

YORK FACTORY ARCHAEOLOGY:

INTERIM REPORT 1981-1982

by Gary Adams

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## PRÉFACE

The 1981 and 1982 field seasons at York Factory followed a pattern of survey, testing and excavation that had been established in earlier years. For that reason, this report has been tailored to match the report on the first three seasons (Adams and Burnip 1981). This report, therefore, should be treated as a continuation of the earlier volume. There will be no repetition of background, environment, research parameters or methodologies beyond what is required to describe current projects. Note also that both the ice house and the native encampment were returned to in the 1981 field season and so the interpretation in the following report supercedes any interpretation in the earlier report.

## YORK FACTORY 1981-82: AN INTRODUCTION

The 1981 and 1982 seasons represent the final two years of excavation under the current salvage project. To begin the report a brief introductory narrative has been prepared to continue the saga of York Factory excavations.

As usual the 1981 season began in total disarray. I arrived on site around the beginning of June anticipating a permanent headquarters for the crew. Instead I found a shining aluminum shell. It precipitated two weeks of 10 to 14 hour days to partition, finish, paint, electrify and do a myriad of other construction tasks. We were barely ready when the crew arrived on June 18 and the very next morning we had a blizzard. Everything leaked. We hauled appliances on sleds and dragged furniture through the snow. Eventually everything settled down and our field crew, consisting of Craig Fontaine, Marci Gamble, Janis Hughes, Karen Jones, and Lu Ann Lynde began work. As the season progressed this crew was augmented by Don McKone and Brian Sturko but we lost the help of Craig.

Jennifer Hamilton, my assistant supervisor, could not stay the entire summer so she was given our first major excavation, the Ice House, and most of the crew for three weeks. Her task was to examine the walls to determine as much as possible about the actual construction of this multi-walled storehouse. Meanwhile, Marg Burnip, the lab supervisor, and I excavated a brick oven at the native encampment.

The second project was to excavate major portions of one of the warehouses. The immediate candidates were the Inland Cargo House and the East Fur Store. Short trenches were dug to locate, identify and evaluate each and eventually the Inland Cargo House was chosen as our second project. Everything progressed well for a couple of weeks until it rained. The entire excavation filled with water and despite daily episodes of bailing, syphoning and pumping the excavation remained under water for the remainder of the season.

The rain, wet ground and other problems meant that alternative projects were also undertaken. An additional 21m<sup>2</sup> were removed from the native campground, a cellar from the 1789 Old Octagon was exposed and considerable time was spent with the site historian, a dendrochronologist, and reporters.

Meanwhile Marg Burnip returned to Winnipeg after two weeks and started up the lab. With the capable assistance of Mike Labella and Maureen Smith all the recovered artifacts were washed, catalogued and computer coded within a month of the end of the field season. That did not help the analysis and report writing, however, as my time was almost completely consumed by activities unrelated to York Factory.

The 1982 season was to be the last and it was decided that three areas were to be concentrated upon. For the first time in five years facilities were reasonably intact and the snowstorm hit before the crew actually arrived so they launched right into the first task. Marg Burnip and Jennifer Hamilton immediately started the crew of Marci Gamble, Bob Hall, Mike LaBella, Maureen Smith and Ihor Wichacz to work on the East Fur Store with the intention of locating its position and partially excavating it. This project took about three weeks then Marg, Mike and Maureen returned to Winnipeg to begin lab work while Jennifer went on to other duties.



After the initial excavation, the reduced crew spent the remainder of the summer conducting two testing operations. The first was a 45 m long trench supplemented by some pits to locate the boat houses. The second was a stratified random test around the front of the depot. This test was initiated to locate an early boat house plus several features associated with the front of the depot. In addition, the graveyard was fully mapped and recorded and one rainy day was spent recording graffiti in the depot.

The following report is intended to outline the basic data recovered over both seasons and to attempt a structural interpretation of the features. Some preliminary analysis has also been conducted on site patterning. Each section addresses a single operation and is intended to be a relatively independent, self inclusive report on the operation. In each section there are sub-sections that describe and discuss stratigraphy, structural history, structural remains, artifacts and the interpretations that result from this information.

In closing this introduction, several acknowledgements are vitally important. My greatest debt is to the field and lab crews who make or break a project and have always proved to be the saving factor in mine. Special thanks to Marg Burnip who provided excellent support as a lab supervisor and analyst for four seasons before succumbing to the allure of a different job and to Jennifer Hamilton who helped out with both field seasons. Thanks also to Terry Gusnowsky, Donna Bland and John Hatley who made life possible in the field. Finally we owe much to the office staff who type, edit, draft figures and provide continuity to our efforts.

## BACKGROUND

While a complete description of background, environment, research designs and methodologies would be repetitive, a few updates on the earlier (Adams and Burnip 1981) report are necessary.

The environmental context as presented in the earlier report has been augmented through the efforts of Garry Hunter who reported on the soil and permafrost conditions at and around the graveyard (Hunter and Associates 1983).

The research design has undergone some considerable modification since its original writing. All major interdisciplinary proposals have failed to materialize leaving the York Factory Archaeology project in an information vacuum. To date Parks Canada has produced two historical studies to complement the archaeology; a land use history of York Factory from 1789 to 1957 (Donaldson 1981) and a structural history of the depot (Donaldson 1982). A social history of the period from 1789 to 1870 is under preparation. However, these reports, though used extensively, do not provide an integrated model of York Factory.

The program has been further hampered by increasing limitations on the scope and scale of the archaeological program so that much of the original proposal was never implemented. This has left the project with a badly skewed information base, little historical context or environmental data. With these problems, the project has been floundering for a solid basis of archaeological interpretation. At

this time, it would be very difficult to propose a new research design that could be guaranteed to direct research to ultimate goals for the project is still undergoing modifications based upon the client's needs.

It is the purpose of this paper to record the results of two field seasons in a established format and to try, as a conclusion to this paper, to prepare the way for final analysis and interpretation of the data.

The archaeological background and research parameters have also undergone some change since the 1981 report. The excavation strategy has been reduced in both size and scope. Areas of excavation were confined to Parks Canada boundaries and the tendency was to choose company buildings for exposure. The survey for other sites, never taken very far, was terminated in 1980 and the survey program was greatly reduced. No off site surveys were conducted after 1979 and the overall test of the site was ~~now~~ [REDACTED]. The only successful survey [REDACTED] riverbank test survey which was also reduced considerably.

The goal of the riverbank test was to examine that area which was likely to erode within ten years with a 5 percent test. Out of every 100 m<sup>2</sup> there were to be five 1 m<sup>2</sup> test pits to gather representative artifact samples, look for unknown structures, correlate diverse stratigraphies and locate features (Adams and Burnip 1981: 115).

Funding restrictions dictated that a complete survey was impossible so the 4.0 km stretch of riverbank was reduced to a 400 m long band in front of the compound. By the end of the 1982 field season 99 m<sup>2</sup> of a possible 4000 m<sup>2</sup> were excavated as test units and an additional 186 m<sup>2</sup> of structure excavation were removed from the designated zone. The entire excavation, therefore, resulted in a 7.1 percent test of which 2.4 percent was conducted by stratified random sample.

The failure to complete the desired surveys was partially compensated for by judgemental sampling. Several test pits and trenches were strategically located to find or identify specific features or structures. In all, an additional 104 m<sup>2</sup> of testing was accomplished over the five years of excavation.

Archaeological methodology remained essentially unchanged throughout the five year period. Likewise, though artifact coding went through some evolution, the actual lab process, complete with functional category restructuring (Adams and Burnip 1981: 65-67) and operational level restructuring (Adams and Burnip 1981: 67), remained relatively intact.

The continuity of lab procedures resulted in many of the same problems. The quantities derived for the analysis often came from different computer programs than those taken for the counts. Therefore, the totals in the text do not necessarily coincide with the appendix figures. Likewise, the appendix tables list computer codings as they existed and therefore many artifacts coded in error were counted and flagged as errors.

It may be worth noting that no inventory and classification scheme, computerized or not, can deal with over 185,000 artifacts and still be free of error. There are problems with coding, identification, coding, keypunching, editing and outputting. The value of the computer code is that it tends to make errors evident, often to the researcher's embarrassment. For this reason, the database is always in a state of flux with errors being corrected and new interpretations of identifications being added. Since the analysis conducted in this report, the York Factory database has undergone considerable modification and upcoming reports will reflect that development.

## THE NATIVE ENCAMPMENT

### Introduction

The reason for returning to the native encampment was to delineate further habitation sites within the known camping area. The evaluation was continued by adding two more 3 m<sup>2</sup> units to the emerging checkerboard plus the addition of a smaller, 1 m x 3 m unit. As well, the foundation of a large fireplace was located and completely exposed.

This fireplace structure was never recorded historically as to time of construction or intended use. It was first discovered in some 1880 photographs of the encampment and neighbouring Dog Meat House (Figure 1). Since that time, additional photographs have indicated that it was in use in the early 1870s and had been abandoned by 1925. These dates reflect the known period of occupation of the encampment.

### Stratigraphy

The stratigraphy of the new excavations conformed very well to that of previous years' work. The basic layering of black peat topsoil (Horizon 1), brown peat and wood chips (Horizon 3), brown clayish peat (Horizon 4) and black peat (Horizon 6) over sterile was typical of the area (Adams & Burnip 1981:212-216). However, there were several ~~intensive~~ layers that were assigned to various interface horizons.

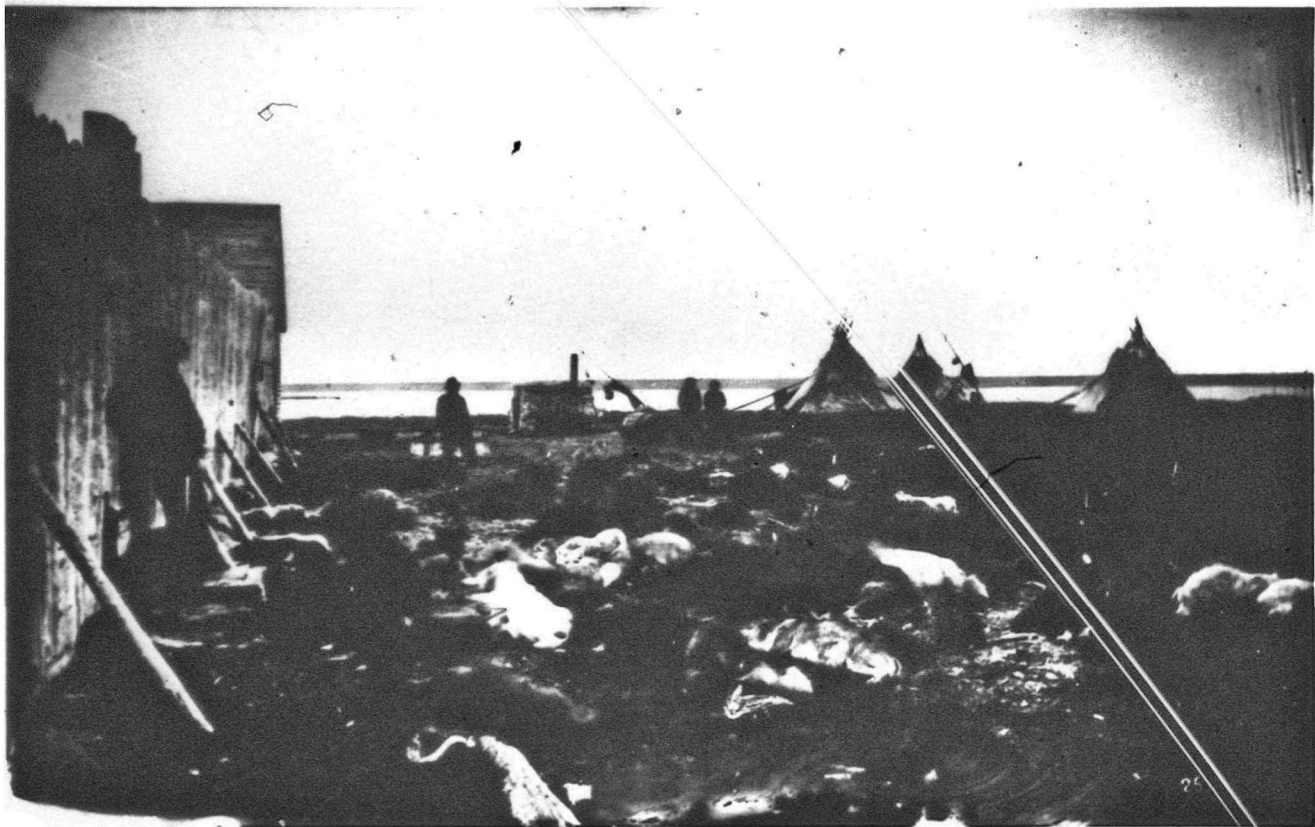


Figure 1. Photograph showing firepit in 1880 (Public Archives of Canada: R. Bell PA-39925).

Between Horizons 1 and 3 there was a lens of ash, clay and mortar (Horizon 2) that lay along the east side of the fireplace and was probably a part of it. There was a thin lens of light brown peat along the south side of unit 9K13G in between Horizons 3 and 4. The remaining lenses were all found in or below Horizon 4. There was a thick layer of ash and clay around the firepit, and a clay fill below that which had probably been used to bank the firepit. There was a small hearth and a backfill lens from a burrow of some sort. There was also a second layer of ash around the perimeter of the hearth. All of these elements were assigned to Horizon 5.

#### A Structural Description of the Fireplace

As noted above, documentation on the fireplace existed only in historical photos, which provided certain basic information. The fireplace stood out in the open. It was made of brick and had a sheet metal cover. The firebox opening was to the north and a chimney protruded from the top near the south end. There may also have been an opening in the west wall as there was a definite appearance of one in one of the photos. This opening did not appear to connect to the firebox as there was no evidence of charring on the brick. Both the south and east walls appeared to be solid.

More revealing was the context of the feature for it was situated out in the open, far removed from the main camp activities. In terms of function, several possibilities were immediately eliminated by this location. It could not have been a cooking or blacksmith oven related to the company. Furthermore, the ground around it was not white enough to have suggested that it was the factory's lime kiln. Likewise, the context offered two quite reasonable interpretations of its function. The first option derived

from the fact that the area functioned as a native campground as evidenced by the lodges situated around the fireplace (Figure 1). Since fire was a common concern of the site's managers throughout its history, it is quite conceivable that one of them ordered the fireplace built for the natives. That way they could do all their major cooking on an enclosed fire, thereby protecting the skin or canvas lodges and ultimately the fort from the ravages of fire.

The second hypothesis evolved from some additional photos that indicated that harvested beluga whales were raised up the bank not too far from the dog meat house. As has previously been noted (Adams and Burnip 1981:241), there is not yet any substantial evidence as to how these animals were slain or processed. Nor is there any idea what the carcasses were used for. The two most likely possibilities were that the meat was carved up for dog food or that it was rendered for oil. In the latter case a fire would be needed to boil the oil. The photographic existence of several barrels around the fireplace helped reinforce that supposition. It remained an archaeological problem to attempt to refine these interpretations.

The archaeological recovery consisted of a platform of unmortared, reused bricks up to three courses high. The overall length was 2.12 m in a north-south orientation. The width was approximately 1.9 m but the east wall had previously fallen away somewhat so that an exact determination was not possible. The two bottom courses acted as the base of the firebox with the bricks in the upper of the two layers laid on its edge. There were enough remnants of the third course surviving to obtain a reasonably detailed description of the firebox.

The firebox was centrally placed and accessible from the north side by a tunnel 63 cm long and 46 cm wide. The central cavity extended an additional 71 cm and opened to a



width of 82 cm. Finally, at the south end there was a third chimney compartment that was an additional 24 cm deep and 31 cm wide. This meant that the overall length of the firebox, including access tunnel and chimney was 1.58 m. All the bricks around the perimeter of the central area showed evidence of secondary baking and there was a thin layer of ash throughout (Figure 2).

There appeared to be two sizes of bricks in general use here. The slightly larger style was predominantly red or orange in colour and measured 23 cm by 11 cm by 6 cm. Some of these had been marked RUFFORD STOURBRIDGE, indicating that they had been imported from England. The smaller bricks were generally yellow in colour with dimensions of 22 cm by 10 cm by 6 cm.

The fireplace had been built directly on the lowest, black peat soil horizon. Around the fireplace this soil layer dipped dramatically which suggested that the combined forces of weight and heat had caused the fireplace to sink about 5 cm into the ground. Over this soil zone was the lower ash lens (Horizon 5) and the much more extensive clay and ash layer that was up to 20 cm thick adjacent to the bricks.

This clay and ash layer had the appearance of a deliberate embankment, which, in conjunction with other features, has been tentatively interpreted as the evidence of a repair phase. The settling and the lack of mortar in the foundation certainly suggest that repairs would have been needed. Beams laid along both the north and south faces provided additional evidence of repairs. On the south face, there were two such beams, one on top of the other, laid flush against the bricks. Each beam was 185 cm long, 9 cm wide and 7 cm thick. Along the north wall there were further remains of two beams laid on top of each other. Here the heat from the firebox and the activity associated with

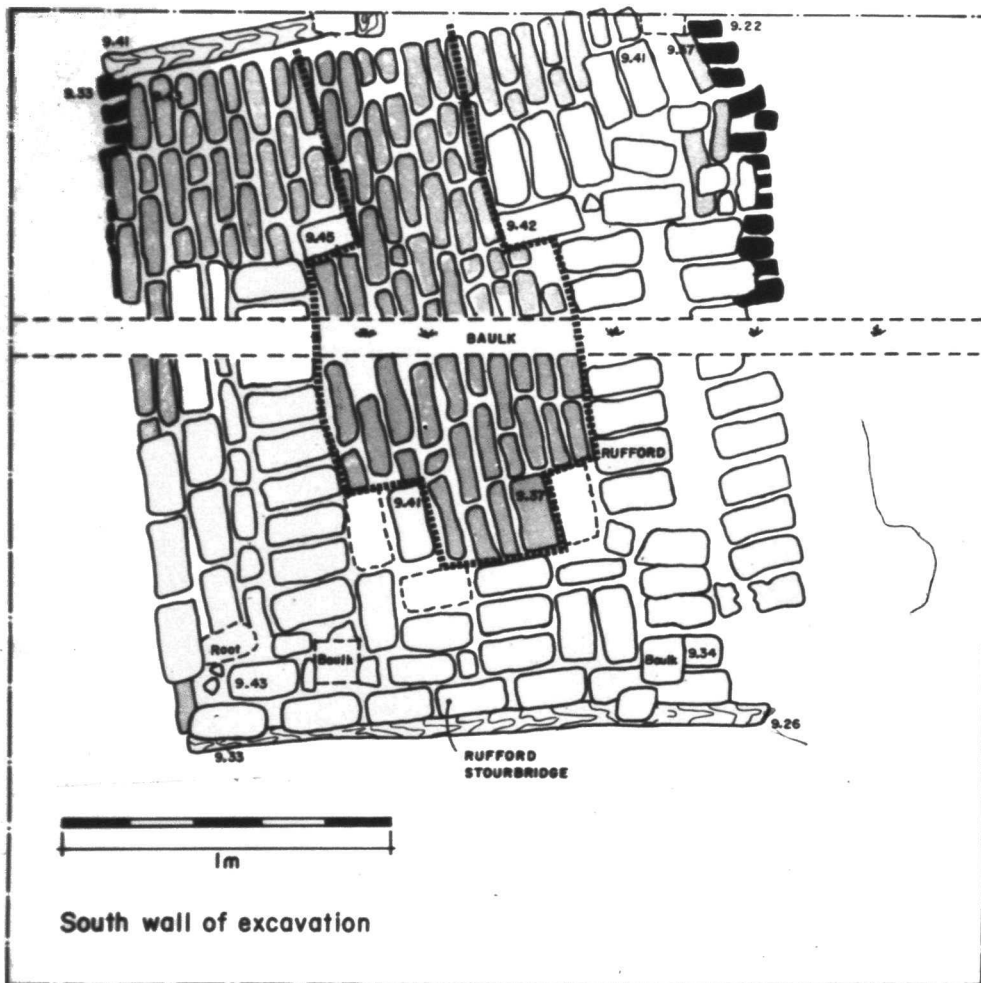


Figure 2. Planview of fireplace (D. Elrick, draftsperson).

stoking the fire had resulted in both charring and considerable deterioration making any true measurements virtually impossible. There was also a 7 cm diameter post pegged into the ground right at the worst preserved northeast corner.

#### A Structural Description of the Native Encampment

The units that were opened in this area in 1980 contained enough evidence of a temporary camp to suggest that the remains of actual tents could be located (Adams and Burnip 1981:231). To confirm that belief another two 9 m<sup>2</sup> units and one smaller 1 m x 3 m unit were excavated in the immediate vicinity of the previous recoveries (Figure 3).

The stratigraphy was essentially the same as that found the first year. The only stratigraphic features of note were a thin lens of light brown peat that was found between the two major intermediate layers and two hearths that were recovered. Both of these hearths were found in the northernmost excavation area. Both were flat, surface hearths with some ash remaining and some soil staining beneath. The first of these was oval in shape and approximately 60 cm by 45 cm with a long north-south axis. The second, located 60 cm northwest of the first was also oval in shape with dimensions of 55 cm by 35 cm.

The only other major structural features to be found were pegs and peg holes. A total of 17 pegs were recovered in this season. Their lengths ranged between 12 and 36 cm with a mean 21.8 cm and their diameters varied between 3 and 8 cm with a mean of 4.3 cm. All but one had been sharpened on the lower end with an axe; four had been given a chisel point and the remainder had been sharpened to a diamond point. Again all but two had been angled into the ground.

A number of shallow depressions or possible post holes were found along with one 5 cm diameter peg hole. Three of the six extraneous depressions could have been post or peg

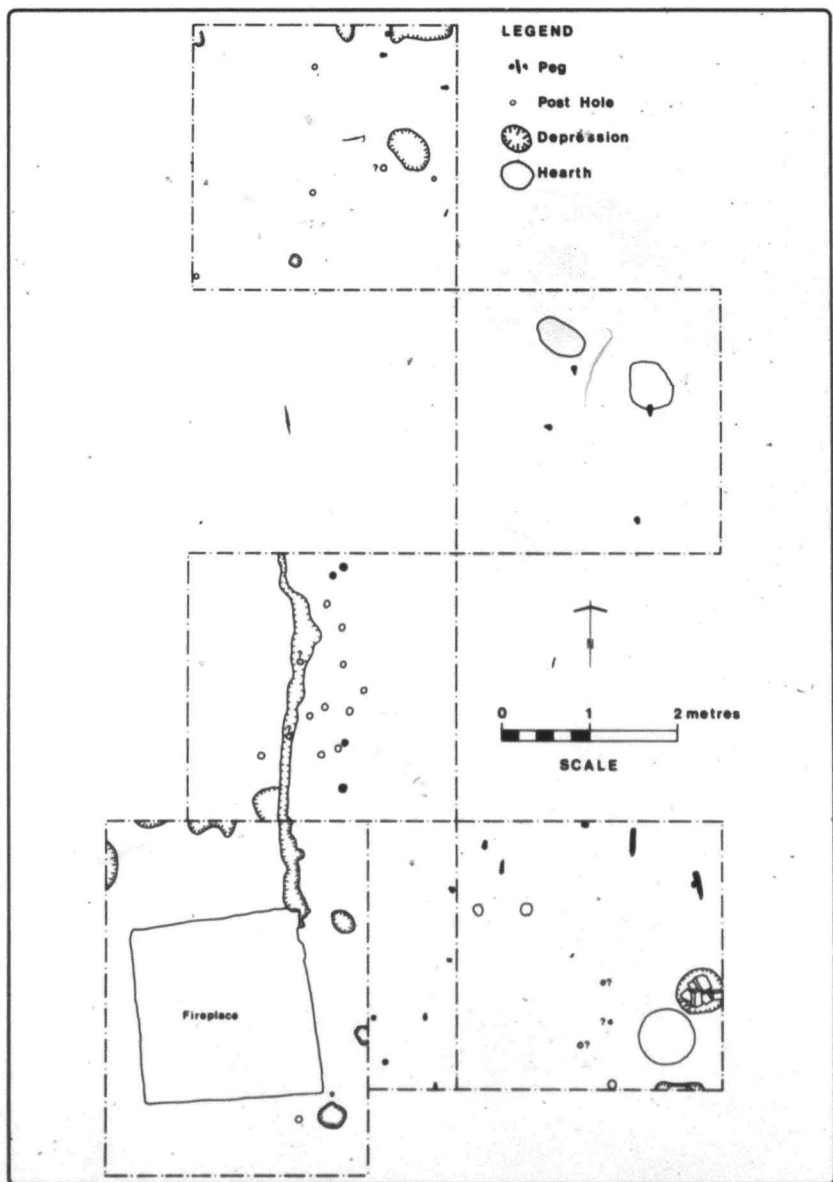


Figure 3. Native encampment planview (L. Davies, draftsman).

holes while two were animal burrows. The sixth was uncategorized. All of these depressions appeared in the lowest horizon of the northernmost unit. Some more detailed analysis of the features that relate to the native campground, and particularly those that might relate to tent rings, has been reported elsewhere (Adams 1981). That analysis concluded that there were definite indications of rings but that they were too superimposed to permit detailed study of lifestyles within them.

#### Artifact Analysis of The Native Encampment

The area excavated in 1981 was not considered to be structural in nature so no separate analysis was conducted on the architectural artifacts. This assumption was supported by relatively low percentages of architectural items (0.4 per cent) and pane glass (0.8 per cent) but the percentage of nails at 15.3 per cent of the artifact total was higher than any other non architectural area and comparable to most architectural areas. In general, the 1981 native encampment excavations had a relatively low artifact density at 117 artifacts/m<sup>2</sup> excavated. The predominant functional complex was food related artifacts, followed respectively by shelter, domestic activities, beads, clothing and industrial activities.

The most interesting aspect of the 1981 artifact analysis was determining if the emerging patterns were consistent with the previous analysis. In 1980 it was noted that the predominant functional groups from the native encampment were ranked as fauna, architecture, construction fasteners, food storage and beads. In 1981 the ranking was fauna, architecture, food serving, smoking and food storage. This was very unlike the earlier representation if we discount that fauna and architecture which are ranked near the top of all operations.

In the 1980 excavations there was an apparent change in activity patterns in Horizon 4 which initiated a switch from food procuring, food storage, food preparing, furnishings, miscellaneous storage, recreation and beads to concentrations of fauna, architecture, fasteners, pane glass, fabric and smoking pipes in the lower levels. This change was still evident but not as conclusive as in the earlier excavations. In 1981 emphases on food procuring, food storage, architecture, miscellaneous storage, recreation and beads were supplanted by emphases on food serving, smoking, fauna, and fasteners in the lower levels. These lists show a considerable amount of overlap between the two excavation seasons.

The analysis of the 1981 artifacts revealed a strong emphasis on food related artifacts, and particularly fauna, throughout the stratigraphic sequence. The food storage artifacts which comprised 2.6 per cent of the total tended to increase in proportion over time while the food serving artifacts at 3.4 per cent overall, tended to decrease.

The shelter related artifacts were not well represented except for the nails. One factor that partially explained this situation was the distribution of nails in relation to the oven. The units immediately adjacent to this feature contained approximately 54.7 construction nails/m<sup>2</sup> of excavation while units farther away averaged only 14.3 construction nails/m<sup>2</sup>. If this concentration had not existed, the overall percentage of nails would have dropped from 15.3 per cent to 12.2 per cent. This is likely the result of burning wood that had previously been used in construction and still contained nails in it. At best, this only partially explained the quantity of nails and I suspect that further interpretations will be derived from more detailed analysis of activity patterns across the site.

The clothing complex was characterized by fasteners in a pattern consistent with that found on the rest of the

Table 1. Percentages of Functional Groups at the Native Encampment by Horizon.

| ACTIVITY           | HORIZON |      |      |      |      |      | TOTAL |
|--------------------|---------|------|------|------|------|------|-------|
|                    | 1       | 2    | 3    | 4    | 5    | 6    |       |
| Food Procuring     | 1.2     | 1.4  | 1.0  | .3   | .1   | .4   | .7    |
| Food Storage       | 4.8     | 2.8  | 1.5  | 1.5  | 3.9  | 1.3  | 2.6   |
| Food Preparing     | -       | -    | -    | -    | -    | -    | -     |
| Food Serving       | 1.2     | 1.4  | .6   | 6.5  | 6.6  | 3.0  | 3.4   |
| Fauna              | 48.6    | 34.7 | 67.5 | 56.9 | 46.4 | 62.3 | 56.8  |
| Ethnobotanical     | -       | -    | -    | -    | -    | -    | -     |
| FOOD               | 55.8    | 40.3 | 70.6 | 65.2 | 57.0 | 67.0 | 63.5  |
| Architecture       | 1.7     | -    | -    | .2   | .3   | -    | .4    |
| Const. Fasteners   | 14.8    | 18.1 | 8.3  | 18.8 | 22.7 | 16.1 | 15.3  |
| Pane Glass         | .4      | 1.4  | .6   | .5   | 2.0  | -    | .8    |
| Furnishings        | -       | -    | -    | -    | -    | -    | -     |
| Furniture          | -       | -    | -    | -    | -    | -    | -     |
| Housekeeping       | -       | -    | -    | -    | -    | -    | -     |
| SHELTER            | 16.9    | 19.5 | 8.9  | 19.5 | 25.0 | 16.1 | 16.5  |
| Sewing             | -       | -    | -    | -    | -    | -    | -     |
| Cobbling           | -       | -    | -    | -    | -    | -    | -     |
| Leatherwork        | -       | -    | -    | -    | -    | -    | -     |
| Clothing Fasteners | .3      | -    | .3   | .4   | .3   | .4   | .3    |
| Adornment          | -       | -    | -    | -    | -    | -    | -     |
| Laundry            | -       | -    | -    | -    | -    | -    | -     |
| CLOTHING           | .3      | -    | .3   | .4   | .3   | .4   | .3    |
| Office Supplies    | -       | -    | -    | -    | -    | -    | -     |
| Misc. Storage      | 1.7     | 5.6  | .5   | .7   | .4   | .4   | .9    |
| Personal           | -       | -    | .2   | -    | -    | -    | .1    |
| Smoking            | 2.2     | 4.2  | 1.4  | 3.7  | 4.4  | 8.5  | 3.1   |
| Recreation         | .7      | -    | .6   | -    | -    | -    | .3    |
| Medicinal          | -       | -    | .1   | -    | -    | -    | -     |
| Land Transport     | .3      | -    | -    | .1   | -    | -    | .1    |
| Miscellaneous      | -       | -    | 1.9  | -    | -    | -    | .3    |
| Misc. Fasteners    | 1.9     | 1.4  | 1.1  | 3.1  | 3.4  | .4   | 1.8   |
| Native Items       | -       | -    | .1   | .1   | .1   | -    | .1    |
| DOMESTIC           | 6.8     | 11.2 | 4.0  | 7.7  | 8.3  | 9.3  | 6.6   |
| Metal Working      | -       | -    | .3   | -    | .1   | -    | .1    |
| Military           | .1      | -    | -    | .1   | -    | -    | .1    |
| Water Transport    | -       | -    | -    | -    | -    | -    | -     |
| Fur Trade          | -       | -    | -    | -    | -    | -    | -     |
| Machinery          | -       | -    | -    | -    | -    | -    | -     |
| INDUSTRIAL         | .1      | -    | .3   | .1   | .1   | -    | .2    |
| BEADS              | .9      | 1.4  | 1.9  | .3   | .6   | 1.3  | 1.0   |
| SUB TOTAL          | 80.8    | 72.4 | 86.0 | 93.2 | 91.3 | 94.1 | 88.0  |

site. The domestic activities complex, however, was quite diversified and showed some changes over time. The unusually high percentage of miscellaneous storage items in Horizon 2 was the result of a very low sample. Smoking pipes increased in percentage through time and miscellaneous fasteners were unusually numerous in Horizons 4 and 5. Horizon 3 had the most diversity while Horizons 5 and 6 had the least.

The industrial complex was very poorly represented by a few blacksmithing and military artifacts. Perhaps the most surprising functional class, though, was the beads. They amounted to only a single percentage point overall as compared to 30 per cent in 1980. This is even more dramatic if one considers that the 1980 data included the less utilized Dog Meat House.

#### Summary

The 1981 excavations were valuable primarily for the discovery and description of the brick oven, a feature that will receive more attention in future analysis. The testing did little to substantiate or refute the existence or character of the native encampment, though there were some additional features added to the inventory.

The relative proportions of artifacts continued to show a change in activity patterns between the early and late horizons. It seems to reflect a situation in which early occupations had a very generalized activity pattern evenly distributed across the site. The later occupations show more diversity that might indeed reflect the behavior and activities of a campground situation.



## ICE HOUSE

### Introduction

The Ice House, situated south-east of the Depot building, is four metres west of the Hayes River bank edge and one metre closer to the bank edge than calculated in 1980.

Excavation of the Ice House in 1981 involved the removal of 21.5 m<sup>2</sup>, in addition to the backfill from the previous year (10.5 m<sup>2</sup>). Most of the interior section was exposed (floorboards, north wall, east wall, doorway), leaving only a small area unexcavated around the south and west walls. As well, two metre wide trenches were cut across the north wall and through the west wall, doorway and entrance passage.

### Stratigraphy

There were six main horizons identified with strata sorted according to their relationship to the Ice House structural remains. The layers were numbered as they were in the 1980 excavation.

The sod or topsoil layer (Horizon 1) consisted of sod, grey-brown clay and dark brown peat. (1B). The latter was restricted to the interior of the structure and ranged in thickness from 3 cm to 30 cm. In the north trench, this horizon (1D) was mainly sod and dark brown peat. The trench over the west walls had a well developed sod layer. (In the west section, the sod layer and the underlying wall-embankment fills were excavated as one layer and described as layers 2C, 2D, 2E, 2F). In the north trench, this layer was 5 cm to 18 cm thick. Horizon 1 was the only natural stratum.

The second layer (Horizon 2), was represented by six different fills which formed the Ice House embankment. Located on the inside of the exterior west wall, layer 2C consisted of 26 to 58 cm of grey-brown clay with black peat. Layer 2D, located outside of the exterior west wall, was a 31 to 67 cm thick mixture of sod, dark brown and grey-brown clayish peat, grey-brown clay with black peat and woodchips. Layer 2E consisted of a 7 to 16 cm deposit of woodchips outside of the exterior west wall. Layer 2F consisted of grey-brown and black peat and dark brown peat mottled with grey-brown clay. It was located outside of the exterior west wall and was 5 to 17 cm thick. Layer 2G, outside of the exterior north wall, consisted of six different fills including dark brown peat, grey-brown clay, lenses of sawdust and black peat, and woodchips. These fills ranged in thickness from 3 to 47 cm. Layer 2H, inside of the exterior north wall was similar to layer 2G in that it consisted of multi-fill layers, represented by dark brown peat, black peat, yellow-brown fine silt and grey-brown clay, woodchips, grey-brown clay, red-brown sawdust, and grey clay. Layer 2H ranged in thickness from 2 cm to 93 cm. The variety in the composition of fills in layer 2 and the range in thicknesses of this horizon appears to have been the result of deliberate filling, from a number of different sources, to embank the walls of the Ice House for insulation during the summer months.

The third layer (Horizon 3) was represented by buff to white ash, charred paper and dark brown peat with charred woodchips. It was 2 to 6 cm thick and located in the interior of the Ice House. This layer was a garbage deposit laid down after the abandonment of the structure.

Horizon 4 consisted of a 7 to 12 cm thick deposit of dark brown clayish peat with grey-brown clay and was located in the interior of the Ice House. This layer represents the post abandonment deposition inside the structure.

The fifth layer (Horizon 5) was divided horizontally into three on the basis of location of the strata. Layer 5A consisted of dark brown clayish peat mottled with grey-brown clay and with lenses of sawdust, woodchips and black peat. It was located in the interior of the structure and was 7 to 31 cm thick. Layer 5C consisted of dark brown peat with grey-brown clay and woodchips. It was 8 to 20 cm thick and located outside the north-west corner of the entranceway. Layer 5D consisted of a 21 to 53 cm deposit of sod and dark brown clayish peat in the entranceway of the structure.

The sixth layer (Horizon 6) consisted of two strata. Layer 6A comprised of dark brown clayish peat mottled with fine grey-brown clay, woodchips mixed with grey-brown clay, black peat and sawdust. It was located inside the Ice House and was 13 to 85 cm thick. Layer 6B consisted of a 35 to 43 cm thick deposit of brown to dark brown peat with some grey-brown clay and grey-brown clayish peat with brown clay, black peat and woodchips. This layer was located in the entranceway of the structure. Horizon 6 consisted of fills which included collapsed roofing covering the floorboards in the entranceway and interior of the Ice House.

The seventh layer, although not excavated, consisted of wood chips and dark brown peat and was located below the floorboards.

In summary, these seven soil zones represented, for the most part, redeposited fills. (This conclusion was derived after the 1980 excavation). The only natural stratum was the sod development, layer 1. Horizon 2 was a number of different fills used in the construction of the structure. Horizon 3 was a post abandonment garbage deposit; Horizons 4, 5 and 6 were redeposited fills derived from abandonment and collapse of the structure, and layer 7 was a wood chip fill deposited prior to or during initial construction of the Ice House.

### Structural Description

Recalculation of the dimension of the Ice House in 1981 resulted in some minor changes. The length and width of the large mound delineating the Ice House were more precisely measured at 14.4 m by 10.9 m. The interior building dimensions were 4.9 m north-south by 3.85 m east-west. The middle walls, spaced 0.4 m to 0.7 m from the interior walls, measured 5.5 m north-south by 5 m east-west. The exterior north wall was separated 1.28 m from the middle wall and measured about 8.8 m north-south by 6.64 m east-west.

The middle north wall, interpreted in the 1980 season as the exterior north wall, was of post-on-sill construction. It consisted of hand hewn squared logs 17 cm or 19 thick by 14 cm wide at the bottom of the wall and near the top of unsquared logs 12 cm or 13 cm thick by 20 cm or 22 cm wide. The east end of the logs had a 4 cm long tenon which fit into a grooved upright post, 18 cm wide by 20 cm thick. This post rested on a sill log running east-west. A second upright post of similar size and shape was located 2 m west of the east end of the wall. A third post was probably located at the west end of the wall in the north-west corner of the structure. This middle north wall was 2.4 m in height and was separated from the interior north wall by 0.4 m to 0.7 m of dead air space.

Also at the east end of the middle north wall was a wall of squared logs which extended north for approximately 1 m, parallel to the middle east wall. Attached with wrought nails to the top log of the middle north wall were two "spreader" logs at 2.4 m and 3.8 m west from the east end of the wall. These "spreader" logs extended north to separate this middle wall from the exterior north wall. They were roughly squared logs 15 cm wide by 10 cm thick, notched at both ends to fit between the north walls. A

third log of similar function and dimensions was located about 71 cm below the westernmost "spreader" log. The space between the middle and exterior walls was earth filled. The uppermost logs of the middle north wall were charred which suggested that a fire had occurred, probably after the abandonment of the Ice House (Figure 4).

Although the middle west wall was not excavated, animal burrows and bank slumping revealed that this wall was of post-on-sill construction with mortise and tenon joints and of handhewn, squared logs.

The exterior north wall was also of post-on-sill construction with mortise and tenon joints to the upright post. Excavation exposed ten, hand hewn, squared logs 18 cm thick by 16 cm wide. The upright post was a squared log 21 cm by 22 cm. The height of the wall was 1.04 m, however, if excavation had continued through the permafrost it is likely that the wall could have been traced another 2 m to ground level.

The exterior west wall consisted of hand hewn, squared logs 14 cm thick by 15 cm wide. Five logs were uncovered above the permafrost. There was no evidence of mortise and tenon joints or post-on-sill construction although based on the excavation of the other walls, it is likely these techniques were used. This west exterior wall butted against the south wall of the entrance passageway.

Further excavation in the area of the door in the north-west corner of the Ice House has confirmed the existence of an entrance passageway and outer door (Figure 5). The passageway was 0.96 m in width, 3.02 m in length and was elevated 17 cm above the interior floor. There were north and south walls of post-on-sill construction. These walls consisted of hand hewn, squared logs 12 cm wide by 18 cm to 21 cm thick notched at both west and east ends. Fitting against the notched ends were upright, frame posts, at one

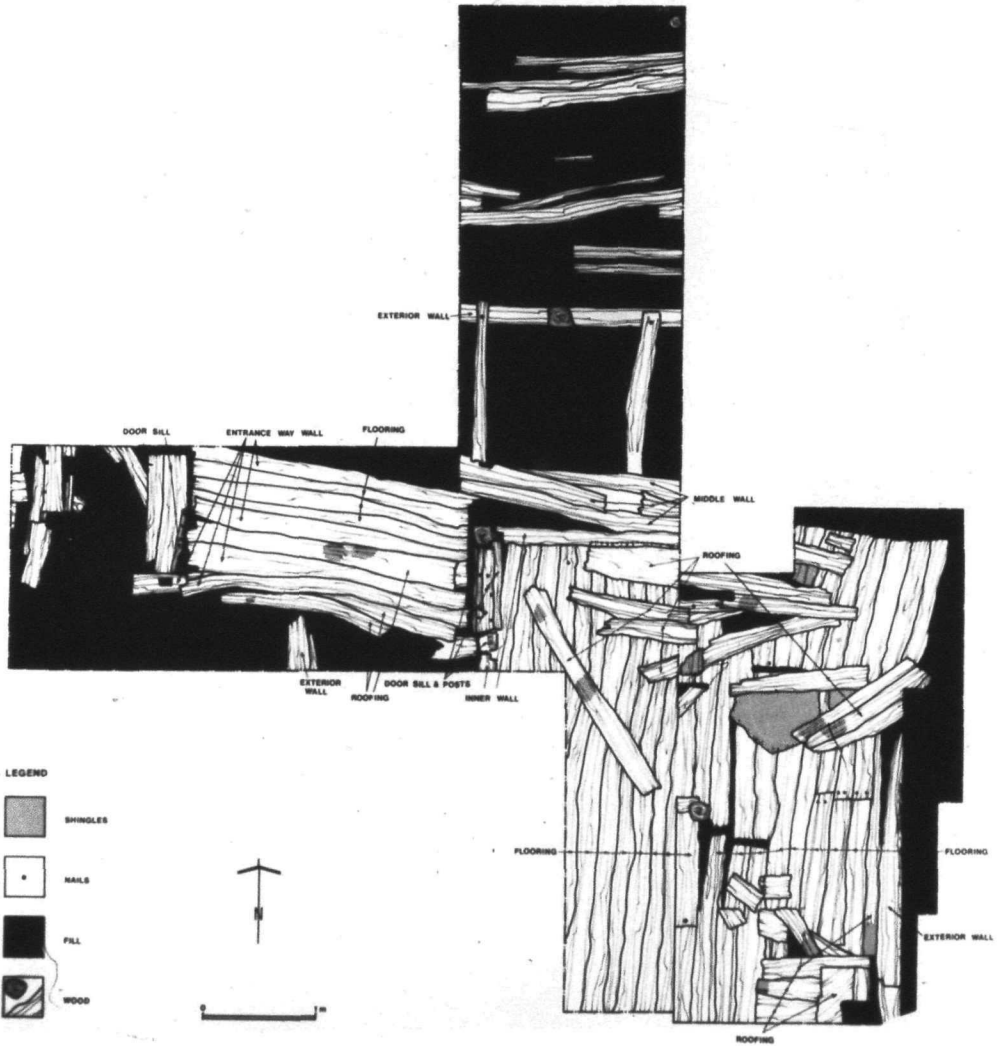


Figure 4. Planview of Ice House (K. Graham-Stevenson draftsman).

time secured with wire nails but now detached and disintegrating. The remains of the south wall consisted of five logs, two of which had fallen onto the entrance passageway floor. Only one log remained in place in the north wall. The south wall sill was a handhewn squared log 16.5 cm wide by 10.5 cm thick by 3.16 m in length. At the west end of this sill was a slot, 10 cm in length by 6 cm in width by 6 cm deep, to fit an upright post (door frame post). The north wall sill was only partially exposed so dimensions could not be taken. The 1980 excavation revealed that the entrance passageway walls were covered with vertical boards 5 cm wide by 2 cm to 4 cm thick, painted green and secured in place with machine cut nails. No further evidence of this was uncovered in 1981.

In the entrance passageway there were six floorboards 7 cm thick and 14 cm to 18 cm wide. At the west end the floorboards butted against a door sill 21 cm wide by 16 cm thick by 1.6 m in length with a 5 cm by 2 cm thick piece of wood attached with round headed nails (probable wire) to the top side. Beneath and extending to the west of this doorsill was a hand hewn squared log 9 cm thick by 16 cm wide which probably functioned as a step. At the east end of the entrance passageway the floorboards butted against a similarly sized doorsill (17 cm by 17 cm by 90.5 cm).

The door frame was most evident at the interior (east) side of the entrance where there were two upright posts - one on each side of the doorsill. The south door post was roughly squared and measured 21 cm north-south by 14 cm east-west by 50 cm in height. The post was notched on the south side to fit against the north end of the interior west wall and was attached with wire nails. It was set on the interior west wall sill which was a squared log 16 cm wide by 10 cm thick. The north door post was a squared log 18 cm by 18 cm and 93 cm in height. It fit into the west end notch of the interior north wall and rested on the second



Figure 5. Artists impression of passageway remains looking towards interior of Ice House (L. Lynde, artist).



log from the bottom of the interior north wall. Attached to the post with round headed nails were three different sized pieces of wood on the west, south and east sides. The wood on the south side was a plank stop for the door. On the east side was a metal butt hinge 10 cm in length by 3 cm in width fastened with round headed (probably wire) nails. The positioning of this hinge and a companion notch 4 cm wide and 4 cm deep along the upright post to the north of the hinge suggested the door opened inward. At the west end of the entrance passageway there was little evidence for a door. All that remained was a fragmented piece of upright post in the slot of the south wall sill. This upright no doubt functioned as both a door post and a support post for the south wall in this post-on-sill structure.

The one roofing log which had collapsed onto the floorboards of the entrance passageway was squared, notched at the west end and measured 18.5 cm wide by 15.5 cm by 2.44 m in length. It had remnants of asphalt shingles still attached to it.

The floor uncovered in the interior west side of the Ice House was found to be no different than what was exposed in the 1980 season. It was built of planks 14 to 18 cm wide by 5 cm thick which varied in length from 1 to 2 metres. Replacement of the floorboards was suggested by the use of both wrought and machine cut nails and the use of varied widths and lengths of boards in floor construction.

The five roofing logs uncovered were squared, varying from 16 cm to 29 cm in width and 2 cm to 12 cm in thickness (The east ends of four of these logs were uncovered in the 1980 excavation.) They had been fastened with machine cut nails, laid in an east-west direction and covered with asphalt shingles secured with wire nails. No further details on exactly how the roof was constructed were determined.

We lifted floorboards along the inner, east wall to expose the floor and wall supports. The three exposed

joists were squared logs positioned in an east-west orientation, perpendicular to the floorboards, and irregularly spaced at 0 m, 1.32 m and 2.28 m from the inside of the north wall. The central joist was 18 cm thick by 15 cm wide and extended 1.86 m west from the interior east wall to the central upright post (uncovered in the 1980 excavation). A second support joist 27 cm wide by 19 cm thick lay against the south wall. Supporting these joists and extending beneath the inner east wall was a large barrel. The barrel was constructed of staves 20 cm wide by 5 cm thick which were secured with a 5 cm wide metal hoop 37 cm below the top edge. It was 1.2 m in diameter, about .9 m in height and filled with wood chips not unlike those found under the floorboards. The presence of this barrel is further evidence that the floor was elevated at least 90 cm above ground level and the intervening space was filled with wood-chips.

The earth embankment around the Ice House probably extended at least to the height of the first floor. On the exterior side of the outer north wall the embankment was held in place by a variety of woodpieces. They ranged from 4 cm diameter poles to larger squared logs 23 cm wide by 16 cm thick and most were more than 2 metres in length. At the base of the embankment on the north side there were four upright posts 14 cm in diameter spaced at approximately 1 m intervals. These posts were obvious only on the north side and may have served as further support for the of the earth embankment.

### Structural Artifacts

As noted in the earlier report (Adams & Burnip 1981), the nature of the stratigraphy and the relatively intact status of this building do not make for significant returns of

architectural artifacts. The total number of pane glass fragments was only 231 with a mean of  $7.5/m^2$  and a range of 1 to 34 fragments per  $m^2$ . The largest concentration was 34 fragments located in the northeast corner of the building. This concentration was probably derived from a secondary deposit since the Ice House was undoubtedly windowless.

The 575 nails recovered in 1981 were only one-tenth of the quantity found in some of the other structural excavations. Only three of the 1981 horizons required any detailed analysis. Horizon 2 contained 218 nails of which 71 per cent were wrought, 26 per cent were machine cut and 3 per cent were wire. The predominant types (82 per cent of the total) were wrought rosehead, machine cut clasphead, wrought clasphead, and wrought unidentified. Only the wrought clasphead seemed to concentrate in any one size range and that was around 76 cm. (3 inch nails).

The Horizon 5 nails were 69 per cent wrought, 20 per cent machine cut and 11 per cent wire with the predominant wrought rosehead, wrought clasphead, machine cut clasphead, and wire common nails comprising 72.8 per cent of the sample. There were no distinguishing size features of these nails. Horizon 6 contained 65 per cent wrought, 28 per cent machine cut and 7 per cent wire nails. The types wrought rosehead, wrought clasphead, machine cut clasphead and machine cut squarehead totalled 74.7 per cent. In all, these nails differed little in character or quantity from those reported in the 1980 excavations. The single exception to this was the large quantity (218 nails) recovered in Horizon 2 while only 16 nails were recovered from this horizon in 1980. This can be easily explained by the fact that in 1980 the quantity can be expressed as 8 nails/ $m^2$  while in 1981, it was 13.6 nails/ $m^2$ . On this basis, the differentiation was not nearly so striking.

Using the material from both 1981 and 1980, there were 686 other architectural artifacts recovered from the ice-

house. Of these, 664 (96.8 per cent) were fragments of tarpaper, probably used to cover the roof and possibly to line the walls. It was found throughout the building in concentrations as great as 103 fragments/m<sup>2</sup>. Three of the largest concentrations were in or near the passageway. The next highest quantity of architectural items was the 10 pieces of door hardware which included four keys, an escutcheon, a hookeye, a pintle, a latch, a thumb bar and a doorknob. Though one key was probably redeposited with the fill, the remainder all came from the building interior. Other items included two fragments of sheet metal roofing, seven fragments of caulking, one cable clip, and one linoleum fragment.

In all, the structural artifacts revealed little about the building other than the fact it was probably sheathed with tarpaper. They also identified some specific characteristics of the door hardware.

#### Artifact Analysis

The Ice House, like the native encampment, was partially excavated in 1980 and therefore certain assumptions and interpretations have already been made about it. For this reason, it would be beneficial to reiterate some of the earlier expectations and conclusions. We assumed then there would be a wide diversity of artifacts because so much of the building was covered with fill from various parts of the site. This assumption should have been substantiated by the 1981 data as most of that year's excavation occurred within the wall fills. The second assumption was that the artifact categories of architecture, construction fasteners, fauna and storage groups would be comparatively well represented given the nature and use of the building. It was also expected that hauling apparatus and dog gear might also be found as remnants from ice hauling and from the later use of the building as a kennel (Adams and Burnip 1981:344-353).

The 1981 artifacts did show as much diversity as those of 1980. In all, 22 functional groups were represented as compared to 23 for the previous year. Furthermore, two additional groups not represented the previous year brought the overall total to 25 out of 33 possible groups. The best represented functional groups, in decreasing rank, were fauna, architecture, construction fasteners, food serving and smoking, which did not conform entirely to expectations, although miscellaneous storage and food storage artifacts were still well represented. One small axle, possibly from a wheel barrow, represented the hauling aspect. Thus, it appears that the basic assumptions generated for the 1980 data were substantiated by the 1981 data.

Since the 1980 excavations were oriented to exploration of the building interior while the 1981 excavations concentrated on the walls and fills between them, it is probably worthwhile to note some of the similarities and differences between the two samples. The walls contained significantly more food related artifacts, especially fauna which comprised 52.5 per cent of the sample as opposed to 33.9 per cent for the interior. Food serving artifacts were reduced by half in the wall excavations and the remaining functional groups were relatively consistent with each other.

We expected that the proportion of shelter related artifacts would decrease in the wall excavations as that area was not affected by the roof collapse. Such was indeed the case though the overall percentages of shelter related artifacts dropped only slightly, from 19.4 per cent for the interior to 16.5 per cent for the walls. There were noticeably fewer clothing related remains from the wall excavations though this was due almost entirely to the large sample of fabric from the Horizon 5 interior.

Perhaps the most intriguing finding was a notable reduction in quantity of the domestic activity complex from

Table 2. Percentages of functional groups at the Ice House by Horizon.

| ACTIVITY           | HORIZON |       |       |      |       |       | TOTAL |
|--------------------|---------|-------|-------|------|-------|-------|-------|
|                    | 121     | 122   | 123   | 124  | 125   | 126   |       |
| Food Procuring     | -       | 1.0   | 1.5   | 1.0  | .4    | .9    | .7    |
| Food Storage       | .6      | 1.5   | -     | 2.6  | 14.3  | 2.7   | 4.0   |
| Food Preparing     | -       | .2    | -     | -    | .1    | -     | .1    |
| Food Serving       | .4      | 3.6   | 1.5   | 7.6  | 8.0   | 12.9  | 5.2   |
| Fauna              | 83.5    | 61.4  | 10.3  | 41.7 | 23.6  | 28.9  | 52.5  |
| Ethnobotanical     | -       | .4    | -     | 1.0  | .4    | 1.5   | .5    |
| FOOD               | 84.5    | 68.1  | 12.3  | 53.9 | 46.8  | 46.9  | 63.1  |
| Architecture       | 4.0     | 3.2   | 1.5   | 4.3  | 14.0  | 13.4  | 6.8   |
| Const. Fasteners   | 2.4     | 6.6   | -     | 13.9 | 10.2  | 13.8  | 7.7   |
| Pane Glass         | .2      | 3.2   | 1.5   | 2.3  | 1.4   | 1.3   | 2.0   |
| Furnishings        | -       | -     | -     | -    | -     | -     | -     |
| Furniture          | -       | -     | -     | -    | -     | -     | -     |
| Housekeeping       | -       | -     | -     | -    | -     | -     | -     |
| SHELTER            | 6.6     | 13.1  | 3.0   | 20.5 | 25.6  | 28.5  | 16.6  |
| Sewing             | -       | -     | -     | -    | -     | -     | -     |
| Cobbling           | -       | -     | -     | -    | -     | -     | -     |
| Leatherwork        | -       | -     | 5.9   | -    | .2    | -     | .1    |
| Clothing Fasteners | .5      | .2    | -     | .7   | .7    | .8    | .4    |
| Adornment          | -       | -     | -     | -    | -     | -     | -     |
| Laundry            | -       | -     | -     | -    | -     | -     | -     |
| CLOTHING           | .5      | .2    | 5.9   | .7   | .9    | .8    | .5    |
| Office Supplies    | .1      | -     | 1.5   | -    | .1    | -     | .0    |
| Misc. Storage      | 5.0     | 2.6   | 66.2  | 4.6  | 2.9   | 3.4   | 3.9   |
| Personal           | -       | 0     | -     | -    | .1    | .2    | .1    |
| Smoking            | 1.2     | 4.0   | -     | 8.6  | 6.8   | 9.4   | 4.9   |
| Recreation         | -       | -     | -     | -    | -     | -     | -     |
| Medicinal          | -       | -     | -     | -    | -     | -     | -     |
| Land Transport     | -       | -     | -     | -    | -     | -     | -     |
| Miscellaneous      | .1      | .0    | -     | -    | -     | -     | .0    |
| Misc. Fasteners    | .2      | .2    | -     | .7   | .8    | .8    | .4    |
| Native Items       | .2      | -     | -     | -    | -     | -     | .0    |
| DOMESTIC           | 6.8     | 6.8   | 68.7  | 13.9 | 10.7  | 13.8  | 9.3   |
| Metal Working      | -       | .1    | -     | .7   | -     | .2    | .1    |
| Military           | -       | .1    | -     | -    | .1    | .1    | .1    |
| Water Transport    | -       | -     | -     | -    | -     | -     | -     |
| Fur Trade          | -       | -     | -     | -    | -     | -     | -     |
| Machinery          | -       | -     | -     | .3   | -     | -     | .0    |
| INDUSTRIAL         | -       | .2    | -     | 1.0  | .1    | .3    | .2    |
| BEADS              | -       | 4.2   | -     | -    | 4.3   | .4    | 2.7   |
| SUB TOTAL          | 98.4    | 92.6  | 89.9  | 90.0 | 88.4  | 90.7  | 92.2  |
| UNIDENTIFIED       | 1.7     | 7.4   | 10.3  | 9.9  | 11.6  | 9.3   | 7.6   |
| TOTAL              | 100.1   | 100.0 | 100.2 | 99.9 | 100.0 | 100.0 | 99.8  |

the wall excavations. Miscellaneous storage items dropped from 7 per cent to 3.9 per cent, and smoking from 10 per cent to 4.9 per cent while office supplies, hygiene/medicinal and miscellaneous were all absent. While industrial artifacts remained constant with trace quantities, beads increased from 0.5 per cent in the interior to 2.7 per cent in the walls. The higher concentrations of these activity related artifacts in the interior must have been at least partially caused by re-use of the interior after the roof collapsed. Certainly the office supplies were discovered in a concentration associated with Horizon 3. Likewise, the miscellaneous storage items, medicinal/hygiene items and the miscellaneous items all concentrated in Horizon 3. This Horizon seldom occurred in the wall excavations.

In 1980, Horizon 1 was represented by 20 functional groups with seven each containing over 1.2 per cent of the sample. In 1981, there were only 13 functional groups represented with only four over 1.2 per cent of the sample and fauna comprised 83.5 per cent. Architecture, construction fasteners and miscellaneous storage (predominantly crate ties) were the only other well represented groups. The comparative lack of functional groups could be explained by significantly less re-use of the steep walls compared to the flat interior but the large quantity (1055 fragments) of bone has not been adequately investigated.

Horizon 2 had just the reverse distribution. The interior contained 11 functional groups while the exterior contained 18. The first four groups were the same though the order was slightly different. The biggest difference was in sheer quantity. In 1980 there were 118 artifacts from this horizon while in 1981 there were 3198. This is at least partially explained by a far more intensive examination of this horizon in the second season. Interesting artifacts included a trigger guard, a furniture lock and an ornament.

Horizon 3 occurred only in those units which were part of the interior. Little of the interior was excavated in 1981 and only 68 artifacts were recovered from this horizon making any kind of pattern definition spurious at best. This lack of an adequate sample was further complicated by the fact that 45 artifacts or 66.5 per cent were of one group - miscellaneous storage. Horizon 3 seems to represent an entirely different association than all other horizons which is probably related to its function as the main living floor after the demolition of the structure.

Horizon 4 is located in the interior of the structure and it yielded only 272 artifacts in a pattern very similar in character to that established in 1980. As only 60 artifacts were recovered in 1980 there was somewhat less diversity than was identified in 1981. The well represented groups were identical though there was some minor re-ordering such that in 1981 the ranking consisted of fauna, construction fasteners, smoking, food serving, miscellaneous storage and architectural groups.

Horizon 5 was very well represented with 1222 artifacts recovered from the interior and the trench that was excavated along the entrance corridor. It was characterized by fauna, architecture, food storage, construction fasteners, food serving, smoking, beads and 11 other functional groups. That pattern was similar but not identical to the pattern established in 1980. The existence of cartridges as well as musket balls and a trigger guard finial in the food procuring group seemed to indicate a period of transition from black powder to cartridge arms. Perhaps the most unusual aspect of this horizon was the 14.3 per cent food storage artifacts. This was almost entirely made up of a variety of glass bottles and jars.

Horizon 6 was very similar to its 1980 counterpart and, was once again very similar in content to Horizon 5.



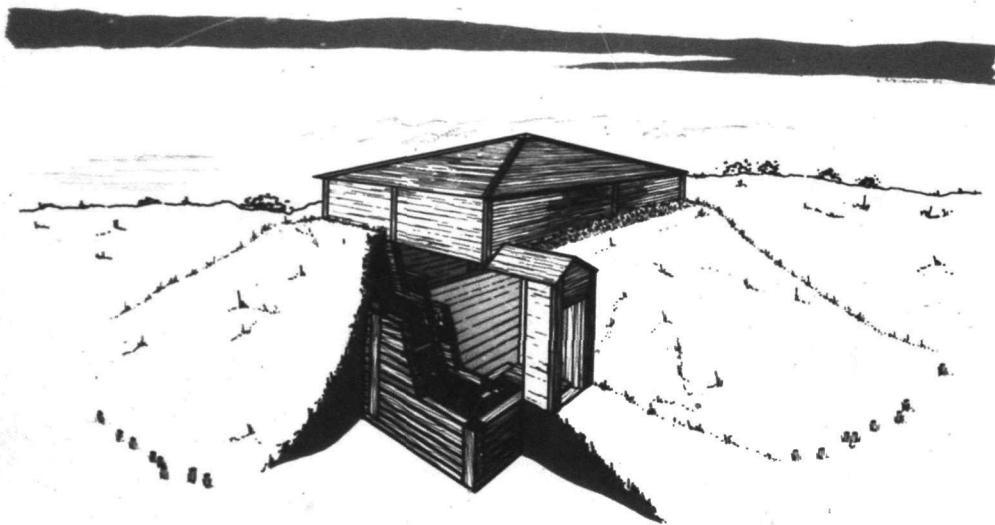


Figure 6. Artists interpretation of construction technology in Ice House (K. Graham-Stevenson, artist).

The primary functional groups were fauna, construction fasteners, architecture, food serving, smoking and miscellaneous storage.

### Summary

The 1981 excavation did much to clear up confusion about the construction techniques used in the erection of this multi-walled building (Figure 6). This was particularly true for the information on construction, spacing, connecting and infilling of the outer and middle walls as well as the entrance passageway. Even so, there has still been only a small portion of the structure actually excavated and several of the interpretations could be altered by subsequent investigation.

The artifact analysis confirmed many of the earlier interpretations, especially concerning the high percentages of both fauna and storage containers. For the overall 1980 and 1981 excavations, fauna represented 20.6 per cent of the sample; food storage containers represented 2.9 per cent and miscellaneous containers represented 0.9 per cent. In the ice house these three functional groups comprised 52.5 per cent, 4.0 per cent and 3.9 per cent respectively.

The additional excavations did provide some further characterization of the stratigraphic components. Horizons 3 and 4 now appear to relate to the interior only and Horizons 5 and 6 to the interior and passageway. Horizon 3 seems to have been a living surface after building collapse and was probably utilized as a selective dumping ground or a convenient place to burn unwanted goods. The strong relationship between the contents of Horizons 5 and 6 suggests that perhaps they should be lumped together, given that they are both fill zones. They also appear to have come from some area of the site with a less specific set of functions.

## THE INLAND CARGO HOUSE

### Introduction

One of the primary considerations of the 1981 field season was to devote the greater portion of the resources to the excavation of a single structure. This exercise had two basic objectives. The first was to determine just what rate of excavation could be expected under circumstances of intensive activity. It would provide good clues as to the speed at which such an enterprise could proceed; the range of problems that would be incurred, and the kinds of returns that could be expected. The second objective was to see what additional information the analysis could produce from this type of excavation.

Three structures were originally considered for examination; a boat house, a warehouse and a fur store. All of them were industrial in function and all of them fell within the endangered zone. A survey of the documents and photographs, ground reconnaissance and, the aforementioned testing program were used to determine the most appropriate structure. The Inland Cargo House was chosen.

### Structural History

The need for warehousing was always evident at York Factory. The first York Fort constructed in the 1680s probably had one of its flankers designated as storage space

as well as two additional buildings which were called the warehouse and the storehouse. (I excluded at the outset powder magazines and equipment storage from consideration.) When the new post was constructed in 1715, the central building, three stories high, was probably all warehouse space.

It was in the second York Factory II, that the real demand for storage began to emerge. The original flanker fort, constructed in the 1740s, had one flanker designated as a storehouse and three curtain sheds which were probably used for storage. The 1745 Cooperage was also used for warehousing and the 1746 hog shed was later converted to a warehouse. With a 1760 provision shed, a 1770 rope shed and a 1770-3 boat house it was obvious that the demands for storage facilities had increased dramatically as the factory's emphasis shifted from that of a trading post to that of a depot.

The change in status was complete by the time of the construction of the Old Octagon in 1790s. As well as two flankers for storage, this post contained separate buildings or sheds for coal, kegs, salt, furs, oil, boats and up to eight unspecified sheds or warehouses. The major rebuilding program that was initiated in the 1820s and continued through to the 1850s saw the climax of York Factory as a warehousing port. During this period separate structures were built to store furs (3 buildings), inland cargo, provisions, oil, coal, rope, tar, government surplus, iron, canoes, dog meat, rum, kegs in addition to the one enormous two storey depot which housed most of the trade stock. Most of these buildings were over 15 m long and eight were over 23 m long to give some estimate of size.

The particular building that was excavated in 1981 was one of four warehouses constructed in front and downstream from the main depot. It was the southeasternmost structure

and the first of the four constructed. Although the history of the building's construction and use is incomplete and sketchy, we do know several pertinent facts. The need for a special warehouse to house cargo bundled up for the inland trade was first recognized in 1822 when the council at York Factory recommended "that thirty effective men be supplied J. Geo. Mctavish Esqre. for the business of York Factory, and that he be directed to cause to build two new Stores to correspond with those erected last year...." (H.B.C.A. Minutes of Council at York Factory, 8 July 1822, p. 23). The reference to the construction of the previous year referred to the fur store erected south of the depot. However, it was not until August of 1825 that the framing for the new store was begun (H.B.C.A., B.239/a/134, YFJ, fo. 19d, 5 June 1926).

The 1825 building was used as the inland cargo warehouse until 1835 or 1836 when Hargrave noted that there was so vast a quantity of private goods destined for the Red River colony that a special warehouse had to be appropriated for that purpose (H.B.C.A., B.239/a/149, YFS, fo. 6, 25 Sept. 1835). This warehouse likely took on that function. The next mention of the building occurred in a series of short notes during the summer of 1844 when windows were either added or replaced, the foundations were renewed and the back (probably north) wall was weatherboarded (H.B.C.A., B.239/a/159, YFJ, fo. 50d, 16 August 1844). It was during the same year that the Governor and Committee granted the Red River settlers permission to store surplus produce over the winter at York Factory (H.B.C.A., a.6/26, fo. 121d, Governor and Committee to Simpson, 1 June 1844) so it is possible that this building now served a dual purpose of storing goods in transit both ways between the Red River and England.

No specific reference was made to the building for a number of years. Although it was not described in the 1889

inspection report, in the 1895 report it was identified as a flour store measuring 75 feet by 22 feet (22.8 m by 6.7 m). It was also described as being one and a half storeys, of frame construction, weatherboarded, lined and "tight". Of the four warehouses in that block, one had already been demolished and the report described the other two as having a worse condition (H.B.C.A., B.239/e/17, f2a, YF Report 1895-1897, F. Matheson). The fact that it was being used to store flour was also a good indicator of its condition. While flour became a principal commodity local informants have maintained that cannonballs were stored there as well. This suggests that it also received what was left of the military goods that had been kept in the Government Warehouse when it was demolished in 1894 (Donaldson 1981: 85). The change back to its original function as an inland cargo warehouse probably occurred in 1911 when York Factory was re-organized. By this time it was probably in too poor a condition to keep flour dry. On the 1921 and 1925 plans it was called an outpost shed while the 1930 and 1935 plans labelled it an oil store for fuel storage. In 1939 it was demolished (Donaldson 1981: 114).

I have derived a description of the structure from a number of historic photographs. It was a long, narrow building of frame construction with horizontal weatherboarding and a hip style tinne roof. The long south (or front) wall had a centrally located double door, flanked on either side by three relatively evenly spaced windows. There were four dormers in the upper floor, two immediately flanking the door and two flanking the middle windows. Each dormer contained another window. The east wall had a single door located just east of centre and a large dormer that contained a narrow door for direct access to the second storey. There are no pictures of the west wall; however, it probably duplicated the east. The only picture of the north (or back) wall seems to indicate that it duplicated the front though it may have lacked a door (Figure 7).

### Stratigraphy

The soil layering at this excavation was relatively straight forward. The topsoil (Horizon 1) was the normal dark brown to black peat with a very heavy root matt. Below this was a second dark brown peat, usually having a greasy texture (Horizon 2). The third layer (Horizon 3) was yet another dark brown peat that was indistinguishable from the second horizon in some areas. When recognizable, this peat did contain a large quantity of small wood chips in many areas. The last major soil zone (Horizon 5) was the black peat that formed the living floor of the first inhabitants on the site. This overlay the bands of sterile clay and black peat that were diagnostic of the pre-occupation flooding phases.

The various anomalies and soil lenses were all recorded as Horizon 4. East of the east wall of the structure a feature that resembled a series of abandoned footer trenches contained a number of soil disconformities down the approximate centre of the units in an east-west orientation (Figure 8). The shallow trench and an intersecting trench about 3 m from the east edge of the foundations will be described more fully below. These trenches appeared below Horizon 3. To the south of the long trench was a light brown clay mixed with brown peat (Horizon 4A), while to the north the components seemed to be reversed with a brown peat predominating (Horizon 4B). The trench fill itself was a mixture of peats and clays (Horizon 4D). Furthermore, set within Horizon 4A was a small, basin-shaped hearth (Horizon 4C).

The other area of soil lenses was outside the south wall of the structure in the area presumed to be near the centre of that wall. Between Horizons 3 and 5 four thin lenses of soil were recorded. The uppermost was a mottled light brown peat that gradually graded into black wood chips. The second and third layers were both deposits of wood chips; the uppermost containing significant quantities



Figure 7. View of Inland Cargo House 1916. (Photo courtesy of Public Archives of Manitoba, John Campbell Collection 143.)



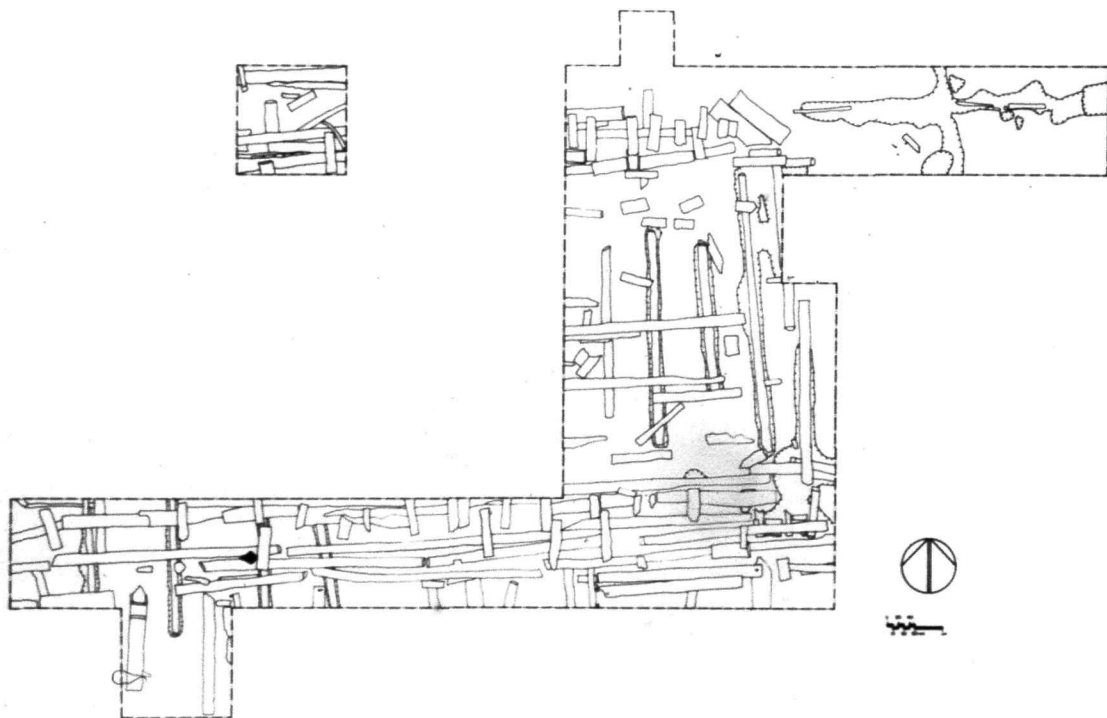


Figure 8. Planview of excavations at Inland Cargo House.  
(D. Elrick, draftsperson.)

of sawdust. The fourth layer was a reddish-brown coloured deposit of a fine grained organic material, either sawdust or peat. All of these were labelled horizon 4E.

There were also two deposits of sawdust superimposed over woodchips called Horizon 4F located in an isolated excavation unit outside the north wall of the building.

#### Structural Description of the Inland Cargo House

Despite the large portion of the building that has been excavated, interpretation of many of the construction details is still difficult. For one thing, the remains from the excavated portions of all three walls have proved to be somewhat different. For another, there has been firm evidence of foundation repairs but the extent has not been identified. For this reason, the following description will attempt to describe the various structural members, one wall at a time, then amalgamate the results into a cohesive interpretation.

The east side was the most straightforward of the three exposed walls. The only visible remnants were two mud sills, oriented north-south (Figure 9). The inner mud sill was a log 5.07 m long, half buried in a prepared footer trench. The outer mud sill was actually composed of two members. The north half was a 2.92 m long and the south half was a 3.32 m long timber. They overlapped in the centre by .55 m so that the overall length of the outer mud sill was 5.69 m. Both ends of the outer mud sill showed evidence of foundation repair. At the north end, a preparation pit has been excavated and .6 m long half timber inserted at an angle from the east (outside) to stabilize the corner. A similar situation occurred at the south end where the outer sill has been supported by .6 m long timber from the inside plus a timber and a log, both of undetermined

length, placed from the outside. Both inner and outer mud sills end on a line approximating that of the inner mud sills of the long walls having large gaps in the corner. The distance between the inner and outer sills is 0.5 m at each end.

The north wall appeared to have two mud sills at the east end and three mud sills farther along the wall. However, because of the small area excavated and the superimposition of other structural members, very little could be accurately interpreted. The problem seemed to be further compounded by the removal of all or portions of sills in the northeast corner. The actual sub-sill structure appears to take on shape very near the west excavation limit of the major set of units.

The northeast corner exhibited evidence of foundation repair. Neither the east nor the north wall mud sills actually extended into the corner (Figure 10). Instead, two immense half timbers were laid side by side at a 45° angle to the walls to create a platform approximately 130 cm long, 64 cm wide and 15 cm thick. Along the west edge of this sleeper platform two thin shims had been placed.

To the immediate west of the corner timbers at least one and probably two mud sills commenced. The visible sill, an 8 cm diameter log was 2.4 m long. It was covered with a ladder like frame of north south oriented steps approximately 7 cm to 10 cm thick, 35 cm long, varying from 17 cm to 23 cm in width. The irregular spaces between these steps were set with east-west oriented planks of irregular measurements. None of this frame was nailed together. Over this was another layer of north-south oriented timbers and slabs set like railway ties and centred on the north arm of the frame. These "ties" varied from 49 cm to 79 cm in length, 15 cm to 26 cm in width and 7 cm to 13 cm in thickness.

The frame extends about 2.5 m and does not reappear in the isolated unit to the west. In that unit it also seems

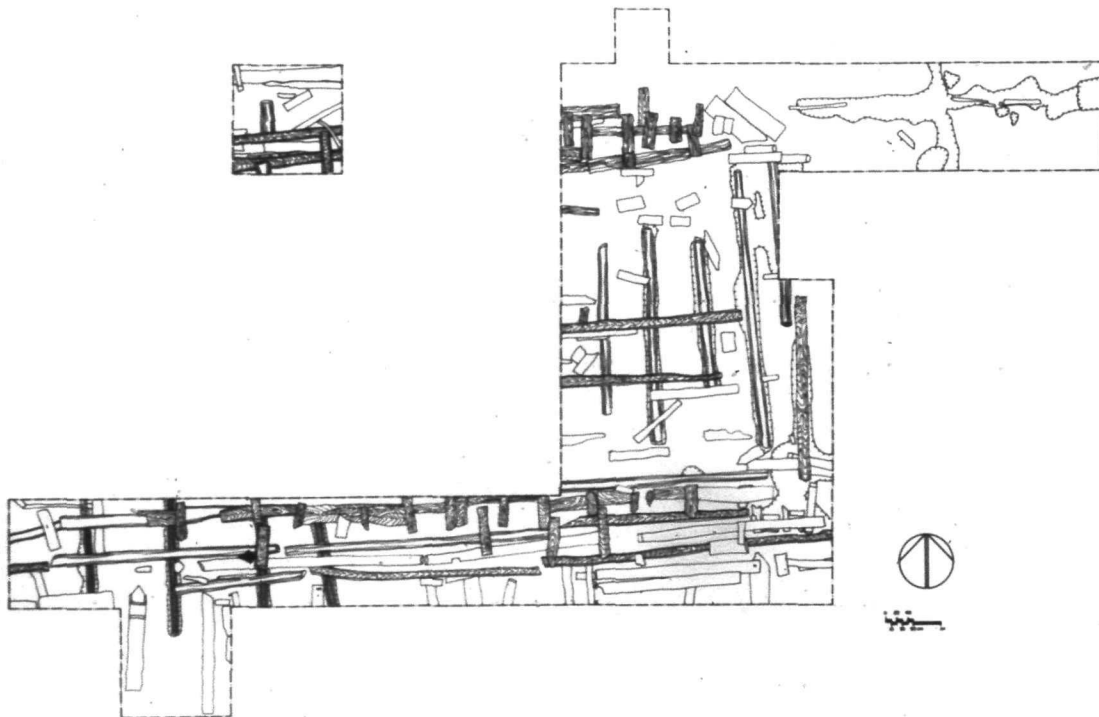


Figure 9. Planview of Inland Cargo House outlining structural pieces known to relate to the actual building. (D. Elrick, Draftsperson.)

that the mud sills increase to three in number and are offset from the two eastern sills. However, the upper level of "ties" continues to span the two outer sills, even into the isolated west unit.

One additional feature was uncovered in the isolated unit. Flush against the north edge of the centre sill were the remains of several vertical boards 2 cm in thickness. They were of various broken lengths and ranged from 11 cm to 18 cm in width.

The south (front) wall was excavated from the southeast corner of the structure to the centered doorway. The basic components of this wall were very similar to the north wall but their association showed a different style of organization. The base of the foundation appeared to be made up of three parallel lines of mud sills oriented in an east-west direction and separated by about 0.5 cm. The mud sills were either logs or half timbers and were from 2.74 m to over 5.0 m in length. To the west (6 m) these mud sills were set on by a series of log sleepers set perpendicular to the sills and spaced from 1.06 m to 1.6 m apart.

Portions of a second lattice of wood lengths were found directly over the northernmost of the three sills. Unlike that of the north wall, this arrangement was not overlain by the "railway tie" timbers. Furthermore, the ladder like construction was disrupted by the apparent lack of one set of rails. On this wall the construction took the form of the piece (or occasionally two pieces) of wood laid in a north-south orientation. Adjacent to it would be an east-west oriented piece laid such that all the north edges were reasonably flush and all the east-west pieces were centred on the north sill. This entire lattice was constructed of short lengths of plank of varying widths and thicknesses that ranged between 2 cm and 10 cm but averaged around 5 cm.

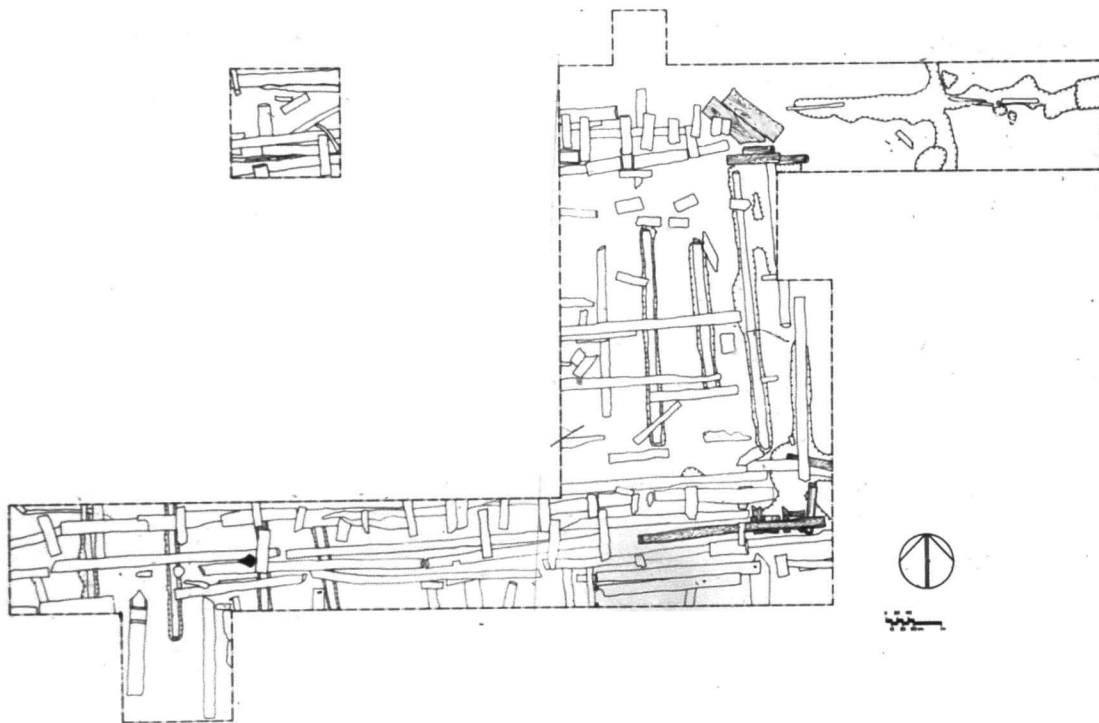


Figure 10. Planview of Inland Cargo House highlighting structural pieces known to relate to foundation repairs. (D. Elrick, draftsperson.)

There was also some evidence of the "railway tie" strategy on the south wall. There were four timbers or half timbers that either spanned the south and centre mud sills or balanced on the centre mud sill. They varied from 77 to 93 cm in length, 14 to 20 cm in width and 8 to 15 cm in thickness.

There was also evidence of repair on the east corner of this wall. Two half timbers were slipped into the spaces between the mud sills. The 3.12 m long half timber found between the south and central mud sill was shimmed up all along the east half by a series of cross pieces. The second half timber, between the central and north mud sill was also elevated at the east end but was of undetermined length.

In those areas that were excavated very little remained of the interior structure of the building. There were three logs laid in footer trenches at intervals of approximately 0.75 m in a north-south orientation. They ranged from 3.89 m to 2.7 m in length and all three were centred between the north and south walls. Spanning these, down the centre of the structure, was a half timber. A second half timber was set 0.8 m south of the first. There was also a portion of a third east-west oriented log projecting from the west wall of the unit 2.0 m north of the central member. This may have been part of the internal structure.

#### Structural Description of the Boardwalk

Located immediately south of the south wall of the Inland Cargo House were the remains of a boardwalk that apparently extended from the front promenade (outside the palisade), across the west faces of the two warehouses, to the front of the mens' house. Structurally the remains indicated a very simple construction (Figure 11). The supporting under-

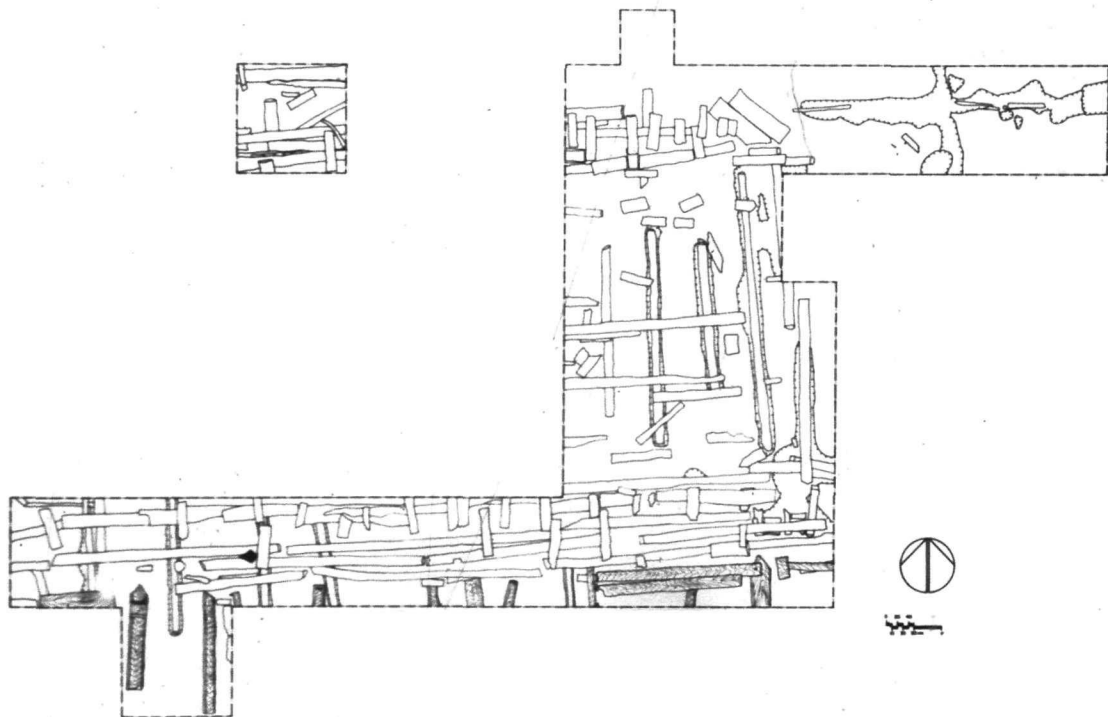


Figure 11. Planview of Inland Cargo House highlighting boardwalk. (D. Elrick, draftsman.)



structure consisted of timbers, half timbers and the occasional log, laid in a north-south orientation at odd intervals. The two of these that were completely excavated measured 1.87 m and 2.2 m in length.

Planks were laid to span two or three support logs and were nailed in place. Two remnant planks were recovered: one measured 295 cm long, 20 cm wide and 5 cm thick, the second measured 240 cm long, 24 cm wide and 4 cm thick. The historical photographs seem to confirm the boardwalk orientation of the surface planks.

One interesting feature was encountered at the west edge of the excavations. As stated above, there appeared to be considerably more stratigraphic layering in this area. This seemed to increase in the boardwalk's vicinity. Most of the additional deposits appeared to consist of sawdust or wood chips. As this is the front access to the structure, it seemed plausible that these extra layers may be the result of repetitive sweepings from the interior of the house.

#### Description of the Unidentified Feature

Directly east and on a line with the north wall of the building was what appeared to be an abandoned footer trench or some other form of construction trench. It started 20 cm east of the northeast corner and continued eastward for at least 6 m for the full length of the excavation. At the approximate mid point of the excavation, there was a cross trench with what was probably a large post hole or piling preparation pit at the intersection. A second pit was located right at the east edge of the excavation.

The trench itself varied between 17 cm and 50 cm in width and from 0 cm to 10 cm in depth with the two pits dug to about 35 cm in depth. The trench appeared to have been

dug into the black peat, not disturbing the soils above it. This would seem to indicate that it was pertained to the earlier period of occupation at the site.

Finally, there was a single basin shaped hearth located in such a way as to overlap one portion of the north-south section of this trench. This hearth was 40 cm in diameter and 10 cm deep. It was filled with charcoal, burnt bone, ashes and pipe fragments. This hearth was at the bottom of layer 3 and actually dug into a portion of the trench fill.

### Structural Artifacts

There were 2858 pane glass fragments recovered from the Inland Cargo House which amounted to a mean 32.9 fragments per square metre and a very wide standard deviation of 56.3. Some very high density areas and some very low densities appeared to be related to their location relative to the building. Units that were primarily inside the structure, revealed a mean of 22.7 fragments/m<sup>2</sup> while outside units had 43 fragments/m<sup>2</sup>. When the entire operation was examined, nine units had significant pane glass concentrations.

All the pane glass concentrations were located on either the north or south walls. Combined with photographic evidence of the south wall this distribution equated well with window locations. To pinpoint windows, it was assumed that the centre of a concentration would approximate the centre of a window. This would indicate a window on the north wall 1.7 m from the northeast corner. It would also indicate windows on the south wall at 3.0 m, 8.5 m, 12.5 m and 14.5 m from the southeast corner.

Comparing this with a ground plan reconstructed from historical photos of the south and east walls provided interesting information. Projecting the expected distances

from the photographs was not easy as none of the photos were face on and the actual length of the structure was unknown, though historic inspection reports indicated it was 75 or 80 feet (22.8 or 24.4 m long). However, a graphic representation seemed to indicate that the glass concentration on the north wall represented the first window and that it was actually closer to the east end of the building than the photographs would suggest. The first and second (31.0 m and 8.5 m) concentrations on the south wall aligned with the second and third windows on that wall while the third and fourth concentrations (12.5 m and 14.5 m) represented the central gable windows of the second storey. Virtually all significant glass concentrations were found in Horizons 1 and 2 which indicates that they date to later use periods and the destruction of the building.

There were 4043 nails recovered from the Inland Cargo House of which 3571 or 88.3 per cent were related to architecture. In the first horizon 78 per cent were wrought, 9 per cent were machine cut and 13 per cent were wire. The major types were wrought clasp head (26.7 per cent), wrought unidentified (19.3 per cent) and wrought rosehead (18.1 per cent) though there were also quantities of wrought, round headed nails, machine cut, clasphead nails and wire, common nails. While the wrought rosehead nails were evenly distributed by length, the clasphead nails were very uneven with 46.1 per cent in the 7.6 cm (3 inch) range and 51.7 per cent broken.

In the second horizon 74 percent were wrought, 12 per cent machine cut and 14 per cent wire with the same three primary types as the above horizon equalling 62.3 per cent of the nails in that level. Machine cut clasphead, and wire common nails were also found in large numbers but each was under 10 per cent of the total. Once again 94.1 per cent of the wrought clasp nails were around 7.6 cm long which gave the impression that the first two horizons were very similar in character.

The third horizon began to take on an aspect of greater age for the wrought nails increased to 85.9 per cent, the machine cut nails stayed at 9.4 per cent while the later, wire nails decreased to 4.9 per cent. As in the upper layers 76.4 per cent of the nails were wrought of rosehead, clasphead and unidentified types; machine cut clasphead was the only other type of any quantity. Both types of clasp-headed nails clustered around 7.6 cm. This characterization was virtually duplicated in the fourth horizon except for the continued reduction of machine cut (5.8 per cent) and wire nails (3.2 per cent).

The fifth horizon contained considerably fewer nails than the upper layers, only 4.8 per cent of the total assemblage which indicates that it pre-dated construction in the area. It had a character very similar to Horizons 3 and 4 except that it had 20 wire nails or 11.4 per cent of the horizon total. It was discovered that these nails all came from a single lot indicating an incorrect horizon designation.

Overall, it appears that this structure was built almost entirely using wrought nails. However, there were enough machine cut clasp nails to suggest some form of structural repair in the mid to late 19th century and enough wire common nails to indicate a later repair phase. There were also a few wire roofing nails to match the "rubberoid" [sic] roof that was recorded in the Outfit 252 plan (HBCA, No 14 Outfit 252 plan).

The remaining 318 structural artifacts were separated mainly by materials. They comprised 76 per cent of a sort of asphalt roofing, 11 per cent window putty, 8 per cent sheet metal roofing, 3 per cent tar, and 2 per cent other items. The asphalt roofing, found almost entirely in the first three horizons and concentrated around the perimeter may have been the "rubberoid" [sic] roofing. Rubberoid made

its appearance around the turn of the century as a wool-felt roofing material impregnated with chemicals (Miller 1905: 150). It was known to have been used on this structure. The window putty came from all layers and all portions of the site. The only real concentration occurred outside of the south door. The sheet metal roofing was too insignificant a quantity to indicate any major structural function. Furthermore, there was no historical evidence of metal roofing on this building. That suggested that it was either re-deposited from another structure or that the fragments represented flashing and repairs. The tar was probably a result of storage of that substance.

The remaining items included two padlocks, a strap hinge, and a reinforcement plate from Horizon 2. Almost all were located about 5 m west of the southeast corner. A single piece of wallpaper and a piece of caulking were found in a builder's trench along the east wall and probably related to Horizon 3.

In summary, Horizons 1 and 2 indicate the repair and dismantling phases of the structure, particularly the re-roofing of the building and possibly a later foundation repair along the south wall. Horizons 3 and 4 indicate building construction while the lowest horizon predates the structure. The pane glass was useful in determining window location more precisely and in authenticating north side windows.

### Artifact Analysis

The Inland Cargo House had the most intriguing artifact collection yet encountered at York Factory. This was due to its size, entirely new pattern and to the differences that were exhibited through time. The 29,654 artifacts recovered from this operation produced a mean of 341 artifacts/m<sup>2</sup> of

excavation. This is one of the highest densities encountered on the site. It also had an unusual configuration in that a number of specific artifact types not generally concentrated in other excavations were well represented here. This can be immediately recognized by a simple comparison of percentages of certain functional groups within the Inland Cargo House to the total percentages from the 1981 and 1982 excavations.

The overall percentage of the food related artifacts was lower than most operations yet the food procuring group was 6.7 per cent of the total artifacts. This is a full 3 percentage points higher than the site total and 6 per cent higher than all other building excavations. A full 26.5 per cent of the artifacts were beads which compared to 12.7 per cent overall and 0.5 per cent for the East Fur Store. The actual numbers of these figures and those of a few other classes were so high that they masked some additional concentrations. Of the 29,654 artifacts, 1872 were buckshot, 6585 were fauna, 2903 were pane glass, 2363 were clay smoking pipes and 7859 were beads. Together they comprised 72.8 per cent of the sample. This had a tendency to overwhelm the artifacts related to the ethnobotanical, clothing fastener, personal, native industry, and military groups, all of which had quantities over double those of other building assemblage.

An examination of individual horizons revealed some interesting associations and trends. Horizon 1 contained only 9.5 per cent of the artifacts but set a pattern of diversity would be followed throughout the operation. Of the 34 possible functional groups, 19 were found in this horizon. Of these, 17 functional groups would be repeated in every horizon. The only group unique to this horizon was office supplies for ink and mucilage bottle fragments were recovered from this horizon. The overall character of the

horizon was heavily weighted towards the shelter related category, particularly construction fasteners and pane glass. This was followed in turn by food related, beads, domestic activities, industrial related and clothing related artifacts. The highest ranked functional groups were construction fasteners, pane glass, beads, fauna, miscellaneous fasteners, food procuring and food storage.

Horizon 2 contained 26.6 per cent of the artifacts. While shelter related artifacts still predominated at 40.2 per cent of the sample, food related artifacts increased to 31.1 per cent. These were followed by beads and domestic activities, with industrial activities and clothing being equally represented. The functional groups most represented were pane glass, construction fasteners, fauna, beads, food procuring and smoking. This ranking was very similar to the first horizon for the first four ranked groups but considerably different at the next level. The total of 23 functional groups recovered showed more diversity than the previous horizon and three of these groups, furnishings, clothing and land transportation were found only in Horizons 2 and 3.

Horizon 3 contained the greatest density of artifacts: 32.1 per cent. At this horizon, the relative amounts of the various functional categories made a significant change. Food related groups become predominant followed by beads, then shelter and domestic activities, while the industrial activities and clothing related remained at the bottom. This also had an effect on the ranking of the functional groups. Fauna was the highest percentage followed by beads, construction fasteners, smoking, food procuring and pane glass. The declining importance of the shelter related artifacts caused the fundamental change in group ranking.

Horizon 4 contained 13.4 per cent of the total artifacts and again reflected major rank changes. At this level beads predominated, preceding food, domestic activities,

shelter, industrial activities and clothing. The functional group ranking consisted of beads, fauna, smoking, architectural fasteners, food procuring, pane glass and food serving. Horizon 5 which comprised 18.3 per cent of the total had an ordering of functional categories identical to Horizon 4 and a very similar ordering of functional groups.

I first suggested that the changes in pattern from horizon to horizon implied at least two completely different assemblages for this area but closer analysis of the figures seemed not to support this. Instead it appears that several functional groups, especially those with large quantities of artifacts, were patterned in a series of linear regressions of increasing or decreasing importance. The correlation coefficient of the percentage of fauna is .7, while even more significant positive correlations were demonstrated for smoking (.87), beads (.98), and personal artifacts (.97). At the same time, negative correlations were demonstrated for food storage (-.95), architecture (-.85), architectural fastenings (-.98), pane glass (-.94), miscellaneous storage (-.82), and miscellaneous fasteners (-.91). These correlations, spectacular as they seem, were also skewed by the use of percentages.

To achieve a more meaningful index, a table was constructed indicating the quantity of artifacts divided by the number for square metres represented in that horizon to get a value of artifacts per square metre ( $a/m^2$ ). This had the result of negating the effect of one functional group upon another and of equalizing those horizons which did not occur across the site. One consequence was immediately apparent. Instead of a measure of density that curved to a peak in Horizon 3, there was a notable increase in density which peaked at Horizon 4 then dropped off significantly in Horizon 5. This was easily explained. Horizon 5 was the living surface prior to construction of the building and as such



had less activity associated with it. This principle was common throughout the riverbank excavations and was attributed to the smaller size of the 1789-1830s fort. In fact, the density of  $84.69 \text{ a/m}^2$  was considerably higher than most areas and probably indicated some higher degree of utilization than was evident in other operations.

This form of analysis also tended to break up the correlations that were encountered with percentages. Correlation coefficients were run on all the same functional groups using the new figures and only personal artifacts (.73) and architecture (-.81) showed any correlation at all. Since the lowest occupation level was known to be less used, it could have a skewing effect on the data so yet another run was done, this time deleting Horizon 5 from the analysis. The results were equally as impressive as the first run but followed a completely different configuration. Of the 17 functional groups that occurred in all four horizons, nine showed significant correlations, all of them positive (increasing density with age). These were food storage (.98), food serving (.92), fauna (.97), ethnobotanical (.7), clothing fasteners (.99), personal artifacts (.99), smoking (.95), medicinal/hygiene (.99), military (.87) and beads (.94).

One final correlation run was completed. For this exercise it was expected that there should be a negative correlation (decreasing density with age) in the categories of architecture, construction fasteners and pane glass that would reflect the large quantity of remains at demolition, lesser quantities through use and construction phases and very small quantities in Horizon 5, prior to construction. Furthermore, there would be a drop in density after demolition. In this analysis Horizon 5 was added but Horizon 1 was deleted as possibly post-demolition. The results were architecture (-.86), construction fasteners (-.92) and pane glass (-.91) which confirmed the expectation.

Table 3. Percentage of Functional Groups at the Inland Cargo House by Horizon.

| (t = trace)        | HORIZON |      |       |       |      | TOTAL |
|--------------------|---------|------|-------|-------|------|-------|
| ACTIVITY           | 1       | 2    | 3     | 4     | 5    |       |
| Food Procuring     | 4.0     | 11.4 | 5.2   | 4.6   | 5.4  | 6.7   |
| Food Storage       | 3.9     | 2.4  | 2.3   | 1.6   | 1.1  | 2.2   |
| Food Preparing     | -       | -    | -     | -     | -    | -     |
| Food Serving       | 2.3     | 1.6  | 1.8   | 2.6   | .9   | 1.7   |
| Fauna              | 8.5     | 15.0 | 31.2  | 20.3  | 25.4 | 22.2  |
| Ethnobotanical     | .3      | .7   | .3    | .3    | .3   | .4    |
| FOOD               | 19.1    | 31.1 | 40.8  | 29.3  | 33.2 | 33.2  |
| Architecture       | 3.9     | 1.5  | .6    | .5    | .5   | 1.1   |
| Const. Fast.       | 26.4    | 18.6 | 10.2  | 6.0   | 3.1  | 12.1  |
| Pane Glass         | 24.6    | 19.9 | 5.0   | 2.9   | .8   | 9.8   |
| Furnishings        | -       | -    | -     | .1    | -    | t     |
| Furniture          | -       | -    | -     | -     | -    | -     |
| Housekeeping       | -       | -    | -     | -     | -    | -     |
| SHELTER            | 54.9    | 40.2 | 15.8  | 9.4   | 4.4  | 23.0  |
| Sewing             | -       | -    | -     | -     | -    | -     |
| Cobbling           | -       | -    | -     | -     | -    | -     |
| Leatherwork        | -       | .1   | -     | -     | -    | t     |
| Clothing Fasteners | .1      | .2   | .3    | .3    | .2   | .2    |
| Adornment          | -       | -    | -     | -     | -    | -     |
| Laundry            | -       | -    | -     | -     | -    | -     |
| CLOTHING           | .1      | .3   | .3    | .3    | .2   | .3    |
| Office Supplies    | .1      | -    | -     | -     | -    | t     |
| Misc. Storage      | 1.2     | .8   | .2    | .6    | .2   | .5    |
| Personal           | -       | .1   | .2    | .3    | .3   | .2    |
| Smoking            | 2.1     | 5.1  | 8.9   | 13.1  | 9.9  | 8.0   |
| Recreation         | -       | -    | -     | -     | -    | -     |
| Medicinal          | .1      | .3   | .4    | .4    | .3   | .3    |
| Land Transport     | -       | -    | -     | -     | -    | -     |
| Miscellaneous      | -       | -    | -     | -     | -    | -     |
| Misc. Fasteners    | 4.3     | 2.4  | 1.1   | 1.4   | .6   | 1.7   |
| Native Items       | -       | .1   | .2    | .3    | .2   | .2    |
| DOMESTIC           | 7.8     | 8.9  | 10.9  | 16.0  | 11.4 | 10.9  |
| Metal Working      | -       | .1   | -     | .1    | .1   | t     |
| Military           | .3      | .3   | .3    | .6    | .1   | .3    |
| Water Transport    | -       | -    | -     | -     | -    | -     |
| Fur Trade          | -       | -    | -     | -     | -    | -     |
| Machinery          | -       | -    | -     | -     | -    | -     |
| INDUSTRIAL         | .3      | .3   | .3    | .17   | .2   | .3    |
| BEADS              | 11.1    | 13.3 | 26.2  | 38.2  | 45.6 | 26.5  |
| SUB TOTAL          | 93.3    | 94.1 | 94.3  | 93.9  | 95.0 | 94.2  |
| UNIDENTIFIED       | 6.6     | 5.8  | 5.8   | 6.2   | 4.9  | 5.8   |
| TOTAL              | 99.9    | 99.9 | 100.1 | 100.1 | 99.9 | 100.0 |

These correlations suggested that in actuality there were at least three processes interacting to create an overall pattern which was not particularly representative of any one process. The first process was a dramatic change in amount of use, but not in type of use, between Horizons 4 and 5. The second was a decreasing production of architectural waste both before and after the demolition phase which occurred in Horizon 2. The third was a gradually decreasing activity around the structure after its early years, represented by Horizon 4.

Before concluding this particular section, it should be noted that many different artifacts were found here in quantities that far outstripped other riverbank excavation areas. As analysis will not proceed any farther in this report, these artifact types will merely be listed here. However, each artifact type will be accompanied by an indicator of the order of magnitude that its presence exceeds the normal quantities recovered in other areas. Particular artifacts worthy of note include buckshot (x37), musket balls (x6), gunflints (x2), ceramic food bowls (x13), fauna (x2), ethnobotanical remains (x4), button (x4), spangles (x40), lithics (x2) cannon balls (x2) and beads (x16).

#### Summary and Interpretations

The stratigraphy of this operation is relatively straightforward and easily defined. Horizon 1 relates to use after demolition of the structure, Horizon 2 to its later use and destruction, Horizon 3 to the early use and construction and Horizon 5 to use prior to construction. Horizon 4 is composed of two parts. The first relates to the footer trenches east of the Inland Cargo House. The second is composed of a series of layers in the vicinity of the central door in the south wall and probably relates to heavy traffic and floor sweepings from inside the building. As such, Horizons 3 and 4 should probably be considered as synchronous.

There is little that can be said about the structure itself. It appears to have a very complex foundation mounted above the permafrost and incorporating a double sill to spread out the weight. Though there are no remains of the outer weatherboarding, a few scraps did indicate the nature and location of the interior lining. The structure did show evidence of extensive foundation repair which probably dates to 1844. In terms of size, it appears that it was approximately 7.5 m wide (24.5 feet). While no measurement of the length is possible, the placement of glass corresponds best to a 24.4 m length (80 feet). The glass concentrations also present some excellent indications of window placement.

The artifacts encountered in this operation have indicated an intensive utilization of the area that seems to have a consistent content throughout with changing proportions through time. At least three factors account for these changes. The first factor is the construction, utilization and destruction of the Inland Cargo House which resulted in a peak density of shelter related artifacts in Horizon 2. The second is a decreasing utilization of the area from the the period of construction. The third is a sharp decrease in use related to the earlier building phase. Assuming that the unidentified trench relates to the Boat and Canoe House built in 1804 and converted to the Red River Store later, it is possible that an overall function of this phase for packing and storage of goods accounts for the unusually large quantities of various types of artifacts.

The structural evidence of the south side boardwalk was sufficient to give a full interpretation of the construction of that feature.

The footer trenches to the east of the building present more serious problems. They definitely represent some structure or feature but the physical evidence is not equivalent to that for the common drains, palisades or board-

walks. Furthermore, photographs, site plans and the stratigraphy rule out anything after the 1860s. This leaves two alternatives. The first possibility is that it represents the remains of a lookout tower constructed in 1840-41 (Donaldson 1981:59). This was a 40 ft. high tower intended as a lookout for ships. The only indication of its location is in a sketch drawn in 1848 which seems to show it situated somewhat north of the Inland Cargo House. Two factors argue against these trenches being from that feature. First, its location is not right if the sketch is indeed accurate. Second, a tower of that size should have required substantial sub-surface support in the form of deep piles, cross timbers, rock weight, anchors and so on. They are not in evidence.

The second possibility is that it represents the 1804 Boat and Canoe House. It was known to be constructed downstream from the front gate, close to the river and was demolished between 1825 and 1830. There are two different pieces of documentary evidence of the approximate location of this structure. The boat house is located on an 1815 sketch map (Figure 12). To correlate that to the later occupation it has been assumed that the front gate of the Old Octagon is roughly equivalent to the front door of the depot and that the Old Octagon measured approximately 95 ft. (29 m) across the front. Scaling that off, the centre of the 1804 Boat House appears to sit about 85 m north and 54 m east of the front door of the depot. The second illustration is an 1821 water colour of the fort (Figure 13). Though not viewed straight on, the sketch still contains some reference points. The main dock was just off centre from the front of the Old Octagon, no more than 10 m downstream. The boat-house was 4.5 m wide making it about 25 to 35 m downstream from the dock. This gives a range of 35 to 45 m north of the front door of the depot. The actual excavations are

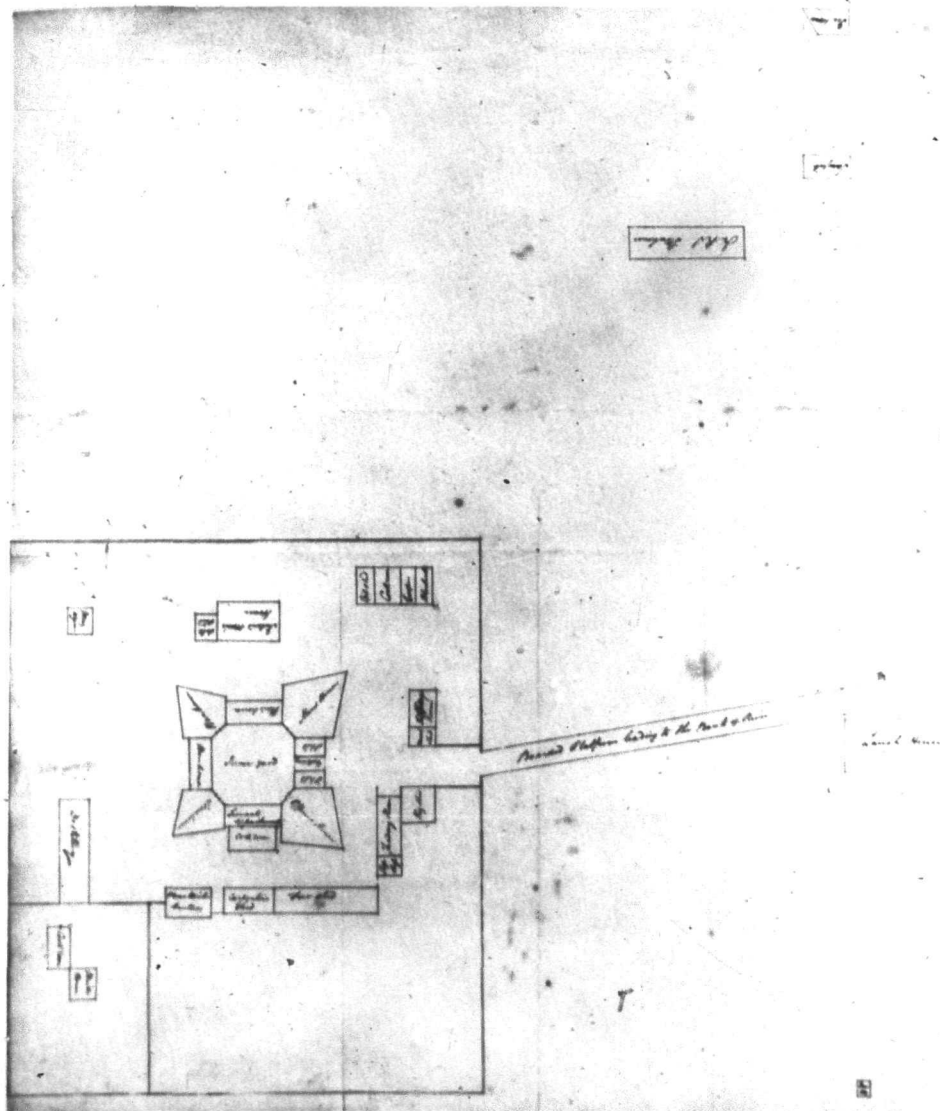


Figure 12. A circa 1815 map of the first building phase at York Factory III. (Hudson's Bay Company Archives Photo: G.1/113.)

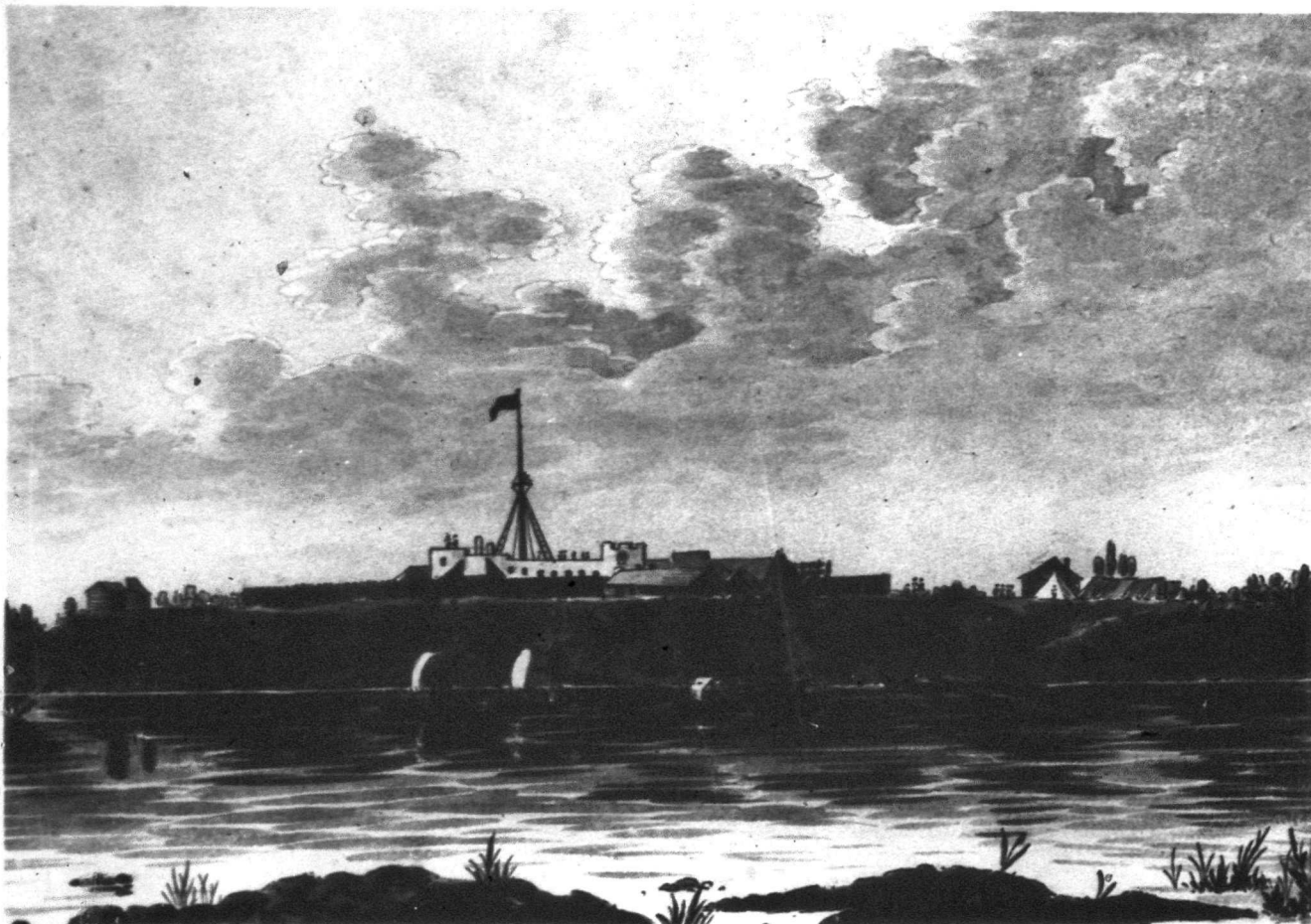


Figure 13. An 1821 painting of York Factory IIIA. Canoe and Boat House is building farthest to right. (The Public Archives of Canada: Peter Rindesbacher C-1918).

59 m north and 55 m east of the depot's front door. This places it in a correct position east of the depot and midway between the two calculations north of the depot. The conclusion is that these trenches probably relate to the 1804 Boat House.



## THE EAST FUR STORE

### Structural History

The first fur store or warehouse for fur storage was started in 1797 to the south of the Old Octagon. The foundation was laid in October of that year and framing, weatherboarding and flooring of the structure continued throughout the winter. The lead roof was finished by April 18, 1798 (HBCA, B.239/a/101/ fo.25d, YFJ, 18 April 1798). There is no clear record of the destruction of this building but replacement facilities were one of the first priorities of the rebuilding phase that went on throughout the 1820s and 1830s.

The first fur store of this era was started in October 1821 with the laying of a foundation which Simpson recorded as a "a Store 60 ft. by 22, 40 ft. to be employed for furs & 20 packing Room" (HBCA.D.3/3,p.4, Simpson's Journal, 11 October 1821). There appears to be no record of the actual assembly which probably followed during the next spring and summer after a winter of wood preparation. In later accounts, it is assumed that this fur store, the closest to the river, was alternately called the "Old Fur Shed", "Yellow Fur Store" or the "South Fur Shed". For this report, it will be called the East Fur Store (Figure 14).

The second fur store was constructed in 1825. The frames were prepared in April of that year and the construction finished on June 18 with the final tinning of the roof (HBCA.B.239/a/133,fo.22 and B.239/a/136,fo.70d, YFJ, 18 June 1825). This building, alternately known as the "West Fur

Store" and the "North Fur Store" is called the West Fur Store in this report. Both of these buildings were of equal dimensions and similar style. In 1889 they were described as 80 foot by 24 foot frame buildings, with ceiling and clapboard roofs both still in good condition (B.239/e/12, fo.4a,YF Inspection Report, J. McDougal, 6-15 August 1889). In 1895 they were described as 80 by 26 foot structures, of one and a half storeys (HBCA, B.239/e/17,fo.20, YF Report 1895-1897, F. Matheson).

However, back in 1841, they appeared to be insufficient and unsatisfactory for their given purpose. Hargrave wrote they were leaky and of unsatisfactory accommodation as they had been erected some 20 years before "in much haste" (PAC, MG19,A21, Series 2, Reel C81, James Hargrave's Letter Books, J. Hargrave to D. Finlayson, 10 Dec. 1841). In order to relieve that situation, he had already spent much of that year in a repair program that would eventually see major renovations to these two structures and the erection of a third. The wood cutting expedition at Cross Creek during the winter of 1840-1841 acquired timbers partly for this operation. From August 16 to September 27, 1841, labourers concentrated on erecting a frame for the third fur warehouse. Activities then switched to the two older structures. The East Fur Store had its foundations removed on September 28 and the flooring lifted on October 3. They began relaying sleepers on October 6. At about the same time, the smith was busy making nails and iron knee braces for the East Fur Store. The ironwork, posts and middle stringers (stair parts) were all ready by October 14.

The winter was spent cutting timber, making window sashes and a trapdoor for the new building and preparing floors. In March the carpenter built two new staircases, presumably for the older buildings, while his assistants dressed the planking, ceilings and upper floors for the

(new?) fur store. By April 12, fifty 24 foot logs had been accumulated as replacement sleepers for the older structures. By April 16 the lower floor of the new building was finished and by April 28 the upper floor was completed and the roof started. The month of May was spent weatherboarding, lining and roofing the new building while the tinsmith cut tin for an outer roof. By this time 11 men were employed in the work. The roof was finished on June 6. Two days prior to that, the carpenters cut doors in the second floor of each building and on June 7, a gallery was started to connect all three buildings. At the same time the floor of the East Fur Store was replaced and it was reroofed.

Work was apparently halted in the summer months but in September and October of 1842 the West Fur Store had its floor and sleepers renewed. That winter saw some minor finishing work on the new building including stairs, windows and doors. March was spent preparing more boards then the West Fur Store received its face lift. On April 13, 1843 the lower floor was laid, on April 17 the upper floor was completed and in May the roof was removed, replaced, tinned and tarred. June saw the completion of the painting (HBCA. B.239/a/155,156,157 various pages, YFJ, 1841, 1842 and 1843).

At the completion of this three year project, a new structure had been completed. Further, both of the old stores had their foundations, floors and roofs restored. The various references to stairways and upper floors suggested that prior to this time there had been no second storey and that this had been added to increase space and provide passage between the three buildings. It led Hargrave to write:

The Fur Stores have undergone a thorough renewal, and a new one has also been built; - an addition rendered necessary by the increased bulk of our return in robes & Tallow as well as by the large stock of Musquash which now is usually

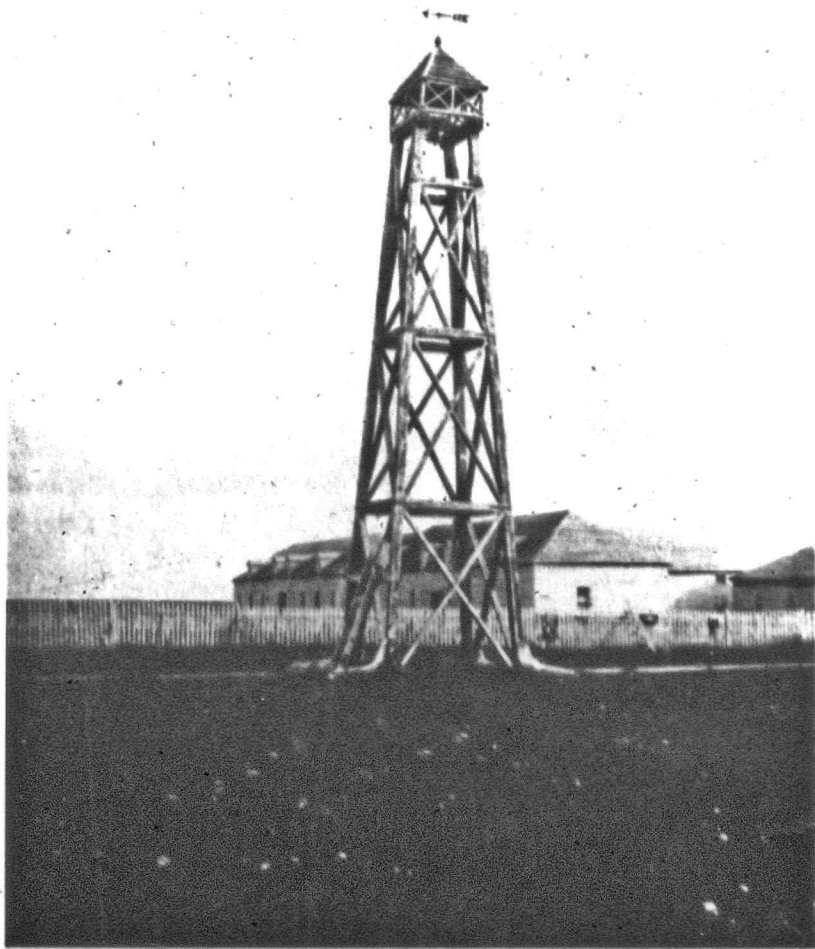


Figure 14. East and West Fur Stores from the northeast 1910. (Public Archives of Manitoba, A.V. Thomas, 102.)

left on hand in this Depot. Great care has been used to render them water-tight; which has been effected in a tolerably satisfactory degree, - while the whole Materials used have been obtained in the Country (HBCA, p.5/7, fo.358. YF Letters Outward, Hargrave to Simpson (Private), 10 Dec. 1842).

The third fur warehouse, just completed, was alternately called the "New Fur Store or Back Fur Store" but has been termed the South Fur Store in this report (Figure 15). It was described in 1889 as being a 63 by 30 frame structure, ceiled and covered with a clapboard roof (HBCA B.239/e/12 fo.4a, YF Post Inspections Report.. J. McDougal, 6-15 August 1889). In 1895 it was described as 64 by 32 feet, one-and-a-half storeys and lined (HBCA, B.239/e/17, fo.2a, YFReport 1895-1897, F. Matheson).

The structural history of the building is scant after 1842. In April of 1845 the gallery between the structures was roofed over and enclosed (HBCA. B.239/a/161 fo.35d, YFJ, 28 April 1845). In 1850 the East Fur Store, at that time called the "Yellow Store", had some floor work done, new doors made and a trapdoor put into the garret. There were also new bale presses placed in it and in the South Fur Store while the West Fur Store received a new floor planking (HBCA, B.239/a/173, fo.36 to 41d, YFJ, 28 March 1850 to 29 April 1850). In 1877 the South Fur Store was converted into a provisions shed (HBCA B.239/a/182, fo.95d, YFJ, 16 April 1877. All three were torn down in 1911 (HBCA, B.239/a/186, YFJ, 27 July 1911).

### Stratigraphy

The overall site stratigraphy followed a well established pattern at the East Fur Store. The first level (Horizon 1)



Figure 15. In 1910 Photograph the South Fur Store is tall structure in centre background. (Public Archives of Manitoba, A.V. Thomas, 97.)

was a very dark brown or black peat topsoil and root matt. The second layer (Horizon 3) was a brown peat that extended over most of the west half of the excavations. In some areas concentrations of wood chips were noted within the peat (Figure 16). The third level (Horizon 5) was a mottled layer of grey brown clay and black peat (Figure 17). I never determined whether this was a fill or a mixture of two layers which has been badly disturbed by human activity; I suspect the latter. In the southwest corner of the excavation this was replaced by a layer of dark grey clayish peat (Horizon 5B). The final layer (Horizon 7) was the traditional black peat above sterile clay (Figure 18) but as it was rarely recovered, the interpretation of disturbance in Horizon 5 was borne out.

Between each of these horizons were various soil lenses of fills forming interlevels. Horizon 2 consisted of a single lens of wood chips and sawdust that occurred in the westernmost units (Figure 16). Horizon 4 was composed of five lenses, four of which were located in the same vicinity (Figure 17). Layer 4A consisted of ash, charcoal and burnt peat in a small area along the north wall and exterior edge of the structure. Layer 4B was fine wood chips and brown peat immediately below layer 4A and more or less confined to the upper portion of a footer trench. Layer 4C consisted of the trench fill area while layer 4D was a brown clayish peat mixed with wood chips just outside the building. Horizon 4E was a wood chip filled depression over the drainage ditch located west of the structure.

By far the most complicated, Horizon 6 consisted of layers immediately above or within the black peat (Figure 18). Most of the lenses, however, were portions of a limited number of features. Horizons 6A to 6E consisting of alternate fills of clay and wood chips, came from a single depression located in the west third of the structure. West

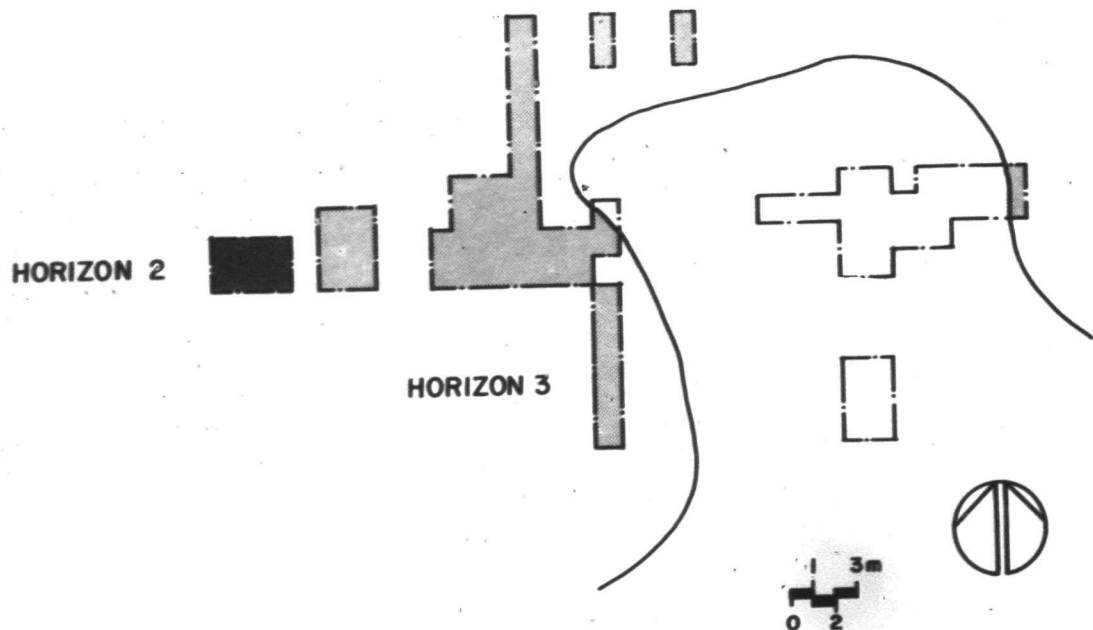


figure 16. Location of Horizons 2 and 3 at East Fur Store.  
(D. Elrick, draftsperson.)



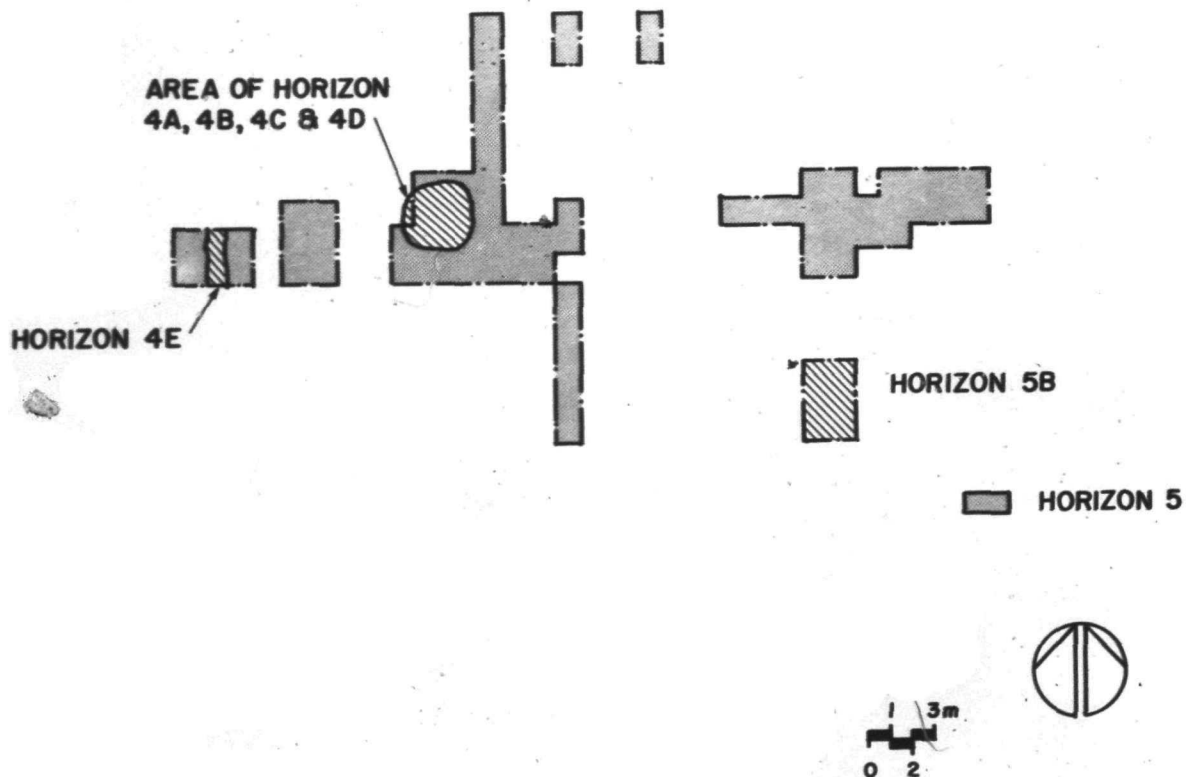


Figure 17. Location of Horizons 4 and 5 at East Fur Store.  
(D. Elrick, draftsman.)

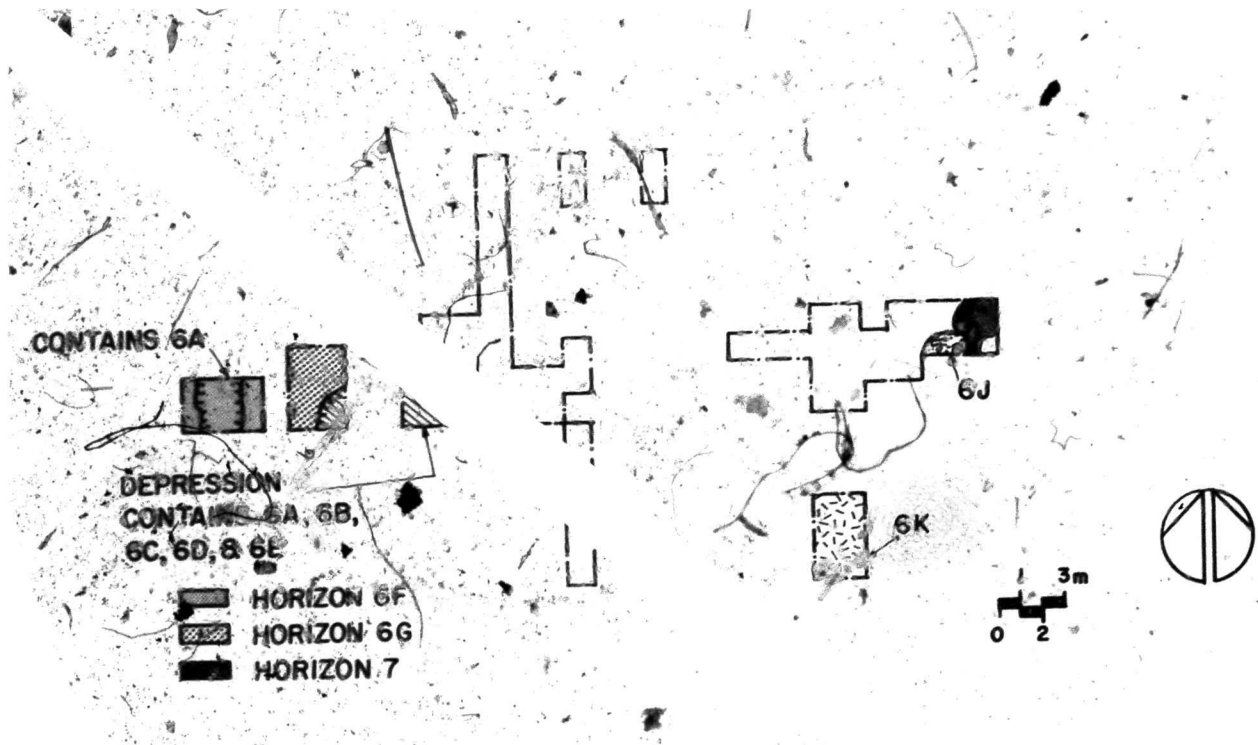


Figure 18. Location of Horizons 6 and 7 at East Fur Store.  
(D. Elrick, draftsman.)

of the depression Horizons 6F and 6G were fills laid above original grade, possibly to raise the ground level there. Below those layers was a backfilled drainage trench (6H). At the other end of the site were two more minor layers. In the southeastern isolated unit a new layer (Horizon 6K) appeared below the structure. It consisted of waterlogged clay, as it seemed to be very thick, it was not fully excavated. I interpreted Horizon 6K as part of a complex of deeply stratified fills from of a major land rejuvenation project, the filling of Ice House Creek. Similar stratigraphy series had already been encountered in the excavation of an unidentified structure (9K11) in 1980.

#### Structural Description

The archaeology at the East Fur Store eventually exposed a total of 56 m<sup>2</sup> at the foundation (Figure 18). Unfortunately the structural remains were fragmentary, giving incomplete structural information. These ambiguities were compounded by topographic features.

The north wall was the easiest to interpret. It was composed of two parallel sills. The inner sill was made up of logs, half timbers and timbers to an overall length of 20.8 m. Though the east half of the inner sill had footer trenches, there was no evidence of trenches along the west half. Approximately 50 cm north of the inner sill was the outer sill of timbers, logs and half timbers. The overall length of the outer sill was between 23.5 m and 24.5 m and again, only the east half appeared to be set into a footer trench.

Two trenches were dug across the building to the south wall but because this area is usually below water, little excavation took place along this wall. The western trench revealed a 10 cm drop in elevation at the remains of a 12 cm

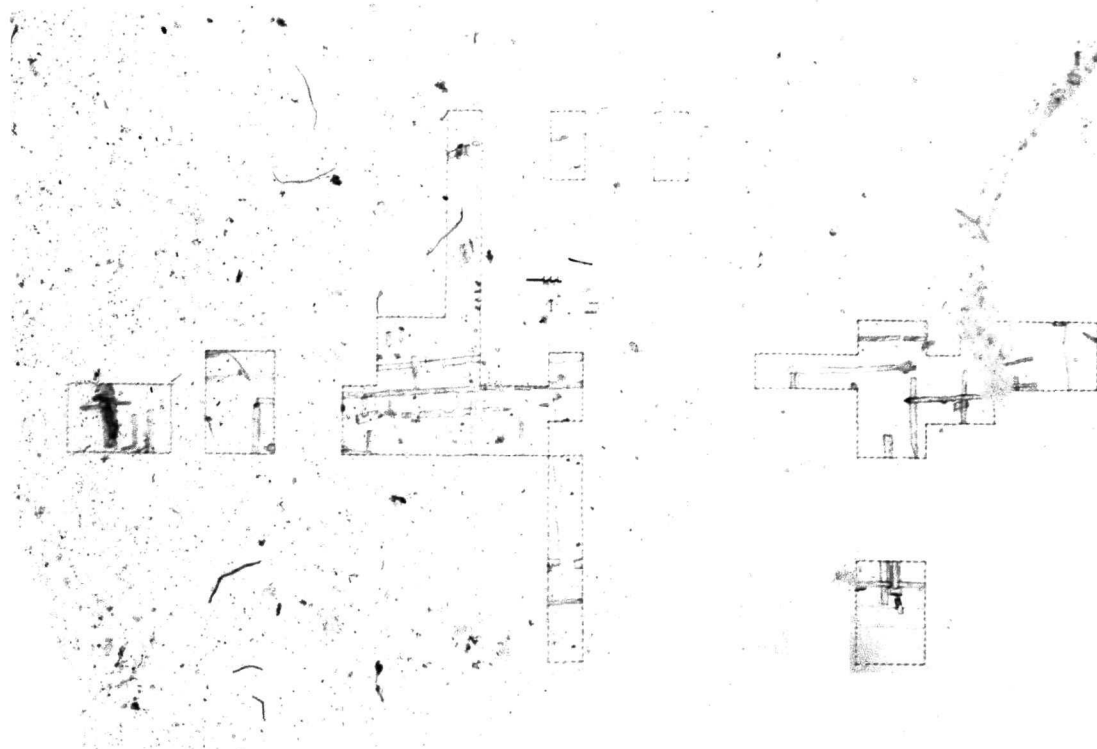


Figure 19. Planview of East Fur Store excavations.  
(D. Elrick, draftsman..)

diameter inner sill log for the south wall. The log had been severely damaged by water and surface wear. It was located 6.15 m from the inner sill of the north wall.

The east side revealed considerably more information, although it was not excavated to sterile subsoil because of severe flooding. Enough soil was removed to present a reasonably clear picture of the south wall at this point. The sill consisted first of a 31 cm diameter log sleeper laid perpendicular to the wall. Over it, set into footer trenches, two sill logs were joined end to end; one was 13 cm in diameter and the other 18 cm in diameter. There were also the remains of four planks set upright against the south side of these logs. They were 4 cm thick and varied between 10 cm and 15 cm in width. A wood slab of unknown origin was found parallel to the south side of the sill.

The outer sill was more obscure than the inner. In the west excavation unit, 80 cm south of the inner sill, there was a single footer trench with no extant wood. In the east unit, some 50 cm south of the inner sill, there was a badly decayed layer of wood resembling a floor. It stretched across the pit in a 54 cm wide band that seemed to be 3 cm or less thick. There was no evidence of a sill log. It may be that this was the cap of a drain that coincided with the outer sill.

Portions of both the inner and outer sills of the east wall were also uncovered. Both sills were timbers in footer trenches about 75 cm apart. One short sleeper was located in a shallow pit below the inner sill about a metre from the north end. Near this sleeper there was also a half timber that extended over both sills and over the first floor sill to the west. Located 48 cm east of the outer sill there was a portion of a third timber that terminated in a line parallel to the other two. It is conceivable that it is actually the outer sill and that the timber I have called

the inner sill is actually a floor sill but two facts argue against that interpretation. First, there was no evidence of a footer trench for the innermost sill. Second, the third sill did not meet the east ends of the north wall sills nearly as well as the other timbers did.

The only evidence of the west wall was a portion of what is believed to be the inner sill, a 21 cm diameter log. The outer sill area was unexcavated.

The only other structural remains were portions of the floor foundation. A total of twelve sills were partially excavated of which eight were logs while the others were timbers or half timbers. Most of the sills at the east end were in footer trenches. These sills seldom butted up against the inner sill and they were irregularly spaced between 1 m and 1.6 m apart. None of the sills appeared to extend the entire width of the building. Rather, they tended to overlap along the central axis and may have been set on sleepers at that point.

The final, possibly structural, feature was a large circular depression of unknown depth near the west end of the structure. This it was filled by a variety of wood chip and clay deposits. This 4.1 m wide hole rapidly contracted to a size that coincided with the space (3.2 m) between the supposed west wall, south inner sill and floor joist. It was unribbed to the depth of the excavation.

#### Outside Features

The most significant set of non structural features occurred west of the building. Amongst the falls, at least three trenches were discovered, all of them oriented north-south. Two of them had very little in the way of structural remains, a few scraps at best, but one had a badly collapsed drain.

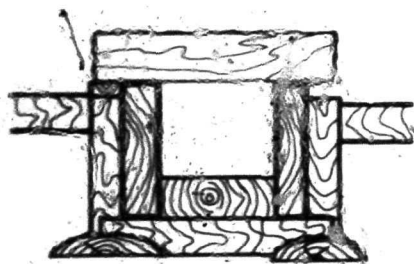
The base of that drain consisted of two slabs laid flat side down and held in place by a notched spacer. Over this was laid a plank 21 cm wide by 7 cm thick, the floor of the drain. The walls were probably attached to the outside of the floor. They were 25 cm wide and 7 cm thick. The cap was made of short (40 cm to 45 cm long) slabs laid side by side (Figure 20).

It appears that the sections were not fitted but were joined by a system of exterior supports. At the point of juncture a couple of planks were set on end against the outside of the drain. These, in turn, were held in place by a short length of timber that was butted at right angles against the drain in a shallow trench.

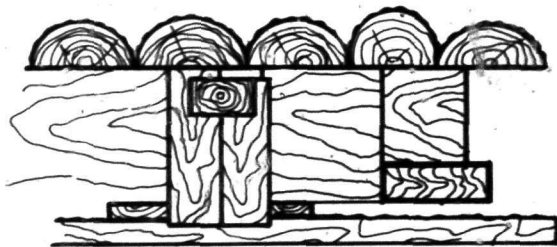
The second feature consisted of two lines of stakes. The first lay in a north-south orientation across the approximate centre of the structure, while the second extended from the west up to the edge of the large depression. The stakes varied in length between 10 cm and 37 cm and in diameter between 2 cm and 5 cm. As one of the stakes was driven through a floor sill, they obviously post-dated the destruction of the fur store and would have been set sometime after 1911.

### Structural Artifacts

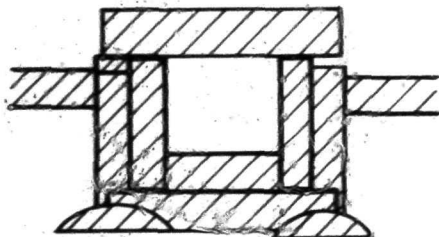
The frequency of 1398 pane glass fragments from this structure ranged between 0 and 139 fragments/m<sup>2</sup>. Five lots had concentrations of fragments greater than one standard deviation. The first was along the south wall, between 2 and 4 m from the southeast corner. The second, also along the south wall, was between 12 and 13 m from the southeast corner. The third occurred right at the northeast corner and the fourth was along the north wall about 16 m from the southeast corner. The final concentration was about 3 m west of



**A**

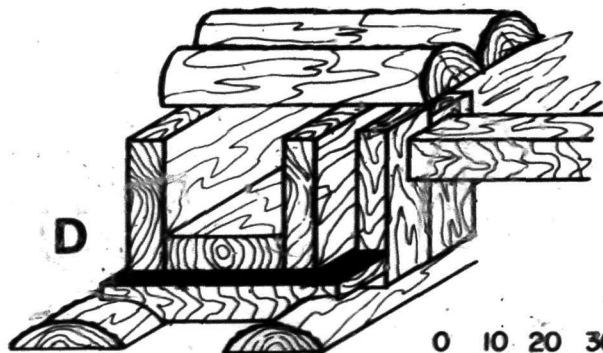


**B**



**C**

▨ portion recovered



**D**

0 10 20 30 cm

Figure 20. Drainage ditch at East Fur Store showing;  
(A) cross-section, (B) view along length,  
(C) portion recovered, (D) sketch of drain.  
(D. Elrick, draftsman.)



the building. It was also noted that the interior could be easily distinguished from the exterior by pane glass counts. The interior had a mean frequency of  $7.3 \pm 12.7$  sherds per square metre while the exterior had a mean frequency of  $28.4 \pm 26.4$  sherds per square metre.

Compared to the Inland Cargo House, the pane glass distribution at the East Fur Store did not locate windows as clearly. On the assumption that individual horizons might reveal more information, pane glass distribution was examined by layer. The analysis of glass in Horizon 1 reaffirmed the northeast corner concentration and identified two others north of the building. It also identified a concentration the north wall 13 cm to 15 m from the east end. Analysis of glass distribution in other horizons did not provide any relevant information.

As a result of comparing the concentrations to window placement in photographs, it seemed that the fur store had windows on the south side that mirrored the north and that windows were centred at approximately 3 m from each of the end walls. The concentrations on each side between 12 m and 15 m from the east wall would have occurred very near the centre of the building where photographs of the north face show a door. Thus the north face concentration probably reflected one of the dormer windows while the south face concentration indicated that there were (a) central dormers on the south, (b) a window opposite the north door or (c) both. The north wall concentration located 16 m from the east end probably related to the nearest window west of the door.

There were 2202 nails recovered from the East Fur Store of which 2093 (95 per cent) were considered to be architectural. There were no brass nails. The wrought nails included 16 types; the machine cut nails comprised 9 types; and the wire nails consisted of 6 types. The nails in

Horizon 1 were 68 per cent wrought, 23 per cent machine cut and 9 per cent wire. The predominant styles here were wrought rosehead, machine clasphead, wrought unidentified and wrought clasphead which, together, made up 78.6 per cent of the sample. It should be noted that 43.5 per cent of the wrought clasphead and 44 per cent of the machine cut clasphead were around 7.6 cm in length. None of the remaining 23 types were of significant quantities. Horizon 2 contained only 22 nails, not sufficient for interpretation.

Horizon 3 comprised 74 per cent wrought, 24 per cent machine cut and 2 per cent wire nails. The four styles found in Horizon 1 predominated in the same sequence; here they totalled 85.2 per cent of the sample. Once again the lengths of the clasphead nails clustered around 7.6 cm. In all, this level closely paralleled Horizon 1. The nails from Horizon 4 altered the trend only slightly. The relative values by manufacture were 83 per cent wrought 16 per cent machine cut and 1 per cent wire. Although the same four styles predominated, the machine clasphead became fourth ranked. Horizon 5 returned to the Horizon 1 pattern in almost all aspects. The only difference was that the clasphead nails were not so uniformly sized. The proportions of nails from Horizon 6 was similar to those from Horizon 5. Horizon 7, with only 12 nails were not interpreted.

This very uniform distribution made it impossible to assign a particular construction phase to any horizon. The area was not heavily modified by architectural activities in the earliest years, saw no major repair phases and was not utilized after the building's destruction. There was a relatively high incidence of machine cut nails throughout. It is unlikely that they were used in the original 1820s construction but their persistence throughout the operation suggested that they formed some integral aspect of the building. The 7.6 cm length of half the cut nails also

suggested that they were used in planking and not in framing. The best interpretation is that these nails were used in the 1841-1843 renewal process to fasten floors, roof planks and the second storey floor.

There were 109 architecturally related artifacts recovered from the Fur Store of which 62.4 per cent are window putty. This putty tended to concentrate in four areas, three of which coincided with the pane glass. The fourth was at the northwest corner of the structure. Another 22 per cent consisted of fragments of asphalt or tarpaper. There was insufficient quantity to interpret any specific use. The remaining items included four pieces of finished wood, and a pintle from the trenches west of the building; three pieces of metal roofing, a key, a catch and two fragments of caulking from the depression; and a strap hinge, hookeye, sliding bolt, sawstrough ferrule, cement fragment and finished wood fragment from inside building. The sliding bolt could have easily have come from the east wall door.

#### Artifact Analysis

The configuration of the 10,820 artifacts recovered from the East Fur Store indicated a predominance of food related artifacts (40.7 per cent), followed by shelter (33.7 per cent), domestic activities (10.6 per cent), beads (3.9 per cent), clothing (0.6 per cent) and industrial activities (0.5 per cent). There appeared to be some major differences from horizon to horizon. For instance, only 5 functional groups were found in all seven horizons and the frequency of and some of the major functional categories such as food and shelter related artifacts fluctuated widely.

Horizon 1 contained 1953 artifacts or 18 per cent of the assemblage. It was represented by shelter (44.4 per cent), food (33.1 per cent), domestic activities (9.3 per

cent), beads (1.9 per cent), industrial activities (0.4 per cent) and clothing (0.3 per cent). The most common of the identified functional groups were construction fasteners, pane glass, fauna, food serving, smoking pipes and food storage while water transportation was found only in this horizon.

Horizon 2 had an area of only 6 m<sup>2</sup> and yielded 62 objects. This sample was too small to analyse adequately for trends through time.

With 2699 artifacts Horizon 3 yielded 25 per cent of the total sample. The proportions of the two most common functional categories from the first horizon were reversed but quantities of all other categories were similar to the layer above. The major functional groups encountered were construction fasteners, fauna, pane glass, food storage, food serving and smoking pipes. The most notable change was the decrease of pane glass from 20.3 per cent of the total assemblage for Horizon 1 to 11.0 per cent of Horizon 3. These two horizons were very similar except for this change and an increase in the number of smoking pipes.

Horizon 4 consisted of only a small portion of the excavation yet its 1202 artifacts made up 11 per cent of the total. This horizon was so dominated by food related artifacts (63.1 per cent) that the relative values of nearly all other categories dropped. The only exception to this was the beads (4.1 per cent). Though the ranking of categories remained the same as Horizon 3, there were obvious discrepancies in value. The actual group changes were also different as fauna now ranked first with over half of the horizon's artifacts. This was followed by construction fasteners, pane glass, beads, smoking pipes and food procuring artifacts to make a completely different configuration than Horizon 3. This was also the only horizon with evidence of sewing activities.

Horizon 5 contained the greatest number of artifacts, its 3092 specimens formed 29 per cent of the sample. The ranking of the components was similar to the layer above but the actual proportions were more uniform. Food related items barely exceeded the shelter related artifacts. The most commonly found functional groups included fauna, construction fasteners, pane glass, beads, smoking pipes, food storage and food serving.

Horizon 6 had 1684 artifacts, 16 per cent of the total. Its similarity to Horizon 5 is striking. Only the bead category showed a notable change in percentage. In descending order of frequency the functional groups were; fauna, construction fasteners, pane glass, smoking pipes, food storage, miscellaneous storage, food serving and beads. Furnishings and clothing adornment were found only in these two horizons.

The analysis for this horizon was carried a little farther than usual in the hope that it might help define the pit encountered in the fur store. Horizon 6 was made up of multiple layers from three separate areas: inside the pit (Area A), west of the building (Area B) and in the southeast section of the building (Area C). The first two of these areas were contiguous. The greatest similarity of artifacts was between Areas A and B while Area C had a different pattern. This is summarized in Table 4.

If one takes into account that most of the domestic activity artifacts in Area C were smoking pipes and miscellaneous fasteners, then it becomes obvious that this area is far more related to architecture and construction than are the other two. As Areas A and B are adjacent, it is reasonable to expect that distinctions between them would be subtler. A group by group comparison reveals that Area A contains 17 groups including the personal and native industry groups which do not occur in Area B. Area B contains

18 groups of which furniture, sewing and trapping do not occur in Area A. Area A shows a higher concentration of construction fasteners, fauna and pane glass while Area B has higher concentrations of food storage, food serving, ethnobotanical, fabric and miscellaneous storage. These comparisons suggest that the Areas A and B were both multi-functional with a high degree of similarity. Construction activity artifacts were more frequent in Area A and there may have been a higher incidence of storage artifact in Area B. As a result of this comparison, it can be suggested that the pit (Horizon A) is not related to the construction of the East Fur Store and must, therefore, predate it. The activities represented are quite diverse and tend to be somewhat domestic or personal in nature, though the aspect of storage must also be considered. It is also very similar to the adjoining Area B while Area C represents little more than a disturbance caused by the construction process.

Table 4. Distribution of Functional Groups Within Horizon 6 of the East Fur Store.

|                     | AREA A |      |      | AREA B |      |      | AREA C |      |      |
|---------------------|--------|------|------|--------|------|------|--------|------|------|
|                     | Count  | %    | Rank | Count  | %    | Rank | Count  | %    | Rank |
| Food                | 268    | 55.5 | 1    | 235    | 51.9 | 1    | 151    | 29.9 | 2    |
| Shelter             | 125    | 25.9 | 2    | 74     | 15.1 | 3    | 295    | 58.4 | 1    |
| Domestic Activities | 49     | 10.1 | 3    | 123    | 25.1 | 2    | 46     | 9.1  | 3    |
| Beads               | 25     | 5.2  | 4    | 23     | 4.7  | 4    | 9      | 1.8  | 4    |
| Clothing            | 1      | .2   | 6    | 13     | 2.6  | 5    | 4      | .8   | 5    |
| Industrial          | 5      | 1.0  | 5    | 3      | .6   | 6    | 0      | -    | -    |
| TOTAL               | 473    |      |      | 470    |      |      | 505    |      |      |



Horizon 7 contained 128 artifacts or 1.2 per cent of the sample. Although a small sample is indicative of the pre-construction phase in most riverbank areas, it is difficult to characterize an horizon with so few specimens. Only 12 functional groups were represented and four of these had one artifact each. The predominant groups were fauna, pane glass, construction fasteners, food serving and ethnobotanical.

The artifact analysis by Horizon confirms the prediction that the various horizons represent different functions. Horizon 1 reflects building demolition and is quite different from the other horizons. Horizon 3 seemed to be the horizon most representative of the overall pattern. Horizon 4 was located in one small portion of the site outside the building; it was characterized by a high concentration of nearly all aspects of the food industry. Horizon 5 and Horizon 6 (when considered as one unit) are very similar to each other and reminiscent of Horizon 3.

A look at the artifacts suggests some future areas of investigation. The proportion of ceramic food serving artifacts was much higher than all other areas except the ice house which was located very close to this structure. While only 12 office supplies were found; 11 of them were slate markers or slate marking board fragments. There was also a significant quantity of large ceramic container fragments. A barometer guage was a unique artifact as was a marlin spike and two metal projectile points. Each of these artifact types could be indicative of specific activities but more detailed analysis is required.

There were also 43 fragments of creamware chamber pots found in Horizons 3 through 6 in the area of the depression. It is therefore possible that the depression represents a privy that predated the construction of the fur store.



### Summary

The excavations revealed the foundations of the 1821 East Fur Store and three features. The building retained some evidence of a double foundation plus some floor sills. Most other physical evidence had been removed. The dimensions were not firmly established but the building was between 23.5 m and 24.5 m (77 feet to 80 feet) long and between 6.15 m and 7.81 m (20.17 feet to 25.6 feet) wide. If the structure is centred on a double sill, it is reasonable to assume the actual dimensions were 24 m (79 ft.) by 7 m (23 ft.).

The architectural artifacts added to the overall picture. The pane glass did tend to indicate window locations, substantiating that windows existed on the south face of the structure and suggesting that there were dormers, centrally located windows or both on the south wall. While intensive nail analysis was not conducted, there was some evidence of the 1841-1843 repair phase.

The artifacts tended not to reflect the use of the building as a place for storing and packing furs but instead they indicated the construction of the building and possible ancilliary activities. This was particularly useful in identifying differences in artifact patterning through the various horizons. Of special note was Horizon 4, a small area outside the structure with a distinctive somewhat domestic aspect to the artifact pattern. Unlike the Inland Cargo House, the evolution of the building's function was not reflected by the artifact patterns.

Three additional features were found during the excavation. The drain was easy to identify and, though the construction style appeared to be somewhat unusual, it was probably associated with the earlier years of the last occupation phase (1821-1850). It probably carried water from the garden to the main outlet drain near the Ice House.

The line of stakes postdated the destruction of the building in 1911. They may have related to the use of the ice house area as a place to tether dogs or a fence around the ice house to keep dogs out. The depression within the East Fur Store is not conclusively identified but early interpretations suggest that it was a pit privy from the 1789 to 1830s occupation phase.

## THE BOAT HOUSE TEST

### Introduction

The boat house test, conducted in 1982, was accomplished in two phases. The first phase was an attempt to locate enough of the known structures to provide good locational data on a whole complex of structures. The second phase was to locate and excavate portions of the east wall of the 1840 Boat House, discovered in the testing process.

The interest in this area had always been high but the lack of historical information or time to conduct a major test had caused constant postponement of the project. Eventually, enough documentation was gathered to isolate an area containing two boat builders shops, a canoe shed, a tar shed, a temporary residence from the York Factory IIIB phase and possibly a boat house, sawpit and ice house from York Factory III. To retrieve this information I excavated 3 m long sections of a 1 m wide trench until enough building features were discovered to identify the remains. I found both boat builders' shops from the second construction phase.

Once this had been accomplished, the earlier boat house was further tested to discover how close it was to the bank and to obtain some much needed structural information.

### Structural History of Boat Houses

The need for specialized facilities for building, repairing and storing boats and their accoutrements was recognized as

early as 1786 when Colen submitted his "Design for Building a Commodious Fort" (HBCA, G.1/112 No. 2) on which he stated:

This will be convenient to repair Boats as well as to keep the small ones in; -they can be easily launched, and at a short notice, with much less trouble than heretofore; having lain on the Plantation where they receives much injury from the Natives: - It will also be convenient to keep Plank, Boards and Labourers Tools under shelter...

Apparently Colen was so concerned about this that the Launch House was among the first buildings started. It was located near the riverbank almost directly in front of the Octagon. The carpenter began assembling wood for the frame on April 13, 1789 and Colen had the site selected by July 18. The frame was set up on July 30 (HBCA, B.239/a/89 f.43d, YFJ 30 July 1789). The building was finished a month later. Apparently its proximity to the wharfs and the lack of on site storage space meant that this frame structure saw increasing use as a warehouse (Donaldson 1982:25).

In 1804 a new "Boat and Canoe House" was started downstream, close to the lower slip. This 70 foot by 18 foot (21.3 m by 4.5 m) frame structure took until September of 1806 before it was completed (HBCA, B.239/a/113, F3d YFJ 24 Sept. 1806).

For the next few years the history of these two buildings is quite confusing but the records indicating flood damage in 1813 reveal that both buildings were housing cargo at the time (HBCA B.239/a/ 120, f21, 7 May 1813). Shortly after that, the Launch House reverted back to its original function, at least in part. The Boat House was gradually taken over as a warehouse for the Red River Colony, eventually becoming known as the Colony Store. It became very dilapidated and in 1821 Simpson noted:

exd [examined] the Colony Store & found the Goods lying exposed to the Weather & Vermin in a most Shameful state directed that the store should be put in order & repaired as as to prevent damage in Spring.  
(HBCA, D.3/3,3, p.7, Simpson's 1821 Journal, 13 Dec.1821)

The only indication of what actually happened was that one end of the Boat House was fixed up for use by the sawyers in 1822 (HBCA, B.239/a/131, f.5, YFS, 21 Oct. 1822). As new warehouses were started in 1824, it can be presumed that it was demolished between 1825 and 1830.

The Launch House fared much better. By 1840, it was still being used to construct coastal boats, saw wood, and store pitch and tar. In 1841 it was finally pulled down, "the last standing building that remained on the Estabt of those standing in 1821" (HBCA, B.239/a/154, f.47a, YFJ, 5 May 1841).

These two buildings were among the very few structures to have sketches made of them. Rindesbaker 1821 painting (see Figure 13) of York Factory from the river showed the Launch House with a gable roof of planks and the Boat House with a gable or hip roof and the chimney that was added in 1819 (HBCA, B.239/a/126, fo.35, YFJ, 3 Aug. 1819).

There is some confusion as to the identification of these buildings and their demolition dates. First, it seems unlikely that the building in front of the depot would outlast a building off to one side. Second, the chimney in the Boat House/Colony Store seems unlikely as warehouses were seldom heated but a launch house may have contained a warping box or a forge.

Whatever the designation, the earlier boat houses were all gone by 1841 and new facilities were required. At the same time (1839-1840), a major rebuilding of the piers and ramps was conducted (Adams and Burnip 1981:158) and it was decided to establish the boat house activities outside the palisade near the lower pier. In 1840 "Two Carpenters commenced framing a new building of 70 feet by 24 21.3 m by 7.3 m outside the Fort - commonly called the 'Launch House' in which Tar, Pitch, Anchors, Cables, Sails and a variety of naval stores are kept" (HBCA, B.239/a/152, f39, YFJ, 5 Aug.

1840). Beams were cut, the foundation dug, and the frame set up in September. During the winter material was stock-piled as timber was cut and window sashes prepared. In March the frame was closed in, the roof rafters assembled, the floors laid, the upper casement windows built and the windows glazed. In April the building was weatherboarded, roofed, tarred and painted (Figure 21).

Upon completion, the frame structure stood as a one-and-a-half storey building with a hip roof. It had a large double door on the east end facing the river and a small door on the west end. On each side the lower floor had five windows evenly spaced along its length. There were also five half windows just below the eaves to illuminate the upper floor.

The structure probably retained its original function right up to 1916 though on occasion it doubled as a shelter for transients (HBCA B.239/a/168 f.49 YFS, 17 Aug. 1848 and B.239/a/173 f.61d, 20 Aug. 1850). By the 1910s it was getting very dilapidated and it could not handle the new demand for boats. When the newly arrived power circular saw was set up in the building, it became a sawmill. It was shingled in 1917 and in 1918 men were "putting up a new foundation for Saw Mill" (HBCA, B.239/a/190,p.60, YFJ, 10 Oct. 1918). In 1921 it received a little fire damage from a smudge that was burning too close to one of its tarpapered walls (ibid: p.169, 29 June 1921). It was abandoned in 1923 and demolished in 1926.

The sorry state of the Boat Builder's House in 1916, coupled with the need to complete four new coastal boats, created a demand for a new structure at a time when most buildings at York Factory were being demolished. A new building was set up in October and November of 1916. It was 86 feet long, 30 feet wide and 30 feet high (26.2 m by 9.1 m by 9.1 m) at the peak of its gable roof. It was a single

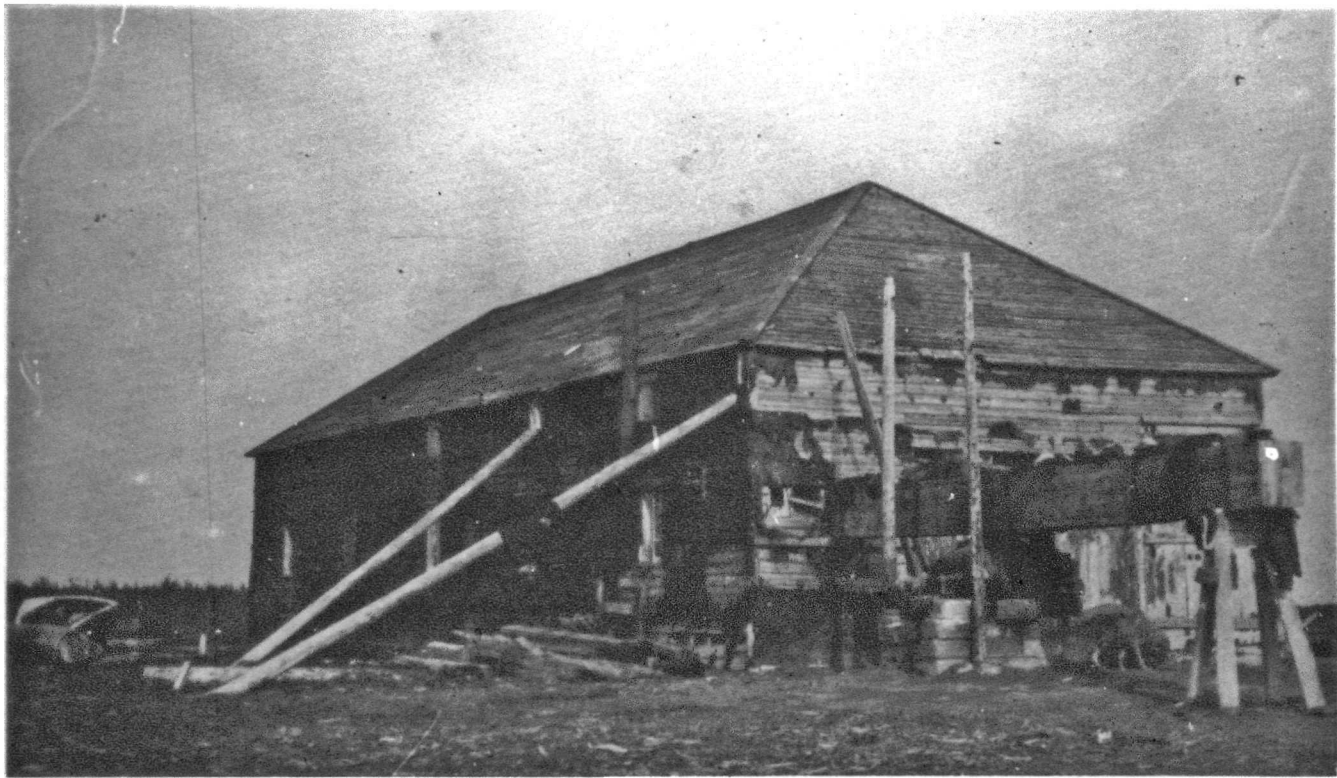


Figure 21. Photo of 1840 Boat Builder's House circa 1914:  
(Photo courtesy of Hudson's Bay Company 80/142.)

storey structure of frame construction with planking inside and out. The roof and the exterior were covered in tarpaper. Photographs of the building indicated that it had one central door on the east side, flanked by two barn doors. The south side had four windows and a wide drop style door (Figure 22).

The second Boat Builder's House was constructed to the north of the 1840 version, while to its south was an additional building, usually referred to as the Canoe Shed as its original function was to provide storage for small boats and canoes. Framing for the Canoe Shed began in May, 1845 followed by foundations and the frame erection in June. It was completed by July 12, 1845 (HBCA, B.239/a/161,f.46d YFJ, 12 July 1845). This building was a single storey frame structure measuring 40 feet (12.2 m) in length and 16 feet to 18 feet (4.9 m to 5.5 m) in width, weatherboarded and covered with a clapboard roof. Photographs indicate that it had a double door on the east end, two windows on either long side and a gable window on the west end (Figure 23).

It did not retain its original function throughout its history; by 1889 it was used to store nautical goods such as sails and buoys (HBCA B.239/e/12 f.5a YF Post Inspection report. J. McDougal, 6-15 Aug. 1889). In 1914 it changed uses again as the local Indians held a dance in:

"the shed next [to the] Boathouse. It is well to state that this shed was fitted up as a Cookhouse for the Indians & cooks kept at hand so that Rationing became simplified & work proceeded much better" (HBCA, B.239/a/189, p.82, YFJ 11 Sept. 1914).

By 1921 it was being to store goods unloaded from the schooner. In fact, the building was eventually moved closer to the riverbank to facilitate this use (HBCA, B.239/a/190, P.170 YFJ, 13 July 1921). It was finally demolished in March of 1939.





Figure 22. 1957 photo of 1916 Boat Builder's House. (Photo courtesy of A.B. McIvor, Hudson's Bay Company collection Y-110.)



Figure 23. View of lower pier area in 1934. Canoe shed is structure directly behind pier, 1916 Boat Builders House is to its right and Inland Cargo House is to the left. (Photo courtesy of Hudson's Bay Company 80/144.)

### Stratigraphy

The stratigraphy for the boathouse test was considerably more complicated than most other operations partially because the excavation trench was a linear feature that cut across at least two structures, and partially because of extensive disturbance. In all, nearly 40 different soil zones were recorded over the length of the 45 m trench.

The first soil layer (Horizon 1) was the topsoil described as brown to dark brown peat. The second zone (Horizon 2) consisted of a number of lenses located near the south end of the excavation (Figure 24 A & B). North of the 1840 Boat Builder's House, only two lots were identified as part of this horizon. The first was a roughly rectangular shaped ash dump 43 cm long and extending 30 cm out from the north wall. The second was a flat hearth that was approximately 70 cm in diameter. A second burn area, a possible hearth, was found but not excavated at this level; it was located about 60 cm south of the ash dump and may have been associated with it. Both the unexcavated hearth and the ash dump were located inside the 1916 Boathouse foundation.

The remaining elements of Horizon 2 were found in conjunction with the 1840 Boat Builder's House. Inside the north half of the structure but not extending to the north wall was a 2 cm thick layer of dark brown peat. Throughout the south half and continuing outside the boathouse was a layer of black peat which merged with a dark brown peat mixed with sand. None of these appeared to be fill events but were more reminiscent of a second zone of more gradual soil deposition. Also included in this horizon is a rectangular pit, a post occupational garbage dump no more than 20 years old.

The next soil zone (Horizon 3) seemed to be represented in most excavation units by one of a series of roughly contemporaneous peats. For the north end of the excavation it

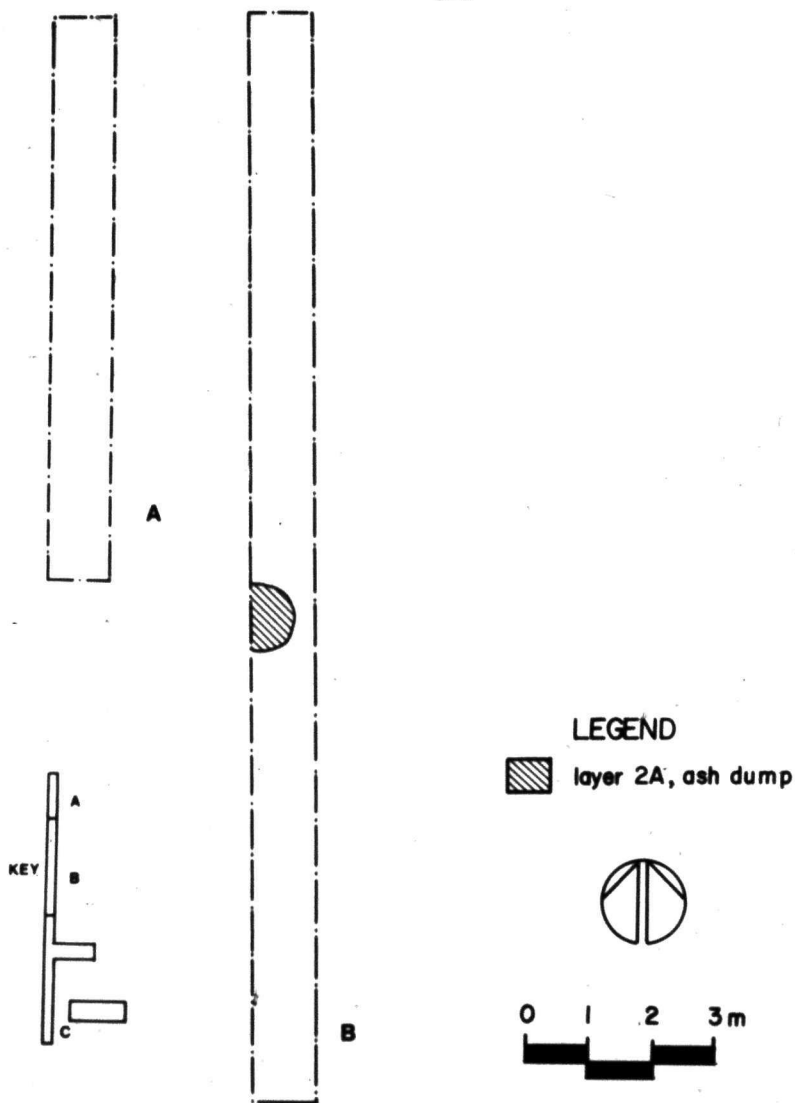


Figure 24A. Location of Horizon 2 components: north half.  
(D. Elrick drafts person.)

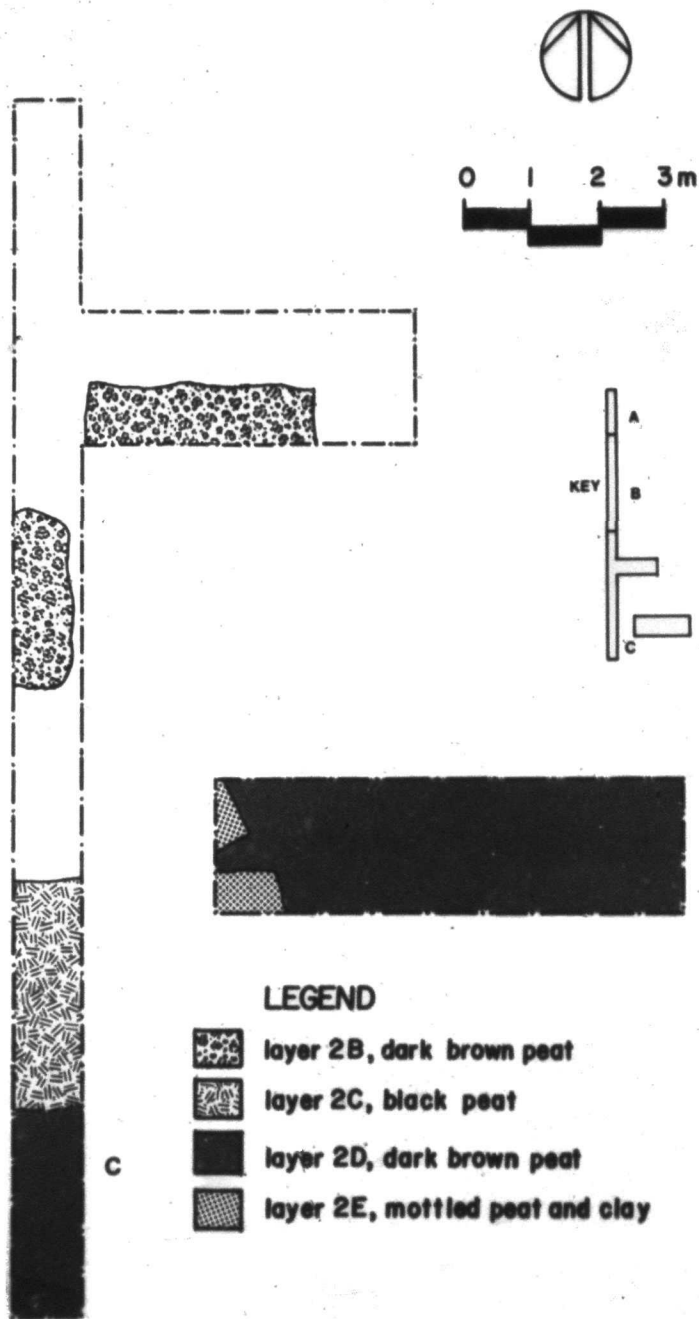


Figure 24B. Location of Horizon 2 components: south half.  
(D. Elrick drafts person.)

first appeared as light brown only to disappear for 4 m then re-emerge as a black peat. This was followed by a dark brown peat then a brown peat mixed with some sand. This particular aspect was the most pervasive, extending over 18 m through the 1840 boathouse only to emerge on the south side as light brown peat. It should be noted that in the excavation of the southeast corner of the 1840 Boathouse, this layer did not extend much beyond the builder's trench.

The next layer (Horizon 4) existed only in the two extended excavation areas off the main trench. It consisted of a sometimes very thick layer of ash mixed with grey clay that appeared to have been burned. It was filled with nails, many of which were also burnt. Its most unusual feature, however, was that it was confined to the outside of the 1840 structure and it did not extend beyond the limits of our excavation trench.

The following two Horizons (5 and 6) comprised several different layers below Horizon 4 and above the black peat or sterile clay that typified the bottom of historic occupation. These layers were difficult, if not impossible, to correlate; they have been listed in Table 6.

Most of the layers in Horizons 5 and 6 were related to the construction and early use history of the 1840 boathouse, probably terminating with the foundation renewal of 1918. The two large lenses (6A and 6D) appeared to be some form of general ground cover, similar to the many such layers inside the compound. The hearth (6E) was not fully exposed but had a radius that approximated a half metre (Figures 25, 26A and 26B).

The final zone (Horizon 7) was once again uniform in nature and was composed entirely of black peat and sterile clay. To facilitate the reader's ability to correlate these various lenses, Figure 27 presents a graphic portrayal of all the strata and lenses in their approximate location.

Table 6. Description and Location of Stratigraphic Units Associated with Horizon 5 and 6 in the Boathouse Trench.

| NO. | DESCRIPTION                     | LOCATION                     | ASSOCIATION               |
|-----|---------------------------------|------------------------------|---------------------------|
| 5A  | Wood Chips                      | Outside N. Wall of 1840 B.H. | Repair Trench Fill        |
| 5B  | Grey Clay                       | Inside S. Wall of 1840 B.H.  | Trench Fill               |
| 5C  | Mixed Peat & Clay               | Inside N. Wall of 1840 B.H.  | Builders Trench Fill      |
| 5D  | Mixed Peat & Clay               | Outside S. Wall of 1840 B.H. | Builders Trench Fill      |
| 6A  | Mixed Peat & Clay               | North of 1916 B.H.           | Disturbed Layer Below B.4 |
| 6B  | Mottled Grey Clay               | North of 1916 B.H.           | Probably Same as 6a       |
| 6C  | Grey & Brown Mottled Peat       | Inside 1916 B.H.             | ?                         |
| 6D  | Grey Sandy Peat                 | Between Boat-houses          | Soil Zone Below H3        |
| 6E  | Ash & Clay                      | Between Boat-houses          | Hearth                    |
| 6F  | Mottled Peat & Clay             | Outside N. Wall of 1840 B.H. | Probable Trench Fill      |
| 6G  | Sand                            | Inside 1840 B.H.             | Use Related Deposit       |
| 6H  | Brown Peat & Sand               | Inside 1840 B.H.             | Just Below Flooring       |
| 6J  | Brown Peat & Clay               | Inside 1840 B.H.             | Related to H.3            |
| 6K  | Mottled Brown Peat & Wood Chips | Outside S. Wall of 1840 B.H. | Probable Trench Fill      |
| 6L  | Medium Brown Peat & Sand        | Inside N. Wall of 1840 B.H.  | Probably Related to 6H    |
| 6M  | Gravelly Clay                   | Outside S. Wall of 1840 B.H. | Probable Trench Fill      |
| 6N  | Black Peat                      | Outside S. Wall of 1840 B.H. | ?                         |
| 6P  | Mixed Grey Clays                | Outside S. Wall of 1840 B.H. | Related to Early Use      |
| 6Q  | Mixed Grey Clays                | Outside S. Wall of 1840 B.H. | Related to 6P             |

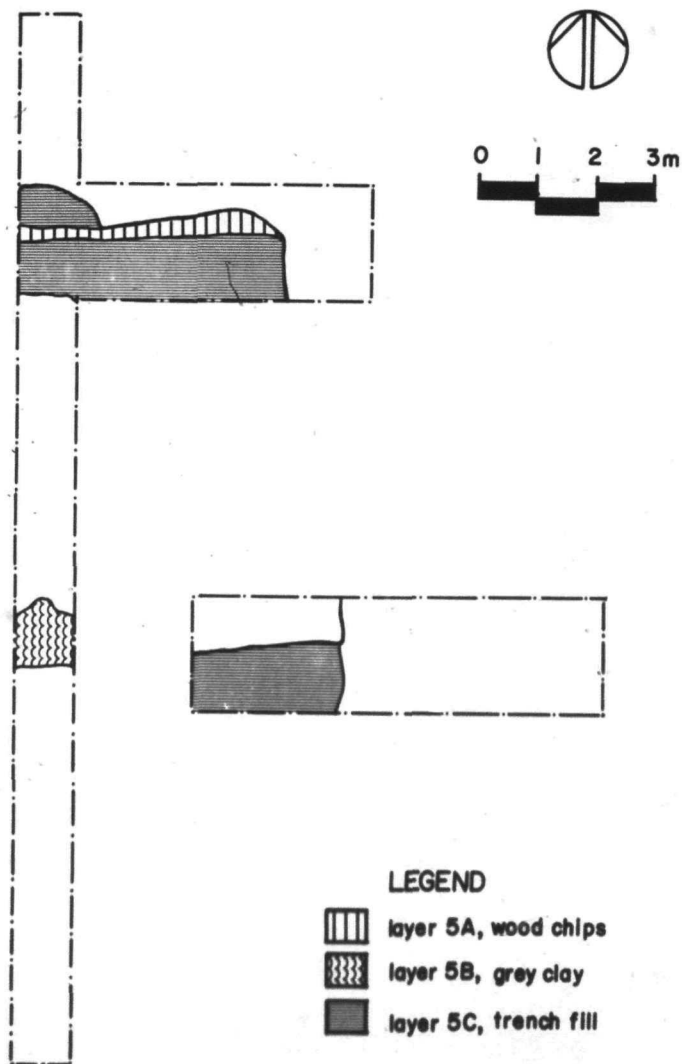


Figure 25. Location of Horizon 5 components. (D. Elrick, drafts person.)



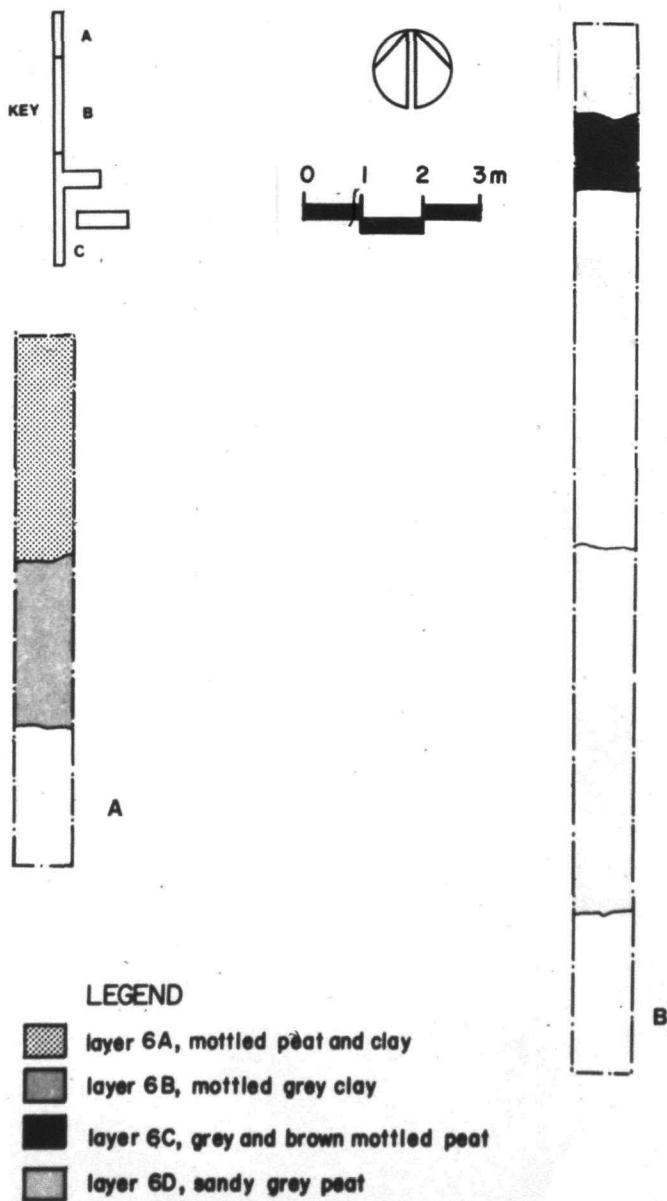
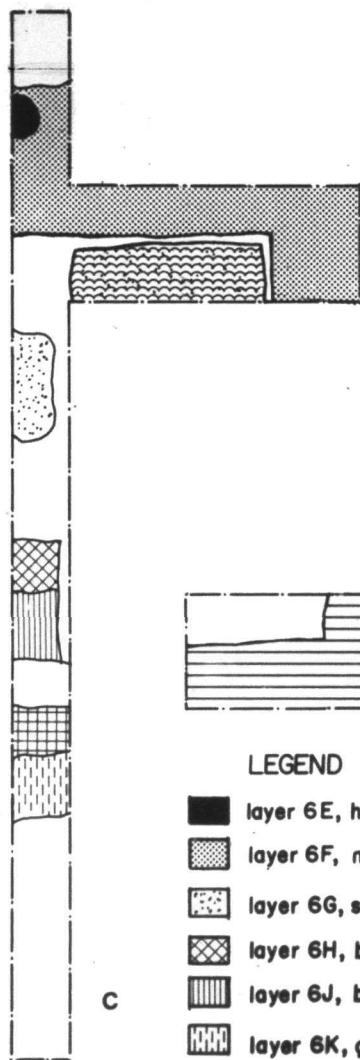
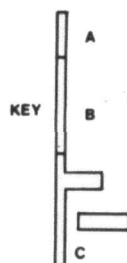


Figure 26A. Location of Horizon 6 components: north half.  
(D. Elrick, drafts person.)



## LEGEND

-  layer 6E, hearth
-  layer 6F, mottled peat and clay
-  layer 6G, sand
-  layer 6H, brown peat and sand
-  layer 6J, brown peat and clay
-  layer 6K, grey to brown mottled peat and wood chips
-  layer 6L, gravelly clay
-  layer 6N, black peat
-  layers 6P & 6Q, mixed grey clays



LOCATION OF HORIZON 6 COMPONENTS  
SOUTH HALF

Figure 26B. Location of Horizon 6 components: south half.  
(D. Elrick, draftsman.)

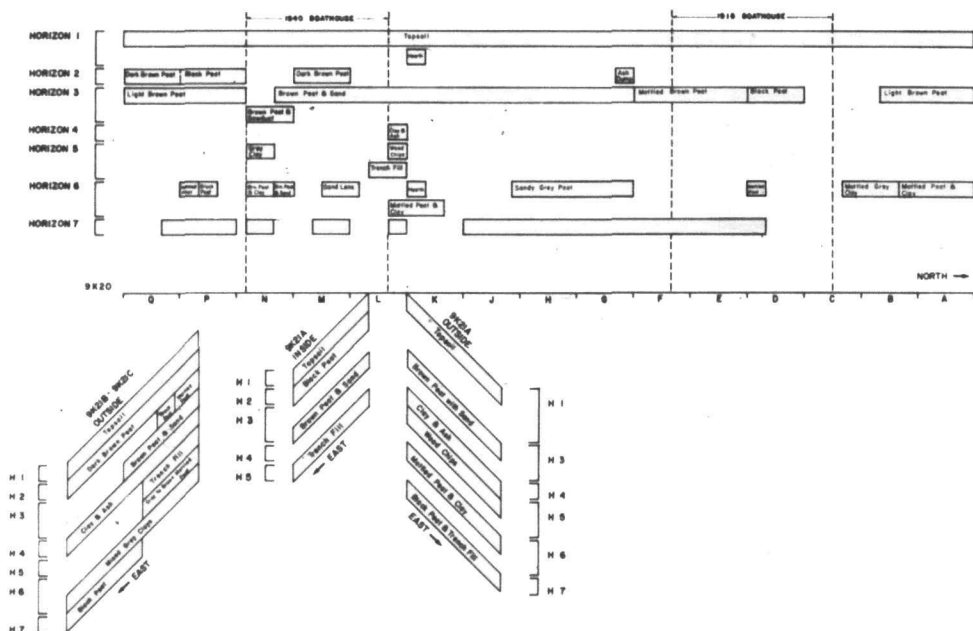


Figure 27. Schematic representation of stratigraphy in boathouse excavations. The horizontal component represents a 45 m long trench with all constituent strata in their representative locations. The diagonal component represents three walls of 9K21, the 1840 Boat Builder's House excavation. (D. Elrick, draftsman.)

### Structural Description of 1840 Boat House

The foundation of the 1840 Boat House was best preserved near the southeast corner (Figure 28). Here we opened a large excavation unit to a depth of about 20 cm. At its base, short lengths of timber were laid perpendicular to the walls at 80 cm to 100 cm intervals. The most intact of these was 24 cm wide and 12 cm thick. Over these sleepers was laid a half timber sill that was about 14 cm thick. The sill became the base for two additional foundation members. The lower was a 10 cm thick timber and the upper was a 27 cm wide by 9 cm thick half timber. The corner was formed by alternately butting one timber end up against its counterpart on the adjacent wall. The floor joists were level with the top layer of foundation timbers, resting on the second layer, and oriented north-south.

In the northeast corner of the structure, only the upper course of the foundation survived the 1916 renovations. Apparently, the building was lifted and all the original foundation members removed to be replaced with large timbers between 18 and 24 cm wide and 14 to 20 cm thick, and set perpendicular to the north wall. They were obviously inserted from the outside as each sleeper angled down toward the building interior. Beginning about 3.2 m from the corner the north wall again had a lower sill. At about 4 m from the corner a 16 cm diameter stump had been driven into the ground just outside the foundation. It was likely another 1918 innovation to relieve some stress that was forcing the north wall outwards. There was also evidence that foundation timbers were joined along the wall with an angled butt joint.

All five of the exposed floor joists were logs, flattened on one side. The one fully exposed joist used a single piece to span the width of the building. It was 6.6 m long, 22 cm wide and 10 cm thick. The ends of this joist

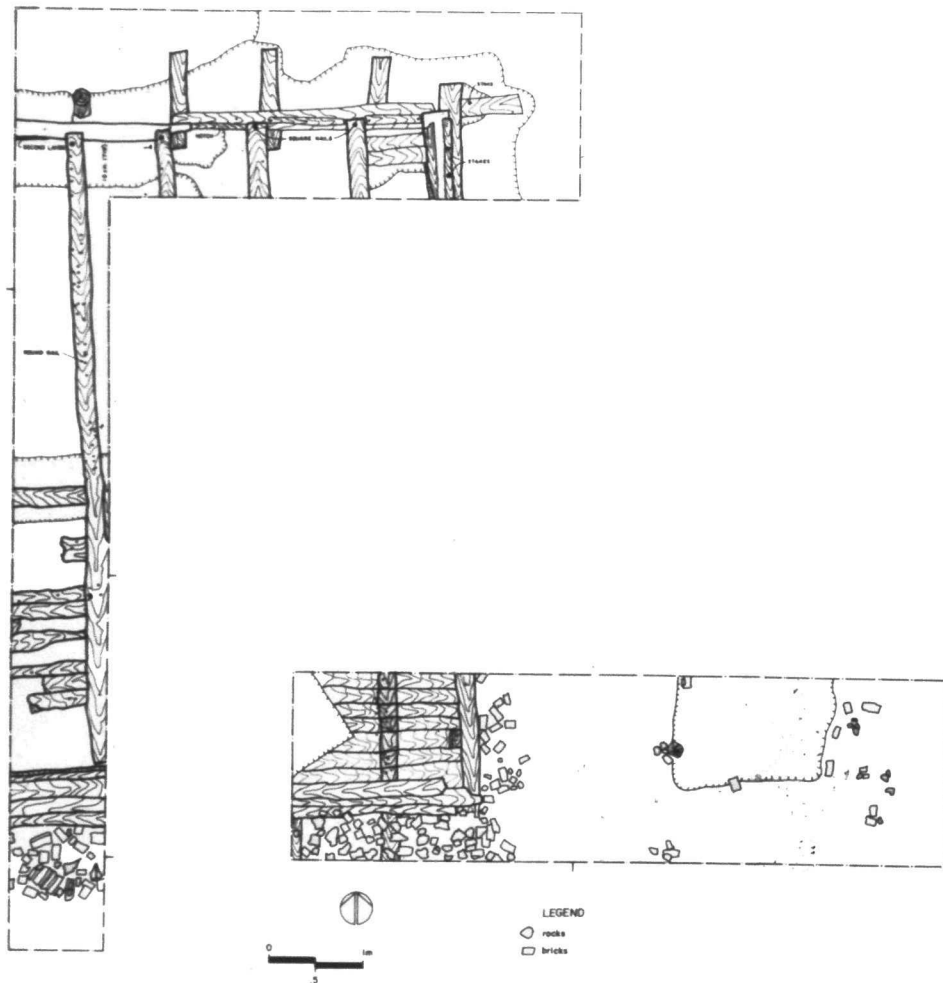


Figure 28. Portion of excavation 9K20 and 9K21 showing 1840 Boat Builder's House.  
(D. Elrick draftsman.)

and its two neighbours to the east were notched about 6 cm to hold the foundation piece. The two joists closest to the east wall were set on top of the foundation, and the spaces between them were spanned with short timbers which were to serve as the wall plate. All floor joists were held in place with a wrought, clasp head nail over 20 cm in length. Supporting the joists there was a single centrally located sill consisting of a 20 cm wide by 17 cm thick timber set into a footer trench.

Portions of wall plate were recorded at the northeast corner of the structure. These remaining fragments were 8 to 10 cm wide, 5 to 8 cm thick and nailed to the foundation. The existing pieces along the north wall were cut to receive the floor joists which were set flush with the outside of the floor plate. A gap of 19 cm at the corner suggested that the corner stud sat on the upper foundation timber.

We also recovered large areas of floor planking oriented east-west; each one nailed to the joists. The individual planks were 3 cm thick and from 9 cm to 19 cm wide. Along the east and south walls portions of another plank were discovered. It was set on edge from 10 to 20 cm inside the foundation. It did not appear to be nailed down and alternately appeared to be both above and below the floor boards. In the southwest corner of the excavation it was set approximately 20 cm inside the wall. Another timber paralleled the wall just below the bottom edge of the board. The trough created by that timber, the south wall and the board on edge was filled with a relatively sterile grey clay (Horizon 5B) that was unlike any other occupational soil.

The soil contexts provided the only other structural information from the limited tests. The greater part of the foundation was set in a 20 cm to 30 cm deep trench that was

80 cm to 140 cm wide. Much of this trench along the south exterior was refilled with used brick. The outer portion along the north wall, and possibly the entire trench had been removed for subsequent foundation work.

Inside the structure near the south wall and 110 cm from the east wall we encountered a large rectangular trash pit that was excavated right through the floor of the building. Hermetically sealed tin cans, egg shells, plastic bread bags and a TANG fruit crystals package indicate this is a recent disturbance. Finally, on the east face 215 cm east of the southeast corner were the remains of the firebox for the steam chest set flush to the wall. All that remained was a square depression approximately 5 cm deep. There was also a 15 cm diameter log that was 25 cm long set on end near the northwest corner.

#### Structural Description of 1916 Boathouse

The 1916 Boathouse had virtually no structural remains (Figure 29). Shallow depressions marked the north and south walls, 8.8 m apart, but no real footer trenches were observed. One possible sleeper was discovered near the north wall. It was 54 cm long 19 cm wide and 12 cm thick. Midway between the two walls there was a group of timbers of various sizes that probably served as sleepers for a central sill. All were squared except for one slab that was set on top of a timber to increase the height.

#### Structural Artifacts

The pane glass recovery from the boathouse operations totaled 3602 sherds. There was a mean 55.2 sherds/m<sup>2</sup> with a standard deviation 89.5 and a range that stretched from 1 to 352. Four major concentrations of pane glass were noted.

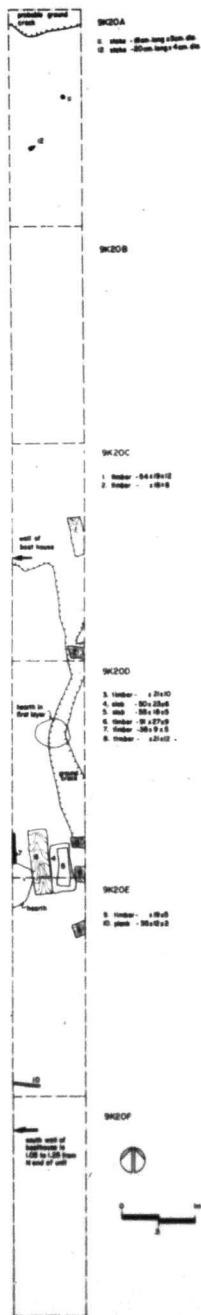


Figure 29. Portion of excavation 9K20 showing 1916 Boat Builder's House. (D. Elrick drafts person.)



The first was located inside the 1916 Boathouse and the second was on the south wall of the same building within a metre of the east wall. The third was spread along the exposed portion of the north wall of the 1840 Boat Builder's House. The fourth was found on the south wall of that building 1 m to 2 m from the southeast corner. All but the first concentration may have related to window placement although the centre of concentrations seem to offset the placement of the windows by a metre or two if one uses historical photographs for comparison. The remaining concentration, inside a building, seems to suggest that it was related to some activity conducted there.

Although an analysis of the pane glass by horizon substantiated these findings, there were spatial characteristics of note. Horizon 1 contained 20.6 per cent of the glass and was characterized by the 1916 Boathouse concentrations plus a generally higher density. Horizon 3 contained 31.4 per cent of the pane glass and evidenced all four concentrations but lacked any pane glass north of the 1916 Boathouse. Horizon 4 contained only 15.9 per cent of the total but contained 37.7 per cent of the glass attributed to the third concentration. Horizon 6 contained 15 per cent of the total and reflected only the concentrations of the 1840 Boat Builders House. The remaining horizons all had too few sherds to evaluate.

The nails were catalogued differently from the rest of the site. While all the nails from the test trench were inventoried as usual, the incredible quantity of nails from the three larger pits relating to the 1890 Boat Builder's House were only counted and distinguished by manufacture. The nails are discussed in two parts to reflect this cataloguing procedure.

Within the trench, there were a total of 3753 nails of which 3520 (93.8 per cent) were architectural. Overall, 70 per cent were wrought, 9 per cent were machine cut and 21

21 per cent were wire. The wrought nails were represented by 16 styles, the machine cut nails by 9 styles and the drawn nails by 6 styles.

Horizon 1 had 963 nails of which 52 per cent were wrought, 5 per cent were cut and 43 per cent were wire. This polarity between wrought and wire nails reflects the fact that one structure was primarily constructed with wrought nails and the other almost entirely of drawn nails. The three most common styles which together formed 79 per cent of the horizon's total are wire common head, wrought rosehead and wrought unidentified. Other styles include wrought clasphead, wrought clout, cut clasphead and wire finishing.

Of a total of 236 nails in Horizon 2, 70 per cent were wrought, 7 per cent machine cut and 23 per cent wire. The polarity noted above was still evident though less pronounced. Four styles, wrought rosehead, wire common, wrought clasphead and wrought unidentified, comprised 86.5 per cent of the total.

The third horizon contained 1624 nails that included 72 per cent wrought, 11 per cent cut and 15 per cent wire. The other 2 per cent were of brass nails or of unidentified manufacture. Equalling 37 per cent of the sample, wrought rosehead was by far the most common style. Other major styles were wrought unidentified, wire common, and wrought clasphead. The 7.6 cm (3 inch) nail range contained large quantities of some of these types; 40.7 per cent of the wrought rosehead and 45.9 per cent of the wrought clasphead for example. Horizons 4 and 5 were unanalysed due to small samples.

Horizon 6 with 644 nails had 83 per cent wrought, 10 per cent machine cut and 7 per cent wire. The predominant styles are wrought rosehead, unidentified and clasphead which comprised 76.3 per cent of the total. Wire common and machine cut clasphead nail types are also well represented.

Horizon 7 was very similar to Horizon 6 with 87 per cent wrought, 8 per cent cut and 3 per cent wire. The same styles were represented ~~in the same~~ proportions.

~~It appears~~ that the first two horizons represented the impact of the construction of the 1916 Boat-house. Since it would have been erected with modern, wire nails at a time when the earlier Boat Builder's House was still standing, the even distribution of both wire and wrought nails is easily explained. The lower horizons reflect earlier building activity. The comparatively large quantity of brass nails in Horizon 3 is likely related to the boat building and repair that went on at this site.

As stated above, the nails from the larger pits (Operation 21) were handled differently. In these units, some of the horizons had such quantities of nails that limitations in time precluded them from being fully catalogued. Instead, they were merely sorted by mode of manufacture. The total of 16,352 nails recovered represents a density of 681 nails/m<sup>2</sup>. As the upper horizons in this area were still tied to the earlier structure, they did not have the same proportion of wire to wrought nails. In Horizon 1 the ratios are 56 per cent wrought 14 per cent machine cut and 28 per cent wire. The largest concentrations of nails were found in Horizons 3 and 4. As noted above, Horizon 4 was an ash layer that was only found outside the 1840 Boat Builder's House. Many of the nails found recovered from this horizon showed evidence of burning and a large portion of the Horizon 3 nails were also associated with this feature. In total 11,478 nails were counted for these two horizons: 54 per cent wrought, 12 per cent machine cut and 32 percent wire. Although the 805 brass nails were recovered were equivalent to only 1.8 per cent of the total, it was the largest concentration of brass nails found at York Factory.

The related architectural artifacts were both numerous and enlightening. Of the total 499 artifacts, 264 (52.9

per cent) were asphalt shingle fragments with a variety of different coloured surfaces. These were concentrated around the actual structures. Furthermore, 94.3 per cent were located in the first three Horizons (82.2 per cent in the first horizon). This indicated that at least one, and perhaps both of the structures had been re-roofed with this material. Linoleum comprised 16 per cent of the sample. Nearly all of it was associated with the steam chest fire-box. It most likely represents a camping activity, being something thrown on the ground inside a tent. A number of sheet metal roofing discs around the 1840 Boat Builder's House were located primarily in the first three horizons. They were fasteners for the tarpaper covering that is shown on photos of the building from the early 20th century. Other items included window putty, predominantly from Horizons 4, 5 and 6 at the older structure, cement from Horizons 1 to 3 at the earlier structure, fragments of finished wood scattered throughout the excavation and a variety of pieces of door hardware. A wrought thumb bar catch was recovered in the first horizon inside the 1916 building while north of it an unusual key was found. From the second building came a hookeye, a wrought sliding bolt, two lock parts, a wrought thumb bar lock, a small, mortise lock and seven hinge fragments.

### Artifact Analysis

The nature of the activity of boat building and repair in this area led to the inference that there would be an unusual concentration of architecturally related artifacts, water transportation artifacts and miscellaneous fasteners. This would be from the double representation of these classes through both building and boat construction.

A second concern is change through time. If the 1803 boathouse was located anywhere in the vicinity (see discussion in Chapter 8), then the pattern should be similar

throughout the seven horizons although the locations of the actual structures may mean that the expected artifact concentrations may be found in slightly different places.

The third problem lies in defining the secondary activities. The boathouses were outside the compounds and off the main transportation routes. They were small centres of construction activity and specialized storage but there is a question as to what else went on there. We know that at times of overstocked facilities, the boathouses were used for storage. We know that the Selkirk settlers and inland brigades were often temporarily housed in that area and that one of the buildings was used as a cookhouse in 1914 for a short time. Photographic evidence also suggests that this was a camping area late in the history of the post.

The overall characterization of the boathouse assemblage is that it is both large and very heavily weighted towards the shelter category. The sample contained 33,330 artifacts with an overall density is of 483 artifacts/m<sup>2</sup>. Within the sample, 23,954 (59.3 per cent) artifacts are construction fasteners and 1598 (4.8 per cent) are miscellaneous fasteners. This means that nearly two thirds of the artifacts are fasteners. If pane glass is added to the list the proportion jumps to 75 per cent. This in itself supports the first prediction. If all categories of architecture, miscellaneous fasteners and water transportation artifacts are added together, the grand total is 76.7 per cent. The next highest concentration, at the East Fur Store, is only 34.9 per cent.

The analysis by horizon incorporated one change from the normal method. Three of the horizons, dating to the boathouse periods, were found throughout the length of the trench. Since this trench included two separate structures and their associated activities, each of these three horizons was divided in half to determine whether or not there were differences in patterning within the operation. The three affected horizons were 1, 3 and 6.

Horizon 1, was probably the most divergent from the norm. Though the shelter category predominated, at 67.7 per cent it was lower than Horizons 2 through 5. A full 5.5 per cent of the total artifacts were from the architecture group, considerably more than in any other horizon. This suggested that much of the shelter component was related to building demolition rather than to construction.

Overall, Horizon 1 comprised 15 per cent of the total assemblage with the ranking of categories; shelter, food, domestic activities, beads, clothing and industrial activities. The major functional groups were architectural fastenings, pane glass, food storage, architecture, miscellaneous fasteners, smoking pipes, beads, and fauna. The 1840 Boat Builder's House (or south) area had the same ranking of categories while the 1916 Boat Builder's House (or north) area had a slightly different organization that ordered the classes shelter, domestic activities, food, industrial, clothing and beads. The group ranking of the south was construction fasteners, pane glass, food storage, beads, miscellaneous fasteners, architecture and fauna while in the north it was construction fasteners, pane glass, architecture, smoking pipes, fauna, miscellaneous fasteners and food storage. Both areas had a wide diversity of functional groups represented for combined total of 26 out of a possible 34. The groups exclusive to the south area were cobbling, clothing fabric and recreation items while the north area contained office supplies, land transportation, miscellaneous, native industries, military, water transportation, and machinery.

Horizon 2 related only to the 1840 Boat Builder's House in the south. It contained 2167 artifacts or 7 per cent of the assemblage. By category the ranking identical to the north area of Horizon 1. Of the 18 groups, the most common were construction fasteners, pane glass, miscellaneous fasteners, food storage and smoking pipes.

Table 7. Percentage of Functional Groups at the Boat Builder's Houses by Horizon.

| (t - trace)        | HORIZON |      |       |       |       |       |       | TOTAL |
|--------------------|---------|------|-------|-------|-------|-------|-------|-------|
| ACTIVITY           | 1       | 2    | 3     | 4     | 5     | 6     | 7     |       |
| Food Procuring     | .5      | .5   | .3    | .1    | .5    | .4    | .4    | .3    |
| Food Storage       | 5.5     | 2.7  | 1.7   | .8    | 3.8   | 2.1   | 2.2   | 2.2   |
| Food Preparing     | -       | -    | -     | -     | -     | -     | .1    | -     |
| Food Serving       | .7      | .7   | 1.1   | 1.1   | 2.1   | 2.0   | 4.9   | 1.3   |
| Fauna              | 3.9     | 1.1  | 3.0   | 1.3   | 3.6   | 8.8   | 19.5  | 4.0   |
| Ethnobotanical     | .2      | t    | .1    | .1    | .6    | .1    | .2    | .1    |
| FOOD               | 10.9    | 5.0  | 6.2   | 3.5   | 10.5  | 13.4  | 27.2  | 8.0   |
| Architecture       | 5.5     | 1.1  | .6    | .2    | 1.3   | 2.0   | 2.2   | 1.5   |
| Const. Fast.       | 45.9    | 64.8 | 62.5  | 75.2  | 37.3  | 46.0  | 30.3  | 59.3  |
| Pane Glass         | 16.0    | 14.3 | 11.6  | 6.3   | 30.7  | 9.8   | 4.2   | 11.0  |
| Furnishings        | -       | -    | t     | -     | -     | -     | -     | t     |
| Furniture          | .1      | t    | -     | -     | -     | -     | -     | t     |
| Housekeeping       | -       | -    | -     | -     | -     | -     | -     | -     |
| SHELTER            | 67.7    | 80.2 | 74.7  | 81.7  | 69.3  | 57.9  | 36.6  | 71.9  |
| Sewing             | -       | -    | t     | -     | -     | -     | -     | t     |
| Cobbling           | t       | t    | -     | -     | -     | -     | -     | t     |
| Leatherwork        | .1      | t    | .1    | -     | -     | -     | -     | t     |
| Clothing Fasteners | .2      | .1   | .1    | t     | .2    | .3    | .2    | .1    |
| Adornment          | -       | -    | -     | t     | -     | -     | -     | t     |
| Laundry            | -       | -    | -     | -     | -     | -     | -     | -     |
| CLOTHING           | .4      | .2   | .2    | .1    | .2    | .3    | .2    | .2    |
| Office Supplies    | t       | -    | -     | t     | -     | -     | -     | t     |
| Misc. Storage      | 1.1     | .3   | .3    | .1    | .7    | .3    | 1.2   | .4    |
| Personal           | t       | -    | -     | -     | -     | t     | -     | t     |
| Smoking            | 4.3     | 1.2  | 5.5   | 4.6   | 8.8   | 17.2  | 20.2  | 7.3   |
| Recreation         | t       | -    | -     | -     | -     | -     | -     | t     |
| Medicinal          | .3      | -    | t     | t     | -     | .3    | .2    | .1    |
| Land Transport     | t       | t    | -     | -     | -     | -     | -     | t     |
| Miscellaneous      | t       | -    | -     | -     | -     | -     | -     | t     |
| Misc. Fasteners    | 4.4     | 6.6  | 5.1   | 4.9   | 2.1   | 4.5   | 2.6   | 4.8   |
| Native Items       | .1      | -    | .1    | .1    | .1    | .3    | .4    | .1    |
| DOMESTIC           | 10.3    | 8.2  | 11.2  | 9.7   | 11.7  | 22.7  | 24.5  | 12.8  |
| Metal Working      | .1      | .2   | .2    | .1    | -     | .2    | -     | .1    |
| Military           | .1      | .1   | .1    | .2    | -     | .2    | .4    | .1    |
| Water Transport    | +       | -    | -     | +     | -     | -     | -     | +     |
| Fur Trade          | +       | -    | -     | -     | -     | -     | -     | +     |
| Machinery          | -       | -    | -     | -     | -     | -     | -     | -     |
| INDUSTRIAL         | .2      | .3   | .3    | .3    | -     | .3    | .4    | .3    |
| BEADS              | 4.1     | -    | .2    | t     | .1    | .1    | 1.8   | .7    |
| SUB TOTAL          | 93.5    | 93.9 | 92.7  | 95.3  | 91.9  | 94.8  | 90.8  | 93.9  |
| UNIDENTIFIED       | 6.5     | 6.0  | 7.3   | 4.7   | 8.1   | 5.2   | 9.2   | 6.1   |
| TOTAL              | 100.0   | 99.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Horizon 3 comprised 30 per cent of the artifacts and had the same category configuration as Horizons 2 and 1 north. The primary functional groups were construction fasteners, pane glass, smoking pipes, miscellaneous fasteners, and fauna. When divided into north and south components, the greatest difference was in the south area where the food storage group supplanted fauna for fifth place rank. Only 17 functional groups were identified in total; the south contained sewing and land transportation while the north had personal artifacts. Other differences were higher incidences of architecture, pane glass, fauna, and smoking pipes in the north and a considerably higher percentage of construction fasteners in the south.

Horizon 4, with another 27 per cent of the assemblage, had 504 artifacts/m<sup>2</sup> making it the most artifact rich horizon. This was due to the heavy concentrations of nails and fasteners found in the ash matrix, together totalling 80.1 per cent of the horizon assemblage. While 21 functional groups were represented, 8 of them totalled only 0.1 per cent of the artifacts. The now familiar pattern of functional categories, architecture, domestic activities, food, industrial, clothing and beads was again demonstrated and the functional group ranking consisted of architectural fastenings, pane glass, miscellaneous fastenings, smoking pipes, and fauna.

Horizon 5, also from the 1840 Boathouse area, had only 3 per cent of the sample. The pattern was altered somewhat as the shelter, domestic activities and food categories were followed by clothing and beads with no representation of industrial activities. The ranking of the functional groups was; construction fasteners, pane glass, smoking pipes, food storage, fauna, food serving and miscellaneous fasteners. The two functional groups to note in this horizon were pane glass at 30.7 per cent (compared to a mean 11 per cent for the excavation) and miscellaneous fasteners at 2.1 per cent (compared to 4.8 per cent) overall.



Horizon 6 contained 5507 artifacts or 17 per cent of the assemblage. Once again there was the familiar pattern of category ranking though the overall percentage for domestic activities jumped in value to 22.7 per cent from a mean of 12.8 per cent. This was due to a large increase in the percentage of smoking pipes which ranked second after construction fasteners. These were followed by pane glass, fauna, miscellaneous fasteners, food storage and food serving. Since this horizon was another that occurred throughout the excavation, it was divided into two parts like Horizons 1 and 3. The south looked just like most of the above horizons but the north exhibited a new configuration. The ranking of categories was domestic activities, shelter, food, industrial, clothing and beads and the order of functional groups was smoking pipes, construction fasteners, fauna, miscellaneous fasteners, pane glass and food serving. A total of 23 functional groups were identified. The south contained the ethnobotanical, clothing fabric, office supplies, and hygiene/medicinal groups while the north area contained the furnishings and recreation groups. There were also differences between the relative percentages of the major functional groups.

The final horizon, number 7, predated the construction of the 1840 Boat Builder's House. The 1007 artifacts comprised 3 per cent of the total and had a pattern quite different from other horizons. The ranking of categories was shelter, food, domestic activities, beads, industrial and clothing but the true differences were in the percentages. Shelter dropped from a mean 71.9 per cent to 36.6 per cent; while domestic activities rose from a mean 12.8 per cent to 24.5 per cent and food rose from a mean 8 percent to 27.2 per cent. The ranking of the functional groups was construction fasteners (one half the mean), smoking pipes (three times the mean), fauna (five times the mean), food

serving (four times the mean), pane glass, miscellaneous fasteners, food storage, architecture and beads.

This artifact pattern by horizon and portion of horizon seems to indicate only the buildings, the construction type activity and a couple of associated activities, primarily eating and smoking. It first appears in Horizon 6 and continues through to Horizon 1 where it appears only in the area of the 1916 Boathouse. This pattern has both very stable factors and dynamic aspects. Construction fasteners dominate at 50 per cent or more except in Horizon 5. The second ranked functional group is nearly always pane glass which is over represented in Horizon 5. The dynamic aspect occurs in the next three rankings. While they are almost invariably fauna, miscellaneous fasteners and smoking pipes, the pipes exhibit an ever increasing value from late to early until they supersede even pane glass. The next level of importance is food serving, and food storage interchangeably.

While this pattern accounts for most of the excavation, Horizons 7 and 5, the south part of Horizon 1 and possibly the north part of Horizon 6 were different enough to merit extra attention. While horizon 7 is the least dense, it still contains more than many areas of the site. The character of this horizon is somewhat amorphous though the 30.3 per cent construction fasteners still suggests either some reliance on construction or else considerable penetration from Horizon 6. It might reflect outdoor boatbuilding activity.

Horizon 5 has three small pattern variations. The first is that the percentages of construction fasteners are low and pane glass high. The second is the low percentage of miscellaneous fasteners and the third is the absence of any industrial artifacts. If the abnormally high concentration of miscellaneous fasteners, found only in this operation, is a result of boatbuilding, then these three problems

can be resolved by suggesting that this horizon represents a phase of building construction or repair. This suggestion is substantiated by the stratigraphy. The implication is that there is a definable artifact deposition pattern for building construction.

The pattern for the south part of Horizon 1 is probably indicative of activity that occurred there after demolition of the building. Unusual aspects are the large percentages for beads, food storage and architecture. This pattern may suggest building destruction and subsequent use of the area for camping. The pattern for the north part of Horizon 6 seems to be indeterminate between the prevailing pattern of use and the pattern found in Horizon 7.

Four functional groups deserve further discussion: construction fasteners, miscellaneous fasteners, smoking pipes and native industries. Each of these four groups seems to have some unusual distributional composition. The construction fasteners can be expected to be well represented, as they were probably intensively used in both building and boat construction but even the combination of these two activities does not fully account for the numbers found. The clue to the enormous quantities of construction fasteners in Horizons 3 and 4 seems to be in the distribution. Thousands of these nails were found around the outer perimeter of the 1840 boathouse, in or above a layer of ash. Many of the nails were burned as were other artifacts from this horizon. The first temptation is to suggest that the building was burned down but there was absolutely no evidence of fire inside the wall probably, the ash and nails were the waste products of a controlled fire that used former construction timber for fuel. The nearby location of a steam chest substantiates this assumption.

The miscellaneous fastener category was high and the natural response was to associate it with shipbuilding. However, some care should be taken in this interpretation as

the miscellaneous fasteners category includes many types of fasteners. Of the 1598 fasteners inventoried, 528 (33 per cent) were nails, about two thirds of which were brass. The use of brass nails in shipbuilding was common as they oxidized far less rapidly than iron. Another 967 (60 per cent) were rivets and/or roves, another fastener commonly used in ship construction. The remaining artifacts were a variety of screws, bolts, nuts and other fasteners all of which had multiple uses. Therefore 82 per cent of the miscellaneous fasteners could have had a direct relationship to shipbuilding, making the interpretation fundamentally sound.

The high proportion of smoking pipes was not expected. While large quantities and concentrations of up to 10 per cent are not unusual, the concentrations of 17.2 per cent and 20.2 per cent in Horizons 5 and 6 forced a re-evaluation of the role of smoking. It may be that smoking is not so much a recreational indicator but an indicator of intensity of activity per se.

The native industries which equate to lithics was notable not for its overall concentration but for the actual numbers, particularly in Horizon 6. These numbers would have been considered high in any part of the site and were certainly not expected in an industrial zone. While the role of native industries has yet to be analysed, this is certainly an aspect that must be investigated.

#### Summary

The aim of this operation was to locate evidence of the structures and activities of that portion of the site used in boat construction and storage. The results were that two buildings, the 1840 Boat Builder's House and 1916 Boat Builder's House were transected and that a small portion of the former was excavated.

The remains of that building were among the best recovered to date. The maximum width of the building is 7.2 m though the length is unknown. There is good detail on the method of foundation construction and evidence of the type, method and extent of foundation renovations that occurred in 1916. The sill plate of the building plus floor joists and planking provide an excellent indication of construction techniques.

The artifacts present a picture of intense activity related to the construction industry and associated activities of smoking and eating on or near the job. The wide diversity of artifacts also gives some indication of additional uses of the area, particularly in the earliest and latest years. The primary pattern is one of very high concentrations of shelter related artifacts, particularly construction fasteners and pane glass, followed by miscellaneous fasteners, smoking pipes and fauna.

Evidence of a steam chest that was used to help soften wood for shaping boat hulls was also found. Although the firebox had been dismantled, there was a depression where it had been and the evidence of an ash dump between the firebox and the building.

## THE FRONT OF DEPOT TEST

### Introduction

The decision to test intensively the area directly in front of the depot was based upon the need for two specific types of information. Of primary importance was the need to locate or to verify the loss to erosion of the 1789 Launch House that had been situated somewhere near the riverbank. Of secondary importance was the suspicion that this area contained a wide variety of landscape features that post-dated the 1820s and 1830s rebuilding and that some of these features had already been partially destroyed. Since we had inserted some test pits here in 1979, we decided that this series should follow a similar methodology for comparative purposes (Adams and Burnip 1981).

The main goal was to sample intensively a restricted area using a stratified random sampling strategy. The area chosen was a piece of land inland from the 1979 tests a distance of 15 m. It was 30 m long, 15 m wide and straddled the central drain that lay from the front doors of the depot to the river. Every second line was surveyed and had five units randomly chosen for excavation. This resulted in the selection of 34 m<sup>2</sup> or a 7.5 percent sample. An additional 8 m<sup>2</sup> were then removed to identify or better describe two enigmatic feature.

### Stratigraphy

The stratigraphy was very straightforward and quite easily

related to the earlier test units. The topsoil (Horizon 1) was a dark brown to black peat and root matt. The second layer (Horizon 2) was limited to those units within 5 m south and 1 m - 2 m north of the central drain (see Figure 30). It consisted of white, virtually sterile, clay and probably resulted from ditch construction in the early 20th century. The third layer (Horizon 3), composed of a dark brown peat, was limited to a few units in the southwest corner of the testing area.

The next soil layer (Horizon 4), found throughout the entire excavation area, was a light brown sandy clay, usually less than 2 cm in thickness. This layer was not found in previous tests but its light colour suggests that it had probably been removed with the next layer (Horizon 5) in previous excavations. Located throughout most of the excavation, Horizon 5 got noticeably thinner toward the west and actually disappeared in the two southwesternmost units. It was composed of a mottled grey clay and had the appearance of a disturbed fill layer. The black peat and sterile clay base was assigned to Horizon 6.

#### Description of Features

The results of this survey were the discovery of three drains, one palisade, one boardwalk, one probable boardwalk and two unidentified features (see Figure 30). Each of these is described below.

The first drain (Conduit A) lay just outside and parallel to the east or front palisade. It had a northern terminus at the depot drain (Conduit C) and probably continued south to somewhere near the Ice House.

No large section of this drain was removed to reconstruct the shape of the conduit as this was just a testing operation. At the northern terminus there were six boards

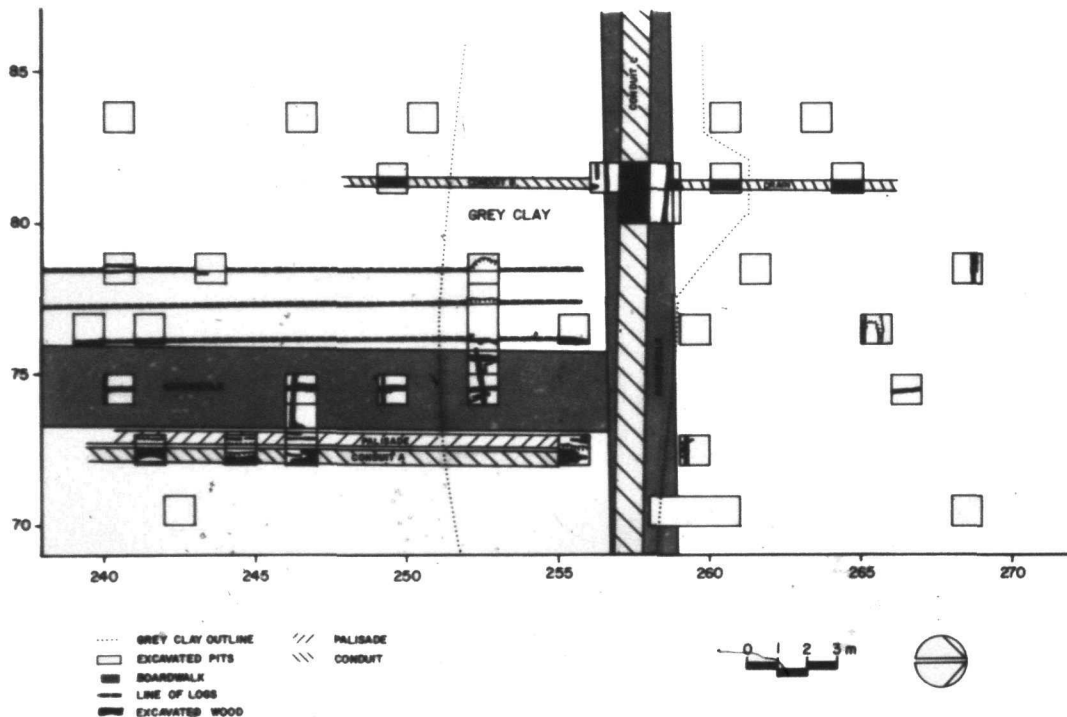


Figure 30. Depot front test units indicating the location of various features and of Horizon 2 (D. Elrick, draftsman).



that we were but which probably represented the drain box. All but one of those were 5 cm to 7 cm thick. The sixth board (15 cm wide and 3 cm thick) was probably not part of the original construction. Of the remaining boards, five were 18 cm wide and one was 21 cm wide. It is likely that the drain was no more than 18 cm high and was between 18 and 36 cm wide.

Immediately to the west of this drain, separated by no more than 30 cm, was the palisade ditch. Unlike earlier tests which showed the palisade to have been cut off at the ground, this section of palisade was uprooted. All that remained was a trench 60 cm wide at the top and less than 20 cm wide at the 65 cm deep base. Remnants of poles, usually under 10 cm in diameter, were located paralleling the trench. They were laid end to end in two rows 12 to 16 cm apart. Apparently they were laid along either side of the original posts, a practice that had been noted before (Adams & Burnip 1981: 200). The front gate was never located.

Directly west of the palisade, south of the depot drain, there was a boardwalk that had extended from the depot boardwalk to the fur store (Figure 31, top). Though only isolated parts of it were excavated and it had been previously dismantled, it was still relatively easy to reconstruct. First sleepers were laid in a north-south orientation, usually in a small footer trench. They were generally logs or half timbers under a metre in length, 15 to 25 cm in width and about 10 cm thick. Over these sleepers were laid 2.7 m long half timbers oriented east-west and spaced at about 1.5 m intervals. On occasion there was a shim between these platform sills and the sleepers below in order to level them. Laid over these sills in specially prepared notches there were three tracks of timbers 10 cm to 18 cm wide and about 12 cm thick. One track was laid along the centre of the sills and the other two 1 m away on each

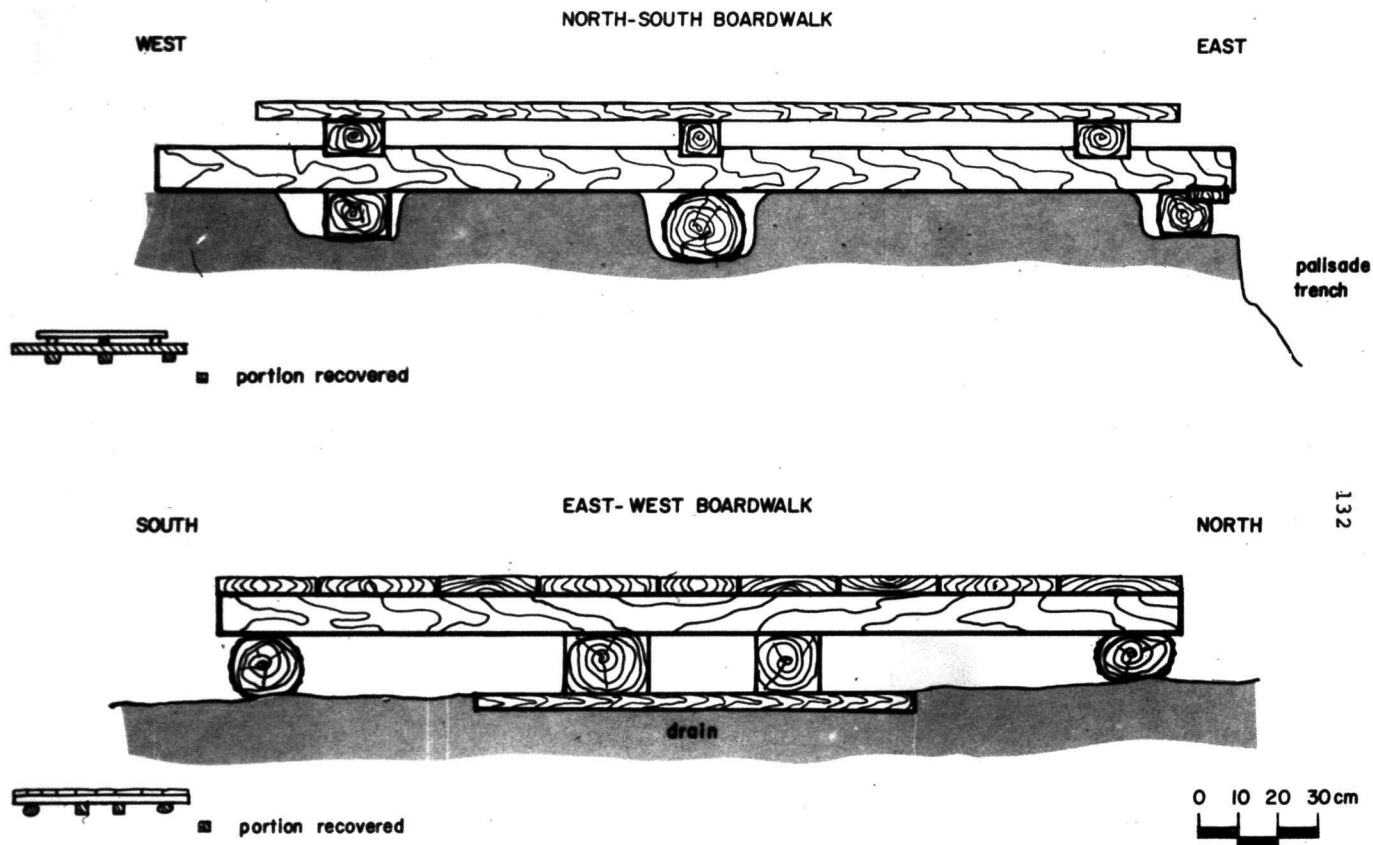


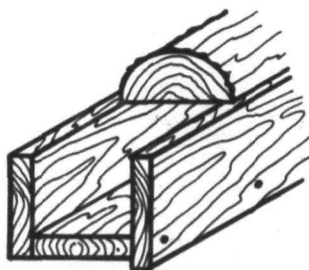
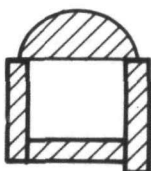
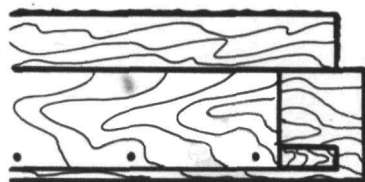
Figure 31. Reconstruction of cross section for boardwalk to fur stores (top) and for Depot boardwalk (bottom). (D. Elrick, draftsman).

side to create a 2 m wide base for the boardwalk. These tracks were spiked into place. The boards for the platform were then laid across the tracks in an east-west orientation.

The second drain (Conduit B) was laid in a north-south orientation 5.3 m west of the boardwalk. It was a small drain that crossed Conduit C (Figure 32). As the drain on the north side of Conduit C was still intact, one segment of it was cut through to reveal its construction. The base was a single plank 18 cm wide and 4 cm thick. The two sides were planks laid on edge to the side of the base and nailed in place. These side plates were 20 cm long and 4 cm thick. The cap was a thick slab laid on top with the curved side up. It was 22 cm wide and 10 cm thick in the centre. The nails were machine cut, indicating that this was a later drain than most.

When this particular drain was opened it was found to be silted in with 13 cm of silt which would have left 3 cm of operational drainage. In that 13 cm, a total of 16 major soil zones were found of which 5 were peat and 11 were clays. One peat layer and three clay layers were over a centimetre in thickness, possibly indicating periods of flooding.

The final feature oriented north to south was found between Conduit B and the boardwalk. It consisted of a series of lengths of wood laid end to end to form lines on the south side of Conduit C. There were at least three of these lines. The first was only 10 cm west of the boardwalk and the other two were spaced a little over a metre away, towards the river. In association with this feature were sharp elevation breaks. The change was always a slight step upwards to the west or inland. For this reason, these lines of wood have been interpreted as some kind of landfill feature.



 portion recovered

0 10 20 30cm



Figure 32. Reconstruction of Conduit B. (D. Elrick, draftsperson.)

The predominant feature oriented in an east-west direction was the Depot drain, Conduit C (Figure 33). This particular drain is probably in one of the most used locations on the site. As early as 1803 there is a notation of men "diggin a drain from the front of the factory" (HBCA, B.239/a/107,f.27a,YFS, 1 Sept. 1803). Although drain construction and maintenance were poorly documented, we can assume that some form of drain was located in front of the depot throughout much of its history. The most detailed reference came from Mr. W.E. Brown a district manager in the 1930s.

"When I took over the District in 1934 I found, on visiting the post in the summer of 1935 that the open courtyard in the Depot Bldg., consistently flooded in the spring, so made arrangements for a drain to be put in from the courtyard to be the river bank. It was a covered drain....

Oddly enough, the drain revealed that there were two cellars cut into which indicated that there were buildings at some past period (Letter from Brown to Donaldson, Oct. 1, 1981).

It was this 1935 drain that was excavated by the archaeology crew. The entire drain had been set into a deep (over 60 cm) pit and continual flooding prohibited full investigation. Covering the drain was a row of 4 cm thick tongue-in-groove boards oriented in a north-south direction. These were about 115 cm long and between 10 cm and 26 cm wide. This cover was removed to reveal two east-west oriented planks that made up the drain lid. They were 22 cm wide and 4 cm thick. A pile of three short, 4 cm thick planks laid transversely across the drain at the end of the excavation unit probably acted as a support for the cover. As well, two planks on one side of the drain served a similar purpose. The walls of the conduit were planks 28 cm wide and 4 cm thick. Though the base was never uncovered, it was probably made of similar planks.

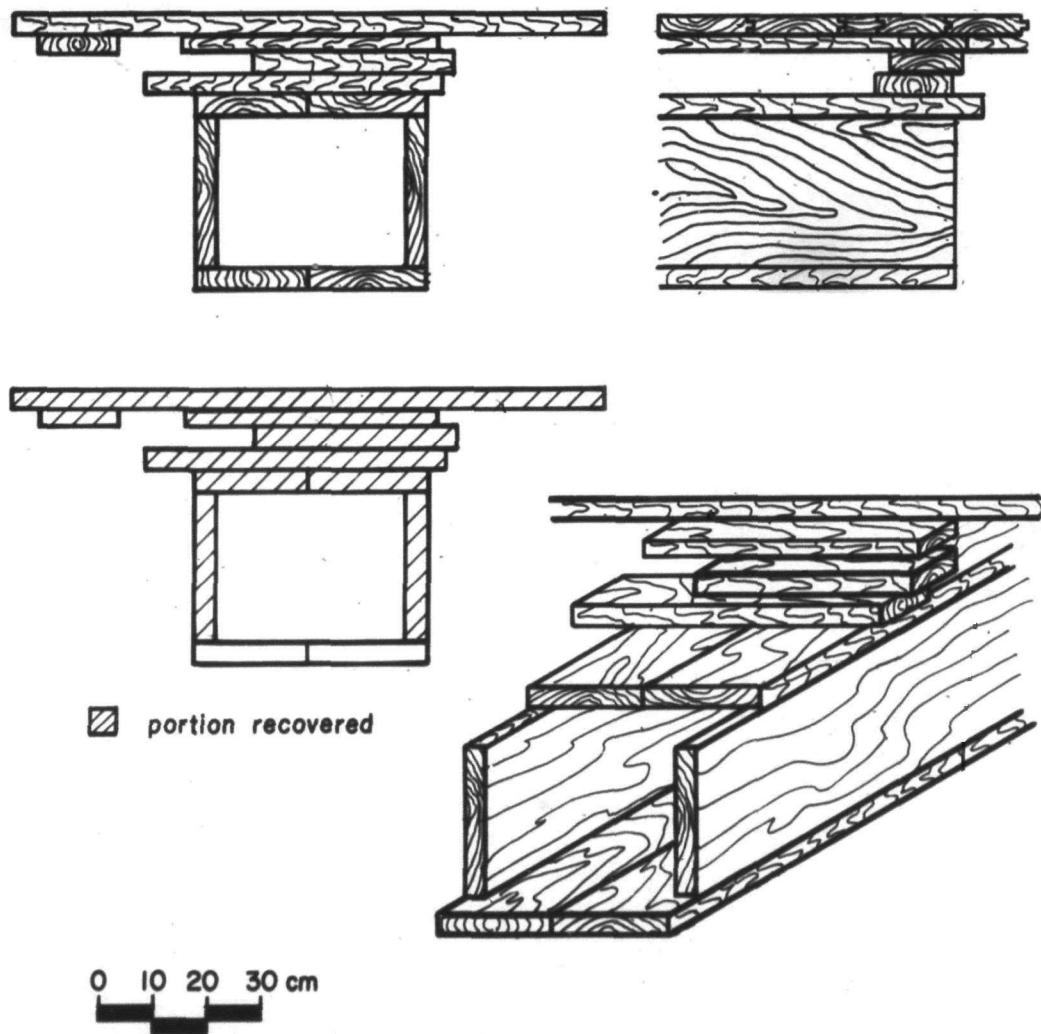


Figure 33. Reconstruction of Conduit C. (D. Elrick, draftsman.)

Over Conduit C, there were remnants of a boardwalk that had led from the Depot to the front gate. However, the disturbance caused by the drain obscured most of the information about it. Two east-west oriented pieces, one a 16 cm diameter log and the other a 17 cm by 11 cm half timber were probably the base for this boardwalk. They were 2.0 m apart with the Conduit C centrally located between them. Two additional timbers approximately 30 cm apart lay directly over the conduit. These sills were probably overlain by 2.2 to 2.5 m long timbers to which planks had been attached in an east-west orientation (Figure 31, bottom).

This accounts for all of the wood recovered in the testing operation except for that from three units at the north end of the series. These pieces were an east-west oriented plank 15 cm wide by 3 cm thick, a north-south oriented plank 10 cm wide by 2 cm thick and a north-south oriented timber 20 cm wide by 16 cm thick. None of these seemed to belong to any known feature. There is a possibility that the timber is part of the 1798 Launch House though no early artifacts were recovered and our measurements indicated that the building had already been lost to erosion.

### Structural Artifacts

Though little or no structural evidence was uncovered, an analysis of the artifacts was conducted to determine if some other form of evidence was available to suggest the existence of buildings. The pane glass did not indicate any structures. The total of 150 fragments was distributed in a mean 3.6 fragments/m<sup>2</sup>, a frequency far below that of any area with windowed structures. There were three slight concentrations pane glass. One was in the first horizon in association with the parallel logs feature. The other two

were associated with boardwalks in Horizon 5. Their relation to this horizon did suggest the early phase in the occupation.

The result of the nail analysis was very similar to that of the glass. None of the horizons bore any great quantity of nails, though Horizon 5 contained the most at 326. The trends were all as expected: increasing emphasis on wrought nails in lower horizons with wrought rosehead, machine clasphead and wire common being among the more numerous styles. The only level which contained enough nails to suggest an architectural association was Horizon 5. It contained 41.7 per cent of the sample with 88 per cent wrought, 11 per cent machine cut and 1 per cent wire. The most common styles were wrought rosehead, unidentified and clasphead.

The other structural remains were few and scattered. They included seven fragments of asphalt or tarpaper, three of roofing, five of window putty, three of finished wood, a catch, a key and a padlock.

Together, these artifacts did not deviate from normal expectations of what would be found in any area of the site. There were no concentrations of architectural artifacts and no evidence of strong associations between artifact types. While it is possible that Horizon 5 is associated with to the early boathouse, it is also possible that it merely reflects the activities associated with the construction of such features as palisades, boardwalks and drainage conduits.

#### Artifact Analysis

The most interesting aspect of this artifact analysis is the comparison of the 1982 assemblage with that of previous



years. In previous studies (Adams and Burnip 1982) a transect of units along the riverbank was analysed to determine the pattern of artifacts. While no single pattern emerged as typical of the entire transect, several trends and localized patterns were distinguished. As the front of Depot test was adjacent to a portion of this transect, this section will concentrate on exploring the similarities and differences noted in this new test.

In the 1979 test, the transect was initially looked at as a whole unit to see if there was an overall pattern. A very general pattern of functional categories existed that ranked food, shelter, domestic activities, beads, industrial activities and clothing in descending frequency. The 1982 test reversed the ranks shelter and domestic activities, but the weak correlations in the original pattern suggested that these changes were unimportant (Table 8).

More significance should be placed on trends through time within artifact categories and functional groups. Obvious trends through time were noted in this sample to see if they compared favourably to trends observed in 1979. This was accomplished by looking for high correlation coefficients for percentage of the sample by horizon. Within the food category, there was a marginal trend (.78 correlation) to higher percentages of food serving artifacts in later horizons. There may also have been a lower frequency in fauna in the middle horizon (19.9 per cent in Horizon 4) over either earlier (31 per cent and 50 per cent in Horizons 5 and 6) or later (35.1 per cent in Horizon 2) occupations. The fauna pattern corresponded to earlier findings which had been interpreted as a possible indication of changing roles in disposal patterns. In this and in all subsequent analyses, Horizon 3 is not considered due to its very small sample (21 artifacts in one lot).

Table 8. Percentages of Functional Groups by Horizon from the Test Units in Front of the Depot.

| (t = trace)        | HORIZON |       |       |       |       |       | TOTAL |
|--------------------|---------|-------|-------|-------|-------|-------|-------|
| ACTIVITY           | 1       | 2     | 3     | 4     | 5     | 6     |       |
| Food Procuring     | .6      | -     | -     | .7    | 1.1   | -     | .8    |
| Food Storage       | 15.3    | 6.2   | 38.1  | 8.4   | 3.4   | 4.6   | 6.2   |
| Food Preparing     | -       | .2    | -     | -     | -     | -     | t     |
| Food Serving       | .8      | 2.4   | 4.8   | 8.7   | 8.4   | 5.6   | 7.0   |
| Fauna              | 15.1    | 35.1  | 9.5   | 19.9  | 31.0  | 50.0  | 27.8  |
| Ethnobotanical     | -       | -     | -     | -     | .3    | -     | .2    |
| FOOD               | 31.8    | 43.8  | 52.4  | 37.7  | 44.3  | 60.2  | 42.0  |
| Architecture       | 2.1     | .6    | -     | .7    | .1    | -     | .5    |
| Const. Fast.       | 29.7    | 20.5  | 19.0  | 16.8  | 11.7  | 6.5   | 15.5  |
| Pane Glass         | 10.6    | 1.3   | -     | 3.1   | 2.2   | 1.9   | 3.1   |
| Furnishings        | -       | .2    | -     | -     | -     | -     | t     |
| Furniture          | -       | -     | -     | -     | -     | -     | -     |
| Housekeeping       | -       | -     | -     | -     | -     | -     | -     |
| SHELTER            | 42.5    | 22.6  | 19.0  | 20.6  | 14.0  | 8.3   | 19.1  |
| Sewing             | -       | -     | -     | -     | -     | -     | -     |
| Cobbling           | .2      | -     | -     | -     | -     | -     | t     |
| Leatherwork        | 2.1     | -     | -     | .1    | .7    | -     | .6    |
| Clothing Fasteners | .4      | .2    | -     | .4    | .3    | -     | .3    |
| Adornment          | -       | -     | -     | -     | .1    | -     | .1    |
| Laundry            | -       | -     | -     | -     | -     | -     | -     |
| CLOTHING           | 2.8     | .2    | -     | .5    | 1.1   | -     | 1.0   |
| Office Supplies    | -       | -     | -     | .1    | -     | -     | t     |
| Misc. Storage      | 3.0     | .4    | -     | .4    | .6    | -     | .8    |
| Personal           | -       | -     | -     | -     | .2    | .9    | .1    |
| Smoking            | 5.7     | 17.9  | 9.5   | 13.8  | 23.5  | 16.7  | 18.8  |
| Recreation         | -       | -     | -     | .2    | -     | -     | .1    |
| Medicinal          | -       | 1.1   | -     | 15.8  | .9    | 1.9   | 4.1   |
| Land Transport     | -       | -     | -     | -     | -     | -     | -     |
| Miscellaneous      | .2      | -     | -     | -     | .1    | -     | .1    |
| Misc. Fasteners    | 2.1     | .7    | -     | .7    | 1.5   | 2.8   | 1.3   |
| Native Items       | -       | -     | -     | .3    | .1    | -     | .1    |
| DOMESTIC           | 11.0    | 20.1  | 9.5   | 31.2  | 26.8  | 22.2  | 25.3  |
| Metal Working      | .4      | .2    | -     | .4    | .2    | .9    | .3    |
| Military           | .6      | .2    | -     | 1.5   | 1.0   | .9    | 1.0   |
| Water Transport    | -       | -     | -     | -     | -     | -     | -     |
| Fur Trade          | .2      | -     | -     | .1    | .1    | -     | .1    |
| Machinery          | -       | -     | -     | -     | -     | -     | -     |
| INDUSTRIAL         | 1.3     | .4    | -     | 2.0   | 1.3   | 1.9   | 1.3   |
| BEADS              | .2      | .2    | -     | 1.6   | 5.4   | .9    | 3.3   |
| SUB-TOTAL          | 89.6    | 87.3  | 81.0  | 93.6  | 93.0  | 93.5  | 92.1  |
| UNIDENTIFIED       | 10.4    | 12.7  | 19.0  | 6.4   | 7.1   | 6.5   | 7.9   |
| TOTAL              | 100.0   | 100.0 | 100.0 | 100.0 | 100.1 | 100.0 | 100.0 |

In the shelter category there was a trend to increasing representation in later lots. The correlation coefficients were .89 for architecture, .97 for construction fasteners, .68 for pane glass and .94 for the shelter category overall. This again agreed with earlier interpretations as a correlation of shelter related artifacts with demolition rather than construction.

The domestic activities category was well represented in this sample with some specimens for every functional group except land transportation. Three functional groups were represented well enough to look for trends. Smoking pipes were a mean 18.8 per cent of the sample and showed a weak tendency to decrease in percentage in later Horizons. The lowest frequency was in Horizon 1 at 5.7 per cent and the largest was in Horizon 5 at 23.5 per cent. Medicinal/hygiene showed no trend through time but an obvious concentration did occur in Horizon 4. Likewise, there was no trend in the miscellaneous fasteners. The trend in the use of smoking pipes again corroborated earlier findings though the previous explanation of this area being recreational in nature is less feasible given the findings at the boat houses.

The 1979 analysis, which had lumped nine horizons into three broader periods had noted some changes in emphasis through time on that basis. The middle period (Horizons 3, 4 and 5) was most similar to the overall pattern; this was again the case. The earlier period (Horizon 6) was weighted more towards food and beads and less towards shelter and domestic activities. In this test the weighting was more toward food and less toward shelter. The later period (Horizons 1 and 2) emphasized shelter and de-emphasized domestic activities and beads. This was indeed the case in the new test.

After the initial analysis the earlier report divided the transect into four sections based on cultural features.

This test bisects areas B and C which met at the front gate. Trends were extrapolated in each of these sub areas. Area B had a very high artifact density with a high frequency of food related artifacts followed by beads, domestic activities, shelter, industrial activities and clothing. There were also high quantities of fauna and pipes. Area C had a similar ranking but was less densely represented with shelter and beads reversed in rank. It was characterized by a large diversity of functional groups and high percentages of nails and food storage.

In this test artifacts from 20 units were associated with area B and 16 with area C. (The extra units dug to expose features were not included in the analysis.) The artifacts from Area B did have a greater density ( $125.1 \text{ a/m}^2$ ) than those of Area C ( $69.7 \text{ a/m}^2$ ) though these densities were both about half that calculated in the earlier test. The ranking of categories for Area B was food, domestic activities, shelter, beads, clothing and industrial. This was the same order as the earlier study except for a lower frequency of beads. In Area C the ranking was the same as Area B which did not correspond to the original Area C. The highest percentage groups in Area B were fauna (31.9 per cent and smoking pipes (18.6 per cent) while in Area C, they were smoking pipes (25.3 per cent) and nails (21.9 per cent).

The differences originally noted between Areas B and C were at least partially substantiated by the follow up test; Area B especially remained true to the form established. There was considerable difference between the two areas revealed by the new data. While an explanation for these differences may be a little premature, it is fair to say that there is probably a cultural boundary that corresponds closely with the front boardwalk from the Depot to the river.

One hint as to the nature of that boundary may be in the composition of the functional groups representing each area. Area B contained 26 functional groups while Area C had examples of only 18. The groups found only in Area B included food preparation, ethnobotanical, cobbling, adornment, office supplies, personal, recreation, and native industries. If one also notes the higher percentages of food related artifacts (45.9 per cent in B, 2.8 per cent in C), there is a definite impression of a more domestic or recreational character to Area B.

#### Summary

The basic purpose of this operation was to locate features near the river, directly in front of the Depot. This was indeed successful as the front palisade, the Depot to river boardwalk, the centre to fur store boardwalk and three drains were all excavated enough to describe the original features.

Two confusing features were also uncovered. A couple of timbers near the north end of the excavation were hoped to be remains of the 1789 Launch House. Unfortunately, there was no evidence of intensive use of architectural artifacts and no structural features like sleepers, so this interpretation has been suspended until further investigation provides more information.

The other feature, parallel logs laid in long rows about a metre apart, has been interpreted as part of the land reclamation process, probably related to the garden. The garden construction will be more fully discussed in Chapter 10.

The artifacts recovered from this area displayed a pattern that had been previously recognized in the 1978-1980 data. They also supported the conclusion that the areas

north and south of the Depot to river boardwalk were used for different purposes. Further, the recently acquired artifacts suggest that this distinction might be based on domestic or recreational types of activities associated with the boardwalk.

## THE GARDENS

Three different tests conducted in 1981 and 1982 had an unexpected side effect: all three found the front garden. Originally intended to locate the East Fur Store, the Inland Cargo House and the front palisade, for convenience they can be called the south, north and east test.

### History of the Garden

Gardening at York Factory had a long and inglorious history. The first gardens at the York Factory III site were established sometime between 1793 and 1799 for in 1793 they were tending gardens at the old site (HBCA B.239/a/95, YFJ fo. 43, 25 July 1793) and in 1799 they were digging in a garden by the distillery, behind the post (HBCA B.239/a/101, YFJ, fo. 91D, 14 June 1799). The journals are very sketchy as to the location and the construction of gardens but even these few notes portray a feeling that they received considerable effort from the inhabitants.

In 1815, W.H. Cook stated "at York the Soil is made up of Night Soil-Grey Mould & rotten Tobacco - both [Oxford & York] the gardens are subject to the Blight & Cattapilar & appear to be too far gone to recover their original Fertility" (HBCA B.239/c/1, York Factory Report, W.H. Cook to Thos. Thomas, 1 Sept. 1815). The general orders to York Factory for 1818/19 stated that "the Garden to be dug and limed at least a portion of it" (HBCA, B.239/a/126 YFJ fo5)

and it was manured in October. In 1929 Robert Miles' Journal noted that he "Desired Sam to get up two Oxen from the Marsh, as I find that the Horse alone proceeds very slowly, the garden requiring an immense quantity of dung to put it anything in Shape" (PAM M61 C4, C31 May 1829). In 1840 L. Hargrave wrote, "The garden underlaid with willows, but there is nothing in it but turnips and lettuces wch last are put into broth & mashed in imitation of spinage" (MacLeod 1969: 76). Finally in 1879 McTavish wrote that there "appeared a couple of gardens, enclosed by short pointed pickets. These gardens were made by laying a foundation of willows on the swampy ground, and bringing earth or soil up from the river (McTavish 1963:25)".

These comments give an impression of the care that was taken in maintaining the gardens. Beside the front gardens there was also a plot to the south of the Depot, plus numerous attempts at hotbeds and small boxes of greens. There were also major gardens at Ten Shilling Creek and Rock Depot.

The actual gardening and success of gardening is a story for another context but in general terms, gardens were encouraged from the earliest years to provide a dietary supplement of fresh vegetables. Over the years virtually every possible vegetable was experimented with, but largely unsuccessfully. For the 19th century the staple crops were turnips which seldom matured and which were harvested as much for their greens as their roots, cabbages and greens for salads. These greens were primarily lettuces, endive, cress, radishes, spinach and mustard. By the 1880s potato strains were developed which would provide potatoes that ranged from walnut to chicken egg size and they became a staple crop. While the big gardens were closed down around 1900, the tenacity of York horticulturalists continued right into the 1930s.



"Had the remainder of the Vegetables taken up-we have been tolerably successful God be praised in our Gardens this Season and hope to have sufficient to supply the men almost the whole winter (HBCA B.239/a/96 fo5. YFJ, 12 Oct.1793)."

"Sick Man gathering from the Garden Broccoli sprouts & turnip tops - the produce of the Garden is next to nothing wether from the badness of the Soil-or unfavourable Eliminate of the myriad of Grubs & Insects that infest the Ground I know not....(HBCA B.239/a/121 fo.5, YFJ, 19 Oct. 1814)."

"[135 bushels of turnips harvested from YF gardens] being the best crop we have had at the Factory for the last 15 Yrs at least (HBCA B.239/a/151, fo.4d, YFJ 6 Sept.1838)."

"Scarcely anything in the way of vegetables can be raised in the small spot of ground called by courtesy a garden. Potatoes one year for a wonder, attained the size of walnuts, and sometimes a cabbage and a turnip are prevailed upon to grow (Ballantyne 1971:169)."

"Hargrave shewed me a shed covered with glass, in which they tried to grow radishes turnips and vegetables-some grew to the size of marbles, but as a rule the young plants were destroyed by flies. Nothing in the shape of vegetables can be cultivated here (Smith (ed) 1975:97)."

#### The Garden Excavations

The excavations at the south end revealed that this garden plot was first prepared by digging the existing soils, the banded peat and clays, which when turned made a very clayey base. This was then covered with a layer of wood chips and a 20 cm thick layer of what is now a brown peat. The south border consisted of a log and a 120 cm wide ditch filled with rock which extended the length of the garden. At distances of 3 m, 4 m and 5.2 m out from the ditch, parallel lines of logs were laid. The soils between and over these logs were various fills from river clays to wood chips. Once again, the base soils had been turned over.

The north end had a similar structure. The edge of the garden was bordered by a rock filled trench with lines of wood at 2.6 m, and 4.2 m north. The only difference here was that the ground level had been raised from the outside line of wood for another 3 m north. It consisted of bundles of saplings or branches laid in a north-south orientation at irregular intervals then covered with a 20 cm thick layer of grey clay, probably extracted from the river. Perhaps this buildup was related to drainage or perhaps it was a section of the garden that was never used.

The east border of the garden was not excavated but, as discussed in chapter 9, there were three lines of logs set a metre apart. These conformed very well to the lines found in both the other tests.

#### Artifact Analysis

The 997 artifacts from the south test were classified into 21 functional groups, the most numerous being fauna (44.6 per cent), construction fasteners (11.0 per cent), smoking pipes (9.7 per cent), food serving (4.4 per cent) and pane glass (3.5 per cent). The other groups, all under 2.3 per cent each, included food procuring, food storage, ethnobotanical, architecture, furnishings, furniture, fabric, clothing fasteners, miscellaneous storage, miscellaneous fasteners, native industries, beads and all eight groups within the industrial category except machinery. The pattern was similar to that of its nearest neighbour, the East Fur Store. None of the garden tests were analysed by horizon.

The north test contained 8736 artifacts in 23 functional groups. The highest percentages were beads (42.9 per cent), fauna (18.2 per cent), food procuring (15.6 per cent), smoking pipes (7.0 per cent), ethnobotanical (5.1 per cent), construction fasteners (2.4 per cent) and food

storage (2.3 per cent). The other groups each had a percentage of less than 0.5. The ranking of categories proceeded from food through beads, domestic activities, architecture, industrial activities and clothing.

The pattern established was similar to that of the lowest horizons of the Inland Cargo House but it seemed to emphasize, even more, unusual concentration of some artifacts. The density was  $624 \text{ a/m}^2$ , higher than the boat house; most of the beads, shot and ethnobotanical specimens were retrieved from only three of the units.

#### Summary

The front garden stretched from the Depot to the front palisade and from the warehouses to the fur stores with only a 10 m border on each side. It was a completely manufactured garden starting with a wood border and rock filled trenches on at least two sides. It was made by turning over the existing soil, building up the elevation with layers of saplings and clay and then covering it with a layer of wood-chips. Peat and humus soils were then brought in and supplemented with nightsoil and animal manure. As the area was used as a garden throughout most of the period, its artifacts tend to reflect activities that were conducted in adjacent areas.

## THE DEPOT

Two searches to locate the Old Octagon had failed before Donaldson (1983) discovered that the Depot had been constructed on top of it. I therefore conducted one final test to discover whether or not there was any evidence of the cellar that was supposed to be under the Men's Flanker in the northeast section of the Old Octagon. Excavations revealed some structural details of the Depot, the existence of the cellar and a very interesting artifact inventory.

### The Excavations

The excavation was conducted in the northeast room of the Depot where the floor was temporarily lifted for this purpose. The two building phases had left no evidence of stratigraphy. The floorboards of the Old Octagon were found to be of various lengths but of relatively uniform width (17 cm) and thickness (5 cm). They were fastened to the floor joists with wrought nails. The half timber joists were oriented east-west. They ranged between 20 cm and 30 cm in width and between 15 cm and 20 cm in thickness. They spanned the width of the room and rested on floor sills. The joists were nearly completely buried and showed extensive rot. Each joist was fastened to the sill by a single wrought spike (Figure 34).

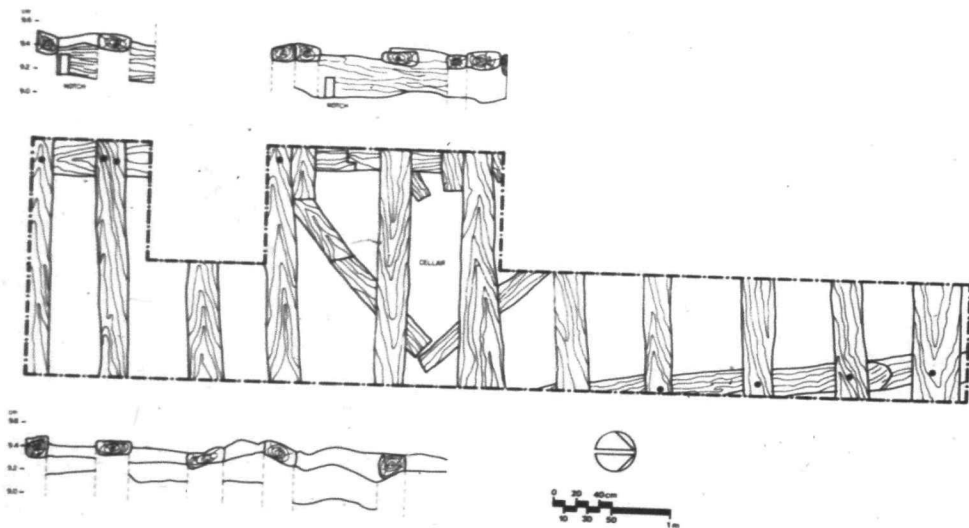


Figure 34. Planview and cross-sections of excavations inside depot. (D. Elrick, draftsman.)

Two of the sills were partially excavated (Figure 32). The sill under the west wall of the room was of large square timbers 28 cm wide by 25 cm thick. A single scarf joint was noted. One of the timbers had 17 cm by 7 cm by 5 cm deep notches cut into the lower side of the east face. This was interpreted as evidence of reuse of former timber. The sill that lay across the centre of the structure 2.25 m east of the west sill was a 28 cm diameter log with notches cut into it for the floor joists.

Three metres from the south wall of the room in the Depot the cribbing for the 1790 cellar was encountered immediately below the sills so that the west wall of the room was supported by the second course of cellar cribbing. I excavated one corner of this cellar which lay at a 45° angle to the Depot. The angle itself was good evidence that this feature belonged to an earlier occupation as the flankers were built with their salient angles at 45° to the structures themselves.

The cribbing was in the form of two square timbers that butted together at right angles. The wood was 16 cm thick. On the east wall the top piece had been cut off at 111 cm north of the corner probably because the first layer of cribbing was too high for the new sill timber. The second course was of similar size but butted on the opposite face to provide an interlocking corner. A third course was partially excavated.

The only other evidence of the Old Octagon was massive amounts of plaster found near the north wall of the Depot.

### The Artifacts

The nature of this excavation suggested that a more descriptive approach to the artifacts would be appropriate. The cellar cribbing was filled with a gravelly matrix which

yielded 719 of the 892 identified artifacts. Furthermore, it had to date between the 1789 construction date and 1832 when it was backfilled. As it was probably filled just prior to reconstruction, and the matrix indicated that it was a mixture of river sediments and plaster, the associated artifacts were likely from the latter half of this period.

The artifacts found next to the outer wall of the Old Octagon numbered 106 or 12 per cent of the identified artifacts. Only 12 functional groups were represented and all of the artifacts commonly occurred at the site. They included 33 nails, 24 bones, 14 clay pipes, and 10 pieces of fabric. The ranking was shelter (35.5 per cent), food (29.0 per cent), domestic activities (19.6 per cent), clothing (9.3 per cent), industrial activities (1.8 per cent) and beads (4.9 per cent).

The artifacts from all areas not associated with the earlier occupation numbered only 67 or 8 per cent of the identified artifacts. Here only 8 groups were found and artifacts included 31 bones, 10 pipes, 6 alcohol bottle fragments, 7 tableware fragments, 6 pane glass fragments, 5 nails and 2 pieces of fabric.

The cellar had 19 functional groups represented; the foremost was fauna (52.4 per cent) followed by smoking pipes (15.7 per cent), construction fasteners (8.3 per cent), fabric (6.5 per cent) and pane glass (3.5 per cent). The ranking of categories was food, domestic activities, shelter, clothing and beads.

Half of the ethnobotanical collection is birchbark and the other half is a cache of peanuts. The peanuts were found in excellent condition nestled into the cribbing in a gap between two butting pieces in the corner. The fabric was one of the largest collections retrieved and included many types of material: wool, hemp, hair felt, sinew, boars bristles, and human hair. Many of the specimens were dyed

and fibre analysis is being conducted. The buttons included one with an HBC crest and one with a glass cameo. The single recreation item was a broken gaming piece, probably from a Loo game.



## THE GRAVEYARD: A SURFACE STUDY

### Background

One of the very few extant historic features at York Factory is a large, decaying graveyard adjacent to the powder magazine. As no survey had ever been made of this feature, the archaeologists decided to inventory it late in 1979. The yard was heavily overgrown and impossible to survey with instruments so grave locations were measured in relation to their neighbours. To prevent confusion a piece of orange flagging was attached to each grave with the assigned grave number written on it. Over 70 graves were inventoried on a grave description form. As no more time could be afforded, the survey was to be finished the following season.

When the crew returned in 1980, all the tape had been removed. Apparently, a group of school children from Shamattawa had been on site for a tour and were horrified when they saw the tape attached to the graves. The red colouring was an anathema and had to be removed. That meant that the entire survey had to be redone. As some bush clearing would be done in the fall of 1980, the project was deferred. In 1981 the graveyard had been cleared but the condition was even worse as the trees had not been hauled away, creating an impassable tangle. It was not until the summer of 1982 that the job was completed.

### History of the Graveyard

The first record of a graveyard near Sloop Creek was as early as 1790 when Robert Hudson and William Moore were buried there (HBCA, B.239/a/90 YFJ,f.40a 2 May 1790 and a/92, f.69, 1 Nov. 1790 respectively). The graveyard was first stockaded in 1803. In the period from 1857 to 1877 the burial grounds at the old fort appear to have been used. It was accessed by a road cleared by schoolchildren and culminated in the following disaster:

Smith & party of Indians exhuming coffins at the Old fort graveyard. and reburying them farther in. Several bodies (and coffins) were displaced by a landslip. and others were so close to the river that they were taken up (HBCA,B.239/a/182 YFJ,f.102d, 7 Aug. 1872.

They must not have removed all the bodies for a 1884 report stated:

Its present site [York Factory] is about half a mile farther upstream than the old one, which was captured by the French in 1782, but afterwards restored. The old site is still visible by the wearing away of clay banks exposing coffins and logs (Sessional Papers 1885:28).

This was at least partially confirmed in 1980 when a former resident named Fred Beardy stated that he could show me a second burial ground. However, when he arrived at the site of York Factory II, he stated that the graves were all gone -- in the river.

This information presents some interesting problems. The first is that the original graveyard for York Factory II continued to be used up to the 1860s. If such were the case, it is conceivable that there was some status or racial distinction between the two graveyards. A portion of the

old fort graveyard had been exhumed and re-interred at the Sloop Creek gravesite. The portion that was left was what Fred Beardsy tried to show. A second option is suggested by the phrase "and reburying them farther in". If taken literally, the graves may have only been moved inland and eroded out again as Beardsy surmised.

A third option is suggested by Isaac Cowie who recounted his years with the Company (1867-1874).

"Across Schooner Creek [Sloop Creek] where the schooner was laid up for the winter, was the old Indian graveyard, upon which the Hayes River was encroaching and eating away the banks, while outside that enclosure, with iron railings set in stone,..." was William Sinclairs grave (Cowie 1913: 109).

This seems to suggest that the graveyard at the "Old Fort" and that at "Schooner Creek" were one and the same and that people had merely lost track of the location of York Factory II. If such had been the case, then it was the Sloop Creek graveyard that was relocated, including William Sinclair's grave. That would mean that the entire graveyard as it stands today postdates the 1850s.

The archaeological evidence failed to answer these questions and, as no map of the site exists which shows the graveyard prior to 1889, there is no resolution of the problem to date.

#### Permafrost at the Graveyard

Another problem arising from a conflict between documentary and physical evidence is that of permafrost. As permafrost would act as a natural preservative, it is important to note whether or not the bodies were buried in it. The first reference to permafrost was recorded by Helmken in 1847:

"but the ground hereabouts a couple of feet from the surface is always winter and summer frozen solid, so that if a man is to be buried, they have to blast a grave (Smith (ed) 1974:97).

That suggested that bodies were buried in permafrost. In 1858, the Reverend William Mason supported the existence of permafrost by describing a grave dug for a Norwegian sailor who died of typhus. It had 3 feet of frozen ground (the grave was dug in January) followed by 1 foot of thawed ground, followed by permafrost (PAM MG7,B2 (CMS)A.94, William Mason's Journal 19 January 1858). He failed to note, however, whether or not the body was interred in the permafrost.

On the other hand, there is a local tradition, unsubstantiated by documents that bodies were stored over the winter months so that they would be easier to inter. This suggests that permafrost was avoided. Finally, in a recent environmental report Hunter (1982) suggests that there is no permafrost in the graveyard to a depth of 2 m.

#### The Survey

The purpose of the graveyard survey was to provide a map locating observable graves and to provide a description of those graves. As this information was to serve for site operations, planning and research, the notes and maps had to include a wide range of information. The York Factory Grave form recorded the name of the individual buried and the date of death, the inscription on the cross or headstone, the size, height and construction of the fence and the colour it was painted, the condition of the grave, a sketch of the fence, remarks and a photograph reference number (if applicable). As well, each grave was assigned a number and mapped using an alidade and plane table. The resultant map also showed the graveyard in relation to the powder magazine and Sloop Creek (Figure 35).

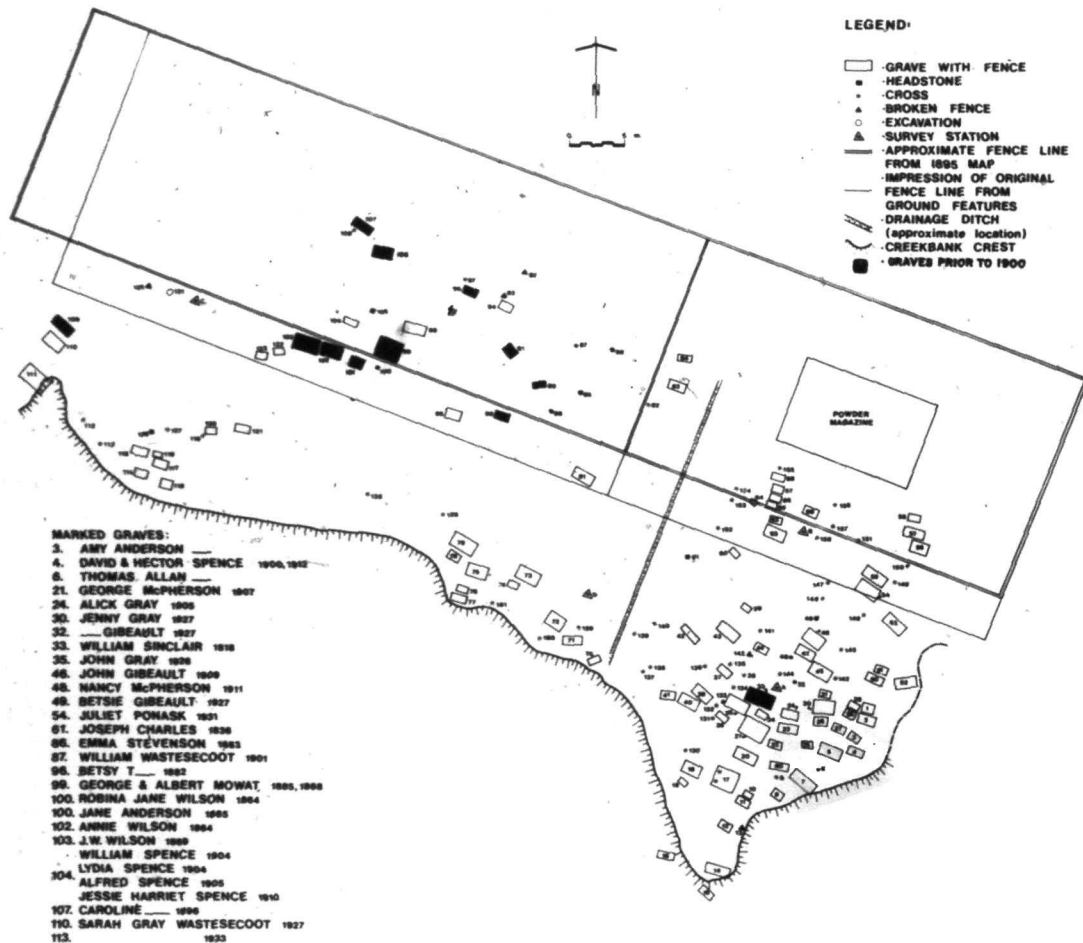


Figure 35. Map of graveyard. (D. Elrick, draftsman.)

This information has been analysed in an attempt to answer the following questions:

1. What can be said about the individuals buried in the graveyard?
2. Is there any patterning of burial placement that suggests an evolution of the burial ground?
3. Is there any discernible pattern in burial practices that would allow for reconstruction of the historic burial ground?

#### Analysis of Individual Graves

The analysis of the individual graves was simplified by the research of Dr. Bill Ewart who had previously recorded a considerable body of data on disease and death at York Factory and whose notes are used here. While there were 161 graves identifiable by some surface feature, only 25 had legible inscription. The following is the assembled information on the latter:

Grave 3: This grave had a wood marker that was only partially legible. A portion of the inscription appears to be in syllabics which indicates a native of mixed heritage. The legible portions read - AMY/DIED AUG. 8/3 YEARS/DAUGHTER OF JOHN AND JEAN/ANDERSON/... /.../PCVQ. The marker was fenced (Style 3A) and the inscription was applied with black paint. She died of "la grippe".

Grave 4: The stone marker read SACRED TO THE MEMORY OF/DAVID/BORN 14, FEBRUARY 1898/DIED 12, OCTOBER 1900, HECTOR BORN 13, AUGUST, 1907/DIED 30, JULY 1912/CHILDREN OF/GEORGE AND MARY SPENCE/HE SHALL

GATHER THE LAMBS WITH HIS LAMBS/AND CARRY THEM TO HIS BOSOM/ISA XLII. The fence around the marker was of simple construction (Style 4C) and the plain stone was made of white granite. David Spence died of inflammation of the intestines while Hector's cause of death was unrecorded.

Grave 6: This headstone was laying flat and the grave no longer showed any evidence of a fence. The inscription read SACRED/TO/THE MEMORY OF/THOMAS ALLEN/A NATIVE OF ORKNEY/WHO DEPARTED THIS LIFE/AT YORK FACTORY/ON THE 14<sup>th</sup> SEPT<sup>r</sup> AGED 22 YEARS/HE COMETH FORTH AS A FLOWER/AND IS CUT DOWN/HE FLEETH ALSO AS A SHADOW/AND CONTINUETH NOT/AS A TESTIMONY OF AFFECTION/BY HIS BROTHER JAMES. The historic records indicate that he died of a broken heart.

Grave 21: This grave contained both a stone marker and a wooden cross with diamond shaped ends. The stone read THIS STONE/WAS ERECTED BY/VOLUNTARY CONTRIBUTION/TO THE MEMORY OF/GEORGE MCPHERSON/WHO DEPARTED THIS LIFE/19<sup>th</sup> JANUARY 1907/AT THE AGE OF 64 YEARS/HE SERVED THE/HUDSON'S BAY COMP ANY/ FOR 42 YEARS/AND WAS ESTEEMED AND/RESPECTED BY ALL/WELL DONE GOOD AND FAITHFUL SERVENT/MATT XXV23/R REED & SON MONTREAL. The last line named the stonemasons' firm. As the fenced area was large enough to contain a double grave, George may have been buried with a member of his family. The enclosure was a picket fence (Style 8B) painted white. He apparently died of whooping cough.

Grave 24: The wood marker on this grave read SACRED TO THE MEMORY/ALICK/SON OF/WILLIAM & MARIA/GRAY/DIED APRIL 10<sup>th</sup>/1905/AGED 10 YEARS/THE LORD KNOWETH/THEM THAT ARE HIS/I,TIM.119. The (Style 5B) fence had been painted white at some point. This grave has had the inscription highlighted within the past few years. There is a record of Alaic Gray who died in 1909 of Enteric fever. The discrepancy in dates may be a result of the highlighting.

Grave 30: The stone marker for this grave noted SACRED TO THE MEMORY OF THE/BLESSED JENNY/BELOVED WIFE OF/FREDRICK GRAY/DEPARTED THIS LIFE SEPT. 7, 1927/AGED 30 YEARS/CHILDREN/AMY ELIZABETH/DIED JAN. 23, AGED 3 YEARS/CHARLES/DIED JAN., 1925 AGED 11 MONTHS/JESUS SAID SUFFER LITTLE CHIDREN/TO COME ONTO ME AND FORBID THEM/NOT FOR OF SUCH IS THE KINGDOM OF GOD LUKE XVIII. 16/I KNOW THAT MY REDEEMED LIVETH/AND THAT HE SHALL STAND AT THE/LATTER DAY UPON THE EARTH JOB. XIX. 25. The stone was set in a cement block and surrounded by a white (Style 3B) fence. Jenny died from an infection after childbirth while Charles was the victim of measles. There was no record of Amy Elizabeth.

Grave 32: This grave consisted of a broken and partially missing headstone with no surrounding fence. The inscription read SACRED/TO THE MEMORY/...GIB/EAULT/.../GEORGE GIBEAULT/NOVEMBER 10 DIED/AGED 55 YEARS 4<sup>th</sup> 1927/...HATH CALLED YOU.../GLORY I THESS. II. 12. The identity of the Gibeault interred there has not yet been positively established but it is probably the wife of George. A George Gibeault mentioned on Grave 46 had a wife named Betsy.



- Grave 33: This grave was one of three in the a cemetery that is enclosed by a wrought iron fence. The stone marker read SACRED/TO THE MEMORY/WILLIAM SINCLAIR ESQ./CHIEF FACTOR/HON: HUDSON'S BAY COM<sup>y</sup> SERVICE/WHO DIED 20<sup>th</sup> APRIL 1818/AGED 52 YEARS/BEHOLD THOU HAST MADE MY DAYS/AS AN HANDBREADTH AND MY AGE IS AS NOTHING BEFORE THEE/VERELY EVERY MAN AT HIS LAST ESTATE IS ALTOGETHER VANITY/ERECTED AS A TESTOMONY OF/AFFECTION BY HIS SON. The fence that enclosed the grave was large and came in six sections each 1.23 m long. They were arranged in a rectangle and painted white. There is no record of the cause of his death.
- Grave 35: This grave contained a simple, peaked, wooden marker upon which was marked JOHN GRAY/BORN/JAN 9, 1902/DIED/JAN 6, 1920. The (Style 3B) fence was painted white. He died an accidental death.
- Grave 46: This stone read SACRED/TO THE MEMORY/OF/JOHN/SON OF/GEORGE AND BETSY GIBEAULT/WHO DIED/20<sup>th</sup> OCT<sup>r</sup>/1909/AGED 19 YEARS/CHRIST DIED FOR US/ROM.S.8/S.REED SON, MONTREAL. Again the stonework was done by the Reed Company. He apparently died of hemorrhage following a shooting accident.
- Grave 48: The stone marker was inscribed SACRED/TO THE MEMORY OF/NANCY/WIFE OF/FREDRICK MCPHERSON/WHO DEPARTED THIS LIFE/15<sup>th</sup> MARCH, 1911/AGED 20 YEARS/GOD IS LOVE I JOHN IV, 116/R.REID MONTREAL. The (Style 3B) fence was painted white and was reinforced lengthwise by a wooden bar down the centre of the grave. Her cause of death was not listed.

GRAVE 49: This stone read SACRED TO THE MEMORY OF/BETSY GIBEAULT/WIFE OF GEORGE GIBEAULT/WHO DIED NOVEMBER 4, 1927/AGED 55 YEARS/"GOD WHO HATH CALLED YOU INTO HIS KINGDOM AND GLORY" I THESS II 12. There was no fence for this stone. She died from abscesses of the liver. Note also the similarity between this stone and the broken stone from Grave 32. Perhaps it was a replacement.

GRAVE 54: The stone marker for this grave was quite elaborate with a cross on top inscribed with IHS, a winged figure over the inscription and carved pillars on either side. It read IN LOVING MEMORY/OF MY MOTHER/JULIET PONASK/YORK FACTORY/DIED DEC. 25<sup>th</sup> 1931,/65 YEARS/DAVID PONASK. The (Style 6B) fence was painted white with light blue around the picket tops and cannonballs on top of each corner post. She died of chronic bronchitis.

GRAVE 61: This unfenced stone read SACRED/TO THE MEMORY OF/JOSEPH CHARLES/A NATIVE OF HUDSONS BAY/WHO DEPARTED THIS LIFE/AT YORK FACTORY ON THE 27<sup>th</sup> DAY of MAY 1836,/ IN THE 29<sup>th</sup> YEAR OF HIS AGE/ DEEPLY REGRETTEED BY HIS FRIENDS AND ACQUAINTANCE. There was no mention of the cause of this death.

GRAVE 86: This headstone had no fence. It read SACRED TO THE MEMORY/OF/EMMA/WIFE OF JOHN STEVENSON/WHO DIED AT YORK FACTORY/16<sup>th</sup> AUGUST 1883/DEEPLY REGRETTEED. Again, there was no reference to cause of death.

GRAVE 87: This fenced headstone had one of the most moving inscriptions in the cemetery. It stated IN MEMORY OF WILLIAM/WASTESECOOT/A GREAT HUNTER/FOR 60 YEARS:/HE PAID HIS LAST DEBT IN 1901;/HE SPOKE THE TRUTH AND WAS HELD IN ESTEEM BY ALL/THE OFFICERS HE WORKED FOR:/THIS STONE IS PLACED ON HIS GRAVE/BY ONE OF THEM. There was no mention of his cause of death. It is known, however, that the stone was erected by a Dr. Milne (Beaver editor 1930:397-398).

GRAVE 96: The plain, wooden marker has deteriorated to such an extent that portions of it were illegible. In part, the inscription read BESSY T.../BORN NOV. 3 1875/DIED DEC 3 1882. The marker was enclosed by a white fence (Style 8B).

GRAVE 99: The ornately carved headstone of pink granite read IN MEMORY/OF/MR. GEORGE MOWAT,/A NATIVE OF BRIASDY ORKNEY, WHO DIED 15<sup>th</sup> OCT<sup>r</sup>, 1885,/AGED 66 YEARS./AND OF HIS SON ALBERT EDWIN,/WHO DIED 20<sup>th</sup> AUG<sup>t</sup> 1868,/AGED 11 MON<sup>s</sup>./THIS TRIBUTE OF RESPECT AND ESTEEM/IS ERECTED BY THE OFFICERS AND/CLERKS OF YORK FACTORY DISTRICT. The stone was topped by carved wings and a Prince of Wales feathers. It was enclosed in a (Style 9B) fence that had been painted white. George Mowat had died of asthma, congestion of the lungs and scurvy. There was no record of his son's death.

GRAVE 100: This gravestone read IN MEMORY/OF/ROBINA JANE WILSON/WHO DIED 24 SEPT. 1864/AGED 6 YEARS. ALSO /JANE ANDERSON,/FRIEND OF THE ABOVE,/WHO DIED 1 SEPT. 1865/AGED 4 YEARS. The fence around this

granite stone has fallen. Robina died of Scarlatina abscesses while her friend was a victim of exhaustion from Scrofulous discharge.

GRAVE 102: This stone read IN MEMORY OF/ANNIE WILSON,/ DAUGHTER OF/JOSEPH & ELIZABETH WILSON/BORN, 26<sup>th</sup> JANUARY 1852,/DIED 22 SEPTEMBER 1864. The granite stone was encased by an iron fence. The corner posts were eight sided iron rods with large points while the pickets were round pointed rods. Annie died of Scarlatina maligna. Note that she was probably a sister to Robina and succumbed to the same infection.

GRAVE 103: The stone for the Joseph Wilson grave read SACRED /TO THE MEMORY OF/J.W. WILSON ESQ<sup>r</sup>./CHIEF FACTOR, /BORN 10 DEC<sup>r</sup> 1823, DIED 26 SEPT<sup>r</sup> 1869,/AGED 46 YEARS. This factor's grave was encased in an elaborate wrought iron fence of round bars topped with fleur des lis. The corner posts were topped with iron balls and the entire fence was once painted white. Wilson died of influenza and pneumonia.

GRAVE 105: The stone on this mass grave read SACRED TO THE MEMORY OF/WILLIAM/AGED 4 YEARS, 26<sup>th</sup> AUGUST 1904, /LYDIA/AGED 2 MONTHS, 11<sup>th</sup> SEPTEMBER 1904,/ALFRED /AGED 16 YEARS, 15<sup>th</sup> DECEMBER 1905, JESSIE HARRIET/AGED 5 YEARS , 19<sup>th</sup> JULY 1910/CHILDREN OF JOHN AND ANNIE SPENCE/THOU SHALL KEEP THEM OH LORD PS.xll.7. This white marble stone was topped with a floral engraving. There was no fence. William died of measles, Lydia of dysentery, Alfred of inflammation of the brain and Jessie of convulsions.

GRAVE 107: This wooden marker was partially obscured. The legible portions read SACRED/CAROLINE/DAUGHTER OF BILL.../DIED 2... 1896/... 2 YEARS. The grave was fenced (Style 12B) and painted white.

GRAVE 110: The stone on this grave was engraved with a lily and the following: IN MEMORY OF/SARAH JANE/ELIZABETH GRAY/WIFE OF/ABSALOM WASTASECOOT/WHO DIED APRIL 8, 1927,/AGED 39 YEARS./IN THEE O LORD I PUT MY/TRUST "THOU SHALL ANSWER FOR/ME, O LORD MY GOD/PS. 39 15. The grave was fenced (Style 13A) and painted white. Sarah died of influenza.

GRAVE 113: This small wooden marker with a cross on top was not fenced. The entire inscription was in Cree syllabics which translated to IN LOVING MEMORY, ALBERT ARTHUR SAUNDERS, WHO WAS BORN \_\_\_\_ 1:1932 and DIED MARCH 28:1933.

This is all the information that can be derived from individual graves. These 33 individuals in 25 graves are with one exception, all who can be identified from among the several hundred people who died at or near York Factory. The one exception is single, fenced grave which stands across the creek in front of the Games Branch house and near the site of an 1856 church. Though there is no surviving marker, this grave belongs to Mr. Mander of whom the Reverend Faries wrote after the drowning of two Hudson's Bay Co. clerks in June of 1917:

"Body of Mr. Mander found at mouth river. The funeral service was held on Sat. 30th. Attendance large & service very impressive. Body was buried near Indian Church away from the Burial ground, out of respect for the deceased's wish, which was that 'He hoped that he would never be buried in that muskeg'" (Rev. R. Faries Journal, Diocese of Keewatin Office, Kenora, p.135.).

### Analysis of Burial Placement

One of the first observations made in the graveyard was that the graves appeared to be clustered rather than evenly distributed. Therefore, one of the first steps in analysis was to determine the makeup of these clusters. To do this, the distance between each grave and its neighbours was measured and all graves separated by approximately a metre or less were noted. Any cluster of more than three graves separated by a metre or less was called a group (Figure 36).

Group 1 was the largest. It was located near the bank of Sloop Creek south of the powder magazine and contained 45 graves. Within this group there were 10 marked graves with dates ranging from 1818 to 1927. The 1818 grave of Factor William Sinclair was surrounded by an iron fence while every other grave was enclosed by a wooden fence put together with wire nails. That brought the time frame for all but one grave in the group into a period from 1900 to 1927.

Group 2 was located immediately south of the powder magazine and contained 10 graves. Six of the seven graves with fences were less than 1.2 m long and have been interpreted as children's graves. None of the graves was identified but all were constructed with wire nails indicating that they belonged to the 20th century.

Group 3 was located at the edge of Sloop Creek 15 m west of Group 1. It contained 5 unmarked graves all of 20th century origin. Group 4 was located next to the creek about 20 m west of Group 2. It contained another 5 unmarked 20th century graves. Grave number 126, an unfenced cross, was very near this group and was dated to mid to late 19th century on the basis of construction with machine cut nails.

The final cluster of 8 graves comprised Group 6. In this group there were four dated inscriptions that ranged between 1864 and 1885 and one additional grave constructed from machine cut or wrought nails. This indicated that this group was predominantly 19th century.

# LEGEND:

- GRAVE WITH FENCE
- HEADSTONE
- CROSS
- △ BROKEN FENCE
- EXCAVATION
- △ SURVEY STATION
- APPROXIMATE FENCE LINE FROM 1895 MAP
- IMPRESSION OF ORIGINAL FENCE LINE FROM GROUND FEATURES
- DRAINAGE DITCH (approximate location)
- CREEKBANK CREST

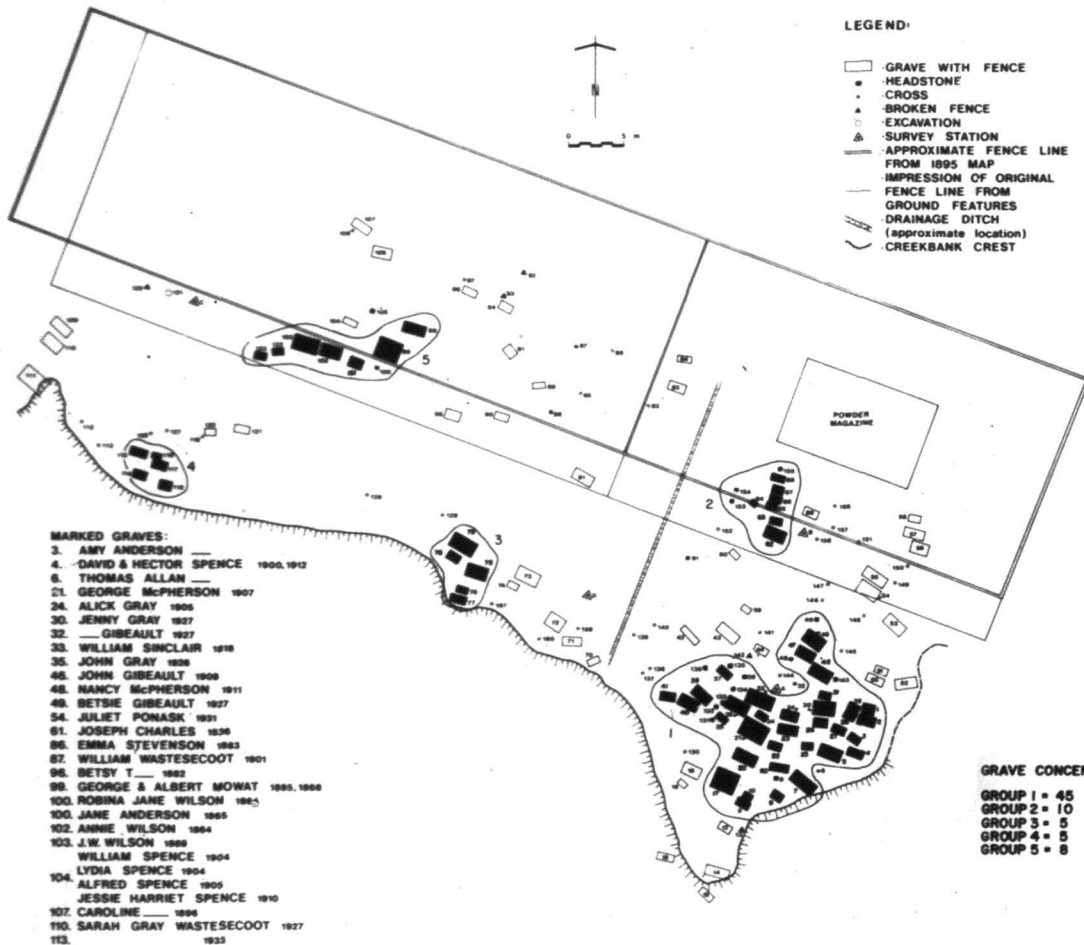


Figure 36. Map of graveyard indicating locations of groups.  
(D. Elrick, draftsperson.)

The next step was to superimpose any historic data on the known graves. The only map in existence that indicated the cemetery was an 1895 map (HBCA B.239/e/17, fo. 1, Plan of York Factory Post, F. Matheson 11 October 1895) that showed the enclosures for both the cemetery and the powder magazine. When this was compared to the groups, only Group 5 partially lay within the confines of the cemetery while Group 2 partially fell within the magazine enclosure. The original map was a sketch with poor scaling so the borders of the two enclosures were modified to include these two groups within their respective borders.

All the graves that were noted as probable 19th century on the basis of inscription or construction with non-wire nails were then plotted. Of the 18 graves identified as 19th century, 14 were located within the modified enclosure. The only other identified graves (numbers 33, 61, 108 and 126) were widely dispersed. None of these were located within the powder magazine enclosure.

This has led to the following interpretation of graveyard usage. The original graveyard was enclosed and used from circa 1800 until it was full probably just after the turn of the century. However, even before it was full there was some provision for burial outside the cemetery, probably in a place of special prominence, as was likely the case with William Sinclair (Grave number 33, dated 1818) and possibly Joseph Charles (Grave number 61, dated 1836). Both of these graves were on the trail from Sloop Creek to the entrance of the powder magazine enclosure. Burial outside the cemetery could have been resulted from church refusal or individual wishes.

Once the graveyard was full to capacity, other sites were utilized. It appears to have been customary to utilize areas already functioning for burial. Group 1 congregated around Grave 33 and was probably largest because it was most

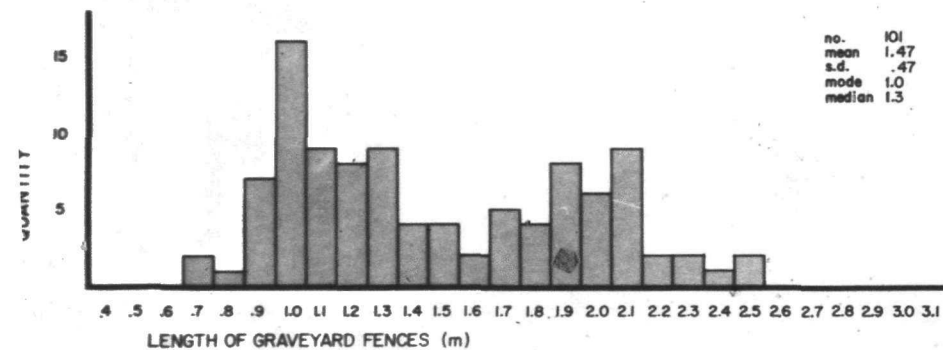
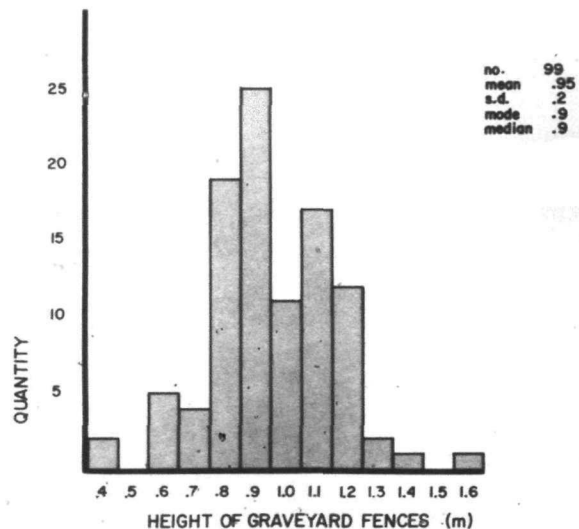
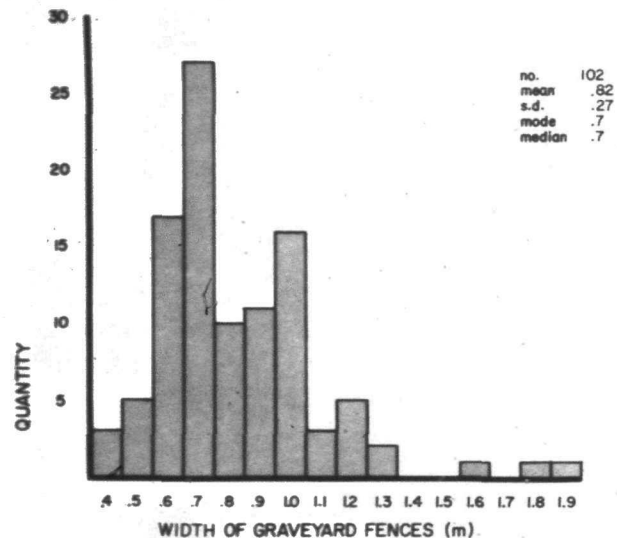


accessible. The fact that the next earliest grave in that group dated to 1900 (Grave 4) supports the turn of the century interpretation. Group 4 began to cluster around Grave 126 and another small group clustered around Grave 109 which had 19th century nail types. Group 2 probably started after the abandonment of the magazine in 1905 (Donaldson 1981: 83). There is no obvious focus for Group 3 and it may actually be part of Group 1. If such is the case, it quite likely grew out of and post-dated the beginning of Group 1. With these inferences it is possible to affix tentative dates to the various parts of the graveyard. The original cemetery including Group 5 was used between 1800 to 1910; the powder magazine and group 2 between 1910 to 1960; Group one and surrounding area between 1900 to 1940, Group 3 and surrounding area between 1920 to 1960; and Group 4 and surrounding area between 1900 to 1960.

#### Analysis of Burial Styles

Several categories of information were recorded in the anticipation that certain burial practices could be extrapolated and interpreted. To this end grave dimensions, orientation, marker type, construction and finish were all observed. Each of these is discussed in the following section.

Complete fence dimensions were taken for 97 graves and partial figures were taken for an additional 5 graves. The grave lengths ranged between 0.7 and 2.5 m with a mean length of 1.47 and a modal length of 1.0 m. The grave lengths, when plotted on a bar graph (Fig. 37c), demonstrate the discrepancy between mean and mode by indicating a strong bimodal tendency that can be attributed to the difference between child and adult graves. It appears from this graph that children's graves range between 0.7 and 1.3 m while adult graves range from 1.7 and 2.5 m. Disregarding those



C  
Figure 37. Grave Fence Dimensions. A, Width of Fences, B, Height of Fences; C, Length of Fences. (D. Elrick, draftsman.)

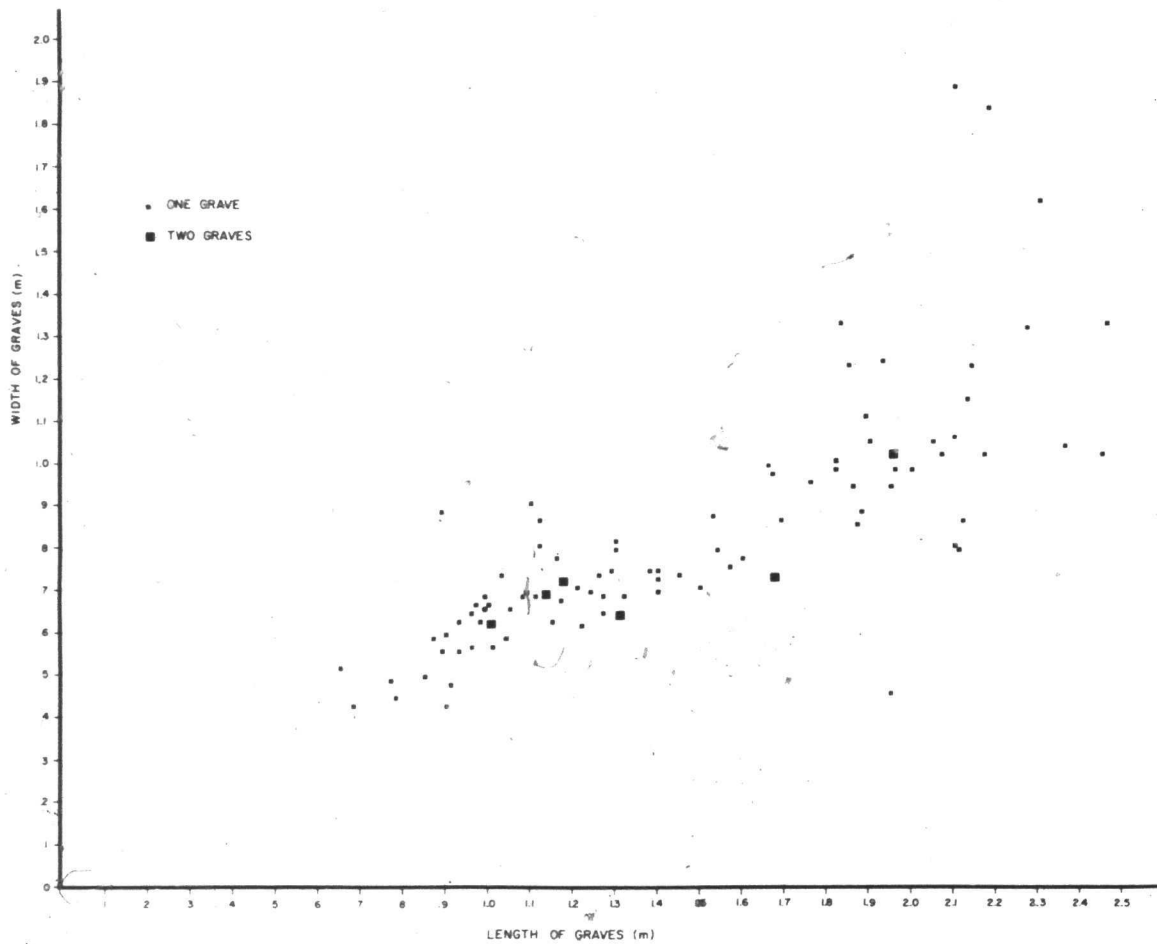
graves in the transition zone, the ratio between the two was 43 children to 39 adults, a rough indication of the high incidence of child mortality.

The width of the fences varied between 0.4 and 1.9 m with a mean width of 0.82 and a mode of 0.7. The bar graph indicated a unimodal curve skewed to the small side. This was surprising as some bimodality was expected due to the occurrence of double graves (Fig. 37a). The height of the fences ranged between 0.4 and 1.6 m with a mean of 0.95 m and a mode of 0.9 m. Again there was a unimodal curve, skewed to the small side (Fig. 37b). An index of length over width was calculated and it was found that 83 per cent of the graves had a width between half and two-thirds of the length which is easily observable on a cluster map (Fig. 38).

The orientation of the grave was taken for 75 units. It was found that the head pointed between 245 degrees and 324 degrees with a mean angle of 274 degrees or almost due west. A look at the map, however, suggests that the orientation may have been dictated by a sense of symmetry with the powder magazine and the enclosure walls rather than some religious practice.

Marker types were broken down into three categories: wooden crosses, wooden markers and stone markers. There was one iron cross which was not included in the calculations. Of the 158 markers and fences used in this calculation 92 or 58.2 per cent were crosses, 17 or 10.8 per cent were wood markers, 19 or 12 per cent were stone markers and 30 or 19 per cent were fences without markers. Within the fences 71.9 per cent were wood crosses, 13.3 per cent were wood markers, and 14.8 per cent were stone markers. Within the fences, crosses were very often broken off or missing. This seems to indicate that isolated wood markers without fences were probably comparatively recent and very likely never had a fence. Thus 24.1 per cent of the graves had no fence.

Figure 38. Cluster map of grave lengths to widths.  
(D. Elrick, draftsperson.)



For the 19 stone markers, 4 or 21 per cent belonged to factors or their families. Also, all three of the iron fences were associated with the same individuals. At least 7 stones or 36.8 per cent were put up as dedications by family, friends or officers of the post. This seems to indicate that a stone marker was a considerable expense reserved for the wealthy, the highly esteemed or the deeply grieved.

Construction characteristics included the corner post style and the picket style on 99 wood fences. There were a total of 15 corner post designs which were numbered and 12 picket designs which were lettered (Fig. 39). Of the possible 180 combinations, only 35 were noted. A total of 27 styles contained only one or two examples and were considered to be unique types (1A, 1G, 2B, 3C, 3D, 3H, 5G, 5J, 6A, 6F, 7A, 7B, 7E, 8K, 9A, 9B, 10A, 10B, 11C, 11L, 12B, 12C, 13A, 13G, 14B, 15G and 15L). This analysis isolated 7 post styles (1, 2, 10, 11, 13, 14 and 15) and 7 picket styles (D, E, F, H, J, K, and L) as uncommon and therefore not characteristic.

The most common post was Type 3. Its 40 occurrences comprised 40.4 per cent of the sample. Though it was used with five different pickets, it had 22 associations with Type A and 16 with Type B. Of the entire sample Style 3A comprised 21.2 per cent and Style 3B made up 19.1 per cent. Though there were three examples in the fenced portion of the cemetery, Type 3 was predominantly a 20th century style. Post Type 4 had 8 representations for a total of 8. per cent. Three of these were in Style 4B and five were in Style 4C. Of the former two of the graves are adjacent (Graves 28 and 29) and all three are probably children's graves. Post Type 5 was used 10 times for 10.1 per cent. Three of these were Style 5A in adjacent graves (17, 18 and 19). All Type 4 and Type 5 posts were associated with 20th

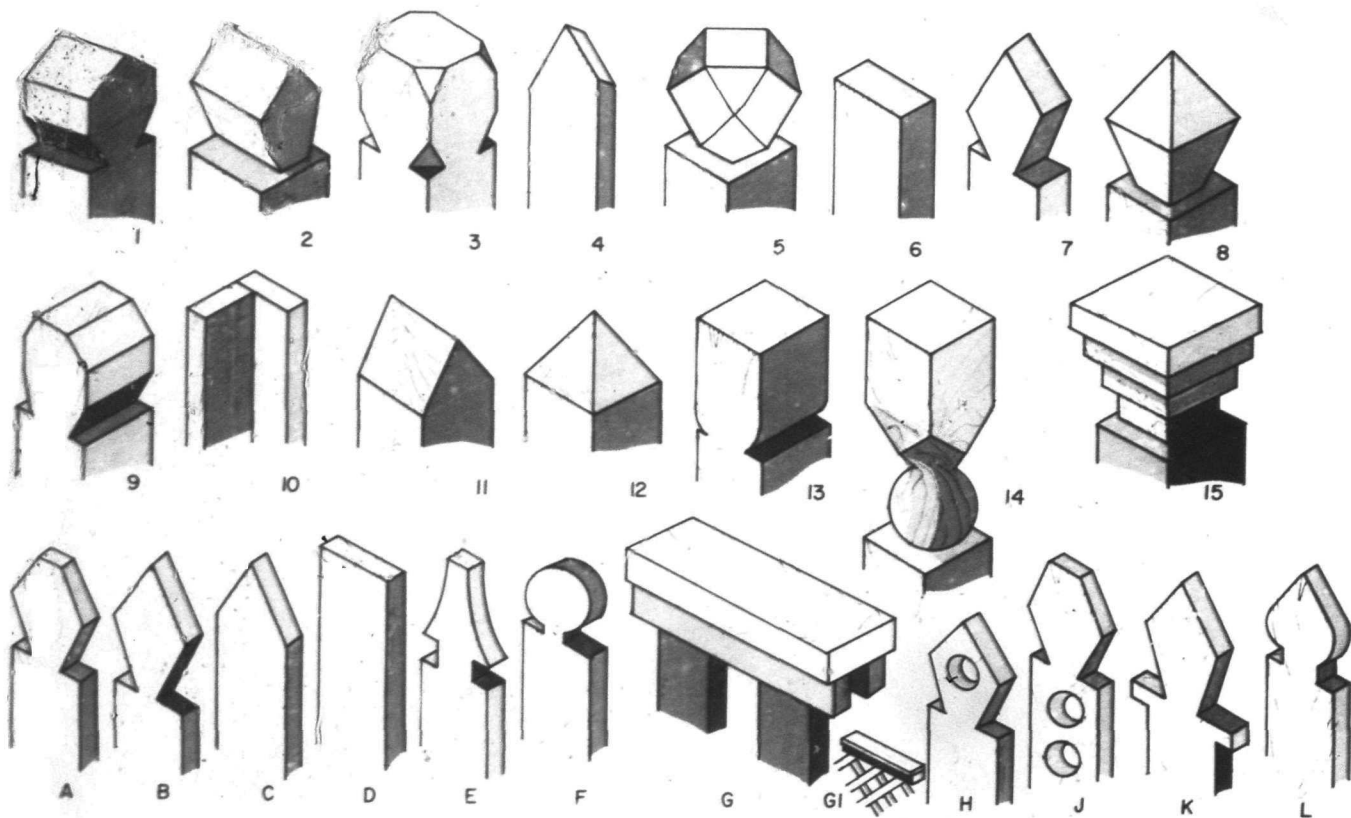


Figure 39. Corner post designs (1-15) and picket designs (A-L) at York Factory cemetery. (D. Elrick, draftsman.)

century graves. Another 10.1 per cent of the posts were Type 6; of which seven examples were Style 6B. All Type 6 were in 20th century graves and four of the seven were found within the powder magazine enclosure. Post 8 occurred 8 per cent of the time and in all but one instance it was a Style 8B. Four of the seven examples of Style 8B were found in 19th century graves.

Three other post types contained a sample of more than two if all combinations were included. Type 7 had four occurrences, all on 20th century graves and two of them (Graves 10 and 13) in close proximity. Type 9 had three examples, one of which was 19th century and one of which was early 20th century.

Of the pickets, Type B was most common on 42.4 per cent of the grave fences. Another 32.3 per cent were Type A, 9 per cent were Type C and 4 per cent were Type G. Only Type G was not found in both 19th and 20th century graves. It was entirely associated with the latter century.

A total of 88 grave fences retained a trace of paint and of these 61 (or 69.3 per cent) had white paint only. Another 13 (or 14.8 per cent) were painted white but trimmed with green, blue, black, pink, pink or red. This equated to 84.1 per cent of all graves with paint. Other single coloured graves included seven (8 per cent) green, three (3.4 per cent) blue, two (2.2 per cent) red, one (1.1 per cent) silver and one (1.1 per cent) beige. Six of ten graves with green paint were located near one another at the south end of Group 1 (Graves 10, 12, 13, 15, 16 and 80). Also, five of seven graves with blue paint were strung out in a line between Group 1 and Group 3 (Graves 39, 70, 71, 72 and 74). This distribution may suggest some relationship between the individuals in these graves.

Conclusions that can be drawn regarding burial practices, though they are unsubstantiated by documentations:

1. The grave fences vary in length with the age of the buried individuals and a high child mortality resulted in a large number of small graves.
2. Fence widths tend to be between half and two-thirds the length.
3. The graves are oriented east-west with the markers to the west but this is likely a conformity to site organization and not of religious significance.
4. Of the variety of fence posts and picket types used, only post Type 3 and picket types A and B are widespread.
5. Post type preferences tend to change over time while picket types tend not to change.
6. Distribution of various post and picket types support the tentative spatial chronology.
7. About one-quarter of the graves are without fences.
8. The cost of stone markers was prohibitive for all but the very wealthy or the very deeply missed (where the cost consideration was overridden).
9. Over 80 per cent of the graves have white paint.
10. The use of green and blue paint was not random and probably has some significance.

A more general hypothesis can also be formulated from these observations. There is a certain spatial clustering of several attributes that have been analysed. Most notable of these are fence Styles 4B, 5A, and 6B, post Type 7, and the use of green and blue paint. These associations are probably not co-incidental but reflect the habits, talents and materials available to their maker. If this is true, then these clusters demonstrate the results of some behavior. Two interpretations are put forth as possible explanations. First, supposing that the grave fences were manufactured by



one person, the post carpenter for instance, these clusters may indicate an orderly approach to use of the graveyard, filling up one area at a time and probably placing the bodies in rows. Alternatively, if the fences were the responsibility of the family and friends of the deceased, these clusters may represent family plots such as are already seen in the case of the Wilson and Spence graves.

## SUMMATION

The preceding report completes the basic description of all operations excavated at York Factory in the 1979-1982 period. Each operation has been presented in a format that provides detailed descriptions of structural history, feature description and stratigraphy plus a general overview of the artifact assemblage. The appendix supplements this with a detailed listing of all artifacts organized by operation. However, the archaeological program has three more major reports planned that are designed to complete the requirements for a comprehensive archaeological description and interpretation.

The first of these (Adams 1983) is an assessment of the project. This report outlines the initial form and eventual evolution of the project objectives then evaluates them against the completed work. It is also a valuable document as a source book for information on the project. It contains a listing of all field and lab records generated through the analysis, a series of site plans, a complete bibliography to 1982 and an inventory of structures related to York Factory III. It also contains a series of recommendations on how to monitor the erosion and how to design subsequent archaeology projects at the site.

Before the final two reports were launched, a major effort was put into a research design (Adams and Lunn 1983) for follow up and synthesis of the data. One of the results of this design was that the classification system used in the descriptive reports was seen to be less serviceable than

some others that are currently in use. Furthermore, since the artifact assemblage was collected over a five year period, many identifications of specific artifacts were found to be inconsistent or wrong. The entire database was therefore overhauled and adapted to Sprague's (1979) classification system. Due to this conversion, the final reports do not have a consistent artifact classification to the operation reports but a conversion table will be provided.

The final two reports are both in preparation and will be forthcoming soon. The first of these is an artifact description. The objective of this report is to provide easily accessible information on all artifact types recovered at York Factory. As such the basic component of the text will be the descriptive narrative. All artifacts are grouped into types and the types briefly described. These are not analytical descriptions, complete with measurements, but general descriptions designed to indicate the basic range, time period and use of the artifact type. The entire assemblage is organized by the new classification system. Since most of the artifact types are generated from a computer database, there is an accompanying analysis on the reliability of the data plus some remarks.

The second report is a synthesis of the archaeological data. Its overall objective is to define and characterize the historic use of the riverbank through historical and archaeological information. Each operation and artifact class is described and interpreted towards this end with particular attention paid to the relationship of the riverbank to the established themes for parks interpretation. A major emphasis of this analysis is on the recognition and interpretation of artifact patterns discovered through analysis. It is hoped that the recognition of these patterns can play a strong role in predicting activity patterns in other portions of the site should follow up archaeology be conducted.

The synthesis report notes several different types of artifact patterns of varying utility. Overall site patterns appear to be very general and undiagnostic of site activities but the comparisons from operation to operation are considerably more enlightening. Likewise, there are some interesting changes in function and technology through time but the strongest trends appear within some specific artifact classes. Some of these classes appear to be incredibly sensitive.

Upon completion of these two reports, the major objectives of this project will be summarized. This is not to say that we have exhausted the possibilities for further research. Two major classes of artifacts - beads and fauna - remain totally unanalysed. Many other classes warrant detailed studies. Various individuals (Hamilton 1983, Lunn 1982, Gusset 1982, David 1984, Bobrowsky 1982, Moat 1979 and Adams 1982) have already contributed articles on portions of the assemblage while some additional work is already preparation. However, the potential for some major analytical studies on fur trade archaeology using York Factory information is still immense.

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## APPENDIX - ARTIFACTS FROM THE 1981-1982 FIELD SEASONS

The following tables present the artifact quantities, organized by functional classification and operation.

NOTES: 1. The column numbers refer to operations. The key to operations is:

- 40 Native Campground
- 120 Icehouse
- 150 South Garden Test
- 160 Inside Depot (Cellar of Old Octagon)
- 170 North Garden Test
- 180 Inland Cargo House
- 190 East Fur Store
- 200 Boat Builder's Houses
- 220 Front of Depot Test
- 0 Surface Collections

- 2. An asterisk(\*) indicates an artifact identification or functional coding known to be inaccurate.
- 3. Buckshot is distinguished from musketballs on the basis of size. Any shot less than 8 mm in diameter is considered to be buckshot.

## 4. Key to class codes:

|    |            |    |                     |
|----|------------|----|---------------------|
| 01 | Lithics    | 08 | Other Metal         |
| 02 | Glass      | 12 | Arms and Ammunition |
| 03 | Ceramics   | 14 | Metal Containers    |
| 04 | Nails      | 99 | Miscellaneous       |
| 05 | Fastenings |    |                     |

5. All counts are fragments rather than whole pieces where such a distinction is applicable.

## ARTIFACT TOTALS

| COMMON NAME                   | FIELD | 40   | 120  | 150 | 160  | 170  | 180   | 190   | 200   | 220  | 0    | TOTAL |
|-------------------------------|-------|------|------|-----|------|------|-------|-------|-------|------|------|-------|
| Food Procuring                | 110   | 26   | 51   | 17  | 1    | 1366 | 1981  | 100   | 95    | 38   | 39   | 3714  |
| Food Storage                  | 120   | 101  | 305  | 29  | 7    | 202  | 666   | 432   | 619   | 247  | 83   | 2691  |
| Food Processing               | 130   | -    | 7    | -   | 1    | 2    | 5     | -     | 1     | -    | 2    | 18    |
| Food Serving                  | 140   | 131  | 374  | 44  | 25   | 99   | 512   | 620   | 441   | 335  | 118  | 2699  |
| Fauna                         | 150   | 2204 | 3744 | 445 | 432  | 1588 | 6585  | 3023  | 1343  | 1330 | 385  | 21079 |
| Botanical Food<br>Remains     | 160   | -    | 36   | 2   | 19   | 443  | 120   | 38    | 46    | 9    | 5    | 718   |
| Architectural                 | 210   | 16   | 486  | 13  | 8    | 6    | 332   | 119   | 509   | 23   | 20   | 1532  |
| Construction                  | 220   | 594  | 552  | 110 | 97   | 210  | 3585  | 2101  | 3731  | 742  | 101  | 11823 |
| Fasteners                     |       |      |      |     |      |      |       |       |       |      |      |       |
| Pane Glass                    | 230   | 31   | 145  | 35  | 36   | 46   | 2903  | 1420  | 3657  | 150  | 41   | 8464  |
| Furnishings                   | 240   | -    | -    | 8   | -    | -    | 12    | 4     | 2     | 1    | 1    | 28    |
| Furniture                     | 250   | -    | -    | 1   | -    | -    | 2     | 1     | 4     | -    | 1    | 9     |
| Sewing/Tailoring              | 310   | -    | -    | -   | -    | 2    | -     | 1     | 1     | -    | -    | 4     |
| Leatherworking                | 320   | -    | -    | -   | -    | -    | -     | -     | 5     | 1    | 1    | 7     |
| Fabric/Clothing               | 330   | -    | 7    | 2   | 59   | -    | 13    | 31    | 14    | 29   | 5    | 160   |
| Clothing Fasteners            | 340   | 13   | 32   | 3   | 3    | 12   | 68    | 23    | 45    | 15   | 7    | 221   |
| Clothing Adornment            | 350   | -    | -    | -   | 1    | -    | -     | 7     | 2     | 3    | -    | 13    |
| Office Supplies               | 410   | -    | 3    | -   | -    | -    | 4     | 12    | 5     | 1    | 2    | 27    |
| Miscellaneous<br>Storage      | 420   | 31   | 257  | 14  | 8    | 17   | 125   | 200   | 136   | 36   | 14   | 838   |
| Personal                      | 430   | 2    | 4    | -   | 2    | 17   | 63    | 5     | 4     | 6    | 8    | 111   |
| Smoking                       | 440   | 121  | 350  | 97  | 137  | 611  | 2371  | 690   | 2421  | 898  | 121  | 7817  |
| Recreation                    | 450   | 13   | -    | -   | -    | 1    | 2     | 2     | 2     | 3    | 25   | 48    |
| Medical/Hygiene               | 460   | 1    | -    | -   | 13   | 18   | 92    | 99    | 39    | 198  | 5    | 465   |
| Land Transport                | 470   | 3    | -    | -   | -    | -    | 3     | 1     | 7     | -    | -    | 14    |
| Miscellaneous                 | 480   | -    | 2    | -   | 1    | -    | -     | 1     | 1     | 3    | 1    | 9     |
| Misc. Fasteners               | 481   | 81   | 29   | 15  | 6    | 10   | 498   | 125   | 1293  | 61   | 8    | 2126  |
| Native Industries             | 490   | 3    | 2    | 3   | -    | 11   | 47    | 15    | 45    | 6    | 1    | 133   |
| Blacksmithing/<br>Tinsmithing | 510   | 5    | 6    | 6   | 2    | 4    | 12    | 26    | 45    | 13   | 1    | 120   |
| Military                      | 520   | 2    | 5    | 3   | -    | 18   | 83    | 23    | 45    | 46   | 2    | 227   |
| Water Transport               | 530   | -    | -    | 1   | -    | -    | -     | 1     | 3     | -    | -    | 5     |
| Fur Trade/Trapping            | 540   | -    | 1    | 1   | -    | 3    | 4     | 4     | -     | 5    | 1    | 19    |
| Machinery                     | 550   | -    | 1    | -   | -    | 1    | -     | -     | 1     | -    | 2    | 5     |
| Beads                         | 610   | 40   | 196  | 23  | 40   | 3749 | 7856  | 419   | 243   | 159  | 218  | 12943 |
| UNCLASSIFIED                  |       | 464  | 540  | 124 | 173  | 300  | 1710  | 1277  | 2172  | 428  | 75   | 7263  |
| TOTAL                         |       | 3882 | 7135 | 996 | 1071 | 8736 | 29654 | 10820 | 16977 | 4786 | 1293 | 85350 |

## BREAKDOWN OF FUNCTIONAL CLASSES

| 110 FOOD PROCURING |                      |    |     |     |     |      |      |     |     |     |    | TOTAL |
|--------------------|----------------------|----|-----|-----|-----|------|------|-----|-----|-----|----|-------|
| CLASS              | COMMON NAME          | 40 | 120 | 150 | 160 | 170  | 180  | 190 | 200 | 220 | 0  |       |
| 08                 | Fish Hook            | -  | -   | -   | -   | -    | -    | 1   | -   | -   | -  | 1     |
| 08                 | Fish Net Weight      | -  | -   | 1   | -   | -    | -    | -   | -   | 1   | -  | 2     |
| 08                 | Netting Awl          | -  | -   | -   | -   | -    | 1    | -   | -   | -   | -  | 1     |
| 08                 | Spray Pump           | -  | 1   | -   | -   | -    | -    | -   | -   | -   | -  | 1     |
| 12                 | Percussion Cap       | -  | -   | -   | -   | -    | -    | -   | 1   | -   | -  | 1     |
| 12                 | Cartridge            | 1  | 4   | -   | -   | 6    | 20   | 6   | 32  | 4   | 8  | 95    |
| 12                 | Bullet               | -  | 2   | -   | -   | -    | 3    | -   | -   | 1   | -  | 6     |
| 12                 | Buck Shot            | -  | 31  | 11  | -   | 1344 | 1872 | 75  | 35  | 10  | 25 | 3411  |
| 12                 | Musket Ball          | -  | 3   | 3   | -   | 7    | 45   | 8   | 7   | 8   | -  | 84    |
| 12                 | Butt Plate           | -  | -   | -   | -   | -    | -    | -   | 1   | -   | -  | 1     |
| 12                 | Side Plate           | -  | -   | -   | -   | -    | 2    | -   | -   | 1   | -  | 3     |
| 12                 | Trigger              | -  | -   | -   | -   | -    | 2    | -   | -   | -   | -  | 2     |
| 12                 | Trigger Guard        | -  | 1   | -   | -   | -    | -    | -   | -   | 1   | -  | 2     |
| 12                 | Trigger Guard Finial | -  | 1   | -   | -   | -    | -    | -   | -   | -   | -  | 1     |
| 12                 | Complete Lock        | -  | -   | -   | -   | -    | -    | -   | 1   | -   | -  | 1     |
| 12                 | Lock Plate           | -  | -   | -   | -   | -    | 1    | -   | -   | -   | -  | 1     |
| 12                 | Gun Flint            | -  | 4   | 1   | -   | 8    | 30   | 8   | 17  | 11  | 3  | 82    |
| 12                 | Prizzen              | -  | -   | -   | -   | -    | 1    | 1   | -   | -   | -  | 2     |
| 12                 | Tumble               | -  | -   | -   | -   | -    | -    | -   | -   | 1   | -  | 1     |
| 12                 | Sear Spring          | -  | -   | -   | -   | 1    | -    | -   | -   | -   | -  | 1     |
| 12                 | Main Spring          | -  | -   | -   | 1   | -    | -    | -   | -   | -   | -  | 1     |
| 12                 | Gun Flint Spall      | -  | -   | -   | -   | -    | 1    | -   | 1   | -   | -  | 2     |
| 12                 | Trigger Plate        | -  | -   | -   | -   | -    | -    | -   | -   | -   | 1  | 1     |
| 12                 | Top Lever            | -  | -   | -   | -   | -    | -    | -   | -   | -   | 1  | 1     |
| 12                 | Tumbler              | -  | -   | -   | -   | -    | 1    | -   | -   | -   | -  | 1     |
| 12                 | Shot Bullet Mould    | -  | -   | -   | -   | -    | 2    | -   | -   | -   | 1  | 3     |
| 14                 | Ammunition Container | -  | -   | 1   | -   | -    | -    | -   | -   | -   | -  | 1     |
| 99                 | Harpoon              | -  | 1   | -   | -   | -    | -    | -   | -   | -   | -  | 1     |
| 99                 | Netting Awl          | -  | 3   | -   | -   | -    | -    | 1   | -   | -   | -  | 4     |
|                    | TOTAL                | 26 | 51  | 17  | 1   | 1366 | 1981 | 100 | 95  | 38  | 39 | 3714  |

| 120 FOOD STORAGE |                            |     |     |     |     |     |     |     |     |     |    |       |
|------------------|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------|
| CLASS            | COMMON NAME                | 40  | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0  | TOTAL |
| 02               | Unid. Bottle               | 47  | 112 | 3   | 1   | 84  | 208 | 65  | 270 | 96  | 18 | 904   |
| 02               | Beer Bottle                | -   | -   | -   | -   | -   | -   | -   | 15  | 2   | 3  | 20    |
| 02               | Alcohol Bottle             | 11  | 41  | 20  | 6   | 110 | 385 | 219 | 213 | 91  | 18 | 1114  |
| 02               | Food Bottle                | -   | 1   | -   | -   | -   | -   | -   | 7   | -   | 13 | 21    |
| 02               | Soft Drink Bottle          | -   | -   | -   | -   | -   | 15  | -   | 8   | 1   | -  | 24    |
| 02               | Unid. Jar                  | 1   | 74  | -   | -   | -   | 2   | 2   | 2   | -   | -  | 81    |
| 02               | Milk Jar                   | 3   | -   | -   | -   | -   | -   | -   | -   | -   | -  | 3     |
| 02               | Fruit Jar                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1  | 1     |
| 02               | Unid. Containers           | 7   | 18  | -   | -   | 3   | 20  | 37  | 41  | 11  | 1  | 138   |
| 02               | Unid. Closure              | -   | 7   | -   | -   | 1   | 1   | -   | 1   | -   | -  | 10    |
| 03               | Beverage Bottle/Jug        | 2   | 3   | -   | -   | -   | -   | 10  | -   | -   | -  | 15    |
| 03               | Small Bottle/Jug           | -   | -   | -   | -   | -   | -   | -   | -   | 5   | -  | 5     |
| 03               | Preserve Jar               | -   | 29  | -   | -   | -   | -   | 2   | -   | 4   | 22 | 57    |
| 03               | Small Jar                  | -   | -   | -   | -   | -   | -   | 22  | -   | 1   | -  | 23    |
| 03               | Small Commercial Container | 2   | 18  | 6   | -   | 3   | 20  | 43  | 21  | 11  | 6  | 130   |
| 14               | Unid. Food Storage         | 7   | 1   | -   | -   | 1   | 13  | 29  | 13  | 22  | -  | 86    |
| 14               | Meat Storage               | 3   | 1   | -   | -   | -   | -   | 1   | 2   | -   | 1  | 8     |
| 14               | Seafood Storage            | 5   | -   | -   | -   | -   | -   | -   | -   | 1   | -  | 6     |
| 14               | Dairy Product Storage      | 13  | -   | -   | -   | -   | -   | -   | 15  | -   | -  | 28    |
| 14               | Beverage Storage           | -   | -   | -   | -   | -   | 1   | -   | 6   | 1   | -  | 8     |
| 14               | Syrup/Sugar/Spreads        | -   | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |
| 99               | Instant Dinner Pkge.       | -   | -   | -   | -   | -   | -   | -   | 2   | -   | -  | 2     |
| 99               | Soup Package               | -   | -   | -   | -   | -   | -   | -   | 1   | 1   | -  | 2     |
| 99               | Tea Bag                    | -   | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |
| 99               | Stopper *                  | -   | -   | -   | -   | -   | -   | 2   | 1   | -   | -  | 3     |
| TOTAL            |                            | 101 | 305 | 29  | 7   | 202 | 666 | 432 | 619 | 247 | 83 | 2691  |

| 130 FOOD PROCESSING |                      |    |     |     |     |     |     |     |     |     |   |       |
|---------------------|----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS               | COMMON NAME          | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 03                  | Cookingware Bowl     | -  | -   | -   | 1   | -   | -   | -   | 1   | -   | - | 2     |
| 08                  | Stove Fragment       | -  | -   | -   | -   | -   | 1   | -   | -   | -   | - | 1     |
| 08                  | Food Label           | -  | 1   | -   | -   | -   | -   | -   | -   | -   | 2 | 3     |
| 08                  | Stove Fragment       | -  | -   | -   | -   | 1   | -   | -   | -   | -   | - | 1     |
| 08                  | Utility Knife        | -  | 1   | -   | -   | 1   | 4   | -   | -   | -   | - | 6     |
| 08                  | Unid. Food Preparing | -  | 5   | -   | -   | -   | -   | -   | -   | -   | - | 5     |
| TOTAL               |                      | 0  | 7   | 0   | 1   | 2   | 5   | 0   | 1   | 0   | 2 | 18    |

| 140 FOOD SERVING |                   |     |     |     |     |     |     |     |     |     |     |       |
|------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| CLASS            | COMMON NAME       | 40  | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0   | TOTAL |
| 02               | Unid. Tableware   | -   | -   | -   | -   | -   | 1   | 5   | 5   | 2   | -   | 13    |
| 02               | Food Serving Ware | -   | -   | -   | -   | 3   | -   | -   | -   | -   | -   | 3     |
| 02               | Tumbler           | -   | -   | -   | -   | -   | 2   | -   | 1   | 1   | -   | 4     |
| 02               | Stemmed Glass     | 1   | 2   | -   | -   | 1   | -   | -   | -   | -   | -   | 4     |
| 02               | Carafe/Decanter   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1   | 1     |
| 02               | Serving Bowl      | -   | -   | -   | -   | -   | -   | -   | 2   | -   | -   | 2     |
| 03               | Unid. Tableware   | 32  | 91  | 13  | 5   | 5   | 123 | 76  | 84  | 30  | 15  | 474   |
| 03               | Cup               | 3   | 57  | 6   | -   | 4   | 51  | 94  | 7   | 19  | 17  | 258   |
| 03               | Mug               | -   | -   | -   | -   | 15  | -   | -   | -   | -   | -   | 15    |
| 03               | Plate             | 14  | 98  | 4   | 4   | 43  | 130 | 211 | 88  | 172 | 48  | 812   |
| 03               | Saucer            | 17  | 23  | 4   | 3   | 6   | 34  | 34  | 5   | 12  | 5   | 143   |
| 03               | Platter           | 5   | 3   | -   | -   | -   | -   | -   | -   | -   | -   | 8     |
| 03               | Bowl              | -   | -   | -   | -   | -   | 54  | 4   | 27  | 1   | 3   | 89    |
| 03               | Pitcher           | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1   | 1     |
| 03               | Spouted Pot       | -   | -   | 3   | 2   | 1   | 9   | 2   | 2   | -   | -   | 19    |
| 03               | Lid/Cover         | -   | 1   | -   | -   | -   | 42  | -   | -   | -   | -   | 43    |
| 03               | Smoking Pipe *    | -   | -   | -   | -   | -   | -   | -   | 2   | 1   | -   | 3     |
| 03               | Error *           | -   | -   | -   | -   | -   | -   | 2   | -   | -   | -   | 2     |
| 03               | Holloware         | 33  | 19  | 4   | 5   | 13  | 25  | 39  | 122 | 49  | 6   | 315   |
| 03               | Flatware          | 26  | 80  | 10  | 6   | 6   | 35  | 152 | 91  | 46  | 14  | 466   |
| 08               | Table Knife       | -   | -   | -   | -   | 1   | 4   | 1   | -   | 2   | 5   | 13    |
| 08               | Table Fork        | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1   | 1     |
| 08               | Table Spoon       | -   | -   | -   | -   | -   | -   | -   | 1   | -   | 2   | 3     |
| 08               | Cutlery Fragment  | -   | -   | -   | -   | -   | -   | -   | 1   | -   | -   | 1     |
| 14               | Spouted Pot       | -   | -   | -   | -   | 1   | -   | -   | -   | -   | -   | 1     |
| 14               | Tin Cup           | -   | -   | -   | -   | -   | 2   | -   | -   | -   | -   | 2     |
| 99               | Fork              | -   | -   | -   | -   | -   | -   | -   | 3   | -   | -   | 3     |
| TOTAL            |                   | 131 | 374 | 44  | 25  | 99  | 512 | 620 | 441 | 335 | 118 | 2699  |

| 150 FAUNA |             |      |      |     |     |      |      |      |      |      |     |       |
|-----------|-------------|------|------|-----|-----|------|------|------|------|------|-----|-------|
| CLASS     | COMMON NAME | 40   | 120  | 150 | 160 | 170  | 180  | 190  | 200  | 220  | 0   | TOTAL |
| 99        | Fauna       | 2204 | 3744 | 445 | 432 | 1588 | 6585 | 3023 | 1343 | 1330 | 385 | 21079 |

| 160 BOTANICAL FOOD REMAINS |             |    |     |     |     |     |     |     |     |     |   |       |
|----------------------------|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS                      | COMMON NAME | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 99                         | Flora       | -  | 36  | 2   | 8   | 443 | 120 | 38  | 46  | 9   | 5 | 707   |
| 99                         | Food        | -  | -   | -   | 11  | -   | -   | -   | -   | -   | - | 11    |
| TOTAL                      |             | 0  | 36  | 2   | 19  | 443 | 120 | 38  | 46  | 9   | 5 | 718   |

| 210 ARCHITECTURAL |                       |    |     |     |     |     |     |     |     |     |    |       |  |
|-------------------|-----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------|--|
| CLASS             | COMMON NAME           | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0  | TOTAL |  |
| 03                | Ceramic Tile          | -  | -   | -   | -   | 1   | -   | -   | -   | -   | -  | 1     |  |
| 08                | Timber Dog            | -  | -   | -   | -   | -   | 1   | 1   | 4   | -   | -  | 6     |  |
| 08                | Axe                   | -  | -   | -   | -   | -   | 1   | -   | 2   | -   | -  | 3     |  |
| 08                | Adze                  | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |  |
| 08                | Hatchet               | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |  |
| 08                | Saw                   | -  | 1   | -   | -   | -   | -   | -   | 1   | -   | -  | 2     |  |
| 08                | Wedge                 | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |  |
| 08                | Chisel                | -  | -   | -   | -   | -   | -   | -   | 4   | -   | -  | 4     |  |
| 08                | Plane                 | -  | -   | 1   | -   | -   | -   | -   | 2   | -   | -  | 3     |  |
| 08                | Drill                 | -  | 1   | -   | -   | -   | -   | 1   | 5   | 2   | -  | 9     |  |
| 08                | Rasp                  | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |  |
| 08                | Hookeye               | -  | 1   | -   | -   | -   | -   | -   | 2   | -   | -  | 3     |  |
| 08                | Hinge                 | 1  | -   | -   | -   | 1   | 1   | 2   | 7   | -   | 1  | 13    |  |
| 08                | Pintle                | -  | 1   | -   | -   | -   | -   | 1   | -   | -   | -  | 2     |  |
| 08                | Brace                 | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |  |
| 08                | Roofing Disc          | -  | -   | -   | -   | -   | -   | -   | 14  | -   | -  | 14    |  |
| 08                | Key                   | -  | 1   | -   | -   | -   | -   | 1   | 2   | 1   | -  | 5     |  |
| 08                | Padlock               | -  | -   | -   | -   | -   | 2   | -   | 1   | 1   | -  | 4     |  |
| 08                | Sliding Bolt          | -  | -   | -   | -   | -   | -   | 1   | 1   | -   | 1  | 3     |  |
| 08                | Thumb Bar             | -  | 1   | -   | -   | -   | -   | -   | -   | -   | -  | 1     |  |
| 08                | Thumb Bar Lock        | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |  |
| 08                | Thumb Bar Catch       | 1  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 2     |  |
| 08                | Catch                 | -  | -   | -   | -   | -   | -   | 1   | -   | 1   | -  | 2     |  |
| 08                | Mortise Lock          | -  | -   | -   | -   | -   | -   | -   | 2   | -   | -  | 2     |  |
| 08                | Eavestrough Ferrule   | -  | -   | -   | -   | -   | -   | 2   | -   | -   | -  | 2     |  |
| 08                | Sheet Roofing         | -  | 2   | 11  | -   | 3   | 24  | 3   | 4   | 3   | 3  | 53    |  |
| 08                | Reinforcement         | -  | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |  |
| 99                | Peg/Stake             | -  | 1   | -   | 1   | -   | -   | 2   | 1   | -   | -  | 5     |  |
| 99                | Finished Wood         | -  | 2   | -   | 4   | -   | 14  | 7   | 18  | 3   | -  | 48    |  |
| 99                | Cement/Concrete       | -  | -   | -   | -   | -   | -   | 1   | 7   | -   | -  | 8     |  |
| 99                | Asphalt/Tar           | 1  | -   | -   | -   | -   | 11  | -   | 26  | -   | -  | 38    |  |
| 99                | Wallpaper             | -  | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |  |
| 99                | Ext. Struc. Covering  | 13 | 475 | 1   | 1   | 1   | 237 | 24  | 278 | 7   | 15 | 1047  |  |
| 99                | Siding                | -  | -   | -   | -   | -   | -   | 1   | -   | -   | -  | 1     |  |
| 99                | Linoleum              | -  | -   | -   | -   | -   | -   | -   | 80  | -   | -  | 80    |  |
| 99                | Caulking              | -  | -   | -   | -   | -   | 2   | 2   | -   | -   | -  | 4     |  |
| 99                | Window Putty          | -  | -   | -   | 2   | -   | 37  | 69  | 43  | 5   | -  | 156   |  |
| 99                | Int. Struct. Covering | -  | -   | -   | -   | -   | -   | -   | 3   | -   | -  | 3     |  |
| TOTAL             |                       | 16 | 486 | 13  | 8   | 6   | 332 | 119 | 509 | 23  | 20 | 1532  |  |



**220 CONSTRUCTION FASTENERS**

| CLASS | COMMON NAME     | 40  | 120 | 150 | 160 | 170 | 180  | 190  | 200  | 220 | 0   | TOTAL |
|-------|-----------------|-----|-----|-----|-----|-----|------|------|------|-----|-----|-------|
| 04    | Nails           | 593 | 548 | 110 | 96  | 207 | 3571 | 2093 | 3520 | 742 | 101 | 11581 |
| 05    | Ferrous Screws  | 1   | 1   | -   | 1   | 2   | 9    | 5    | 196  | -   | -   | 215   |
| 05    | Ferrous Staples | -   | 3   | -   | -   | 1   | 5    | 3    | 15   | -   | -   | 27    |
| TOTAL |                 | 594 | 552 | 110 | 97  | 210 | 3585 | 2101 | 3731 | 742 | 101 | 11823 |

**230 PANE GLASS**

| CLASS | COMMON NAME      | 40 | 120 | 150 | 160 | 170 | 180  | 190  | 200  | 220 | 0  | TOTAL |
|-------|------------------|----|-----|-----|-----|-----|------|------|------|-----|----|-------|
| 02    | Unid. Flat Glass | 8  | -   | -   | -   | 1   | 44   | 30   | 2    | -   | 2  | 88    |
| 02    | Window Glass     | 23 | 145 | 35  | 36  | 45  | 2859 | 1390 | 3617 | 150 | 36 | 8336  |
| 02    | Stained Glass    | -  | -   | -   | -   | -   | -    | -    | 37   | -   | 3  | 40    |
| TOTAL |                  | 31 | 145 | 35  | 36  | 46  | 2903 | 1420 | 3657 | 150 | 41 | 8464  |

**240 FURNISHINGS**

| CLASS | COMMON NAME     | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
|-------|-----------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| 02    | Mirror          | -  | -   | -   | -   | -   | 2   | -   | -   | -   | - | 2     |
| 02    | Lamp Chimney    | -  | -   | 8   | -   | -   | 2   | -   | -   | 1   | - | 11    |
| 03    | Insulator       | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 03    | Elec. Regulator | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 03    | Vase            | -  | -   | -   | -   | -   | -   | 4   | -   | -   | - | 4     |
| 08    | Lantern         | -  | -   | -   | -   | -   | 8   | -   | -   | -   | 1 | 9     |
| TOTAL |                 | 0  | 0   | 8   | 0   | 0   | 12  | 4   | 2   | 1   | 1 | 28    |

**250 FURNITURE**

| CLASS | COMMON NAME | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
|-------|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| 08    | Hasp        | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1 | 1     |
| 08    | Hinge       | -  | -   | 1   | -   | -   | 1   | -   | -   | -   | - | 2     |
| 08    | Drawer Pull | -  | -   | -   | -   | -   | 1   | 1   | -   | -   | - | 2     |
| 08    | Latch       | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08    | Catch       | -  | -   | -   | -   | -   | -   | -   | 2   | -   | - | 2     |
| 99    | Candle *    | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| TOTAL |             | 0  | 0   | 1   | 0   | 0   | 2   | 1   | 4   | 0   | 1 | 9     |

| 310 SEWING/TAILORING |                     |    |     |     |     |     |     |     |     |     |   |       |
|----------------------|---------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS                | COMMON NAME         | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 08                   | Straight Pin        | -  | -   | -   | -   | -   | -   | 1   | -   | -   | - | 1     |
| 08                   | Eye/Knitting Needle | -  | -   | -   | -   | 2   | -   | -   | 1   | -   | - | 3     |
|                      | TOTAL               | 0  | 0   | 0   | 0   | 2   | 0   | 1   | 1   | 0   | 0 | 4     |

| 320 LEATHERWORKING |             |    |     |     |     |     |     |     |     |     |   |       |
|--------------------|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS              | COMMON NAME | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 08                 | Boot Calk   | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08                 | Awl         | -  | -   | -   | -   | -   | -   | -   | -   | 1   | 1 | 2     |
| 08                 | Awl (Other) | -  | -   | -   | -   | -   | -   | -   | 4   | -   | - | 4     |
|                    | TOTAL       | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 5   | 1   | 1 | 7     |

| 330 FABRIC/CLOTHING |                 |    |     |     |     |     |     |     |     |     |   |       |
|---------------------|-----------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS               | COMMON NAME     | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 99                  | Woven Cloth     | -  | 4   | -   | 27  | -   | 3   | 1   | 2   | -   | - | 37    |
| 99                  | Knit Cloth      | -  | 3   | -   | -   | -   | -   | -   | -   | -   | - | 3     |
| 99                  | Pressed Cloth   | -  | -   | -   | 20  | -   | -   | -   | -   | 4   | - | 24    |
| 99                  | Shoe/Boot       | -  | -   | 2   | 11  | -   | 7   | 24  | 11  | 23  | 5 | 83    |
| 99                  | Hat             | -  | -   | -   | -   | -   | -   | 6   | -   | 1   | - | 7     |
| 99                  | Outerwear       | -  | -   | -   | 1   | -   | 3   | -   | -   | 1   | - | 5     |
| 99                  | Rain Coat/Pants | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
|                     | TOTAL           | 0  | 7   | 2   | 59  | 0   | 13  | 31  | 14  | 29  | 5 | 160   |

| 340 CLOTHING FASTENERS |                            |    |     |     |     |     |     |     |     |     |   |       |
|------------------------|----------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS                  | COMMON NAME                | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 08                     | Cufflink                   | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08                     | Safety Pin                 | -  | -   | -   | -   | -   | -   | -   | -   | 1   | - | 1     |
| 08                     | Button                     | 3  | 12  | 1   | 3   | 10  | 47  | 10  | 17  | 9   | 2 | 114   |
| 08                     | Snap                       | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08                     | Buckle                     | -  | 1   | -   | -   | 1   | 2   | 1   | 1   | 1   | 1 | 8     |
| 08                     | Suspender Adjuster         | 1  | -   | -   | -   | -   | -   | -   | 2   | -   | 1 | 4     |
| 08                     | Eyelet                     | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 99                     | Button                     | 7  | 19  | 2   | -   | 1   | 19  | 12  | 21  | 4   | 3 | 88    |
| 99                     | Collar Button/<br>Cufflink | 2  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 3     |
|                        | TOTAL                      | 13 | 32  | 3   | 3   | 12  | 68  | 23  | 45  | 15  | 7 | 221   |

## 350 ADORNMENT

| CLASS | COMMON NAME | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
|-------|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| 08    | Spangle *   | -  | -   | -   | -   | -   | -   | 6   | 2   | 3   | - | 11    |
| 08    | Bell        | -  | -   | -   | -   | -   | -   | 1   | -   | -   | - | 1     |
| 99    | Ornament    | -  | -   | -   | 1   | -   | -   | -   | -   | -   | - | 1     |
|       | TOTAL       | 0  | 0   | 0   | 1   | 0   | 0   | 7   | 2   | 3   | 0 | 13    |

## 410 OFFICE SUPPLIES

| CLASS | COMMON NAME         | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
|-------|---------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| 02    | Ink Bottle          | -  | -   | -   | -   | -   | 1   | -   | 3   | -   | - | 4     |
| 02    | Glue Bottle         | -  | -   | -   | -   | -   | 3   | -   | -   | -   | - | 3     |
| 08    | Ink Pen             | -  | -   | -   | -   | -   | -   | 1   | -   | -   | - | 1     |
| 08    | Printing Press/Part | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 99    | Printed Paper       | -  | 2   | -   | -   | -   | -   | -   | -   | -   | - | 2     |
| 99    | Pencil              | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 99    | Writing Board       | -  | -   | -   | -   | -   | -   | 8   | -   | -   | 2 | 10    |
| 99    | Marker              | -  | 1   | -   | -   | -   | -   | 3   | -   | 1   | - | 5     |
|       | TOTAL               | 0  | 3   | 0   | 0   | 0   | 4   | 12  | 5   | 1   | 2 | 27    |

## 420 MISCELLANEOUS STORAGE

| CLASS | COMMON NAME                 | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0  | TOTAL |
|-------|-----------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------|
| 02    | Household Product Container | -  | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |
| 03    | Unid. Bottle/Jug            | 1  | 7   | 1   | -   | -   | 19  | -   | -   | -   | -  | 28    |
| 03    | Blacking Bottle/Jug         | -  | -   | 1   | -   | -   | -   | -   | -   | -   | -  | 1     |
| 03    | Large Bottle/Jug            | -  | -   | -   | -   | -   | -   | 2   | 7   | 1   | -  | 10    |
| 03    | Unid. Jar                   | -  | 1   | 6   | -   | 6   | 25  | 1   | -   | 1   | 1  | 41    |
| 03    | Large Jar                   | -  | -   | -   | -   | -   | -   | 3   | -   | -   | -  | 3     |
| 03    | Unid. Commercial Cont.      | -  | 3   | -   | -   | 1   | 2   | 6   | -   | 2   | -  | 14    |
| 03    | Large Commercial Cont.      | -  | 61  | 3   | -   | 5   | 12  | 135 | 44  | 12  | 5  | 277   |
| 04    | Box Nails                   | 14 | 5   | 1   | -   | -   | 12  | 18  | 6   | -   | 1  | 57    |
| 08    | Barrel Hoop                 | 1  | 11  | 1   | 1   | 3   | 6   | 27  | 6   | -   | -  | 56    |
| 08    | Crate Tie                   | -  | 112 | -   | -   | -   | -   | 3   | 7   | -   | 2  | 124   |
| 14    | Unid. Non-Food Storage      | -  | 2   | -   | -   | -   | -   | -   | 1   | -   | 1  | 4     |
| 14    | Glue Container              | -  | -   | -   | -   | -   | -   | -   | 2   | -   | -  | 2     |
| 14    | Paint Container             | -  | -   | -   | -   | -   | 5   | -   | 1   | -   | -  | 6     |
| 14    | Lubricant Container         | -  | -   | -   | -   | -   | -   | -   | 3   | -   | -  | 3     |
| 14    | Unid. Bucket/Pail           | -  | -   | 1   | -   | -   | 1   | -   | -   | -   | -  | 1     |
| 14    | Unid. Storage               | 13 | 9   | 1   | -   | 1   | 41  | 4   | 48  | 19  | 2  | 138   |
| 14    | Other Bucket/Pail           | -  | 1   | -   | -   | -   | -   | -   | 1   | -   | -  | 2     |
| 99    | Adhesive Tape               | -  | -   | -   | -   | -   | -   | -   | 3   | -   | -  | 3     |
| 99    | Seal/Liner                  | -  | -   | -   | -   | -   | -   | -   | 2   | -   | -  | 2     |
| 99    | Stopper                     | -  | 1   | -   | 5   | -   | -   | -   | -   | -   | -  | 6     |
| 99    | Cap                         | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |
| 99    | Box/Package                 | 1  | 33  | -   | -   | -   | -   | -   | -   | -   | -  | 34    |
| 99    | Basket                      | -  | 9   | -   | -   | -   | -   | -   | -   | -   | -  | 9     |
| 99    | Cardboard Packing           | -  | 2   | -   | -   | -   | -   | -   | 1   | -   | -  | 3     |
| 99    | Barrel                      | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1  | 1     |
| 99    | Wrapper                     | -  | -   | -   | -   | -   | -   | 1   | -   | -   | -  | 1     |
| 99    | Barrel Cant                 | -  | -   | -   | -   | 1   | -   | -   | -   | -   | 1  | 2     |
| 99    | Bag                         | 1  | -   | -   | -   | -   | 1   | -   | 3   | 1   | -  | 6     |
| 99    | Bucket/Pail                 | -  | -   | -   | 2   | -   | -   | -   | -   | -   | -  | 2     |
| TOTAL |                             | 31 | 257 | 14  | 8   | 17  | 125 | 200 | 136 | 36  | 14 | 838   |

| 430 PERSONAL |                   |    |     |     |     |     |     |     |     |     |   |       |  |
|--------------|-------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|--|
| CLASS        | COMMON NAME       | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |  |
| 02           | Glass Jewelry     | -  | -   | -   | 1   | 1   | 14  | -   | -   | -   | - | 16    |  |
| 02           | Lenses            | -  | -   | -   | -   | -   | -   | -   | -   | -   | 2 | 2     |  |
| 08           | Spangle           | -  | -   | -   | 1   | 10  | 41  | -   | -   | -   | 1 | 53    |  |
| 08           | Pocket Watch      | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1 | 1     |  |
| 08           | Finger Ring       | -  | -   | -   | -   | 2   | 1   | 1   | -   | 3   | 1 | 8     |  |
| 08           | Ornament          | -  | 1   | -   | -   | -   | 1   | -   | -   | -   | - | 2     |  |
| 08           | Brooch            | 2  | -   | -   | -   | -   | -   | -   | -   | -   | 1 | 3     |  |
| 08           | Bracelet/Necklace | -  | 1   | -   | -   | 1   | 1   | -   | -   | -   | - | 3     |  |
| 08           | Pocket Knife      | -  | -   | -   | -   | 3   | 2   | 3   | 1   | 2   | 2 | 13    |  |
| 08           | Chain Link        | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |  |
| 08           | Fire Steel        | -  | 1   | -   | -   | -   | 1   | -   | -   | -   | - | 3     |  |
| 08           | Coin/Token        | -  | 1   | -   | -   | -   | 1   | 1   | -   | -   | - | 3     |  |
| 99           | Ornament          | -  | -   | -   | -   | -   | 1   | -   | -   | -   | - | 1     |  |
| 99           | Hair Accessory    | -  | -   | -   | -   | -   | -   | -   | 2   | -   | - | 2     |  |
| TOTAL        |                   | 2  | 4   | 0   | 2   | 17  | 63  | 5   | 4   | 6   | 8 | 111   |  |

| 440 SMOKING |                         |     |     |     |     |     |      |     |      |     |     |       |  |
|-------------|-------------------------|-----|-----|-----|-----|-----|------|-----|------|-----|-----|-------|--|
| CLASS       | COMMON NAME             | 40  | 120 | 150 | 160 | 170 | 180  | 190 | 200  | 220 | 0   | TOTAL |  |
| 03          | Smoking Pipe            | 117 | 350 | 97  | 137 | 609 | 2363 | 690 | 2405 | 897 | 121 | 7786  |  |
| 08          | Tobacco Seal            | -   | -   | -   | -   | -   | -    | -   | 1    | -   | -   | 1     |  |
| 14          | Tobacco/Snuff Container | -   | -   | -   | -   | -   | -    | -   | 5    | -   | -   | 5     |  |
| 99          | Smoking Pipe            | 4   | -   | -   | -   | 2   | 8    | -   | 1    | 1   | -   | 16    |  |
| 99          | Tobacco Package         | -   | -   | -   | -   | -   | -    | -   | 9    | -   | -   | 9     |  |
| TOTAL       |                         | 121 | 350 | 97  | 137 | 611 | 2371 | 690 | 2421 | 898 | 121 | 7817  |  |

| 450 RECREATION |                     |    |     |     |     |     |     |     |     |     |    |       |  |
|----------------|---------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------|--|
| CLASS          | COMMON NAME         | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0  | TOTAL |  |
| 03             | Doll                | -  | -   | -   | -   | -   | -   | -   | -   | -   | 2  | 2     |  |
| 03             | Marble              | -  | -   | -   | -   | -   | -   | 1   | -   | 1   | -  | 2     |  |
| 08             | Musical Instrument  | -  | -   | -   | -   | 1   | -   | -   | -   | -   | -  | 1     |  |
| 08             | Skate               | -  | -   | -   | -   | -   | -   | -   | -   | 1   | -  | 1     |  |
| 08             | Jews Harp           | -  | -   | -   | -   | -   | -   | 1   | -   | -   | -  | 1     |  |
| 99             | Stringed Instrument | -  | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |  |
| 99             | Negative/Film/Slide | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1  | 1     |  |
| 99             | Phonograph Record   | 13 | -   | -   | -   | -   | -   | -   | -   | -   | -  | 13    |  |
| 99             | Construction Set    | -  | -   | -   | -   | -   | -   | -   | -   | -   | 21 | 21    |  |
| 99             | Toy Gun             | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1  | 1     |  |
| 99             | Dominoes            | -  | -   | -   | -   | -   | -   | -   | 1   | 1   | -  | 2     |  |
| 99             | Gaming Piece        | -  | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |  |
| 08             | Toy/Game            | -  | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |  |
| TOTAL          |                     | 13 | 0   | 0   | 0   | 1   | 2   | 2   | 2   | 3   | 25 | 48    |  |

| 460 MEDICINAL/HYGIENE |                    |    |     |     |     |     |     |     |     |     |   |       |
|-----------------------|--------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS                 | COMMON NAME        | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 02                    | Medicine Bottle    | -  | -   | -   | -   | 1   | 27  | -   | 6   | -   | - | 34    |
| 02                    | Medicine Jar       | -  | -   | -   | -   | -   | -   | -   | 13  | -   | - | 13    |
| 02                    | Toiletry Jar       | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1 | 1     |
| 02                    | Unid. Vial         | -  | -   | -   | -   | -   | -   | 3   | 2   | 29  | - | 34    |
| 02                    | Toiletry Vial      | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 03                    | Pharmaceutical Jar | -  | -   | -   | 13  | 17  | 41  | 40  | -   | 117 | 2 | 230   |
| 03                    | Unid. Toileware    | -  | -   | -   | -   | -   | 1   | -   | -   | -   | - | 1     |
| 03                    | Chamber Pot        | -  | -   | -   | -   | -   | -   | 49  | -   | -   | - | 49    |
| 03                    | Wash Basin         | -  | -   | -   | -   | -   | -   | -   | 11  | -   | 1 | 12    |
| 03                    | Error *            | -  | -   | -   | -   | -   | 22  | -   | -   | -   | - | 22    |
| 03                    | Error *            | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 03                    | Toilet Holloware   | -  | -   | -   | -   | -   | -   | 4   | -   | 52  | 1 | 57    |
| 14                    | Medicine Container | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 99                    | Comb               | 1  | -   | -   | -   | -   | 1   | 3   | 3   | -   | - | 8     |
| 99                    | Toothbrush         | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| TOTAL                 |                    | 1  | 0   | 0   | 13  | 18  | 92  | 99  | 39  | 198 | 5 | 465   |

| 470 LAND TRANSPORTATION |                 |    |     |     |     |     |     |     |     |     |   |       |
|-------------------------|-----------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS                   | COMMON NAME     | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 04                      | Horseshoe Nail  | -  | -   | -   | -   | -   | -   | -   | 4   | -   | - | 4     |
| 08                      | Harness Buckle  | -  | -   | -   | -   | -   | -   | 1   | -   | -   | - | 1     |
| 08                      | Harness Dee     | 3  | -   | -   | -   | -   | -   | -   | -   | -   | - | 3     |
| 08                      | Harness Bell    | -  | -   | -   | -   | -   | 2   | -   | -   | -   | - | 2     |
| 08                      | Honda           | -  | -   | -   | -   | -   | 1   | -   | -   | -   | - | 1     |
| 08                      | Tether Chain    | -  | -   | -   | -   | -   | -   | -   | 2   | -   | - | 2     |
| 08                      | Wagon Box Strap | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| TOTAL                   |                 | 3  | 0   | 0   | 0   | 0   | 3   | 1   | 7   | 0   | 0 | 14    |

| 480 MISCELLANEOUS |                   |    |     |     |     |     |     |     |     |     |   |       |
|-------------------|-------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS             | COMMON NAME       | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 08                | Funnel            | -  | -   | -   | -   | -   | -   | -   | -   | 2   | - | 2     |
| 08                | Battery           | -  | -   | -   | -   | -   | -   | -   | -   | 1   | - | 1     |
| 08                | Barometer         | -  | -   | -   | -   | -   | -   | -   | -   | 1   | - | 1     |
| 99                | Rope              | -  | -   | -   | 1   | -   | -   | -   | -   | -   | - | 1     |
| 99                | Sharpening Item   | -  | 1   | -   | -   | -   | -   | -   | -   | -   | - | 1     |
| 99                | Non-Adhesive Tape | -  | 1   | -   | -   | -   | -   | -   | 1   | -   | - | 2     |
| 99                | Transceiver/Part  | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1 | 1     |
| TOTAL             |                   | 0  | 2   | 0   | 1   | 0   | 0   | 1   | 1   | 3   | 1 | 9     |

## 481 MISCELLANEOUS FASTENERS

| CLASS | COMMON NAME         | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200  | 220 | 0 | TOTAL |
|-------|---------------------|----|-----|-----|-----|-----|-----|-----|------|-----|---|-------|
| 04    | Miscellaneous Nails | 74 | 22  | 8   | 5   | 7   | 460 | 91  | 223  | 42  | 4 | 936   |
| 05    | Unid. Fastening     | -  | -   | -   | -   | -   | 2   | 1   | 10   | -   | - | 13    |
| 05    | Screw               | -  | -   | -   | -   | -   | 1   | -   | 13   | -   | - | 14    |
| 05    | Bolt                | -  | 3   | 1   | -   | 1   | 9   | 3   | 20   | 2   | - | 39    |
| 05    | Washer              | 1  | -   | 1   | -   | -   | 4   | 3   | 16   | 3   | 2 | 30    |
| 05    | Nut                 | 2  | -   | -   | -   | 1   | 2   | 1   | 18   | -   | - | 24    |
| 05    | Rivet               | 4  | 2   | 2   | 1   | -   | 8   | 7   | 706  | 6   | - | 736   |
| 05    | Pin                 | -  | 1   | -   | -   | -   | 3   | 1   | 17   | 2   | 1 | 25    |
| 05    | Key                 | -  | -   | -   | -   | -   | -   | 1   | 5    | 4   | - | 10    |
| 05    | Rope                | -  | 1   | -   | -   | -   | 1   | 1   | 261  | -   | - | 264   |
| 05    | Driven Fastening    | -  | -   | 3   | -   | 1   | 8   | 16  | 3    | 2   | 1 | 34    |
| 99    | Washer              | -  | -   | -   | -   | -   | -   | -   | 1    | -   | - | 1     |
| TOTAL |                     | 81 | 29  | 15  | 6   | 10  | 498 | 125 | 1293 | 61  | 8 | 2126  |

## 490 NATIVE INDUSTRIES

| CLASS | COMMON NAME          | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
|-------|----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| 01    | Lithic Core          | -  | 1   | -   | -   | 2   | 1   | 3   | 2   | 2   | - | 10    |
| 01    | Shatter Flake        | 2  | 1   | 1   | -   | 5   | 25  | -   | 28  | 3   | - | 65    |
| 01    | Thinning Flake       | 1  | -   | 1   | -   | 2   | 18  | 6   | 4   | -   | - | 33    |
| 01    | Retouched Flake      | -  | -   | 1   | -   | 1   | 3   | 5   | 11  | 1   | - | 22    |
| 01    | Formed Uniface       | -  | -   | -   | -   | -   | -   | 1   | -   | -   | - | 2     |
| 99    | Prehistoric Artifact | -  | -   | -   | -   | 1   | -   | -   | -   | -   | - | -     |
| TOTAL |                      | 3  | 2   | -   | -   | -   | 47  | 15  | 45  | 6   | 1 | 133   |

510 BLACKSMITHING/  
TINSMITHING

| CLASS | COMMON NAME | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
|-------|-------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| 08    | Punch       | -  | -   | -   | -   | 1   | -   | -   | -   | -   | - | 1     |
| 08    | Chisel      | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08    | Wrench      | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08    | File        | 1  | 1   | 3   | -   | 1   | 2   | -   | 7   | 3   | - | 18    |
| 08    | Forge Sprue | 4  | 3   | -   | 1   | 1   | 8   | 7   | 23  | 5   | - | 52    |
| 08    | Bar Stock   | -  | 1   | -   | -   | -   | -   | -   | 4   | 1   | - | 6     |
| 08    | Forge Waste | -  | 1   | 3   | 1   | 1   | 1   | 18  | 8   | 1   | 1 | 35    |
| 08    | Solder      | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 99    | Twist Tie   | -  | -   | -   | -   | -   | 1   | 1   | -   | 3   | - | 5     |
| TOTAL |             | 5  | 6   | 6   | 2   | 4   | 12  | 26  | 45  | 13  | 1 | 120   |

| 520 MILITARY |               |    |     |     |     |     |     |     |     |     |   |       |
|--------------|---------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS        | COMMON NAME   | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 12           | Cannon Ball   | 2  | 5   | 3   | -   | 18  | 82  | 20  | 45  | 40  | 2 | 217   |
| 12           | Cannon/Part   | -  | -   | -   | -   | -   | -   | 1   | -   | 5   | - | 6     |
| 12           | Carriage/Part | -  | -   | -   | -   | -   | 1   | -   | -   | -   | - | 1     |
| 12           | Linch Pin     | -  | -   | -   | -   | -   | -   | -   | -   | 1   | - | 1     |
| 12           | Friction Tube | -  | -   | -   | -   | -   | -   | 2   | -   | -   | - | 2     |
| TOTAL        |               | 2  | 5   | 3   | 0   | 18  | 83  | 23  | 45  | 46  | 2 | 227   |

| 530 WATER TRANSPORTATION |              |    |     |     |     |     |     |     |     |     |   |       |
|--------------------------|--------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS                    | COMMON NAME  | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 08                       | Rope Thimble | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08                       | Marlin Spike | -  | -   | -   | -   | -   | -   | 1   | -   | -   | - | 1     |
| 08                       | Ships Ring   | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 99                       | Pulley/Block | -  | -   | 1   | -   | -   | -   | -   | -   | -   | - | 1     |
| 99                       | Boat Patch   | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| TOTAL                    |              | 0  | 0   | 1   | 0   | 0   | 0   | 1   | 3   | 0   | 0 | 5     |

| 540 FUR TRADE/TRAPPING |                          |    |     |     |     |     |     |     |     |     |   |       |
|------------------------|--------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS                  | COMMON NAME              | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 08                     | Stencil*                 | -  | 1   | -   | -   | -   | -   | 1   | -   | -   | - | 2     |
| 08                     | Tinkler                  | -  | -   | -   | -   | 3   | 3   | -   | -   | 3   | - | 9     |
| 08                     | Crooked Knife            | -  | -   | 1   | -   | -   | -   | 1   | -   | -   | - | 2     |
| 08                     | Projectile Point         | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1 | 1     |
| 08                     | Bale Seal                | -  | -   | -   | -   | -   | 1   | -   | -   | 2   | - | 3     |
| 08                     | Projectile Point (Other) | -  | -   | -   | -   | -   | -   | 2   | -   | -   | - | 2     |
| TOTAL                  |                          | 0  | 1   | 1   | 0   | 3   | 4   | 4   | 0   | 5   | 1 | 19    |

| 550 MACHINERY |                    |    |     |     |     |     |     |     |     |     |   |       |
|---------------|--------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| CLASS         | COMMON NAME        | 40 | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0 | TOTAL |
| 08            | Unid. Machine Part | -  | 1   | -   | -   | -   | -   | -   | -   | -   | 1 | 1     |
| 08            | Axle               | -  | -   | -   | -   | -   | -   | -   | -   | -   | - | 1     |
| 08            | Piston             | -  | -   | -   | -   | -   | -   | -   | 1   | -   | - | 1     |
| 08            | Coupling           | -  | -   | -   | -   | 1   | -   | -   | -   | -   | - | 1     |
| 99            | Spark Plug         | -  | -   | -   | -   | -   | -   | -   | -   | -   | 1 | 1     |
| TOTAL         |                    | 0  | 1   | 0   | 0   | 1   | 0   | 0   | 1   | 0   | 2 | 5     |



## 610 BEADS

| CLASS | COMMON NAME | 40 | 120 | 150 | 160 | 170  | 180  | 190 | 200 | 220 | 0   | TOTAL |
|-------|-------------|----|-----|-----|-----|------|------|-----|-----|-----|-----|-------|
| 99    | Beads       | 40 | 196 | 23  | 40  | 3749 | 7856 | 419 | 243 | 159 | 218 | 12943 |

## UNDEFINED

| CLASS | COMMON NAME       | 40  | 120 | 150 | 160 | 170 | 180 | 190 | 200 | 220 | 0  | TOTAL |
|-------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------|
| 02    | Unid. Glass       | 48  | 73  | 5   | 7   | 61  | 222 | 61  | 473 | 20  | 17 | 997   |
| 02    | Other Flat Glass  | -   | -   | -   | -   | -   | -   | 1   | -   | -   | -  | 1     |
| 03    | Unid. Ceramic     | 23  | 189 | 18  | 17  | 60  | 378 | 182 | 148 | 63  | 27 | 1105  |
| 03    | Brick             | 112 | 54  | 40  | 44  | 69  | 270 | 447 | 308 | 118 | 10 | 1472  |
| 03    | Ceramic Lid/Cover | -   | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |
| 08    | Unid. Metal       | 2   | 4   | 1   | 1   | 2   | 13  | 7   | 72  | 11  | 1  | 114   |
| 08    | Spring            | -   | -   | -   | -   | -   | -   | 1   | -   | -   | -  | 1     |
| 08    | Bracket           | -   | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |
| 08    | Wire              | 2   | 3   | -   | 1   | 6   | 17  | 10  | 57  | 13  | 1  | 110   |
| 08    | Label             | 3   | -   | -   | -   | 1   | 2   | -   | -   | -   | -  | 6     |
| 08    | Dog               | -   | -   | 1   | -   | -   | -   | -   | 4   | -   | -  | 5     |
| 08    | Wedge             | -   | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |
| 08    | Sheeting *        | -   | -   | -   | -   | -   | 3   | -   | -   | -   | -  | 3     |
| 08    | Sheeting          | 100 | 22  | 4   | -   | 13  | 84  | 83  | 14  | 6   | 2  | 328   |
| 08    | Button            | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1  | 1     |
| 08    | Buckle            | -   | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |
| 08    | Screen/Mesh       | -   | -   | -   | -   | -   | -   | -   | 3   | -   | -  | 3     |
| 08    | Link              | -   | -   | -   | -   | 1   | -   | -   | 6   | -   | -  | 7     |
| 08    | Bell              | -   | -   | -   | -   | -   | 2   | -   | -   | -   | -  | 2     |
| 08    | Fragment          | 64  | 27  | 29  | 4   | 25  | 205 | 98  | 536 | 87  | 2  | 1077  |
| 08    | Grommet           | -   | -   | -   | -   | -   | 3   | 2   | -   | -   | -  | 5     |
| 08    | Handle            | -   | -   | -   | -   | -   | -   | 2   | 1   | 1   | -  | 4     |
| 08    | Hook              | -   | -   | -   | -   | -   | -   | 1   | 2   | -   | -  | 3     |
| 08    | Tube              | 3   | -   | -   | -   | -   | -   | -   | 2   | 1   | -  | 6     |
| 08    | Seal              | 1   | -   | -   | -   | -   | 5   | 1   | -   | -   | -  | 7     |
| 08    | Pipe              | -   | -   | -   | -   | -   | -   | -   | 1   | -   | -  | 1     |
| 08    | Strip-Strap       | 17  | 37  | 1   | 6   | 8   | 76  | 54  | 158 | 28  | 6  | 391   |
| 08    | Barrel Hoop *     | -   | 1   | -   | -   | -   | -   | -   | -   | -   | -  | 1     |
| 08    | Fastener          | -   | -   | -   | -   | -   | 1   | -   | -   | -   | -  | 1     |
| 08    | Rod               | -   | 1   | -   | -   | 1   | 1   | 1   | 12  | 2   | -  | 18    |
| 08    | Ring              | -   | -   | -   | -   | -   | -   | 2   | 2   | 1   | -  | 5     |
| 08    | Ornament          | 1   | -   | -   | -   | -   | 3   | -   | -   | -   | -  | 4     |
| 08    | Bar               | 3   | -   | 1   | 1   | 1   | 3   | 2   | 4   | 1   | -  | 16    |
| 08    | Ferrule *         | -   | -   | -   | -   | -   | -   | 1   | -   | -   | -  | 1     |
| 08    | Sleeve            | -   | -   | 2   | -   | -   | -   | -   | -   | 1   | -  | 3     |

Continued

| UNDEFINED CONTINUED |                          |     |     |     |     |     |      |      |      |     |    |       |
|---------------------|--------------------------|-----|-----|-----|-----|-----|------|------|------|-----|----|-------|
| CLASS               | COMMON NAME              | 40  | 120 | 150 | 160 | 170 | 180  | 190  | 200  | 220 | 0  | TOTAL |
| 08                  | Gear                     | -   | -   | -   | -   | -   | -    | -    | 1    | -   | -  | 1     |
| 08                  | Elbow                    | -   | -   | -   | -   | -   | -    | -    | 1    | -   | -  | 1     |
| 08                  | Disc                     | -   | 1   | -   | -   | 1   | 3    | -    | 4    | 3   | -  | 12    |
| 08                  | Foil                     | 25  | 34  | 4   | 4   | 15  | 90   | 196  | 122  | 49  | 3  | 542   |
| 08                  | Winding Key              | -   | -   | -   | -   | -   | 1    | -    | -    | -   | -  | 1     |
| 08                  | Reinforcement            | 6   | 13  | 3   | 8   | 6   | 45   | 23   | 142  | 13  | 3  | 262   |
| 08                  | Thimble *                | -   | -   | -   | -   | -   | -    | -    | -    | -   | 1  | 1     |
| 08                  | Awl                      | -   | -   | -   | -   | -   | 1    | -    | -    | -   | -  | 1     |
| 08                  | Furniture Lock *         | -   | 1   | -   | -   | -   | -    | -    | -    | -   | -  | 1     |
| 08                  | File *                   | -   | -   | -   | 2   | -   | -    | -    | -    | -   | -  | 2     |
| 08                  | Needle                   | -   | -   | -   | -   | 1   | -    | -    | -    | -   | -  | 1     |
| 08                  | Scraper                  | -   | -   | -   | -   | -   | 1    | -    | -    | -   | -  | 1     |
| 08                  | Bale Seal *              | -   | -   | -   | -   | -   | -    | -    | 1    | -   | -  | 1     |
| 08                  | Bushing                  | -   | -   | -   | -   | -   | 1    | -    | -    | -   | -  | 1     |
| 08                  | Cotter Pin               | -   | -   | -   | -   | -   | 1    | -    | -    | -   | -  | 1     |
| 08                  | Fence Wire               | -   | -   | -   | -   | -   | 2    | 9    | -    | -   | -  | 11    |
| 14                  | Unid. Metal<br>Container | 23  | 5   | -   | -   | 1   | 13   | 18   | 4    | -   | -  | 64    |
| 99                  | Unid. Misc. Object       | -   | -   | 14  | -   | 25  | 207  | 6    | 3    | 2   | -  | 257   |
| 99                  | Flora                    | -   | -   | -   | -   | -   | 3    | -    | -    | 1   | -  | 4     |
| 99                  | Pointed Stick            | -   | -   | -   | -   | 1   | -    | -    | -    | -   | -  | 1     |
| 99                  | Sample                   | 18  | 75  | 1   | 63  | 2   | 33   | 53   | 47   | 3   | 1  | 296   |
| 99                  | Sample *                 | -   | -   | -   | -   | -   | 3    | -    | -    | -   | -  | 3     |
| 99                  | Artifact Remnant         | 3   | -   | -   | 15  | -   | 14   | 13   | 30   | 4   | -  | 79    |
| 99                  | Unid. Handle             | -   | -   | -   | -   | -   | -    | 1    | 4    | -   | -  | 5     |
| 99                  | Unid. Strip-Strap        | -   | -   | -   | -   | -   | -    | 2    | 2    | -   | -  | 4     |
| 99                  | Eyelet *                 | -   | -   | -   | -   | -   | 3    | -    | -    | -   | -  | 3     |
| 99                  | Battery Rod/Pole *       | -   | -   | -   | -   | -   | -    | -    | 5    | -   | -  | 5     |
| TOTAL               |                          | 464 | 540 | 124 | 173 | 300 | 1710 | 1277 | 2172 | 428 | 75 | 7263  |