Mr. Thomas McVey's Dwelling House: A Residence on Ile aux Noix, Quebec
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En français ce numéro s'intitule Histoire et archéologie n° 35 (n° de catalogue R64-81/1980-35F). En vente au Canada par l'entremise de nos libraires agréés et autres librairies, ou par la poste au Centre d'édition du gouvernement du Canada, Approvisionnements et Services Canada, Hull, Québec, Canada K1A 0S9.

Price Canada: $8.95
Price other countries: $10.75
Price subject to change without notice.

Catalogue No.: R64-81/1980-35E
ISBN: 0-660-10600-0

Published under the authority of the Minister of the Environment, Ottawa, 1980.

The opinions expressed in this report are those of the author and not necessarily those of Environment Canada.
Abstract

This report describes the 1966 excavation of a small timber structure on Ile-aux-Noix, Fort Lennox National Historic Park, in Quebec.

Historical data indicate that the building was probably the residence of Thomas McVey and later that of the fort adjutant. Map identifications document its existence between 1829 and 1842.

The artifacts recovered in the excavations are primarily those used in eating, drinking and smoking and thus confirm the residential character of the occupation. Ceramic vessels include coarse earthenwares, creamware, shell-edge pearlware, transfer-printed pearlware, refined earthenware and some porcelain. A large number of dark green "wine" bottles were also found.

Ceramic formula dating is used to estimate the chronological period of the occupation. In addition, the ceramic formula dating method has been applied to bottles, clay pipes and window glass in order to date the structure. These innovations illustrate the wide applicability of the formula dating method, and make possible the calculation of composite formula dates as well. Archaeological dating indicates the structure was occupied between 1820 and 1852.

Distribution of artifacts on the floor of the structure indicates the possibility that there were three different areas within the building.

Submitted for publication 1975, by Roger T. Grange, Jr., University of South Florida, Tampa, Florida.
Acknowledgements

The 1966 excavations at Ile-aux-Noix were directed by the author with the assistance of two field assistants, two student field assistants in training, a laboratory assistant and a crew of 25 labourers. All of these people contributed to the success of the field season.

Marcel Plouffe was the field assistant immediately in charge of the detailed work of directing the crew and keeping field records at this particular site. He carried out the work with skill and dispatch and the report is based on his field records as well as my own. We shared the problems of the excavation and I am grateful for his significant contribution to the project. The interpretation of the excavation is my own responsibility.

Michael Ashworth, then of the National Historic Parks and Sites Branch, helped relocate earlier excavations at the start of the field season. He also supplied copies of historical plans and other data when needed. Armand Mainguy, then Superintendent of Fort Lennox National Historic Park, and his staff were consistently helpful to the project. Jervis D. Swannack and Peter J. Priess, then of the Research Division, National Historic Parks and Sites Branch, and Dorothy Griffiths and Olive Jones, also of the Research Division, have been of constant aid to me during the analysis and report writing period.
Introduction

Several archaeological projects were carried out at Fort Lennox National Historic Park during the summer of 1966. Two other reports on the 1966 excavations (Grange 1974a, 1974b) deal with the primary and secondary goals of the field season while this one is concerned with the excavation of a small private residence not directly related to the military fortifications.

The primary goal of the 1966 field season was to seek remains of the original French fortifications on the island. Each historical plan of the French works is unique and a precise correlation of the historical plans with physiographic features of the island is difficult, even assuming minimal change in Ile-aux-Noix. Several locations were test excavated because of the potential correlation of the historical plans with surface evidence on the island; other areas were tested on the basis of surface evidence alone and these usually proved not to be features of the initial occupation. One such structure is the subject of this report.

The private residence in question was located near the eastern shore of Ile-aux-Noix in a low, circular mound (see Fig. 1). The excavation began as a test of the feature as a possible location of the French redoubt St. Louis. It was quickly found that the site was from the British period and that the structure was a small one; the excavation was completed because the structure was well preserved and provided artifacts from what appeared to be a relatively undisturbed short-term occupation. It was assumed that such a context would be useful in interpreting ceramics and other artifacts recovered from the fortification ditch fill where the contents of stratigraphic layers were mixed with borrowed material from several sources.

Several years later this area was tested by Frank Korvemaker (1971) in preparation for a work compound on the island.

Laboratory analysis confirms the field identification as a non-military structure, and its tentative identification as a house occupied by Thomas McVey and later by the fort adjutant has been confirmed. This report is limited to the analysis of historical plans of Ile-aux-Noix
and the archaeological data. No attempt to carry out historical research on Thomas McVey or the adjutant has been made. Such research would now be productive and relevant to further interpretation of the archaeological evidence.

The analysis of the site includes experimental attempts to apply the ceramic dating formula to other classes of artifacts, particularly bottles, pipes and window glass. These experiments indicate that further research of this nature will be productive.
History

Lee's summary of the history of Ile-aux-Noix (1965) is the base to which archaeological research refers. The history of Ile-aux-Noix can be divided into three major periods (Lee 1965: iii; Grange 1974a: 6).

Period 1 (1759-61) includes the initial French occupation, the British siege and French defeat, after which the island was abandoned for several years. Period 2 (1775-1809) began with a brief American occupation and was followed by the construction of the first British fort and its redoubts. Once again the island was abandoned, this time until 1812. Period 3 (1809-70) saw the re-occupation of the British fort, the establishment of the naval shipyard and the construction of Fort Lennox. Period 4 (1870-present) encompasses the post-military years.

The structure described in this report of archaeological excavations is one occupied during period 3. Its probable identification on military plans supports this hypothesis and the chronological analysis of the artifacts confirms that interpretation.

The 1780 plan, which has been identified as the most accurate representation of French works on the island (Grange 1974a: 11), places the redoubt St. Louis farther to the south than the mound excavated in this operation, but the excavation was carried out to test this interpretation.

The artifacts recovered were an immediate indication that the mound was not the French redoubt. Examination of historical plans provided potential identification of the structure. Along the eastern shore of Ile-aux-Noix one to six small structures were identified as "huts" on several plans. The two most southerly of these are identified as shipwrights' huts (Lee 1966: No. 73) on the 1829 plan (Fig. 2). The third structure, farther to the north along the shore, is not identified on that plan. Its general location on the island closely parallels the position of the mound and structure excavated, as a comparison of the historical and archaeological site plans reveals (see Figs. 1 and 2). The structure does not appear on plans earlier than 1829.

Another 1829 plan (Fig. 3) illustrates one structure along the eastern shore in a position which correlates with the most northern but un-named "hut" discussed above. This
structure is identified as "Mr. McVey's Dwelling House." Thomas McVey's shop and post office is shown as another building on the opposite shore of the island near Fort Lennox. Variations in the depiction of the island's shape, omissions in structures shown, and plan scale differences make it difficult to correlate the plans, but it is probable that the unidentified structure on the other 1829 plan (Fig. 2) is the same as the one identified as McVey's house. If the correlation of this structure with the archaeological grid location is correct, it is McVey's house that has been excavated.

The 1833 plan of Ile-aux-Noix (Fig. 4) also shows a row of small structures along the eastern shore of the island. Six buildings are shown and identified, in order, by reference numbers and the names of their occupants. These are: 13, Macnamara, unoccupied; 14, Stevenson; 15, Farrel; 16, Wood; 17, Kilpatrick, and 18, fort adjutant. McVey's name is also associated with structure 34 on the plan, but it is the one previously identified as his shop on the other shore just north of the northwest salient of Fort Lennox. The closest correlation between the archaeological grid and this historical plan would identify the archaeological feature as the northernmost structure on the historical plan; that is, the one occupied by the fort adjutant. The residence marked Kilpatrick is another alternative but its proximity to the shore is greater than that of the adjutant's structure. The archaeological feature is about the same distance west of the shore as the adjutant's building as it is shown on the 1833 plan. The shoreline detail of the 1833 plan corresponds most closely with contemporary features.

This structure may also appear on a plan attached to an 1842 return listing buildings outside Fort Lennox on which a small structure along the eastern shore is identified as "g. House belonging to Fort Adjutant: pays acknowledgement" (PAC, MG12, WO44, Vol. 590, Reel B-1436). This plan does not extend as far north on the island as do the 1829 and 1833 plans. The relationship of the structure to the island shore line on this plan does not agree with the relative positions shown on the 1833 plan; the structure is farther south, in a position equivalent to the Macnamara house on the 1833 document. This could indicate that the adjutant had moved or that the 1842 plan was incomplete or inaccurate. Alternatively, the correlation of earlier plans with the archaeological feature could be incorrect.

No structures are shown along this shore on the 1863 plan (PAC, Hl/350, Ile-aux-Noix-1863). This negative evidence does not necessarily mean the structure no longer existed, but it does appear most likely that the building was gone before 1863.

During the summer of 1965 the archaeological work on Ile-aux-Noix had included the excavation of a small wooden
structure identified by the excavators as one of the shipwright's huts (Ashworth 1967: 182). The position of that structure (see Fig. 1) corresponds to that depicted for the shipwright's huts on historical plans. In the absence of additional excavation, which of the two shipwright's huts Ashworth's excavations exposed is uncertain. It is possible that the subject of this report is the second shipwright's hut. Ashworth (1967: 183) believed it would be north of the hut he excavated. Both structural similarities and some parallels in artifacts recovered from the two sites would support that interpretation. However, the 1833 plan evidence (see Fig. 4) of a series of structures along this shore and their relative positions seems stronger evidence.

If the interpretation of the 1829 and 1833 plans is correct, as argued here, the structure excavated can be identified as a residence used by Thomas McVey in 1829 and by the fort adjutant in 1833. The structure may have continued in use by the adjutant until 1842, but that map correlation is questionable. In any event, the structure's terminal date is prior to 1863.

The structure must have been built prior to 1829. Assuming the structure originated as a shipwright's hut (which assumes the unidentified hut on the 1829 plan [Fig. 2] was a third shipwright's hut), the earliest initial date for the building can be estimated as 1812 when the shipyard was established on the island. Gunboats were under construction by April 1813 (Hooper 1967: 3) so presumably the shipwrights' huts could date to 1812.

The historical identifications can be summarized as follows:
1829-33 Well-established identification if plan correlations are correct.
1829-42 Existence of structure documented, assuming 1842 identification of fort adjutant's house applied to same structure.
1812-62 Maximum time during which structure might have existed, assuming origin as shipwright's hut and termination prior to 1863 plan.

These estimates can be used as historical models for comparison with archaeological models in dating the structure by a method outlined earlier (Grange 1974a). The "expected" mid-range dates for these three periods are 1831, 1835 and 1837 respectively. The structure's maximum occupation period, 1812-62, is probably the best historical model to test against archaeological evidence. Archaeological dates for the structure should fall within this period if the identification of the building is correct.
The Excavations

The excavations at Ile-aux-Noix were carried out by manual methods using standard archaeological field equipment. A contour map of the site was made prior to the excavation and an open-sight alidade and plane table were employed in drawing the final floor plan of the structure. Black and white and colour photographs were made throughout the excavations. Detailed field notes and profile drawings were the responsibility of the field assistant in charge of the operation, but the director kept notes as well as providing the general supervision for the work. The excavations were recorded in the operation, sub-operation and lot system adopted by the National Historic Parks and Sites Branch (Swannack 1973). Eight sub-operations were used in the excavation of the structure. These were arbitrary horizontal control units. Within these units, specimen recovery lots were based on the stratigraphy encountered. Recovery lots were also used to segregate materials from inside and outside the limits of the building and to denote concentrations of artifacts.

The site was near the eastern shore of Ile-aux-Noix towards the northern end of the island (see Fig. 1).

The surface of the site was marked by a low, circular mound about 45 ft. in mean diameter and 1.1 ft. high in the highest central location. Elevation at the foot of the mound was 100.6 ft. ASL while its crest was 101.7 ft. ASL. The highest part of the mound was directly over the centre of the structure. A slight dip on the eastern side of the mound coincided with the location of the presumed doorway. There was no surface evidence associated with the location where the privy pit was eventually found.

The initial excavations consisted of cross-trenches at right angles to one another. A central baulk was maintained for stratigraphic reference and then removed as the final stage of excavation.

Stratigraphy
The uppermost stratigraphic level was a grass root zone 0.2 ft. in depth. The grass layer was stripped off as a unit but no artifacts were recovered and no specimen lot was
established. Immediately below the grass roots was the sod and silt layer. This zone was excavated as a stratigraphic unit. Artifacts recovered from the layer are probably related to the occupation of the structure, but the stratum is a post-occupation deposit. The zone extended from 0.2 ft. below surface to 0.6 ft. below surface. Below this level it was generally possible to segregate materials from inside and outside the limits of the structure. Sod/silt layer specimens were horizontally segregated in six sub-operations.

Outside the limits of the building the layer immediately beneath the sod/silt zone was a mixed stained topsoil and occupation layer. Below that layer was sandy clay sub-soil. Some complex stratigraphic irregularities cross-sectioned in the area outside the structure probably represent roof drainage runoff drainage ditches or erosional channels. The occupation zone outside the building was up to 1.3 ft. thick and was generally between 0.6 ft. to 1.9 ft. below the present surface.

Near the southwest corner of the building, a privy pit was excavated. The silt and occupational zone above the pit was divided into two vertical recovery lots and two additional lots were from the privy.

Inside the structure an attempt was made to distinguish between occupational fill and floor deposits. Subsequent study of crossmended artifacts discovered during laboratory analysis indicates that all fill and floor materials pertain to the occupation.

The excavation of the baulk included separation of that profile into an upper unit which was intended to be the equivalent of the sod/silt layer above the level at which wall remnants were encountered elsewhere. The zone began at 0.2 ft. below surface and was intended to terminate at 0.6 ft. below surface. In places it was excavated as deeply as 0.9 ft. BSL mixing some of the occupation fill with the intended sod/silt content.

The fill level was difficult to separate from the general stained topsoil occupational zone with which it was continuous. The distinction was in part arbitrary, the fill zone being defined as below the elevation where remnants of the timber walls were encountered. Where possible, fill above the elevation of the walls was segregated from other layers. It was also difficult to distinguish between the fill and underlying floor in all cases. The floor deposits, where they could be distinguished, were darker in colour, but in some areas the underlying sub-soil was encountered beneath the fill without an intervening floor level.

The floor level was the darker fill zone between about 1.0 ft. and 1.7 ft. below the present surface. The floor itself was defined as the juncture of the darker fill and the underlying sandy clay sub-soil. This was generally about 1.7 ft. below the present surface, but was irregular
and in places was 2 ft. below the present grade. The
sub-soil floor level was about the same elevation as the top
of the sub-soil deposit outside the structure. Nine
specimen recovery lots were designated floor deposits.
The lots related to major stratigraphic units have been
combined for stratigraphic analysis in subsequent studies of
the artifacts. For purposes of analysis, these specimen
recovery lots may be combined into three basic stratigraphic
units: sod/silt layer (post-occupation), topsoil/occupation,
fill and floor occupation.
A typical cross-section illustrates these layers (see
Fig. 5).

The Structure
The structure, outlined by the rotted remains of timber
walls, was a building 21 ft. (north-south) by 25 ft.
(east-west) (see Figs. 6, 7). The walls were erected
directly on the old surface and without the benefit of stone
or other foundation.
The bottom wall timbers may have been placed in a
shallow trench. Although no evidence of a builder's trench
was detected in horizontal exposure, traces of a shallow
depression with mottled fill could be seen in three trench
profiles (see Fig. 8). In these profiles a mottled
yellowish clay is seen on the exterior side of the wall. It
is possible that this deposit represents eroded clay
chinking debris rather than builder's trench fill. A third
possibility is that these areas represent disturbance and/or
fill related to the water-drip line from roof runoff.
The wood was identified in the field as cedar. The
timbers in the walls were probably about 0.5 ft. square in
section. In places it appears that the timbers had
originally been one on top of the other in log-cabin
construction fashion. This was particularly true along the
southern side (see Fig. 9) where two timbers were found and
on the northern side of the structure where three beams were
so stacked (see Fig. 10). Round wooden pegs at regular
intervals may have been used to hold these timbers or some
sort of siding in place (see Figs. 10, 11).
At the southwestern corner, three timber remnants were
side-by-side (see Figs. 12, 13). Most likely these were the
result of wall collapse although it is possible that the
beams inside the wall line were floor joists.
The corner was too rotten to reconstruct accurately,
but interlocking notches seem likely (see Fig. 18). Several
nails were clustered near the northwest corner, but not
directly at the joint. Notched joints were identified in
the shipwright's hut to the south (Ashworth 1967: 184),
which was also built without stone foundations, its timbers
being placed directly on the former surface. That structure
is smaller (12 ft. by 13 ft.), and the corners are nearly
identical in appearance to those in the McVey house (Ashworth 1967: Fig. 10-1).

One of the timber fragments found on the floor level near the centre of the structure appears to have a rectangular notch cut in it (see Fig. 14). If that interpretation is correct, the timber could be a floor support. It could also be some other structural element, fallen from the roof perhaps. However, the beam is oriented at right angles to the exterior northern wall and was probably found in its original position.

The small shipwright's hut had a series of parallel and right-angled overlapping timbers over the floor (Ashworth 1967: Fig. 10, plan) which Ashworth interpreted as evidence of a timber superstructure - walls and roof, and sleepers for a wooden floor (Ashworth 1967: 184). Some of the wood remnants found scattered on the "floor" level of the McVey dwelling may also be interpreted as the remnants of a floor. It is possible that useable timber was salvaged from the structure, a conjecture which would account for the relative lack of wood inside the building remains.

Another possibility which might be considered is that some of the wood scattered on the floor of the structure (see Fig. 7) might mark the position of internal walls. If so, there might have been a north-south wall dividing the structure into two rooms, but that is highly speculative.

A central post hole, 0.5 ft. in diameter and 1.0 ft. in depth, was found in the centre of the floor (see Fig. 7). This post probably served as a support for part of the roof structure.

Just west of the central post mould (see Fig. 7) was a low hump of yellow clay, 3 ft. by 5.5 ft. in size, with a relatively regular rectangular outline. The function of this feature is uncertain, but one conjecture is that it might mark the location of a stove. The clay could have been on the floor to protect the floorboards from overheating, or could have been under the floor as additional support. Insufficient evidence of stone or brick for a fireplace or chimney base was found in the excavations; thus, a stove and pipe heating/cooking system is postulated.

The location of the entrance is conjectural, but a two-foot gap in the centre of the eastern wall of the building (see Fig. 7) is a possible doorway location. A leaf hinge was found in a sub-operation nearby. Another possible door location is in a poorly preserved section of the east wall at the southeastern corner of the building. This location coincides with a dip in the mound surface. It is possible that erosion of the mound was more rapid in this area assuming that runoff drained through a gap in the structural remnants left by the doorway. Alternatively, differential erosion could have created the impression of a doorway gap in the wall.
Window locations are likewise conjectural, but estimates can be based on the distribution of window-glass fragments. A concentration of these specimens was found in lots along the western end of the building. It is probable that one or more windows were located in that end wall. The absence of window glass fragments in the southern half of the building both inside and outside the structure may be taken as an indication that there was no window on that side. A few glass fragments associated with the northeastern quadrant offer weaker support for a window location on the northern wall.

Five feet southwest of the southwestern corner of the structure, a privy pit was found and excavated (see Fig. 15). The slump fill of the pit reached a maximum depth of 7 ft. although the well-preserved rectangular pit was only 3 ft. deep. A wooden cross beam with a mortise slot (?) was associated with the elevation of the rectangular part of the pit. Above that line the pit had a broader slope, possibly from erosion (see Fig. 16). The pit was nearly square, tapering from 2.6 ft. at one end to a width of 2.4 ft. The wider top area was irregular and rounded on two sides, and measured 6 ft. by 6.2 ft. Wood fragments were also associated with the limits of this part of the feature. The obvious interpretation is that the privy was a 6-ft.-square structure with a 2.5-ft.-square pit, probably a single-seater. Glass fragments recovered in this sub-operation indicate the possible presence of a window.

The odour of the fill left no doubt of the function of this structure. The most notable artifact recovered was a nearly restorable creamware plate.

Only limited excavations were carried out beyond the limits of the structure. One of the initial cross-trenches exposed the area north of the northern wall. Two stained soil features were encountered; both paralleled the line of the wall. The first of these was a dark stain 2.5 ft. north of the wall and 1.8 ft. wide. Beyond that was another mottled zone forming a parallel strip of lighter colour (see Fig. 17) 1.1 ft. to 1.5 ft. wide. Beyond them appeared a second dark stained soil area which sloped downwards to the north for a distance of about 6 ft. The feature is shown in profile (see Fig. 18) to have a slightly ditch-like appearance. It is probably best interpreted as either a drainage ditch or a path running parallel to the north side of the building.

A few chips and brick fragments were found in the exterior occupation zone in the area beyond the features described above. These fragments were found in the trench in the section 8 ft. to 18 ft. north of the wall under a thin zone of sand. They did not appear at the time of excavation to be remnants of a chimney unless most of the brick had been salvaged. If the brick fragment scatter did represent chimney debris, the base of the chimney could have
been marked by the stained soil depression features described above. If that were the case, the chimney would have been two feet away from the wall of the building. It is more likely that the brick fragments and overlying sand represent fill thrown on the surface around the structure. The low elevation of the island combined with high water levels in the spring make this area a relatively wet one and filling mud holes with refuse is a reasonable possibility.

In the area towards the west of the structure a test trench was excavated to expose another complex of stained soil. Here again, a shallow V-shaped ditch about 2 ft. from the wall is probably best interpreted as a roof drainage drip-line. There was a generally sloping contour beyond the structure here as well. The combined evidence of the northern and western trench profiles indicates that the structure was either situated on a slight rise, or that the land around the building had been sloped to provide drainage.

In the area between the structure and the privy, in contrast, the occupational surface was relatively level and did not slope.
Ceramics

A total of 636 ceramic sherds representing an estimated 116 vessel units were recovered from the site. The bulk of these sherds was recovered from inside the structure and near the western wall; the details of internal distribution will be discussed more fully in a later section.

The ceramics have been identified by reference to various sources including Miller and Stone (1970), J. Walker (1971), Noël Hume (1970) and other references specifically cited below. Coarse earthenwares, fine earthenware, stoneware, and porcelain are all represented in the collection. A number of the vessels are relatively complete.

The ceramics are described below. In a following section ceramic formula dating and other methods are used to calculate an occupation span for the structure.

All sherds of each type grouping were examined carefully and the minimum number of vessels represented was estimated. The attempt to estimate the vessel count was made by grouping sherds on the basis of fabric colour, glaze colour and type, decoration colour, and subject and vessel shape. Crossmending sherds were glued and counted as one. Vessel units include both crossmended sherds and non-fitting sherds which possibly belong to the same vessel. The vessel count must be regarded as an approximation. Both sherd and vessel counts for each statigraphic unit are listed in Tables 2 and 3.

Coarse Earthenwares

Coarse Earthenware, Unglazed
A few coarse earthenware sherds are probably fragments of brown/olive-glazed coarse earthenware, but no trace of glaze is present. Most of these sherds are core chips.

One specimen is the neck and rim of a bottle; it is unglazed (Fig. 19a). The fabric is strong orange (5YR 6/11), and has sparse sand tempering. The interior and exterior surfaces are both smooth. The neck is about 15.5 mm in diameter (estimated from the fragment) and is
vertical-sided with a slight outward flare just below the rim. There is a slight thickening around the exterior of the rim and the rim is flat. The neck fragment is 30 mm in height. The vessel form is indeterminate but a bottle is most likely. The specimen came from the floor deposits.

Coarse Earthenware, Brown/Olive Glazed
A number of utilitarian vessels made of a strong orange coarse earthenware fabric are distinguished by brown to olive-coloured glazes.

The fabric is greyish dark orange-yellow to strong orange. Sparse aplastic inclusions are sand grains. Most sherds exhibit ridges and grooves from wheel throwing. Exterior surfaces of bowls are smoothed.

Most common vessel forms are large, open bowls or milk pans and bottles. Some sherds are probably from jugs or similar hollow ware. Vessel groupings of sherds are listed below.

Bottle
One complete bottle is 96 mm to 99 mm high, being tilted and slightly irregular. It is 65 mm in diameter. It has a rounded shoulder 83 mm above the base. The mouth is marked by a low rim without a neck. The rim is 5 mm high and 32 mm in exterior diameter. The orifice is 20 mm in diameter. The lip is flat (Fig. 20).

Traces of glaze can be seen on the interior, especially preserved on the bottom. The exterior is badly pitted and flaked, apparently from long use. Some traces of its original smooth surface remain and these are a dull, moderate reddish brown. In a few tiny patches, glaze is present. Apparently the exterior glaze did not develop properly or has largely been worn away.

Another bottle fragment is a base 70 mm in diameter. It also has a tilt to one side as the vessel walls are not vertical. A brownish to moderate olive (7.5Y 4/3) ranging to light olive (7.5Y 5/5) glaze is present on the interior bottom of the vessel. A similar glaze is on the exterior surface as well, but it is not as thick and well applied, it is dull in patches, and is chipped off in spots. The vessel base is 11 mm thick; the side wall is 9 mm thick (see Fig. 19d).

The shoulder and rim of a coarse earthenware bottle have the same brownish to light olive (7.5Y 5/50) glaze on both interior and exterior. The shoulder is angular and 15 mm below the rim. The neckless rim sherd is 7 mm high; the rim is slightly rounded and about 40 mm (estimated) in exterior diameter. This specimen was found close to the base described above and probably is a part of that vessel (see Fig. 19b).
Another angular shouldered rim of a similar bottle must be from another vessel. It has a steeper shoulder. The neckless rim is 6 mm high and beveled on the lip. The glaze is light olive brown to deep yellow (2.5Y 6/8). The diameter of its orifice cannot be measured (see Fig. 19c).

**Bowls**

Large open bowls or milk pans were the most common vessel form represented.

One specimen consists of a partly restorable rim and several bodysherds. The rim sherd is slightly thickened and rounded on the exterior and has a raised, rounded rim on the interior. One section of the rim is moulded to form a pouring lip. The vessel walls are outflaring and straight. The exterior surfaces are smoothed, but unglazed except for an area extending downwards about 35 mm from the rim. The exterior surface below the rim is pitted and chipped from heavy use. The interior is glazed a moderate to strong yellowish brown (10YR 4/4). Throwing rings and striations are present on the interior. There are several fitting rim fragments and several bodysherds which do not adjoin the rim, but have been grouped in this vessel category on the basis of fabric and glaze colour. The rim is 260 mm in diameter. The rim thickness is 16 mm, while vessel walls are 5 mm to 7 mm thick (see Fig. 21b).

Another open bowl of nearly identical form with a pouring lip differs only in its glaze colour. It is moderate brown (7.5YR 4/5). The exterior is also unglazed except for a thin wipe of glaze around the exterior below the rim. It extends up to 53 mm below the rim and shows some drip runs. The rim is 240 mm in estimated diameter. One bodysherd is a base fragment; it has a flat bottom estimated at 90 mm in diameter. Two parallel lines encircle the base just above the resting surface. The rim is 17 mm thick; the vessel walls are 5 mm to 9 mm thick. Scattered non-crossmend sherds were included in this vessel group on the basis of glaze and fabric colour (see Fig. 21d).

Another rim fragment of this general lip profile is segregated because its ridged lip is higher than the one on the vessel described above. This specimen has a moderate brown glaze (5YR 3/3); it is too small for significant measurement.

Another rim fragment varies sufficiently in its lip profile to be classified as a fourth vessel of the bowl form. Its glaze is moderate, yellowish brown (10YR 4/4).

A group of bodysherds with curvatures of the open bowl form are grouped together as a separate vessel on the basis of their distinctive mottled glaze, which is a dark orange yellow (10YR 6/8 to 7.5YR 6/9) with mottled spots of moderate brown (7.5YR 4/5). None of the other vessels has this appearance and these may represent another open bowl.
Jug (?)
A few sherds of this fabric and glaze combination are body fragments of an unknown vessel form. Their concave-convex profile suggests a jug and they are also distinctive in that they are glazed on both interior and exterior surfaces. They have heavy throwing-ring indentations.

One example has a moderate brown glaze (7.5YR 4/5) with mottled patches on the interior.

A second vessel is represented by a single sherd with a dark orange yellow glossy glaze on both interior and exterior (10YR 6/8).

Trailed Slipware
Another variety of coarse earthenware has a strong orange (5YR to 7.5YR) fabric. It has tiny aplastic sand inclusions. The exterior surfaces are smoothed and unglazed except for the exterior of the rim and some splashes on the body. The interior is decorated with white slip trailed lines which appear yellow under the clear glaze. The glaze gives the interior ground a strong brown (5YR 4/5) colour.

Vessel forms are open bowls or milk pans.

One specimen has a distinctive brim profile. The thin (4 mm) walls flare to a thickened brim 22 mm wide and 11 mm thick at the rim. The estimated diameter of the rim is about 300 mm. The brim is flat but curves sharply upwards at the rim forming a ridge around the perimeter of the brim. The exterior side of the rim is rounded. The body and brim are decorated with irregular trailed slip lines (see Fig. 22a). Some additional scattered, but non-fitting, sherds may belong to this vessel.

A second vessel is identified on the basis of three split brim fragments which have a different profile than the vessel described above. The brims are flat and terminate in a simple rounded rim. None of these fit one another or the similar body sherds from the same provenience, but the group can be regarded as representing a second vessel.

Plain Slipware
One body sherd of a hard fired slipware has a moderate reddish brown fabric (7.5R 3/6+). The fabric virtually lacks inclusions though a few very tiny sand grains are present. The exterior has a greyish brown (7.5YR 3/2) glaze with yellow speckles in it. The interior has a thin layer of white slip which appears yellow under the clear glaze. Streaks of brown are in the glaze. The sherd has a concave-convex profile; the vessel form is indeterminate (see Fig. 22b).
Clear-Glazed Red Earthenware
One sherd of red earthenware has a glaze on both interior and exterior giving it a strong brown (2.5YR 4/7) colour. The fabric is greyish red and fine-grained. It has been fired hard. The vessel form is indeterminate (see Fig. 22c).

Glazed Grey-White Earthenware
Three sherds of earthenware with a greyish white fabric were found. The fabric resembles that of creamware but is darker or greyish.
Two sherds have a moderate reddish brown glaze on both interior and exterior. The vessel form is unknown (see Fig. 22e).

Brown-Slipped White Earthenware
One sherd is of a greyish white fabric similar to the creamware fabric but coarser grained and greyish. The vessel is also covered on the interior surface with a thin layer of moderate reddish brown slip (10R 3/4) which has not been glazed; it is dull in appearance but slightly shiny when angled to a light source. The exterior surface is unglazed and smooth. The vessel is a small saucer with an estimated rim diameter of about 130 mm. It has a flat bottom and the straight-profiled brim slopes directly from the flat bottom to the rounded rim (see Fig. 22f).

Fine Earthenwares

Black-Glazed Red Earthenware (Jackfield?)
Several sherds of comparatively fine red earthenware have a very dark brown to black glaze. The fabric is strong orange (2.5YR) and fine, with only occasional aplastic particles. Both interior and exterior have a very dark brown, almost black, glaze. Most of the bodysherds have a slightly concave-convex profile. One neck fragment suggests a slightly outflared neck. One rounded wedge-shaped foot-ring fragment is present. The foot ring is 5 mm thick and 6 mm high. Vessel form is indeterminate. Although from different recovery lots, all sherds have been grouped as a single vessel (see Fig. 22d). The specimens are possibly the Jackfield type and could be from a jug.

Creamware
Several fragments and vessels were identified as creamware. They have a very light yellow colour with slightly greenish tinges in glaze pools in the foot rings. When angled to the light, the glaze has a ripply appearance similar to that
seen on pearlware. It is sometimes difficult to distinguish some specimens from those classified as refined white earthenware. The large pitcher, for example, lacks the ripply wet sand appearance and perhaps should be counted in the other category; however, its colour is like that of the creamware.

Several different vessel forms are represented.

**Plate**
A plate with the Royal pattern brim form (Noël Hume 1970: Fig. 35, 5) with a rim diameter of 260 mm and a foot-ring diameter of 160 mm was found. The foot ring is formed by indenting the centre part of the flat bottom. The glaze has a greenish tint in the foot-ring pool. All sherds are from a single plate although not all crossmend (see Fig. 23).

A second plate brim, probably also the Royal pattern, and several flat bottom sherds are grouped together as a second plate.

**Bowl (?)**
One rim fragment has a vertical wall and a rounded rim. Estimated rim diameter is 200 mm.

**Cup**
A complete cup (Fig. 24) was also recovered. It has vertical sides. The resting surface is created by indenting the base to form a foot ring 2.5 mm high around the perimeter of the heel. The cup is 67 mm high and of slightly irregular diameter, ranging from 62.2 mm to 62.8 mm. It has a strap handle. It is probably a large coffee cup or a small mug (Griffiths: pers. com.).

**Ewer**
A large ewer was found in the occupational refuse outside the structure, but crossmending sherds link those sherds to another group found inside the building.

The vessel has a large strap handle and a curved orifice with a large, outflared pouring lip on one side. It has an angular shoulder and vertical mould seams are also visible. It has a flat bottom assuming the sherds from the group belong to the same vessel (Fig. 25). The mould seam indicates a post-1820 date (Griffiths: pers. com.).

**Bowl (?)**
One group of sherds has a concave-convex profile and is from a large bowl or similar, but unknown form. Horizontal
grooves and ridges form a decorative band around part of the vessel.

Another group of sherds, possibly from a bowl form, has vertical walls and thin rounded rims. They are too small for accuracy, but the diameter is estimated at 140 mm.

One base fragment has a high (9 mm) and thick (9.3 mm) rounded and beveled foot ring. It is probably from a larger serving vessel or bowl. Two other bottom fragments have wide scars from missing foot rings and are arbitrarily included in this vessel group on that basis.

Another base sherd is part of a bowl form. It has a distinctive wedge-shaped foot ring 4.5 mm thick and 10 mm high.

 Plates
Additional plate fragments include one base sherd which comprises a single foot ring (indented centre) and a section of the plate body between bottom and brim. Glaze and thickness differences permit these to be counted as separate vessels. A flat-bottomed sherd, possibly from a plate, has a remnant scar from a raised foot ring of indeterminate form. Two plain brims are from plates with plain brims and rims.

 Miscellaneous
A number of creamware fragments appear to be parts of plates; flat base sherds, curved body fragments, and so on. These are mostly from plates, but vessel forms are indeterminate. These specimens are tabulated in the sherd count but no additional vessels are counted on this part of the sample since plate vessel units previously identified could account for these sherds.

 Undecorated Pearlware
A few fragments of undecorated pearlware were recovered. Several complete and fragmentary blue and green shell-edge pearlware vessels were also found and are described elsewhere. It is most likely that these undecorated bodysherds come from such plates. The sherds appear to be from plates: brim fragments, indented foot-ring fragments and flat-bottom sherds are all present.

 Blue Shell-Edged Pearlware
Pearlware plates and other vessels decorated with the shell-edge pattern in blue were fairly common. There are several complete or partly restorable vessels which will be described below.
Plates
Plate brim sherds are those with any trace of the shell-edge decoration; some are only small fragments. The shell-edge decoration ranges from finely impressed with curved lines to very regular, parallel lines with a straight blue band. The plate brim sherds were sorted according to their edge decoration pattern and five vessels were identified.

In addition to the sherds which represent five different shell-edge brim patterns, a nearly complete blue shell-edge plate was recovered (Fig. 26). It is 240 mm in diameter with an indented foot ring 155 mm in diameter. The rim is 29.4 mm above the resting surface. The brim is 23 mm to 28 mm (irregular pattern).

Platter
A complete (restored) blue shell-edge serving platter was also recovered (Fig. 27). It is an oval vessel with a flat bottom and no foot ring. It is 322 mm wide and 415 mm long. The rim is 36 mm high above the resting surface; the brim is 40 mm wide.

There is an impressed mark on the exterior bottom surface. It is an anchor with two dots and the word DAVENPORT in a curve above the anchor (Fig. 28). The impressed Davenport anchor mark was used from ca. 1790 to 1820 (Godden 1972: 37) or longer (from 1794 to 1887 [Edwards 1971: 112]). The firm was in business between 1793 and 1887 according to Bogar (1971: 86-7). Godden notes that the impressed word DAVENPORT in upper-case letters dates from 1805 (Godden 1964: 189); the mark on this specimen is in upper case. A very similar mark, also in upper case, but lacking the two dots near the anchor is illustrated by Chaffers and dated from about 1805 to about 1825 (Chaffers 1965: 59). On Godden's evidence this specimen would date after 1805, and the 1805-25 date bracket is probably an acceptable one as an estimate for this specimen.

Mustard Pot Lid
A complete lid for a mustard pot (Griffiths: pers. com.) has a notched rim opening for a spoon handle (Fig. 29). The lid is flanged in profile, with a domed top. Around the midline of the dome is a blue shell-edge decoration. There is a knop handle on the top; the top of the handle is also blue. The specimen is 58 mm in diameter and 31.3 mm in height. Its base is 44 mm in diameter, and it would have fit into a vessel slightly larger in its orifice than that dimension.

Rectangular Serving Vessel Lid
Fragments of the lid of a rectangular serving vessel also bear the blue shell-edge decoration at the shoulder of the
lid where it turns down to its rounded rim (Fig. 30). It has rounded corners and straight sides. The lid slopes up in a flattened dome shape and a moulded flower on the top is outlined in blue on the petal edges. Isolated sherds of the same pattern are included in this vessel unit.

Green Shell-Edge Pearlware
A few examples of the shell-edge decorated pearlware are painted with green rather than blue underglaze colour. Four different vessels are represented and are described below.

Plates
One plate has a deeply indented shell pattern with an irregular rim outline. The vessel has a single foot ring formed by indenting the base. The rim is 250 mm in diameter and is 28.5 mm high above the resting surface. Two isolated sherds with the same rim pattern are included as part of this vessel unit (Fig. 31c).

A second plate brim has a scalloped edge. The shell pattern is lightly impressed and the green colour has been added to form a regular line towards the interior of the plate. The brim is slightly concave. Vessel diameter cannot be estimated, but the brim is 7 mm thick (Fig. 31a).

A third example, also a plate brim with a scalloped edge outline, is distinctive in its shell-edge decoration. The impressions are very light and the green colour is slightly darker above the impressions. Rim diameter is 260 mm (estimated) and the thickness is 5.6 mm (Fig. 31b).

Serving Vessel
Part of a serving vessel is also green shell-edge decorated (Fig. 32). The rim is narrow with a scalloped outline. The shell pattern is very lightly impressed in separate groups, with the green band painted over the moulding. The vessel has a long, straight side; a rounded curved corner is partly present. It has a narrow brim 20 mm wide with an inset ledge for a cover. The vessel walls are curved. The bottom is missing, but the basal curve is present. The vessel was about 48 mm high.

Blue Transfer-Printed Pearlware
One group of pearlware sherds may be part of a plate or similar flat-bottomed vessel. One sherd has a foot-ring scar on the exterior. The interior has traces of a blue transfer-printed decoration with a scenic design.
Blue Hand-Painted Pearlware
A few specimens of pearlware have hand-painted floral designs in blue underglaze decoration.

**Tea Bowl**
One specimen is a tea bowl which has straight, outflared sides (Fig. 33). At the base of the bowl the interior is concave in profile and the exterior has a sharp basal "shoulder" with a concave panel between the shoulder and the foot ring. The foot ring has a deep groove at its top on the exterior and is rounded on the resting surface. The bowl is painted underglaze in blue. The specimen has a single blue line around the interior of the rim and a floral design in the interior bottom of the bowl; the sides are plain. On the exterior there is a blue line around the vessel just below the rim and another around the foot ring. There is a design of trailing flowers around the sides of the bowl. The specimen is one-half of the whole vessel. The height of the bowl is 71.5 mm; the diameter of the mouth is 110 mm, and the diameter of the foot ring is 55 mm. The specimen has a trailed thin blue line, not quite a C shape, on the exterior of the bottom. It may be a decorator's mark.

**Sugar Bowl**
Another bowl fragment is about one third of one side of the original vessel. The vessel has vertical sides and a rounded base but the bottom is missing. The diameter of the mouth is 110 mm. The extant portion of the vessel is 70 mm high. A distinctive feature is the strap handle which is oriented horizontally on one side of the specimen (see Fig. 34). There was probably a handle on the opposite side as well, but that is conjectural. It is probably a two-handled sucrier (Griffiths: pers. com.). The interior is plain and undecorated. There is some organic material adhering to the interior surface. There is a single blue line around the vessel where the side wall begins to curve towards the base. Above that there is a trailing band of flowers and leaves painted underglaze in blue around the vessel wall. The handle has a leaf-like moulded end where it is joined to the body. A gentle s-curved line and a row of Vs are painted in blue on the handle.

**Bowls**
One body chip bears a floral leaf design not part of either of the above patterns; the fragment probably represents a separate vessel unit.
A group of small body sherds which do not crossmend but bear fragments of a similar design and colour pattern, represent a bowl. The two rim fragments are too small to
estimate diameter, but they are similar to the rims 110 mm in estimated diameter. The bowl has a single blue line on top of the rim. The exterior is plain; there is part of a floral design on the interior. A base fragment has a small foot-ring scar. Body fragments are concave-convex in profile section. All are plain on the exterior and painted with floral design elements on the interior.

A base fragment which has an 8-mm-wide foot-ring scar is probably part of a large bowl, but its form is indeterminate. The interior has part of a floral design too fragmentary to be interpreted.

Polychrome Painted Pearlware
One fragment of pearlware has a polychrome painted design on the interior. The rim of the vessel is blue and below it is a band of yellow with a brown floral design on it. The exterior is plain. The vessel form is probably an open bowl or a saucer about 160 mm in diameter (see Fig. 35a).

Polychrome Painted Refined White Earthenware
Most of the polychrome painted ware is in a refined white earthenware rather than pearlware (see Fig. 35b-e).

Miscellaneous Vessels
One group of sherds is based on a combination of brown, yellow, green and blue in a floral design. The vessel form is uncertain, possibly cylindrical. The decorations are on the exterior (see Fig. 35b).

A second vessel unit is identified by the brown, blue, green and orange colours in a floral design. The vessel form is uncertain but it has vertical sides. The interior is plain (see Fig. 35c).

A third vessel with nearly vertical side walls but a slight flare near the rim has a distinctive floral combination of blue, green and brown colours.

Bowl
Three thin rim fragments of a small bowl have a brown band below the rim and part of a blue floral design on the vessel wall (see Fig. 35e).

Plate
A rim fragment of a plate (?) brim has a purple and brown band around the rim and a red floral (?) design (Fig. 35d).
Indeterminate Vessel
A rim fragment with a fuzzy pair of brown stripes and a blue leaf was found.
One plain brim with a blue line on the rim and two body sherds cannot be related to any of the specimens noted above. They represent at least one additional vessel unit.

Blue Shell-Edge Refined White Earthenware
Two vessels of blue shell-edge decoration on refined white earthenware are both plate brims. One is markedly concave on the brim, has regular deeply impressed parallel shell lines and a straight, painted blue band; the rim is smooth and regular (Fig. 36a).
The second vessel is also a plate brim, only slightly concave. It has a smooth, rounded rim. The shell-edge decoration is simulated by a painted blue band and painted parallel vertical lines; the design is not moulded (Fig. 36b).

Blue Transfer-Printed Earthenware
Blue transfer-print underglaze decorated earthenware was common and a large number of small sherds representing a variety of vessels was recovered. The ground varies from white to slightly bluish tinted, and a few examples have bluish colour in glaze pools in foot-ring grooves. However, these appear to be refined white earthenware rather than pearlware. Vessel units have been identified by pattern where possible. Some sherds are so small that designs are too fragmentary for such analysis (see Fig. 37).

Pitcher
Several fragments of a globular pitcher were found. The base form is unknown, but the body is rounded. There is a sharp ridge marking the shoulder, above which the neck recurves outward at the rounded rim. The remains of the pouring lip are present. The vessel mouth is estimated at 90 mm in diameter. There is a blue-printed band of geometric decoration around the interior of the rim. On the exterior is a scenic view with a tree in the foreground and a castle on a hill across a river in the background (see Fig. 38). A field, cottage, cow, and man may also be part of the foreground scene, but these sherds do not crossmend (see Fig. 37c and d).
A second pitcher is represented by a pouring lip sherd. It has a floral design on both interior and exterior and does not match the pitcher noted above (see Fig. 37a).
One very small rim sherd appears to be the tip of a pouring lip. It has geometric decoration on interior and exterior.
Plates
One plate brim fragment has a deep blue pattern of grapes and leaves on the brim and bowl. The back is plain and white. The rim is scalloped and estimated from the fragment to be 260 mm in diameter. The brim is deeply concave (see Fig. 37e).

Two plate brims have similar diamond and dot printed patterns. The specimens are too fragmentary for measurement or further description.

Several fragments of a plate or saucer brim with a floral decoration may be grouped in a probable single vessel category (see Fig. 37f).

Three fragments may be part of a different floral pattern decorated plate brim.

One plate brim fragment has part of a distinctive geometric design.

Two sherds with part of a scenic decoration are flat-bottomed specimens from a plate.

Two groups of sherds with a distinctive pattern and a foot-ring scar may be from a plate or saucer base.

Cups
Several different vessels with vertical side walls and thin, rounded rims appear to be fragments of cups.

One specimen has a distinctive curvilinear geometric design with some floral elements on both interior and exterior (see Fig. 37b).

One very small rim chip bears a distinctive design.

One small rim sherd has a plain blue band around the interior of the rim and an indeterminate design on the exterior.

One rim has a light blue ground with a floral design and a geometric border on the interior of the rim and a scenic view on the exterior.

Bowls
Fragments of a thin-walled bowl with a distinctive interior design and border decoration may be grouped as a vessel. The exterior is plain white. The interior profile is concave; the exterior convex but with a horizontal concave band low on the bowl wall.

A foot-ring fragment of a large vessel, probably a serving bowl, is plain white on the interior and has traces of a floral design (?) on the exterior. It has a rectangular-sectioned foot ring 7 mm high and 9 mm thick.

Fragments of the base of a small bowl with a concave interior profile, a convex exterior, and a concave shoulder area low on the bowl wall, may be grouped as a single vessel although the sherds do not crossmend. A
A foot-ring scar is present on the exterior. There are traces of a scenic design on the exterior. The interior has a central floral decoration in the bottom of the bowl; the walls are white.

One bowl body fragment has the head of a bird on the exterior and appears to be a separate vessel because of this distinctive decoration.

A bowl base fragment has part of a wedge-shaped foot ring. The exterior is white; the interior has a floral decoration. The interior has a concave profile. The exterior has a convex profile except for a concave panel just above the foot ring.

**Bowl (?)**
Two foot-ring fragments may be from bowls, but the sherds are too small for form identification. Each has a fragment of a distinctive design.

**Cylindrical Vessel**
A fragmentary base and lower side of a vessel of indeterminate form but with vertical side walls has a plain, undecorated interior and part of a scenic view on the exterior side. A beveled area at the bottom of the side wall forms an angular foot ring or resting surface.

**Indeterminate Body sherds**
Several tiny body fragments are listed below for the sherd count, but no additional vessels are counted. Most of these are too small or chipped to attempt to relate designs to other sherds.

**Light Blue Transfer-Printed Earthenware**
A few fragments of a very light blue coloured underglaze transfer-printed refined white earthenware were found. On the basis of the printed designs, at least two vessels are represented. Their form is indeterminate (see Fig. 39a).

**Flow Blue Transfer-Printed Earthenware**
Two tiny fragments of flow blue underglaze transfer-printed refined earthenware were found. Vessel form is indeterminate. Both sherds are from the same vessel (see Fig. 39b).
Miscellaneous Colour Transfer-Printed White Earthenware
Several sherds of white earthenware were transfer-printed underglaze in colours other than blue.

Polychrome Transfer-Printed Earthenware
Two bodysherds with a concave-convex profile are from a vessel of indeterminate form, possibly a bowl. One side is plain white. The other has a delicate, polychrome scenic view in brown, green and blue (see Fig. 39c, d). These sherds are important chronological indicators, since polychrome transfer printing was introduced in 1848 and brown and green colours were added in 1852 (J. Walker 1971: 119).

Red
Fragments of a whiteware vessel of indeterminate form bear a delicate stamped design in red (see Fig. 39e).

Brown
Fragments of three vessels of white earthenware or ironstone are decorated in brown printed designs.

One fragment is of a strap handle, 22 mm wide and 11 mm thick. It is probably from a large pitcher. It has a trace of a brown floral (?) design on the exterior side of the handle.

Fragments of a cylindrical vessel are present. One sherd is part of the side wall of the vessel. It has a single line on the exterior. A second sherd has part of a cylindrical wall and the handle junction of a narrow strap handle. Three fragments of the handle are also present. They have a linear branch-like pattern which is possibly hand-painted rather than printed. The handle is 8.5 mm wide and 5.2 mm thick.

The flat bottom sherd of a plate (?) is plain on the exterior. The exterior is white with a bluish tint in the glaze pool adjacent to the low, flattened foot ring. It is an example of refined white earthenware with a bluish tint. On the flat interior surface there is a floral (?) chain in brown printing (see Fig. 39f).

Plain Refined White Earthenware, Blue Tint
Refined white earthenware with a slightly bluish tint in the glaze and in pools of glaze in foot ring or other grooves is present and several vessels are identifiable from minor variations in foot rings and form. Most sherds are too small for full vessel form analysis.
Plates
A few specimens have low, rounded foot rings and are probably fragments of plates or saucers. They are too small for further description.

Bowls (?)
Two foot-ring fragments have high wedge-shaped foot rings or wide foot-ring scars and are probably some form other than plates, possibly bowls, but the fragments are too small for precise identification.

One small bowl (?) fragment is a piece of the bottom with a high 6 mm foot ring. The estimated foot-ring diameter is 60 mm based on the fragment (see Fig. 40b).

Cylindrical Vessel
The bottom of a small, cylindrical vessel has a 3 mm-high foot ring formed by the heel of the side wall; there is a narrow cordon around the exterior at the heel. The side wall is vertical and has another encircling cordon 17 mm above the one at the heel. The upper part of the vessel is missing. Slightly less than one-half of the vessel is present. Its estimated diameter is 54 mm. The bottom is 10 mm thick. Both interior and exterior are glazed, but plain. It may be an ointment, cosmetic or meat paste pot (see Fig. 40a).

Miscellaneous Bodysherds
A number of miscellaneous bodysherds are present. All are too small for adequate vessel form analysis. The sherd count is recorded, but no additional vessel units are counted.

Plain Refined White Earthenware
Several vessels of plain white refined earthenware are also present.

Handles
One large strap handle fragment is 25 mm wide and 9 mm thick. It is probably from a chamberpot (see Fig. 40g).

Another strap handle is probably from a pitcher. It is split and its width is indeterminate.

Plates
One group of sherds probably comprise a single plate and although they do not crossmend, are grouped as a vessel unit. The brim is concave and has a slightly rounded rim.
The bottom is flat with a low rounded foot ring. It is plain and white.

A second group of sherds comprises another vessel unit, probably a plate; the sherds are stained a yellowish brown colour. The vessel had a flat bottom and a low rounded foot ring (see Fig. 40c).

A third probable plate is represented by a white sherd with a low rounded foot ring and two plain rim fragments with rounded rims.

Foot Ring
Two fragments of a distinctive rounded foot ring represent another vessel. The fragments are too small for further description. A third example is from another vessel which probably had vertical side walls.

Rim
One thin rounded rim sherd (2 mm) is probably from a vertical-sided vessel (see Fig. 40d).

Body sherds
Several body fragments are listed in Table 2. No additional vessel units have been based on this group.

Annular Decorated Refined Earthenware
Two sherds of annular decorated refined white earthenware are grouped together as a single vessel unit although they do not fit or match in decoration. One fragment is from the low part of a bowl where a concave basal shoulder is present; there is a trace of a blue band above the concave area (see Fig. 40g). The other sherd is part of a bowl wall and has an orange ground colour panel on which a brown and blue floral design is present (see Fig. 40f). Such decoration was combined with banding on other sherds recovered in other operations at the site, hence the two sherds are counted as a single vessel unit.

Banded Yellow Ware
Three sherds are classified as banded yellow ware. One is the foot ring of a vertical-sided vessel (see Fig. 40h).

One sherd is a body fragment of a bowl with a concave shoulder form. It has a trace of a blue band. A small chip is included in this vessel unit.
Burned Earthenware
Several earthenware sherds are burned and cannot be further identified. One of these is a fragment of a strap handle. The others are plates and unidentified vessel forms. No additional vessel units have been counted.

Stonewares

Brown Stoneware
Several fragments of a single large brown salt-glazed stoneware storage vessel were found (see Fig. 41). The fabric is greyish and the interior a light brown dull colour. The exterior is moderate brown (7.5YR 4/5) which varies from darker spots to lighter yellowish brown tones. Deep throwing rings are present on the interior surface while the exterior is smoothed, though with some faint striations. Some vessel wall sherds are straight, but a large fragment has a curved profile. Bodysherds range in thickness from 7 mm to 19 mm. The largest (curved) bodysherd is 180 mm by 95 mm in length and width.

A lug handle has a rounded, slightly thickened edge. The handle is 102 mm wide, 50 mm high and extends out about 35 mm from the vessel wall (Fig. 41a).

All sherds listed below belong to a single vessel unit. It has been recorded on the basis of the largest number of sherds, but the handle fragment may better reflect its original provenience.

Brown Stoneware Bottles
Nineteenth-century brown stoneware blacking bottle fragments were also recovered. The sherds are grouped into three vessel units (see Fig. 42).

One vessel is a wide-mouthed form with an angular shoulder. The mouth is 58 mm in diameter and 32.5 mm high. The colour is strong brown (see Fig. 42b, d).

Another example is light brown in colour and has an angular shoulder. The rim scar indicates a wide-mouthed form, but glaze colour indicates a different vessel (see Fig. 42c).

A third shoulder fragment which has a higher sloping shoulder top was probably of the collared rim bottle form rather than wide-mouthed (see Fig. 42a) and may have been a container for ink or some other substance.

Porcelain
One porcelain vessel is a yellowish colour with a single reddish overglaze painted stripe. The plain rim is thin and rounded. The flat base sherd has part of a low, double
beveled foot ring. The vessel is a plate with a rim diameter of about 240 mm (Fig. 43a, b). The specimen may be stained bone china.

A second porcelain vessel has a globular body and a low, vertical rim. The rim, ground (?) to a dull unglazed appearance, possibly had an inset lid. A scenic view on the exterior is painted in red, blue and purple. It shows a man, a bridge, and a tree (?), and is very sloppily executed (Fig. 43c, d).

**Ceramic Dating**

The occupation period of the structure can be estimated from the ceramics recovered in its excavation. Conventional bracket estimates and ceramic formula dating are both applied to this analysis.

Date brackets for many of these ceramic types have been discussed in connection with other operations at Ile-aux-Noix (Grange 1974a, 1974b), but some minor revisions are included here. The estimated date ranges, calculated median dates and estimated modal popularity dates for some types are listed, along with references consulted, in Table 1. It should be noted that some of the dates shown in Table 1 are estimates based on the sources cited rather than date brackets specifically stated in the references. Some of the sources include estimated date ranges for the ceramic types from which median dates have been calculated while others, such as South (1972) also list median dates for particular ceramic types. Different sources sometimes present different date ranges for a type and such alternate date brackets are shown in Table 1. The median and modal date values used in the calculation of the ceramic formula dates discussed later in this report are indicated with an asterisk in Table 1. Minor variations in the formula dates will result if the alternate dates are substituted in making the formula calculations.

South (1972) devised a visual bracketing method for estimating occupation spans from the ceramic types recovered from an archaeological site. Although the graphic representation is not reproduced here, South's method was used and the bracket estimated by that method is 1820 to 1852. Following South's rule, the 1820 estimate is a bracketing line which touches the graphic representation of nearly every ceramic type represented in the collection. The 1852 end is based on the presence of two polychrome transfer-printed sherds on the floor of the structure, an indication that the occupation must extend at least to, or include 1852 within its time span. The 1852 date is based on J. Walker's estimate (1971: 118-9) for the type. The presence of flow blue also indicates that the occupation extended into the 1840s.
South (1972) also devised a ceramic dating formula which utilizes pottery type manufacturing period mid-range or median dates and sherd counts to calculate a site's median occupation date. An attempt to improve this method by estimating modal popularity dates has also been made (Grange 1973). Standard deviations for the mean site dates are also useful in estimating the occupation span represented by a ceramic collection (Grange 1974a, 1974b). There is no significant statistical difference between dates calculated from mid-range type dates and those based on modal type dates, but both estimates are presented below. An additional factor considered is the difference between dates based on sherd counts compared with those based on vessel counts. Sherd and vessel counts for various stratigraphic units and recovery lots are listed in Tables 2 and 3. Vessel count dates are used in subsequent analyses. The results of the ceramic formula analysis are shown in Table 4.

Although there was no stratigraphic evidence of more than one occupation, the sod and topsoil/occupational levels above structural fill and floor deposits must represent post-occupation stratigraphic deposits, even if their contents were derived from occupational debris. The occupation dates based on materials found on the floor are the most accurate on the basis of the stratigraphic origin of the specimens. Formula dates for the floor level deposit range between 1817+29 and 1827+33. The period formed by the standard deviation range compares favourably with the bracket estimated by South's visual method.

There is no significant difference between the dates based on the type mid-range values and those based on the estimated type modal dates. Assuming the vessel count from the floor to be the most accurate assessment of ceramics at the site, its ceramic formula date is 1827+33, a range of 1794 to 1860. The span overlaps the 1812-62 historical model estimate.

In addition to the formula dates, the date bracket for a manufacturer's mark, the Davenport anchor, is 1805 to 1825, a span consistent with the other ceramic dating evidence.
Bottles and Glass Artifacts

Bottles
An outstanding aspect of this structure was the relatively large number of wine bottles recovered in the excavations. One bottle was unbroken; four others have been restored from fragments. Although fragments of bottles were found widely distributed throughout the structure and in surrounding excavation lots, a large number were found in a single concentration on the floor of the structure. This feature was a linear pile of bottles, possibly the result of a collapsed shelf on which they once rested (see Fig. 44). Sixteen neck and base fragments were in this pile along with 45 body fragments. Most of the 23 other necks and bases and 667 of the body fragments recovered came from the fill of the same side of the building and were probably associated with the same pile of broken bottles. Other details of the distribution of these specimens will be discussed later along with the distribution of other artifacts within the structure.

Using finish fragments and whole or restorable bottles as the basis for estimation, a minimum number of 43 "wine" bottles can be postulated.

Either bases or necks must be eliminated from the vessel estimate to avoid counting two parts of the same bottle twice. Thus the minimum number of bottles is represented by the most frequent element, in this case 40 neck fragments, plus the five complete specimens.

Another less reliable way of estimating the possible number of bottles present is based on a crude estimate of the number of fragments per bottle.

The restored bottles have an average of about 15 fragments per bottle. On this basis, the 1,537 wine bottle fragments might represent as many as 102 bottles. Adding the whole and restorable specimens, the total reaches 107 "wine" bottles. Thus, something between 43 and 107 "wine" bottles were used inside this structure.

There were, in addition, one possible bitters bottle and nine miscellaneous specimens, probably pharmaceutical bottles. Two modern beer bottle bases and associated body sherds can be attributed to recent intrusion when this area of Ile-aux-Noix was used as a campground.
Almost all of the wine bottles have attributes of the "wine" bottles defined by Jones (1967) in an analysis of other specimens recovered from a structure on Ile-aux-Noix. Jones lists the following traits: short neck in relation to body height; cylindrical body; two-part finish consisting of lip and string rim; gradual inward slope of the neck from its base to the lower string rim with a sharp indentation under the rim; pronounced curve at the base of the neck as it leads to the shoulder; slightly in-sloping body profile from the shoulder to the base; body sag at the base; variation in push-up forms; frequent irregularities in the finished product, and colour, a dark yellow-green (Jones 1967: 5; 1973 pers. com.). These "wine" bottles were made in a one-piece open-topped mould (Jones 1967: 28).

One specimen has a finish (see neck 2, below) similar to those on the bottles described by Jones, but, unlike the other examples which were made in one-piece moulds, has on its shoulder the mould seams of a three-piece mould.

Two additional restorable specimens also have a horizontal mould seam around the shoulder and vertical mould seams on the shoulder; this pattern is indicative of the three-piece mould. These two specimens are associated with a distinctive finish form (see neck 7, below). Aside from the finish form and mould seams, these specimens are similar to the "wine" bottles described by Jones.

Jones (1967) defines variations in the form of finishes, necks, and bases, and the following descriptions are based on the criteria she established. It was possible to group neck and base fragments into clusters, sharing some combinations of attribute variations, and for convenience of description these sub-groups are given arbitrary numbers: N-1, and so on for necks, B-1, and so on for bases. Bottle dimensions are summarized in Tables 5, 6 and 7.

Bottle Necks

**Neck 1**

Neck 1 has a two-part finish. The lip is downtooled and has a pronounced beveled profile. The string rim is flattened to slightly downtooled with a nearly vertical profile. The maximum diameter of the lip is larger than the maximum diameter of the string rim. The finish parts have horizontal striations or stress lines. The finish appears regular, but is in fact slightly irregular. The neck is convex having its largest diameter in the centre. Stress lines and striations in the neck are vertically oriented but spiraled; vertical cracks sometimes appear around the interior lip. The finish is Jones type A; a two-part finish with both lip and string rim downtooled, the lip is larger than the string rim (Jones 1967: 8-9). The neck form is
Jones convex profile type C (Jones 1967: 11-13) (see Fig. 45a).

Neck 2
Neck 2 has a two-part finish. The neck is deceptively convex, having the same or larger diameter at the bottom and the centre. The finish form is Jones type A and the neck profile is Jones type A (see Fig. 45b). Two restored bottles belong to this type. The necks are slightly lopsided, with vertical cracks around the interior lip (see Figs. 46, 47). Data concerning these whole bottles are recorded in Table 5.

Neck 2A
This specimen is a complete, unbroken bottle. The finish is a two-part example with a flattened and slightly downtooled string rim of smaller diameter than the lip. Unlike necks 1 to 4, the lip is rounded on the top, flattened on one side, and irregularly beveled on the other. This style of lip is similar to that of neck 6; however, it lacks the groove of neck 6, and is similar to neck 2 in general profile. The neck profile is deceptively convex (Jones type A) (Jones 1967: 12). The lip and string rim are irregular and have horizontal striations or stress lines. The neck has spiraled, vertical stress lines. The shoulder is rounded and a faint, horizontal mould line is detectable. There is no vertical mould seam. The body tapers towards the base and sags above the rounded heel. The resting surface is irregular in diameter. There is a rounded, dome-shaped push-up with a quatrefoil push-up tool impression in addition to the pontil mark (Jones 1967: 22) (see Fig. 48). The dimensions of this bottle are recorded in Table 5.

Neck 3
These necks are fragments with finishes of the same form as described above in neck groups 1 and 2; however, they are too fragmentary to permit classification of the neck profile and they are segregated for this reason. They most likely belong to the neck 2 group.

Neck 4
Neck 4 has a two-part finish. It has the same form in general as necks 1, 2 and 3 above; however, the downtooled lip is concave and much less regular than those described above, and the string rim is flattened and is also less regular. The neck profile is deceptively convex (Jones type A). The neck is slightly lopsided, with vertical cracks on the interior of the lip, around the orifice (see Fig. 45c).
Neck 5

Neck 5 has a two-part finish. The lip is downtooled, but has a rounded top and flattened sides. The string rim is also flattened to downtooled. The finish is irregular and has horizontal striations or stress lines in contrast to the vertical spiraling ones on the neck. The string rim is nearly the same diameter as the lip; examples range from slightly smaller to slightly larger in relative diameter, but the pronounced difference seen in necks 1 to 4 is absent. This finish appears to be a variation of Jones type B (Jones 1967: 8). The associated neck profile is deceptively convex (Jones type A), except for one or two examples with a sudden flattening just below the string rim, which is Jones type B (see Fig. 49a). Jones type A and B neck profiles are the result of a difference in the placement of the added glass in the finish. Profile A may grade into profile B on a single specimen. The examples of profile B in this neck group are not pronounced. One specimen has a sufficient shoulder remnant to detect the horizontal shoulder mould seam; no associated vertical mould seam is present. There is a horizontal interior groove on the interior of the lip, created during the formation of the string rim.

Neck 6

This group of specimens has two-part finishes. The lip varies from rounded to beveled downtooled. There is considerable irregularity and variation in the finish, and, as Jones noted, one specimen can appear to be two different types from different angles. The string rim is also downtooled and ranges from the same diameter to a slightly smaller diameter than the lip. In this characteristic, these specimens can be classed as Jones types A or B, but they are more like type A. The string rims are quite irregular. A third noticeable trait is that the string rim and the bottom of the lip are separated, leaving a grooved appearance where the metal of the neck may be seen. These specimens are probably just sloppily made examples of finish form A or B. The finishes have horizontal striations; the necks have spiraling, vertical stress lines. The necks are deceptively convex, Jones type A, except for two clear examples of the flattened neck top, Jones type B (see Fig. 49b).

Neck 7

The neck 7 group includes specimens with a two-piece finish of different form than those described above. The lip is wider than the string rim and has a rounded profile. The string rim is smaller in diameter and has a rounded profile. The finish bears horizontal striations and stress lines.
There is some irregular glass flow below the string rim, but the finish is generally very regular. It was probably formed by a finishing tool (Jones: pers. com.). The neck has spiraling, vertical stress lines. The neck is deceptively convex, Jones type A. Two specimens retain mould marks on the shoulder. They have vertical mould seams on two sides above the horizontal shoulder seams, marks of a three-piece mould. Two restorable bottles have necks with this type of finish. Their dimensions are recorded in Table 5. The restored specimens have bases of Jones B1 and B2 forms (Jones 1967: 24) (see Figs. 49c, 50).

Neck 8
Neck 8 has a two-part finish. The lip is downtooled and beveled in a manner similar to the neck 1 examples, but the height of the lip is not as great. The string rim is also narrow and downtooled, but has an uptooled basal juncture with the neck giving it a distinctly different profile. Striations around the finish are horizontal while those on the neck are vertical. The neck has straight sides, and increases in diameter from the string rim down to the shoulder. Neck 8 is Jones type D, "insloped" (Jones 1967: 11) (see Fig. 51a).

Neck 9
This neck is a finish fragment of a two-piece finish. The lip is a sloped, high collar with a narrow, beveled string rim below it. There are horizontal striations on the exterior surface of the finish. The finish appears to be very regular and uniform in diameter and represents a specimen of the "regular" variety (Grange 1974b: 58). It resembles a bitters bottle finish illustrated by J. Walker (1971: Fig. 25) and dated between 1850 and 1897 (see Fig. 51c), but it is not necessarily a bitters bottle. The finish is a common 19th-century form (Jones: pers. com.).

Neck 10
This single specimen is a fragment of a neck with a one-piece finish. The lip is flattened on the side and rounded on top, forming a narrow collar around the mouth of the vessel (see Fig. 51b).

Bottle Bases

Base 1
Bases in group 1 are characterized by a conical push-up with a pointed or very small tool mark about 6 mm in diameter in
the centre of the push-up (see Fig. 52). The side walls of
the body sag above the rounded heel. The bases are
irregular and not uniform in diameter, and in some cases do
not have a continuous resting surface due to irregularities.
One of the push-ups in this group is the rounded, conical
form labeled B1 by Jones (1967: 24). Most of the specimens
have the double indented profile resulting from the action
of push-up tool and pontil (Jones type B3). One has light
blue discolouration between the push-up mark and the pontil
mark.

Base 2
Bases in group 2 also have rounded, conical push-ups, Jones
type B. They differ from those above only in the larger
diameter (9.4 mm to 15 mm) of the push-up tool mark. The
tool marks are circular in form (see Fig. 53). One specimen
which is broken to expose the core of the push-up exhibits a
thin, light blue line of discolouration in the metal 1.0 mm
in from the exterior push-up surface.

Base 3
Bases in group 3 are also rounded, conical-shaped push-ups
similar to those described above. They differ in having
somewhat larger diameter push-up tool marks (20.5 mm and 21
mm) (see Fig. 54). The tool marks are circular in form. The
double indented profile probably results from the use of a
small tool to form the push-up and then a slightly larger
tool to use as the pontil.

Base 4
Bases in group 4 have dome-shaped push-ups (Jones type A).
It is sometimes difficult to distinguish high dome-shaped
push-ups with a double indented profile from specimens with
conical push-ups (see Fig. 55). These specimens are all
characterized by push-up tool marks of large diameter
similar to those of the base 3 category.

One specimen retains a side complete to the rounded
shoulder. There are no pronounced mould seams, but a faint
trace of a horizontal mould mark is visible just below the
curve of the shoulder.

Base 5
Bases in group 5 have rounded, domed push-ups similar to
those in the base 4 category. They differ in the shape of
the push-up tool mark at the top of the push-up. The tool
form appears to have been a quatrefoil implement (Jones
1971a: 66) (see Fig. 56). Although the four quadrant marks
are indistinct, they are detectable on two of the specimens
including the complete bottle. The push-up forms vary from the domed to the rounded, conical mode.

Base 6
One example which would otherwise fit into the base 5 category described above is segregated here because it lacks the sag of the body wall above the heel and in this trait is similar to the "regular" bottle form rather than the "irregular" category (Grange 1974b: 64). Its side wall is only very slightly smaller in diameter than the heel.

Base 7
Base 7, has a domed push-up and sagging walls above the heel. The pontil appears to have obliterated the push-up tool mark leaving such a diffuse trace of the latter that it cannot be classified. It may have been a quatrefoil, judging from the estimated diameter of the tool impression.

Base 8
One fragment is the top portion of a bell-shaped push-up (Jones 1967: 24). It has a fragment of a tubular glass pontil adhering to the push-up. The push-up shape and use of the blowpipe as pontil suggest that this specimen is probably of French or European manufacture (Jones: pers. com.) (see Fig. 57).

Body Fragments
A large number of body fragments of wine bottles were also recovered. Many of these sherds may be parts of the partially restored bases and necks described above. A total of 1477 bottle sherds included 164 specimens from the sod level and 93 fragments from the occupation layer outside the structure. Five specimens came from the privy fill, 821 from the occupation/fill layer inside the structure and 394 from the floor level. Most sherds were moderate olive to greenish yellow (10Y) colour. Specimen counts by hue are as follows: 134 (5Y), 479 (7.5Y), 823 (10Y), 31 (2.5GY), 2 (5GY), 6 (7.5GY), 1 (10GY) and 1 (5G).

Marked Wine Bottle Fragments
Three wine bottle fragments bear secondary markings. In one case, these have been applied with something sufficiently hard to scratch the glass. One marking is a D shape formed by single lines and overlapping lines. The other scratched area on the same specimen cannot be identified as a possible letter; it includes broad areas opaqued by numerous parallel scratches to form a geometric
pattern. These markings are on a bodysherd from the basal area (see Fig. 58a).

Two other examples are marked by pecking rather than by linear scratches; both are on the thick glass from the bottle base wall area, one being marked on the sag zone just above the heel. One example has letters formed by the close arrangement of tiny pecked chips. The letters are a block capital L and a smaller block letter A. Pecking at the edge of the fragment suggests another marking ahead of the L in the sequence, but it cannot be interpreted (see Fig. 58b).

The second pecked specimen has been marked in the same manner. The symbol may be an 8 or a B but other interpretations are possible (see Fig. 58c).

LONDON Bottle

Another small container is a moulded bottle with the word LONDON on one side in large, raised letters. It is of greenish metal (2.5G). The bottle is basically square-sectioned but has concave corner panels. The base is domed, with a slightly concave push-up. A diagonal mould seam runs across the base from one corner to another. Traces of a glass tubular pontil scar 24.5 mm in diameter are superimposed over the mould seam. A small part of an angular shoulder is preserved. Some shoulder fragments and two associated rim fragments may, on the basis of their metal, belong to this vessel. The finish is on a low neck and is formed by folding the glass of the lip over on itself to produce a rounded finish. The fold is toward the inside of the neck. The metal of the body is very thin, 0.8 mm to 1.0 mm in thickness, just below the shoulder. The maximum base dimensions are 38.9 mm by 39.2 mm. The sides are 26.2 mm wide, and the corners are 10 mm wide (see Fig. 59). The specimen is a bottle for powdered mustard which was used as a condiment or possibly as a medicine (Jones: pers. com.).

A bottle of generally similar form is illustrated by Noël Hume (1970: 72 Fig. 18) but lacks embossed lettering. A similarly shaped and embossed medicine bottle with different lettering is illustrated by J. Walker, who dates the Arkansas examples between 1850-60 (J. Walker 1971: Fig. 24; 154). Walker's comparative study gives a range of 1819 to 1903 (J. Walker 1971: 153). Jones suggests that bottles of this type were in use around 1800 and throughout the 19th century (Jones: pers. com.).

Miscellaneous Bottles

A few bottle fragments are parts of pharmaceutical bottles or other small non-wine containers. These specimens are described below.
Shoulder Fragments
Two shoulder fragments of a small, clear glass bottle with a sloping, rounded shoulder and a slightly flaring neck were found. These fragments are too small for further description and identification.

A rounded shoulder fragment of a clear metal bottle was also present. Its form cannot be identified.

A fragment of a greenish yellow (10GY) bottle from a single rounded shoulder fragment has a vertical mould seam, but it cannot be further identified.

Octagonal Bottles
Three small fragments are corners of bluish green (2.5BG) glass. The corners are obtuse angles and probably come from small octagonal containers. Two are base fragments; the vessels had flat bases as far as can be determined from the tiny fragments which are too small for measurement. The angles suggest at least two different vessels are represented (see Fig. 60a).

Square Bottles
One base of a small square bottle is of clear metal. The base is square, but with flattened corners giving it more than four sides. There is a mould seam diagonally across the base which coincides with a corner ridge on the vertical wall, probably the result of a two-piece mould. At the centre of the base, a tubular glass pontil scar, 18.9 mm in diameter, is superimposed over the mould seam. The largest dimensions of the base are 40.7 mm by 42.4 mm. The base is slightly domed on the interior and slightly concave on the exterior, as a result of a shallow push-up. The side walls are vertical, flat panels (see Fig. 60b). It could be an unmarked mustard bottle.

Another clear glass base fragment which may be from a similar bottle is grouped with these specimens because it has a tiny remnant of a flat-paneled side at the heel. It is too small for effective measurement.

An additional clear glass base fragment is a concave-convex section of a base with a circular glass pontil scar. No measurements are possible.

Clear, Round-Sectioned Bottles
Three base fragments of a small, round-sectioned bottle of clear glass bear traces of mould seams. A mould seam across the base meets vertical seams on the body at the heel. There is a round glass pontil scar 19.5 mm in diameter on the bottom. The fragmentary bottle base is an estimated 45 mm in diameter (see Fig. 60c).
The mould seams may be indicative of the two-piece mould of 1845-1913 (Newman 1970: Fig. 1), though the pontil may be his "rough pontil" of 1810-70 (Newman 1970: Fig. 2). Newman is not an accurate source (Jones: 1971b). Jones notes that two-piece moulds were used for medicine containers in the 1750s (Jones 1971b: 9). The presence of the pontil could suggest a pre-1857 date on the basis of mould developments of that period (Lorrain 1968: 40), although pontil marks may continue to the 1870s (Jones 1971b: 72).

Modern Beer Bottles
Fragments of at least two modern beer bottles are of brown (7.5YR) coloured metal. They bear matching moulding seams around the heel and vertically on the side wall. The moulded raised letters CAN... on the side wall above the heel identify the two base fragments as of Canadian manufacture. In addition to the two bases, five body fragments are present. These specimens have been intruded into the site, probably during recent use of this part of the island as a public campground.

Bottle Dating
Most of the bottle fragments recovered in these excavations are parts of wine bottles made in a one-piece mould and described by Jones (1967). Jones's work was based on materials from the mess house of the old English fort at Ile-aux-Noix (Jones 1967: 1). That deposit was made between 1812 and 1814 (Jones 1967: 2). Jones concluded that those bottles probably had been manufactured between 1800 and 1810 (Jones 1967: 32), although the type may date later than these manufacturing dates (Jones 1967: 32, 37, pers. com.). Published illustrations of sealed and dated "wine" bottles exhibiting these finish and neck combinations range from about 1770 to post-1815 (Jones 1967: 31).

A few specimens in this collection bear the horizontal shoulder seam and partial vertical neck mould seam indicative of manufacture in a three-piece mould. Newman (1970: Fig. 1) brackets this mode of manufacture in the period 1810-90, while Jones (1971b: 9; 1971a: 67) corrects this to the proper 1821 initial date.

The time range represented by the wine bottles is then from 1770 to 1890. The tighter 1800 to 1810 manufacturing bracket for similar "wine" bottles determined by Jones for another context at the site may also apply to this collection. Correcting this span to include the 1821 initial date for the three-piece mould examples produces an estimated date span of 1800 to 1821. The bitters bottle finish, if correctly identified, could extend this to 1800-50 (J. Walker 1971: Fig. 25).
Bracketing the occupation period was also attempted by application of a ceramic dating technique, the visual bracketing method devised by Stanley South. The time ranges for the various datable bottle categories were plotted on graph paper and the brackets visually determined, as outlined for ceramics by South (1972: Fig. 1). The bracket so derived from the bottles is 1810 to 1850 if the bitters bottle fragment is correctly identified. This estimate is consistent with others for the site.

One can also date the site occupation through the application of South's ceramic dating formula to the bottle fragments. The formula can be applied with an artifact type for which a date bracket and median date is available. Fortunately, Jones has done an extensive comparative study of "wine" bottle traits which can be used for this purpose. She has made estimates of the periods in which combinations of finish and neck form traits occur (Jones 1967: 31-3). Jones's data have been used in estimating the brackets for various finish, neck and base traits in the following tabulation.

Finish/neck combinations are designated in the following manner:

- A/C: This combination did not occur in Jones's sample, but the finish form appears as early as ca. 1770 and the neck form appears as late as 1820. A 1770-1820 bracket is used for this combination.
- A/A: Jones brackets this combination between 1802 and 1815.
- A/A, three-piece mould: One specimen with the A/A neck combination has the mould seams of a three-piece mould and the 1821-90 bracket noted above is used for this specimen.
- A/-: These specimens lack complete necks and cannot be completely classified. The 1770-1815 bracket is derived from Jones's data on the finish form alone.
- B/A: Jones brackets this combination between 1775-1810.
- B/B: Jones does not list this combination. A 1770-1810 range is estimated from data in her tabulation.
- A/B: Jones brackets this combination between 1770-1810.
-/-A, three-piece mould: A finish form not described by Jones in type 1 bottles is associated in two cases with three-piece mould seams on restorable specimens. The 1821-90 period bracket discussed above is used for all of these specimens even though some of the necks lack the associated shoulder feature.
- A/D: The bracket for this combination, 1770-1820, is derived from Jones's data, although she does not report a bracket for the specific combination.
- Dome-shaped and conical push-ups are both represented in the bases associated with the McVey dwelling excavations. Jones indicates a 1770-1820 bracket for these forms. Bases
not associated with finish or neck types through restoration are grouped together in this bracket.

Additional specimens have also been used in the dating experiment. The details of these brackets have been discussed in conjunction with the description of each example.

The rim of neck 9 appears to be a finish from a bitters bottle and J. Walker's (1971: Fig. 25; 158) 1850-97 date range is used here.

A bottle with the word LONDON moulded on one side has been estimated as being in the 1800-1903 time span (see "LONDON Bottle").

Two fragments with two-piece mould seams are bracketed in the 1770-1870 period, as discussed above.

The date brackets, mid-range dates derived from the brackets and the number of specimens of each type are listed in Table 8. Using the mid-range dates and specimen frequencies listed in Table 8 in the ceramic dating formula (South 1972) produces a date of 1805+21 for the total collection of datable bottle fragments. A date based on floor-associated specimens alone is 1810+24, producing a one standard deviation bracket of 1786-1834.

The above calculations include both finish and base fragments and the whole bottles. Whole bottles are classified for this purpose by their neck/finish traits. The fragmentary bases cannot be associated with neck/finish specimens, and including them in the calculation amounts to counting some bottles twice. Therefore, an approximation of vessel count may be used instead by eliminating the bases from consideration. This procedure results in a bottle formula date of 1807+23 for the total collection of bottles and a date of 1814+26 (a bracket of 1788-1840) for floor-associated specimens. This bracket will be used in later discussions.

Jones has noted that bottles were frequently used several years after their manufacture and cites an example of bottling dates and sales dates (Jones 1967: 30). Using her very limited evidence, the mean difference between bottle manufacture date and sale date is seven years. This figure could be added to the formula date to correct for the use-lag factor. The mean date would then be 1821+26. Obviously, more data similar to the example cited by Jones should be obtained before such a correction could be used with confidence. It is noted here because such a correction brings the bottle formula date closer to the ceramic and pipe formula values.

A further date for all "wine" bottle finish/neck specimens of the type Jones described can be calculated, eliminating the bases, the three-piece mould specimens, the bitters bottle, the two-piece mould specimens and the moulded LONDON bottle. The date for this group is 1799+8, with a range of 1791-1807 for one standard deviation. This
is quite close to the 1800-10 estimate Jones made (1967: 32) on general typological, comparative grounds. Two-standard deviations, with higher probability, produce a likely manufacture range of 1783-1815 for these bottles in this collection, a span which encompasses the bracket Jones estimated. A three-standard deviation range based on this median date calculation is 1775-1823, a range which is consistent with the ca. 1770 initial date for such bottles, and also with the 1821 appearance of the three-piece mould, one example of which is associated with the same finish/neck combination in this collection. The three-sigma deviation also has a high degree of probability. Thus, the use of the ceramic dating formula with these bottles appears to produce excellent results.

Although revision of these specific dates could well be made with better bottle attribute and type date data than what is readily at hand, this attempt to apply the South ceramic formula to bottles illustrates that this may be a fruitful approach. Certainly the results, even at this initial experimental level, are useful in dating this feature at Ile-aux-Noix.

Carrillo (1974) has devised a bottle dating key based on angles calculated from standardized measurement points on whole bottles. Five specimens in this collection are sufficiently complete to utilize in an application of Carrillo's method. The measured angles are tabulated below:

<table>
<thead>
<tr>
<th>Specimen Identification</th>
<th>Neck Type</th>
<th>Finish/Angles of Bottle Attributes (in degrees)</th>
<th>Base</th>
<th>Est. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck 2</td>
<td>A/A</td>
<td>Neck Identification</td>
<td>Width</td>
<td>Height</td>
</tr>
<tr>
<td>1834</td>
<td>86.0</td>
<td>100.0</td>
<td>144.5</td>
<td>11.0</td>
</tr>
<tr>
<td>Neck 2A</td>
<td>A/A</td>
<td>Neck Identification</td>
<td>Width</td>
<td>Height</td>
</tr>
<tr>
<td>1809-34</td>
<td>86.5</td>
<td>97.0</td>
<td>139.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Neck 2, three-piece mould</td>
<td>A/A</td>
<td>Neck Identification</td>
<td>Width</td>
<td>Height</td>
</tr>
<tr>
<td>1809-34</td>
<td>86.0</td>
<td>98.5</td>
<td>134.5</td>
<td>9.0</td>
</tr>
<tr>
<td>Neck 7, three-piece mould</td>
<td>-/A</td>
<td>Neck Identification</td>
<td>Width</td>
<td>Height</td>
</tr>
<tr>
<td>1809-34</td>
<td>85.5</td>
<td>97.5</td>
<td>134.0</td>
<td>8.5</td>
</tr>
<tr>
<td>Neck 7, three-piece mould</td>
<td>-/A</td>
<td>Neck Identification</td>
<td>Width</td>
<td>Height</td>
</tr>
<tr>
<td>1809-34</td>
<td>87.0</td>
<td>99.0</td>
<td>136.0</td>
<td>9.5</td>
</tr>
</tbody>
</table>

The dates estimated are generally consistent with the brackets estimated by other methods outlined above. Comparison of the measured "unknowns" with Carrillo's table...
(Carrillo 1974: 302) is difficult because there is more than a single possible correlation, and variability in the push-up angle is greater than for the other traits (Carrillo 1974: 295). If that attribute is discounted, all of these specimens would correlate best with the 1834 "model year." Such a correlation would be better than the 1809 model year for the three bottles made with the post-1821 three-piece mould. The mean date for these five specimens is somewhere between 1809 and 1834 using Carrillo's method. A formula date based on these five specimens alone is 1836±26, or a standard deviation bracket of 1810-62. The correspondence of this estimate and that derived from Carrillo's method is notable.

Carrillo's method is obviously useful and the results are consistent with dates derived from other characteristics of these specimens. A major defect of his method is that it requires complete or restorable bottles sufficiently whole to permit the calculation of the required dimensions and derived angles. As shown above, the application of the South ceramic formula to bottles can be done with fragmentary specimens, and it is therefore more widely applicable, assuming sufficient data to permit the original time bracket estimates for various traits.

These bottle formula dates compare well with the 1812-62 historical model for the building. It is not possible to pursue these bottle dating methods at greater length in this report, but the experiment does serve to indicate that further research along these lines would be productive.

Glass Artifacts

Vessel Base
The base of a vessel with straight, outflared sides is of clear metal. The base is 57 mm in diameter at the heel; its resting surface is rounded and scratched from use. The bottom is marked by a shallow push-up. The push-up is 11 mm high with a glass pontil scar 19 mm in diameter in the centre of the push-up. The body is only preserved to a height of 25 mm where it has a diameter of 81 mm. The vessel walls are 1.8 mm thick. Some of the straight-sided clear glass body sherds may be part of this vessel. The vessel may be a tumbler (see Fig. 61b).

A second clear glass vessel base is 71 mm in diameter at the heel. Its straight walls are nearly vertical. The 13-mm-thick base is nearly flat and has a glass pontil scar 27 mm in diameter in the centre of the bottom. The flat resting surface does not bear any scratches from use. The vessel wall is preserved to a height of 45 mm where it has a diameter of 73 mm. The body is 2 mm thick. The form is
probably a tumbler, and some of the straight-sided body sherds may belong to this vessel (see Fig. 61a).

Bodysherds
Thirty-eight clear glass bodysherds from straight-sided vessels include a few examples with rounded lips. One of these has a tan paint-like substance adhering to the inside of the sherd. These body fragments probably come from vessel bases like those described above. Estimated rim diameter is 80 mm from measureable specimens.

Stemware
Several clear glass wineglasses were recovered from the structure (see Fig. 62).

One example (Fig. 62a) is the base of a bucket-shaped bowl with a bladed knop at mid-stem (Haynes 1964: 194-202). The base of the bowl has three grooves or moulded steps just below the bowl-stem juncture. The specimen is 20 mm long. The bowl base is 30 mm in diameter and the knop is 20.6 mm in diameter. The specimen lacks a foot, but it may have been similar to the rudimentary stem example illustrated by Haynes (1964: Fig. 94h); it is probably an 18th-19th-century specimen (Haynes 1964: 290). Noël Hume illustrates this stem form as ca. 1815 (Noël Hume 1970: Fig. 64, xxv).

Another example is a stem and base fragment (Fig. 62b). The base is 7.9 mm thick and has the stump of a welded stem remaining. It is too fragmentary for further identification, although the foot was probably of the solid, conical variety judging from its thickness (Haynes 1964: 199).

The most common wineglass foot type in this assemblage is the conical foot with a folded rim (Haynes 1964: 199). The examples from this site are associated with trumpet bowls (Haynes 1964: 195), and plain, slightly flaring stems welded to the foot (see Fig. 63).

One specimen has a complete foot 60 mm in diameter. It has a folded foot and a glass pontil scar 14 mm in diameter in the centre of the base. The associated plain stem is welded to the foot and tapers from a diameter of 10 mm at the weld to 20 mm at the base of the incomplete trumpet bowl. The stem is 34 mm high and the overall height of the incomplete specimen is 77 mm. About half of the bowl is present so that the total height of the original must have been about 105 mm.

A second example is a stem and bowl base fragment lacking the foot. The plain stem is similar in form to that described above and the bowl is of the trumpet variety. The stem is 30 mm high between the weld and the bottom of the bowl. The stem tapers from 12.9 mm to 15.5 mm in diameter.
A third example of the trumpet bowl stemware also has the slightly conical folded foot. The estimated diameter of the foot is 53.5 mm. There is a glass pontil scar 12 mm in diameter on the centre of the bottom of the foot. There is a 12-mm-diameter step on the plain stem just above its juncture with the foot. The solid stem is 10 mm in diameter and tapers to 15 mm diameter at the bottom of the trumpet bowl. The stem is 34 mm high. The height of the preserved portion of the specimen is 71 mm. The total original height must have been more than 100 mm.

A fourth stemware fragment is the complete foot and stem of another two-piece glass. The foot is conical and has a folded edge. The stem is solid and flares or tapers towards the top. The weld on the stem grades into a basal knop form. The foot is 53.5 mm in diameter. The knop is 11 mm in diameter; the stem tapers from 9 mm to 14.5 mm. The height of the preserved part is 55 mm; none of the bowl is preserved above the base. There is a 12-mm pontil scar on the bottom.

A fifth stemware example is also of the conical, folded foot, solid stem and trumpet-bowl form. The foot is estimated at 60 mm in diameter and has a 15-mm pontil scar on the bottom. The stem is welded to the foot and the weld grades into a 14-mm-diameter knop at the stem base; the stem is slightly concave in profile, being 11.4 mm in diameter at the bowl base. The stem is 37 mm high and solid. The total preserved height of the specimen is 71 mm.

Fragments of folded foot specimens were also found. These are too small for measurement, but the folded edge is present.

Eighty-two fragments of clear glass are identified as bodysherds of trumpet-form stemware bowls on the basis of their curvature. The most complete example is slightly less than half the rim. It has a thin 1.9-mm rounded lip. The estimated diameter of the bowl at the lip is 54 mm.

Moulded Flask Fragments

Two moulded glass fragments from swirled "Pitkin" and sunburst flasks were recovered (McKearin and McKearin 1948: 566-70 and Pl. 233).

The example from the swirled "Pitkin" flask has a flat side which grades into a curved area. The interior is smooth; the exterior has parallel moulded ridges. The metal is light olive (5Y) in colour.

The example from a sunburst flask is greenish yellow metal (5GY) and appears to be a fragment of the corner of the vessel. The interior is smooth. The exterior has a smooth corner, but on the side panels it is marked by broad, parallel moulded ridges arranged as rays from a missing central point.
Ground Glass Stoppers
Two nearly identical yellowish green glass decanter stoppers

have cylindrical tapered butts which have been ground to
form a smooth stopper-seat (Fig. 64). On the bottom end of
the stopper, a very short stump indicates the removal from
the pontil. One has a 9-mm-diameter stump, the other is 13
mm in diameter. The stoppers are the same diameter. Above
the tapered butts the stopper has a flattened ovoid finger
grip. Although there are minor variations in dimensions,
the two stoppers indicate the presence of a pair of matching
decanters. Their dimensions (in mm) are as follows:

<table>
<thead>
<tr>
<th></th>
<th>54.0</th>
<th>56.0</th>
<th>41.7</th>
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<tr>
<td>Overall length</td>
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<td>Grip thickness</td>
<td>14.3</td>
<td>14.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grip width</td>
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<td>26.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grip length</td>
<td>34.9</td>
<td>37.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stopper length</td>
<td>26.0</td>
<td>26.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stopper diameter (top)</td>
<td>25.0</td>
<td>24.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stopper diameter (bottom)</td>
<td>23.7</td>
<td>22.7</td>
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<td></td>
</tr>
<tr>
<td>Pontil scar diameter</td>
<td>9.0</td>
<td>13.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Small Bottle Stoppers
Four nearly identical specimens appear to be clear glass
stoppers for small bottles such as cologne or medicine
bottles, or table condiment bottles (see Fig. 65). The
latter is probably the most likely identification. All are
made in the same way. They are hollow and have long,
cylindrical shanks which terminate in a 5.6 mm-diameter
solid scar on one specimen; the other three have been broken
across this tip to expose the hollow interior. Above the
long, cylindrical bottom is an annular top with rounded
edges. A final knob forms a finger grip on the top. Their
dimensions (in mm) follow:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall length</td>
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<td>41.7</td>
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<td>10.0</td>
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<tr>
<td>Finish knob diameter</td>
<td>18.8</td>
<td>14.8</td>
<td>14.7</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Window Glass
Fragments of window pane glass were recovered from several
areas in the excavations. Distribution of the sherds by hue
is as follows: 7.5GY, 1; 10GY, 6; 2.5G, 4; 5G, 1; 7.5G, 122;
10G, 81; 2.5BG, 4; 5BG, 7.

It is obvious that the bulk of the specimens are green
(7.5G, 54 per cent, and 10G, 36 per cent).
The thickness of the specimens was measured and the
distribution of dimensions is shown below:
The distribution of the glass fragments suggests the presence of at least one and possibly two windows on the west end of the building. Another possible window location was either the east end or the north side. These features are discussed at greater length in connection with the structural remains.

Window Glass Dating

J. Walker has demonstrated the value of window glass thickness as a chronological indicator (J. Walker 1971: 78). Using his data, it is possible to estimate the chronology of the structure. (It is necessary to convert the thickness measurements to sixty-fourths of an inch for Walker's scheme.)

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Number of Specimens</th>
<th>Grouped Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (/64 in.)</td>
<td>5/64</td>
<td>Number of Specimens</td>
</tr>
<tr>
<td>2.0</td>
<td>1</td>
<td>5/64</td>
</tr>
<tr>
<td>1.9</td>
<td>3</td>
<td>4.8/64</td>
</tr>
<tr>
<td>1.8</td>
<td>14</td>
<td>4.5/64</td>
</tr>
<tr>
<td>1.7</td>
<td>6</td>
<td>4.3/64</td>
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<tr>
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<td>6</td>
<td>4/64</td>
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<td>1.5</td>
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<td>1.4</td>
<td>27</td>
<td>3.5/64</td>
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<tr>
<td>1.3</td>
<td>35</td>
<td>3.3/64</td>
</tr>
<tr>
<td>1.2</td>
<td>39</td>
<td>3.3/64</td>
</tr>
<tr>
<td>1.1</td>
<td>37</td>
<td>2.7/64</td>
</tr>
<tr>
<td>1.0</td>
<td>26</td>
<td>2.5/64</td>
</tr>
<tr>
<td>0.9</td>
<td>10</td>
<td>2.3/64</td>
</tr>
<tr>
<td>0.8</td>
<td>1</td>
<td>2.2/64</td>
</tr>
</tbody>
</table>

J. Walker concludes that glass of 3/64-in. thickness occurs on sites occupied prior to 1845, while after that date "no glass thinner than 4/64 in." (1971: 78) is found. Both the mode and mean values for the pane glass in the collection are 3/64 in., supporting the conclusion that the structure was occupied prior to 1845. Examining the range of thickness is also productive. The thinnest glass is 2/64 in. thick, indicative of sites occupied by 1820 but not after 1840. On this basis, an initial date of about 1820 may be suggested for the structure. At the thick end of the range, only a single specimen is of 5/64 in. thickness, but
a minor bimodal curve peak at 1.8 mm thickness or 4.5/64 in. also suggests a post-1845 window. It is possible, of course, that a structure could be occupied some years after the last glass was installed. Using the minimum and maximum thickness represented, and Walker's data, an occupation range of about 1820 to shortly after 1845, can be inferred. The bulk of the glass is 3/64 in. thick and the peak occupation period of about 1840-45 can be suggested on this basis. These dates compare favourably with those derived from ceramics and other evidence.

If Walker's data applies to this site, far distant from those on which his data are based, the major occupation was between 1840 and 1845. The thinner pre-1840 glass may be explained as either a surviving early pane from the initial period of occupation of the structure or as the re-use of an older pre-1840 window pane in a building built after 1840. At the other end of the thickness scale, it can be suggested that at least one window in the structure may have been replaced after 1845. This is consistent with the post-1845 terminal date inferred from ceramics. A date range of 1820 to 1845 is used in later discussion. It falls within the 1812-1862 historical model limits.

An experimental application of South's ceramic dating formula to the window glass data was also attempted. Mean dates for glass thickness can be calculated from the data presented by Walker (1971). He lists a series of sites and the ranges of window glass thickness present at each site (J. Walker 1971: 77) and date ranges for the sites (J. Walker 1971: 201). To account for variations in thickness, glass 2.6/64 in. to 3.5/64 in. thick was counted as 3/64 in. thick, and so on for each thickness interval from 2/64 in. to 8/64 in. The date range of sites at which glass of that thickness was reported was listed for each thickness interval. Thus, the date range for a site having glass of 2/64 in., 3/64 in., and 4/64 in. thicknesses was recorded for each of these three thickness intervals. The mid-range date for each site was calculated, and then the mean of the mid-range dates for each thickness interval was calculated. The result is a mean mid-range date for each thickness interval. Those values can be used, along with the number of specimens per thickness, in applying South's formula to window glass to produce a window glass formula date.

The mean mid-range dates for thickness interval data are listed in Table 9, and were taken from J. Walker (1971) as noted above.

Examination of Table 9 will show that the mean mid-range dates increase in each interval from 2/64 in. to 4/64 in., but that it is variable from 5/64 in. to 8/64 in. The latter variation could be explained by sampling problems or by a change in the rate of thickness increments in window glass after 1845. Only further study and a specimen
quantitative approach to the derivation of the date values would solve this problem. The calculation of a regression formula would probably be a more productive means of deriving dates from window glass thickness data. All of these problems are ignored in this initial dating experiment, and the mean mid-range values calculated in Table 9 are used in the following date calculations. The date values are rounded as well.

Table 10 presents the fragment frequency data from two sites, the Arkansas Bank (J. Walker 1971: 77) and the excavation of the McVey residence on Ile-aux-Noix.

The formula date calculated for the Arkansas Bank from these data is 1845+9, a standard deviation range of 1839-57. This compares favourably with the 1841-63 occupation of the site and its expected median date of 1852.

The formula date for the McVey residence is 1839+9, a standard deviation range of 1830 to 1848. These dates compare favourably with those estimated by other methods and is within the 1812-62 historical model.

Although more work will be necessary before window glass formula dating is perfected, this preliminary study suggests that such efforts will be very productive. J. Walker's observation of the chronological trend in window-glass thickness represents an important contribution to historical archaeology which can be enhanced by more detailed quantitative analysis.
Pipes

Bowl Fragments
A total of 190 clay pipe fragments were recovered from these excavations. Most of the specimens are plain stem fragments, but there are a sufficient number of bowl fragments and relatively complete bowls to attempt to date the occupation of the structure by means of these specimens.

Pipe Bowls, TD Impressed, WG Spur
Two complete pipe bowls and one bowl fragment have a TD mark impressed on the back of the bowl, facing the smoker. The letters TD are enclosed in a circular, impressed ring. On one example there is a raised moulded leaf motif above and below the impressed ring. All three examples have the moulded maker's initials WG on the spur (see Fig. 66).

The bowl shapes are Oswald's (1955: Fig. 2) type 12 (1820-70) with the bowl top slightly angled relative to the stem line on one example and indeterminate on the others. Oswald (1961: 72-3) lists several marks with these initials from 1662 to 1862.

Pipe Bowls, TD Moulded, Raised, WG(?) Spur
Five fragments of pipe bowls have a TD mark enclosed in an oval ring on the back of the bowl. These are distinguished by being moulded raised marks. The TD letters are 5 mm high, the oval rings 13 mm by 11 mm in size. Three are fragments with only a single letter, T. One specimen has a complete TD mark and a spur on which are raised moulded maker's initials. The letters are distorted and illegible, but are probably WG. An 1820-70 time span may also apply to these specimens. The bore of this specimen is 4/64 in. The fragments are too small for meaningful measurement (see Fig. 67).

Pipe Bowls, Moulded Decoration, TD Moulded Mark
Three fragmentary pipe bowls have the TD enclosed in an oval mark on the back of the bowl as part of a raised, moulded design. The remainder of the bowl is also decorated with a
moulded pattern. The back and sides of the bowl below the TD mark have a leaf design. The front of the bowl has fluted decoration with raised dots in the flutes. A row of raised stars encircle the rim. On the left side is a leaf and thistle motif; on the other, a masonic emblem with a central letter G. The two fragments appear to have the same decoration as the more complete specimen described above. All have spurs (see Fig. 68).

The TD mark has been discussed above. Fluting with dots, as illustrated by Noël Hume (1970: Fig. 97, 21), is of the 1780-1820 time period. The top of the bowl is parallel to the stem lines. The bowl form is similar to Oswald's type 11 of 1780-1850. Walker (1966: 4-5) discusses a variety of fluted bowls from contexts ranging from 1768 to 1882.

Pipe Bowl, Moulded Decoration
A complete pipe bowl and stem fragment have overall raised moulded decorations (see Fig. 69). The spur is missing, but a spur scar demonstrates its presence. The top of the bowl is parallel to the stem. The bowl is generally of Oswald's type 11 form of 1780-1850 (Oswald 1955: Fig. 2). Back, sides and front of the bottom of the bowl bear flutes and reeds. On the front and back, alternating straight lines and rows of dots are present above the curved flute tops and below a band of rim decoration. The rim decoration is enclosed by two parallel lines and consists of fine, parallel slanted lines over which a series of small crosses are moulded. On the left side a thistle motif is in the centre of a blank square. On the opposite side, the blank square is the field for a raised masonic emblem. Raised moulded leaf motifs extend the length of the preserved stem. Raised moulded maker's name and place appear on the sides of the stem. The place is easily read: GLASGOW. The name is barely legible, but may be WHITE. If that is the correct interpretation of the nearly obliterated name, the pipe could be the product of W. White of Glasgow, a firm active from 1805 until 1955 (I.C. Walker 1971: 25).

Pipe Bowl Fragments, Moulded Decoration
Other pipe bowl fragments are parts of moulded specimens of varying decorative pattern (see Fig. 70). All are of the general 19th-century forms described above. Most are too small for meaningful measurements. A list of the decorations follows:
Moulded ribs 3.5 mm wide with dots on the ribs.
Moulded fluting with a leaf motif up the front of the bowl.
Thistle, with stars below the rim of the bowl.
Moulded floral motif with masonic emblem on side.
Moulded thistle, large flower.
Fluted fragment includes spur 5.2 mm long and 6 mm wide; bore diameter 5/64 in. Moulded floral traces; spur scar; 5/64 in. bore diameter. Moulded floral traces. Fluted bowl front, leaf and thistle on side; latter is large flower similar to specimen above.

Pipe Bowl Fragments, Plain
Twenty-four pipe bowl fragments, not complete enough for further description, were found.

Plain Pipe Bowl Fragments with Plain Spurs
Five plain pipe bowl fragments retaining spurs were found.

Pipe Bowl Fragments, Marked Spurs, WG
Two bowl fragments include marked spurs (Fig. 71). These have the initials WG moulded in raised letters on the spur. The letters are about 4 mm high. As noted above, the WG initials may refer to one of several makers in the 1662-1862 time range, but these specimens are probably 19th-century. The marks are the same as those seen on the TD impressed bowls with WG spurs described above.

Stem Fragments

Stem Fragments, Secondary Mouthpieces
Two stem fragments bear traces of faceted carving or trimming and are interpreted as secondary mouthpieces (see Fig. 81a).

Stem Fragments, Original Mouthpieces, Glazed
Two stem fragments are original mouthpieces with reddish brown glaze covering both the stem and the mouthpiece end itself (see Fig. 81b).

Stem Fragments, Original Mouthpieces
Most original mouthpieces did not have the glazed end trait. The original end is marked by a generally smaller diameter and particularly by the presence of remnants of a clay lip around the bore hole caused by the extraction of the bore wire during manufacture (see Fig. 72c).

Stem Fragments, Glazed
A small number of stem fragments retain traces of reddish
brown, yellowish brown, or green glaze. These glazed areas range from a trace to an extensive area. None of the original mouthpiece ends are included although these stem parts must have been close to the original mouthpiece of the stem. Glazing of stems appeared in the 19th century (Noël Hume 1970: 302) but was rare before the 19th century (I.C. Walker 1971: 31).

Stem Fragments, Plain
A number of plain stem fragments were also recovered. One specimen has a bore diameter of 3/64 in.; 47 have bore diameters of 4/64 in.; 59 have bore diameters of 5/64 in., and one has a bore diameter of 6/64 in.

Pipe Dating
Applying Harrington's graph to the pipe bore diameters (Harrington 1954) would bracket the occupation between 1710 and 1800. The Binford (1962) formula date for the collection is 1757.4. Since bore diameter dating does not work well for pipes from 19th-century sites, it was not used (I.C. Walker 1968: 100).

As discussed above, the form and decorations, as well as the few maker's marks, generally provide a time bracket estimate of 1780-1870 for this collection. This is within the known occupation span at Ile-aux-Noix but does not pinpoint the occupation of this particular structure. The moulded decoration and masonic symbolism would permit a mid-19th-century estimate (Noël Hume 1970: 307).

Another possible approach to dating the pipe fragments is by applying South's ceramic dating formula (South 1972). South uses the mid-range manufacturing date of ceramic types and sherd counts to calculate mean site dates. A similar use of mid-range pipe form dates is possible, and a trial of this method is attempted below. The major difficulty is, of course, arriving at acceptable date ranges for formula purposes. Each of the pipe categories will be discussed below, based on the date information presented with each description above.

TD impressed bowls with WG spurs have a bowl form of the 1820-70 period. The latest date for a maker of these initials is 1862. Thus, a span of 1820-62 can be inferred. The mid-range date for this period is 1841. The same estimate can be applied to the TD moulded WG(?) bowl fragments.

Moulded decorated bowls with a moulded TD mark have a profile form identified with the 1780-1850 period. A mid-range date of 1815 could be used for these specimens. Their moulded masonic emblems might indicate a later mid-range date of 1850 as an alternate date. However, the maximum range of comparative dates discussed here is
1768-1882 with a mid-range date of 1825, so that date estimate is used here.

The nearly complete pipe has a bowl form of 1780-1850 profile, but if the maker is correctly identified, an 1805 initial date can be substituted for 1780. The terminal date based on the maker is 1955 and an alternate mid-range of 1805-1955 span is 1880. However, for purposes of this experiment, a span of 1805-70 and a mid-range date of 1837 is used. The 1870 terminal is arbitrarily based on the end date of military use of Ile-aux-Noix.

Moulded bowl fragments are divided into two groups for this purpose. Specimens which are fluted can be related to the 1768-1882 fluting span (Walker 1966: 4-5); an 1825 mid-range date is employed on this basis. The specimens with more elaborate moulded decoration will be related to the mid-range estimate for the similar moulded bowl examples discussed above.

WG-marked spurs are probably from TD/WG pipes so the 1841 mid-range estimate can be applied to these as well. Plain bowl and stem fragments are not used in this experiment.

The estimated mid-range dates and specimen counts are listed in Table 11.

Using South's formula with the data in Table 11 produces a date of 1832±8 for the floor specimens and 1832±8 for the site total. The range (floor data) is 1824-40 with one standard deviation, and 1816-48 with two standard deviations and thus increased probability.

The correspondence between these dates and the ones based on ceramic and bottle dating is good. The formula date is within the historical model of 1812-62 for this site.

As with bottles, an occupation bracket for the site based on the pipe data used in the formula dating experiment was also determined, using South's (1972: Fig. 1) visual bracketing method. The occupation span so estimated is 1820 to 1850.

It cannot be contended that this particular date is the most accurate estimate that could be obtained through this method. A much more extensive comparative study of form and decoration elements would be necessary to establish true manufacturing brackets and mid-range dates for specific pipe form and decoration classes. However, this experimental application of the South formula to a group of pipe fragments too late in time to permit the use of the Harrington/Binford bore diameter dating methods does suggest that further research may well make this dating method quite useful. It could be applied to pipes from any period, not just those of the 19th century.
Miscellaneous Artifacts

Artifacts of Assorted Materials
A variety of small artifacts recovered in the excavations are described in this section.

Buttons
One button is a plain, flat disc of pewter 20 mm in diameter. It has an iron eye moulded in place in a rounded boss on the back of the button. A mould seam crosses the button back. It was from the floor of the McVey residence.

A second button is also plain and flat. The shank was welded on the back of the 19.8-mm-diameter gilt specimen. The back is marked: TRE---- GILT STA----OL C & L. The specimen was on the floor of the structure.

Pewter Object
A fragmentary pewter object (Fig. 73) has an anchor-like appearance. Two curved arms meet in a point from which the broken stump of a straight central shaft rises. The back side of the central shaft is flat; in section it is nearly rectangular but slightly tapered towards the face and has rounded corners for removal from the presumably open mould. The specimen was from the floor of the structure.

Brass Spigot
A large brass bottling spigot (Fig. 74; Priess: pers. com.) was also recovered from the floor of the structure. It has a T-shaped handle in a vertically oriented valve. The spout curves downwards just beyond the valve and has a projecting stud at the curve of the spout. The spout is straight and projects downwards and slightly outwards. The tube on the other side of the valve for insertion of the spigot into the storage container has been broken off. The spigot's dimensions are: valve-handle height, 87.5 mm; spout length, 124 mm, and spout diameter, tapered from 17.4 mm to 12.9 mm.
Whetstone (?)
A trapezoidal stone object may be a whetstone. It is a natural tubular stone. The two flat surfaces bear scratches and smoothed areas which are interpreted as grinding marks from use as a whetstone. It is from the sod level and association with the occupation could be questioned.

Vermilion
An irregular lump of vermilion (strong reddish orange 10R5/11) may have been used for a marker.

Putty (?)
Three irregular fragments of a greyish white substance, probably window putty, were found.

Marker
Two fragments of dark grey material were found. Both are thin and irregular in outline. The surfaces are smoothed and the edges smooth and rounded from use. A dark line can be drawn with the material and it is probably a marker.

Grey Metal
A small fragment of grey metal sheeting was found in floor deposits. It is a slightly irregular rectangular shape with one corner and one end rolled or bent. A mass of small fragments of thin grey metal was also found. Some fragments retain remnants of very straight edges, but most are irregular. There is evidence of straight-sided sheets being overlapped and adhering to one another.

Quartz Crystal
A small, irregular fragment of quartz was also recovered.

Wooden Brush
An oval wooden hairbrush was found in the floor deposits. Tufts of bristles are set in holes 3.5 mm in diameter at intervals of 12 mm to 14 mm. The brush is 145 mm long, 65 mm wide and 9 mm thick (see Fig. 75).

Aboriginal Artifacts
Several prehistoric Indian artifacts were also recovered. These were found in the sod and in the fill levels, not on the floor of the structure. Most fill layer materials are probably associated with the occupation as crossmends of
bottle fragments demonstrate. These artifacts were probably collected by occupants of the structure, but the possibility of the presence of a prehistoric occupation somewhere else on Ile-aux-Noix cannot be ruled out (see Fig. 76).

Projectile Point
One specimen is a grey slate projectile point (Fig. 76a) which is chipped bifacially. The blade is triangular with slightly excurvate sides. It is fractured at the end of the blade and the base is missing; the specimen was probably side-notched.

Polished Stone Adz
The blade end fragment of a polished stone celt (Fig. 76b) was also recovered. The greenish rock is highly polished. The blade is on the centre line of the axis. The narrow sides are flat and have distinct edges; the broader faces are convex, giving the specimen a lens-shaped cross-section with flattened sides. One face, however, is flatter than the other and the complete, original specimen may have functioned as an adz. The blade is slightly curved and has some use-chips although it is otherwise a sharp edge. The specimen is 66 mm (incomplete) long, 56 mm wide and 26.5 mm thick.

Pottery
Four specimens of prehistoric pottery (see Fig. 76c-e) were also found. Two are partial rimsherds without rims. The curved necks have parallel, horizontal, incised line decoration. Just above the horizontal, decorated panel can be detected traces of parallel, diagonal, incised decoration which extended onto the now missing lip. The interior is smooth. The fabric is coarse and grit-tempered, and grey in colour.

One specimen is a complete rimsherd with a thickened flat rim. It has horizontal incisions at the bottom of the neck and parallel, diagonal incisions on the upper part of the neck. The rim has two narrow panels of closely spaced, parallel impressed decoration. The interior is plain and smooth. The grey paste is coarse and grit-tempered.

A fourth example has the same form and decoration as that described immediately above. In addition, it is decorated on the interior of the rim. The interior decorations are a narrow row of vertical, parallel incisions just below the lip and a broader band of parallel, diagonal incisions below that. A black, carbonized substance, probably charred food remains, adheres to the inner surface of the sherd.

All of the potsherds are of the Iroquoian ceramic
tradition.

The presence of these aboriginal artifacts may suggest that one of the occupants of this structure was an artifact collector. However, aboriginal sherds have been found elsewhere in general refuse deposits (Grange 1974a: 297) on the site, possibly indicating the presence of a prehistoric occupation layer on the island disturbed by subsequent military activities.

Iron Artifacts
A wide variety of iron artifacts were also recovered from the site.

Knives
An iron knife with bone scales (Fig. 77) was recovered from the fill level. The bone handle has traces of a cross-hatched incised design. The handle is incomplete. The dimensions of the knife are: length, 242 mm (nearly complete); blade width, 26 mm; blade thickness, 2 mm, and handle width, 22 mm.

Fragments of a similar knife with bone scales were recovered from a separate area of the fill. The bone handle has a rounded butt and a parallel, diagonal, incised design on the scales. The knife's dimensions are: length, 160 mm (incomplete); blade width, 31 mm; handle length, 100 mm; handle width, 24 mm, and handle thickness, 17 mm.

A third knife fragment was recovered from floor deposits. It, too, has bone scales and a blade wider than the handle. The bone scales were polished and have a parallel, diagonal, incised design. The bone scales were attached to the tang; there is a bolster present. The blade is incomplete; the handle is probably incomplete, part of the end being missing. The knife's dimensions are: length, 190 mm (incomplete); handle length, 78 mm; handle width, 21 mm; handle thickness, 19 mm; blade length, 11 mm (incomplete); blade width, 26 mm, and blade thickness, 3.2 mm.

One fragment of a possible knife was also found. It includes a section of the blade and the bolster, but the sample is too fragmentary for meaningful measurement.

Fork
An incomplete fragment of a three-tined fork was also found in floor deposits. The tips of the tines are missing. The shank is baluster-shaped with a flat tang. The tang was intended to receive bone or wooden scales, but these are missing (see Fig. 77a). The fork's dimensions are: length, 88 mm (incomplete); handle width, 17 mm; tang heel width, 17 mm; shank length, 35 mm, and shank diameter, 5.5 mm to 7 mm.
Spoons
A large iron serving or cooking spoon (Fig. 77b) was found in the fill level. It has an ovate-shaped bowl, 82 mm long and 47.5 mm wide. The handle has a long, slender stem with a spatulate stem-end. The spoon is 230 mm long, with a handle width of 6 mm to 25 mm.

An iron spoon bowl, 42.5 mm long and 28.5 mm wide, was also recovered from a floor deposit.

Boot Heel Cleats
Four specimens identified as iron boot heel cleats (Jelks 1973: Fig. 88d) were recovered. Two are complete, two are fragments.

Key
The shank and bow of an iron key were recovered from the floor level.

Small Buckle
A small D-shaped iron buckle was found on the floor level. The tongue is on the straight side of the D.

Files
One fragment of a file is triangular in cross-section and is part of a triangular file.

A second file is a portion of the tang and blade of a flat file.

Scissors
A portion of a small pair of scissors retains a trace of one bow and part of the beveled blades.

Hinge
A rectangular iron butt hinge was found in the sod level. Each leaf has four holes.

Shot
A small iron four-ounce grape shot was recovered.

Axe Head
An iron axe head (Fig. 78) was also found on the floor level. Its dimensions are: length, 166.3 mm; butt width, 51.3 mm; blade width, 54.2 mm; blade thickness, 11.5 mm to 1.0 mm, and shaft hole, 25.2 mm by 9.2 mm. Part of the
handle is retained in the eye.

Handle (?)
An iron rod loop handle was also found. The twisted specimen could be interpreted as some other artifact. One side is straight, the other bent at the end where it probably was fitted into a retainer.

Iron Braces
Two iron objects are probably structural braces. One has a broken rectangular shank. At one end it is bent at right angles to form a V-shaped attachment flange.

A second complete specimen tapers to a chisel point on one end. At the thick end it is bent to form an L-shape. It is parallel-sided but the last one-third tapers to a point.

Twisted Eye
A rectangular-sectioned iron rod has been twisted to form a loop at right angles to its axis. Its function is unknown.

Bucket
Fragments of an iron bucket were recovered from the fill level. It is straight-sided with the sides diverging towards the top. A diagonal seam is present on one side.

Curved Iron Object
A hollow, curved iron object of unknown function was recovered from the fill level. It is a half-moon shape, or D-shaped with rolled edges.

Lock Part (?)
An iron object with an open D-shape may be part of a lock tumbler (Noël Hume 1970: Fig. 77a, 7-9). One side of the D is open, the other covered with a sheet of iron.

Round Object
A small iron disc with a protruding spine was found.

Strap Iron
Thirty fragments of thin, iron strips, mostly pieces of barrel banding or similar straps, were also recovered.
Scrap Iron
Twenty-nine irregular fragments of scrap iron were also recovered.

Nails
Square-sectioned, iron nails were most common; a total of 662 such specimens was recovered. One possible rectangular-sectioned fragment was found, and one round-sectioned wire nail was found. Both of the latter were in the same fill level and are most likely intrusive specimens of post-occupation origin. Nearly all of the nails had rose heads and sharp points.

A small number of large shanked specimens (section dimensions approximating 10 mm square) were identified as spikes in contrast to thinner shanked nails. Most of these had rose heads and flat points.

In addition to the specimens for which head and point types could be determined, there was a large number of broken or otherwise unidentifiable nails. The bulk of the specimens were not classifiable. Such breakage may be indicative of the deliberate destruction of the building.

Sizes of nails and spikes were also tabulated and these data are listed in Table 12.

Wooden Pegs (?)
A number of wooden pegs were recovered in the excavations. Some of these were associated with the timber remains of the walls of the structure. They may, in some cases, be tree-nails, but many have a tapered shape rather than a cylindrical one and they may simply be knots from the timber used in the structure and preserved by their differential hardness.

Animal Bone
Forty-nine fragments of food bones were recovered in the excavations. These specimens have not been identified with regard to species or skeletal element.
Summary and Conclusions

The building described in this report was located along the eastern shore of Ile-aux-Noix in the northern third of the island, well beyond the fortification and navy yard. Interpretation of map correlations indicates that the building was probably a small private residence occupied at one time by Thomas McVey, a shopkeeper, and later by the fort adjutant.

The house was a rectangular timber structure, 21 ft. by 25 ft., built of squared cedar logs. The location of doors, windows and interior walls could not be determined from structural remains, but may be inferred from artifact distributions. The only well-preserved, internal structural element was a central post mould which marked the presumed location of a roof support.

A rectangular lump of clay on the floor may have been the location of an iron stove, but that is highly conjectural. No brick hearths or chimneys were found, nor did the building have stone foundations. The timber walls rested directly on the soil.

Estimating the Occupation Period
Archaeological evidence may be of use in dating this structure and thereby partially confirming the historical identification of the building. An estimate of the occupation period is also important in relating this structure to other features on Ile-aux-Noix in a general interpretation of the history of the island.

A variety of dating evidence and estimates have been discussed in the description of the appropriate artifacts. A summary of these dating estimates is listed in Table 13 and illustrated in Fig. 79.

Ile-aux-Noix occupation periods one to three are shown at the top of Fig. 79. An historical model for the building was developed in the initial discussion of the history of the island. The best map documentation for the structure provides a date bracket of 1829 to 1833, with a possible documentation extending the period to 1842. The maximum historical model of the occupation span is 1812 to 1862 (see Fig. 79A).
One archaeological model based on ceramics was developed by applying South's visual bracketing method. This results in an estimated occupation span of 1820-52. The latter date is a ceramic terminus post quem limit for the site; that date must be included in the occupation span of the structure (see Fig. 79B).

One ceramic specimen bears a manufacturer's mark which has been dated to the 1805-25 period (Fig. 79C).

Ceramic formula dates based on both sherd and vessel counts were calculated for floor-associated specimens (see Table 13). The vessel date is shown in Fig. 79D; the date is 1827+33 and its standard deviation range is 1794-1860.

Another approach to estimating the occupation span was suggested by South who noted that "if we know the mean and one end we can interpret the approximate position of the opposite bracket" (South 1972: 93). This can be done with the terminus post quem bracket (South 1972: 82-3). Using the 1852 limit and the 1827 ceramic formula date in this manner produces an estimated occupation bracket of 1802 to 1852 (Fig. 79E).

The site was also dated by estimating its age from the numerous bottle fragments recovered in the excavations. The maximum period represented by bottle attributes is 1770-1890. A more restricted 1800-50 bracket, also estimated, was revised by using South's visual bracketing technique, devised for ceramics, with the bottle data. The visual bracket estimate for the bottles is 1810-50 (see Table 13 and Fig. 79F).

Carrillo's method of dating whole bottles was also used and produced a bracket of 1809 to 1834 (see Fig. 79G), the emphasis being on the latter date.

An application of the ceramic formula date to bottle fragments was also tried and a date of 1814+26 (see Fig. 79H) was calculated. That date was based on a minimum vessel count; a sherd count produced a date of 1807+23 (see Table 13). An average lag of seven years between bottling and sale was also calculated from meagre data. If that factor were valid, it could be added to the formula date as shown by the arrows on the graph, (Fig. 79H), resulting in an 1821 date.

A general estimate based on pipe form, decoration and maker's marks suggests a 1780-1870 time bracket (see Table 13). A visual bracket for pipes was estimated on the basis of various bowl attributes and that 1820-50 bracket is shown in graph I (see Fig. 79).

The ceramic formula dating method was also applied to the pipe fragments and produced a date of 1832+8 (see Table 13). Both one and two standard deviation ranges are shown for that mean date (see Fig. 79J).

J. Walker's window glass thickness time scale resulted in an 1840-45 bracket with a maximum estimated period of 1820-45+ (see Fig. 79K). As an extension of that method, a
formula date calculation was also made and produced a date of 1839+9 which is illustrated with both one and two standard deviation spans (see Fig. 79L).

A final experimental application of the South ceramic dating formula concept to other classes of artifacts was a composite date based on using ceramics, bottles and pipes together in a single mean date calculation. The composite date for the building is 1824+29 for floor-associated specimens (see Fig. 79M) and 1822+30 for the site total data. Including the glass window fragments in the calculation produces a composite date of 1834+21 for the site total, a bracket of 1813-55 (see Fig. 79N).

A comparison of the date ranges estimated by these various methods and adjustments can be made by reference to Figure 79. It is apparent that most of these dating approaches result in overlapping date estimates. A combined archaeological model for the occupational period of the site is 1810-52 and a somewhat narrower bracket of 1820-52 might also be supported by these data (see Fig. 79P).

The archaeological model, 1810-52, compares favourably with the 1812-62 maximum span developed as an historical model of the occupation period, assuming the structure was correctly identified on plans of the site. The 1820-52 "tight" archaeological bracket likewise compares favourably with the 1829-33-(1842) period of historical documentation for the structure. The archaeological dating evidence thus supports the historical identification of the site.

The archaeological data pose the possibility that the structure had an initial date of about 1785 or 1790. However, there is no supporting map evidence for that and the island was abandoned between 1809 and 1812. Without attention, it is unlikely that a structure of this construction would have remained usable after a period of abandonment. It is more likely that it was not built until the 1812 re-occupation of the island. This adjustment can be made in a final dating estimate. At the other end of the bracket, the bulk of the evidence suggests termination before 1860 and the ceramic terminus post quern of 1852 must be included in the occupation. An arbitrary 1855 may be selected as the terminal date in a final archaeological-historical estimate.

The occupation was most likely between 1812 and 1855 (see Fig. 79Q), while 1820 to 1852 represents the narrowest estimate possible at present.

General Interpretation
The artifacts recovered from the structure indicate that eating, drinking and smoking were among the primary activities carried out in the building. Such an interpretation is consistent with the residential identification of the building based on historical plan
A wide variety of earthenware, stoneware and porcelain ceramic fragments were recovered. Approximately 116 vessels are represented. Food storage, preparation and serving are reflected by bowls, jugs and pitchers of coarse earthenware and stoneware. Creamware plates, bowls, cups and ewers are also represented. Shell-edge decorated pearlware plates, platters, serving vessels and condiment containers were also used by the occupants. Blue hand-painted and blue transfer-printed plates, bowls, cups and pitchers were in use. The bulk of the ceramic specimens were objects used in preparing, serving and consuming food. The recovery of knives, forks and spoons as well as animal bone food waste add to the evidence that eating was a primary activity within the structure.

A large number of "wine" bottle fragments were also recovered and are estimated to represent between 43 and 107 bottles. Decanter stoppers, possible decanter bases, tumblers and at least seven stemware wineglasses are also present in the assemblage. A brass bottling spigot implies a larger storage cask. There seems little question that drinking was an important activity in the building. Most of the wine bottles were concentrated in one area.

A wooden hairbrush and a small number of bottles for medicine or condiments were also present in the structure; these too reflect the probable residential character of the occupation.

Fragments of at least 18 different clay pipes were also found, indicating that smoking was also an activity inside the building.

A few tools, including an axe head, a file, scissors, a marker, some putty and other miscellaneous artifacts were also found and represent other activities of the occupants. A few aboriginal artifacts may be interpreted as possible evidence that the occupants collected such curiosities from local archaeological sites.

With the exception of one iron grape shot there were no exclusively military objects recovered from the building, further supporting the interpretation that the structure was a residence.

Functional Areas Within the Structure
Some subdivisions of the structure have been discussed in the description of the building along with conjectures about the location of the door and windows. The possibility of the central clay hump being a stove location was noted, although there was an absence of ash or other evidence to strengthen that interpretation. The possibility of a central dividing wall was also discussed but could not be resolved on the basis of the available evidence.
Two notable clusters of artifacts were found on the floor. One of these was at the southwest corner along the west wall where a brass spigot, an iron axe, most of a large, blue shell-edge decorated platter and a whole, unbroken wine bottle were found. The combination of artifacts does not suggest a particular activity and this may be a fortuitous group of items preserved by the collapse of the wall.

A more significant cluster of specimens was a pile of broken wine bottles near the southeastern corner of the structure (see Fig. 80). Here a mass of broken bottles was found in an area 2 ft. by 4.8 ft., oriented north-south at right angles to the southern wall. When cleaned, the bottle deposit was a narrow linear feature, leading to the inference that these specimens may have fallen from a single shelf. This, and any other artifact clustering, reflects only the distribution of materials at the end of the occupation and even that rests on the assumption of little or no post-occupation disturbance.

The distribution of fragments of various types of artifacts may also indicate different activity areas within the building. Some groupings of specimen recovery lots may be made to measure this distribution. One group of lots is along the west end of the building encompassing most of the western quarter of the interior, although it is not a rectangular area (see Fig. 81). The L-shaped baulk is treated separately and divides the eastern three-quarters of the building into northern and southern sections of approximately equal size. The northern unit contains two lots, the southern unit also contains two lots, one of which was the concentration of broken wine bottles noted above.

The interior of the structure is irregular, but it is approximately 20.2 ft. by 23.2 ft. in size, and 468 square ft. in area. The west end floor area is 95 sq. ft. and the baulk is 68 sq. ft., while the northern side section is 156 sq. ft. and the southern side section is 149 sq. ft. in area.

Table 14 lists the frequencies of artifacts in these four floor area units along with two measures of density; the number of artifacts per square foot; and the ratio of the percentage of one class of artifact to the percentage of the total square footage in the structure represented by the floor area unit in question. These figures reveal some significant differences in the distribution of some artifact classes and these differences may reflect different activity areas within the structure, assuming little or no lateral movement of specimens subsequent to the occupation.

A total of 1,690 objects were found on the floor; they were concentrated along the west wall and in the south section. It is possible that the centre of the structure and the north section were divided from the rest of the structure, possibly forming a room. As noted earlier, the
distribution of the window glass strongly supports the hypothesis that one or more windows were on the west end of the building. There may have been a window in the north side area, but that is less certain.

The ceramics were concentrated along the west wall and practically absent from the centre line and south side area. A secondary concentration of ceramics was located in the north section.

In contrast, wine bottles were virtually all found in the south section and most were associated with a single concentrated linear pile of broken bottles. A wine storage area adjacent to the south wall is a reasonable inference. The concentration of bottle fragments may have resulted from the collapse of a shelf or other storage feature. A separate room in this area is a possibility.

The miscellaneous non-wine bottles were concentrated in the west wall area, indicating a differential storage practice involving these vessels.

Glass artifacts such as tumblers, stemware, and decanter fragments were largely associated with the west wall area and the north section. Pipe fragments had a similar distribution. Both glass artifacts and pipe fragments were poorly represented in the south side area.

Miscellaneous artifacts which include such notable items as an axe, knives and forks were concentrated in the west end area unit as was animal bone (food waste).

Strap iron and scrap iron fragments were fairly evenly distributed throughout the structure.

In the west end area was found concentrations of ceramics, non-wine bottles, pipe fragments, miscellaneous artifacts, and animal bone. A general storage or activity area in this part of the structure is suggested. Wine bottles were concentrated in the south section and a wine storage facility there seems highly likely. The north side section, although it was the locus of some secondary concentrations of ceramics, stemware, decanters, pipes, and wine bottles is not the primary locus of any artifact class and seems to represent a third activity area within the structure. Although there was no substantive architectural evidence of room divisions, the artifact distributions suggest the possibility that the building was divided into three rooms, or at least that activities were concentrated in three different areas.

During the excavations, the large quantity of wine bottles led to the tentative hypothesis that the structure might be the canteen or the "house of entertainment" (Lee 1965: 26) mentioned in 1783. The canteen is known from the map sources to have been much farther to the south and west, close to Fort Lennox, which eliminates that possibility. The house of entertainment is not shown on any plan. McVey's shop was also a long distance to the southwest. The positive evidence for the identification of the structure as
The ceramics exhibit considerable variety as summarized earlier, with blue and white transfer-printed vessels being the most popular. A variety of serving dishes as well as plates were recovered. A comparison of the ceramics inventory with the more extensive lists of Regency (Hughes 1968: 1153-63) and early Victorian ceramics (Wakefield 1968: 1395-1440) suggest that the contents of this structure represent the reasonably up-to-date popular everyday wares of the period, but that the inventory lacks the fine porcelains and lustre wares which would indicate high social status. On the other hand, the blue transfer-printed wares were fashionable in Canada in the 1820s, and certainly so on Ile-aux-Noix where it is recorded that Captain Byng of the Royal Navy had such ware in his home. He had, in addition, a porcelain tea set and furnishings of the latest style (Collard 1967: 116-7). The captain, of course, would have been of a high social status on the island because of his rank. The occupant of this structure had but few porcelain vessels but he, too, favoured the popular blue and white. If ceramics are an indicator, the occupant shared a ceramic tradition with Captain Byng, but was probably not a full social equivalent. Such a status would be consistent with the identification of the structure as the residence of a civilian shopkeeper and later the fort adjutant. Extensive historical research documenting the specific ceramic inventories of individuals of varying social status in Canada during the early 19th century has not been attempted here. No attempt has been made to do further historical research on either McVey or the adjutant. When such data are at hand, it will be possible to assess this aspect of the McVey residence more accurately.

Conclusions
It has been concluded that this small log structure on Ile-aux-Noix was a private residence, probably the one occupied by Thomas McVey and later by the adjutant of the fort, between 1812 and 1855. The archaeological dating corresponds well with the historical date estimates. In dating the structure, some innovations in the utilization of the ceramic dating formula have been attempted with successful application of the method to bottles and pipes. Distribution of artifacts on the floor of the structure indicates that there were three distinct activity or storage areas in the building and these may reflect internal room divisions.
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*Dates used in formula calculations.
Table 2. Distribution of Ceramic Types by Stratigraphic Unit

The first figure represents the number of sherds in the layer; the second figure represents the percentage of sherds by layer.

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Table 3. Distribution of Ceramic Types by Stratigraphic Unit

The first figure represents the number of vessels in the layer; the second figure represents the percentage of vessels by layer.

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Table 7. Measurements of Bottle Bases (mm)

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Table 8. Bottle Type Date Spans and Specimen Counts

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<td>1795</td>
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<tr>
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<td>1808</td>
<td>15</td>
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<tr>
<td>A/A,</td>
<td>1821-1890</td>
<td>1855</td>
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<tr>
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<td></td>
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<td></td>
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<tr>
<td>mould</td>
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<td></td>
<td></td>
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<tr>
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<td>1770-1815</td>
<td>1792</td>
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<td>1855</td>
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<tr>
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Table 9. Mean Mid-Range Dates for Window Glass

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<th>Mean of Mid-Ranges</th>
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<td>1829.5</td>
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<td>Fort Lookout II</td>
<td>1831-1851</td>
<td>1841.0</td>
<td></td>
</tr>
<tr>
<td>3/64</td>
<td>Fort Smith</td>
<td>1817-1824</td>
<td>1820.5</td>
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Table 10. Window Glass Formula Data

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<th>Mean Mid-Range Date</th>
<th>Number of Specimens</th>
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<td>1854</td>
<td>195</td>
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<td>1851</td>
<td>55</td>
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<td>6/64</td>
<td>1854</td>
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Table 11. Pipe Dates and Specimens

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Table 12. Number of Nails and Spikes by Size and by Stratigraphic Unit

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<th>Stratigraphic Unit</th>
<th>Spike Sizes (in.)</th>
<th>Nail Sizes (in.)</th>
<th>Number of Fragments</th>
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<td></td>
<td>3  4  5  6</td>
<td>1\frac{1}{4}  1\frac{1}{2}  2  2\frac{1}{2}  3  3\frac{1}{4}  4  4\frac{1}{2}  5  6</td>
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<tr>
<td>Sod level</td>
<td>5</td>
<td>7  7  10  6  1  7  4</td>
<td>1  42</td>
</tr>
<tr>
<td>Mixed occupation</td>
<td>1  1  1</td>
<td>2  1  3  1  5  1</td>
<td>30</td>
</tr>
<tr>
<td>Privy fill</td>
<td></td>
<td>1  3  5  1  1</td>
<td>23</td>
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<tr>
<td>Occupation outside</td>
<td></td>
<td>3  2  8  4  1  1</td>
<td>93</td>
</tr>
<tr>
<td>Fill layer</td>
<td>3  2  1  2</td>
<td>2  10  3  8  2  11 10 2</td>
<td>164</td>
</tr>
<tr>
<td>Floor</td>
<td>1  1</td>
<td>9  7  7  8  3  9  3  1</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>10  3  2  3</td>
<td>23  28  34  32  13 29 18 3</td>
<td>1  445</td>
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</table>
Table 13. Summary of Dating Evidence

<table>
<thead>
<tr>
<th>Historical Models</th>
<th>Expected Mid-Range</th>
<th>Bracket</th>
<th>Remarks</th>
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<td>Source</td>
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<tr>
<td>Historical plans</td>
<td>1831</td>
<td>1829-1833</td>
<td>Best documentation</td>
</tr>
<tr>
<td>1835</td>
<td>1829-1842</td>
<td>Possible documentation</td>
<td></td>
</tr>
<tr>
<td>Interpretation of historical data</td>
<td>1837</td>
<td>1812-1862</td>
<td>Maximum estimate</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Archaeological Models</th>
<th>Date Bracket or Standard Deviation</th>
<th>Method and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artifac:</td>
<td>Mean Date</td>
<td>Range</td>
</tr>
<tr>
<td>Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceramics</td>
<td>-1852-</td>
<td></td>
</tr>
<tr>
<td>Ceramics</td>
<td>1820-1852</td>
<td>Visual bracketing</td>
</tr>
<tr>
<td>Ceramics</td>
<td>1805-1825</td>
<td>Manufacturer's mark</td>
</tr>
<tr>
<td>Ceramics</td>
<td>1827±33</td>
<td>Formula (vessels; 1 standard deviation)</td>
</tr>
<tr>
<td>Ceramics</td>
<td>1821±31</td>
<td>Formula (sherds; 1 standard deviation)</td>
</tr>
<tr>
<td>Ceramics</td>
<td>1802-1852</td>
<td>Interpreted; formula date + Terminus post quem limit</td>
</tr>
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</table>
Table 13. Continued

<table>
<thead>
<tr>
<th>Artifact Class</th>
<th>Mean Date</th>
<th>Date Bracket or Standard Deviation Range</th>
<th>Method and Remarks</th>
<th>Fig. 79 and Text Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottles</td>
<td>-1834-</td>
<td>1810-1850</td>
<td>Visual bracketing</td>
<td>F</td>
</tr>
<tr>
<td>Bottles</td>
<td>1814+26</td>
<td>1788-1840</td>
<td>Formula (vessels; 1 standard deviation)</td>
<td>H</td>
</tr>
<tr>
<td>Bottles</td>
<td>1807+23</td>
<td>1784-1830</td>
<td>Formula (sherds; 1 standard deviation)</td>
<td>H</td>
</tr>
<tr>
<td>Bottles</td>
<td>-1821-</td>
<td></td>
<td>Formula date plus 7 years use-lag factor</td>
<td>H</td>
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<tr>
<td>Pipes</td>
<td></td>
<td>1780-1870</td>
<td>Estimate based on form, decoration and marks</td>
<td></td>
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<tr>
<td>Pipes</td>
<td>1832+8</td>
<td>1824-1840</td>
<td>Visual bracketing</td>
<td>I</td>
</tr>
<tr>
<td>Pipes</td>
<td></td>
<td>1816-1848</td>
<td>Formula; 1 standard deviation range</td>
<td>J</td>
</tr>
<tr>
<td>Window glass</td>
<td></td>
<td>1820-1845+</td>
<td>Walker thickness method; main occupation estimate</td>
<td>K</td>
</tr>
<tr>
<td>Window glass</td>
<td>1839+9</td>
<td>1830-1848</td>
<td>Formula; 1 standard deviation range</td>
<td>L</td>
</tr>
<tr>
<td>Window glass</td>
<td></td>
<td>1821-1857</td>
<td>Formula; 2 standard deviation range</td>
<td>L</td>
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<tr>
<td>Composite #1 (ceramics, pipes and bottles)</td>
<td>1824+29</td>
<td>1795-1853</td>
<td>Formula (vessels; 1 standard deviation)</td>
<td>M</td>
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<tr>
<td>Composite #2 (ceramics, pipes, bottles and window glass)</td>
<td>1834+21</td>
<td>1813-1855</td>
<td>Formula (sherds; 1 standard deviation)</td>
<td>N</td>
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</table>
Table 14. Density of Artifacts on the Floor by Area Units

The first entry for each artifact class and area unit is the number of artifacts found; the second entry is the number of artifacts per square foot, and the third entry is the ratio of the percentage of one class of artifact to the percentage of the total square footage in the structure represented by the floor area unit in question.

<table>
<thead>
<tr>
<th></th>
<th>West Wall</th>
<th>North Side</th>
<th>Baulk</th>
<th>South Side</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Square feet</td>
<td>95</td>
<td>156</td>
<td>68</td>
<td>149</td>
<td>468</td>
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<tr>
<td>Percentage of total area</td>
<td>0.203</td>
<td>0.333</td>
<td>0.145</td>
<td>0.318</td>
<td>0.999</td>
</tr>
<tr>
<td>Ceramics vessel count</td>
<td>60</td>
<td>28</td>
<td>1</td>
<td>2</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>0.63</td>
<td>0.18</td>
<td>0.01</td>
<td>0.01</td>
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</tr>
<tr>
<td></td>
<td>3.25</td>
<td>0.92</td>
<td>0.08</td>
<td>0.07</td>
<td>1.0</td>
</tr>
<tr>
<td>Ceramics sherd count</td>
<td>255</td>
<td>163</td>
<td>10</td>
<td>16</td>
<td>444</td>
</tr>
<tr>
<td></td>
<td>2.68</td>
<td>1.04</td>
<td>0.15</td>
<td>0.11</td>
<td>0.95</td>
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<tr>
<td></td>
<td>2.83</td>
<td>1.10</td>
<td>0.15</td>
<td>0.11</td>
<td>1.0</td>
</tr>
<tr>
<td>Wine bottles neck and bases</td>
<td>3</td>
<td>13</td>
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<td>37</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>0.03</td>
<td>0.08</td>
<td>0.01</td>
<td>0.25</td>
<td>0.11</td>
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<tr>
<td></td>
<td>0.27</td>
<td>0.72</td>
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<td>2.15</td>
<td>1.0</td>
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<tr>
<td>Wine bottle sherd</td>
<td>30</td>
<td>49</td>
<td>0</td>
<td>667</td>
<td>746</td>
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<tr>
<td>sherdss</td>
<td>0.32</td>
<td>0.31</td>
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<td>4.48</td>
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<td>1</td>
<td>6</td>
</tr>
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<td></td>
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<td>0</td>
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<td>Glass artifacts</td>
<td>9</td>
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<td>3</td>
<td>2</td>
<td>25</td>
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<tr>
<td></td>
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<td>0.07</td>
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<td>Pipe fragments</td>
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<td>52</td>
<td>21</td>
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Table 14. Continued.

<table>
<thead>
<tr>
<th></th>
<th>West Wall</th>
<th>North Side</th>
<th>Baulk</th>
<th>South Side</th>
<th>Total</th>
</tr>
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<tr>
<td>Miscellaneous and</td>
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<td>iron artifacts</td>
<td>13</td>
<td>9</td>
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<td>8</td>
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<td>6</td>
<td>0</td>
<td>7</td>
<td>19</td>
</tr>
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<td>0.05</td>
<td>0.04</td>
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<td>Animal bone</td>
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<td>Window glass</td>
<td>151</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
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<td>4.13</td>
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<td>0</td>
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<tr>
<td>Total objects</td>
<td>570</td>
<td>335</td>
<td>35</td>
<td>750</td>
<td>1690</td>
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<tr>
<td>(Ceramic vessels</td>
<td></td>
<td></td>
<td></td>
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<td>included)</td>
<td>1.66</td>
<td>0.59</td>
<td>0.14</td>
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</table>
Illustrations
Symbols Used

Clay

Excavation limits

Post hole

Sod

Stained soil

Wood
Plan of Ile-aux-Noix showing the location of the 1966 excavations with respect to Fort Lennox.
2 1829 plan of Ile-aux-Noix. (Arrows indicate structures discussed.) (Public Record Office: copy on file, Public Archives Canada.)
3 1829 plan of Ile-aux-Noix. (Arrow indicates structure discussed.) (Public Record Office: copy on file, Public Archives Canada.)
1833 plan of Ile-aux-Noix. (Arrow indicates structure discussed.) (Public Record Office: copy on file, Public Archives Canada.)
5 Section showing sequence of stratigraphic deposits inside and outside structure: 1, sod/silt; 2, topsoil/occupation; 3, sub-soil; 4, fill/floor occupation.

6 General view of the site toward the east.
7 Structural plan of the McVey residence showing wood structural remains, central post hole, clay hump, location of bottle deposit and relationship of privy to structure.
8 Wall profile looking east, showing wood remnant of north wall, and associated depression and clay fill deposits.

9 Wall timbers in situ along the southern side of the structure.
10 Wall detail of the northern wall of the structure.

11 Wall detail showing the round wooden pegs placed at regular intervals which may have been used to hold the timbers in place.
12 View of the southwest corner showing three timber sleeper floor joists.

13 Corner construction showing the probable interlocking notches.
14 Notched floor timber found on floor on northern side of the structure.

15 General view of the privy.
16 View of the privy pit showing the wooden cross beam.

17 General view of area north of the northern wall of the structure showing two stained soil features.
Stratigraphic profile of the area north of the northern wall of the structure which could be interpreted as a drainage ditch or a path running parallel to the north side of the building: 1, turf/sod; 2, silt; 3, sand; 4, topsoil/occupation brick rubbish; 5, occupation surface; 6, sub-soil; 7, builder's trench fill; 8, fill; 9, floor.
19 Coarse earthenware, unglazed and brown/olive glazed: a, unglazed; b, c, brown/olive-glazed shoulder rims; d, brown/olive-glazed base.

20 Coarse earthenware bottle, brown/olive glazed.
21 Coarse earthenware bowls, brown/olive glazed.

22 Miscellaneous coarse earthenwares: a, trailed slipware; b, plain slipware; c, clear-glazed red; d, black-glazed red; e, glazed, grey/white; f, brown slipped, white.
23 Creamware plate.

24 Creamware cup.
25 Creamware pitcher.

26 Blue shell-edge plate.
27 Blue shell-edge platter.

28 Blue shell-edge platter showing manufacturer's mark.
29 Blue shell-edge mustard pot.

30 Blue shell-edge serving vessel lid.
31 Green shell-edge plates: a, painted; b, slightly indented; c, deeply indented.

32 Green shell-edge serving vessel.
33 Blue hand-painted pearlware tea bowl.

34 Blue hand-painted pearlware sugar bowl.
35 Polychrome painted pearlware and earthenware: a, pearlware; b-e, whiteware.

36 Blue shell-edge refined white earthenware: a, indented; b, painted.
37 Blue transfer-printed earthenware: a, pouring lip; b, cup; c-d, hollowware; e, plate brim; f, saucer.

38 Blue transfer-printed pitcher.
39 Miscellaneous transfer-printed earthenware: a, light blue; b, flowing blue; c-d, polychrome; e, red; f, brown.

40 White earthenware, annular ware and banded yellow ware: a-b, white earthenware, bluish tint; c-e, white earthenware; f-g, annular ware; h, banded yellow ware.
41 Brown stoneware: a, handle; b, body sherd.

42 Brown stoneware bottles: a, shoulder, narrow-mouth bottle; b, wide-mouth rim; c-d, shoulders, wide-mouth bottles.
43 Porcelain: a-b, overglaze decoration; c-d, polychrome.

44 Linear pile of bottles, in situ, on the floor of the McVey residence. The concentration is possibly the result of a collapsed shelf on which they once rested. Scale in feet.
Bottle necks: a, neck 1; b, neck 2; c, neck 4.

Restorable bottle.

Restorable bottle.
48 Complete bottle and detail of the neck and finish.
49 Bottle necks: a, neck 5; b, neck 6; c, neck 7.

50 Restorable bottle.
51 Bottle necks: a, neck 8; b, neck 10; c, neck 9.

52 Bottle base 1.
53 Bottle base 2.

54 Bottle base 3.
55 Bottle base 4.

56 Bottle base 5.
57 Bottle base 8.

58 Marked bottle fragments: a, A(?); b, L; c, indeterminate.
59 LONDON bottle.

60 Miscellaneous bottles: a, octagonal corner; b, square base, mould seam and pontil mark; c, round base, two-piece mould seam and pontil mark.
61 Glass vessel bases.

62 Stemware.
63 Stemware with trumpet bowls.

64 Glass stoppers; both are green.
65 Small glass stoppers.

66 TD pipes with the moulded maker's initials on the spur.
67 Moulded TD pipes with WG(?) on the spur.

68 Moulded masonic TD pipes.
69a Moulded pipe, left side, showing the thistle motif.

69b Moulded pipe, right side, showing the masonic emblem.
70 Moulded bowl fragments of varying decorative pattern.

71 WG spur fragments.
72 Pipe mouthpieces: a, secondary; b, original, glazed; c, original, unglazed.

73 Pewter object of anchor-like appearance.
74 Brass spigot.

75 Wooden brush.
76 Aboriginal artifacts: a, projectile point; b, polished stone adz; c-e, pottery rims.

77 Iron artifacts: a, fork; b, spoon; c, knife.
78 Axe head.
Site dating graphs.
80 Bottle concentration on floor near the southeastern corner of the structure.

81 Floor analysis areas of the McVey residence.
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3 Yvon Desloges, Structural History of Fort George (1980; $5.00, $6.00 outside Canada)

4 André Giroux, Nicole Cloutier and Rodrigue Bédard, Plans de l'architecture domestique inventoriés aux Archives Nationales du Québec à Montréal; Plans de l'architecture commerciale et industrielle inventoriés aux Archives Nationales du Québec à Montréal; Plans de l'architecture publique, de l'architecture religieuse et du génie mécanique inventoriés aux Archives Nationales du Québec à Montréal (1975; 3 vols; $11.00 a set, $13.20 outside Canada. Technical reference work available in French in the Histoire et archéologie series.)

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7 Norman F. and Anne Barka, Archaeology and the Fur Trade: The Excavation of Sturgeon Fort, Saskatchewan (1976; $6.25, $7.50 outside Canada)

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    Marcel Moussette, Salvage Excavations at Cartier-Brébeuf Park, Quebec City, 1969  
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12  Richard Lueger, Prehistoric Occupations at Coteau-du-Lac, Quebec: A Mixed Assemblage of Archaic and Woodland Artifacts  
    A. Couture and J.O. Edwards, Analyses of Two Prehistoric Copper Artifacts from the Cloverleaf Bastion of the Fort at Coteau-du-Lac, Quebec  
    D.E. Lawrence, Identification of Representative Prehistoric Stone Artifacts and Samples of Unworked Stone from the Cloverleaf Bastion of the Fort at Coteau-du-Lac, Quebec  
    W.B. Scott, Fish Remains from the Cloverleaf Bastion of the Fort at Coteau-du-Lac, Quebec  
    J. Edson Way, The Human Osteological Material from the Cloverleaf Bastion of the Fort at Coteau-du-Lac, Quebec  
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    Elizabeth Vincent, The Guardhouse at Fort George, Ontario (1977; out of print)  

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    (1977; $9.50, $11.40 outside Canada)  

15  Karen Price, Glimpses of Soldiering at Coteau-du-Lac, Quebec - 1780 to 1856  
    Karlis Karklins, Beads from the Fort at Coteau-du-Lac, Quebec  
    Paul McNally, Table Glass from the Fort at Coteau-du-Lac, Quebec  
    Ann Cunningham Falvey, Coins from the Fort at Coteau-du-Lac, Quebec  
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