish)	Cleithrum	1	1.8	74	-
	Dorsal Spine	2	0.9	80	-
TOTAL FISH		12	5.7		
Mammal					
Medium/Large	Rib	2	10.9	72	Adult; spiral fracture; pieces fit together
Medium	Sacrum	1	3.3	83	Juvenile; Axed
	Vertebra	1	0.3	86	Juvenile
Artiodactyla					
Bovidae	Rib	1	93.1	69	Adult; axed; carnivore chewing
	Vertebra	1	16.8	70	Adult; axed
	Tibia	3	33.5	71	Juvenile; pieces fit together
Lagomorpha					
Leporidae					
Lepus sp.	Tibia	1	0.2	84	Juvenile
	Femur	1	0.1	85	Juvenile
TOTAL MAMMAL		11	158.2		
TOTAL FOOD REMAINS		24	165.3		

Table 24: Faunal Remains from Locus 1

Two bones were identified as juvenile rabbit (*Lepus* sp.). They may derive from either the genus *Lepus* or a closely allied genus *Sylvilagus* sp. and could be Snowshoe Hare (*Lepus americanus*), Jackrabbit (*Lepus townsendii*), Eastern Cottontail (*Sylvilagus floridanus*), or Nuttall's Cottontail (*Sylvilagus nuttallii*) (Banfield 1974). A firm identification cannot be made due to the immaturity and incompleteness of the bones.

6.1.5 Dinnerware

Dinnerware objects are types of containers but, due to the variety of recoveries and the different types of information that may be derived from them, they are analysed and discussed separately from other containers. Dinnerware is usually manufactured in sets of the same pattern and decorative features cross-cut the types of objects. When the recoveries are too fragmented to allow exact identification of the original object, object names such as a bowl? or plate?/saucer? are used.

A descriptive listing of the sherds recovered from each loci will be presented within the pertinent section of this chapter, while Chapter 7 has been devoted to a detailed analysis of the Fur Trade ceramics recovered, during this project, from loci within the perimeter of Upper Fort Garry. As well, Chapter 7 will include a comparative study of the ceramics from the 1996 project with ceramics recovered from previous archaeological investigations at Upper Fort Garry. It was decided to analyze the Fur Trade ceramic recoveries in one chapter for the following reasons:

1) the quantity of the Fur Trade ceramic recoveries was large;
2) the time frame for the fort is known - 1836 to 1883 (47 years) - thus giving a tightly defined period within which the artifacts would have been used and discarded; and
3) the artifacts would have been used by the population of the fort and visitors from the surrounding area, providing a well-defined context which would be lacking if the artifacts were recovered from a dump site.

Eighteen sherds from Locus 1 were catalogued in the Dinnerware category (Table 25). Many of the same patterns and manufacturers can be found in Locus 2, 2A, 4, and 6. In addition, some of these patterns have been found during other archaeological projects within the boundaries of the Upper Fort Garry site (Fifik 1986; Larcombe 1988; Monks 1982, 1983; Sussman 1979a).

A caveat should be noted here. Many of the identifiable sherds in Locus 1, 2, 2A, 4, and 6 do not have a maker's mark on them, although the patterns could be found in various references (Sussman 1978, 1979a; Hamilton 1985; Coysh and Henrywood 1982) and were assigned to certain factories. The artifacts that do not have a maker's mark are denoted with an asterisk in Table 25.With reference to the Spode/Copeland patterns, although that factory may have used the pattern first, the design may have been copied by other companies. However, since several pieces do have distinct Spode/Copeland marks on them, other identifiable patterns without marks were also attributed to this factory due to the context of the material, i.e., all recovered within the same locus inside the walls of Upper Fort Garry; the constrained time period of the fort—1836 to 1883 (Loewen and Monks 1986:156); and the fact that Copeland was the main, if not often the sole, supplier of ceramic dinnerware to the Hudson's Bay Company (Hamilton 1985:8; Sussman 1979a:9).

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER(S)
57	1	white;blue	Plate	Watteau	Copeland & Garrett/W.T. Copeland
58	1	white;blue	Plate	Pagoda	Copeland & Garrett
59*	4	white;blue	Plate?/Saucer	Italian	Copeland & Garrett/W.T. Copeland
60	2	white;blue	?	Camilla	Copeland & Garrett
61*	1	white;blue	Plate	British Flowers	Copeland & Garrett/W.T. Copeland
63*	1	white;purple	Bowl	Honeycomb	Spode/Copeland
64*	1	white;blue	Bowl?/Cup?	Alhambra	W.T. Copeland
65*	1	white;purple	Plate?/Saucer ?	?British Flowers	Copeland & Garrett/W.T. Copeland
62*	2	white;blue	Plate	Fibre	John Meir & Son (See Locus 2A)
66*	1	white;blue	Bowl?/Cup?	branches; chevron	-
67*	1	white;blue		cross-hatched	-
68*	1	white	Bowl	-	-
87*	1	white	Plate?/Saucer ? Bowl?/Cup? Unidentified	-	-
TOTAL	18				

* no maker's mark

Table 25: Ceramic Dinnerware from Locus 1

6.1.6 Summary

Only the dinnerware provides any degree of temporal determination. The maker's marks on the ceramic sherds yield a time range from the 1830s to the 1850s. It is undeterminable how much admixture of material from later time periods occurred at the locus. Only the sheet-cut nails may post-date the majority of the artifacts and even they could date as early as the ceramics, having been produced in Montreal and transported to the fort as part of the annual brigade.

The position of the cultural material immediately adjacent to the sub-surface components of the bastion and the east wall suggests that they were incorporated into the soil matrix as the trench was being filled after the limestone footings had been laid. If this is the case, the date of deposition would be 1836 (See Section 5.1.4). As some of the ceramic artifacts post-date this date, intrusive deposition must be considered. At some point after the wall and bastion had been constructed, an excavation occurred alongside, which was later infilled with the excavated soil, some accumulated midden material, and some artifacts which had been laying on the ground surface.

6.2 Locus 2

Locus 2 is the designation for the artifact-bearing deposit which occurred above and adjacent to the north side of Feature 6 (Figure 5). The matrix above Feature 6, designated as the Northeast Privy, consisted of a grey, sandy gravel and extended upward to the base of the prior roadbed. This gravel

would be the result of infilling of an intrusive excavation which happened to coincide with the position of the feature. The basal portion of this deposit, especially within the confines of the feature, consisted of a fine sand mixed with ash and extended to a depth of 40 cm below the top of the cribbing. Various artifacts were present in the gravel and on the soil matrix surrounding the cribbing. A black, loamy soil matrix, present on the north and east sides of the cribbing, also contained artifacts.

One hundred and fifty artifacts were recovered from Locus 2. These have been analysed by functional category. It is evident that an admixture of fort period artifacts and more recent material occurred.

6.2.1 Architectural Objects

Within this functional category, 75 artifacts were curated. They are assigned to the sub-categories of Hardware, Structure, and Accoutrement.

6.2.1.1 Hardware

Five nails were catalogued. DlLg-21:96A/88 is a single, large, corroded, square, iron, sheet-cut nail. It is complete, measures 158.4 mm in length, and has a rose head.

The remaining four nails, DlLg-21:96A/89, are very corroded hand-wrought specimens. They vary in length from 44.5 mm to 71.1 mm. One nail appears to have a rose head, while another may have a flattened rose head, and the remaining two are too corroded to discern the head type. These were probably produced locally by a blacksmith residing in the Red River Valley.

DlLg-21:96A/110 consists of fourteen pieces of iron strap. Many of the pieces are heavily corroded, some are bent double, while others are twisted. They vary in width from 20.3 mm to 32.5 mm but are fairly uniform in thickness, 1.5 mm. One smaller piece of strap has a small hole in the middle of the body near one end where a nail may have been placed to attach the artifact to another object. The functional category of strap is still open to debate, some strap could have been used as a structural component while other strap could have been part of a machine.

6.2.1.2 Structural Elements

A single piece of shaped wood was curated. DlLg-21:96A/108 measures approximately 107 mm in length, 44 mm in width, and 6 mm in thickness. The thinness suggests the specimen is part of a roofing shake split from a log and then sawn to length. The wood is difficult to identify due to preservation problems and the thinness of the specimen. It is definitely from a deciduous tree (Angiospermae) and is possibly oak (*Quercus*). The identification of the wood as oak raises the possibility of a second function for the artifact, wherein it is a veneer, albeit extremely thick, deriving from a piece of furniture.

6.2.1.3 Accoutrements

Fifty-five thin (approximately 2.0 mm thick), aqua, windowpane sherds were recovered. All of the windowpane sherds in DlLg-21:96A/90 are plain with no decoration. Several show evidence of patination and one sherd is encrusted on one surface.

6.2.2 Food Processing

DlLg-21:96A/107 is a heavily corroded proximal end of an eating utensil. The spatulate-shaped end, tapering towards the missing distal end, is reminiscent of a spoon. As the functional portion of the artifact is missing, it could also be a fragment of a fork.

6.2.3 Recreation

DlLg-21:96A/91 is a short mid-section of a kaolin pipe stem. It is 36.3 mm long with a diameter of 6.6 mm. There is no maker's mark on this artifact.

6.2.4 Adornment

A single, multi-faceted, glass bead was recovered. DlLg-21:96A/92 is large, 9.8 mm in length with a circumference of 10.0 mm. The colour is a transluscent light green. The bead is manufactured by a molding technique, followed by grinding of the spherical bead to produce hexagonal faceting. The bore hole, through the centre, measures 3.5 mm at one end and 1.1 mm at the other end. Glass beads were also recovered from Locus 4 (Section 6.4.6).

6.2.5 Transportation

Although there are various modes of transportation—by water, by rail, by vehicle—only artifacts of transportation by draught animal were catalogued from Locus 2.

DlLg-21:96A/109 is a bridle bit, while DlLg-21:96A/112 consists of two pieces of harness. The bridle bit is incomplete consisting solely of the mouthpiece and lacking the two lateral rings for harness attachment (Ashdown 1909:505). The two pieces of harness leather are 25 mm wide and 4 mm thick. Both fragments are approximately 30 cm long and show evidence of cutting at one end.

6.2.6 Detritus

Three pieces of leather fragments (DlLg-21:96A/765) were recovered. These vary in length and thickness (1.5 mm to 3.0 mm) and are the residue of manufacture of other leather artifacts, such as footwear, bodywear, or harnesses.

6.2.7 Unknown

The Unknown category has been used for describing artifacts which are too incomplete or too poorly preserved to make a positive identification. DlLg-32:96A/111 is a heavily corroded piece of shaped iron, resembling a corner of a box with an L-shaped vertical outline and two side wings. The length is

approximately 126 mm with a width of 29 mm and a height of 47 mm. The metal itself is approximately 3.5 mm thick. A single nail/screw hole is observable in one corner of the widest flat section. Other holes may be present but are not observable due to the encrustation. Functionally, this specimen could be a bracket for attaching wood (in a structural context), a furniture part (within the frame of the piece), or part of a machine.

6.2.8 Faunal Remains

There are 34 faunal recoveries, all representing food remains, from Locus 2. These artifacts were identified using the standard references. Table 26 lists the species, element, quantity, weight, catalogue number, marks, and any other comments for all of the specimens.

TAXON	ELEMENT	QTY	WT	CAT. #	COMMENTS
Aves					
Chicken (*Gallus gallus*)	Egg shell	1	3.7	114	-
	Ulna	1	0.8	115	-
	Tarsometarsus	1	2.8	116	-
TOTAL BIRD		3	7.3		
Mammal					
Large	Unidentifiable	2	7.8	120	-
Artiodactyla					
Bovidae	Rib	2	15.0	119	Cut marks
Cow (*Bos taurus*)	Skull	1	6.0	121	-
	Radius	1	26.7	122	Axed
	Long Bone	2	54.3	123	Axed
	Scapula	1	63.8	124	Axed; Cut marks
	Mandible	1	85.0	125	Axed; Carnivore chewing
	Innominate	1	103.6	126	Axed
	Ulna	2	90.1	127	Cut marks
	Astragalus	1	93.6	128	-
	Femur	2	729.1	129	Sawn
	Vertebra	5	302.0	130	Axed; Carnivore chewing
	Rib	8	339.0	131	Sawn; Cut marks
Suidae					
Pig (*Sus scrofa*)	Femur	1	39.8	117	Cut marks; Juvenile
	Vertebra	1	16.1	118	Cut marks
TOTAL MAMMAL		31	1971.9		

TOTAL FOOD REMAINS	34	1979	

Table 26: Faunal Remains from Locus 2

All of the avian remains were identified as chicken, although the eggshell may be from a different species. The eggshell was catalogued as quantity equal to one, although it actually is probably the nearly complete egg. The pieces are fragmented but still attached to one another as if the contents had been removed, either sucked out or eaten as a soft boiled egg, then the remaining complete shell crushed. Some pieces have begun to spall off from the inner membrane.

The mammalian remains all derive from domestic animals, i.e., cow and pig. Nearly all show evidence of rough butchering, that is using an axe rather than a saw to segment bones or a knife to disarticulate at the joints. This presupposes the absence of commercial meat processing facilities and leads to the assumption that the butchering was done by the person(s) who consumed the meat. The presence of carnivore chewing indicates the presence of domestic dogs who scavenged the ort before it was deposited in the waste pit.

6.2.9 Containers

As noted in other chapters, the Containers category includes artifacts which were used to contain a variety of products. The artifacts recovered from Locus 2 fit into the sub-categories of:

- Storage - the purpose of the container is to hold material, e.g., bottles, jars, tin cans, boxes;
- Cooking - containers used in the preparation of food, e.g., pots and pans;
- Ornamental - decorative items such as vases; and
- Dinnerware - the artifact is used in the serving or eating of food.

6.2.9.1 Storage

Twelve sherds were catalogued as representative of Storage containers. Seven of these sherds are ceramic, while the remainder are made of glass.

6.2.9.1.1 Ceramic Containers

DlLg-21:96A/99 consists of seven sherds from a greyish white jar. The sherds encompass two body,base portions and five lip,body sherds. There is a 4.9 mm wide incised line, 4.1 mm below the lip, encircling the body. No identifying marks could be found on this specimen. Complete and incomplete examples of these types of jars, albeit in a grey or tan colour, have been recovered from other projects and are called ginger jars (Kroker and Goundry 1990a:58, 1993:32; Quaternary 1994b:16, 1995:33-34).

6.2.9.1.2 Glass Containers

The five glass sherds represent three functional sub-types—medicine, liquor, and unassigned. DlLg-21:96A/101 is an aqua side panel from an unidentifiable medicine bottle. Some panelled medicine

bottles have the name of the ingredient, pharmacist, or company of manufacture embossed in the panel. However, DlLg-21:96A/101 has no indication of any of this kind of information on it. DlLg-21:96A/103 is a body,base portion of a square-shaped green bottle. There are no markings on this bottle, but it was assigned to the liquor sub-type based on the shape and the fact that it has a slight kick-up which occurs on wine bottles as well as some other types of liquor bottles. DlLg-21:96A/103 could be a gin or whisky bottle.

The remaining three sherds—one in DlLg-21:96A/104 and two in DlLg-21:96A/105—could not be assigned to any specific functional sub-type and were catalogued as unassigned bottles. DlLg-21:96A/104 is a clear lip,neck sherd. The diameter of the ground lip measures 39.9 mm indicating a fairly wide-mouthed bottle which would have taken a cork closure. The length of the extant sherd, from lip down, measures 27.1 mm, perhaps indicating the original bottle may have been quite large, i.e., a packer type of container for pickles, etc. The sherd is heavily stained, possibly with a petroleum product. DlLg-21:96A/105 consists of two body sherds from unidentifiable clear bottles. These sherds are also heavily stained.

6.2.9.2 Cooking

DlLg-21:96A/113 is a complete, very rusty, iron lid from a 7" pot. The intact handle is D-shaped. While the majority of the depicted cookware in the J.H. Ashdown Hardware Company catalogue have knob or ring handles on the lids, kneading pans and stock pots do have lids with a similar D-shaped handle (Ashdown 1909:745, 746).

6.2.9.3 Ornamental

Three clear glass sherds, DlLg-21:96A/106, may be from an ornamental bowl. One of the sherds is a lip,body specimen with the lip being an outward facing L-shape. The remaining two sherds are both body specimens. All of the sherds have been exposed to high heat and are heavily stained.

6.2.10 Dinnerware

Fifteen sherds, from Locus 2, were curated in the Dinnerware category. Eight of these are glass sherds while the other seven are ceramic sherds.

6.2.10.1 Glass Dinnerware

DlLg-21:96A/100 consists of two very similar glass tumblers. Both are body,base sherds, both are clear, both are heavy bottomed, and neither have any maker's marks on them. One is slightly larger, 70.8 mm versus 66.8 mm, in basal diameter. DlLg-21:96A/102 is six clear sherds from a thin-walled drinking glass. There are three lip,body pieces and three body sherds.

6.2.10.2 Ceramic Dinnerware

Table 27 outlines the information that could be obtained from the seven ceramic sherds. As noted in the ceramics section for Locus 1, many of the same patterns and manufacturers can be found in other loci from this project as well as from other projects on Upper Fort Garry. The same caveat noted in the section on the ceramic dinnerware recovered from Locus 1 applies here, i.e., although some sherds have no maker's mark, they have been assigned to a ceramic firm. Chapter 7 will discuss the ceramics from Locus 2 in more detail.

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER
94*	2	white;blue	Cup	Flower Vase	Copeland & Garrett/W.T. Copeland
93*	1	white;blue	Plate?/Saucer?	Deerstalker	J. & M.P. Bell
97*	1	white;blue	Bowl	? Wild Rose	various makers
95*	1	white	Plate?/Saucer?	-	-
96*	1	white	Plate	-	-
98*	1	white;blue	Bowl?/Cup?	? blue background	-
TOTAL	7				

* no maker's mark

Table 27: Ceramic Dinnerware from Locus 2

6.2.11 Summary

A large percentage of the recovered artifacts do not provide temporal markings. The ceramic dinnerware sherds are the obvious exception, wherein the maker's marks define a time range between the 1830s and the 1850s. The multi-faceted glass bead probably dates to the occupancy of the fort. Other artifacts are more problematic. The clay pipe stem could have been manufactured anywhere from the period of the construction of the fort through to the middle of the 20th century. The sheet-cut nail could be as early as the ceramics and the hand-wrought nail could date as late as the early part of the 20th century. Most of the glass products appear to date from the latter part of the 19th century, especially the glass containers. The date of the glass tumblers is indeterminate as is that of the ginger jar.

Based upon the artifacts it appears that two different periods of deposition occurred. The first period was during the early years of Upper Fort Garry, probably as a result of infilling behind the cribbing walls of the feature. Surface debris, including broken dinnerware, would have become incorporated with the soil that was packed into the space between the cribbing and the outer wall of the excavation. The second period of deposition appears to have occurred after the fort was abandoned, either during the initial construction of Main Street when it was straightened in 1885 and first passed over this location, or at a latter date when an intrusive excavation serendiptitiously coincided with the exact location of the cribbed feature. The plank located within the feature at a depth of 40 cm below the top

of the cribbing may have been a capping of the infill into this feature during the fort occupancy period (Section 5.1.5). It has been suggested that this feature originated as a sub-surface food storage feature (Section 5.1.14) which eventually became obsolete and was subsequently used as a garbage pit. When the fort was abandoned, and the structure over top of the feature was removed, the pit was filled to ground level with the sand/ash mixture.

6.3 Locus 2A

As noted earlier, during the period that the northeast bastion and associated features were exposed for public viewing, unauthorized individuals undertook clandestine excavation of the cribbed cellar (Feature 6). The degree of intrusive activity was constrained by the presence of a wooden plank lying diagonally across the interior of the cribbing at a depth of 40 cm below the top log. The vandals dug into the eastern portion of the cribbing, removing material from an area approximately 45 cm wide and extending to a depth of 1.1 metres (Plate 17).

Plate 17: Extent of Vandalism at Locus 2A

The upper matrix of the interior of the cribbing, above the plank, consisted of gravel and sand mixed with ash and containing isolated artifacts (Sections 5.1.1, 5.1.14, 6.2). The artifacts in the upper matrix are more recent than those which apparently derived from the lower portion of the cribbed feature. The exact placement of specific artifacts or artifact-bearing strata cannot be determined as no information concerning context was provided when the looted artifacts were turned into the Manitoba Museum of Man and Nature. A total of 412 specimens were received by the Museum and then returned to Quaternary Consultants Ltd. for cataloguing and analysis as their provenience required them to be considered as part of this project, albeit obtained in an unwarranted and unauthorized manner. The artifacts are analyzed by functional category.

6.3.1 Architectural Objects

To reiterate, this category includes all items used for the construction, the maintenance, and the furnishing of structures. They can be made of metal, glass, and wood, as well as other types of materials. Because many of these objects can be severely corroded and fragmented, they are seldom identifiable to manufacturer or time period. Eight artifacts were curated as Architectural Objects, seven in the Hardware sub-category and one in the Accoutrement sub-category.

6.3.1.1 Hardware

The seven hardware specimens include three nails, one piece of strap, and three miscellaneous pieces of hardware.

6.3.1.1.1 Nails

Three square nails, all sheet-cut, were catalogued. The three specimens, DlLg-21:96A/239, are so severely corroded and still disintegrating, that it is impossible to discern the head types. As noted earlier, sheet-cut nails were mass produced from ca.1790 (Nelson 1968:8) and became common in The Forks region after 1860 (McLeod 1983:148).

6.3.1.1.2 Strap

DlLg-21:96A/234 is a single piece of very corroded iron strap approximately 55.4 mm in length, 20.2 mm wide, and 1.3 mm thick. It is in extremely friable condition with several pieces already sloughed off. Strap could have been used a part of a structural component or part of a machine.

6.3.1.1.3 Miscellaneous Hardware

A chunk of heavy iron was recovered. DlLg-21:96A/235 weighs 202.4 grams and is 74.2 mm long, 35.3 mm wide, and 13.3 mm thick. Each end of this piece is diagonally sloped indicating the artifact is complete unto itself. It is quite corroded with several small pieces spalled off in the plastic bag. Other sites have yielded similar strips of metal (Quaternary 1996e:18), albeit sometimes larger than DlLg-21:96A/235, and these have been called bar stock.

DlLg-21:96A/232 is a short, 31.6 mm, piece of lead pipe. The diameter measures approximately 24.3 mm with an out-flaring lip on both ends. This pipe is broken, bent, and slightly corroded.

DlLg-21:96A/233 is a very corroded, bent, iron rod. The shape of this incomplete artifact is somewhat reminiscent of an unadorned iron chest handle (Ashdown 1909:350).

6.3.1.2 Accoutrements

DlLg-21:96A/269 is a single, clear, windowpane sherd. It measures 1.8 mm in thickness, has no decoration, and is slightly patinated.

6.3.2 Manufacturing Equipment

This category includes tools and/or implements which are used to manufacture or maintain other artifacts. One artifact, in the sub-category of Woodworking, was curated. DlLg-21:96A/236 is an iron gimlet used for boring holes in wood. The handle of this specimen is complete and consists of an iron inner bar covered with a wood layer which is flaking off. Ashdown (1909:104) depicts four different types of gimlets including two Wood Head types, a Brewer's type, and a Bell Hangers type. The end of DlLg-21:96A/236 has been broken off and it is impossible to assign it to one of the Ashdown categories.

6.3.3 Food Procurement

A single, copper, cartridge case, DlLg-21:96A/240, is a centre-fire shot shell. It has "ELEY BROS", "LONDON", and "NO. 16" stamped on the base. The Ashdown Catalogue (1909:1264) depicts products from the Eley Company although none of the illustrations have 'Bros' stamped on them.

6.3.4 Food Processing

DlLg-21:96A/238 is a rectangular-shaped, carved, bone handle from a piece of cutlery, either a fork, knife, or spoon. The handle measures 82.6 mm long by 15.7 mm wide. The thickness measures 10.5 mm at the proximal end and tapers to an average of 6.0 mm at the distal end. The carving is not uniform with the distal end being nearly triangular in cross-section. The base of the triangle measures 7.3 mm and the rounded apex of the triangle measures 4.7 mm. The iron prong portion of the utensil, which is inserted into the handle, is still present but is snapped off just below the surface of the proximal end.

6.3.5 Clothing

Thirty-four artifacts were catalogued as items of clothing—thirteen in the sub-category of Bodywear and twenty-one in the sub-category of Footwear.

6.3.5.1 Bodywear

According to Emery (1966:xvi), "fabric is the generic term for all fibrous constructions while textile refers specifically to woven fabric". Table 28 lists the thirteen pieces of fabric recovered from Locus 2A. DlLg-21:96A/297, 298, and 299 would fit this definition of textile, while DlLg-21:96A/295 and 296 are pieces of tanned leather.

Various references on types of material were consulted, including a thesis on the fabrics of Upper Fort Garry (Fifik 1986). Unfortunately, one drawback with many of these references is that they neglect to include diagrams or photographs of recovered materials for comparison purposes. Currently, time and budgetary constraints prohibit a more in-depth analysis of the specimens. In addition, it is recommended that conservation be done on these recoveries to assist with further identification of material type, colour, and assignment to an item of apparel.

CAT.#	QTY	MATERIAL	COLOUR	PHYSICAL STATE	COMMENTS
295	2	Leather	Tan	Torn;frayed	possible coat/vest
296	6	Leather	Black	Torn;frayed	possible glove
297	1	Silk	Brown	Torn;frayed	unidentifiable
298	3	Silk	Taupe	Torn;frayed	unidentifiable
299	1	Cotton	Tan	Torn;frayed	unidentifiable
TOTAL	13				

Table 28: Bodywear Recoveries from Locus 2A

DlLg-21:96A/295 consists of one larger rectangular-shaped, 111.9 mm by 84.5 mm, piece and a second, smaller, 72.3 mm long by 14.5 mm wide, rectangular piece. Both specimens have evidence of seam marks indicating they were either sewn together or were both part of a larger item of clothing, such as a coat or vest.

DlLg-21:96A/296 is six pieces of varying sizes and shapes of black leather. Two of the specimens do show evidence of having a seam and may be part of a glove or an item of clothing. The remainder of the specimens, while not appearing to have seam marks, are also, in all likelihood, portions of gloves or clothing.

DlLg-21:96A/297 and 298 are both specimens of silk textile. DlLg-21:96A/297 is a single specimen that is intertwined on itself while DlLg-21:96A/298 consists of three pieces that are folded and looped around one another. At this time, the pieces were not separated as this should be done during a conservation process.

The final textile fragment, DlLg-21:96A/299, is a small folded piece of what appears to be a cotton-type material. It is torn and frayed and does not have any indications of a seam mark.

6.3.5.2 Footwear

Eight catalogue numbers contain a total of twenty-one portions of shoes (Table 29), some with remnants of iron nails attaching the heel to the sole. None of the artifacts have any markings on them and none of the recoveries appear to be a pair. Several of the specimens were small in size and were identified as children's shoes. Two specimens, DlLg-21:96A/289 and 290, were larger and were identified as adult's shoes, fitting either a young adult, a woman, or a small man.

DlLg-21:96A/293 consists of three leather upper fragments and a single upper piece which has thirteen copper eyelets remaining on it. This specimen is from a lace-up shoe or boot. The eyelets are small in diameter, with the external diameter measuring 4.6 mm and the internal opening measuring 2.6 mm, indicating that the laces were relatively small and the original shoe/boot may have belonged to a child or a small woman.

CAT.#	PORTION	QTY	MATERIAL	PHYSICAL STATE	COMMENTS
287	Sole;Heel	1	Leather;iron	Incomplete	Child
288	Sole;Heel	1	Leather;iron	Incomplete	Child
289	Sole;Heel	1	Leather;iron	Incomplete	Adult
290	Sole	1	Leather	Incomplete	Adult
291	Heel	1	Leather;iron	Incomplete	Child
292	Sole	2	Leather	Incomplete	Child
293	Upper	4	Leather;coppe	Incomplete	Child/Small woman
294	Upper?	10	r Leather	Incomplete	-
TOTAL		21			

Table 29: Footwear Recoveries from Locus 2A

6.3.6 Recreation

The recreation category includes items used for entertainment purposes or for relaxation. Recoveries include toys, musical instruments, and smoking equipment.

6.3.6.1 Toys

DlLg-21:96A/283 consists of nine pieces of a porcelain doll. Although catalogued together in the same number, these white glazed porcelain sherds may actually represent more than one doll. The largest piece is a complete doll's head which has faded, painted brown eyes with brown eyebrows, slightly tinted rosy cheeks, and a small, brown, rosebud mouth. Her hair has been painted a light ash brown and is done in a short hairstyle with swept-back curls at the sides and curls around the lower back of the head.

In addition to the head, there are also four white limb portions. Two lower legs, both complete specimens including the shins and feet, have a groove at the upper knee area for attachment to the body of the doll or the upper leg (thigh portion). These two lower legs are delicate and shapely and are a pair, left and right. Both have a thin green painted ribbon, tied in a bow on the front of the leg, around the upper calf just below the knee. Both legs have faded, painted black shoes which are just a little more than ankle-high with a small heel.

The other limb portions are plumper-shaped than the lower legs. One of these, which is broken in half, could be the thigh portion. It has the groove at the proximal end for attachment to the body of the doll. The other plumper limb is more complete with only a portion of the distal end broken off. The distal end curves into a slightly hollowed aperture which resembles a cupped hand. This limb is probably a doll's arm.

The four remaining fragments are plain, white sherds. All are curved pieces that may have come from the neck or shoulder area on the head of the doll.

Sussman (1979b: 179-181, Figures 141-145) describes and illustrates identical doll portions found at Lower Fort Garry. She notes that:

> *...china dolls are made of white glazed porcelain and were the first to be introduced in the 18th century...and continued to be produced throughout the 19th century. By 1870 soft dolls with highly glazed head, arms and legs were cheapest but their execution had become careless and stereotyped.* (Sussman 1979b:179 citing Hillier 1968:159)

The lower limb specimens in DlLg-21:96A/283 are identical to one recovered at Lower Fort Garry (Sussman 1979b:Figure 141b) in that they all have black, ankle-high boots and a green ribbon, which Sussman calls a garter, tied above the calf. The artifact in DlLg-21:96A/283 which is thought to be an arm portion is similar to Figure 142b (Sussman 1979b:325) although more of it is extant than the illustrated arm. The doll's head in DlLg-21:96A/283 has a plumpish face similar to a parian doll's head found at Lower Fort Garry (Sussman 1979b:Figure 145a), but the hairstyle, the colour of hair, and the facial colouring differ.

The variation in size and delicacy of the lower limbs versus the upper leg limbs and the arm limbs was described by Symons (1963) as:

> *...a lady doll...in reference to china dolls from 1860 to 1890. Doll's faces were round and arms chubby in the fashionable plumpness of the times, but feet and hands were delicately small.* [cited in Sussman 1979b:179]

Dolls such as these were not produced in England until WWI, but were an important manufacturing product of Germany prior to that time (Sussman 1979b:181). Because of the nature of recovery of these artifacts from Locus 2A, the temporal data, and whether the specimens indicate a single doll or several dolls, cannot be established.

Indicators of children's activities were recovered during the Bonnycastle Park excavations of Upper Fort Garry (Monks 1982:57, 1983:25). At that time, a doll's head and a child's shoe and potty seat were listed in the preliminary report. Larcombe notes that there were two larger houses which accommodated families as well as another building which was the bachelor's quarters. Only the families of officers were permitted to reside within the fort and when the Sixth Royal Regiment of Foot arrived at the fort in 1846, they also brought the wives of seventeen of the soldiers and nineteen children (Larcombe 1988:61-62 citing Cowan 1935:26-27 and Ingersoll 1945:15-16).

6.3.6.2 Musical Instruments

DlLg-21:96A/242 is a 108.1 mm long, 4.7 mm wide, and 2.7 mm thick carved piece of wood. The dorsal side is smooth and highly polished, while the ventral side has regularly spaced vertical notches carved three quarters of the way into it. In all, there are twenty-seven of these tapering, semi-circular notches which terminate before reaching the opposite side. Both ends of the dorsal side are sharply curved to meet the ventral side indicating that the specimen is complete. This artifact could be a spacer between the reeds in a harmonica. The Sears, Roebuck catalogue (Amory 1969:207-208) illustrates a large variety of harmonicas with a varying number of holes and number of reeds, anywhere from ten to thirty-two holes and twenty to sixty-four reeds.

6.3.6.3 Smoking Equipment

The kaolin (white clay) pipe is a commonly found artifact in historic Canadian fur trading sites as well as at American and Australian sites (Walker 1971). According to Walker (1971:19), the manufacture of kaolin pipes began in the late 1500s and, up until the second half of the 19th century, they were imported from Europe—England, Scotland, The Netherlands, France, and Germany. By 1850, clay pipes were being manufactured in Canada, notably in the Montreal area as well as at other locations (Kroker *et al.* 1992:90-91). Monks (1983:25), reporting on the archaeological investigations of Upper Fort Garry, at Bonnycastle Park, notes that "Members of the 6th Regiment were smokers. Numerous clay pipes have been recovered...".

The earliest clay pipes tended to be undecorated and unmarked with any information regarding the maker. Decoration of these pipes began in the late 18th century (Atkinson 1965:252), while the marking of a pipe with the manufacturer's name and location started about 1800 (Walker 1983:3). As

previously noted, kaolin pipes were still being used well into the 20th century, in both industrial and rural areas, and, as late as 1969, a Manchester firm, John Pollock, was still exporting clay tobacco pipes to Canada and other countries (Walker 1977:262-263).

There are sixty-five portions of clay pipes that were dug from Locus 2A (Table 30). Forty-seven of the specimens (DlLg-21:96A/273) are plain, undecorated and unmarked, mid-portions of stems. The length of these stems range from 18.4 mm to 103.5 mm with the circumference measurements ranging from 4.3 mm to 7.8 mm. The three stem segments in DlLg-21:96A/274 all consist of the mid-section with the bite end still extant. The bite, or mouthpiece, is the slightly raised ring at the proximal end which goes into the smoker's mouth. These three stems measure 38.1 mm, 45.9 mm, and 62.9 mm in length. The proximal end of the longest specimen is circular in cross-section, while the other two are oval in cross-section.

The fifteen remaining pipe pieces, apart from DlLg-21:96A/278, all have either a portion of a pattern, all or a portion of a maker's mark, or a combination of both on them. DlLg-21:96A/278 consists of one small bowl fragment and one bowl fragment with a 10.0 mm long portion of the stem still attached. There are no patterns or marks on either piece.

DlLg-21:96A/275, 276, 277, 280, and 282 all have portions of the same pattern on them. This pattern consists of closely spaced molded ribs running from the base and expanding up the left and right sides of the bowl to 8.2 mm below the lip on DlLg-21:96A/277 and 282, 6.5 mm below the lip on DlLg-21:96A/280, and approximately 6.2 mm below the lip on DlLg-21:96A/276.On the front and back portions of the bowls, there is an embossed pattern of a stalk with alternating leaves which runs from the base right to the lip. The three artifacts in DlLg-21:96A/275 are missing most of the body of the bowl as well as the lip but all three do have remnants of the ribbing pattern and one specimen has the bottom leaf of the stalk. An identical specimen, consisting of a bowl portion, with the same pattern, was recovered during investigations at the nearby Fort Gibraltar I site (Kroker *et al.*1991:113, Figure 60).

CAT. #	PORTION	QTY	MARKINGS	COMPANY	COUNTRY
273	stem	47	none	-	-
274	stem;bite	3	none	-	-
275	bowl;stem	3	ribs	-	-
276	bowl	1	ribs;leaves	-	-
277	bowl	5	ribs;leaves	-	-
278	bowl;stem	2	none	-	-
279	bowl;stem	1	FOR...;S;STE...N...;shield	Ford	England
280	bowl;stem;spur	1	ribs;leaves;I;F	Ford	England
281	stem;spur	1	I?	Ford?	England?
282	bowl;spur	1	ribs;leaves;I;F	Ford	England
TOTA		65			

L			

Table 30: Kaolin Pipe Recoveries from Locus 2A

In addition to the rib and leaf pattern, DlLg-21:96A/280 has an "I" and an "F" embossed on alternate sides of the spur. The I and F occur on the spurs of pipes made by the Ford Company. The Ford family manufactured clay pipes in the London, England vicinity for at least three generations. This company was first registered in London trade directories in 1810 and remained registered until 1909 (Walker 1983:7). It existed under a variety of names, John Ford (1810 to 1836), Jesse and Thomas Ford (from 1836 to 1880), Ford and Company (from 1876 to 1879), and Thomas Ford (from 1880 to 1909), and was

> *...among the larger and more prosperous London pipemaking firms last century, having at one time three factories, two in Stepney and one in Pentonville, and a contract to supply the Hudson's Bay Company with pipes.* (Walker 1977:376)

The Fords were the only supplier of clay pipes to the Hudson's Bay Company from 1831 until at least 1870.The design, the rib and leaf pattern, was manufactured by the Fords Company and was associated, in North America, exclusively with the Hudson's Bay Company (Walker 1983:7).

DlLg-21:96A/282 has initials on either side of the spur. The initials are somewhat blurred and it was first thought that these could either be a "T" and a "D" or an "I" and an "F". The T D would have stood for the Thomas Dormer company of London, England. However, because of the rib and leaf pattern on the bowl, this artifact can be definitely assigned to the Ford company.

DlLg-21:96A/281 has a very small portion of the bowl, with no apparent decoration, a 16.4 mm long portion of the stem, and a portion of the spur which is broken in half. The remnant of the spur has a letter, which appears to be an "I" on one side. This could be the I portion of the I F mark on Ford pipes.

The final clay pipe artifact, DlLg-21:96A/279, does not have any decorative pattern on it but it does have a maker's mark on the outer side of the bowl facing the smoker. This mark consists of a circle with a central shield which has a cross stamped in the upper left quadrant. The letters "FOR..." are stamped in an arc above the shield and the letters "S" and "STE...N..." are stamped in an arc below the shield. This is another mark of the Ford company and was made at their factory in Stepney, in the east end of London. A nearly identical mark, recovered from Fort Vancouver in the western United States, is illustrated in Walker (1971:Plate 2). The illustrated mark does not have the S before Stepney. According to Walker (1971:23), there was an S.W. Ford who succeeded a Thomas William Ford (who worked in the Ratcliff area of Stepney) in 1853. It is not clear from Walker's writings whether this is the same Thomas Ford, as noted above, or another branch of the Ford family who manufactured pipes during that period.

One other noteworthy point is that in many cities where pipemaking occurred, it often occurred in distinct districts. In London, the hub of clay pipemaking occurred in the east end. At the end of the

16th century, east end London was already a cosmopolitan and industrial centre and the setting up and expansion of small industries such as pipemaking was encouraged.

6.3.7 Adornment

This category consists of items that can be used for toiletry purposes. Two fragments of black, synthetic combs were catalogued. DlLg-21:96A/241, the smaller of the two pieces, is 16.6 mm wide and 30.1 mm in length, with 20.8 mm of that length being the length of the teeth. There are 9 remaining teeth on this specimen and the hilt of the comb is flat and plain in appearance.

DlLg-21:96A/766 is a larger portion of a bigger comb. It measures 64.9 mm in width. The length of the teeth and hilt together measure 35.5 mm, with the teeth measuring 29.0 mm of the total. This comb is more ornate than DlLg-21:96A/241, in that the hilt, 6.0 mm, has a scalloped design along its spine. This comb also has the larger end piece still present and has forty-five teeth remaining. There is a gap, missing two teeth, midway down the comb. The teeth on DlLg-21:96A/766 are wider, tapering from 5.5 mm to 3.1 mm, while the teeth on DlLg-21:96A/241 are relatively uniform in width, 2.0 mm, with no taper until the tooth end. Both of these combs were more than likely used as utilitarian every day items rather than decorative combs for keeping the hair swept up and back.

The reproduction of the 1902 edition of the Sears, Roebuck catalogue (Amory 1969:935-936) displays a variety of combs made of various materials: hard rubber, ebonite, celluloid, aluminum. Several of the items are listed as hard rubber dressing combs with either a combination of coarse and fine teeth, only coarse teeth, or combs with fine teeth on two sides. DlLg-21:96A/241 and 766 could be hard rubber combs with coarse teeth. Since large portions of both combs are missing, it is possible that both could have had fine teeth on one end as well.

6.3.8 Military

DlLg-21:96A/231 consists of thirty-five round iron balls. These artifacts are spherical objects with a diameter of 22.4 mm (¾ of an inch) and are identified as grapeshot. The original construction of the fort in 1836 required that each of the bastions be furnished with four field pieces (Loewen and Monks 1986:56). Grapeshot would have been one of the types of ammunition and these specimens may derive from the early days of the fort or from one of the two military occupations—the Sixth of Foot (1846-1849) or the Royal Canadian Rifles (1857-1862). A contemporary description during the occupancy of the Red River Expeditionary Force (1870-1871) notes that

> *In the barrack square, in front of the officers' quarters, are a number of field guns of different calibre, and several garrison guns and mortars, which, with the piles of shot and shell lying around, and the sentries pacing their beats in different directions, give the place and scene a truly military appearance, which is still further enhanced at times by the mounting of guards or the drilling of the various squads or companies of soldiers.* (Griffin 1872:54)

6.3.9 Unknown

DlLg-21:96A/237 is a very unusual object. It is a 197.1 mm long piece of carved wood. The object has an anthropomorphic outline with a head in side profile, a constricted neck, and a rectangular torso. No lower limbs are present, nor are arms, although an exfoliated hole at the shoulder region on one side may have been a dowel hole for attaching an arm. The appearance of this artifact may be the result of exfoliation and crushing of a spindle-like object or it is an intentional product intended for use as a doll. Residents of the fort and/or visitors were often of lesser economic status than the chief factor, the company clerk, or military officers and importation of European-made porcelain dolls (Section 6.3.6.1: DlLg-21:96A/283) was not always feasible. The clerks, voyageurs, outfitters, etc. would have improvised by making home-made toys for their children.

6.3.10 Faunal Remains

There are 13 faunal recoveries, all representing food remains, from Locus 2A. These artifacts were identified using the standard references. Table 31 lists the species, quantity, weight, catalogue number, marks, and any other comments for all of the specimens.

The fish vertebra could not be assigned to any one particular species. The mammal remains were all from adult specimens of sheep and cow. The elements that could not be identified to a specific taxon, i.e., medium and medium/large, would likely also be from these two species. All of the cow and sheep remains show evidence of butchering: axed, sawn, or cut marks. The medium/large artifacts are all calcined indicating they have been affected by fire, possibly during the cooking process.

Both cattle and sheep were present in the Red River Colony, having arrived with the Selkirk Settlers as early as 1812. Several cattle plus at least one sheep drive added to the breeding stock in the vicinity (Kroker et al. 1992:32-34). The occupants of the fort would have obtained meat from domestic animals from either the settlers or the Hudson's Bay Company Experimental Farm, which was located near the west bank of the Red River, slightly north of The Forks (Guinn 1980:68).

TAXON	ELEMENT	QTY	WT	CAT. #	COMMENTS
Fish					
Undifferentiated	Vertebra	1	0.1	244	-
TOTAL FISH		1	0.1		
Mammal					
Medium/Large	Rib	2	3.2	245	Adult; calcined
	Unidentifiable	4	4.1	246	Adult; calcined
Medium	Rib	1	7.4	284	Adult
Bovidae					
Bos taurus (Cow)	Humerus	1	457.0	228	Adult; axed
	Radius; Ulna	1	455.8	229	Adult; sawn; axed

	Vertebra	1	11.3	286	Adult; sawn
Ovidae *Ovis aries* (Sheep)	Femur Tibia	1 1	79.0 47.1	230 285	Adult; cut marks Adult; sawn
TOTAL MAMMAL		12	1064.9		
TOTAL FOOD REMAINS		13	1065.0		

Table 31: Faunal Remains from Locus 2A

As previously discussed, Feature 6 likely originated as a food storage cellar within the confines of the Cookhouse (Section 5.1.14). When this function was no longer required, perhaps as a result of flooding and silt deposition during the 1852 flood, the cribbed feature appears to have become a garbage disposal area. It would have been the automatic midden site for the disposal of kitchen waste resulting from food production for the mess that was situated in the adjacent Men's House.

6.3.11 Floral Remains

Three specimens were catalogued as floral remains. DlLg-21:96A/247 is a single piece of charcoal from Angiospermae (deciduous trees). It may have come from the ovens of the cookhouse (1846) which was situated nearby or from the forge which was established in 1858 or possibly from a kiln (1860) used to cure green planks (Loewen and Monks 1986:133).

DlLg-21:96A/243 consists of two *Corylus* (hazel) nuts. One is complete while the other is only half the shell. The location, adjacent to the cookhouse, suggests that these were used as food. Many pastries use hazel nut flour and the nut is often eaten raw.

6.3.12 Containers

The sherds and/or complete specimens from Locus 2A, which have been assigned to the Container category, fit into the sub-categories of Storage, Ornamental, and Dinnerware.

6.3.12.1 Storage

Twenty-six artifacts were catalogued as representatives of storage containers. These include artifacts that are used to close bottles, as well as ceramic containers and glass containers.

6.3.12.1.1 Closures

Closures for bottles and jars come in a variety of material types—metal, glass, floral. DlLg-21:96A/248 is a cork for a bottle. This slightly flattened, chipped object measures 18.5 mm by 14.5 mm in cross-section with a length of 32.6 mm.

6.3.12.1.2 Ceramic Containers

Four porcelain sherds, DlLg-21:96A/373, from a white, ginger jar were catalogued. One of the sherds is a lip,body portion, while the other three are all body sherds. The lip,body sherd has an incised line 4.1 mm below the lip which is identical to that already noted on DlLg-21:96A/99 from Locus 2 (Section 6.2.9.1.1).

Three sherds and one complete bottle of stoneware were also curated DlLg-21:96A/270, two body sherds, and DlLg-21:96A/271, one body sherd, are all portions of crocks. The two sherds in DlLg-21:96A/270 have a tan interior with a slightly darker tan exterior. This may be a result of staining. DlLg-21:96A/271 has a ridged tan interior with a mottled brown exterior. Neither the size of the crocks or the maker of the containers can be identified from these sherds.

DlLg-21:96A/272 is a complete, squat, stoneware bottle with a minimal neck and a rounded lip. It is identified as an ink bottle. It measures 51.5 mm in height, has a basal diameter of 49.5 mm, and has an inner bore of 13.9 mm. There are no maker's marks on this tan container.

6.3.12.1.3 Glass Containers

The specimens from Locus 2A have been assigned, where possible, to a functional sub-type: condiment, medicine, cosmetic, and wine. Some artifacts could not be identified specifically and are described in the unassigned sub-type. Several of the specimens are complete.

6.3.12.1.3.1 Condiment Containers

DlLg-21:96A/257 is a squat, wide-mouthed, clear bottle. This complete specimen has an applied flat lip surmounting a slightly flaring neck. The height of the container is 77.2 mm with a basal diameter of 46.7 mm and an internal lip diameter of 30.9 mm. The bottle was blown into a two-piece post mold, the seam of which extends to the neck/shoulder juncture. The base is slightly concave possessing no markings. The straight-walled body shows *whittle marks* indicating that the mold was cold when the molten glass was blown into it. Given the relatively wide mouth, this container probably contained jam, jelly, or similar preserves and was likely sealed with a cork or paraffin wax.

DlLg-21:96A/264 consists of two body sherds with embossed lettering. The upper sherd, which shows a slight curve towards the shoulder, is embossed with "SAUC..." and the vertical sherd has "...LLENC/G?E". The first word obviously is sauce, while the second word could be excellence or challenge. The contents probably were a food flavouring such as Lea & Perrins or Paterson.

6.3.12.1.3.2 Medicine Bottles

Seven artifacts, four complete bottles and three sherds, are medicine containers. Table 32 lists the colour, body form, portion, and style of lip for these recoveries.

CAT. #	QTY	COLOUR	BODY FORM	PORTION	LIP STYLE

249	1	clear	rectangular panelled	complete	applied square ring
250	1	blue	oval	complete	applied v-tooled
251	1	blue	oval	complete	applied ring
252	1	aqua	cylindrical	complete	applied square ring
253	1	clear	chamfered panelled	body	-
254	1	clear	unknown	lip,neck	applied ring
255	1	aqua	cylindrical	lip,neck,body	applied square ring
TOTAL	7				

Table 32: Medicine Bottles from Locus 2A

DlLg-21:96A/249 is a rectangular bottle with concave panels on all four sides. The mold seam extends to the top of the wonky neck which is capped with an applied lip. The body tapers slightly from base to shoulder and the neck, while cylindrical, has a slight bow off true.

DlLg-21:96A/250 is oval in cross-section with dimensions of 49.7 mm by 31.9 mm. The overall height is 134.7 mm. The bottle was blown in a two-piece post mold with a concave oval on the base. The front has a faint outline where a customer's nameplate could be fitted. Generic bottles had blank side wall plates inserted into this area (Stevens 1967:138). The date of manufacture is estimated between 1880 and 1905.

DlLg-21:96A/251 is similar to DlLg-21:96A/250 in shape and colour, although smaller. It measures 40.2 mm by 23.8 in cross-section with a height of 90.6 mm. It was blown in a two-piece post mold with a concave circle in the base. This specimen does not have a nameplate outline. Based on length of the mold seam, which extends two-thirds up the neck, the date of manufacture is also estimated between 1880 and 1905.

DlLg-21:96A/252 is a small bottle measuring 30.0 mm in diameter and 86.8 mm in height. It was manufactured in a Rickett's-type mold with the horizontal seam below the shoulder and the vertical seams truncating midway up the short neck. The pharmaceutical industry tended to use Rickett's-type molds as late as 1920 (Jones and Sullivan 1985:30), although the length of the vertical seams suggests manufacture between 1880 and 1905.

DlLg-21:96A/253 is a rectangular bottle with incurvate chamfers at all four corners and depressed arched panels on the front and back. The bottle was manufactured in an automatic bottling machine indicating manufacture after 1920.

DlLg-21:96A/254 has an almost horizontal shoulder with a vertical straight-walled neck. The mold seam terminates near the base of the neck, apparently eradicated by the action of the lipping tool which formed the rounded ring lip. Manufacture is estimated to have occurred between 1880 and 1905. This specimen is placed in this category based on size, although it may well have contained food flavouring products or other non-medicinal goods.

DlLg-21:96A/255 has body walls of varying thickness on opposite sides of the specimen, 1.2 mm versus 2.9 mm. The mold seam, partially obliterated by the lipping tool, appears to run under the applied lip. Although the lip is designated as a square ring, it actually has a slight taper towards the neck. This specimen was probably manufactured around 1900.

6.3.12.1.3.3 Cosmetic Containers

One nearly complete, clear bottle was assigned to the Cosmetic sub-category. DlLg-21:96A/256 has been slightly damaged around the lip. It is composed of thick-walled glass and has a heavy concave base. The body is cylindrical, expanding from a basal diameter of 37.2 mm to a shoulder diameter of 46.2 mm. The applied lip is a narrow rounded ring at the top of a 26.5 mm long neck. The mold seam extends across the horizontal shoulder and is obliterated by the lipping tool midway up the neck. The base is marked with the letters "FSC" in a diamond. This mark is not listed by Toulouse (1971) and probably represents the manufacturer of the product rather than the bottle. The assignment to this sub-category was based on the design of the bottle as well as the heaviness of the base which would prevent tipping. Alternatively, the product could have been a food flavouring extract.

6.3.12.1.3.4 Wine Bottles

DlLg-21:96A/261 is the upper portion of a long-necked, clear glass bottle. The finish (lip and collar) is defined as a flat top champagne finish (Jones and Sullivan 1985:88). The absence of mold seams does not, in this case, indicate early manufacture but rather production by turn molding where bottles are rotated in the mold to eliminate seams. This type of manufacture began in the 1870s and continued until the general use of automatic bottling machines in the 1920s. The clearness of the glass and lack of patination suggests manufacture in the latter portion of this period.

6.3.12.1.3.5 Unassigned Bottles

There are five sherds that could not be assigned to a specific functional sub-type (Table 33). DlLg-21:96A/258 is the lip,neck,shoulder portion of a relatively large bottle, composed of thin glass, 1.2 mm thick. The shoulder appears to be horizontal with a straight-walled neck culminating in an applied ribbon collar which has been ground to produce a rounded lip. The internal lip diameter is 32.2 mm. This specimen resembles a large version of DlLg-21:96A/254 (which was placed in the medicine bottles sub-category). The mold seam extends under the applied lip reaching to the top of the original lip, suggesting that this bottle was manufactured after 1900.

CAT. #	QTY	PORTION	COLOUR	MARKS
258	1	lip,neck,shoulder	clear	-
259	1	lip,neck,shoulder	aqua	-
260	1	lip,body	aqua	-
262	2	lip,neck,body	aqua	-
TOTAL	5			

Table 33: Unassigned Glass Containers from Locus 2A

DlLg-21:96A/259 is a portion of a geometric bottle. Traces of side panels suggest that it was either a four-sided square or a six-sided hexagon bottle. The short cylindrical neck joins to a slightly domed shoulder. The neck culminates in a *burst-off* lip modified by slight grinding. The mold seam terminates slightly above the base of the neck indicating manufacture prior to 1900.

DlLg-21:96A/260 is an aqua sherd from an early bottle. The lip consists of a rounded string collar surmounting a minuscule (if any) neck which flares into a wider body at a 25° angle. No mold seams are evident and it appears that this sherd predates 1870.

DlLg-21:96A/262 consists of two sherds, an undiagnostic body sherd and a lip,neck sherd. The applied lip joins directly to the flaring body which has no mold seams. Horizontal striae from the lipping tool are present and the rounded lip has been ground flat. The inner bore measures 51.0 mm with a seat positioned 13.0 mm below the top. The bore at the seat measures 42.8 mm. This bottle probably was closed with a club sauce or jar stopper. Jones and Sullivan (1985:152) note that club sauce stoppers will fit bottles that range up to half gallon in size. The specimen would date to the latter part of the 19th century and probably contained food products.

6.3.12.2 Ornamental

DlLg-21:96A/268 consists of six green sherds, some of which fit together while others have similar decorative designs. The molded design occurs on one side while a generalized relief, without detail of the design, occurs on the other side. The six pieces, when fitted together, provide a pattern of a cross-hatched oval with a double raised outline. Flanking the oval are conical spindles in each of the four quadrants. The general shape and cross-section suggest that this artifact is an ornamental plate of a non-circular shape, e.g., fish-shaped or oval.

DlLg-21:96A/263 is a small, clear body sherd showing similar scorching attributes as the sherds in DlLg-21:96A/106 (recovered from Locus 2, Section 6.2.9.3). Disturbance of the ground surface by the vandals may have brought this sherd to the surface as discarded artifacts from Locus 2A were strewn over the Locus 2 area. Possibly this sherd represents the same bowl as DlLg-21:96A/106.

6.3.13 Dinnerware

The 205 dinnerware specimens dug up from Locus 2A consist predominantly of ceramic artifacts, although four sherds (three catalogue numbers) are portions of glass dinnerware. It has been noted elsewhere in this report that glasses, plates, cups, bowls, etc. are types of containers and are catalogued as a sub-category of the container hierarchy.

The large number of ceramic sherds (201) from this Locus, as well as those from Locus 1, 2, 4, and 6 yielded extensive information regarding the patterns and the manufacturers of the dishes. The information obtained from these pieces will be briefly outlined in this chapter. Chapter 7, has been devoted to a detailed analysis of the ceramics recovered during this project and will include a comparative study with the other ceramic recoveries from Upper Fort Garry. Some of the same ceramic patterns have been found during other archaeological projects within the boundaries of the Upper Fort Garry site (Fifik 1986; Larcombe 1988; Monks 1982, 1983; Sussman 1979a).

6.3.13.1 Glass Dinnerware

Four artifacts, three catalogue numbers, were identified as portions of glass dinnerware. DlLg-21:96A/265 is two pieces from the lower portion of the body of a clear stemmed glass. The sherds fit together and a small piece of the stem is present on one of the sherds. A continuous line of circular indentations, each measuring 17.2 mm in diameter, decorates the exterior of the body close to the stem. Lee (1936) depicts several styles of glassware with the thumbprint pattern. None resemble DlLg-21:96A/265 exactly but it could be a variation of the thumbprint pattern. In addition, Lee (1936) also identifies sizes of glasses and DlLg-21:96A/265 could be a goblet rather than a wine glass although, with most of it missing, it is difficult to assign a definite size to this piece.

DlLg-21:96A/266 is the base, stem, and the lower portion of the body from a smaller glass. The extant portion of this artifact measures 72.6 mm in height and the stem has a 20.1 mm diameter collar halfway up it. Many of the pieces depicted in Lee (1936) have some form of decoration on the stem. The smaller size of DlLg-21:96A/266 may indicate that it could be a either a liqueur glass or a cordial

glass. Another, rather unlikely, identification of this piece could be that it is an egg cup. Lee (1936) illustrates many glass egg cups that range from squat examples to cups with longer stems.

The third glass dinnerware artifact, DlLg-21:96A/267, is a body,base sherd from a clear tumbler. The diameter of the complete specimen would have been 58.6 mm. The exterior body of this tumbler is strongly ribbed with each vertical rib having a semi-circular cross-section.

6.3.13.2 Ceramic Dinnerware

Ceramic dinnerware includes place setting pieces such as plates, bowls, cups and saucers, along with serving pieces such as platters, large bowls, pitchers, and creamers. In many projects, the recoveries are often very fragmented and cannot be assigned to a specific object type. However, in the dug up material from Locus 2A, many of the recoveries had several fragments that could be reconstructed (or enough of the piece was present) to identify the exact object type, i.e., a saucer, a plate, a cup, or a pitcher. Due to the nature of the extraction of these fragments, looted versus recovered using archaeological techniques, many of the missing fragments may have been scattered and missed, may not have been returned, or may still be in the pit.

A total of 201 ceramic sherds, from Locus 2A, were catalogued as Dinnerware. Many of these had been taped together before being transferred to Quaternary Consultants. Using various references, the pattern name and the manufacturer could be assigned to a majority of these artifacts. The recoveries have been sub-divided into the following groups:

1. those sherds that are plain, one colour, with no pattern and no maker's marks;
2. those sherds that have an unidentifiable pattern with no maker's marks on them; and
3. those sherds which have an identifiable pattern and/or an identifiable maker's mark.

The sherds in Group 3, those with an identifiable pattern and/or an identifiable maker's mark, can be further sub-divided into two sections:

a. those sherds which are Spode/Copeland transfer print patterns; and
b. those sherds which are not Spode/Copeland transfer print patterns.

The material in the three groups will be outlined in this chapter with a brief overview. All of the material will be discussed more fully in Chapter 7.

Group 1: Undecorated, Unmarked Sherds from Locus 2A

Thirty-six sherds (Table 34) are unmarked and plain, single-coloured specimens—twenty-five of them white. These white sherds may, in fact, fit onto some of the decorated specimens. However, at this time, none of them could be assigned to any of those catalogue numbers.

The eleven sherds in DlLg-21:96A/337 are a solid sky blue colour which fit together to form a saucer. A lighter blue band, measuring 3.9 mm, occurs on the interior surface at the lip of the saucer.

An identical light blue band, which measures 5.4 mm, occurs just below the lip on the under side of the saucer. No maker's mark occurs on this specimen.

CAT. #	QTY	COLOUR	TYPE	PORTION	COMMENTS
336	10	white	Bowl	lip;body;base	panelled;large
337	11	blue	Saucer	lip;body;base	plain;lighter blue band at lip
368	2	white	Plate	base	-
369	7	white	Bowl?/Cup?	body	blue tinge on one sherd
370	4	white	Plate	body;base	-
371	1	white	Bowl?	lip	-
372	1	white	Bowl?	base	? footed bowl
TOTAL	36				

Table 34: Undecorated, Unmarked Sherds from Locus 2A

Group 2: Decorated, Unmarked Sherds from Locus 2A

Twenty-eight sherds (Table 35) are decorated, but, in all cases, have an unidentifiable pattern and no indication of any manufacturer. The majority are single smaller sherds and have been described, as accurately as possible, in the table. Two of the artifacts, DlLg-21:96A/340 and 341, are nearly complete small cups. DlLg-21:96A/340, with the cartouche, which includes a bible and the name MARY, could be a christening cup. DlLg-21:96A/341 has a painted cameo with a woman's head in it. A single sherd, DlLg-21:96A/343, has a mark, "...IC" in a cartouche, on the base. This may be the name of the pattern, i.e., Rustic, Scenic, etc. These pieces as well as a few of the others will be discussed in more detail in Chapter 7.

CAT. #	QTY	COLOUR	TYPE	PORTION	PATTERN
339	4	white	Saucer	lip;body;base	Greek key;floral
340	1	white;brown	Cup	lip;body;base	floral cartouche;bible;MARY
341	6	multicoloured	Cup	lip;body;base	cameo of Greek woman
343	1	white;blue	Plate	body	man in boat in reeds;...IC
344	1	white;blue	Bowl?/Cup?	body	balustrade;bust on pillar
345	3	white;blue	Plate?/Saucer	lip;body	bands;checkerboard;strawberrry;leav
349	1	white;blue	?	base	es
350	1	white;blue	Plate	body	flower;leaf
353	1	white;blue	Saucer	lip;body	tower with flag;hill
356	1	white;blue	Plate?/Saucer	lip;body	band;curlicues;leaves
357	1	white;blue	?	body	twig?
358	1	white;blue	Plate?/Saucer	lip;body	leaves
359	1	white;blue	?	body	chevrons
360	1	white;blue	Plate?/Saucer	handle	branches
364	1	white;green	?	body	flowers
366	1	white;purple	Bowl?/Cup?	handle	bands
367	2	white;purple;coppe	Cup	lip;body;handl	line of curlicues
		r	Cup	e	lustre finish;blobs
			Plate		
			Cup		

			Pitcher		
TOTAL	28				

Table 35: Decorated, Unmarked Sherds from Locus 2A

Group 3: Decorated, Marked Sherds from Locus 2A

The remaining 137 sherds all have a pattern on them, with some pieces having distinct maker's marks. These artifacts could be divided into two sections:

Section 3A consists of those sherds which are attributable to the various incarnations of the Spode/Copeland factories, and

Section 3B consists of those sherds that have, in most cases, an identifiable pattern, and in some cases, can definitely be assigned to other firms.

Section 3A: Spode/Copeland transfer print patterns

One hundred and seven sherds (Table 36) were designated as being from the Spode/Copeland companies. As noted earlier, many of these sherds had been reconstructed to form the complete or nearly complete piece of dinnerware—a saucer, a plate, a cup, a pitcher.

As noted in Section 6.1.5 (Locus 1), the same caveat applies here. Many of the sherds did not have a maker's mark on them, these are marked with an asterisk in Table 36. In most cases, the patterns were found in Sussman's work on the Spode/Copeland factory (1979a). Because there are several pieces that do have distinct Spode/Copeland marks on them, the other pieces, with patterns found in Sussman, were also attributed to the various Copeland factories again for the following reasons:

- the material was recovered from within the same locus within the walls of Upper Fort Garry,
- the time period is constrained, 1836 to 1883 (Loewen and Monks 1986:156), and
- Copeland was the main, if not often the sole, supplier of ceramic dinnerware to the Hudson's Bay Company (Hamilton 1985:8; Sussman 1979a:9).

The listed manufacturers, in particular the Spode/Copeland & Garrett/W.T. Copeland sequence, reflect changes in ownership and management of the same firm over the years. In 1776, the company was founded and operated under the Spode name until 1833. It became Copeland & Garrett at that time and subsequently W.T. Copeland in 1847 (Godden 1964:171-173, 589-590; Sussman 1979a:8-9). In some instances, the pattern may have been continued throughout the changes in name/ownership of the firm. This is reflected particularly in the Broseley pattern, as well as in some of the other patterns. A few of the patterns could be identified to an exact era of the company, e.g., the Ruins pattern, a product of W.T. Copeland or the Byron Groups/Views pattern, a product of Copeland & Garrett. A more detailed history of the company and its relationship to the various registered patterns will be found in Chapter 7.

The ceramic recoveries from Locus 2A represented the largest variety of patterns recovered from within Upper Fort Garry during this project. Twenty-one distinct patterns, some definitely marked with the Spode/Copeland marks and many not marked, were identified (Table 36). As well, eight non-Spode/Copeland patterns were identified. In addition, many nearly complete specimens enabled the identification of the types of dishes, from the usual plates, cups, saucers, etc. to the more unique breakfast cups, 10" soup bowls, and pitchers. These will be described in more detail in Chapter 7.

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER(S)
305*	4	white;blue	Bowl	Willow	Spode/Copeland & Garrett/W.T. Copeland
306*	2	white;blue	Plate	Willow	Spode/Copeland & Garrett/W.T. Copeland
307	5	white;purple	Cup	Honeycomb	Copeland/Hudson's Bay Co.
308*	2	white;purple	Saucer	Honeycomb	Copeland
309	3	white;purple	Breakfast cup	Continental Views	Copeland (W.T.)
310*	1	white;purple	Cup	Continental Views	Copeland & Garrett/W.T. Copeland
311	9	white;blue	Saucer	Broseley	Copeland (W.T.)
312	1	white;blue	Bowl?/Cup?	Broseley	Copeland (W.T.)
313	13	white;purple	Plate	Ivy	Copeland (W.T.)
314*	6	white;purple	Breakfast cup	Ivy; acorn	W.T. Copeland
315*	3	white;purple	Breakfast cup	Ivy; acorn	W.T. Copeland
316	2	white;blue	Plate	Rural Scenes	Copeland (W.T.)
317	4	white;blue	Plate	Rural Scenes	Copeland/Late Spode
318	7	white;blue	Soup bowl 10"	Rural Scenes	Copeland (W.T.)
319	6	white;blue	Pitcher	B772	Copeland/Late Spode
320	7	multicoloured	Plate	? pattern	Copeland/Late Spode
321*	3	white;blue	Bowl?/Cup?	B700	Copeland & Garrett/W.T. Copeland
322*	2	white;blue	Bowl?	B772	Copeland & Garrett/W.T. Copeland
323*	2	white;blue	Plate	B773	Copeland & Garrett/W.T. Copeland
324*	1	white;blue	Saucer	Flower Vase	Copeland & Garrett/W.T. Copeland
325*	3	white;blue	Bowl	Camilla	Copeland & Garrett/W.T. Copeland
326*	2	white;blue	Bowl?/Cup?	Camilla	Copeland & Garrett/W.T. Copeland
327*	2	white;blue	Bowl	Ionian	W.T. Copeland
328*	1	white;blue	Bowl?	Ruins	W.T. Copeland
329*	1	white;green	Saucer	British Flowers	Copeland & Garrett/W.T. Copeland
330*	1	white;purple	Plate	British Flowers	Copeland & Garrett/W.T. Copeland
331*	1	white;blue	Cup	Ship Border	Spode
332*	1	white;blue	Plate	Byron Groups/Views	Copeland & Garrett
333*	1	white;green	Pitcher	Byron Groups/Views	Copeland & Garrett
334*	1	white;purple	Plate	Violet	W.T. Copeland
335*	2	white;blue	Bowl?/Cup?	Italian	Copeland & Garrett/W.T. Copeland
347*	2	white;blue	Bowl?/Cup?	B700	Copeland & Garrett/W.T. Copeland
351*	1	white;blue	Plate?/Saucer?	Watteau	Copeland & Garrett/W.T. Copeland
352*	1	white;blue	Plate	Italian	Copeland & Garrett/W.T. Copeland
355*	1	white;blue	Plate?/Saucer?	B772	Copeland & Garrett/W.T. Copeland
361*	1	white;blue	Tureen handle	Byron Groups/Views?	Copeland & Garrett
362*	1	white;blue	Plate	Rural Scenes	W.T. Copeland
363*	1	white;blue	Plate?/Saucer?	Rural Scenes	W.T. Copeland
TOTAL	107				

* no maker's mark

Table 36: Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A

Section 3B: Non-Spode/Copeland Patterns

The majority of the remaining thirty sherds could be identified to a pattern (Table 37) with none of them being made by the Spode/Copeland companies. Six catalogue numbers (18 sherds), with definite

pattern names—Fountain, Fibre, and Deerstalker—were attributable to two other British pottery firms, John Meir & Son and J.& M.P. Bell.
Of the remaining five catalogue numbers (12 sherds), three pattern names—Laconia, Genevese, and Palmyra—were definitely identified. The remaining two catalogue numbers, DlLg-21:96A/354 and 365, are denoted by the terms used in Sussman (1978, 1979b). These are not pattern names and are used solely to provide some degree of identification and linkage with previous investigations of fur trade ceramics. All of these artifacts will be discussed in more detail in Chapter 7.

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER
300	6	white;blue	Bowl	Fountain	John Meir & Son
301*	1	white;blue	Bowl	Fountain	John Meir & Son
302	4	white;blue	Plate	Fibre	John Meir & Son
303*	3	white;blue	Bowl?/Cup?	Fibre	John Meir & Son
304*	1	white;blue	Bowl?/Cup?	Fibre	John Meir & Son
346*	3	white;blue	Saucer	Deerstalker	J. & M.P. Bell
338*	8	white;blue	Cup	Laconia	various makers
342*	1	white;blue	Plate	Genevese	various makers
348*	1	white;blue	Plate?/Saucer?	Palmyra	various makers
354*	1	white;blue	Bowl?	Edge decoration -Variety a	unknown maker
365*	1	white;green	Saucer	Unidentified No. 7	? maker
TOTAL	30				

* no maker's mark

Table 37: Non-Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A

6.3.14 Summary

To reiterate, there appears to be a mixture of temporal periods represented by the artifacts retrieved from this locus. While many of the specimens definitely relate to the period of occupancy of the fort, especially the ceramic dinnerware, other items are much more recent in time. The following analysis will attempt to identify which artifacts date to the fort period, those which are later, and those which are indeterminate.

Several types of artifacts are indeterminate, as their manufacture occurred over a long span of time. Also, it is often difficult to temporally distinguish specimens which are incomplete or have been poorly preserved. Architectural artifacts are rarely temporally distinctive and those from this locus are no exception. The sheet-cut nails could be as early as the mid-1800s or considerably later. The two combs fall into this grouping. The material of which they are composed is not firmly identified and the earliest date of manufacture of synthetic combs, i.e., hard rubber, is unknown. Many of the ceramic storage containers are ambiguous—very little stylistic change occurred from the early 19th

century into the early 20th century, so that the ginger jar, the stoneware bottles, and the ink bottle are temporally free-floating.

Some artifacts can be readily assigned to the time period after the fort was abandoned, either because that type of artifact did not exist at that time or because the manufacturing technique was developed later. The shot shell definitely derives from deposition after the fort was abandoned. At present, it is unknown if the change in the maker's mark from "ELEY BROS" to "ELEY" pre-dates or post-dates the illustrations in the 1909 Ashdown catalogue. Most of the glass containers appear to derive from the last quarter of the 19th century, with at least one specimen (DlLg-21:96A/253) manufactured in an automatic bottling machine.

The artifacts that derive from the fort occupancy period are a combination of those which can be definitely dated, i.e., the ceramic dinnerware, and those which appear to have been used by a resident population, wherein the discarded materials represent a range of activities, rather than those which would have been incorporated in a relocated, secondary deposition at a later date. The iron gimlet could have been manufactured at any time and only a spectrographic analysis could perhaps narrow the time frame. A similar situation applies to the cutlery handle. The clothing fragments most likely derive from the fort period but cannot be firmly assigned. The porcelain doll (DlLg-21:96A/283) firmly fits with the period of the fort occupancy. DlLg-21:96A/237, tentatively identified as a hand-made wooden doll, probably was manufactured at the fort. The harmonica spacer probably was used by residents at the fort as were the kaolin pipes. The grapeshot would be associated with either the field pieces owned by the Hudson's Bay Company or one of the military units. The faunal remains likely are associated with food processing activities at the Cookhouse, although intrusive deposition of faunal material has been noted in Chapter 4.

6.4 Locus 4

The area defined as Locus 4 is adjacent to the east wall (Figure 6), almost due east of Feature 8 (the Recorder's House). The locus consists of an amorphous uncribbed garbage midden (Plate 18), roughly oval in shape, measuring 1.2 m x 0.8 m. Cultural material was exposed by the backhoe at nearly the base of excavations for the roadbed. The matrix above the cultural deposit was similar to the surrounding soil, suggesting that after the garbage had been deposited into the hole, the excavated soil was used to fill the pit to existing ground level.

Due to time constraints occasioned by the construction process—the project was slightly behind schedule due to having left the structural remnants of the fort exposed for public viewing—the matrix of Locus 4 was removed *en bloc*. The portion of the locus which protruded above the roadbed base level was excavated, as was a portion of the matrix below roadbed level, extending to a depth of 10 cm below final grade. This resulted in a volume of nearly two cubic metres of material which was taken to the laboratory facilities of Quaternary Consultants Ltd. This material was screened through successively finer meshes, resulting in the recovery of 10,903 artifacts.

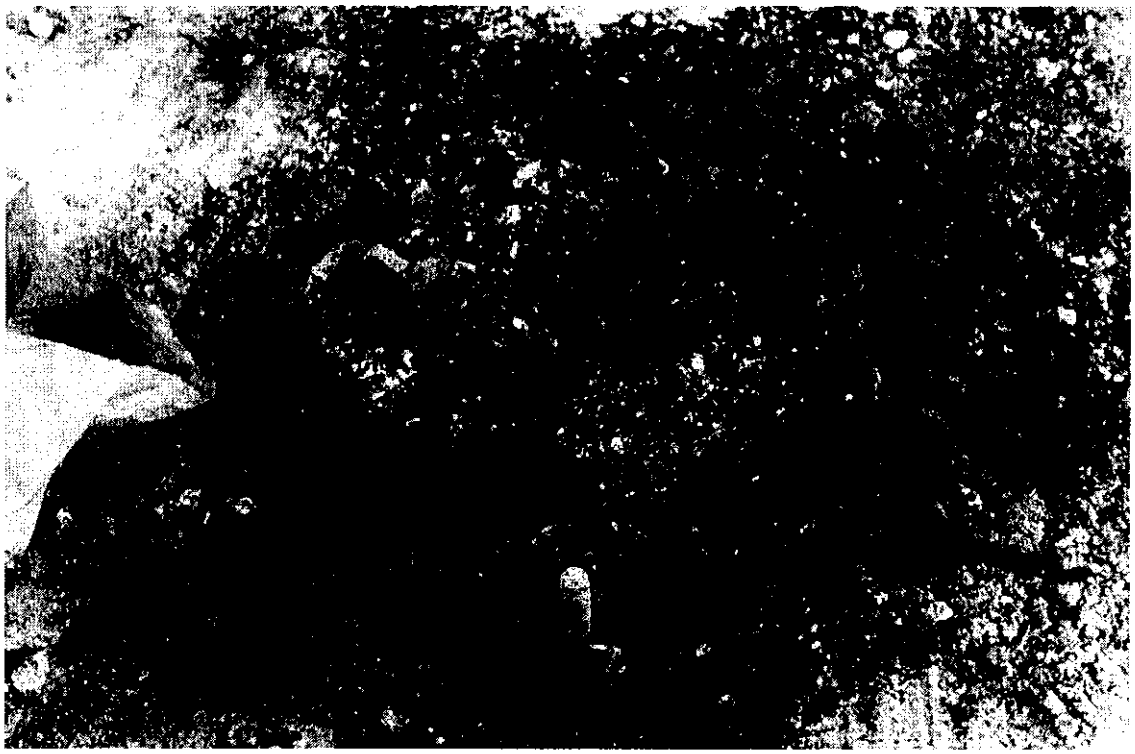


Plate 18: Surface Manifestation of Locus 4

6.4.1 Architectural Objects

The Architectural Object artifacts, from Locus 4, fit into the sub-categories of Hardware, Structural Elements, and Accoutrements.

6.4.1.1 Hardware

Fourteen specimens were catalogued as items of hardware, seven nails and seven pieces of strap. The seven nails are all square, hand-wrought specimens. DlLg-21:96A/199 consists of six, very corroded, iron nails. None of these artifacts had enough of the head still present to be able to discern the head type. DlLg-21:96A/200 is a single iron, hand-wrought nail with an L-head.

DlLg-21:96A/719 consists of seven pieces of strap. The pieces vary in length, from 61.3 mm to 107.6 mm, and appear to be uniform in width, 28.0 mm. All seven pieces are severely encrusted and corroded, but appear to have a thickness of approximately 9.6 mm. Strap could have been used as either wall bracing or part of a machine.

6.4.1.2 Structural Elements

Artifacts in this category are generally components of the structure, i.e., lumber, brick, tile, etc. The specimens from Locus 4 include boards, shingles, putty, chinking, and paint.
The majority of the internal structures of the fort were frame buildings (Loewen and Monks 1986). The garbage pit contained debris relating to wood construction. DlLg-21:96A/767 consists of seven board fragments of differing thicknesses and widths. Most average approximately ½ to ¾ inch (13.0 to 20.0 mm) thick. All have evidence of having been split from logs and then sawn to the required lengths. DlLg-21:96A/768 consists of twenty-two fragment of shingles averaging ¼ inch (7.0 mm) thick. Again, these appear to have been split from logs and/or thicker planks. DlLg-21:96A/769 is an irregular portion of a plank about 1½ inch (35.0 mm) thick. It is sawn at one end and axe cut at the other. DlLg-21:96A/770 is a largely unmodified section of a branch from a poplar (*Populus* sp.) tree. Both ends show evidence of axe marks and, while this artifact is tentatively identified as a post, it may, in actuality, be a remnant of firewood as poplar does not preserve well as a structural element particularly at the ground/air interface. DlLg-21:96A/771 consists of 621 wood fragments that show evidence of modifications ranging from axe cuts and saw cuts to feathered ends that are produced when linear chips are struck from a plank during smoothing operations.

Weather proofing and exterior finishing of structures often occurred with clay chinking. The local Red River clay tends to contain enough iron content that it will turn a reddish colour when sufficient heat is applied. This heat could have occurred in several instances: the burning of a chinked structure; the clay lining of the ovens of the cookhouse/bakehouse; or the clay linings of the fireplaces in the residences. Only twelve specimens (DlLg-21:96A/727) of the chinking in the matrix were curated.

Another form of debris relating to construction of the fort was recovered from the Locus 4 deposit. Spalls of limestone, deriving from the dressing of stone for construction of walls, bastions, or perhaps courtyard flagging, were present. DlLg-21:96A/729 consists of fifteen limestone spalls.

The remaining objects relate to cosmetic and/or preservative activities rather than construction. DlLg-21:96A/726 is 80 small fragments of white-coloured putty which would have been used to seat panes of glass and ended up in the deposit when broken windowpanes were discarded. DlLg-21:96A/728 is 28 pieces of red paint chips which probably flaked off discarded fragments of painted wood.

6.4.1.3 Accoutrements

By far, the largest number of artifacts, from Locus 4, were catalogued in this category. Usually, only a few pieces of windowpane are recovered and curated. However, DlLg-21:96A/732 consists of 3001 pieces of plain, undecorated, aqua windowpane. The size and shape of the pieces vary from small sherds to larger pieces, while the thickness is relatively uniform, measuring approximately 1.7 mm.

6.4.2 Food Procurement

DlLg-21:96A/196 consists of four, circular, grey pieces of lead shot. The diameter of these artifacts measures 4.1 mm, 4.2 mm, 4.6 mm, and 4.7 mm. Lead shot, a common recovery from the Fur Trade period, was used in smooth-bore guns (Kroker *et al.* 1992:50). None of the lead shot had any indication of flattened sides and dimples which would indicate manufacturing by the Rupert shot technique. Some encrustation precludes identification of mold seams which would indicate that they were cast in a ball mold. However, most of the surfaces are smooth suggesting late manufacture after these two processes had been superceded.

The size of the shot could be an indicator of the type of game that was being hunted around Upper Fort Garry. Noble writes

> *smaller 3 mm to 4 mm shot...are convenient for shooting ducks, grouse, pheasants, pigeons...shot sizes between 4 - 5 mm and 6 mm...are effective in shooting geese, swans, cranes or small game such as rabbits and beaver* (Noble 1973:122 as cited in Kroker *et al.* 1992:50).

None of the shot have been flattened through impact, suggesting that they did not become incorporated in the deposit while embedded in non-consumed portions of food remains, but rather through loss or cleaning of the floor of the nearby store.

6.4.3 Food Processing

DlLg-21:96A/197 is a complete, somewhat corroded iron spoon. It measures 137.5 mm in length and would be considered a teaspoon size. The pattern is similar to one called Tipped (Amory 1969:103; Ashdown 1909:1093) although due to corrosion and crusting, it is unclear as to whether this spoon has the actual tipped decoration on the end of the handle. The handle measures 87.3 mm long and has the same small bulbous decoration, just above the bowl, and the same 37.1 mm long by 17.1 mm wide, rounded-topped end on it as the Tipped pattern. Fourteen raspberry seeds adhere to the bowl of this specimen. Cleaning by a conservator may reveal a manufacturer's mark.

6.4.4 Clothing

A large number of the recovered specimens were items of clothing, either fasteners or bodywear items, i.e., fragments of gloves or pieces of clothing.

6.4.4.1 Fasteners

Five buttons, four bone and one shell, were curated (Table 38). All of the specimens were carved, then the holes were drilled from the top surface down.

DlLg-21:96A/185, the only 3-hole button, has a diameter of 12.0 mm and a thickness of 2.0 mm. The three holes are in a straight line in the slightly recessed middle of the button. DlLg-21:96A/186 also has a diameter of 12.0 mm with a thickness of 2.5 mm. The four holes are in a box configuration in the slightly recessed centre of the button. In addition, the dorsal face of DlLg-21:96A/185 is perfectly flat, while the dorsal face of DlLg-21:96A/186 is convex. Both are identical in colour and may have come from the same garment.

DlLg-21:96A/187 is 12.4 mm in diameter and 2.8 mm in thickness with the four holes in a box shape in the centre of the recessed portion of the button. DlLg-21:96A/188, although only half of a button, is the largest of the specimens with a diameter of 14.0 mm. It's thickness measures 2.5 mm. It, too, would have had four holes in the box figure, although there is only one complete hole and parts of two holes remaining. DlLg-21:96A/187 has the convex dorsal side, while DlLg-21:96A/188 lies flatter. As both of these specimens are identical in colour, they too may have come from the same piece of clothing.

CAT. #	QTY	MATERIAL	COLOUR	SUB-TYPE	DECORATION
185	1	Bone	Brown	3-hole	complete - round
186	1	Bone	Brown	4-hole	complete - round
187	1	Bone	Black	4-hole	complete - round
188	1	Bone	Black	4-hole	incomplete - round
189	1	Shell	White	4-hole	complete - scalloped
TOTAL	5				

Table 38: Buttons from Locus 4

DlLg-21:96A/189 is the most ornate button. It has a diameter of 12.2 mm with a thickness of 1.0 mm. The outer diameter has eight small notches cut out of it, some go all the way through to the back surface while others only have a layer of shell taken off the top. The overall effect of this attempt at decoration gives the button the appearance of having a scalloped edge. The four holes, again drilled from the top down, are in the shape of a box in the centre of the button. The centre is not recessed as

deeply as the centres of the bone buttons, but at least one layer of shell has been removed to give the button a slight circular raised ridge around the centre holes. The button back is very flat.

6.4.4.2 Bodywear

Two hundred and ninety-nine pieces of material were curated from Locus 4 (Table 39). In order to do an in-depth analysis of these artifacts, conservation would be necessary. However, a few comments can be made.

As noted earlier, fabric is the generic term for all fibrous constructions, while textile refers specifically to woven fabric (Emery 1966:xvi). Using this definition, the majority of the specimens are textiles, that is they are woven. If these are from items of clothing, they could be from either men's, women's, or children's coats, shawls, dresses, skirts, shirts, pants, hosiery, or other apparel.

DlLg-21:96A/738 was the only piece which could be identified to an item of clothing. It is part of the finger from a leather glove. DlLg-21:96A/739, 740, 741, and 742 are all leather remnants which could be from gloves, vests, or coats. DlLg-21:96A/741 has several raspberry seeds adhering to it.

DlLg-21:96A/743 and 744 consist of 24 pieces of pressed felt. The specimens in DlLg-21:96A/743 are green in colour, while those in DlLg-21:96A/744 are brown. These may be from hats.

CAT. #	QTY	OBJECT	MATERIAL	COLOUR	MANUFACTURING TECHNIQUE
738	1	Glove	leather	-	tanned;sewn
739	19	leather	leather	-	tanned
740	12	leather	leather	-	tanned
741	1	leather	leather	-	tanned
742	16	leather	leather	-	tanned
743	10	fabric	felt	green	pressed
744	14	fabric	felt	brown	pressed
745	7	fabric	cloth	brown	knitted
746	23	textile	cloth	green	woven
747	3	textile	cloth	-	woven
748	10	textile	cloth	-	woven
749	1	textile	cloth	-	woven
750	1	textile	cloth	-	woven
751	2	textile	cloth	-	woven
752	2	textile	cloth	-	woven
753	3	textile	cloth	-	woven
754	3	textile	cloth	brown	woven
755	4	textile	cloth	-	woven
756	18	textile	cloth	-	woven

757	7	textile	cloth	-	woven
758	11	textile	cloth	green	woven
759	2	textile	cloth	-	woven
760	11	textile	cloth	-	woven
761	10	textile	cloth	-	woven
762	107	textile	cloth	-	woven
763	1	fabric	fur	-	tanned
TOTAL	299				

Table 39: Textile/Material/Fabric from Locus 4

DlLg-21:96A/745 is seven pieces of a knit fabric. The stitch is a stocking stitch and the colour appears to be brown. These pieces could be from a sweater, a scarf, mittens or another piece of clothing.

DlLg-21:96A/763 is a single piece of fur which appears to be in a fairly raw state. It is a small piece and could be from one of the animals whose bones are described in Section 6.4.10.2, either a coyote or a wolf.

Fifik (1986) notes that fabrics were being imported into Upper Fort Garry and the Red River Settlement

> *Fabrics arrived at Upper Fort Garry...from England...through York Factory...Red River carts brought American goods from...Minnesota and canoes ...travelled the Lake Superior route from...Eastern Canada* (MacBeth 1897:71 cited in Fifik 1986:2).

As well as importation for retail and trade purposes, employees of the Hudson's Bay Company would have brought their own clothing and household goods; settlers to the Red River Settlement would have brought their belongings; and the various regiments would have brought their supplies. In addition, there were two commercial ventures that produced cloth in the Red River Settlement—the Buffalo Wool Company (1822 to 1825) and the Assiniboine Sheep Company (1831 to 1833) (Fifik 1986:3). Both of these firms predate the construction of Upper Fort Garry.

Of the pieces of material listed in Table 39, only those in DlLg-21:96A/743, 746, and 758 (green) and DlLg-21:96A/744, 745, and 754 (brown) could be assigned to a colour. This is a tentative assignment at best as any number of factors, such as staining from soil and/or chemicals, could affect the identification. Cleaning and stabilization in a Conservation Laboratory would be needed to ultimately discern the original colours.

Several patterns were identified on the fabrics recovered from the Upper Fort Garry privies excavated in Bonnycastle Park (Fifik 1986:45). It should be noted here that the identification of these patterns occurred after conservation of the specimens. The patterns included a one colour tartan, a two tone tartan, a coloured tartan, striped patterns, patterns of ovals with flowers, rectangles on flowered

backgrounds, honeycomb flowers with roses and fibre suns on a vermicelli background. Due to the condition of the materials found during this project, any potential patterns are obscured and could not be determined at this time.

Finally, not all material would have been used for clothing. Other functions of cloth could have been as wall paper, as furniture covering, as curtains, and as blankets (Fifik 1986:51).

6.4.5 Recreation

Twenty-seven portions of clay pipes were recovered from Locus 4. As noted in previous sections (Locus 1, 2, 2A), kaolin (white clay) pipes are a common find on Canadian fur trading sites and were used well into the 20th century. DlLg-21:96A/184 consists of twenty-five plain, undecorated and unmarked, mid-portions of the stems of pipes. The longest piece measures 94.6 mm, while the shortest specimen measures 15.3 mm in length. The circumference measurements range from 4.5 mm to 8.3 mm. None of these stems have the mouthpiece, or bite end, still extant.

DlLg-21:96A/183 is a portion of the bowl with the spur still attached. This specimen is plain with no decoration and no marks on either the bowl or spur to indicate a manufacturer. Early clay pipes tended to be undecorated and unmarked (Atkinson 1965:252) and DlLg-21:96A/183 may be an earlier artifact.

DlLg-21:96A/182 is a large portion of a bowl, with a pointed spur, and 72.1 mm of the stem still attached. The bowl has an oval mark with the word "FORD" on top and "RATCLIFF" below it incised inside the oval. The letters "I" and "F" are embossed on either side of the spur. This pipe is definitely a product of the Ford Company located in Ratcliff, an area of Stepney, in the east end of London. Walker (1971:23-24) illustrates a similar mark on a pipe recovered from Fort Vancouver in the United States, although part of the name of Ratcliff was missing. Walker further states that this is probably a product of Thomas William Ford who made pipes in the Ratcliff area of Stepney from 1836 to 1852 or his successor S.W. Ford who worked in that area in 1853.

Ratcliff or Ratcliff Highway was one of the most notorious areas of East London in the early 19th century (Walker 1977:374-375). It was an area that one would not venture into alone, an area of poverty, slums, public houses, brawling sailors, prostitutes, and murderers. By the latter part of the 19th century, the east end had undergone first a boom in shipbuilding, then a decline as other areas became the centre of the shipbuilding industry. The English pipe making industry lasted in East London until 1944 when the company of Edward Back finally closed down (Walker 1977:386).

The inside of the bowl on this pipe (DlLg-21:96A/182) is heavily stained with tar or nicotine. According to Smith (1986:60), this could be an indication that the pipe had been used for at least two to three weeks.

6.4.6 Adornment

Eight glass beads were recovered (Table 40). All eight specimens are simple, that is single coloured and undecorated, and are drawn in manufacture. Drawn beads were made "from sections of glass tubing...drawn out from a hollow globe of molten glass. The ends...may be broken and subsequently rounded by heating and/or agitation" (Karklins 1985:11).

CAT. #	QTY	COLOUR	SIZE	MANUFACTURING TECHNIQUE	OUTER DIAMETER	BORE DIAMETER
190	1	White	Seed	Drawn	2.2	0.7
191	1	Green	Seed	Drawn	2.1	0.7
192	2	Blue	Seed	Drawn	1.9;2.0	0.6;0.3
193	1	Green	Seed	Drawn	3.3	1.1
194	1	Blue	Seed	Drawn	3.1	1.2
195	2	White	Seed	Drawn	3.9;3.3	1.2;1.0
TOTAL	8					

Table 40: Glass Beads Recovered from Locus 4

All of the beads from Locus 4 were small in diameter, the largest being one of the white beads in DlLg-21:96A/195. These sizes of beads, known as seed or pony beads, were generally used to decorate items of clothing.

According to Armour (1977:10-12), beads were one of the earliest type of trade goods first introduced into North America in the 17th century and, in many areas, white was the most common colour. Large amounts of beads could be easily transported and were sold by the pound or by strings (Woodward 1965:9).

6.4.7 Housewares

DlLg-21:96A/198 is a broken piece of carved wood which measures 106.4 mm long and 12.2 mm thick. The planview is half of an ellipse with the widest end being 61.8 mm. The whole piece has a slight curvature which may be original or the result of warping. The entire specimen has been drilled with uniformly spaced holes of 5.0 mm (3/16 inch) or 6 mm (1/4 inch). The holes continue for a depth of approximately 10 mm and a smaller hole of 3 mm continues through the object. These holes, approximately 50 remaining, have the ends of what could have been bristles in them. All of the bristles are broken off at the surface. At a hole along the broken edge, the contents of the hole are discernible. Multiple lengths of a stiff, hollow material (bullrush ?) are bent into a U-shape and held in the hole with a short loop of thin copper wire which extends through to the upper surface. Remnants of the wire are still present on the upper surface and cuprous oxide stains indicate that all

holes were connected, possibly under a backing surface. This artifact has been tentatively identified as a scrub brush for washing floors, although it could have been a clothing or horse grooming brush.

6.4.8 Detritus

Initially, the Detritus category was used predominantly in the cataloguing of Pre-Contact artifacts to record the residue from the manufacture of lithic tools. When the term is used to describe historic artifacts, it includes the residue from manufacturing operations, as well as referring to those items which are too broken or corroded to be identified. The Unknown category refers to those artifacts that, with further in-depth research, could possibly be identified. Historic detritus is designated as scrap in the hierarchical code.

Table 41 outlines the 50 pieces of scrap that were designated as detritus. DlLg-21:96A/718 measures 15.8 mm long with a diameter of 4.2 mm. There does not appear to be a head type on this specimen, but it could be a portion of the shaft of a nail. The two rectangular-shaped fragments in DlLg-21:96A/721 measure 42.6 mm and 27.7 mm in length with widths of 6.6 mm and 5.2 mm respectively. Both pieces have unidentifiable fibres attached to them. The round pieces in DlLg-21:96A/721 are both small, 12.8 mm and 11.4 mm long, with diameters of 6.0 mm and 3.8 mm respectively. These two fragments could also be portions of nails but neither has any indication of a head type. The two fragments in DlLg-21:96A/723 measure 25.4 mm and 17.9 mm in length with approximately the same diameter, 10.0 mm, for both. Both fragments have small tattered bits of cloth adhering to them.

CAT. #	QTY	MATERIAL	COMMENTS
718	1	Copper	round;possibly a fragment of a nail
720	4	Iron	very corroded and exfoliating
721	4	Copper	2 flat rectangular-shaped;2 round-shaped
722	39	Iron	small very corroded pieces
723	2	Copper;Cloth	rectangular-shaped;small threads of cloth adhere to both
TOTAL	50		

Table 41: Detritus from Locus 4

6.4.9 Unknown

DlLg-21:96A/724 consists of two pieces of lead. One piece is approximately 179.7 mm long and 18.1 mm wide. It is bent, crushed, and corroded. The second piece is very small, approximately 15.1 mm long and 6.6 mm wide, but it is very bent and twisted so the shape cannot be discerned. It may be possible, with further research, to identify these specimens.

6.4.10 Faunal Remains

There are 2410 faunal recoveries from Locus 4. While 17 of the specimens represent species whose remains became encapsulated in the matrix through natural means, the majority of the faunal is the residue from food resources and/or fur harvesting. All the artifacts were identified using the standard references: Clark (1981), Gilbert (1973), Olsen (1960, 1964), and Schmid (1972). The term undetermined (Table 43 and 45) refers to fragments which have some landmarks and may, with sufficient time and adequate reference collections, be identified to either element or species or both. The term unidentifiable (Table 45) is used for fragments which cannot be identified any further.

6.4.10.1 Naturally Deposited Faunal Remains

Seventeen artifacts (seven catalogue numbers) represent frogs and small rodents. DlLg-21:96A/628, an innominate, and DlLg-21:96A/629, eleven long bone, possibly derive from a single frog/toad. The species of this amphibian has not been determined. The remaining five bones are all from very small rodents, including incisors (DlLg-21:96A/635 and 636), a molar (DlLg-21:96A/637), a femur (DlLg-21:96A/638), and a tibiofibula (DlLg-21:96A/639). DlLg-21:96A/637 has been identified as the third upper molar of *Clethrionomys gapperi* (red-backed vole).The size of the other elements suggests that they may derive from the same animal or another vole or small mouse.

6.4.10.2 Butchering Remains

The analysis of the faunal remains is undertaken by class with bird, fish, and shellfish specimens tabulated in Table 42 and mammal remains detailed in Table 44. Due to the incompleteness of some elements and a paucity of reference material, all classes have unidentified specimens which are categorized within broad size ranges. Those elements that were identified are detailed for each of the relevant taxonomic levels in Tables 43 and 45.

Table 42 shows that the majority of the non-mammal recoveries could not be firmly identified to specific taxa. Only one shellfish species, one fish species, and one bird species (*Branta*) were determined. Several other elements could be identified to the family or order level, i.e., Columbidae, Galliformes, Tetraonidae, and Passeriformes. The elements identified by size ranges probably derive from individuals within these taxa.

TAXON	QUANTITY	RELATIVE FREQUENCY	WEIGHT	RELATIVE FREQUENCY
Aves				
Small	27	6.0	4.0	10.7
Small/Medium	30	6.7	1.9	5.1
Medium	8	1.8	1.1	2.9
Medium/Large	2	0.4	0.2	<0.1
Undifferentiated	65	14.5	3.6	9.7
Anseriformes (duck/goose)	21	4.7	11.7	31.4

Branta (goose)	1	0.2	2.5	6.7
Columbiformes	-	-	-	-
Columbidae (pigeon/dove)	13	2.9	1.2	3.2
Galliformes (chicken family)	9	2.0	2.1	5.6
Tetraonidae (prairie chicken)	3	0.6	1.5	4.0
Passeriformes (perching birds)	1	0.2	0.4	1.1
Egg shell	267	59.7	7.1	19.0
TOTAL BIRD	447	99.7	37.3	99.4
Fish				
Undifferentiated	801	99.1	14.8	97.4
Hiodon sp.(goldeye/mooneye)	7	0.9	0.4	2.6
TOTAL FISH	808	100.0	15.2	100.0
Shellfish				
Undifferentiated	27	96.4	4.3	5.2
Amblema plicata (three-ridge)	1	3.6	78.9	94.8
TOTAL SHELLFISH	28	100.0	83.2	100.0
TOTAL	1283		135.7	

Table 42: Aves, Fish, and Shellfish Remains from Locus 4

Table 43 delineates the identified elements of bird and fish. The fish remains (Columns 12 and 13) are dominated by elements which cannot be readily identified to species, genus, or family. Scales,

ELEMENT	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
atlas	1	-	-	-	-	-	-	-	-	-	-	-	-	1
bill	-	-	-	-	-	-	-	-	1	-	-	-	-	1
branchiostegal	-	-	-	-	-	-	-	-	-	-	-	3	-	3
carpometacarpu	12	-	-	-	-	3	-	-	-	1	-	-	-	16
s	1	-	-	-	-	-	-	-	-	-	-	-	-	1
coracoid	-	-	-	-	-	1	-	-	2	-	-	-	-	3
cuneiform	-	-	-	-	-	-	-	-	-	-	-	1	-	1
dorsal spine	1	-	-	-	-	-	-	-	-	-	-	-	-	1
femur	-	-	-	-	-	1	-	-	-	-	-	-	-	1
frontal	1	-	-	-	-	-	-	-	-	-	-	-	-	1
furculum	1	-	1	-	-	2	-	-	1	-	1	-	-	6
humerus	-	2	-	-	-	-	-	-	-	-	-	-	-	2
innominate	-	2	-	-	-	-	-	-	-	-	-	-	-	2
long bone	-	-	-	-	-	-	-	-	2	-	-	-	-	2
mandible	-	9	3	2	11	3	-	12	-	1	-	-	-	41

phalanx	-	-	-	-	-	-	-	-	-	-	-	-	1	1
pharyngeal arch	1	-	-	-	-	-	-	-	-	-	-	-	-	1
premaxilla	-	-	-	-	-	-	-	-	-	-	-	7	-	7
pterygiophore	1	-	-	-	-	-	-	-	-	-	-	-	-	1
quadrate	3	3	1	-	-	2	-	-	-	-	-	-	-	9
radius	-	-	-	-	-	-	-	-	-	-	-	8	-	8
ray	-	1	-	-	3	-	-	-	-	-	-	99	-	103
rib	-	-	-	-	-	-	-	-	-	-	-	657	-	657
scale	-	1	-	-	-	3	-	-	2	-	-	-	-	5
scapholunar	-	-	-	-	15	-	-	-	-	-	-	-	-	16
skull	1	-	-	-	-	-	-	-	-	1	-	-	-	2
tarsometatarsus	2	-	-	-	-	6	1	1	1	-	-	-	-	11
ulna	-	-	-	-	36	-	-	-	-	-	-	20	-	56
undetermined vertebra	2	12	3	-	-	-	-	-	-	-	-	6	6	29
TOTAL	27	30	8	2	65	21	1	13	9	3	1	801	7	988

1. Small bird
2. Small/Medium bird
3. Medium bird
4. Medium/Large bird
5. Undifferentiated size bird
6. Duck/Goose family
7. Goose (*Branta*)
8. Pigeon family (Columbidae)
9. Grouse/Chicken (Gallliformes)
10. Grouse family (Tetraonidae)
11. Perching birds (Passeriformes)
12. Undifferentiated fish
13. Goldeye/Mooneye (*Hiodon*)

Table 43: Identified Bird and Fish Elements by Taxon from Locus 4

ribs, rays, and vertebrae are very similar across several different families. The few elements that could be identified to species may all derive from a single specimen of goldeye or mooneye.

Nearly 60% of the avian specimens are represented by egg shell (Table 42). The remaining bone elements, when examined in terms of portion of the body, provide an interesting pattern (Figure 8). Twenty-one elements derive from the head portion, representing the duck/goose family (1), the chicken/grouse family (3), small-sized birds (2), and undifferentiated-sized birds (15). The body elements number 26, with 18 vertebrae (small = 3, small/medium = 12, medium = 3), four ribs (medium = 1, undifferentiated = 3), one coracoid (small), one furculum (small), and two innominates (small/medium). Leg bones account for three specimens: one femur (small) and two tarsometatarsi (small and grouse). The highest representation (92) is from wings with six humeri, nine radii, eleven ulnae, sixteen carpometacarpi, three cuneiforms, six scapholunars, and forty-one phalanges (digit II = 21, digit III = 2, undetermined digit = 18).

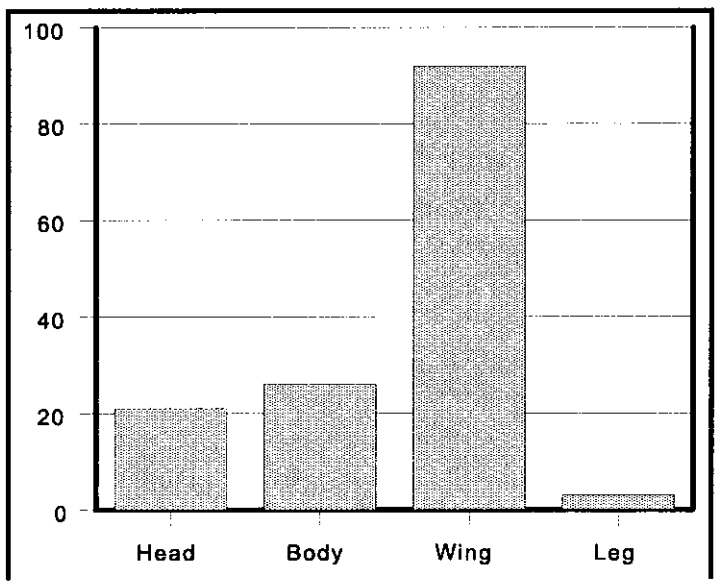


Figure 8: Avian Remains by Body Part - Locus 4

The pattern seems to indicate that birds obtained through hunting were dressed at this location or, at least, the wings and heads were discarded at this locus. As no feathers were present, it appears that the birds were not skinned. However, the presence of phalanges and the other small bones of the wing extremities suggest that the distal portion of the wing was deposited intact. The vertebra, included with the body elements, may have been part of the neck which was discarded with the head, raising that component to 39, further emphasizing the deposition pattern illustrated in Figure 8.

These wing elements provide some of the firmest species identification (Table 43). During the analysis some tentative assignments of individual species within the broader taxonomic categories

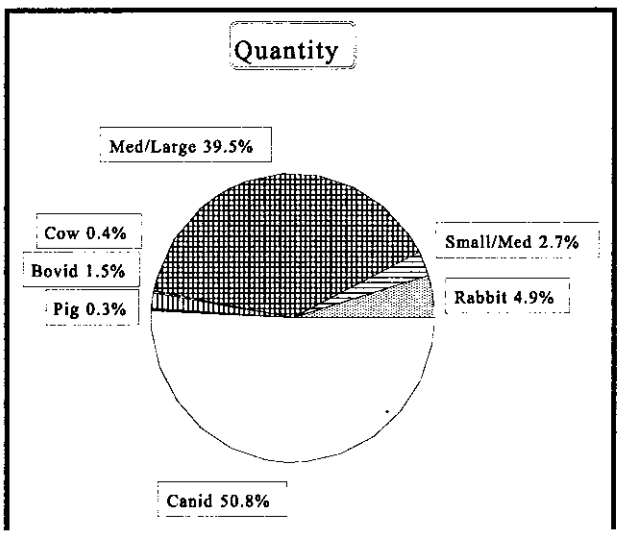
were made. Within the duck/goose family (Column 6), potential representation of teal and mallard ducks were noted. Within the grouse/chicken family (Column 9), some elements are noted to be probably domestic chicken (*Gallus gallus*), while others are possibly prairie chicken (Tetraonidae). The pigeon/dove family (Columbidae) includes domestic pigeon as well as passenger pigeon and the elements appear to more closely resemble passenger pigeon rather than domestic pigeon. However, access to more complete reference collections would be necessary to confirm this identity. The humerus representing Passeriformes (Column 11) is noted to be similar to blackbird and may also be represented by many of the various leg and body elements categorized as small bird (Column 1).

A total of 1110 mammalian specimens were recovered (Table 44). Five species were identified, while some elements could only be identified to the broader level of family. As an example, the family Bovidae contains cow (*Bos taurus*) and bison (*Bison bison*). Certain elements can be distinguished between these two species but others, unless specific landmarks are present on the bone fragment, could derive from either taxon. Similarly, the degree of fragmentation and/or lack of keynote landmarks precludes identification of specimens even to the family or order level. These remains are categorized within broad size ranges: small = rabbit, squirrel, etc.; medium = beaver, otter, fox, etc.; medium/large = wolf, coyote, pig, etc.; large = bison, cow, etc.

TAXON	QUANTITY	RELATIVE FREQUENCY	WEIGHT	RELATIVE FREQUENCY
Mammal				
Small	29	2.6	1.3	0.1
Medium	1	0.1	2.7	0.1
Medium/Large	424	38.2	38.8	1.5
Large		1.2	29.2	1.1
Undifferentiated	13	0.1	0.1	<0.1
Artiodactyla (hoofed animals)	1	-	-	-
Bovidae	-	1.5	425.4	16.6
Bos taurus (cow)	17	0.4	213.6	8.3
Sus scrofa (pig)	4	0.3	11.3	0.4
Carnivora	3	-	-	-
Canidae	-	-	-	-
Canis sp.	-	38.3	168.1	6.5
Canis latrans (coyote)	426	8.9	606.3	23.6
Canis lupus (wolf)	99	3.5	1060.2	41.3
Lagomorpha	39	-	-	-
Leporidae (rabbit/hare)	-	-	-	-
Lepus americanus (snowshoe hare)	-	4.9	12.5	0.5
	54			
TOTAL	1110	100.0	2569.5	100.0

Table 44: Mammal Recoveries from Locus 4

As is the standard case, elements that cannot be identified to specific taxa form the preponderance of the assemblage, 42.2% (Figure 9). The genus *Canis* contains coyote, wolf, and dog. Some specimens could be identified as distinctly coyote and others as distinctly wolf. A large quantity could not be definitely assigned to either of those two species. Other possibilities could be dog/wolf crossbreeds, coyote/dog crossbreeds, or domestic dogs. The canid remains comprise 50.8% of the total numbers in the assemblage. Snowshoe hare is represented by 4.9% while domestic animals (with the possible inclusion of some bison bone) only make up 2.2% of the assemblage. Examination of Table 44 indicates a very strong weighting of the assemblage towards animals which were probably harvested for their pelts rather than for food, although the hare would provide both resources. This dichotomy is more readily evident when examining the elements represented by the different taxa (Table 45). Also, when the weight of recovered elements per taxon is used for analysis (Figure 9), it is readily evident that the canid remains overwhelm other taxa. The bovid and cow remains, due to the large size of the elements, comprise nearly one-quarter of the weight, even though they are only 2% of the quantities.



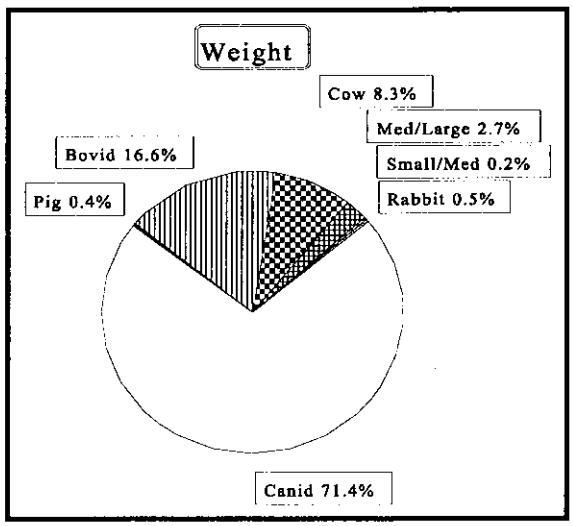


Figure 9: Mammal Utilization by Quantity and Weight at Locus 4

The identified domestic animals are represented by a limited number of elements. Pig is represented by an innominate and two phalanges, all from a single juvenile animal. The large Bovidae specimens, including cow, are ribs (14), vertebrae (5), and one femur. Most of these remains show marks deriving from butchering procedures—axe cutting, knife cutting, and sawing.

The snowshoe hare is predominantly represented by lower leg bones: astragalus, calcaneus, metatarsus, phalanx, tarsus, and tibia. In addition, several more of these elements were identified only to small mammal (Column 1) and may actually be hare. The canid specimens are almost totally from the head and upper neck region of the animal with no body or leg elements present.

The body elements which could not be assigned to species include two costal cartilage (large), which probably derive from cow. There are two small mammal manubria and two medium/large manubria.

ELEMENT	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
astragalus	-	-	-	-	-	-	-	-	-	-	-	6	6
basioccipital	-	-	-	-	-	-	-	-	2	1	-	-	3
bulla	-	-	-	-	-	-	-	-	8	3	-	-	11
calcaneus	-	-	-	-	-	-	-	-	-	-	-	6	6
canine	-	-	-	-	-	-	-	-	-	10	8	-	18
costal cartilage	-	-	-	2	-	-	-	-	-	-	-	-	2
femur	-	-	-	-	-	1	-	-	-	-	-	-	1
frontal	-	-	-	-	-	-	-	-	-	4	-	-	4
hyoid	-	-	-	-	1	-	-	-	39	-	-	-	40
incisor	-	-	-	-	-	-	-	-	66	-	1	-	67
innominate	-	-	-	-	-	-	-	1	-	-	-	-	1
long bone	5	-	-	-	-	-	-	-	-	-	-	-	5
mandible	-	-	-	-	-	-	-	-	1	4	-	-	5
mandible;tooth	-	-	-	-	-	-	-	-	-	9	7	-	16
manubrium	2	-	2	-	-	-	-	-	-	-	-	-	2
maxilla	-	-	-	-	-	-	-	-	-	4	1	-	7
maxilla;tooth	-	-	-	-	-	-	-	-	-	7	5	-	12
metapodial	1	-	-	-	-	-	-	-	-	-	-	-	1
metatarsus	-	-	-	-	-	-	-	-	-	-	-	14	14
molar	-	-	-	-	-	-	-	-	11	18	3	-	32
nasal	-	-	-	-	-	-	-	-	59	2	-	-	61
occipital	-	-	-	-	-	-	-	-	3	3	-	-	6
palatine	-	-	-	-	-	-	-	-	7	-	1	-	8
periotic	-	-.	-	-	-	-	-	-	1	-	-	-	1
petrous	-	-	-	-	-	-	-	-	1	1	-	-	2
phalanx	16	-	-	-	-	-	-	2	-	-	-	21	39
premaxilla	-	-	-	-	-	-	-	-	-	2	3	-	5
premolar	-	-	-	-	-	-	-	-	66	7	-	-	73
presphenoid	-	-	-	-	-	-	-	-	2	-	-	-	2
rib	1	1	-	-	-	10	4	-	-	-	-	-	16
sesamoid	2	-	-	-	-	-	-	-	-	-	-	-	2
skull	-	-	-	-	-	-	-	-	160	7	7	-	174

squamosal	-	-	5	-	-	-	-	-	-	8	-	-	8
sternum	2	-	-	-	-	-	-	-	-	-	-	-	7
tarsus	-	-	-	-	-	-	-	-	-	-	-	2	2
tibia	-	-	-	-	-	-	-	-	-	-	-	4	4
tooth	-	-	9	-	-	-	-	-	-	-	-	-	9
undetermined	-	-	11	-	-	1	-	-	-	-	-	-	12
unidentifiable	-	-	384	-	-	-	-	-	-	-	-	-	384
vertebra	-	-	13	11	-	5	-	-	-	4	1	1	35
zygomatic process	-	-	-	-	-	-	-	-	-	5	2	-	7
TOTAL	29	1	424	13	1	17	4	3	426	99	39	54	1110

1. Small mammal
2. Medium mammal
3. Medium/Large mammal
4. Large mammal
5. Undifferentiated mammal
6. Cow family
7. Cow (*Bos taurus*)
8. Pig (*Sus scrofa*)
9. Dog/Wolf/Coyote (Canis sp.)
10. Coyote (*Canis latrans*)
11. Wolf (*Canis lupus*)
12. Snowshoe Hare (*Lepus*)

Table 45: Identified Mammal Elements by Taxon from Locus 4

The small specimens may be hare and the medium/large may be pig or canid. The vertebra fragments were divided into medium/large (13) and large (11) size ranges probably deriving from canids and bovids respectively.

The canid specimens would provide the opportunity for determining the minimum number of individuals represented in the assemblage. As the mandibles, maxillae, and teeth can usually be identified to individual species, as can portions of the skull, a detailed analysis could identify distinct individuals represented by several elements. Such an analysis is beyond the scope of a monitoring project. However, coyote is represented by eleven maxilla and thirteen mandible fragments. As each of these elements could be left or right sides, a minimum number of six individuals can be estimated. Similarly, wolf is represented by six maxilla and seven mandible fragments, yielding a minimum number of four. In-depth analysis may determine that other elements, i.e., squamosals or various teeth, will confirm or increase the above estimates. The faunal analyst noted that most of the identified wolf appeared to be young animals. In addition, it was noted that most of the cut marks on the canid specimens were consistent with skinning procedures and/or disarticulation of the head (Peach 1997:pers. comm.).

It is highly unlikely that the canid remains represent a food resource. Canids are rarely used as food especially by Europeans except in cases of starvation. It is more probable that these remains represent fur harvesting activities wherein the animal was trapped or shot, skinned in the field, and the pelt was brought to the fort with the head attached. It is worth noting that the lower limb extremities were not placed into this garbage deposit along with the skull remains suggesting that the feet may have been cut off during the initial skinning. The hare remains could also be seen as fur procurement wherein the feet are left attached to the pelt and the head skinned out at the killing site. The presence of some non-leg bones from the hare suggests that the animal was used for food as well as fur.

Given the probable deposition of remains from fur harvesting activity in this garbage pit, the food subsistence activities tend to appear skewed. The presence of egg shell skews the avian representation as does the presence of canid remains for the mammal portion of the assemblage. In the graph of taxon frequencies (Figure 10), egg shell has been ignored but the canid remains have been included, inasmuch as fur harvesting also utilizes species within the biome even if they are not used for food. When the faunal remains are charted by quantity of recoveries, mammal represents more than half of the recoveries. When the weight of the recoveries is taken into consideration, 95% of the resources are mammalian. This is due to the more massive elements when compared to bird or fish, but this can be argued as providing a more exact representation of the available (or utilized) meat for food consumption.

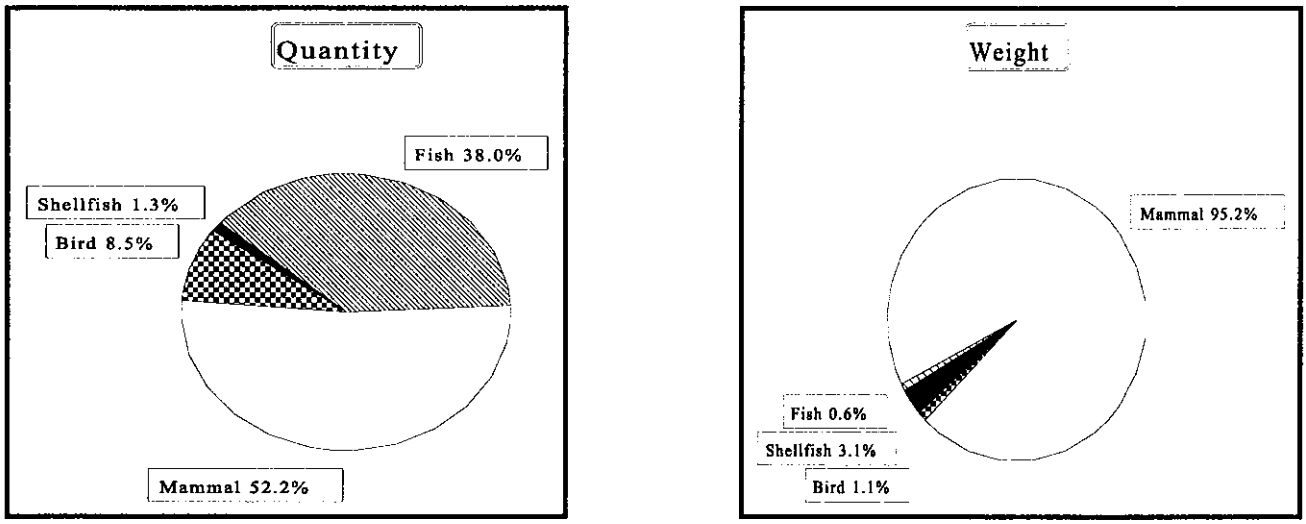


Figure 10: Taxon Exploitation by Class for Quantity and Weight - Locus 4

When the same graphic representation is provided, but with the elimination of the canid remains, the percentage of resources harvested for food consumption is similar. The frequency by quantity is not as radically skewed towards mammalian preponderance (Figure 11), although when weight is considered, mammal resources are still overwhelmingly dominant.

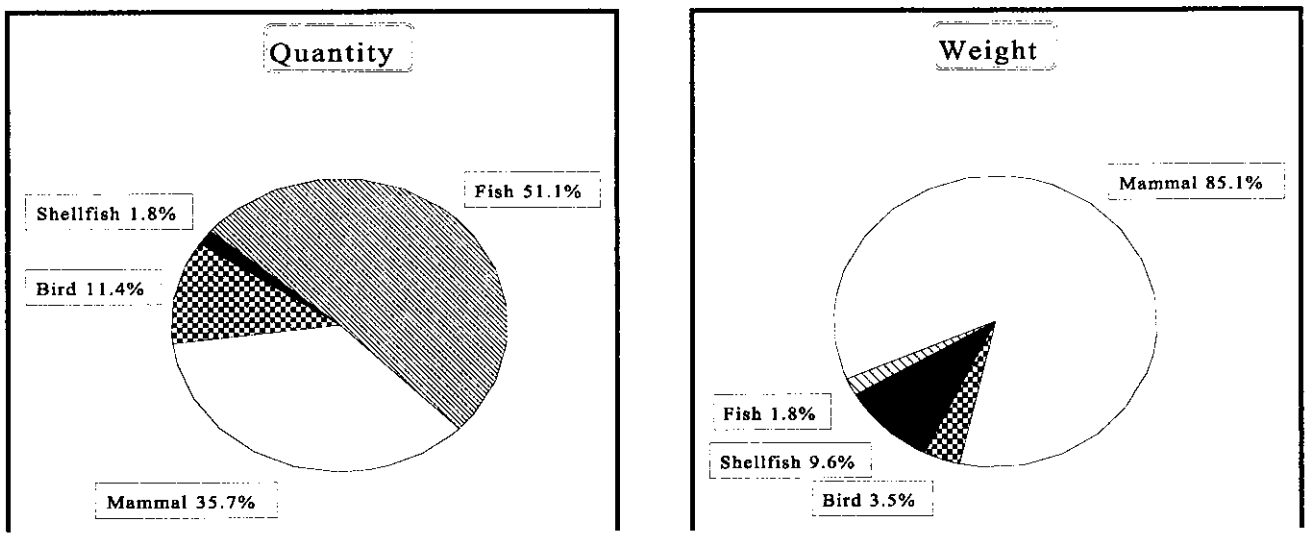


Figure 11: Food Resources by Class for Quantity and Weight - Locus 4

6.4.11 Floral Remains

Different functional categories are represented within the floral remains. Although technically lumber would fall into this category, it has already been addressed under the functional category of Architectural Object - Structural Elements.

Both the coal fragment (DlLg-21:96A/725) and the twelve charcoal fragments (DlLg-21:96A/223) would derive from heating or cooking activities. Given the dearth of firewood sources in the immediate vicinity after 1850, coal may have been imported as a reasonable alternative for heating. This conjecture may be more likely given the high status of the some of the residents of the fort. It is not known when coal was first imported into the Winnipeg area, however, according to the 1881 City of Winnipeg Henderson Directories, there was a company called the Citizens' Fuel Co. with offices at 245 Main Street. No mention of coal was made in this particular advertisement. In 1885, another advertisement occurred in the directory which stated that there were:

> ALL KINDS OF
> WOOD AND COAL
> FOR SALE IN QUANTITIES TO SUIT
> WAREHOUSE, 21 FOUNTAIN ST. OFFICE, 495 MAIN ST.

Alternatively, the coal may have been incorporated in the matrix of the deposit during mechanized excavation, falling from an upper level. As the excavation of this feature consisted of bulk removal of the matrix, intrusive material would not have been noticed until laboratory processing.

The majority of the floral material, 4105 specimens, consists of seeds and other organic remnants of food resources (Table 46). Strictly speaking, the tobacco leaves (DlLg-21:96A/711) are not food residue, although they would have been included as part of the company's stores both for trade as well as consumption by company employees. Two genera of naturally deposited seeds are present in the deposit. Various species of knotweed (*Polygonum*) are a ground cover weed which colonize disturbed surfaces such as the interior of the fort. The seeds of pondweed (*Potamogeton*) may have arrived in the deposit attached to feathers of the aquatic birds (Anseriformes).

The table shows a large number of imported foods with local species making up nearly half the list. Two species, raisin and fig, would have been imported as dried fruits. The melons, muskmelon, watermelon, and pumpkin, would have been grown in local garden plots, either by HBC employees or other residents of the Red River Settlement who sold or traded them to the company. Barley would have been a similar case, although no specific mention of it occurs in the post journal. The journal, however, does mention storage of wheat and wheat thrashing in the confines of the fort (Loewen and Monks 1986:73-74). The local plants, represented in Table 46, all occur within the gallery forest that would have lined the banks of the Red and Assiniboine Rivers and were probably a very important component of the diet which would have been largely meat based, especially in the earlier years.

SCIENTIFIC NAME	COMMON NAME	FOOD TYPE	QTY	FQY
Food Resources				
Vitaceae				
Vitis vinifera	Raisin/Grape	berry	1338	32.6
Rosaceae				
Amelanchier alnifolia (seed)	Saskatoon	berry	30	0.7
Amelanchier alnifolia (berry)	Saskatoon	berry	2	<0.1
Crataegus chrysocarpa	Hawthorn	fruit	102	2.5
Fragaria sp.	Strawberry	berry	147	3.6
Prunus americana/nigra	Wild Plum	fruit	112	2.7
Prunus pensylvanica	Pincherry	berry	18	0.4
Prunus virginiana	Chokecherry	berry	511	12.4
Rosa sp.	Wild Rose	hip	1	<0.1
Rubus idaeus var. *strigosus*	Raspberry	berry	788	19.2
Caprifoliaceae				
Viburnum lentago	Nannyberry	berry	346	8.4
Viburnum opulus var. *americanum*	Highbush cranberry	berry	110	2.7
Moraceae				
Ficus carica	Fig	fruit	129	3.1
Cucurbitaceae				
Cucumis melo	Muskmelon	melon	231	5.6
Cucurbita pepo	Pumpkin	melon	1	<0.1
Citrullus vulgaris	Watermelon	melon	39	1.0
Betulaceae				
Corylus sp. (fragments)	Hazelnut	nut	152	3.7
Corylus sp. (whole)	Hazelnut	nut	2	<0.1
Gramineae				
Hordeum vulgare	Barley	grain	15	0.4
Solanaceae				
Nicotiana tabacum	Tobacco	leaf	2	<0.1
Unidentified Seed Type 1	-	-	8	0.2
Unidentified Seed Type 2	-	-	2	<0.1
Unidentified Berry/Fruit	-	berry?	15	0.4
Natural				
Polygonaceae				
Polygonum sp.	Knotweed	-	3	0.1
Zosteraceae				
Potamogeton sp.	Pondweed	-	1	<0.1
TOTAL SEED AND PLANT REMAINS			4105	99.7

Table 46: Seeds and Plant Material from Locus 4

The presence of the pits from species like plum, chokecherry, and pincherry is not surprising as processing of the berries would have used the pulp only. More puzzling is the heavy preponderance of raspberry and strawberry seeds which are quite small and incorporated within the body of the fruit. It would appear that the berries were pulped and the juice abstracted for further processing as a jelly or juice with the residue being discarded. The rose hips may have been used for teas or the manufacture of a ketchup-like condiment and the hazelnuts could have been eaten whole or ground into a flour for pastries.

A type of dried berry, DlLg-21:96A/706 (quantity = 15), could not be identified although it probably represents one of the local species already identified through the seeds. Alternatively, they could be poorly preserved dried currents, dried mulberries, or other imported dried berries. Two types of seeds (DlLg-21:96A/707 and 712) could not be identified from the available reference collections. All ten are large seeds and may have been imported as dried fruits rather than representing local taxa.

6.4.12 Samples

Samples are a generalized term applying to different types of curated material which is held in storage for future potential analyses. The first sample, DlLg-21:96A/730, consists of leather fragments heavily encrusted with a thick layer of seeds, especially raspberry and grape. This specimen was curated as is with potential display of the type of matrix in mind.

The two remaining samples represent the material that was captured during screening at different mesh sizes. DlLg-21:96A/764 is a 4 litre sample of matrix that passed through a 2 mm mesh, while DlLg-21:96A/731 is a smaller sample of material that passed through a 0.5 mm mesh screen. These samples have the potential of further analysis for small seeds and soil biota.

6.4.13 Containers

As noted in other chapters, the Containers category includes artifacts which were used to contain a variety of products. The specimens recovered from Locus 4 fit into the sub-categories of Storage and Dinnerware.

6.4.13.1 Storage

Ninety-eight artifacts were catalogued as representative of Storage containers. Five items are cork closures, while one artifact is made of ceramic, and the remaining ninety-two are made of glass.

6.4.13.1.1 Closures

DlLg-21:96A/216 consists of two incomplete corks and three small fragments of cork. Most containers, prior to the development of glass stoppers and screw cap lids, were closed with corks which had the advantage of being relatively cheap as well as functionally long lived.

6.4.13.1.2 Ceramic Containers

DlLg-21:96A/217 is the lip,neck,body of a brown stoneware bottle or jar. The specimen has a wide mouth (a bore of 43.2 mm) and a cylindrical body with an external diameter of 79.5 mm. The slightly out-flaring neck rises 39.2 mm from a narrow horizontal shoulder. Circular striae are present on the interior and exterior surface. The exterior of the bottle, as well as the inner neck, are glazed overtop of a grey, fine-grained paste. It was probably closed with a cork and, as the base is missing, there are no indicators as to the manufacturer.

6.4.13.1.3 Glass Containers

The ninety-two glass sherds could be divided into two functional sub-types—wine bottles and unassigned bottles.

6.4.13.1.3.1 Wine Bottles

Seventy-four olive sherds are from wine bottles. During analysis, reconstruction was attempted on many of these sherds in order to try and determine the number of discrete bottles represented by this sample. Three lip,neck specimens have been given individual catalogue numbers, along with those sherds which fit directly onto them. A single body,base fragment, with a pronounced, off-centre kickup, was catalogued as DlLg-21:96A/204. The non-diagnostic sherds which could not be fitted to the defined bottles were catalogued as DlLg-21:96A/206 (five shoulder sherds) and DlLg-21:96A/205 (60 body sherds).

Slight variations occur with the three defined bottles. DlLg-21:96A/202 (three sherds) has an applied lip characterized by a rounded, in-sloped upper portion surmounting a vertical lower collar. The neck is tapered cylindrical with lip application torsion twist marks. Both DlLg-21:96A/201 (three sherds) and DlLg-21:96A/203 (two sherds) have similar finishes. The upper portion of the finish, as with the other bottle, is rounded and in-sloped. The lower portion is a rounded string collar separated by a V-shaped groove. DlLg-21:96A/201 has a narrow collar while DlLg-21:96A/203 has a wider lower collar. Both specimens show torsion twisting, although not to the extent of DlLg-21:96A/202.

6.4.13.1.3.2 Unassigned Bottles

Four catalogue numbers, comprising eighteen sherds, were allocated to this sub-category. DlLg-21:96A/207 is a single body sherd from a cylindrical, aqua bottle. DlLg-21:96A/208 is four, flat green body sherds from a flask-type bottle. DlLg-21:96A/209 is three small, green sherds from an indeterminate bottle shape. DlLg-21:96A/716 consists of ten, flat clear sherds, probably from a flask or panel bottle. None of these sherds had any markings to indicate either a produce or a manufacturer.

6.4.14 Dinnerware

Seventy-five sherds, from Locus 4, were curated in the Dinnerware category. Thirty-one of these are glass sherds while the remaining forty-four are ceramic sherds.

6.4.14.1 Glass Dinnerware

Table 47 outlines the glass dinnerware from Locus 4. Thirty-one sherds were curated with all but two of the sherds (DlLg-21:96A/215) being portions of glass tumblers. The body,base sherds in DlLg-21:96A/212, 213, and 214 are all heavy bottomed glasses. The body and lip,body sherds in DlLg-21:96A/210 and 211 are thin walled, with the lip sherd measuring 2.7 mm in thickness. These may be the upper portions of the basal tumblers (DlLg-21:96A/212, 213, or 215) although none of them fit those specimens.

CAT. #	QTY	OBJECT	COLOUR	PORTION
210	6	Tumbler	clear	lip;body
211	18	Tumbler	clear	body
212	1	Tumbler	clear	body;base
213	1	Tumbler	clear	body;base
214	3	Tumbler	clear	body;base
215	2	Wine glass	clear	body
TOTAL	31			

Table 47: Glass Dinnerware from Locus 4

DlLg-21:96A/215 consists of two very thin-walled body sherds, possibly from a wine glass. The sherds measure 0.6 mm in thickness. It is possible that these may be something other than a wine glass, perhaps a lamp shade, although the thinness and the curvature make this possibility unlikely. None of the glassware had marks to denote a manufacturer.

6.4.14.2 Ceramic Dinnerware

Forty-four ceramic sherds were recovered from Locus 4 (Table 48). All of the patterns on these sherds could be identified and in two cases, DlLg-21:96A/220 and 222, the maker's mark was present. The patterns for the other pieces, DlLg-21:96A/218, 219, and 221, were found in Sussman (1979a) and assigned to the various Spode/Copeland factories.

Three of these patterns, Willow, Camilla, and Italian, have been identified in the other loci, notably Locus 1 and 2A, while the Portland Vase and Fruit and Flowers patterns are unique to Locus 4. Chapter 7 will discuss, in more detail, all of the ceramics from this project.

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER
218*	3	white;blue	Plate	Willow	Spode/Copeland & Garrett/W.T. Copeland
219*	1	white;blue	Saucer	Portland Vase	Copeland & Garrett
220	9	white;blue	Plate	Camilla	Copeland & Garrett/Late Spode
221*	3	white;blue	Saucer	Italian	Copeland & Garrett/W.T. Copeland
222	28	white;blue	Bowl	Fruit and Flowers	Copeland & Garrett/Late Spode
TOTAL	44				

* no maker's mark

Table 48: Ceramic Dinnerware from Locus 4

6.4.15 Summary

All of the artifacts appear to be the result of simultaneous deposition, although there may have been evidence of earlier sequential deposition in unexcavated, lower levels of the locus. Loewen and Monks (1986:68) note that, at least during the presence of the Sixth of Foot, "numerous pits were dug along the west wall". The practice of digging privy and garbage pits adjacent to the walls would have not been confined to the military occupancy and probably occurred throughout the life span of the fort.

6.5 Locus 6

The area defined as Locus 6, which was uncovered in 1998, is located in the centre of Assiniboine Avenue just west of the Main Street right-of-way. The locus is an amorphous area characterized by a large pile of limestone rubble with occasional short pieces of structural timber and isolated artifacts scattered throughout the irregular oval-shaped area. The rubble possibly derives from the demolition of the Main House. This structure was removed by 1873 (Loewen and Monks 1986:46) and the documentation is minimal as to whether the stone components, i.e., the foundation and chimneys were recycled or deposited into the cellar. It is unknown if this cellar, used as cold storage for roots and meat, was cribbed or stone walled (Loewen and Monks 1986:45). The position of the cellar within the building footprint is also unknown.

The artifacts from this locus were scattered around and throughout the rubble pile. Their original deposition may have been adjacent to the Main House or perhaps residual within the building after it became uninhabitable, circa 1855 (Loewen and Monks 1986:153). There is an admixture of fort period artifacts and more recent material. Considerable activity by the Winnipeg Electric Street Railway Company and its predecessor the Winnipeg Street Railway Company occurred in this area.

The two remaining storehouses of Upper Fort Garry were used by the transportation company (Loewen and Monks 1986:156) and other structures were built in the immediate vicinity. Demolition, modification, and waste disposal during the use of the area would account for the presence of artifacts which post-date the demolition of Upper Fort Garry. Thirty-six artifacts were curated from Locus 6. These have been analysed by functional category.

6.5.1 Architectural Objects

The Architectural Object artifacts fit into the sub-categories of Hardware and Structure.

6.5.1.1 Hardware

The Hardware artifacts consist of a single carriage bolt and two pieces of strap. DlLg-21:98A/15 is a complete, rusted bolt with a carriage-style head. The bolt measures 10¾ inches (approximately 273 mm) in length including the head. A carriage bolt illustrated in the catalogue from the Ashdown Hardware Company (1909:422) has the same domed head and square upper section as DlLg-21:98A/15. These bolts were sold in a variety of lengths including a 10 inch length. The shaft of DlLg-21:98A/15, without the head, does measure 10 inches.

DlLg-21:98A/16 consists of two pieces of differing lengths of rusty strap from either a machine or part of a structure. The longer of the two pieces measures approximately 214.0 mm, while the shorter piece measures 155.2 mm. The width for both pieces is 20.3 millimetres.

6.5.1.2 Structural Elements

Two sections of logs were retrieved. DlLg-21:98A/19 measures 112 cm in length and is 15 by 18 cm wide, while DlLg-21:98A/20 measures 63 cm in length and is 15 by 16 cm wide. It is probable that both are portions of larger timbers although they could have served as cross-braces between vertical, load-bearing timbers. Given the admixture of artifacts, these logs may or may not derive from the Main House of the fort and this may determinable by dendrochronological dating. Accordingly, both specimens have been submitted for tree ring analysis.

6.5.2 Military

A single iron cannonball was recovered. DlLg-21:98A/18 is approximately 112.6 mm (almost 4.5 inches) in diameter and weighs approximately 4 kilos (about 8.5 pounds). It is hollow in the centre with the cortex being 15.6 mm thick. There is a 17.7 mm hole into the interior. This artifact probably dates to the fort period and more specifically to the occupancy of either of the military groups—the Sixth of Foot (1846 to 1849) or the Royal Canadian Rifles (1857 to 1862).

6.5.3 Faunal Remains

One faunal specimen was recovered from Locus 6. DlLg-21:98A/14 is an innominate from a sheep (*Ovis aries*) which is partially stained with a black coating and has cut marks. A canine tooth puncture occurs on the diaphysis and all distal ends have been gnawed by a dog.

6.5.4 Containers

The remainder of the specimens recovered from Locus 6 fit into the Container sub-categories of Storage and Dinnerware.

6.5.4.1 Storage

Six specimens were catalogued as Storage containers. Five artifacts were glass, while the sixth was an unusual specimen, a barrel hoop which is described under the heading of wooden containers.

6.5.4.1.1 Wooden Containers

Although no remnants of the wooden barrel were catalogued, a portion of an iron barrel hoop, which would have fit around a wooden barrel, was recovered. DlLg-21:98A/17 measures approximately 635 mm in length and is 30.0 mm wide and 6.2 mm thick. It is bent in a circular shape as it would have been when it fitted around the barrel.

6.5.4.1.2 Glass Containers

Five glass sherds fit into the functional sub-types of Condiment and Unassigned bottles. DlLg-21:98A/9 is an aqua body,base sherd with part of the shoulder still present. It has a rectangular cross-section with chamfered corners. The manufacturer and product would probably have been identified by a paper label on the front and possibly the back panel . The letters "C & B" are embossed on the back panel near the base. These letters represent the Crosse & Blackwell company of London, England. Toulouse (1971:113-114) states that "These initials, together with the full names, appear on food jars and bottles of all kinds, more regularly on paper labels than on the jars and bottles themselves". Edmund Crosse and Thomas Blackwell bought out the firm of West & Wyatt on January 26, 1830 and, according to Toulouse (1971:114), "...did a lively business with the American West...". Unfortunately, the central portion of the base is missing, thereby eliminating the possibility of identifying the bottle manufacturer.

DlLg-21:98A/10 is the lip and neck portion of an aqua bottle. The tapering cylindrical neck is finished with an applied stopper finish (Jones and Sullivan 1985:89). The bore is straight rather than constricted which does not preclude the closure by a club sauce type stopper (Jones and Sullivan 1985:152). The colour and degree of patination is identical to DlLg-21:98A/9 and, while they do not fit together, DlLg-21:98A/10 is likely the neck and lip of DlLg-21:98A/9.

Of the three unassigned specimens two, DlLg-21:98A/11 and DlLg-21:98A/12 are aqua while DlLg-21:98A/13 is blue. DlLg-21:98A/11 is a body,shoulder sherd from a cylindrical bottle where the shoulder is domed rising into a wide bore neck. DlLg-21:98A/12 also derives from a cylindrical bottle and is a body,shoulder,neck sherd where the sloping shoulder joins directly into the neck which is demarcated by a rounded collar. DlLg-21:98A/13 is a body sherd from an oval flask-type bottle.

6.5.5 Dinnerware

Only ceramic dinnerware sherds were recovered in Locus 6. Table 49 lists the twenty-three specimens and identifies, where possible, the patterns and the makers. Four of the eight catalogue numbers (nine sherds) had patterns that could be attributed to the various Spode/Copeland factories, with one, DlLg-21:98A/1, having a definite Copeland/Late Spode mark on the base. The four patterns—Watteau, Continental Views, Ivy, and Ivy and acorn—also occurred in some of the other loci. The Honeysuckle pattern, DlLg-21:98A/5 (eleven sherds), is unique to Locus 6. Although this pattern was produced by Copeland, it was also produced by Wallis Gimson & Co. and, without a mark, it is impossible to assign it to one of these manufacturers. Chapter 7 will discuss all of the sherds in more detail.

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER
1	1	white;blue	Plate	Watteau	Copeland/Late Spode
2*	4	white;purple	Bowl	Continental Views	Copeland (W.T.)
3*	1	white;purple	Bowl	Ivy	W.T. Copeland
4*	3	white;purple	Cup	Ivy and Acorn	W.T. Copeland
5*	11	white;brown	Pitcher	Honeysuckle	various makers
6*	1	white;blue	Plate	band;lines;flowers	-
7*	1	white	Plate?/Saucer?	-	-
8*	1	white	Plate	-	-
TOTAL	23				

* no maker's mark

Table 49: Ceramic Dinnerware from Locus 6

6.5.6 Summary

While deposition at this locus would have occurred during or after the demolition of the Main House in 1872 or 1873, most of the artifacts appear to fall into the period of fort occupancy. Those that definitely derive from the period prior to 1883 are the cannon ball and all of the Spode/Copeland ceramics. Other artifacts which probably are synchronous with the occupancy of the fort are the barrel hoop, the Crosse & Blackwell bottle, and the Honeysuckle-patterned sherds. While not definitive, as their duration of manufacture would have extended into the dying days of the 19th century, it is likely that these are part of the same depositional event as the previous listed artifacts. For that matter, only one of the recovered artifacts, DlLg-21:98A/6, may derive from a later depositional period. An identical patterned sherd was recovered from railroad fill debris at a location near The Forks in a context which post-dates 1889 (Quaternary n.d.)

A photograph of the interior of Upper Fort Garry, circa 1878, shows that the former location of the Main House is a level, grassed courtyard bounded by pathways on both sides (Loewen and Monks 1986:192). Evidence of the former structure has been totally eradicated and surface debris of the

latter period of the fort could have been incorporated with the soil matrix which was disturbed by construction by the street car company.

7.0 THE CERAMICS FROM UPPER FORT GARRY

This chapter has been dedicated to the assemblage of ceramics found within the walls of Upper Fort Garry. It was considered advantageous to compile this data in one chapter for the following reasons:

- the large quantity of identifiable ceramic material;
- the constrained time frame for the fort, a tightly defined period in which the artifacts would have been used and discarded;
- the defined group of people living within the fort perimeter, i.e., soldiers, officers, families of officers, Hudson's Bay Company employees, their families; and
- the defined activities within the fort, i.e., the cookhouse, the mess hall, the dining areas, the stores, etc.

A total of 293 sherds were recovered from Locus 1, 2, 2A, 4, and 6. The majority of these artifacts have an identifiable pattern and many have been assigned to a specific manufacturer. It is hoped that this chapter will provide the seeds of information for a further in-depth academic-based study, perhaps a thesis. Due to the magnitude of the information, time constraints, and budgetary constraints (an in-depth study does not fall within the parameters of a mitigation project), as much work as feasible was done on the ceramics.

Tables outlining information such as the pattern names, a manufacturer of the pattern, if identifiable, and any dates that can be ascribed to the piece will be included. A brief overview of the manufacturing companies, a description of some of the patterns, and various dates—date of manufacture, date of company, date of shipment to Western Canada, date on site—will be presented. In addition, a brief comparison with the work done on Upper Fort Garry, during the Bonnycastle excavations (Fifik 1986; Larcombe 1988; Monks 1982, 1983), will be attempted. Much of the research in this chapter was based on the references of Sussman (1978, 1979a, 1979b) and Hamilton (1982, 1985) in addition to other available works.

One advantage of working with the materials from the loci within Upper Fort Garry is the very concise time frame for this particular fort. Construction on Upper Fort Garry began in 1836. The original size of the fort stayed the same until 1852, although some internal structures were added during the first decade of the fort's existence. The fort was always under the control of the Hudson's Bay Company. However, from 1846 to 1849, the Sixth Regiment of Foot occupied the western portion of the site with the HBC constrained to the eastern portion. After the flood of 1852, the fort was doubled in size with an extension of the walls to the north enclosing buildings which had been built outside of the original perimeter. A second military occupation of part of the fort occurred between 1857 and 1862 when the Royal Canadian Rifles were stationed there (Loewen and Monks 1986:129-141). While several structures remained intact from the beginning, many other buildings and facilities were much shorter lived with several ephemeral structures built by both the military and the company. As well, modifications to the interior and exteriors of the major buildings occurred (Loewen and Monks 1986). The general dismantling and abandonment of Upper Fort Garry appears to have commenced in 1878 and by 1883 the fort was partially destroyed and completely abandoned.

Knowing the time line of the fort, as well as the information that it was variously occupied by factors, clerks, and traders of the Hudson's Bay Company as well as the officers and soldiers of the military, and in some cases the officers' families, gives a good sense of the people living within the walls of Upper Fort Garry. Several activities, that would involve the use and/or sale of ceramics, would have been prevalent. The Hudson's Bay Company was in the business of buying or trading for furs, while the employees would have carried on daily personal activities, such as meals, entertaining, etc. The military would have provided goods for their personnel as well as the families. People would have bought dinnerware from the company, the company would have ordered supplies from England, and, in some cases, people may have brought personal goods with them when they came to the fort. These activities would have occurred in the cookhouse for the military, in the mess halls of the soldiers, in the dining halls for the officers, or in the quarters of the HBC staff. Much of this information is not available when dealing with artifacts recovered from a general dump site.

7.1 The Artifacts

In Chapter 6, the recovered ceramics were presented in table format within the section on each locus. These tables outlined the catalogue number, the quantity of sherds in that catalogue number, the type of dish, the pattern name (if identifiable), and the ascribed manufacturer of the piece. It was decided to repeat those tables in this chapter with the additional information of the reference that was used for the identification of the pattern or manufacturer plus the dates a particular pattern was in production (according to the references). It was decided to include all of the recovered ceramic material, not just those pieces with a pattern, but any undecorated, unmarked sherds. Those tables have been repeated here as well.

The tables are as follows:

- Table 50 - Ceramic Dinnerware from Locus 1
- Table 51 - Ceramic Dinnerware from Locus 2
- Table 52 - Undecorated, Unmarked Sherds from Locus 2A
- Table 53 - Decorated, Unmarked Sherds from Locus 2A
- Table 55 - Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A
- Table 56 - Non-Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A
- Table 57 - Ceramic Dinnerware from Locus 4
- Table 58 - Ceramic Dinnerware from Locus 6 (DlLg-21:98A)

Although many references were examined, three authors were used extensively for the information on the tables. Three important references are those of Sussman (1978, 1979a, and 1979b). Where dates are used from Sussman's references, the dates refer to the period during which a particular pattern was produced. When Godden's (1964) work is referenced, the dates refer to the period that a company, which produced the dinnerware, was in business or the dates that a certain mark was used by that company. Where Hamilton (1985) is referenced, the dates are revised dates of Copeland ceramic patterns which she obtained through extensive work in the Hudson's Bay Company Archives and from the 20th century Spode/Copeland Pattern Catalogues.

Following the tables, descriptions of the some of the ceramics and short histories of the companies that manufactured these dishes will be presented. The caveat that has been repeated in the sections on the loci, should be repeated here. Although some of the sherds do have a maker's mark on them, many do not—these are denoted with an asterisk on the tables. Some of those sherds which definitely have a Spode/Copeland mark on them were found in direct conjunction with some of those sherds that don't have a mark. In addition, many of the patterns were identified using Sussman's (1979a) reference on the Spode/Copeland factories. It is important to note that the Spode/Copeland factories were the main, if not the sole supplier, of ceramic dinnerware to the Hudson's Bay Company (Sussman 1979a:9). Hamilton (1985:8) states that "The Copeland companies were the sole suppliers of ceramic wares bound for the Hudson's Bay Company at York Factory from 1836 to 1854". Some of the ceramic material received at York Factory would have been destined for Upper Fort Garry.

7.2 Non-identifiable Patterns or Manufacturers

Seventy-four of the 293 recovered ceramic sherds could not be given a definite pattern name. Some of these artifacts consisted of plain, single-coloured pieces, while others had patterns which could not be found in the references.

Four sherds, from Locus 1 (Table 50), were unidentifiable to either a pattern name or a manufacturer. DlLg-21:96A/66, probably came from a larger bowl, most likely a serving dish. The main pattern occurs on the out-sloped flat rim with a secondary pattern of branches midway down the outer body. DlLg-21:96A/67 is a small body sherd with a cross-hatched design. Neither pattern could be located in the references.

Three sherds from Locus 2 (Table 51) were unidentifiable. Two specimens are plain white. DlLg-21:96A/98 is a small sherd with most of the interior surface spalled off. However, there is an indication that this sherd belongs to a piece with a pattern that possibly has a blue background.

The largest number of recovered sherds came from Locus 2A. Of the 201 sherds from this locus, sixty-four are either plain or have a pattern, but none have a maker's mark. Table 52 consists of thirty-six sherds which are unmarked, plain, single-coloured specimens—twenty-five of them white. These white sherds may, in fact, fit onto some of the decorated specimens. However, at this time, none of them could be assigned to any of those catalogue numbers. Only those sherds in DlLg-21:96A/336, 337, and 369 will be discussed in further detail.

DlLg-21:96A/336 is a bowl, either a large soup bowl, a small serving bowl, or a small cooking bowl. The height measures 90.8 mm and it is approximately 154.0 mm in diameter (a 6″ bowl). The design on the exterior consists of molded panels.

DlLg-21:96A/337 is a solid medium-blue saucer. It has a lighter blue band (5.5 mm wide) that drops from the lip down onto the interior surface and another wider (7.9 mm) lighter blue band that drops

CAT #	QTY	COLOUR	TYPE	PATTERN
57	1	white;blue	Plate	Watteau
58	1	white;blue	Plate	Pagoda
59*	4	white;blue	Plate?/Saucer?	Italian
60	2	white;blue	Plate	Camilla
61*	1	white;blue	Bowl	British Flowers
63*	1	white;purple	Bowl?/Cup?	Honeycomb
64*	1	white;blue	Plate?/Saucer?	Alhambra
65*	1	white;purple	Plate	?British Flowers
62*	2	white;blue	Bowl?/Cup?	Fibre
66*	1	white;blue	Bowl	branches; chevron
67*	1	white;blue	Plate?/Saucer?	cross-hatched
68*	1	white	Bowl?/Cup?	-
87*	1	white	Unidentified	-
	18			

* no maker's mark

Table 50: Ceramic Dinnerware from Locus 1

CAT #	QTY	COLOUR	TYPE	PATTI
94*	2	Copeland & white;blue	Cup	Flower Va
93*	1	Copeland & white;blue	Plate?/Saucer?	Deerstalke
97*	1	Copeland & white;blue	Plate	? Wild Ro:
95*	1	Spode/Cop W.T. Cope white	Plate?/Saucer?	-
96*	1	Copeland & white	Plate	-
98*	1	John Meir white;blue	Bowl?/Cup?	? blue bacl
	7			

* no maker's mark

Table 51: Ceramic Dinnerware from Loc

CAT. #	QTY	COLOUR	TYPE	PORTION	COMMENTS
336	10	white	Bowl	lip;body;base	panelled;large
337	11	blue	Saucer	lip;body;base	plain;lighter blue band at lip
368	2	white	Plate	base	-
369	7	white	Bowl?/Cup?	body	blue tinge on one sherd
370	4	white	Plate	body;base	-
371	1	white	Bowl?	lip	-
372	1	white	Bowl?	base	? footed bowl
TOTAL	36				

Table 52: Undecorated, Unmarked Sherds from Locus 2A

CAT. #	QTY	COLOUR	TYPE	PORTION	PATTERN
339	4	white	Saucer	lip;body;base	Greek key;floral
340	1	white;brown	Cup	lip;body;base	floral cartouche;bible;MARY
341	6	multicoloured	Cup	lip;body;base	cameo of Greek woman
343	1	white;blue	Plate	body	man in boat in reeds;...IC
344	1	white;blue	Bowl?/Cup?	body	balustrade;bust on pillar
345	3	white;blue	Plate?/Saucer?	lip;body	bands;checkerboard;strawberry;leaves
349	1	white;blue	Plate	base	flower;leaf
350	1	white;blue	Saucer	body	tower with flag;hill
353	1	white;blue	Plate?/Saucer?	lip;body	band;curlicues;leaves
356	1	white;blue	Plate?/Saucer?	lip;body	twig?
357	1	white;blue	Plate?/Saucer?	body	leaves
358	1	white;blue	Bowl?/Cup?	lip;body	chevrons
359	1	white;blue	Cup	body	branches
360	1	white;blue	Cup	handle	flowers
364	1	white;green	Plate	body	bands
366	1	white;purple	Cup	handle	line of curlicues
367	2	white;purple;copper	Pitcher	lip;body;handle	lustre finish;blobs
TOTAL	28				

Table 53: Decorated, Unmarked Sherds from Locus 2A

from the lip down onto the exterior surface. Although this band could be considered a form of decoration, it was felt that this unmarked specimen fit into this group.

Six of the sherds in DlLg-21:96A/369 are plain white, while one sherd has a slight blue tinge on one side. At this time, this sherd cannot be assigned to any of the other sherds with a blue pattern, therefore it was not separated from this catalogue number.

All of the twenty-eight decorated, unmarked sherds from Locus 2A have, as yet, unidentified patterns (Table 53). The majority of these sherds have been described as accurately as possible in the table. Perhaps with more time, additional reference collections, or other reference books, these patterns might be identifiable. A few artifacts will be discussed in more detail.

DlLg-21:96A/339 is a white saucer with a 28.1 mm wide embossed band which consists of a Greek key pattern (four keys) that is interrupted by a floral pattern. The pattern occurs 6.9 mm down from the lip on the interior body.

DlLg-21:96A/340 is a small cup with a single U-shaped lip,body piece and most of the handle missing from it (Plate 19). The cup measures 65.7 mm in height with an external diameter of 71.8 mm and an internal diameter of 67.6 mm. It is white in colour with a brown cartouche on the front. The cartouche is made up of a variety of different flowers, curlicues, a dove, and at the top of the cartouche, an open bible, with "HOLY BIBLE" printed on it, lying on a 3-tasseled pillow. The name "MARY" is printed, also in brown, in the centre of the cartouche. Unfortunately, there are no markings on the specimen to indicate a manufacturer or a date of manufacture. The cup could be a christening cup. It is known that children resided inside the fort (Section 6.3.6.1) as well as outside the fort. This cup could also have belonged to one of the women who came to live in the fort or was the keepsake of a family who may have had an ancestor named Mary. Mary was a popular name for a girl during the 19th century.

DlLg-21:96A/341 is an even smaller cup than DlLg-21:96A/340. This artifact consists of six sherds which can be reconstructed to form the complete vessel, with only the fingerhold portion of the handle missing. It measures 59.1 mm in height and has an outsloped, indented, heavy base. The outer diameter measures 57.5 mm while the inner diameter measures 49.3 mm. The cup is white with a painted cameo on the front (Plate 20). The background of the cameo is an orangish-brown colour with the head and shoulders profile of a Greek woman on it. The woman has blue eyes, black eyebrows, and brown hair pulled back in a chignon. She has leaves and ribbons intertwined through her hair and is wearing a brown dress with a pink scarf laid over top of a blue scarf to form a collar. There is no maker's mark on this artifact.

DlLg-21:96A/343 has the figure of a man dressed in white trousers, a long blue overcoat, and a hat. He's poling a boat through a pond that has cattails in it. On the bottom of this sherd is a blue, multi-outlined clover-like cartouche with "...IC" printed in the middle of it. The "...IC" could be the end of a pattern name, such as Scenic or Rustic. No pattern like this was located in any of Sussman's works (1978, 1979a, 1979b). Coysh (1972:8) notes that

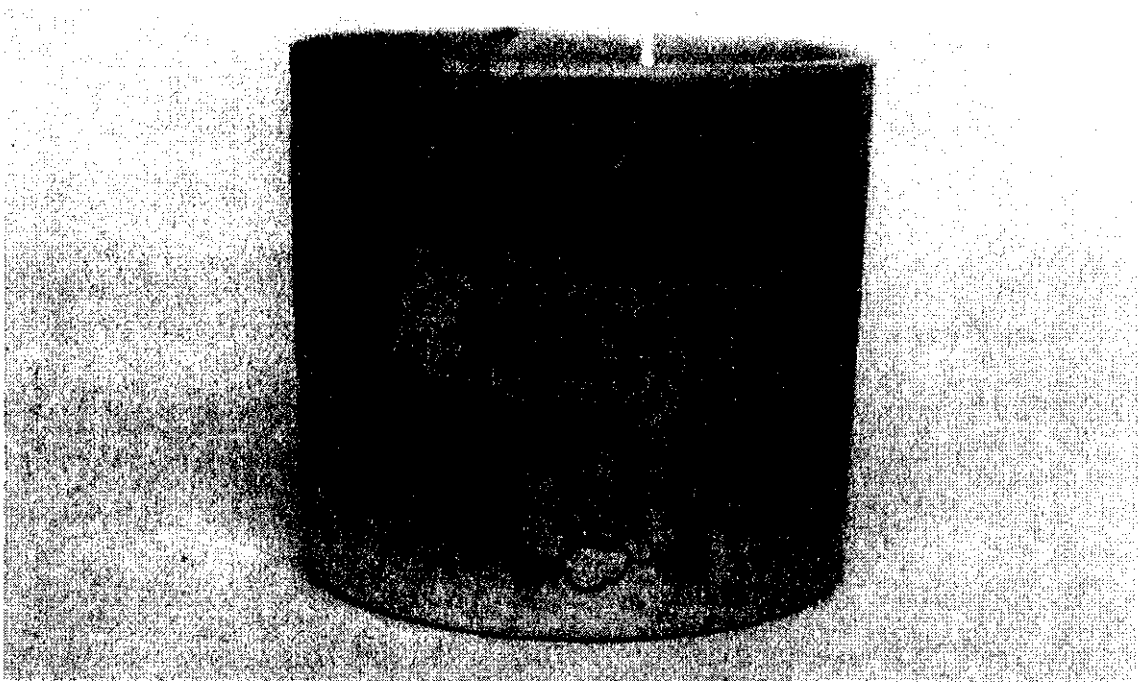


Plate 19: Christening Cup (DlLg-21:96A/340)

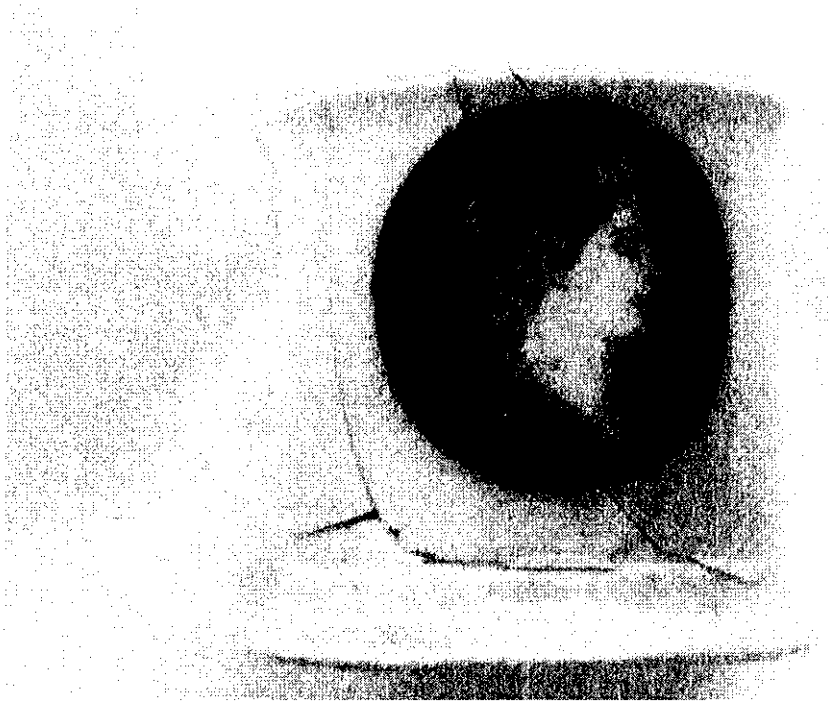


Plate 20: Cameo Cup (DlLg-21:96A/341)

patterns with English country scenes abound and many of them reveal interesting facts about the costume, dwellings, implements and occupations of the country people of the period.

The initials may also be part of a maker's mark, however, no identical mark could be found in Godden (1964), Kovel (1953, 1986) or Poche (1974). Kovel (1986:36f) does illustrate one cartouche mark with the word RUSTIC in it—a mark of the G. L. Ashworth & Bros. (Ltd.) factory of Hanley, Staffordshire, England who produced earthenware and ironstone products from 1862 until post-1957. None of the Ashworth marks illustrated by Godden (1964:38-39) match this DlLg-21:96A/343. Therefore, no definite identification of the pattern name or manufacturer can be made at this time.

DlLg-21:96A/344 is a body sherd from either a bowl or a cup, although the sherd is panelled, so it could also have been part of a pitcher. On the exterior surface, there is a balustrade which goes from a lower level to a higher level. A portion of a bust sits atop a pillar on the upper corner of the staircase. In the background, there is a wall with what appears to be a checkerboard or plaid pattern on it. The interior of this sherd has a small portion of a pattern which consists (again in blue-on-white) of rays coming from a central orb. Perusal through various references and reference collections failed to find any similar pattern.

DlLg-21:96A/345 consists of three sherds from a plate or a saucer. There is a band of blue just below the lip on the interior surface. This band is intersected with U-bolt-shaped decorations. A line of circles with dots in the centre runs just below the band, while a checkerboard pattern covers the entire body below the line of circle. Overlaying this checkerboard pattern, at the juncture of the body with the base, is a strawberry with runners of leaves. Again, this pattern could not be located in reference books or reference collections.

DlLg-21:96A/367 consists of two body sherds, one of which has the complete handle attached to it. The handle is an iridescent copper colour and attaches, at the base of the handle, to an iridescent copper band which encircles the mid-body of the specimen. The body, above the copper band, has a purple background with floating white blobs which vary in shape and size. The size and shape of these pieces suggests that this might be a cream pitcher rather than a cup. A lustre finish is defined as a "...thin metallic sheen...applied over a tin glaze" (Cox 1970:XIV, 305). The result is a shiny iridescent metallic looking surface such as that on DlLg-21:96A/367. Godden (1966:xxiv) notes that although lustre effects were being used on ceramics from the Near East and Europe, English potters did not use them until the early 1800s. He further notes that copper lustres were made from gold which was applied over a dark body.

Three sherds from Locus 6 (Table 58) were unidentifiable—DlLg-21:98A/6, 7, and 8. To reiterate, Locus 6 was recovered during the 1998 portion of the project and this is reflected in the catalogue designation. DlLg-21:98A/7 and 8 are plain white sherds which, to date, do not fit any of the other sherds found at this loci.

DlLg-21:98A/6 is the lip,body portion of a thick plate. The pattern is similar to the stencil-like patterns found on early Pennsylvania Dutch furniture. The pattern, all on the interior surface, is multi-faceted. A wavy solid blue band (10.0 mm wide) falls from the lip onto the body. Inside this band, near the lip, is a single line of three beads alternating with a diamond shape, then three more beads, another diamond, etc. Below the blue band is a pattern of three tulip-like flowers (cross-like in

formation) which are joined by a single thin wavy line connecting the top of each of these formations. These tulip patterns are separated by stylized flower. A second thin line of beads and diamonds occurs at the juncture of the body with the base. As noted in Section 6.5, some of this material may actually be intrusive and may not be from the fort period. In fact, a sherd with the identical pattern, but not from the same plate, was recovered during the mitigation of Pioneer Avenue in the spring of 1998 (Quaternary n.d.). The stratigraphic context of this recovery would indicate that deposition post-dates 1889.

7.3 Artifacts with Identifiable Patterns or Manufacturers

7.3.1 Location of Patterns

Thirty-five different patterns were identified from the ceramics recovered during both the 1996 and 1998 projects from the loci within Upper Fort Garry (Table 54). The majority of the identifiable material came from the vandalized Feature 6 (Locus 2A). As the largest number of ceramic sherds came from this particular location, it would follow that the larger number of identifiable pieces would be from here.

Many of the recovered patterns were unique to Locus 2A, although Locus 1, which yielded eight patterns, had two, Alhambra and Pagoda, that were not found elsewhere. The Wild Rose pattern was unique to Locus 2, while the Fruit and Flowers and Portland Vase patterns were unique to Locus 4. Locus 6, uncovered in 1998, had one unique pattern, Honeysuckle. The British Flowers, Camilla, Continental Views, Flower Vase, Honeycomb, Italian, Ivy, Ivy and acorn, Watteau, Willow, Deerstalker, and Fibre patterns were recovered from at least two or more loci.

Locus 1 was described as being material that was considered to be trench fill when an excavation occurred alongside the northeast bastion and east wall junction at some point after the initial construction in 1836 (Section 6.1.6). The date of the formation of the matrix of Locus 1 is indeterminate but one possibility is that it may have occurred in conjunction with the construction of the partition fence during the military occupation by the Sixth of Foot, 1846 to 1849. This is purely speculation, although it would account for the disturbance of the sediments adjacent to an intact stone wall.

Locus 2 is material that was excavated from outside the pit (Feature 6) in which Locus 2A material was removed. The depositing of the ceramic artifacts in Locus 2, which lay immediately north of the outer wall of the cribbed feature, probably occurred during in-filling between the cribbing wall and the edge of the excavation for the cribbed cellar. Locus 2A is the designation of the source of the artifacts which apparently were removed from the interior of the cribbed feature. Those relating to the occupancy of Upper Fort Garry consisted of tools, faunal remains, etc. as well as ceramics which would have obviously been used by residents of the fort. The upper log of the cribbed cellar was dated at 1839 (Appendix B), thereby providing a minimal date for deposition of debris. Given the location of the cellar (adjacent to or inside the cookhouse), it is probable that the feature originated as a root vegetable storage cellar before being used as a garbage pit (Section 5.1.14). A purely

speculative date for the change in function would be the effects of the flood of 1852 (Loewen and Monks 1986:104-105) which may have ruined the drainage of the feature rendering it unsuitable for food storage.

PATTERN NAME	LOCUS 1	LOCUS 2	LOCUS 2A	LOCUS 4	LOCUS 6
Alhambra	✓	-	-	-	-
B700	-	-	✓	-	-
B772	-	-	✓	-	-
B773	-	-	✓	-	-
British Flowers	✓	-	✓	-	-
Broseley	-	-	✓	-	-
Byron Groups/Views	-	-	✓	-	-
Camilla	✓	-	✓	✓	-
Continental Views	-	-	✓	-	✓
Flower Vase	-	✓	-	-	-
Fruit and Flowers	-	-	✓	✓	-
Honeycomb	✓	-	✓	-	-
Ionian	-	-	✓	-	-
Italian	✓	-	✓	✓	-
Ivy	-	-	-	-	✓
Ivy;acorn	-	-	-	-	✓
Pagoda	✓	-	✓	-	-
Portland Vase	-	-	✓	✓	-
Ruins	-	-	✓	-	-
Rural Scenes	-	-	✓	-	-
Ship Border	-	-	✓	-	-
Violet	-	-	✓	-	-
Watteau	✓	-	✓	-	✓
Willow	-	-	✓	✓	-
Unidentifiable (320)	-	-	✓	-	-
		-	✓		
			✓		
Deerstalker	-	✓	✓	-	-
Edge decoration - Variety a	✓	-	-	-	-
Fibre	-	-	✓	-	-
Fountain	-	-	✓	-	-
Genevese	-	-	✓	-	-
Honeysuckle	-	-	-	-	✓
Laconia	-	-		-	-
Palmyra	-	-		-	-
Unidentified No.7	-	-		-	-
Wild Rose		✓		-	-

Table 54: Location of Ceramic Patterns within Upper Fort Garry

Locus 4 is an amorphous, oval, garbage midden east of the Recorder's House, near the east wall. It appears that a garbage pit was excavated and debris buried in it over a relatively short period. The recovered materials contained large quantities of faunal and floral remains in addition to ceramics and other artifacts. The faunal remains appear to be dominated by residue from fur harvesting activities, while the floral remains suggest food preparation ort from either the Recorder's House or the Men's House. The ceramics would likely derive from either of these two structures.

Locus 6 is an irregular oval area characterized by a dense concentration of limestone rubble. Mixed in with the lithic debris were occasional pieces of structural timber and isolated artifacts. The rubble possibly derives from the demolition of the Main House in 1873 and the artifacts became incorporated in this matrix. Their original deposition may have been adjacent to, or within, the building after it became uninhabitable around 1855. Admixture of more recent material could have occurred due to activity by the streetcar companies in the immediate vicinity during the latter part of the 19th century.

The first twenty-five patterns in Table 54 came from the various Spode/Copeland factories. Some of the remaining ten patterns could, in some cases, be associated with one or more factories, while some could not be assigned to any definite factory.

7.3.2 Spode/Copeland Patterns

Patterns from the various Spode/Copeland factories were found in Locus 1 (Table 50), Locus 2 (Table 51), Locus 2A (Table 55), Locus 4 (Table 57), and Locus 6 (Table 58).

The first era of this company was known as the Spode period (Sussman 1979a:9). This period began in 1776, when Josiah Spode I, after having been apprenticed to various other potters, bought out the William Banks pottery. Josiah Spode (I) revolutionized pottery making with the introduction of steam power to drive the machinery in his factory and, according to Sussman (1979a:8), "...mastered the art of underglaze transfer printing on earthenware...". This pottery company, in Stoke-on-Trent, flourished and eventually Josiah Spode II established a retail shop in London in 1778. The pottery factory used the names Josiah Spode and Spode up until 1833. However, the London retail outlet went through a series of name changes reflected by the changes in partnership over the years: William Spode and Company (1805 to 1811), Spode and Copeland (1811 to 1823), Spode, Copeland and Son (1824 to 1826), Spode and Copeland (1826 to 1833) (Sussman 1979a:8-9).

In 1833, after the death of Josiah Spode III, William Taylor Copeland (the son of William Copeland), who was a partner in the London business, and Thomas Garrett, who was a clerk in the London retail store, joined together to take over the firm. It became Copeland & Garrett (Coysh 1972:22; Cushion 1992:303). Copeland & Garrett bought not only the London firm but also the factory in Stoke-on-Trent. Under their ownership, the factory expanded in size to eleven acres of land and the number of ovens increased to twenty-five (Cushion 1992:305). In addition, Cushion (1992:305) also notes that "Copeland and Garrett were employing...seven hundred and eighty hands, seventy-seven of whom were children under the age of fifteen years". Godden (1974:177) states that

CAT #	QTY	COLOUR	TYPE	PATTERN	MAKER(S)	REFERI
305*	4	white;blue	bowl	Willow	Spode/Copeland & Garrett/W.T. Copeland	Sussman 1979a:2
306*	2	white;blue	plate	Willow	Spode/Copeland & Garrett/W.T. Copeland	Sussman 1979a:2
307	5	white;purple	cup	Honeycomb	Copeland/Hudson's Bay Co.	Hamilton 1985:5
308*	2	white;purple	saucer	Honeycomb	Copeland	Hamilton 1985:5
309	3	white;purple	breakfast cup	Continental Views	Copeland (W.T.)	Sussman 1979a:1
310*	1	white;purple	cup	Continental Views	Copeland & Garrett/W.T. Copeland	Sussman 1979a:9
311	9	white;blue	saucer	Broseley	Copeland (W.T.)	Sussman 1979a:6
312	1	white;blue	bowl?/cup?	Broseley	Copeland (W.T.)	Sussman 1979a:6
313	13	white;purple	plate	Ivy	Copeland (W.T.)	Sussman 1979a:1
314*	6	white;purple	breakfast cup	Ivy; acorn	W.T. Copeland	Sussman 1979a:1
315*	3	white;purple	breakfast cup	Ivy; acorn	W.T. Copeland	Sussman 1979a:1
316	2	white;blue	plate	Rural Scenes	Copeland (W.T.)	Sussman 1979a:1
317	4	white;blue	plate	Rural Scenes	Copeland/Late Spode	Sussman 1979a:1
318	7	white;blue	10" soup bowl	Rural Scenes	Copeland (W.T.)	Sussman 1979a:1
319	6	white;blue	pitcher	B772	Copeland/Late Spode	Sussman 1979a:6
320	7	multicoloured	plate	? pattern	Copeland/Late Spode	not in reference
321*	3	white;blue	bowl?/cup?	B700	Copeland & Garrett/W.T. Copeland	Hamilton 1985:5
322*	2	white;blue	bowl?	B772	Copeland & Garrett/W.T. Copeland	Sussman 1979a:6
323*	2	white;blue	plate	B773	Copeland & Garrett/W.T. Copeland	Hamilton 1985:5
324*	1	white;blue	saucer	Flower Vase	Copeland & Garrett/W.T. Copeland	Sussman 1979a:1
325*	3	white;blue	bowl	Camilla	Copeland & Garrett/W.T. Copeland	Sussman 1979a:8
326*	2	white;blue	bowl?/cup?	Camilla	Copeland & Garrett/W.T. Copeland	Sussman 1979a:8
327*	2	white;blue	bowl	Ionian	W.T. Copeland	Sussman 1979a:1
328*	1	white;blue	bowl?	Ruins	W.T. Copeland	Sussman 1979a:1
329*	1	white;green	saucer	British Flowers	Copeland & Garrett/W.T. Copeland	Sussman 1979a:6
330*	1	white;purple	plate	British Flowers	Copeland & Garrett/W.T. Copeland	Sussman 1979a:6
331*	1	white;blue	cup	Ship Border	Spode	Sussman 1979a:2
332*	1	white;blue	plate	Byron Groups/Views	Copeland & Garrett	Sussman 1979a:6
333*	1	white;green	pitcher	Byron Groups/Views	Copeland & Garrett	Sussman 1979a:6
334*	1	white;purple	plate	Violet	W.T. Copeland	Sussman 1979a:2
335*	2	white;blue	bowl?/cup?	Italian	Copeland & Garrett/W.T. Copeland	Sussman 1979a:1
347*	2	white;blue	bowl?/cup?	B700	Copeland & Garrett/W.T. Copeland	Hamilton 1985:5
351*	1	white;blue	plate?/saucer?	Watteau	Copeland & Garrett/W.T. Copeland	Sussman 1979a:2
352*	1	white;blue	plate	Italian	Copeland & Garrett/W.T. Copeland	Sussman 1979a:1
355*	1	white;blue	plate?/saucer?	B772	Copeland & Garrett/W.T. Copeland	Sussman 1979a:6
361*	1	white;blue	Tureen handle	Byron Groups/Views?	Copeland & Garrett	Coysh & Henryv
362*	1	white;blue	plate	Rural Scenes	W.T. Copeland	Sussman 1979a:1
363*	1	white;blue	plate?/saucer?	Rural Scenes	W.T..Copeland	Sussman 1979a:1
	107					

* no maker's mark

Table 55: Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER
300	6	white;blue	bowl	Fountain	John Meir & Son
301*	1	white;blue	bowl	Fountain	John Meir & Son
302	4	white;blue	plate	Fibre	John Meir & Son
303*	3	white;blue	bowl?/cup?	Fibre	John Meir & Son
304*	1	white;blue	bowl?/cup?	Fibre	John Meir & Son
346*	3	white;blue	saucer	Deerstalker	J. & M.P. Bell
338*	8	white;blue	cup	Laconia	various makers
342*	1	white;blue	plate	Genevese	various makers
348*	1	white;blue	plate?/saucer?	Palmyra	various makers
354*	1	white;blue	bowl?	Edge decoration - Variety a	unknown maker
365*	1	white;green	saucer	Unidentified No. 7	? maker
TOTAL	30				

* no maker's mark

Table 56: Non-Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER
218*	3	white;blue	Plate	Willow	Spode/Copeland & Garrett/ W.T. Copeland
219*	1	white;blue	Saucer	Portland Vase	Copeland & Garrett
220	9	white;blue	Plate	Camilla	Copeland & Garrett/Late Spode
221*	3	white;blue	Saucer	Italian	Copeland & Garrett/W.T. Copeland
222	28	white;blue	Bowl	Fruit and Flowers	Copeland & Garrett/Late Spode
	44				

* no maker's mark

Table 57: Ceramic Dinnerware from Locus 4

JR	TYPE	PATTERN	MAKER	REFERENCI
ıe	Plate	Watteau	Copeland/Late Spode	Sussman 1979a:2
rple	Bowl	Continental Views	Copeland (W.T.)	Sussman 1979a:1
rple	Bowl	Ivy	W.T. Copeland	Sussman 1979a:1
rple	Cup	Ivy; acorn	W.T. Copeland	Sussman 1979a:1
ɔwn	Pitcher	Honeysuckle	various makers	Sussman 1979a:1 Sussman 1978:11 Hamilton 1985:1:
ıe	Plate	band;lines;flowers	-	-
	Plate?/Saucer?	-	-	-
	Plate	-	-	-

* no maker's mark

Table 58: Ceramic Dinnerware from Locus 6 (DlLg-21:98A)

the Copeland & Garrett firm continued many of the old Spode patterns and "...there is no clear-cut demarcation line between the products of the two". Copeland & Garrett were the first firm to produce what is known as parian ware, that is small porcelain statues that look and feel like marble, in the 1840s. Many other pottery firms followed suit (Cushion1992:306; Godden 1974:177). Copeland & Garrett maintained an affiliation with the Spode name by including the words Late Spode on some of their stamped marks (Sussman 1979a:9).

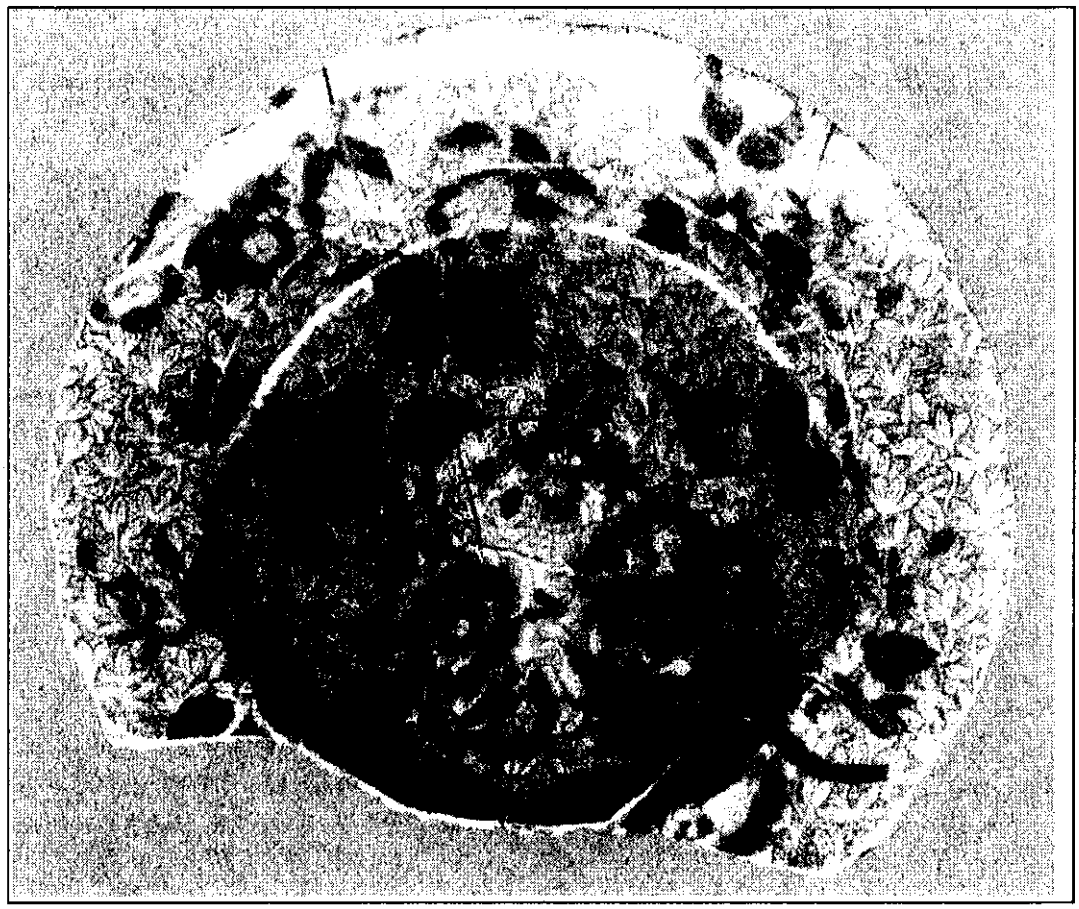
In 1847, Thomas Garrett retired and William Taylor Copeland continued the business under the name W.T. Copeland until 1867. This firm also included the words Late Spode on some of their marks. In 1867, W.T. Copelands four sons came into the partnership and the company became known as W.T. Copeland and Sons (Cushion 1992:234; Godden 1961:49, 1964:171-173, 589-590; Sussman 1979a:9).

This company continued, under the direction of subsequent generations of the Copeland family, well into the 20th century. In 1932 "....the company was incorporated and the Copeland family ceased to be solely responsible for running the business" (Sussman 1979a:9).

Of the twenty-five patterns identified as being made by the various Spode/Copeland firms, only one, DlLg-21:96A/320, is not illustrated in Sussman (1979a). DlLg-21:96A/320 (Plate 21) is a very unique plate. The pattern is quite ornate and it has the Copeland Late Spode mark printed on the back (Figure 12:#320). The pattern name could not be found in any of the references and consultation with ceramic specialists did not result in it being identified. An attempt was also made to see if the present-day factory could be reached via the Internet (the scanned copy could have been sent to them). The authors were unable to achieve this. Further research should be done, perhaps during a thesis, to identify and date this pattern.

All of the other Spode/Copeland patterns are illustrated in Sussman's work on the company (1979a). However, it was felt that a few of these complete or nearly complete specimens should be discussed in further detail here. Where there are several sherds from a piece that could be reconstructed, water soluble glue and masking tape was used to obtain the shape of the piece for measurement and photographic purposes. The tape was removed after analysis was complete. This temporary reconstruction was in no way meant to be permanent as this should be undertaken by the Conservation Department of the Manitoba Museum of Man and Nature, the ultimate repository for these artifacts.

Although a few of the pieces are in different colours—purple-on-white, green-on-white, and in the case of DlLg-21:96A/320, multicoloured—the predominant colour of the sherds was blue-on-white. As Hamilton (1985:6-7) notes, colours did vary, however the most popular colour was Royal Saxon Dark Blue. She states that "this term was used to describe a particular blue that had "flow" qualities and gave the design a "blurred-look", an effect that was popular during the second quarter of the nineteenth century". Accordingly, some photographs of the artifacts may appear blurry and out-of-focus. The best method of examining details of the patterns are in line drawings taken from the original pattern books, e.g., Sussman (1979a).



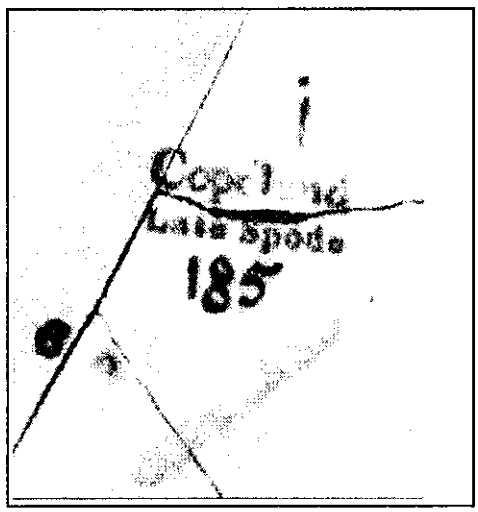


Plate 21: Unidentified Multicoloured Spode Pattern and Maker's Marks (DlLg-21:96A/320)

DlLg-21:96A/319 consists of six blue-on-white sherds which, when fitted together, form a complete water pitcher (including the handle) with only a few chips and nicks on it (Plate 22). It measures approximately 380 mm in height and has the pattern name, B.772, on the base in addition to the Copeland, Late Spode mark (Figure 12:#319) . Sussman (1979a:65) states that this particular pattern seems to have only been known by its number and it was produced by the successive companies of Copeland & Garrett, W.T. Copeland, and W.T. Copeland & Sons. DlLg-21:96A/319 has the Copeland Late Spode mark which indicates that this particular piece was manufactured between the years 1847 to 1867. Hamilton (1985:7) notes that "The most popular of Copeland's patterns, according to the archival records and the excavated examples, were "B700", "B772" and "B798"..." These patterns occurred on a variety of items from dinnerware to barrel jugs to washstand or toilet sets. Toilet sets (or washstand sets) came in a variety of types from utilitarian enamel ware (Ashdown 1909:758) to ornate porcelain (Amory 1969:797-798) and in a variety of pieces which could include any or all of the following: a wash bowl, a wash pitcher, a covered soap dish, a hot water pitcher, a brush vase and mug, a slop jar, and a chamber pot with a lid. DlLg-21:96A/319 could have been the wash pitcher from a washstand or toilet set. Conversely, it could also have been a large milk or water jug from a dinnerware set.

Plate 22: Reconstructed Pitcher (DlLg-21:96A/319)

DlLg-21:96A/318 is seven blue-on-white sherds that can be reconstructed to form a complete 10" soup bowl. The pattern, called Rural Scenes, has a centre scene of a milkmaid milking a cow with other cows milling around outside a thatched-roofed byre (Plate 23). This identical scene is identified in Sussman (1979a:181) with the annotation "10" Soup" printed underneath it. DlLg-21:96A/318 has a registration mark (Figure 12:#318) which denotes that the pattern was registered September 18, 1850.

Two smaller plates, DlLg-21:96A/316 (two sherds) and DlLg-21:96A/317 (four sherds), are also Rural Scene patterns. These pieces are identical in size, 7½", identical in colour, blue-on-white, and have the identical centre pattern of sheep and lambs lying in a field. DlLg-21:96A/317, when reconstructed, is nearly complete missing only a small lip,body sherd, while DlLg-21:96A/316 is missing a large triangular piece of the base, body, and lip. DlLg-21:96A/317 has a complete mark on the base including a registration mark (Figure 12:#317). DlLg-21:96A/316 has only a part of the mark present. This pattern, annotated with the words "7" plate", is illustrated by Sussman (1979a:180). These centre scenes were:

> *derived from watercolours by Edward Duncan and without the border it is called "Duncan Scenes". During the 20th century the pattern, complete with border, was called both "Duncan Scenes" and "Priscilla Alden".* Sussman (1979a:179)

DlLg-21:96A/222 consists of twenty-eight darker blue-on-white sherds. Several of these pieces were glued together to reconstruct a bowl (Plate 24). The pattern on this artifact is Fruit and Flowers and the base has a Copeland & Garrett Late Spode mark (Figure 12:#222). One interesting feature occurs on the border near the lip on the interior surface. A middle portion of one of the components of the repetitive design of the border appears in the middle of another component of the design. Transfer printing, as defined by Hamilton (1985:52), is the process whereby an engraved copper plate is inked and the pattern is transferred onto tissue paper which was then pressed onto the object, either under or over the glaze. This type of decoration was first introduced in the 1750s with "the object of reducing the cost of decoration by hand" (Godden 1966:xix-xx). On DlLg-21:96A/222, the tissue paper either overlapped or inadvertently fell onto this section and created this characteristic. Sussman (1979a:121) states that this pattern was originally called B139 and that the Fruit and Flowers name refers to the border pattern which was registered first in 1882 and then in 1884 under the name May. The pattern has been produced from approximately 1826 into the 20th century.

DlLg-21:96A/311 is nine sherds which make up a complete dish, 6¼" in diameter. This artifact was called a saucer, although it does not have the cup indentation (Plate 25). DlLg-21:96A/312 is a single sherd, which is one-half of either a cup or a bowl (Plate 26). It measures 120.2 mm (4¾") in diameter and has a depth of 66.3 mm (2½"). The colour of these pieces is a very light blue-on-white, in contrast to the darker blue on the B772, Rural Scenes, and Fruit and Flowers dishes. The pattern on DlLg-21:96A/311 and 312 is Broseley. Sussman (1979a:63) notes that this was a popular pattern and is very similar to the Temple pattern, also made by Spode. The Broseley pattern was also manufactured by other firms. However, both DlLg-21:96A/311(Figure 12:#311) and 312 have the Copeland name on the base.

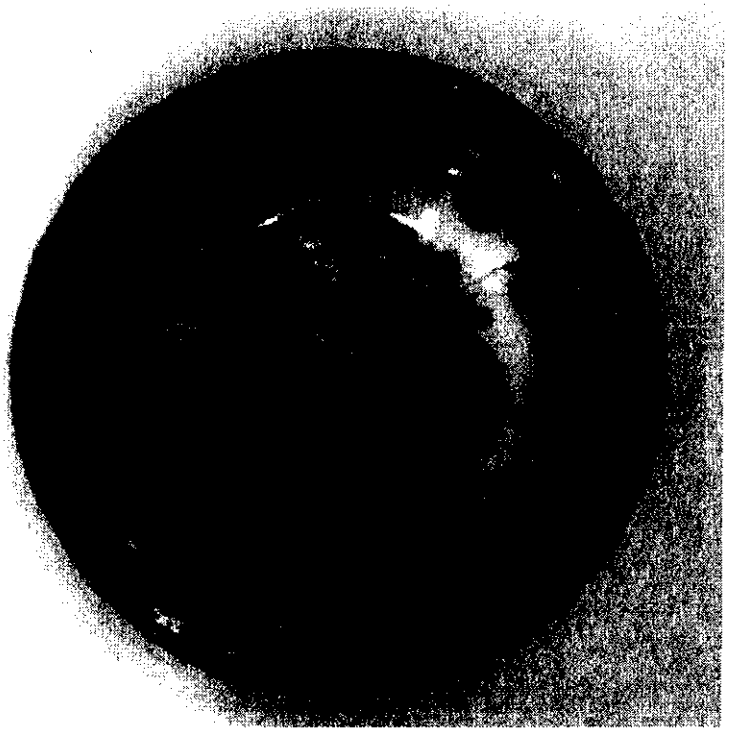


Plate 23: Rural Scenes - 10" Soup Bowl (DlLg-21:96A/318)

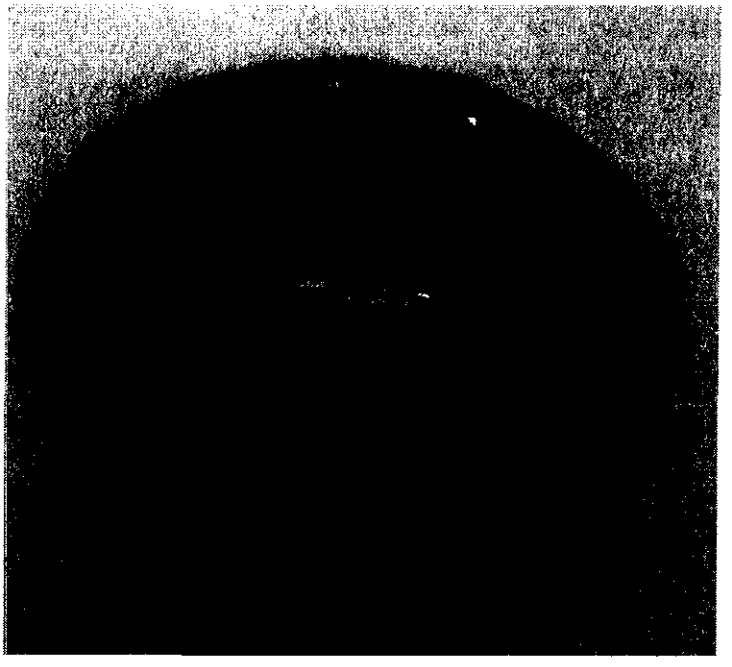


Plate 24: Fruit and Flowers Bowl (DlLg-21:96A/222)

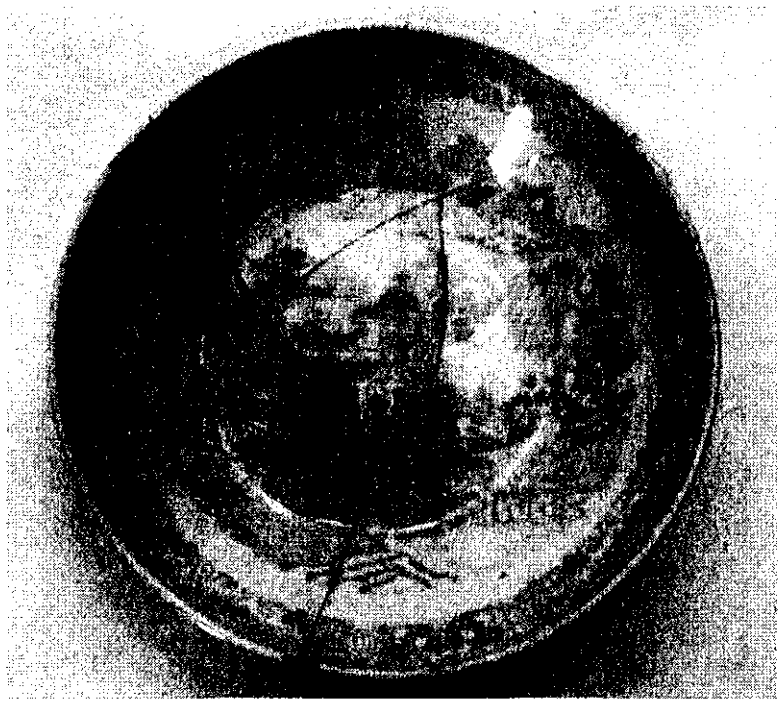


Plate 25: Broseley Saucer (DlLg-21:96A/311)

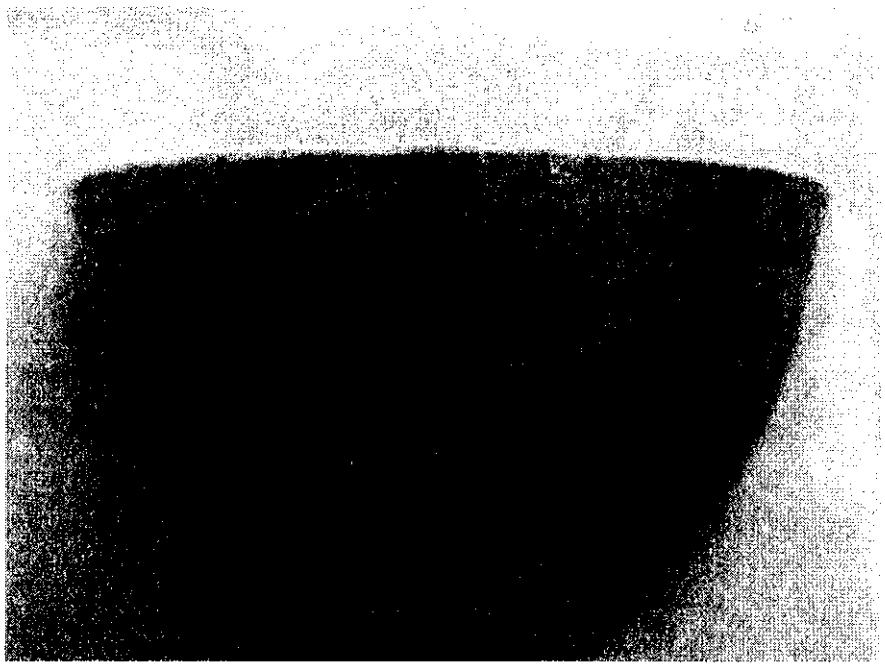


Plate 26: Broseley Bowl (DlLg-21:96A/312)

DlLg-21:96A/312 could be a breakfast cup. Its lip diameter, 120.2 mm, is larger than a present-day coffee mug (86.7 mm) and its basal diameter is 59.3 mm. For comparison, the lip and basal diameters of three tea cups (belonging to the authors) were measured. The smallest was a blue Mikado cup (Royal Crown Derby Porcelain) which has a lip diameter of 78.2 mm and a basal diameter of 55.9 mm. An intermediate-sized cup, the Imperial pattern by Victoria Porcelain Ware (Fenton) Ltd., has a lip diameter of 89.2 mm and a basal diameter of 67.3 mm. The largest specimen measured is a Billingsley Rose patterned cup by Spode/Copeland, with a 20th century mark (Godden 1964:172), which has a lip diameter of 97.3 mm and a basal diameter of 64.7 mm. Hamilton (1982:66) notes that a breakfast cup is

> *A cup that is considerably greater in capacity than a tea cup. The cups sent to York Factory were generally unhandled and of ½ pint or ¾ pint capacity...*

The extant portion of DlLg-21:96A/312 does not have a handle, although the missing portion may have one. Certainly the lip diameter of DlLg-21:96A/312 is larger than all of the comparison cups and the basal diameter is larger than two of them. If it is a cup (or a breakfast cup), it may have been the mate to DlLg-21:96A/311, the possible saucer.

DlLg-21:96A/314 is six sherds which, when reconstructed, form a complete coffee-mug style cup. This cup is different in that it is purple-on-white in colour. The pattern is the Ivy and acorn pattern of W.T. Copeland (Plate 27). Sussman (1979a:135-136) notes that the Ivy pattern was used on plates and a secondary border of an acorn design was used on cups, bowls, and other holloware. DlLg-21:96A/314 has the ivy pattern on the exterior with the acorn pattern on the interior. Unfortunately, this specimen has no maker's mark. However, a plate, DlLg-21:96A/313 (thirteen sherds), with just the purple Ivy pattern does have a portion of an impressed Copeland mark (Figure 12:#313). In addition, DlLg-21:96A/315, three lip,body sherds from another cup also has the purple Ivy and acorn design. This pattern was made from 1845 until post-1865.

7.3.3 The Hudson's Bay Company Connection

The Spode/Copeland company began a long association with the Hudson's Bay Company in 1835, the era of Copeland and Garrett. Even prior to this date, the Hudson's Bay Company was shipping a variety of materials to its Northern Department at York Factory, in northern Manitoba. From York Factory, goods were shipped throughout the west. Hamilton (1985:4-5) states that "...the first ceramic order of notable quantity was shipped to York Factory in 1796" and that many of the ceramic orders were often listed as fine fancy colored ware, blue figured ware, plain white, etc., with the actual pattern seldom being mentioned. The earliest invoice for an order of ceramics from the Hudson's Bay Company to Copeland and Garrett is dated June 15, 1836 (Sussman 1979a:9). The company (throughout its various name changes) continued to supply ceramics to the HBC posts well into the 1870s. At the latter end of this period and into the 20th century, other pottery firms, such as William Boucher and Company, William Fairbairns, and Doulton and Company, as well as the Copeland firm, supplied the Hudson's Bay Company (Sussman 1978:1-2). At the same time, the HBC also began to order ceramics from various jobber companies through Eastern Canada, no longer having ceramics firms shipping orders directly to the Hudson's Bay Company ports of entry, like York Factory.

DlLg-21:96A/307, a cup, is an excellent example of the relationship of the Spode/Copeland company and the Hudson's Bay Company (Plate 28). It consists of five sherds and can be partially reconstructed. The height measures 76.9 mm with a lip diameter of approximately 100.8 mm. A lower portion of the handle is still extant on a body,base sherd. The pattern on this piece is an 8.3 mm wide band of purple beading which runs around the perimeter of the exterior body at the lip, around the perimeter of the interior body at the lip, and vertically up the handle. The base has the following printed on it: "HBC", "Copeland", a registration mark, and "D 255" (Figure 12:#307). The pattern was identified as the Honeycomb pattern (Sussman 1979a:237), which was also known as pattern D 255 (Hamilton 1985:16, 76). The registration mark, that is the date the pattern was registered, is January 3, 1853. In addition to the letters "HBC" on the base, there is a partial Hudson's Bay Company Armorial Badge printed, also in purple, on the side of the cup. The bottom of the badge resembles a belt with a loop at the bottom and a buckle to the left of the loop. The interior of the badge would have had a shield with a ribbon banner below it. All that remains on this specimen is the ribbon banner with the motto "PRO PELLE ...EM". Hamilton (1985:17, 78) notes that this motto was PRO PELLE CUTEM which translates to "we risk our skins to get furs".

DlLg-21:96A/308 consists of two saucer sherds with the same Honeycomb pattern, although neither sherd has any indication of a maker's mark or any trace of the Armorial Badge. This saucer may have been the mate to DlLg-21:96A/307, the cup.

7.3.4 Two Other Ceramic Firms

Of the ten patterns (Table 54) that were not definitely attributable to the Spode/Copeland factories, three, Fibre, Fountain, and Deerstalker, could be assigned to other firms—John Meir & Son and J. & M. P. Bell & Company. These sherds came from Locus 1 (Table 50), Locus 2 (Table 51), and Locus 2A (Table 56). One other pattern, Honeysuckle (from Locus 6), was manufactured by the Spode/Copeland factories but it is also known to be made by another firm.

7.3.4.1 John Meir & Son

John Meir first manufactured pottery at Tunstall from 1812 to 1837, at which time he took his son into the business changing the name of the firm to John Meir & Son (Coysh 1972:48, 50). The initials J. M. & S. or I. M. & S. were used on the blue-patterned pieces. Godden (1964:430) lists these initials as those of the John Meir & Son company of Greengates Pottery, Tunstall, England which was in business from 1837 to 1897. The mark often included the name of the pattern.

Two patterns—Fibre and Fountain—were assigned to this company. DlLg-21:96A/62 consists of two pieces of either a cup or a bowl (from Locus 1). The sherds are both lip,body sherds and are decorated on the interior and the exterior with dendritic tree branches. There was no indication of a maker's mark on either one of these sherds. The same pattern also occurred on sherds in Locus 2A: DlLg-21:96A/302, four body,base sherds from a plate; DlLg-21:96A/303, three body sherds from a bowl or a cup; and DlLg-21:96A/304, one lip,body sherd from a bowl or a cup. A maker's mark

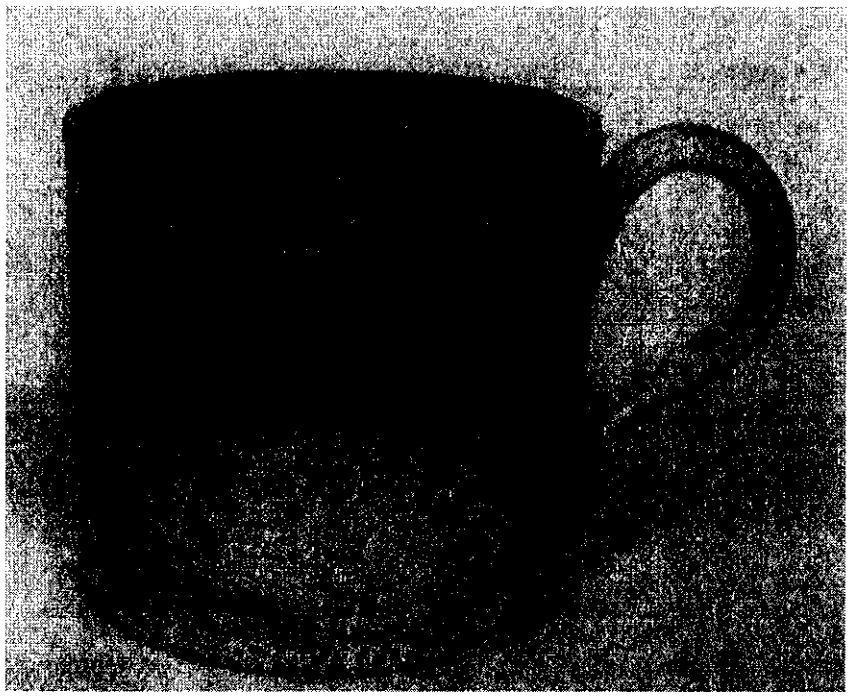


Plate 27: Ivy and Acorn Cup (DlLg-21:96A/314)

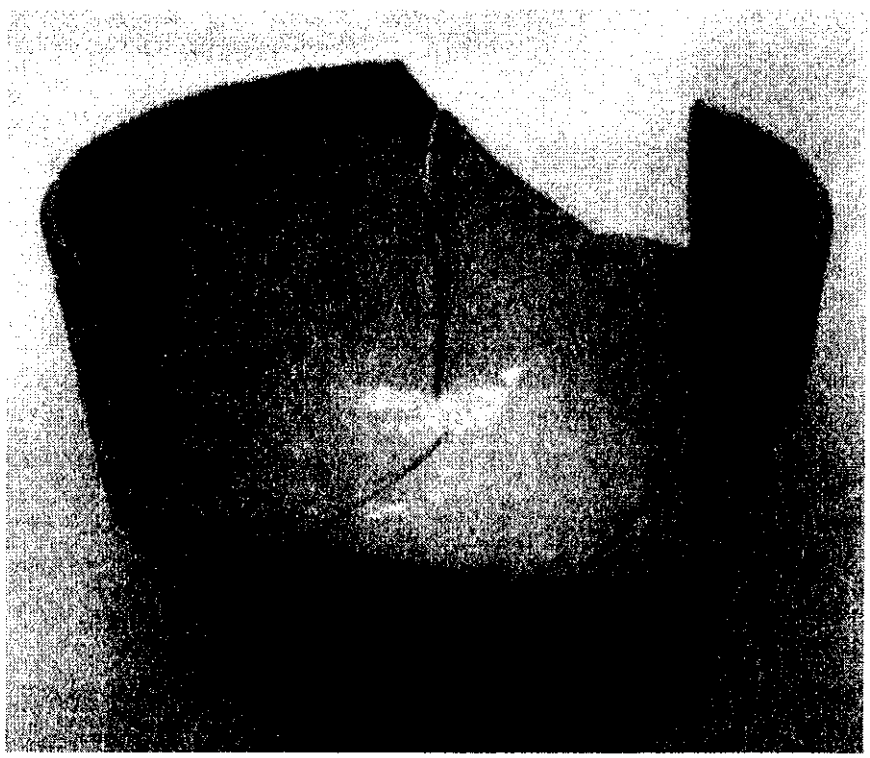


Plate 28: Honeycomb Cup - Hudson's Bay Company (DlLg-21:96A/307)

occurs on the basal sherd in DlLg-21:96A/302 (Figure 12:#302). This mark consists of an oval with identical dendritic tree branches extending out from it. Inside the oval, the pattern name, which looks like "TIBIR", is written in script above the maker's initials "I. M. & S.".

This pattern was described and illustrated in Sussman (1979b:88, 294) as one of the patterns recovered from Lower Fort Garry as well as from various other sites (Sussman 1978:10, 41) excluding Upper Fort Garry. She calls the pattern Fibre and indicates that it was manufactured in numerous variations by many British potters. She also notes that objects in this pattern are dateable to about 1840 to 1870, however, it is uncertain on what she bases this statement. With a definite maker's mark on DlLg-21:96A/302, these pieces have been assigned to the John Meir & Son Company. The registration date of this pattern is unknown at this time, but since the company began in 1837, it had to have been manufactured after that year and since the company existed until 1897, it could possibly have been manufactured up to that year. Upper Fort Garry was built in 1836 and partially destroyed and abandoned in 1883. Therefore, these sherds could only have been brought to this site during the period of 1837 to 1883. Sussman's assessment that this pattern is datable from about 1840 to 1870 could be amended to 1837 for a lower limit and possibly 1883 for an upper limit or 1897 as the final upper limit based on the termination date for the John Meir & Son company.

Seven sherds, six in DlLg-21:96A/300 and one in DlLg-21:96A/301, all from Locus 2A (Table 56) were assigned to the John Meir & Son company. DlLg-21:96A/301, a body,base sherd, has a portion of the design on the interior. DlLg-21:96A/300 could be reconstructed to form nearly half of the bowl (Plate 29). The maker's mark, on the bottom of a large basal sherd, consists of a shield topped with a crown (Figure 12:#300). The pattern name "FOUNTAIN" and the manufacturer's initials "I. M. & S." were written, in script, inside the shield.

7.3.4.2 J. & M. P. Bell & Company

The pottery firm of J. & M. P. Bell & Co. (John and Matthew Bell) was established in 1841 in Glasgow, Scotland. Cushion (1992:316) notes that "...there must be little doubt that the Scottish ceramic factory best known for its production of fine bone china was established...by...John and Matthew Person Bell". This factory produced earthenware, stoneware, and porcelain and was considered as "...equal to most English makers" (Cushion 1992:316). Both brothers had died by 1880, but the firm continued producing pottery until 1910.

One sherd, DlLg-21:96A/93, from Locus 2 (Table 51) and three sherds, DlLg-21:96A/346, from Locus 2A (Table 56) were recovered. The pattern could be identified as Deerstalker (Sussman 1978:9, 37, 38). No maker's marks occurred on any of these four sherds. Although, it is possible that other pottery firms could have produced this pattern, it was assigned to J. & M. P. Bell & Company. Sussman (1978:9) dates examples of this pattern from 1850 to 1870. She based this on a sugar bowl with the Deerstalker pattern and J. & M. P. Bell mark which is located in the collection of the Interpretation Division of National Historic Parks and Sites.

7.3.5 Patterns Without Definite Makers

Of the remaining seven patterns on Table 54, five can be firmly identified to recognized 19th century designs. In many cases these designs were used by two or more companies. Thus, without the presence of a maker's mark, it is impossible to assign the artifact to a specific company and, accordingly, a specific time period. Of the remaining two, one is an unidentified pattern described by Sussman (1978) and the other is an edge decoration which may be pattern-specific or may have been used with several patterns by different companies.

7.3.5.1 Genevese

DlLg-21:96A/342 is the lip,body of a plate. The pattern was identified as Genevese (Sussman 1978:11, 46) and is described by Coysh and Henrywood (1982:151) as "...featuring alpine chalets in a romantic setting". This sherd has the floral and C-scroll outer decorations of the pattern but none of the interior scene. According to Coysh (1972:52) and Coysh and Henrywood (1982:151), Genevese was made by the Minton factory at Stoke during the period of 1830 to 1836. However, the pattern was also made by other pottery companies, such as Thomas & Benjamin Godwin, Edge, Malkin & Co., and one or more of the various Ridgway firms (Coysh and Henrywood 1982:151; Sussman 1978:11, 46). With no maker's mark, it is impossible to say which firm made this piece.

7.3.5.2 Honeysuckle

DlLg-21:98A/5, found only in Locus 6 (Table 58), consists of eleven brown-on-white body sherds from a pitcher (Plate 30). This particular pattern was registered by W.T. Copeland on April 7, 1855 under the name Honeysuckle, although, according to Sussman (1979a:126), it was also called the Empire pattern. This pattern continued to be produced by Copeland until after 1882. In addition, another company, the Wallis Gimson & Co., which was in existence from 1884 to 1890 in Fenton, Staffordshire (Godden 1964:273), also produced an identical pattern. Sussman (1978:12, 47) notes that "there is no way of distinguishing the Copeland pattern from Gimson's other than by the maker's mark". Unfortunately, DlLg-21:98A/5 has no mark and therefore cannot be assigned to either firm. Hamilton (1985:15), writing about the ceramic material recovered from York Factory, notes that the Honeysuckle/Empire pattern was one of the more prevalent patterns found at that site and "not one [of the 169] shards is associated with a manufacturer's mark". Finally, Sussman (1978:12) describes the Honeysuckle pattern as usually being a vivid turquoise colour and very rarely a reddish-brown colour. DlLg-21:98A/5 is the reddish-brown colour.

7.3.5.3 Laconia

DlLg-21:96A/338 consists of eight sherds of a cup—one having a small portion of a handle still extant. An identical pattern, which occurs on the inside and the outside, consists of a small, 4.3 mm wide, band of continuously looping circles just below the lip with a 27.7 mm wide band of vertical rows of chicken feet patterning below that. A thin, solid blue line, which is scalloped on the lower edge, is below the chicken feet pattern and a scalloped line of alternating crosses and circles falls from this blue scalloped line onto the body. This pattern is called Laconia (Hamilton 1985:19, 114).

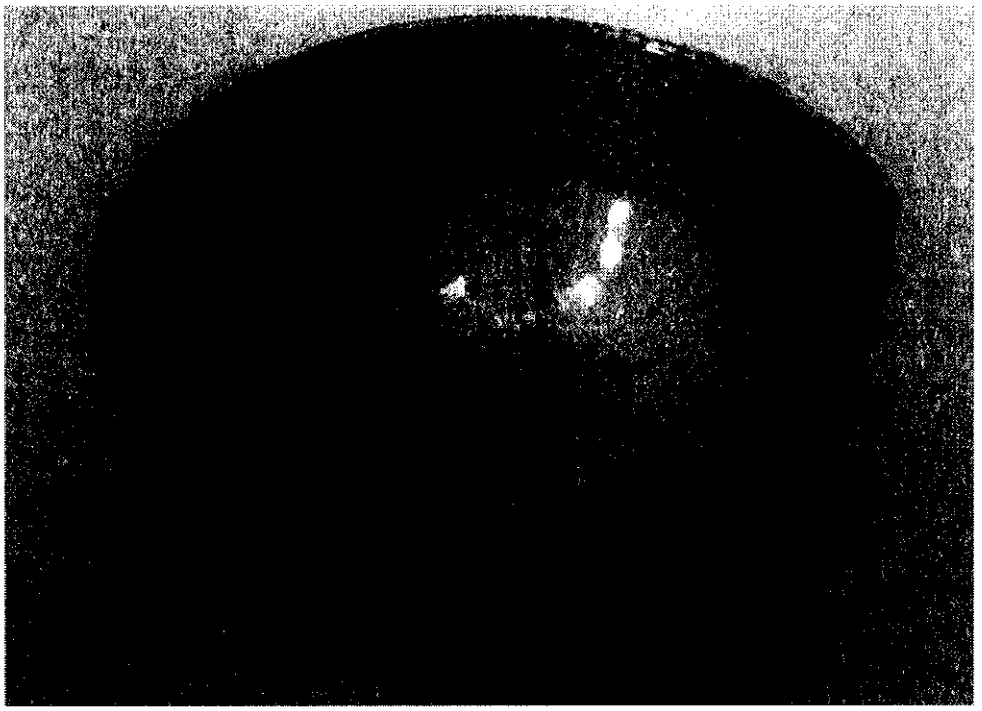


Plate 29: Fountain Bowl (DlLg-21:96A/300)

Plate 30: Honeysuckle Pitcher Sherds (DlLg-21:98A/5)
Examples of Laconia were recovered at York Factory and one of those artifacts had the initials IMUS on it. Hamilton postulates that these could be the initials of the John Meir & Son company, although

she does note that this pattern was also produced by Ridgway, Morley, Wear & Co. (Hamilton 1985:19). Coysh and Henrywood (1982:33, 206) state that this pattern was registered on January 1, 1848 by Barker & Till, a pottery firm in Burslem, Staffordshire. Barker and Till operated from 1846 to 1850. With no mark on DlLg-21:96A/338, it is impossible to assign it to a company, and therefore, a definite time frame.

7.3.5.4 Palmyra

DlLg-21:96A/348 is a small lip,body sherd from either a plate or saucer. The pattern, which consists of the border decoration only, not the internal scene, has been identified as Palmyra (Sussman 1978:13, 52). Sussman notes that this particular pattern was produced by Wood and Brownfield from 1838 to 1850 and then by William Brownfield (& Son) from 1850 until 1891, all from Cobridge, Staffordshire. In addition, an identical pattern with a different name, Ionic, was produced by Clementson and Young of Hanley, Staffordshire. DlLg-21:96A/348 does not have a mark on it so it cannot be assigned to one of these firms.

7.3.5.5 Wild Rose

DlLg-21:96A/97 is a small sherd with a large-petalled flower on the exterior and a figure of a man, possibly in a boat among the reeds, on the interior. This sherd was tentatively assigned to the Wild Rose pattern based on the similarity of the flowers (Sussman 1978:18, 66). The interior pattern of Wild Rose does have figures, in boats on waterways, however, the figure in DlLg-21:96A/97 does not match those on the example illustrated in Sussman. Sussman also notes that this pattern "...was the most popular transfer print produced between 1830 and 1860" and was manufactured by various companies. With no maker's mark, this sherd cannot be assigned to any company.

7.3.5.6 Unidentified No. 7

DlLg-21:96A/365 is a small lip,body sherd from a saucer. This sherd is somewhat unique in that the pattern is a green-on-white colour, whereas the predominant colour of patterns in this assemblage was, of course, blue-on-white. The pattern, which occurs only on the inside of the saucer, resembles a brick wall. Sussman (1978:20-21, 73) calls this pattern Unidentified No.7 and states that it is dateable to about 1835 to 1860. Again, this sherd had no indication of a maker's mark.

7.3.5.7 Edge Decoration - Variety a

DlLg-21:96A/354 is a lip,body sherd from a bowl, possibly an oval serving dish. The decoration on this sherd occurs from the lip down onto the body and consists of a 12.4 mm wide band which contains a series of vertical molded feather-shaped designs. Superimposed over the molding is a blue colouration which is darker near the lip and feathers down and out over the molded design. Sussman (1979b:116, 306) illustrates this pattern as having been recovered at Lower Fort Garry and designates it as Edge Decoration: Variety a. It was not found in any of the other references.

7.4 Other Information Gleaned from the Ceramics

Because seventeen catalogue numbers from the 1996 project and one catalogue number from the 1998 project had sherds with definite maker's marks, it was felt the information gleaned from these marks could be brought together in a table format showing the company responsible for the mark, the dates of the company, the pattern dates, and if present, the dates of a registration mark. In addition, Hamilton (1985:59) lists some known shipping dates for a few of the patterns. Table 59 was designed to pull all of this information together.

The identified maker's marks (Figure 12) represent the Copeland & Garrett and W.T. Copeland phases of the Spode/Copeland factory as well as the John Meir & Son company. The marks are both transfer printed and impressed, with both sometimes appearing on the same vessel. Where two or more specimens had the same mark, or marks, the better specimen was illustrated. Often other factory information occurs on the base of the vessel such as a pattern number or name, a potter's mark, or other unidentifiable symbols or numbers. In the case of DlLg-21:96A/307, the commissioning firm, the Hudson's Bay Company, is also denoted with initials.

The Copeland & Garrett era is represented by one basic design for the manufacturer's mark, albeit with several variations. This design consists of the company name in a circle with a floral or leaf spray at the base. It occurs as a transfer print or an impressed design (DlLg-21:96A/220). In addition to the basic circle, it also occurs surmounted by a crown (DlLg-21:96A/58). This composite design also occurs as an impressed design (DlLg-21:96A/58). The centre of the circle, for the recovered specimens, shows two varieties—one designating the design as "Late Spode" (DlLg-21:96A/220, 222) and the other describing the type of porcelain "New Blanche" (DlLg-21:96A/58). New Blanche was a recognized type of porcelain (the name possibly being an Anglicization of the French word *Blanc*) and was seen by the manufacturers as being distinct from other types of porcelain such as New Fayence or New Japan Stone (Coysh 1972:22).

The latter phases of the company, during the W.T. Copeland (and Sons) era, show the use of varied and multiple marks. Often the pattern name occurs on the specimen (DlLg-21:96A/319, 318, and 307). The company name "Copeland" (in lower case letters) in a straight line occurs as a transfer print by itself (DlLg-21:96A/307, 309, and 311) or with the phrase "Late Spode" (DlLg-21:96A/319, 320, and 317). The company name also occurs as an impressed mark in capital letters: as a straight line on DlLg-21:96A/319 and 320; as a straight line in conjunction with a crown on DlLg-21:96A/318; and as a curved line over a crown on DlLg-21:96A/313. Two specimens had an impressed crown in conjunction with the transfer printed mark (DlLg-21:96A/317 and 311).

The colours of the transfer printed marks usually, but not always, matches the colour used for the design of the vessel. A case in point is the mark on DlLg-21:96A/320 which is a golden brown similar to the background pattern of the design (Plate 21). However, on DlLg-21:96A/319, the design is the Royal Saxon Dark Blue, replicated by the pattern name on the base, but the maker's mark is teal green.

CAT #	PATTERN	MAKER'S MARK	COMPANY DATES	REGISTRATION MARK S	PATTE DATE
1996					
57	Watteau	Copeland & Garrett/W.T. Copeland;17	1833-67	-	←1847-18(
58	Pagoda	Copeland & Garrett;New Blanche	1833-47	-	1838-1872-
60	Camilla	Copeland & Garrett	1833-47	-	1833-prese
220	Camilla	Copeland & Garrett/Late Spode;Fay....	1833-47	-	1833-prese
222	Fruit and Flowers	Copeland & Garrett/Late Spode;111	1833-47	1882	1826-20th (
300	Fountain	John Meir & Son (I.M.&S.)	1837-97	-	?
302	Fibre	John Meir & Son (I.M.&S.)	1837-97	-	1840?-187(
307	Honeycomb	Copeland/HBC/Armorial/D 255	1847-67	January 3, 1853*	1853-1872-
309	Continental Views	Copeland (W.T.)	1847→	October 21, 1845*	1845-1882-
311	Broseley	Copeland (W.T.);14	1847→	-	1818-1847-
312	Broseley	Copeland (W.T.);12	1847→	-	1818-1847-
313	Ivy	Copeland (W.T.);2;S V	1847→	1845	1845-1865-
316	Rural Scenes	Copeland (W.T.);24;14	1847-67	September 19, 1850	1850-20th (
317	Rural Scenes	Copeland/Late Spode;25	1847-67	September 19, 1850*	1850-20th (
318	Rural Scenes	Copeland (W.T.)	1847→	September 19, 1850*	1850-20th (
319	B772	Copeland/Late Spode;B.772;10	1847-67	-	1839-1882-
320	?	Copeland/Late Spode;185;i;647	1847-67	-	?
1998					
1	Watteau	Copeland/Late Spode;18	1847-67	-	←1847-18(

* Registration Mark occurs on artifact, other registration marks from Sussman (1979a)
♦ Shipped, from England, to York Factory (Hamilton 1985:59)

Table 59: Sherds with complete or nearly complete marks from all Loci

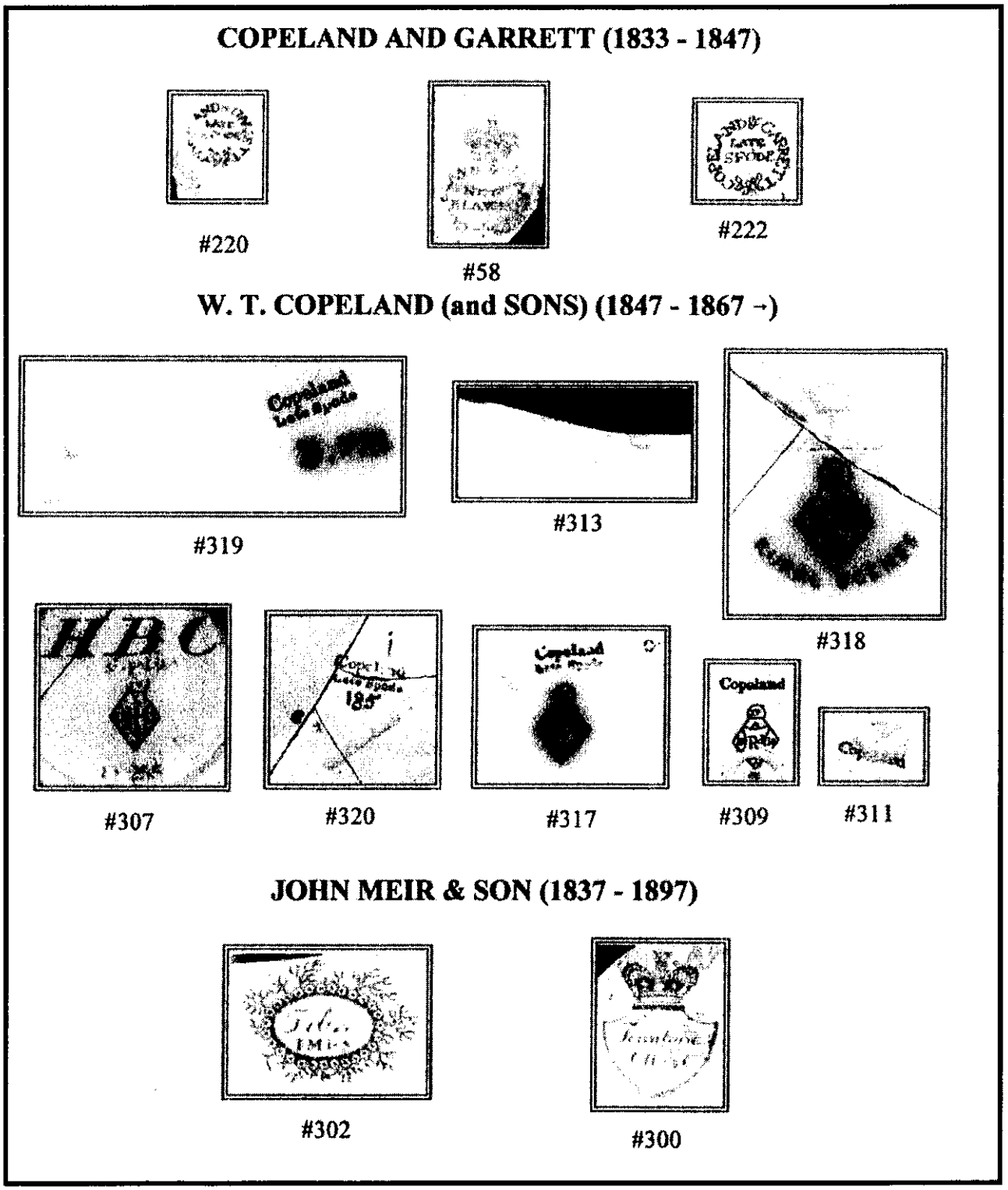
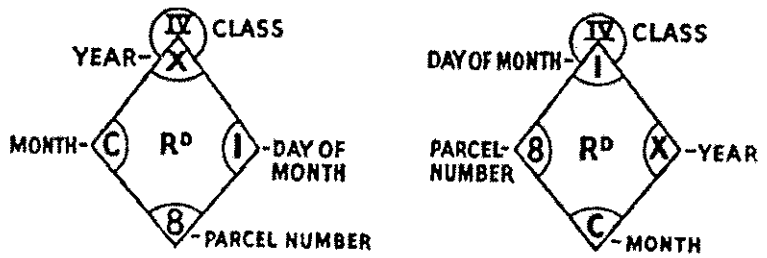


Figure 12: Maker's Marks on Ceramics Recovered from Upper Fort Garry in 1996

Two transfer printed marks used by John Meir & Son are illustrated (Figure 12). In both cases, the company initials I.M.&S. are present along with the pattern name. One mark (DlLg-21:96A/302) is a small-scale representation of the pattern enclosing the company name and pattern name, while the other occurs on a shield surmounted by a crown (DlLg-21:96A/300). As noted earlier, neither mark can be assigned to a specific date.

Although eighteen catalogue numbers have marks on them, only thirteen patterns are represented, the majority of them from the various Spode/Copeland companies. Registration marks occur on only four specimens—DlLg-21:96A/307, 309, 317, and 318. A diamond-shaped registration mark (Figure 13) was used, on ceramics, during the period of 1842 until 1883, with the purpose of registering the design or shape of the pottery to protect against piracy of that design or shape (Godden 1964:526-527). All four registration marks are the first type which was used between 1842 and 1868.



Above are the two patterns of Design Registration Marks that were in current use between the years 1842 and 1883. Keys to "year" and "month" code-letters are below. The left-hand diamond was used during the years 1842 to 1867. A change was made in 1868, when the right-hand diamond was adopted.

INDEX TO YEAR AND MONTH LETTERS

YEARS

1842–67

Year Letter at Top

A =	1845	N =	1864
B =	1858	O =	1862
C =	1844	P =	1851
D =	1852	Q =	1866
E =	1855	R =	1861
F =	1847	S =	1849
G =	1863	T =	1867
H =	1843	U =	1848
I =	1846	V =	1850
J =	1854	W =	1865
K =	1857	X =	1842
L =	1856	Y =	1853
M =	1859	Z =	1860

1868–83

Year Letter at Right

A =	1871	L =	1882
C =	1870	P =	1877
D =	1878	S =	1875
E =	1881	U =	1874
F =	1873	V =	1876
H =	1869	W =	(Mar. 1x6)
I =	1872		1878
J =	1880	X =	1868
K =	1883	Y =	1879

MONTHS (BOTH PERIODS)

A = December	G = February	M = June
B = October	H = April	R = August (and September 1st–19th 1857)
C or O = January	I = July	
D = September	K = November (and December 1860)	W = March
E = May		

Figure 13: Example of Registration Marks (from Godden 1964:527)

The pattern dates usually represent the time frame when the pattern was first begun by the respective pottery company and the final date it was used. None of the patterns had a solid termination date, although Sussman does state that the Fibre pattern could be dated to 1870, however, this may need to be amended due to the presence of a datable mark on DlLg-21:96A/302. In the case of the pattern dates for the Spode/Copeland companies, the pattern may have been started during the era of one specific firm, i.e., Copeland and Garrett, but it was carried on by successive owners/managers of that company, e.g., W.T. Copeland, Copeland & Sons, etc., right up until the present, as is the case with the Camilla pattern and the Watteau pattern.

The column for the shipping dates of some of the patterns provides some interesting information and offers the opportunity for speculation. These dates were taken from Hamilton (1985:59) and while they appear to indicate that a particular pattern was shipped on that date, it may not necessarily be so. As noted earlier, order forms for ceramics may have only asked for fancy fine-coloured pieces, blue figured ware, or plain white ware. Accordingly, a pattern, such as Camilla, which was first produced in 1833, could have been ordered and shipped prior to 1840, described as fancy-blue in the shipping lists. Although with Upper Fort Garry being built in 1836, it may mean that the Camilla pattern could have arrived at this location only as early as 1837. It is possible the pattern was imported to Lower Fort Garry (30 km down stream) as early as 1834 and then transported to Upper Fort Garry when the new fort had been constructed.

The method of getting ceramics to Upper Fort Garry was an involved and often arduous process. After 1835, when the Spode/Copeland company became the main supplier of ceramics to the Hudson's Bay Company outlets, an order would have to be submitted by the clerks at any of the trading posts in North America to the HBC warehouse in London. From the warehouse, the orders were sent out to various suppliers who sent the material back to the warehouse. The orders were packed in casks filled with straw for cushioning and shipped to the North American ports-of-entry for the HBC. Hamilton (1985:5) states that "...the orders [were] written one to two years prior to receipt of the goods...". Once the shipment reached York Factory, as an example, the orders from Upper Fort Garry would have to be transported up river via York boats. Larcombe (1988:48) notes that goods were received at Upper Fort Garry from York Factory until at least the late 1850s, after which time goods began coming in via southern and eastern routes.

The first invoice for goods, from the Spode/Copeland factory, is dated on June 15, 1836. Sussman (1979a:9) presumes that this shipment would have reached North America that same year. Therefore, again, in all probability, because of the opening date of 1836 for Upper Fort Garry, those patterns with early dates did not arrive on site until at least 1837. Some patterns, such as Honeycomb and Rural Scenes, which do have later registration dates would have been present on site starting at a much later time.

The beginning on-site dates in the final column on Table 59 are purely speculative, although the end date is not. The fort was definitely abandoned and partially destroyed in 1883. There would no longer be any necessity for ceramic dishes on the site. With regard to the beginning on-site date the following was done:

- one year was added to the beginning on-site time for all those patterns which have a start date within the time frame of the fort—1836 to 1883, e.g., Pagoda;
- where the pattern was begun before the start date of the fort, at least one year was added to the starting date of the fort, e.g., Camilla;
- where the dates of the existence of the ceramic company start after 1836 a year has been added to the first date of the company for a first on-site date, e.g., Copeland (W.T.); and
- in the case of DlLg-21:96A/302, the Fibre pattern, the dates were tentatively assigned as 1838, a year after the John Meir & Son company began, to 1883, the final year of the fort.

7.5 Comparison with Other Projects from Upper Fort Garry

Finally, it was felt that it would be interesting to compare the patterns found at Upper Fort Garry during this project with the patterns that were identified as being found at Upper Fort Garry in the works of Sussman (1979a), Fifik (1986), and Larcombe (1988). Table 60 lists all of the patterns found during the 1996 and 1998 components of this project and denotes whether these patterns were identified by either Fifik or Larcombe in their respective theses.

With regard to Sussman, her work on Spode/Copeland (1979a) was invaluable in that it not only assisted in identifying the patterns, but it provided the information of the presence or absence of those Spode/Copeland patterns at Upper Fort Garry. Unfortunately, in her work on non-Spode/Copeland patterns (Sussman 1978:22), Upper Fort Garry was not one of the sites that she listed as having those patterns. The closest fort/site that she includes is Lower Fort Garry.

Fifik (1986), while looking predominantly at the fabrics recovered from Upper Fort Garry during the various projects at Bonnycastle Park, did include a chapter on the ceramics for dating purposes. It is thought that Larcombe (1988) may have taken the ceramic pattern list from Fifik's work and used only those ceramic patterns which could definitely be dated. This might explain the discrepancy between Fifik's identification of patterns and Larcombe's pattern list, e.g., Flower Vase and Fibre occur on Fifik's list but not on Larcombe's list.

It is quite exciting to note that there are several patterns within the Spode/Copeland series that appear to be new finds for this site. None of the three authors have them listed as occurring at Upper Fort Garry. These patterns are:

B773	Ivy;acorn
Byron Groups/Views	Pagoda
Fruit and Flowers	Violet
Honeycomb	Unidentifiable (320)

PATTERN NAME (1996, 1998)	SUSSMAN (1978, 1979a)	FIFIK (1986)	LARCOMBE (1988)
Alhambra	yes	yes	yes
B700	yes	yes	yes
B772	yes	yes	yes
B773	no	no	no
British Flowers	yes	yes	yes
Broseley	yes	yes	yes
Byron Groups/Views	no	no	no
Camilla	yes	yes	yes
Continental Views	yes	yes	yes
Flower Vase	yes	yes	no
Fruit and Flowers	no	no	no
Honeycomb	no	no	no
Ionian	yes	yes	yes
Italian	yes	no	no
Ivy	yes	yes	yes
Ivy;acorn	not listed separately	not differentiated	not differentiated
Pagoda	no	no	no
Portland Vase	yes	yes	yes
Ruins	yes	yes	yes
Rural Scenes	yes	yes	yes
Ship Border	no	yes	yes
Violet	no	no	no
Watteau	yes	yes	yes
Willow	no	yes	yes
Unidentifiable (320)	no	no	no
Deerstalker	not one of sites looked at	no	no
Edge decoration - Variety a	not one of sites looked at	no	no
Fibre	not one of sites looked at	yes	no
Fountain	not one of sites looked at	no	no
Genevese	not one of sites looked at	no	no
Honeysuckle	not one of sites looked at	no	no
Laconia	not one of sites looked at	no	no
Palmyra	not one of sites looked at	no	no
Unidentified No.7	not one of sites looked at	no	no
Wild Rose	not one of sites looked at	yes	yes

Table 60: Comparison of 1996 and 1998 Ceramic Patterns with Other Authors

In the non-Spode/Copeland patterns, several were also new finds, although because Sussman did not use Upper Fort Garry in her 1978 report, these patterns may actually have been present. The unique ones are:

Deerstalker
Edge Decoration - Variety a
Fountain
Genevese
Honeysuckle
Laconia
Palmyra
Unidentified No. 7

7.6 Summary

In summary, the recovered ceramics from the 1996 and 1998 components of this project have provided a unique assemblage from which to glean a great deal of information. It is possible that these artifacts will be used in a forthcoming thesis out of the University of Manitoba (B. Brenner, pers.comm.). If not used at this time, it is hoped that a future researcher will take the data presented in this chapter, change it, rework it, and utilize it to further the knowledge of not only the Hudson's Bay Company of Upper Fort Garry, but other historic sites as well.

CAT #	QTY	COLOUR	TYPE	PATTERN	MAKER(S)	REFERENCE	TIMEFRAME
57	1	white;blue	Plate	Watteau	Copeland & Garrett/W.T. Copeland	Sussman 1979a:231	pre-1847-post-1861
58	1	white;blue	Plate	Pagoda	Copeland & Garrett	Sussman 1979a:155	ca. 1838-post-1872
59*	4	white;blue	Plate?/Saucer?	Italian	Copeland & Garrett/W.T. Copeland	Sussman 1979a:134	ca. 1816-present
60	2	white;blue	Plate	Camilla	Copeland & Garrett	Sussman 1979a:83	ca. 1833-present
61*	1	white;blue	Bowl	British Flowers	Copeland & Garrett/W.T. Copeland	Sussman 1979a:61	ca. 1829-1974
63*	1	white;purple	Bowl?/Cup?	Honeycomb	Spode/Copeland	Hamilton 1985:59	1853-post-1872
64*	1	white;blue	Plate?/Saucer?	Alhambra	W.T. Copeland	Sussman 1979a:35	1848-post-1882
65*	1	white;purple	Plate	?British Flowers	Copeland & Garrett/W.T. Copeland	Sussman 1979a:61	ca. 1829-1974
62*	2	white;blue	Bowl?/Cup?	Fibre	John Meir & Son (See Locus 2A)	Sussman 1978:10,41 Godden 1964:430	1840 - 1870 1837 -1897
66*	1	white;blue	Bowl	branches; chevron	-	-	-
67*	1	white;blue	Plate?/Saucer?	cross-hatched	-	-	-
68*	1	white	Bowl?/Cup?	-	-	-	-
87*	1	white	Unidentified	-	-	-	-
	18						

* no maker's mark

Table 50: Ceramic Dinnerware from Locus 1

CAT #	QTY	COLOUR	TYPE	PATTERN	MAKER	REFERENCE	TIMEFRAME
94*	2	white;blue	Cup	Flower Vase	Copeland & Garrett/W.T. Copeland	Sussman 1979a:115	ca. 1828-20th century
93*	1	white;blue	Plate?/Saucer?	Deerstalker	J. & M.P. Bell	Sussman 1978:9,37,38 Godden 1964:66	- 1842-1928
97*	1	white;blue	Plate	? Wild Rose	various makers	Sussman 1978:18,66	1830-1860
95*	1	white	Plate?/Saucer?	-	-	-	-
96*	1	white	Plate	-	-	-	-
98*	1	white;blue	Bowl?/Cup?	? blue background	-	-	-
	7						

* no maker's mark

Table 51: Ceramic Dinnerware from Locus 2

CAT. #	QTY	COLOUR	TYPE	PORTION	COMMENTS
336	10	white	Bowl	lip;body;base	panelled;large
337	11	blue	Saucer	lip;body;base	plain;lighter blue band at lip
368	2	white	Plate	base	-
369	7	white	Bowl?/Cup?	body	blue tinge on one sherd
370	4	white	Plate	body;base	-
371	1	white	Bowl?	lip	-
372	1	white	Bowl?	base	? footed bowl
TOTAL	36				

Table 52: Undecorated, Unmarked Sherds from Locus 2A

CAT. #	QTY	COLOUR	TYPE	PORTION	PATTERN
339	4	white	Saucer	lip;body;base	Greek key;floral
340	1	white;brown	Cup	lip;body;base	floral cartouche;bible;MARY
341	6	multicoloured	Cup	lip;body;base	cameo of Greek woman
343	1	white;blue	Plate	body	man in boat in reeds;...IC
344	1	white;blue	Bowl?/Cup?	body	balustrade;bust on pillar
345	3	white;blue	Plate?/Saucer?	lip;body	bands;checkerboard;strawberry;leaves
349	1	white;blue	Plate	base	flower;leaf
350	1	white;blue	Saucer	body	tower with flag;hill
353	1	white;blue	Plate?/Saucer?	lip;body	band;curlicues;leaves
356	1	white;blue	Plate?/Saucer?	lip;body	twig?
357	1	white;blue	Plate?/Saucer?	body	leaves
358	1	white;blue	Bowl?/Cup?	lip;body	chevrons
359	1	white;blue	Cup	body	branches
360	1	white;blue	Cup	handle	flowers
364	1	white;green	Plate	body	bands
366	1	white;purple	Cup	handle	line of curlicues
367	2	white;purple;copper	Pitcher	lip;body;handle	lustre finish;blobs

TOTAL	28	

Table 53: Decorated, Unmarked Sherds from Locus 2A

CAT #	QTY	COLOUR	TYPE	PATTERN	MAKER(S)	REFERENCE	TIMEFRAME
305*	4	white;blue	bowl	Willow	Spode/Copeland & Garrett/W.T. Copeland	Sussman 1979a:235-236	1780s-20th century
306*	2	white;blue	plate	Willow	Spode/Copeland & Garrett/W.T. Copeland	Sussman 1979a:235-236	1780s-20th century
307	5	white;purple	cup	Honeycomb	Copeland/Hudson's Bay Co.	Hamilton 1985:59	1853-post-1872
308*	2	white;purple	saucer	Honeycomb	Copeland	Hamilton 1985:59	1853-post-1872
309	3	white;purple	breakfast cup	Continental Views	Copeland (W.T.)	Sussman 1979a:100	1845-post-1882
310*	1	white;purple	cup	Continental Views	Copeland & Garrett/W.T. Copeland	Sussman 1979a:92-94	1845-post-1882
311	9	white;blue	saucer	Broseley	Copeland (W.T.)	Sussman 1979a:63	ca. 1818-post-1847
312	1	white;blue	bowl?/cup?	Broseley	Copeland (W.T.)	Sussman 1979a:63	ca. 1818-post-1847
313	13	white;purple	plate	Ivy	Copeland (W.T.)	Sussman 1979a:135	1845-post-1865
314*	6	white;purple	breakfast cup	Ivy; acorn	W.T. Copeland	Sussman 1979a:136	1845-post-1865
315*	3	white;purple	breakfast cup	Ivy; acorn	W.T. Copeland	Sussman 1979a:136	1845-post-1865
316	2	white;blue	plate	Rural Scenes	Copeland (W.T.)	Sussman 1979a:190	1850-20th century
317	4	white;blue	plate	Rural Scenes	Copeland/Late Spode	Sussman 1979a:190	1850-20th century
318	7	white;blue	10" soup bowl	Rural Scenes	Copeland (W.T.)	Sussman 1979a:181	1850-20th century
319	6	white;blue	pitcher	B772	Copeland/Late Spode	Sussman 1979a:66	ca. 1839-post-1882
320	7	multicoloured	plate	? pattern	Copeland/Late Spode	not in references	?
321*	3	white;blue	bowl?/cup?	B700	Copeland & Garrett/W.T. Copeland	Hamilton 1985:59	1838-post-1873
322*	2	white;blue	bowl?	B772	Copeland & Garrett/W.T. Copeland	Sussman 1979a:66	ca. 1839-post-1882
323*	2	white;blue	plate	B773	Copeland & Garrett/W.T. Copeland	Hamilton 1985:59	ca. 1839-post-1871
324*	1	white;blue	saucer	Flower Vase	Copeland & Garrett/W.T. Copeland	Sussman 1979a:115	ca.1828-20th century
325*	3	white;blue	bowl	Camilla	Copeland & Garrett/W.T. Copeland	Sussman 1979a:83	ca. 1833 - present
326*	2	white;blue	bowl?/cup?	Camilla	Copeland & Garrett/W.T. Copeland	Sussman 1979a:83	ca. 1833 - present
327*	2	white;blue	bowl	Ionian	W.T. Copeland	Sussman 1979a:132	1851-20th century
328*	1	white;blue	bowl?	Ruins	W.T. Copeland	Sussman 1979a:168	1848-20th century
329*	1	white;green	saucer	British Flowers	Copeland & Garrett/W.T. Copeland	Sussman 1979a:61	ca. 1829-1974
330*	1	white;purple	plate	British Flowers	Copeland & Garrett/W.T. Copeland	Sussman 1979a:61	ca. 1829-1974
331*	1	white;blue	cup	Ship Border	Spode	Sussman 1979a:213	ca. 1820-1910
332*	1	white;blue	plate	Byron Groups/Views	Copeland & Garrett	Sussman 1979a:68	post-1833 - 1868?
333*	1	white;green	pitcher	Byron Groups/Views	Copeland & Garrett	Sussman 1979a:68	post-1833 - 1868?
334*	1	white;purple	plate	Violet	W.T. Copeland	Sussman 1979a:226	pre-1867-20th century
335*	2	white;blue	bowl?/cup?	Italian	Copeland & Garrett/W.T. Copeland	Sussman 1979a:134	ca. 1816 - present
347*	2	white;blue	bowl?/cup?	B700	Copeland & Garrett/W.T. Copeland	Hamilton 1985:59	1838-post-1873
351*	1	white;blue	plate?/saucer?	Watteau	Copeland & Garrett/W.T. Copeland	Sussman 1979a:231	pre-1847-post-1861
352*	1	white;blue	plate	Italian	Copeland & Garrett/W.T. Copeland	Sussman 1979a:134	ca. 1816 - present
355*	1	white;blue	plate?/saucer?	B772	Copeland & Garrett/W.T. Copeland	Sussman 1979a:65	ca. 1839-post-1882
361*	1	white;blue	Tureen handle	Byron Groups/Views?	Copeland & Garrett	Coysh & Henrywood 1982:65	post-1833 - 1868?
362*	1	white;blue	plate	Rural Scenes	W.T. Copeland	Sussman 1979a:179	1850-20th century
363*	1	white;blue	plate?/saucer?	Rural Scenes	W.T..Copeland	Sussman 1979a:179	1850-20th century

	107						

* no maker's mark

Table 55: Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER	REFERENCES	TIMEFRAME
300	6	white;blue	bowl	Fountain	John Meir & Son	Godden 1964:430	1837-1897
301*	1	white;blue	bowl	Fountain	John Meir & Son	Godden 1964:430	1837-1897
302	4	white;blue	plate	Fibre	John Meir & Son	Sussman 1978:10,41	1840-1870
						Godden 1964:430	1837-1897
303*	3	white;blue	bowl?/cup?	Fibre	John Meir & Son	Sussman 1978:10,41	1840-1870
						Godden 1964:430	1837-1897
304*	1	white;blue	bowl?/cup?	Fibre	John Meir & Son	Sussman 1978:10,41	1840-1870
						Godden 1964:430	1837-1897
346*	3	white;blue	saucer	Deerstalker	J. & M.P. Bell	Sussman 1978:9,37,38	-
						Godden 1964:66	1842-1928
338*	8	white;blue	cup	Laconia	various makers	Hamilton 1985:64, 114	1837-1897
						Coysh & Henrywood 1982:33	1848-?
342*	1	white;blue	plate	Genevese	various makers	Sussman 1978:11, 46	1830-1850
348*	1	white;blue	plate?/saucer?	Palmyra	various makers	Sussman 1978:13, 52	1838-1891
354*	1	white;blue	bowl?	Edge decoration - Variety a	unknown maker	Sussman 1979b:116, 306	-
365*	1	white;green	saucer	Unidentified No. 7	? maker	Sussman 1978:20, 73	1835-1860
TOTAL	30						

* no maker's mark

Table 56: Non-Spode/Copeland Patterns on Ceramic Dinnerware from Locus 2A

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER	REFERENCE	TIMEFRAME
218*	3	white;blue	Plate	Willow	Spode/Copeland & Garrett/ W.T. Copeland	Sussman 1979a:235-236	1780s-20th century
219*	1	white;blue	Saucer	Portland Vase	Copeland & Garrett	Hamilton 1985:59	1831-post-1852
220	9	white;blue	Plate	Camilla	Copeland & Garrett/Late Spode	Sussman 1979a:83	ca. 1833 - present
221*	3	white;blue	Saucer	Italian	Copeland & Garrett/W.T. Copeland	Sussman 1979a:134	ca. 1816 - present
222	28	white;blue	Bowl	Fruit and Flowers	Copeland & Garrett/Late Spode	Sussman 1979a:226	ca.1826-20th century

	44	

* no maker's mark

Table 57: Ceramic Dinnerware from Locus 4

CAT #	PATTERN	MAKER'S MARK	COMPANY DATES	REGISTRATION MARK S	PATTERN DATES	SHIPPING DATES♦	ON - SITE DATES
1996							
57	Watteau	Copeland & Garrett/W.T. Copeland;17	1833-67	-	←1847-1861→	-	1848-1883
58	Pagoda	Copeland & Garrett;New Blanche	1833-47	-	1838-1872→	-	1839-1883
60	Camilla	Copeland & Garrett	1833-47	-	1833-present	1840	1837-1883
220	Camilla	Copeland & Garrett/Late Spode;Fay....	1833-47	-	1833-present	1840	1837-1883
222	Fruit and Flowers	Copeland & Garrett/Late Spode;111	1833-47	1882	1826-20th C.	1839, 1840	1837-1883
300	Fountain	John Meir & Son (I.M.&S.)	1837-97	-	?	-	1838-1883
302	Fibre	John Meir & Son (I.M.&S.)	1837-97	-	1840?-1870?	1859	1838?-1883
307	Honeycomb	Copeland/HBC/Armorial/D 255	1847-67	January 3, 1853*	1853-1872→	1868-69, 1871-72	1854-1883
309	Continental Views	Copeland (W.T.)	1847→	October 21, 1845*	1845-1882→	-	1848-1883
311	Broseley	Copeland (W.T.);14	1847→	-	1818-1847→	-	1848-1883
312	Broseley	Copeland (W.T.);12	1847→	-	1818-1847→	-	1848-1883
313	Ivy	Copeland (W.T.);2;S V	1847→	1845	1845-1865→	-	1848-1883
316	Rural Scenes	Copeland (W.T.);24;14	1847-67	September 19, 1850	1850-20th C.	-	1851-1883
317	Rural Scenes	Copeland/Late Spode;25	1847-67	September 19, 1850*	1850-20th C.	-	1851-1883
318	Rural Scenes	Copeland (W.T.)	1847→	September 19, 1850*	1850-20th C.	-	1851-1883
319	B772	Copeland/Late Spode;B.772;10	1847-67	-	1839-1882→	1858, 1860-61, 1863-72	1848-1883
320	?	Copeland/Late Spode;185;i;647	1847-67	-	?	-	1848-1883
1998							
1	Watteau	Copeland/Late Spode;18	1847-67	-	←1847-1861→	-	1848-1883

* Registration Mark occurs on artifact, other registration marks from Sussman (1979a)

♦ Shipped, from England, to York Factory (Hamilton 1985:59)

Table 59: Sherds with complete or nearly complete marks from all Loci

CAT. #	QTY	COLOUR	TYPE	PATTERN	MAKER	REFERENCES	TIMEFRAME
1	1	white;blue	Plate	Watteau	Copeland/Late Spode	Sussman 1979a:231	pre1847-post-1861
2*	4	white;purple	Bowl	Continental Views	Copeland (W.T.)	Sussman 1979a:100	1845-post-1882
3*	1	white;purple	Bowl	Ivy	W.T. Copeland	Sussman 1979a:135	1845-post-1865
4*	3	white;purple	Cup	Ivy; acorn	W.T. Copeland	Sussman 1979a:136	1845-post-1865
5*	11	white;brown	Pitcher	Honeysuckle	various makers	Sussman 1979a:126 Sussman 1978:11-12 Hamilton 1985:15,108	1855-1890+
6*	1	white;blue	Plate	band;lines;flowers	-	-	-
7*	1	white	Plate?/Saucer?	-	-	-	-
8*	1	white	Plate	-	-	-	-
TOTAL	23						

* no maker's mark

Table 58: Ceramic Dinnerware from Locus 6 (DlLg-21:98A)

8.0 SUMMARY AND RECOMMENDATIONS

This project has shown the immense value of archaeological involvement in major development projects. As the archaeological team had been involved with the project prior to the onset of construction, the engineers and contractors have been aware of potential impacts upon heritage resources. Concomitantly, the archaeologists are aware of the depth and extent of sub-surface operations. With this advance awareness, plans for mitigative and/or remedial action can be formulated prior to any encounter with buried resources. Thus, the time schedule for the project is not deleteriously affected when the construction operations are in the vicinity of known or suspected heritage resources.

8.1 Summary

The project involved the construction of road linkages between the new Main Street and Norwood bridges and the existing road system in 1996. This, plus the rebuilding of the existing roadways connecting the rebuilt original bridges in 1998, involved extensive sub-surface excavations. The entire length of Main Street between York Avenue and the north bank of the Assiniboine River was excavated, as was the dual right-of-way across South Point and the new and rebuilt sections of St. Mary's Road (Figure 1).

The operations on St. Mary's Road encountered minimal heritage resources—primarily structural remnants of a warehouse deriving from turn-of-the-century lumber activities. The operations on South Point, especially the excavations for the new roadway, resulted in the retrieval of 342 artifacts post-dating the construction of the Main Line track which was built in 1911. These artifacts, due to their secondary depositional context, could not be associated directly with the individuals who used them. However, as a composite assemblage in conjunction with previous recoveries of the same time period through other projects in the area (Quaternary 1990, 1994b, 1995, 1996a, 1996b, 1996c, 1996d, 1998), they do add to the overall picture of the commercial activities taking place throughout Winnipeg during the early and middle 20th century.

During the archaeological monitoring of the excavations on Main Street, 244 artifacts from the Industrial Period were recovered from the upper levels. The lower portion of the excavation extended below the prior impact and produced a considerable body of data concerning the structural components of Upper Fort Garry (1836-1883). The footings of the north, east and south walls, the northeast bastion, and several internal buildings were observed and accurately surveyed (Figure 5). This information enabled more comprehensive interpretation of building siting and construction than had been possible from the sometimes scanty archival sources (Chapter 5). In conjunction with Monks' (1982, 1983, 1984) investigations and Loewen and Monks' (1986) research, the new locational data will prove invaluable for future researchers wishing to excavate portions of Upper Fort Garry. The recovery of 11,571 artifacts dating to the occupation of the fort produced insights into some of the activities which had taken place (Chapter 6). A large number of ceramics artifacts were recovered which allowed further elucidation of the trading practices of the Hudson's Bay Company

and their linkage with British pottery firms (Chapter 7). In summary, the quantity and quality of the archaeological data recovered during this project is such that considerable further academic research can be generated.

An additional bonus occurred in 1996 when the contractor provided a three day opportunity for the public to view this important facet of Manitoba history. The structural remnants of the 1836 north wall, the northeast bastion, and the north portion of the east wall were left exposed. After reports on numerous news sources (radio, TV, and newsprint), hundreds of Winnipeggers and tourists took advantage of the opportunity to become re-connected with their past.

8.2 Recommendations

Given the standard of construction, it is unlikely that refurbishment of the new roadways will occur within the next several decades. Thus, the resources, left in place beneath the roads, will be protected and preserved until a major reconstruction of the streets is required.

Two locations are of primary archaeological importance—Feature 6 and Locus 4 (Figure 5). The remainder of the archaeological resources that were not in danger of impact at these two locations were left *in situ* and remain intact under the new roadbed. No sub-surface services are present in the vicinity of Feature 6 and an MTS ductline runs adjacent to Locus 4. It is unlikely that any localized excavations will be required in the foreseeable future at either of these two locations. However, **it is recommended** that these two locations be red-flagged and notice of the necessity for remedial heritage resource mitigation be provided to any and all utilities and city departments that may have occasion to excavate in the vicinity of these locations. A preliminary list would include Streets and Transportation, Property and Development Services, Public Works, Waste & Water, Winnipeg Hydro, and MTS. This notification should probably be promulgated as an official notice from the Impact Assessment Officer, Historic Resources Branch, Manitoba Culture, Heritage and Citizenship.

While outside of the limits of the excavations for this project, significant heritage resources pertaining to Upper Fort Garry may be located under portions of Bonnycastle Park and the parking lot at 100 Main Street. Additionally, pre-European heritage resources were present at the Bonnycastle outflow control units (Quaternary 1996d:20-30). **It is recommended** that any sub-surface work in either of these locations be undertaken under the provisions of a Heritage Permit and that an archaeologist be engaged to monitor all excavations.

At the conclusion of this project, all of the recovered artifacts were deposited with the Manitoba Museum of Man and Nature. It is hoped that some of the artifacts will be included in forthcoming exhibits.

It is also hoped that the entire collection, in conjunction with previously excavated resources (Monks 1982, 1983, 1984) and specimens from the Hudson's Bay Company collection, will be used for future research on the artifacts and their roles in peoples lives during the latter part of the Fur Trade period in Manitoba.

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APPENDIX A

HERITAGE PERMITS

The Heritage Resources Act (Subsection 14(2) and Sections 52 and 53)

Manitoba
Culture, Heritage
and Citizenship

Heritage Permit No. A8-96

FORM 11

PURSUANT to Section/~~Subsection~~ 53 of *The Heritage Resources Act:*

Name: Quaternary Consultants Ltd.
Address: 130 Fort Street
Winnipeg MB R3C 1C7

ATTENTION Mr. Sid Kroker

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

conduct a heritage resource impact assessment in the area of the new northbound section of Main Street connecting the new Main and Norwood bridges to existing streets, to record the presence or absence of heritage resources, and to mitigate if necessary.

during the period:

May 6 to September 30, 1996

This permit is issued subject to the following conditions:

(1) That the information provided in the application for this permit dated the 1st day of May 1996, is true in substance and in fact;

(2) That the Permittee shall comply with all the provisions of *The Heritage Resources Act* and any regulations or orders thereunder; PLEASE NOTE ATTACHMENT RE CUSTODY AND OWNERSHIP OF HERITAGE OBJECTS

(3) That the Permittee shall provide to the Minister a written report or reports with respect to the Permittee's activities pursuant to this permit, the form and content of which shall be satisfactory to the Minister and which shall be provided on the following dates:

December 31, 1996

(4) That this permit is not transferable;

(5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;

(6) Special Conditions:

a. All surface collections, excavations, etc. are to be carried out using the provenience system established for use at The Forks;
b. All heritage objects (artifacts) recovered are to be catalogued according to the CHIN system with the relevant Borden designations will be DlLg-32/96A; DlLg-33/96A; or DlLg-71, as appropriate;
c. All heritage objects from The Forks are to be deposited with the Manitoba Museum of Man and Nature by March 31, 1997, for permanent curation and storage, unless appropriate loan requirements are arranged with the Curator of Archaeology prior to that date;
d. A complete set of archaeological field records, catalogue sheets, laboratory analysis records, photographs, reports, etc. are to be deposited with the Manitoba Museum of Man and Nature upon completion of the archaeological research, or sooner if required; and any subsequent revisions or additions to these records are to be filed as soon as possible thereafter;
e. All computer systems and programs employed in archaeological research should be compatible with the computer system established for The Forks;
f. Appropriate arrangements and funds should be made available for the conservation of perishable heritage objects collected from these sites;
g. In the event that any human remains are encountered during the excavations, all activity in that particular locus will cease immediately, and the Historic Resources Branch notified immediately so that appropriate action can be determined and taken;
h. The Permittee will be on-site supervising all aspects of the field work;
i. The Permittee shall be responsible for the conduct of the laboratory analysis of recovered heritage objects and information to be included in the permit report;
j. The report identified in #3 above shall conform at a minimum to "The Contents and Format of a Heritage Resource Impact Assessment" (copy attached);
k. Neither the Government of Manitoba nor the party issuing this permit be liable for any damages resulting from any activities carried out pursuant to this permit, and the Permittee specifically agrees, in consideration for receiving this permit, to indemnify and hold harmless the Minister and the Government of Manitoba, the Minister and any employees and officials of the Government, against any and all action, liens, demands, loss, liability, cost, damage and expense including, without limitation, reasonable legal fees, which the Government, Minister or any employee or official of the Government may suffer or incur by reason of any of the activities pursuant to or related to this permit.

8280h

The Heritage Resources Act (Subsection 14(2) and Sections 52 and 53)

Manitoba
Culture, Heritage
And Citizenship

Heritage Permit No. A24-98

Pursuant to Section/Subsection 53 of *The Heritage Resources Act*:

Name: Quaternary Consultants Ltd.
Address: 130 Fort Street
Winnipeg MB R3C 1C7

ATTENTION: Mr. Sid Kroker

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

monitor excavation activities relating to the reconstruction of roads leading to the rebuilt southbound bridges over the Assiniboine and Red rivers, to record the presence or absence of heritage resources, record stratigraphy, with retrieval of archaeological resources, if present, and to mitigate if necessary.

during the period:

May 13 to May 25, 1998

This permit is issued subject to the following conditions:

(1) That the information provided in the application for this permit dated the 13th day of May 1998, is true in substance and in fact;

(2) That the permittee shall comply with all the provisions of *The Heritage Resources Act* and any regulations or orders thereunder; **Please note attachment re custody and ownership of heritage objects**

(3) That the Permittee shall provide to the Minister a written report or reports with respect to the Permittee's activities pursuant to this permit, the form and content of which shall be satisfactory to the Minister and which shall be provided on the following dates:
March 31, 1999

(4) That this permit is not transferable;

(5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;

(6) Special Conditions:

a. All surface collections, excavations, etc. are to be carried out using the provenience system established for use at The Forks;
b. All heritage objects (artifacts) recovered are to be catalogued according to the CHIN system with the relevant Borden designations; DlLg-21/98A; or as appropriate;
c. All heritage objects from The Forks are to be deposited with the Manitoba Museum by March 31, 1999 for permanent curation and storage, unless appropriate loan requirements are arranged with the Curatory of Archaeology prior to that date;
d. A complete set of archaeological field records, catalogue sheets, laboratory analysis records, photographs, reports, etc. are to be deposited with the Manitoba Museum of Man and Nature upon completion of the archaeological research, or sooner if required; and any subsequent revisions or additions to these records are to be filed as soon as possible thereafter;
e. All computer systems and programs employed in archaeological research should be compatible with the computer system established for The Forks;
f. Appropriate arrangements and funds should be made available for the conservation of perishable heritage objects collected from these sites;
g. In the event that any human remains are encountered during the excavations, all activity in that particular locus will cease immediately, and the Historic Resources Branch notified immediately so that appropriate action can be determined and taken;
h. The Permittee will be on-site supervising all aspects of the field work;
i. The Permittee shall be responsible for the conduct of the laboratory analysis of recovered heritage objects and information to be included in the permit report;
j. The report identified in #3 above shall conform at a minimum to "The Contents and Format of a Heritage Resource Impact Assessment";
k. Neither the Government of Manitoba nor the party issuing this permit be liable for any damages resulting from any activities carried out pursuant to this permit, and the Permittee specifically agrees, in consideration for receiving this permit, to indemnify and hold harmless the Minister and the Government of Manitoba, the Minister and any employees and officials of the Government, against any and all action, liens, demands, loss, liability, cost, damage and expense including, without limitation, reasonable legal fees, which the Government, Minister or any employee or official of the Government may suffer or incur by reason of any of the activities pursuant to or related to this permit.

Dated at the City of Winnipeg, in Manitoba, this 13th day of May 1998

Minister of Culture, Heritage and Citizenship

APPENDIX B

DENDROCHRONOLOGICAL DATING OF WOODEN STRUCTURES UNEARTHED ON MAIN STREET IN 1996

by

ERIK NIELSEN

DENDROCHRONOLOGICAL DATING OF WOODEN STRUCTURES UNEARTHED ON MAIN STREET IN 1996

by
Erik Nielsen

Introduction

In the spring and fall of 1996, numerous logs and planks were unearthed under Main Street at the site of Upper Fort Garry during street reconstruction and road maintenance. In the spring, a single log was removed from a wooden platform thought to be part of a powder magazine which is known to have stood at, or close to, this site. In the fall, a single log was removed from an underground wooden crib which may have been a privy. In addition to the two logs, eight planks thought to be part of the catwalk located along the inside of the walls of the fort were also collected for dendrochronological analysis. The ten samples were submitted for wood identification and tree-ring dating in the hope that it would help clarify the age and purpose of the different structures. This report summarises the results of preliminary wood identification and tree-ring analysis on the ten samples.

Description

The two logs, referred to as the "Powder Magazine log" (Main St. 97-1) and the "Privy log" (Main St. 97-2), are both oak. Two of the "Catwalk planks" (96-1 and 96-2) are oak, whereas the other six are conifers, most likely spruce. As I have presently few dendrochronological reference samples for spruce for cross dating for south central Manitoba and because the samples contain relatively few rings (32-48 rings), these samples were not measured.

The Powder Magazine log (DlLg-21:96A/1), with 168 rings, measures 22.0 cm in diameter and was hewn flat on one side. The last or outer of the 168 rings was punky and slightly deformed and consequently was not measured. The outer surface is smooth and even, indicating the ring sequence terminates at the bark.

The Privy log (DlLg-21:96A/773) has only 63 rings and measures 15.5 cm in diameter. The last ring inside the bark is only partly formed indicating the tree was cut in the summer after the earlywood had formed. There are no traces of urine in the large, open earlywood cells or any smell that might suggest the log was part of a privy as was the case with samples from the Bonnycastle Park privy examined previously. Logs from the top of the Bonnycastle Park privy contained relatively little urine and did not smell as strong as the logs from lower down in the crib. The absence of urine and a strong smell may therefore not be conclusive evidence that the log was not part of a privy. Additional

logs from further down in the crib would have to be examined before it could be conclusively determined that the structure was a privy.

Catwalk sample 96-1 (DlLg-21:96A/2), with 72 rings, is roughly rectangular in cross section and measures 8.4x3.5 cm. Catwalk sample 96-2 (DlLg-21:96A/736), with 97 rings, is similar to Catwalk sample 96-1 and measures 8.8x3.2 cm. Both samples have been sawn into boards though of slightly different thicknesses. Neither sample shows evidence of bark. Tree ring dating can therefore only give a minimum date for the cutting of the tree(s).

Condition

The samples are all in surprisingly good condition. They show some recent splintering on the ends which may be attributed to excavation by heavy equipment.

The Powder Magazine and Privy logs show significant brown rot and checking on the outside of a great deal of their area but there are sufficiently large parts that are relatively unaffected and suitable for tree-ring analysis. There is some black discolouration in the outer one cm of the Powder Magazine log, as well as some rot in the sapwood. Otherwise, both logs are solid and a deep brown colour, similar to other nineteenth century oak logs from the Winnipeg area.

The Catwalk boards are for the most part sound throughout and show only minor evidence of degrading. The oak and spruce boards were all coated with a bluish, paint like substance which may have been a wood preservative. A small amount of the blue paint was scraped off and submitted for atomic absorption analysis to test the possibility that it might be blue vitriol (copper sulphate) but there was no indication of elevated copper levels. The two oak Catwalk boards are black in colour, even in cross section, indicating the wood has been in contact with iron. As this is not a common natural condition in buried archaeological oak samples from the Winnipeg area, it is possibly due to the same wood preservative which is so evident in the spruce boards. Two to four thousand year old subfossil oak logs from the Assiniboine River, west of Winnipeg, are occasionally black indicating the colour of the Catwalk logs may be due to natural ground water alteration, but this is considered unlikely.

Methodology

The ten samples were sanded and polished according to standard techniques (Nielsen *et al.* 1995). Ring widths were measured along two radii on each of the two oak Catwalk samples and along three radii for the Powder Magazine and Privy logs. The results of the measurements were averaged for each sample and the results plotted on graph paper for visual comparison with a dated oak curve. A dated oak log from Fort Dufferin, spanning the interval from 1727 to 1873, was used to the cross date the Main Street samples.

Results

The tree-ring curves for the four oak samples from Main Street and the Fort Dufferin reference curve, anchored in 1873, are shown in Figure 1.

The Privy log (Main St. 96-2) is easily cross dated with the Fort Dufferin log. Major points of correlation include the years 1794, 1797, 1798, 1799, 1800, 1808, 1810, 1816, 1819, 1826, and 1831. This cross dating indicates the Privy log was cut in the summer of 1839.

The two Catwalk samples have similar tree ring patterns indicating the two planks were cut from the same tree. The two boards are easily cross dated with the Privy log, having event years 1794, 1797, 1798, 1799, 1808, 1819, and 1826 in common. Catwalk board 96-1 was cut some time after 1850 and Catwalk board 96-2 was cut after 1839. As both boards come from the same tree, the minimum date for cutting is 1850. This is considered a minimum date as there is no bark associated with these samples.

The Powder Magazine log (Main St. 96-1) may be cross dated with Catwalk board 96-2. They have event years 1745, 1748, 1778, 1781, 1786, 1787, 1788, 1789, 1806, 1807, 1817, and 1827 in common. The last measured ring in the Powder Magazine log is 1887. As there is one additional rotten ring, this indicates the tree was cut after the 1888 growing season but before the 1889 season began.

References

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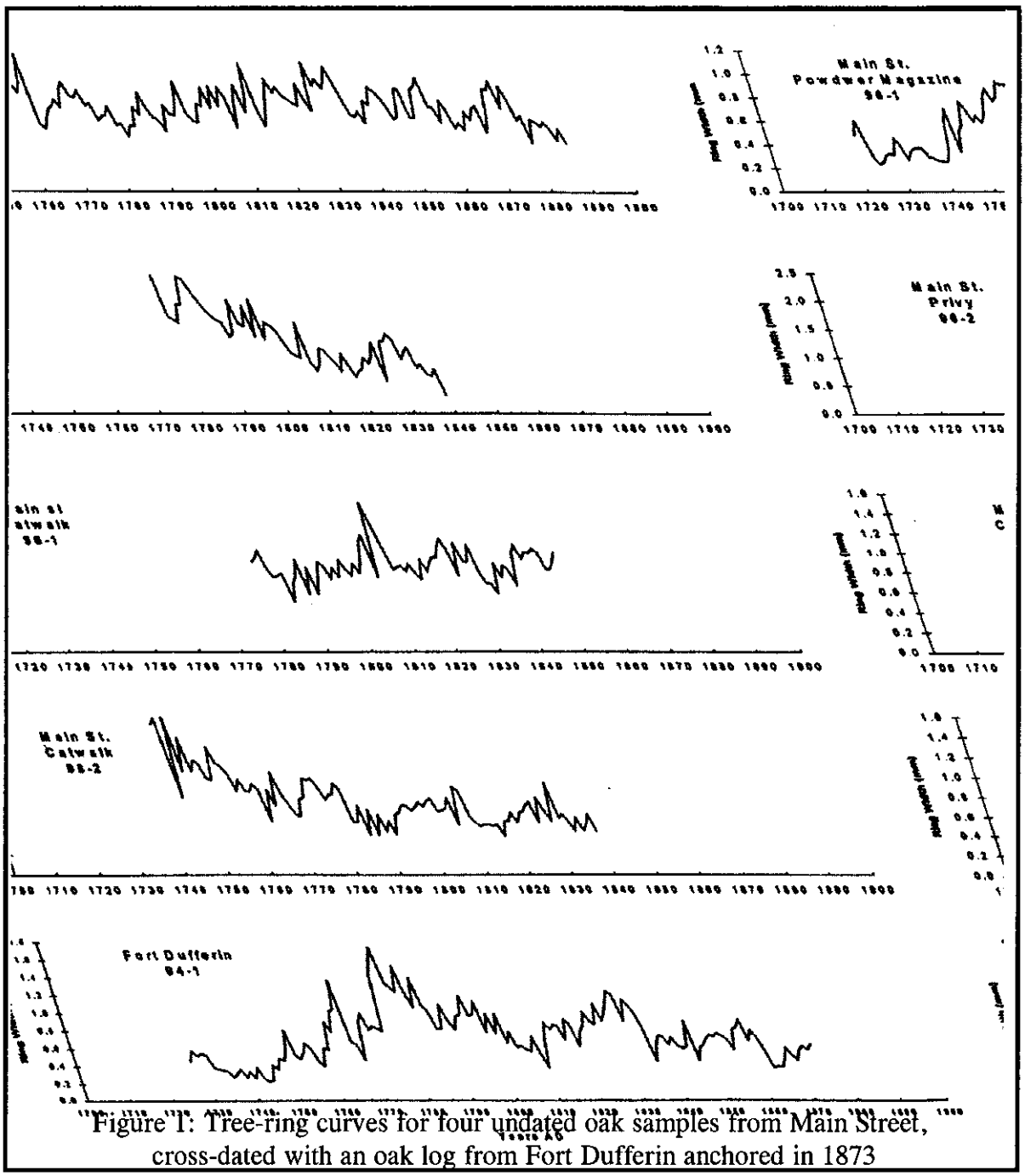

Figure 1: Tree-ring curves for four undated oak samples from Main Street, cross-dated with an oak log from Fort Dufferin anchored in 1873