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THE ARCHAEOLOGY OF FORT LENNOX,
ILE-AUX-NOIX, QUEBEC
1964 SEASON

by
NORMAN F. BARKA

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During the 19th century, numerous buildings were built outside the area occupied since 1819 by Fort Lennox. These buildings include a bakehouse, a Royal Engineers store, brick sheds, a lime shed and kiln, a straw shed, a cookhouse, and garrison hospital. Other buildings also depicted on 19th century plans of the island show a carpenters shop, a gun shed, barracks, stable, forge, engine house, cemetary, and others. In other words, Ile-Aux-Noix, when garrisoned with troops and/or naval personnel, was a fairly self-sufficient, working, military community, equipped to meet industrial, medical, and other requirements.

The following report presents the results of archaeological research carried out in 1964 on twelve buildings/areas to the north of Fort Lennox: the 18th century English Fort (5G7), the Garrison Hospital (5G3,11), the Hospital Cooking House (5G4), the Garrison Bake House (5G12,15,18), the Barracks (5G14), the Gun Shed (5G6,9), the Ordnance Store (5G13,16), the Forge and Smith's Shop (5G19), a Lime Kiln area (5G20), a Well area (5G17), and a possible Canteen-Root House area (5G10). All are of 19th century date, with the exception of the English Fort.
During the late spring and summer of 1964 an archaeological field school was conducted on Ile-Aux-Noix by the National Historic Sites Service, under the supervision of the author, Marshall Becker, and Ian Rodger. The program had two main objectives: 1. to train Canadian students in archaeological field and laboratory procedures; 2. as part of the training process, to excavate as many 18th century and/or 19th century structures as possible in the area north of Fort Lennox. Both objectives were achieved. Fourteen students enrolled in the field school and all received instruction in basic archaeological techniques. The students were: Bruce Batchelor, Micheline Bouchart D'orval, Mary Cherry, Louis Chevrette, Judy Chute, Karalee Coleman, Pierre Hebert, James Moscovich, Christopher Turnbull, Bryan Visser, Elizabeth Wylie, and Carole Yawney.

The author wishes to thank all of the above-named individuals, as well as John Rick, Jervis Swannack, and Al Wilson. Michael Schurman provided assistance at the site on a voluntary basis.

Last but not least, my wife Anne deserves my gratitude for her support of and assistance with the project.
HISTORY OF ILE-AUX-NOIX

Ile-aux-Noix, because of its strategic location in the Richelieu River Valley, was important to the armies of New France, Great Britain, and the United States in the 18th and 19th centuries.¹

The French became involved with Ile-aux-Noix in 1759 when they built a fort on the island for the purpose of controlling water communication between Lake Champlain and the St. Lawrence. The French thereby hoped to prevent or retard any English attacks against Montreal. However, in August 1760, the English were able to force the French to evacuate the island. The English, under Amherst, later destroyed the French fortifications on the island. By the summer of 1761 Ile-aux-Noix was empty.

Ile-aux-Noix became important again during the years of the American Revolution and later. Americans used the island on several occasions. It later served as a base for the major expeditions of Carleton and Burgoyne.

An American force under Major General Philip Schuyler, assisted by Brigadier General Richard Montgomery, arrived at Ile-aux-Noix on September 5, 1775. Schuyler's objective was to enlist Canadian help to attack Montreal. Using Ile-aux-Noix as a base, Montgomery soon captured St. Jean, Chambly, and Montreal. A raging small-pox epidemic and the advancing English made the Americans decide to evacuate Ile-aux-Noix for Crown Point in the summer of 1776.

¹This historical summary is based on Lee 1965.
FIG. 1. LOCATION OF ILE-AUX-NOIX
The English seriously set about fortifying Ile-aux-Noix in order to prevent American penetrations into Canada. By 1779 the island was considered secure against any short-term attack. By 1782 the British began to build stronger fortifications on the island. Apparently the defensive works were never finished and were allowed to go to ruin after the war. By 1809, Ile-aux-Noix had been abandoned.

Ile-aux-Noix was reoccupied in 1812 to serve the British in their struggle with the United States. The Lake Champlain-Richelieu River approach made Montreal still vulnerable to American invasion. The island was also well suited for launching attacks on Vermont and New York. The old earthworks and redoubts on Ile-aux-Noix were put into order.

Ile-aux-Noix soon became the Canadian center of a naval arms race to control Lake Champlain. A shipyard was constructed in 1813-1814, as were naval barracks, a hospital, and storehouses. Numerous gunboats were built at Ile-aux-Noix.

In peacetime the British felt obliged to maintain the island fortifications against possible future American incursions and especially to protect the naval yard.

By c.1819, the British began to construct a large fort on Ile-aux-Noix, to be called Fort Lennox, which actually took nearly 10 years to build. However, as time passed, less and less attention was paid to Fort Lennox and Ile-aux-Noix. In 1834, the naval station was closed. The number of troops on the island gradually decreased. By 1858, the island and its buildings were taken over for service as a reformatory for juveniles.
2 Infra-Red Aerial Photograph of Ile-aux-Noix and Fort Lennox.
The threat of American reprisals after the "Trent Affair" resulted in the reoccupation of Ile-aux-Noix in 1861-1862. The buildings and works of Fort Lennox were repaired, but repairs were not completed until 1866. Soon after this, in 1870, Ile-aux-Noix was abandoned. Ile-aux-Noix was not used as a military base again.
3 Durnford Map of 1823.
THE OLD ENGLISH FORT

The British fort built on Ile-aux-Noix between 1780 and 1783 had adapted earlier French earthworks into a smaller, more easily defended fortification. The fort included glacis, covert way and ditch. Inside them were several buildings which are shown in the same positions on maps of 1783, 1789, 1809, and 1814. Only on one map (1814), however, are the buildings labelled as to use. These include the following which would be situated outside the present fort: a commissary store, barracks, officers quarters, magazine, privies, mess house, and a guard house. This fort was removed around 1819 to be replaced by the larger Fort Lennox (Lee 1966).

Forty-one excavation trenches of various sizes were dug in 1964 in the grid area 80N-50S, 290-420E. It was necessary to remove up to seven feet of overburden in the south portions of the excavations, due to the glacis of Fort Lennox. Structural and artifact evidence was found for the 18th century fort, although the limited time available did not permit adequate or complete excavation, so that final interpretation of the remains is not possible.

The structural remains found were as follows: the stone foundation walls of a building; a gravel area or pavement with associated beams or logs; and a drainage-sewer system (Fig. 5).

The Building

A long narrow building, oriented northeast-southwest, was partially exposed. The northwest, northeast, and southeast corners and portions of the east wall were excavated, revealing a stone foundation wall laid on clay and sand, three feet below ground
FIG. 4. SITE LOCATIONS AND DESIGNATIONS, 1964
surface (Figs. 5,12,13). It should be noted that ground level varies in the area because of the earthworks of Fort Lennox. The wall averaged two feet in width, and 1.5 feet of wall remained standing, the stones held together with mortar.

The building measured 110 ft. by 18 ft. From its size and orientation, one can reasonably presume this building to be the "commissary store" of the late 18th century British fort.

Approximately 15 to 30 feet to the east of the stone building was found a complex of features - a gravel pavement, a sewer, and a drain.

**Gravel Pavement**

A thin (6.5 ft). layer of gravel, approximately one to two feet below the present ground surface, extended over a maximum horizontal area of 65 feet square, although the exact limits were not delineated. Immediately upon this gravel was found the remains of approximately 22 wooden beams or planks, in various stages of preservation, laying in a roughly north-south direction, parallel with but not necessarily equally spaced from one another. The longest beam measured c.9 ft. in length. Fragments of beams were also found to the immediate west of the gravel area (Figs. 6,15,16).

**Sewer System**

Immediately to the west of the main group of beams, and situated near the supposed western edges of the gravel pavement, was a stone drain which was situated nearly parallel with the foundations of the commissary and c.30 feet to the east. The drain was traced for a distance of nearly 50 feet. In most cases the gravel layers abutt the west and east edges of the drain and is at the same level as the
drain surface. The drain itself, laying at angles with the wood beams, is 2.4 feet wide, made of a single course of small stones with a central line of bricks on the interior, bounded by larger flat stones which form the edges (Figs. 17, 18).

The south end of the stone drain stops where an east-west oriented wooden sewer begins (Figs. 22-24). This wooden sewer was in a remarkable state of preservation, due to the extremely wet clay in which it was imbedded. The sewer consisted of two basic parts: 1. an inlet box covered with an iron grill; and 2. a carefully constructed tunnel-like structure through which water and/or waste materials flowed (Figs. 7-11, 19-35).

The inlet box was found in a collapsed state, as was the sewer in general, approximately 2-3 feet below the level of the gravel layer and stone drain. Because of the presence of the iron grill, it must be assumed that the top of the inlet box was originally at gravel or ground surface level in the late 18th century, probably slightly below the level of the stone drain, from which it received water or waste. Thus the inlet box must have originally been 2-3 feet in height, i.e., 2-3 feet of space between the grill and the top of the tunnel section of the sewer. The iron grill or grating was composed of 9 flattened and closely-spaced iron bars, flanked on two sides by parallel hinges attached to pintles, enabling the grill to be swung open at one side (Figs. 19-21). The iron bars measured 1.75 ft. in length, with a diameter of c.0.1 ft. The terminal ends of each bar were thin and flat and of a rounded spatula-shape, with a nail hole in the middle. Each bar was nailed to wood, with one nail at each end. The entire inlet box measure c.1.9 feet square.
FIG. 5. PLAN OF EXCAVATIONS (5G7)
The main sewer was well constructed of dressed wood logs and planks. Only 10.4 feet of sewer was excavated, but it seems very probable that the sewer continued to the east, but not to the west, as the western end of the sewer is vertically walled, i.e., not open (Figs. 26-28). As is shown in Figures 8-11 and 19-35, the sewer system was probably built in 8 ft. sections, the various sections being joined together by a slotted wooden upright. The floor of the sewer was made of short, circular logs (0.4-0.6 ft. in diameter) flanked on each side by larger (0.75 ft. in diameter, 10.4 ft. in length) logs. Slotted uprights (c.0.6 ft. square) were set into the edge basal logs, c.8 feet apart. Four dressed logs, beveled at opposite edges with ends morticed, were stacked upon each other and fitted into the slotted uprights. The top surface or roof of the sewer was formed by horizontal planking and logs. The entire sewer, as found, measured c.10.4 ft. in length, by c.3 feet square.

With the very limited amount of excavation carried out, one can only speculate as to how the stone drain and wooden sewer were used. One question immediately comes to mind. The complimentary position of the stone drain to the wooden sewer (i.e., the stone drain ends and leads to the opening or grill of the sewer) certainly implies contemporaneity between the two. One wonders then why the drainage or sewer system was not entirely above ground, as an above ground system would have been much easier to construct than an underground system. With a partially above ground system, one would think that waste materials would not be the drainage involved. Perhaps the underground sewer extended beneath a structure of some
sort, while the ground level stone drain immediately flanked a structure, being a receptacle for rain-water roof run-off. However, no clear archaeological evidence for such a structure was found in the immediate vicinity of the sewer, with the possible exception of the wooden beams found laying on the gravel pavement.

Trench

The final feature to be discussed are two ditches-trenches which post-date the features previously discussed. A shallow trench of grey earth c. 6 feet, in width was found in the eastern portions of the excavations. A smaller trench (c.2 ft. wide) connects with this trench, and runs at right angles toward the west for a distance of c.80 ft. The north-south trench cuts into the gravel pavement. The smaller east-west trench cuts into and thus postdates the gravel, the stone drain, and the east wall of the supposed commissary store (Figs. 14,18).

The age and function of the trench are not known.

Artifacts

Of the datable 18th century artifacts found on Ile-aux-Noix during 1964, the majority were found in the fort area excavations. Many were found in the topsoil, as the construction of Fort Lennox and possible later disturbances have in many cases disrupted the stratigraphy of the area. Late 18th century artifacts include numerous free blown glass wine bottles, feather-edged creamware, tin-glazed earthenware, a fine silver spoon, clay smoking pipes, shoebuckles, and several buttons, including one from the Royal Provincials (c.1776-1783).

The majority of artifacts found in the area were, however, 19th century in date.
Structural Hardware

BRACE or BRACKET - a wrought iron strap with fastening holes at one end.

GRATING - a complete sewer grating (see report).

HINGE - a butterfly hinge, folded, measures 4.5 cm. by 3 cm. (Fig. 138, no.7); also one fragment of an HL hinge.

KEY - a fragment of an iron key, with an oval bow twisted out of shape, and a tooled solid shank (Fig. 142, no. 1).

LATCH - one latch of the bar type, with one end circular and flat, with rivet hole in center.

LOCK - a rectangular flat lock plate, iron, with two of the four corners truncated; plate measures 6.8 cm. by 6.2 cm., and has 8 holes for fastening.

PINTLE - three pintles made of one piece of wrought iron measure 10-13 cm. in length (Fig. 138, no. 1).

STAPLE - one U-shaped staple, wrought iron.

Household - Maintenance and Repair

PIN - one brass straight pin with a flat head.

Household - Furnishings

LOCK - a fragment of an iron chest lock.

Household - Food

BOTTLES - glass wine bottles made by the free blown technique predominate and seem to date by shape to the fourth quarter of the 18th century. One bottle fragment has the date "1779" pecked into the side. Two-hinge mold bottle glass is also present in the upper levels of the excavated area.

FORK - two forks with rat-tail tang and two tines (Fig. 127 ).

KNIFE - a table knife with a straight-backed blade and rat-tail tang for handle attachment; on one side of the blade the letters BE?? are stamped perpendicular to the blade length (Fig. 128, no. 2). Two folding knives, both with pistol-grip, bone covered handles, were found. One knife has the word DIXON stamped on one side of the blade (Fig. 128, nos. 6, 7).

POTTERY - 18 varieties of pottery were found, including 18th century creamware plates, white salt-glazed stoneware, black basaltes
ware, a green-glazed redware, and tin-glazed earthenware. Nineteenth century ceramics found in the area include black glazed redware, mocha ware, a variety of pearlware vessels, including non-decorated flatware, blue handpainted ware, delicate painted, sponged, gaudy-Dutch, annular ware, shell-edged plates, and transfer-printed earthenware. Brown to grey stoneware blacking vessels and a few porcelain sherds were also recovered (Figs. 120-126).

SPOON - a fine silver spoon measures 11.6 cm. in length and has the single letter P impressed on the back of the upper handle, as well as the makers mark TW and the Lyon Passent in relief at the narrowest part of the handle back. The initials possibly refer to one of these makers: Thomas Wynne, 1754, London, or Thomas Wallis, 1758, London. The Lyon Passent denotes a Sterling alloy of 92.5 silver and 7.5 copper. The spoon probably dates to the c.1765 to 1770 period (Fig. 129).

Other spoons, all fragmentary, include two complete oval bowls made of iron (Fig. 128, no.8), and a bowl-handle fragment of tinned iron; the flat handle of this spoon expands toward the terminal end.

STEMWARE - twelve glass vessel fragments of 3 types were found in the area: a). 9 vessels each have a conical, folded foot, a stem with a slight knop near the foot, and a trumpet-shaped bowl; b). one stem fragment is similar to those described, except for the addition of vertical fluting on the knop; c). two vessels have plain stems with trumpet bowls and solid conical feet.

TUMBLER - eight plain tumblers, of clear glass, range in basal diameter from 2-3 inches, with slightly outsloping side walls; two tumblers have mold-made decoration in the form of equal concave panels.

Craft - Tools

AWL, wrought iron - a). a rectangular shaft 16.8 cm. in length, pointed at one end, with ferrule intact; possibly a scribe or shoe-makers awls (see Mercer 1960:64,177); b). a bi-pointed shaft c.15 cm. long (Fig. 145, no.5).

FILE, iron - a). a half-round file, double cut on the flat surface and single cut on the round surface; gradually tapering tang (Fig. 146, no.10); b). a flat file with both sides double cut. (Fig. 146, no. 8).
PIKE, wrought iron - beveled piece of iron with upper end bent around to form a socket for wood shaft; length - 15 cm. (Fig. 145, no. 7).

PITCH FORK, wrought iron - two-pronged, with open tang to receive wooden handle; the prongs are flattened, rectangular in section, and beveled; total length - 35 cm. (Fig. 144, no. 1).

WEDGE - a small wrought iron wedge (Fig. 145, no. 3).

Weapons

BALLS - three cast iron balls range in diameter from 3-4.7 cm. Eleven lead musket balls are c.70 calibre (Fig. 143, no.10).

GUNFLINT, flint - six gunflints each measure c.3.5 cm. by 3 cm.; 4 of the flints are made from blades and are black in color; two flints are gunspalls, of dark grey flint. (Fig. 143, no. 9).

GUNFLINT PATCH, lead - a possible gunflint patch, made of a folded piece of lead, c.3 cm. square, with a notch at one edge - to accomodate vise jaw screw of cock. Gunflints were often held between such a piece to achieve a better grip.

Personal - Activities

PIPE, clay - excavations in the general 18th century fort area produced both 18th and 19th century artifacts, including white clay tobacco pipes; 454 pipe fragments were found - 20 pipe bowl fragments, both plain and molded; 431 plain pipe stems and 3 marked pipe stems. Makers marks appearing on the bowl fragments: TD within a circle (in relief); TD impressed on the back of the bowl, with T and D in relief on the spur; TD impressed, with WG in relief on the spur; WG impressed within a circle of the bowl back. WG may be William Goulding Jr., a London pipemaker of 1733-1762 (Oswald 1975:137). Pipe stems with makers names impressed on the sides: A. COGHILL/ GLASGOW (1826-1904); HENDERSON/MONTREAL (c.1848-1880); MCDUGALL/ GLASGOW (1847-1868) (Fig. 130).

Personal - Grooming

BRUSH, bone - two hair brush fragments. One is a handle, broken where the brush begins; five longitudinal grooves on the upper surface begin on the handle and run onto the brush surface; maximum width - 2.2 cm. (Fig. 137, no. 2). The second example is a
brush fragment, with the handle missing. Six grooves run longitudinally on the upper surface; numerous cone-shaped holes are drilled into the grooves; fiber (?) of the brush is evident in the majority of holes; 2.4 cm. wide (Fig. 137, no. 3).

COMB, ivory - two fragments, one of which is from a fine-toothed comb (Fig. 137, no. 7).

RAZOR, iron - a razor blade with a portion of the tang broken; present length is 13.6 cm., maximum width is c.1.5 cm. Stamped on one side of blade is M L[?] DUBLIN (Fig. 131, no. 5).

**Personal - Clothing**

BUCKLE - two shoebuckles and one waist-belt buckle, all of copper alloy. a). a complete but bent shoebuckle is rectangular and measures 5.8 cm. by 4.2 cm; designs in the upper surface consist of a straight raised band in the middle, with a wavy line down each side at the buckle edge; between a portion of the design is a space about 1 mm. in width, lower than the rest, with a design of very fine ribbing. The pin terminal style is of a post-1770 type (Abbitt 1973: Fig. 8B), (Fig. 134, no. 2).

b). an incomplete rectangular shoebuckle decorated on its upper surface with raised squares, dotted lines, and ridges; the pin terminal style is of a post-1770 type (Abbitt 1973: Fig. 8B). Dimensions - c.8.6 cm. by 4.5 cm. (Fig. 134, no. 1).

c). a waist-belt buckle, rectangular in shape, 5.6 cm. by 3.6 cm., with a central bar and evidence of an iron tongue (Fig. 134, no. 5).

BUTTON - a total of 17 buttons were found in the excavation area: 3 bone, wood, or shell buttons and 14 metal buttons, including 6 buttons with regimental markings - the 13th (1813-1815), the 60th (c.1821-1876), the Royal Provincials (1776-1783 period), the Canadian Militia (1812-1815), and two buttons from the Royal Marines (1812-1834). Four solid cast buttons, each with a plain face and iron eye cast in place, and with or without a mold seam visible, probably date to the 1776-1781 period. Four brass buttons, two with the words DOUBLE GILT stamped into the back, date to the 19th century (Fig. 135).

SHAKO PLATE, brass - seven plates or ornaments worn on military shakos were found in the area of the 18th century fort excavations,
by far the most from any area during the 1964 season: a) a fragment of the crown from the top of a hat plate; the top of the crown, which would be a Maltese cross, is missing; greatest width of the crown is 4.9 cm.; probable date - War of 1812 period or 1829-1844 (Calver and Bolton 1950: plate on page 209; Cattely 1936), (Fig. 133, no. 2).

b). a shield-shaped plate from the shako of the Royal Regiment of Artillery. In the center are the incomplete remains of a GR cypher, surrounded by a garter with the words ROYAL REGT OF ARTILLERY; garter is buckled at the lower left of the oval; below all this is a representation of a cannon or mortar; plate originally was surmounted by a crown, which is now missing; the design is in relief. The plate was attached to the shako through 4 small holes (Fig. 133, no. 4).
The Royal Regiment of Artillery is listed as being at Ile-aux-Noix in the years 1813, 1843, 1849, 1850, 1862, 1864, and 1868 (Lee 1967).

c). a fragment of the left side of another shako plate, identical to no. b described above; possibly also of the Royal Regiment of Artillery.

d). a fragment of the left portion of a shako plate, consisting of the edge and part of the raised GR cypher (Fig. 133, no. 3).

e). small fragments of a shako plate, consisting of the top loop of the GR cypher.

f). a probable plate fragment bearing the number 3 and above to the right a raised curve which may be part of a GR cypher; below the numeral 3 is a curved edge of the sort found on shako plates of the War of 1812 period; if the numeral 3 refers to the 3rd Regiment of Foot, the fragment then dates to the 1814-1815 period (Stewart 1964: 84).

g). a fragment of a lions head side ornament, identical to a complete ornament found in the hospital (Fig. 133, no. 6). The remaining design consists of a right side of the lions eye, mane, nose, and upper lip. Date - 1816-1829 (Cattely 1936:194).

CONCLUSIONS

The stone building excavated in 1964 is nearly identical in size and orientation to one of the 18th century British fort buildings shown on the 1783, 1789, 1809, and 1814 maps of the island,
and therefore can be presumed to be the "commissary store". Artifacts dating to the late 18th century were found in relative quantity.

The dating of the other features found to the east of the stone building cannot be definitely ascertained. The gravel pavement and log beams possibly predate the drainage-sewage system and are contemporary with the stone building, since the trench dug for the wooden sewer seems to have cut through the gravel layer. However, if this is the case, we have no way of knowing how much difference in age there is between the two. Presumably both could have been constructed in the 1780-1783 period.

The exact dating of the drainage system (wooden sewer, stone drain) is also in doubt. Two possibilities arise, considering the fact that both 18th century and 19th century artifacts were found in direct association with the stone drain and with the grill work and "tunnel" section of the sewer: 1). the drainage system was built during the British fort period (1780-1783), but remained open or in use until the construction of Fort Lennox; 2). the drainage system was constructed in the early 19th century, after the demise of the 18th century British fort, but before the 1819 construction of Fort Lennox. Either of the above possibilities could account for the mixture of 18th and 19th century artifacts in the drainage system, if one keeps in mind that the glacis of Fort Lennox (1819-1828) covers the drainage system. However, the association of mid-19th century artifacts (two-hinge mold glass, a McDougall/Glasgow pipe stem, etc.) with the wooden sewer raises problems which cannot be explained at the present time.
FIG. 6. SECTION OVER STONE DRAIN

1. SANDY LOAM
2. GRAVEL
3. BRICK
4. BROWN SOIL
1. WATER
2. GREY CLAY
3. GREY CLAY MIXED WITH SAND
4. SAND
5. CLAY MIXED WITH GRAVEL
6. CLAY
7. GRAVEL
8. BRICK AND MORTAR
9. BROWN SOIL MIXED WITH MORTAR AND BRICK
10. BROWN SOIL AND MORTAR
11. BLUE CLAY
12. BROWN SOIL MIXED WITH CLAY

FIG. 7
FIG. 8. SEWER
FIG. 9. SEWER CONSTRUCTION AT NO. 1, FIG. 8
FIG. 10. SEWER CONSTRUCTION AT NO. 2, FIG. 8
FIG. 11. SEWER CONSTRUCTION AT NO. 3, FIG. 8
Figure 12. Northeast corner of commissary store

Figure 13. Southeast corner of commissary store
Figure 14. Portion of east wall of commissary store at point where later trench has cut through it.

Figure 15. Gravel pavement with wooden beams
Figure 16. Gravel pavement with wooden beams

Figure 17. South end of stone drain, looking north
Figure 18. Portion of stone drain at point where later trench has cut through it, looking north

Figure 19. Wooden sewer with iron grill, with stone drain in foreground, looking south
Figure 20. Iron grill in relation to wooden sewer, looking southwest

Figure 21. Closeup view of iron grill
Figure 22. Wooden sewer with grill removed; stone drain to left; looking east

Figure 23. Wooden sewer with grill removed; stone drain in foreground; looking south
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Figure 24. Wooden sewer with grill removed; stone drain to right; looking west

Figure 25. Wooden sewer, looking west
Figure 26. Wooden sewer, west end, showing floor, side, and end beams, and vertical square corner beams

Figure 27. Wooden sewer, west end, with end beams in place
Figure 28. Wooden sewer, west end, with all but lowest end beams removed; note slotted vertical corner beams

Figure 29. Wooden sewer with end and north side beams removed; note slotted corner beams; looking west
Figure 30. Wooden sewer, west end, looking south

Figure 31. Wooden sewer, showing floor beams, with end, north side beams, and northeast corner beam removed; note mortise hole; looking west
Figure 32. Wooden sewer, closeup of west end and mortise hole in side beam, northwest corner; looking west

Figure 33. Corner beam removed from sewer; two sides slotted for insertion of end and side beams, with tenon to fit into mortise hole in basal side beam
Figure 34. West end beams, removed from sewer

Figure 35. Side beams, removed from sewer; beam at left sits upon side basal beam in sewer.
THE GARRISON HOSPITAL

Historical maps of Ile-aux-Noix, dated 1814, 1816, and 1819, 1823, 1830, 1833, 1842, 1863, and 1870, indicate a rectangular "Garrison Hospital" in the area of the 1964 excavations. An architect's plan and elevation, dating to 1823, labels the same building as the "Military Hospital" (Fig. 36). The hospital was apparently a frame (and brick?) building measuring 100 ft. by 24 ft., with 1½-2 stories, a pitched roof, dormers, numerous windows, and a chimney and fireplace toward each end of the building. Two doorways are shown on the 1823 plan, and there are two rooms at each end of the building, with two larger rooms separated by a hallway and staircase in the central hospital interior. The hospital was apparently built or completed in 1814 and stood until 1870 (Lee 1966).

The archaeological explorations carried out in 1964 revealed a building nearly identical in dimensions to the "military or garrison hospital" described above. However, only foundations for the walls and fireplaces remained (Figs. 37, 38). The archaeology revealed nothing that would either substantiate or disprove the above-ground historical architectural evidence.

Stratigraphy

The soil stratigraphy of the hospital area was as follows:

1. humus - 0-0.5 ft. in thickness.
2. a debris stratum, consisting of rock, red brickbats, and mortar fragments; 0.8-1.5 ft. in thickness, underlies humus. The maximum density of this stratum
Fig. 36. Military Hospital from 1823 Drawing
was near the two fireplace foundations. The thickness and density drop considerably towards the center of the building where very few bricks were found. Within the debris were numerous fairly thick lenses of white mortar.

3. a grey-brown sandy clay, occurring in the hospital interior and the immediate exterior. This stratum, which supported the debris stratum, was very hard, possibly indicating the ground surface at the time of hospital construction. The foundation trenches cut through this stratum.

4. a greyish-yellow sterile clay, mottled with rust-colored sand. Foundation walls and fireplace foundations cut into and rest within this stratum or the next lower stratum.

5. a reddish-brown sand, sterile.

6. a grey clay mottled with a rusty color, sterile.

Foundation Walls

Foundations walls uncovered form a rectangle, with the long axis oriented slightly east of magnetic north (Fig. 39). The north and east walls are better preserved than the west and south walls. The building measured 101 ft. (north-south) by 25 ft. (east-west). The corners of the buildings were situated at the following grid coordinates: northeast corner - 515.5N, 63W; northwest corner - 515.5N, 88 W; southeast corner - 414.5N, 64 W; southwest corner - 414.5N, 89 W.

The foundation walls were made mostly of uncut field stones, with a few stones being roughly faced, all set with mortar. The walls averaged two feet in thickness, with a maximum height of c.3 ft. The original height is not known. However, stratigraphy in one area showed the stone foundation to extend above the probable 19th century ground surface (grey-brown sandy clay) - c.0.4 ft. of the wall extended into the debris stratum above this ground surface, with two feet of the walls in sterile strata.
FIG. 37. PLAN OF HOSPITAL (5G3,11)
The foundation walls had been set within a foundation trench, the trench being only slightly wider than the walls. A brick footing was used for the foundation walls, and the footing had been placed at the bottom of the trench in a very haphazard fashion. The bricks used were mostly broken pieces or bats, apparently thrown into the trench hurriedly, as there was a lack of symmetry throughout the brick base. In only one excavation trench were the bricks found to be in order (Figs. 40,41). No mortar was used with the bricks.

The foundation walls, like the brick footing, had been constructed with a lack of care. The profile of the wall was never perfectly vertical even where the wall had not been disturbed (that part in sterile strata).

Along one part of the east wall, from the northeast corner to a point thirty feet south of this corner, was a slight shelf or ledge on the interior face (Fig. 42). The shelf was below the level of the probable hospital floor.

Adjacent to the north, east, and west foundation walls, at the mid-point and exterior of each respective wall, evidence of stair or porch foundations was found, indicating probable entranceways or doors to the hospital at these points (Fig. 43,44). The east and west doors were directly opposite one-another, each represented by a squared-U-shaped stone configuration measuring 4.5 ft. (north-south) by 6.5 ft. (east-west). The east door-stair foundation is of better construction than its western counterpart. Both were built after the main foundation walls, as the former abutt the latter. Handles, hinges, and latches were found in both foundation areas.

A third probable stair foundation was found on the exterior of the north wall. It measured 5 ft. by 6 ft., and was not as well
defined as the previously-described foundations. The foundation is off-center, its west edge being 8 ft. from the west wall, its east edge being 13 feet from the east wall. However, some stones seem to have been removed from the east side of the foundation.

The area outside of the south wall was not completely excavated.

Fireplace Foundations

Two fireplace or hearth foundations were found on the interior of the hospital, one near each end of the structure (Figs. 45, 46, 47). Each foundation was situated 8 feet from the end walls, but were slightly off-center relative to one-another. Each measured 6 feet square, 2 feet in thickness, being constructed of a field stone interior with roughly-faced stone on the outside (Fig. 47). The surfaces of the fireplace foundations were relatively level, and of approximately the same elevation as the foundation walls.

No artifacts were found in association with the foundations. However, a large number of bricks, each averaging 0.65 ft. by 0.32 ft. by 0.2 ft., with mortar adhering, were found around both fireplace foundations, especially on the north side of each foundation. This probably indicates brick chimneys, that at one time collapsed to the north.

Other Features

Two soil stain features or trenches found in the area predate the construction of the hospital.

In a greyish-yellow sterile clay, immediately below a dark brown sterile stratum, was found an unusual circular soil stain (Figs. 37, 48). It was situated in the interior of the hospital, immediately adjacent to the south portion of the north fireplace foundation. The soil stain is 0.8 ft. wide, 0.3 ft. deep, and
15 ft. in diameter. No artifacts were found within it. Although situated within the hospital, it probably has no relation to it, as the north fireplace cuts through the north portion of the ditch, signifying that the ditch is older than the fireplace. Its purpose remains unknown.

A second much larger ditch was also defined. It was three feet in width, 1.5 feet deep, and was filled at the bottom with brick and mortar debris. The ditch begins under the east foundation wall of the hospital, extends across the hospital interior a few feet north of the south fireplace base, passes under the west foundation wall, and then turns a 90 degree angle and parallels the west foundation wall for a distance of 61 feet (Fig. 37).

Stratigraphically, this ditch cuts through the same strata as does the foundation wall trench of the hospital. It is of the same size and shape as the hospital trench, but predated the latter, as the foundation walls and west porch foundation cut into it. Either a building existed in the area prior to the hospital, or the hospital construction went through at least two building phases.

Superstructure

Archaeological evidence for the type of superstructure is virtually non-existent. The main walls were probably of wood, although only minor wood remains were found. The amount of brick debris found on the hospital interior was certainly not enough to account for a brick building. In addition, very few bricks were recovered on the exterior of the hospital. Unless numerous bricks were looted from the collapsed building, the hospital was probably of wood construction.
FIG. 38. SECTION, HOSPITAL

- WALL STONE
- TOPSOIL
- MORTAR - BRICK DEBRIS
- GREY-BROWN SANDY CLAY
- GREY CLAY MOTTLED WITH RED SAND
- GREYISH-YELLOW CLAY
- REDDISH-BROWN SAND
- HUMUS-LIKE SOIL

NOT EXCAVATED
Artifacts

Approximately 9,000 artifacts were found during the excavation of the hospital. Fifty per cent of these artifacts were pottery fragments and pane glass. No artifacts were found which are specifically medical in nature, with the possible exception of an iron forceps and certain glass bottles.

All of the artifacts recovered were 19th century in date, with the exception of a few 18th century finds. Many of the artifacts which could be more or less closely dated, such as an 1815 coin, were found in the topsoil. The majority of artifacts were recovered from the brick-mortar debris level.

The artifacts have been grouped into broad functional categories. All hardware and tools are made of wrought iron unless otherwise identified.

Structural Hardware

BRACE or bracket - three fragments of elbow-shape with nail or screw hole.

GRATING - a). cast iron, 2 specimens. A heavy bar with shaft triangular in cross-section, basal side flat; upper surface is truncated and the shaft is curved slightly longitudinally; at each end of the shaft there is a flattened rectangle one-half the height of the shaft; probable complete length is 51 cm.; maximum shaft width is 2.7 cm.; maximum rectangle width - 5 cm.; and maximum shaft height is 5.5 cm. b). a flat bar, 35 cm. by 2.5 cm. with 12 square holes. There is evidence of iron rods (broken) in 8 of the 12 holes; possibly part of a grating (Fig. 140, no. 1).

HINGE - fragments of 2 HL or H hinges; 1 strap hinge; 1 T hinge; and 2 cast-iron butt hinges (Fig. 138, no. 6).

HOOK - a). a J-shaped wall hook, with a pointed shaft at right angles to the J (5 specimens); b). four gate, door, or shutter hooks, with one end turned at right angles to shaft, opposite end eyed; length from 7.5 cm. to 27 cm; several hooks have staples attached through the eye (Fig. 141).
KEY - a). a complete key, with oval bow, drilled circular shank tooled near the bow; bit has one notch and is grooved on one side; 7.5 cm. in length; b). 2 fragments, each with oval bow, circular shank, with two-notched bit.

KEY-HOLE COVER - made of brass, this cover measures 6.1 cm. by 2 cm; the front is decorated and the hollow back shows a remnant of a probable iron pin (Fig. 142, no. 6).

LATCH - four latch specimens. a). a latch and latch plate. The latch bolt is complete, but bent, with an original length of c.51 cm. The bolt is bent at right angles at one end, onto which is attached a flat, round knob to form a handle; the opposite end of the latch bolt is widened to form a latch stop; the bolt is attached to 2 latch plates, one is large (23 cm. by 3 cm.) with 6 fastening holes, the other is smaller and diamond-shaped with 2 fastening holes (Fig. 139, 6. b) a second latch is of a flattened bar-strap type, 18 cm. in length, attached at one end to an iron latch plate with a rivet. Two additional bars of this type were also found in the hospital area.

LOCK - a). two complete bolts from a probable door lock measure 17 cm. and 18 cm. in length; both bolts are rectangular in section with toothed projections at one end; b). the front plate of an iron padlock with keyhole measures 8 cm. by 7.5 cm. (Figs.142,nos.4,5,8).

PINTLE - one pintle of two-piece construction has a pin 5 cm. long inserted into a pointed gudgeon; length is 11.5 cm. Five other pintles are of one piece construction. One specimen has a broad arrow mark stamped on the shaft below the pin (Fig. 138, nos. 1, 2).

SHUTTER DOG - a shutter holder is S-shaped with the middle part of the S thickened to receive a beveled pin. Length of the shutter dog is 13.5 cm., and the width is 5 cm. (Fig. 140, no.4).

STAPLE - U-shaped or squared U-shaped with pointed ends, varying in length from 4 to 10 cm. (3 specimens, Fig. 140, no. 3).

Household Items for Maintenance and Repair

PIN - two straight pins, brass, with flat heads.

SCISSORS - a). scissor blades triangular in cross-section, with shank of handle circular in section; handle loops oval; overall length of 13 cm. b). oval loops with shank expanding and partially threaded; flat blades; c). scissors with flat blades and a round
cup shank with double bow loops; 16 cm. in length (Fig. 127, no. 4).

THIMBLE - a brass thimble has a decorative band around the base, above a rolled edge, with a floral design and the words I WELCOME THEE.

**Household - Furnishings**

LAMP CHIMNEY, glass - fragments of long cylinders of thin clear glass, with a straight rim and a mouth diameter of c.3 cm.

**Household - Food**

BOTTLES - a variety of glass bottles were associated with the hospital: free blown wine and medicine bottles; wine bottles made in dip molds and 3 hinge molds, and 2 hinge mold-made vessels, including square, octagonal, circular, and oval shapes. Some bottles may have been used specifically for hospital functions, such as certain wide-mouthed, wide-based, 3 hinge mold bottles.

BOTTLE STOPPER - two stoppers are made of clear glass. One stopper is short and 3 cm. in diameter with a square handle, the exterior surface of the stopper is ground. The second stopper is 1.3 cm. in diameter with a squared handle wider than the stopper plug.

FORK - a). two forks with flat handle tang, with 2 half-round pieces of cut bone riveted onto the tang; forks are 2-tined with a circular shank; handle is often decorated; b). one 2-tined fork with a rat-tail tang; c). one 3-tined fork with a long, flat tang and 3 fastening holes in the tang; entire fork is flat, but curved at tine-handle juncture; fork is 18 cm. long (Fig. 127).

KNIFE - table knife fragments, one with a straight backed blade and flat tang for handle attachment; another table knife has a rat-tail tang for handle attachment.

POTTERY - of the 27 pottery types discerned at Ile-aux-Noix, 21 were found in the hospital excavations. Tablewares consist of creamware, mocha, slip banded, plain, and decorated pearlware, including varieties classified as blue handpainted, delicate painted, sponged, shell-edged, gaudy-Dutch, annular ware, and transfer-printed, the latter being by far the most common. Cruder redware includes slipped redware vessels, glazed redware, and slip-decorated
redware, all possibly Canadian-made (Table 5). A few white salt-glazed stoneware sherds of mid-18th century date and numerous 19th century brown to grey stoneware blacking bottle fragments were recovered from the debris stratum, as well as porcelain and ironstone fragments (Figs. 120-126).

SPOON - spoons made of brass, iron, or whitemetal were found. a). three brass spoons have a fiddle-type handle and measure 13-15 cm. in length; b). seven iron spoon fragments are from large spoons; one spoon handle is flat with a spatula-shaped flaring terminal; estimated length is 22 cm. c). a whitemetal spoon has an oval bowl, an expanded handle rounded at the end and ridged on the back side; impressed on the back of the widest part of the handle above the ridge is the name THOMAS YATES and below the ridge WIDE LINED; length is 14.5 cm. (Fig. 128, nos.10,13).

STEMWARE, glass - three vessels have stems with a slight knop, a conical, folded foot, and a trumpet-shaped bowl; one vessel has a plain stem with a trumpet bowl and a plain conical foot.

TUMBLER, glass - a minimum of 8 tumblers, from 2-3½ inches in diameter; six are plain and two have molded decorative panels or planes; five of the plain tumblers have pontil marks present, and on one the pontil mark has been ground off.

Craft - Tools

CAULKER - a possible caulking tool, made of wrought iron. A heavy trowel-like device 23 cm. in length; an anchor mark is stamped into the handle (Fig. 145, no. 9).

DIVIDERS, wrought iron - large dividers 18.5 cm. long; the two halves are hinged with an iron pin; each shaft is widest near the top, with pointed terminal ends (Fig. 143, no. 8).

FORCEPS, wrought iron - pinchers and shaft of handle are flattened on the inside edges, with outer edges rounded; loops of handles are circular; length is 14 cm. (Fig.146,no.12).

HAMMER, wrought iron - the complete head of a claw hammer, with 2 reinforcing straps. The head is octagonal in section, with downcurving claws; wooden handle fitted between the iron straps or reinforcements and riveted onto latter. Marks are stamped on one side of hammer above reinforcements - a broad arrow mark adjacent
to what appears to be the letter E (Fig. 145, no. 1).

HOE, wrought iron - the shaft and portion of the blade of a J-shaped hoe.

PLANE BLADE, wrought iron - rectangular, measuring 12.5 cm. by 6.2 cm., with a hole punched near the center at one end (Fig. 145, no.10).

RULE, brass - a). the fragment of one scale of a sliding rule, 7 mm. wide and 2 mm. thick; inches are divided into eighths (Fig. 132, no.4); b). the fragment of a graduated rule, 15 mm. in width and 1 mm. in thickness; the rule is made to measure in inches and eighths; fragment has the numeral 22 stamped into one side (Fig. 132, no.3).

Weapons

BALLS, cast iron and lead. Ten iron balls range in diameter and weight from 2.2 cm. (35 grams) to 4.7 cm. (418 grams). Lead musket balls (12) are c.70 calibre (Fig. 143, no. 10).

BULLET, lead - one Enfield bullet, .577 calibre, c.1860-1868 (Fig. 143, no.11).

GUN, floor plate for trigger, brass - oval in shape with rectangular slit in center and screw hole in one end; 5.8 cm. in length.

GUN, upper vise jaw, iron, from flintlock musket.

GUNFLINT, flint - one flint, black in color, made from a blade, 3.5 cm. by 3 cm. (Fig. 143, no.9).

SCABBARD, brass with gold wash - base of a sword scabbard, hollowed to receive end of sword blade; decorated with groups of transverse lines; 10.3 cm. long, 2.3 cm. wide (Fig. 134, no. 13).

Transport - Horse Gear

AXLE, wrought iron - a possible axle is a shaft 29 cm. in length, with the middle 16 cm. of the shaft square in section, and the ends circular (Fig. 144, no. 4).

STRAP, wrought iron - a rectangular strap has 10 holes in it, with a heavy eye riveted to the middle, onto which is attached an
expanding strap with equally spaced holes in the center; possibly a wagon fitting.

**Personal - Activities**

CRAYONS, slate - two specimens, each c.0.5 cm. in diameter (Fig. 131, no. 8).

HARMONICA, reeds, whitemetal - the reed of a mouth organ or harmonica; a sloping rectangle, 8.1 cm. long, pierced by 10 rectangular slits (Fig. 131, no. 7).

MARBLE - two glass marbles with colored swirls within, 2 cm. in diameter; one clay marble (Fig. 131, no. 12).

PIPES, clay tobacco pipes - 424 white clay pipe fragments include 36 plain or mold decorated bowls and 388 stems (Fig. 130). Plain, non-decorated bowls include three without maker's marks, one of which may date to the c.1730-1780 period and another to the c.1840-1860 period, based on comparisons with pipes illustrated by Oswald (1975). On other plain bowl fragments, the TD maker's mark is predominant, mostly on the backs of bowls and/or spurs: TD within a circle, both impressed; TD (impressed); TD within a circle (in relief); TD in relief; TD impressed on the bowl, with WG in relief on the spur; and the initials M and G on the spur. The TD mark, as explained in Chapter 14, may stand for Thomas Dormer, a mid-18th century pipemaker from London. However, one pipe found in the hospital has an impressed TD on the bowl together with the mark HENDERSON-MONTREAL on the stem, signifying a c.1848-c.1880 date for the pipe. The TD-WG marked pipe probably signifies William Goulding Jr., 1733-1762 (Oswald 1975:66,67).

Pipes with a variety of molded decoration were also found in the hospital, as were marked pipe stems, including the following: R. Bannerman, Montreal (c.1860's-c.1889); Bell, Quebec (1850's-20th century); A. Coghill, Glasgow (1826-1904); Henderson, Montreal (c.1848-c.1880); McDougall, Glasgow (1847-1868); W. White, Glasgow (1805-1855).
Personal - Grooming

RAZOR, iron - a straight-backed razor with a flat, hollow tang and pin-hole; length - 14 cm.; blade width - 2 cm. (Fig. 131, no. 5).

Personal - Adornment

BEAD, glass - two beads, both spherical, black in color, 9 mm. and 13 mm. in diameter.

Personal - Clothing

BUCKLE, brass - possibly a man's trouser knee buckle, rectangular in shape with rounded corners, 2.8 cm. by 3 cm; in the centers of the short sides are pin holes. The buckle probably dates to the 1750-1770 period (Cunnington 1964:213, and Calver and Bolton 1950:220, nos. 4-6).

BUTTONS - a total of 32 buttons were found in the hospital excavations - metal (17), glass (5), bone (8), and shell (2). Metal buttons include seven with regimental insignia: the 19th (1814-1816), the 24th (1829-1840), the 71st (1824-1831 or 1838-1852), and four identical buttons of the 100th Regiment of Foot (1866-1868) (Figs. 135, 136).

The other metal buttons include four of whitemetal, solid cast and plain, probably dating to the Revolutionary War period; one solid cast, plain brass button with a brass eye; two stamped brass buttons with WARRANTED NOT TO CUT on the face; and three iron buttons.

White glass buttons include two 4-holed plain buttons with sunken faces, and three cone-shaped buttons with an iron eye attached to the back. Eight bone buttons include one, four, and five-holed varieties. Two shell buttons each have 4 holes with star or ray patterned decoration on the face.

HEEL PLATE, iron, cast or wrought - the heel plates are parabolic in shape, and each heel plate measures c.7 cm. by 7 cm.; one heel plate is made of cast iron, with the shoe surface flat and the ground surface partially grooved, with nail holes in the groove. Two wrought iron heel plates each have two flat surfaces with equally spaced nail holes (Fig. 131, no. 4).
SHAKO PLATE or ORNAMENT, brass - three military insignia or ornaments worn on a shako were found: a) a fragment, being the front portion of the curved bugle worn by light infantry on shakos, probably between 1816 and 1830; the entire device consists of the bugle suspended from one or two thick cords tied in a bow at a point above the center of the bugle, giving the impression that it is hung on a wall; the fragment is decorated with floral designs and a band, all raised; length - 4.2 cm.; maximum width - 3.2 cm. (Fig. 133, no. 5) (see Carman 1957: 113, 123, and plate 66; for American examples see Campbell and Howell 1963, figs. 39, 78, 79, 121, 191, etc.). b) a complete ornament, circular, 3.6 cm. in diameter; in relief, the head of a mournful lion with a mane which is arranged like a wreath at the edge; nose of lion is highest point, being 10 mm. above basal parts (Fig. 133, no. 6). Between 1816 and 1829 shako side-ornaments were of the lion's-head type; in 1829, lions standing on crowns were introduced (Cattely 1936: 194). c) nine fragments of a sun-burst star-type shako plate of the 65th Regiment. The crown which would surmount the plate is missing except for a part of the base (Fig. 133, no. 1). Cattely (1936) dates this type of plate to the 1829-1844 period. However, the hospital specimen can be narrowed down to the time range 1838-1841, for between these years the 65th Regiment of Foot was in Canada (Stewart 1964: 274).

SHAKO SCALES, brass - half-round and crescent-shaped pieces of very thin brass, with 3 holes along one edge, measuring c.2 cm. by 1.5 cm. (Fig. 134, no. 14). Four such scales were found in the hospital. Scales or leaves such as these were sewn overlapping to the shako chinstrap, above the peak of the shako, or looped over the cockade at the front top of the shako. Scales of this type were found from 1829-1835 on officers' and men's shakos. Chin scales were discontinued in 1842 and replaced with chain or a plain leather strap (Cattely 1936, Plate II, 8).

Personal - Coinage

COIN, copper - a Nova Scotia trade token, 2.7 cm. in diameter and 2 mm. thick. Obverse: George III, dexter, wreathed and robed;
legend HALF PENNY TOKEN 1815; Reverse: a three-masted ship, full sail, with legend SUCCESS TO NAVIGATION AND TRADE.

Conclusion

In summary, it is certain that the archaeological investigations uncovered the garrison hospital built c.1814. The location of the hospital and a comparison between the measurements of the building obtained archaeologically (101 ft. by 25 ft.) with those shown on historical maps (100 ft. by 24 ft.) forms the main evidence for this assumption.

The date of hospital construction could not definitely be ascertained from archaeological evidence. Artifact remains, however, seem to range in date between the historical dates given for construction, c.1814 to c.1870. The date of destruction of the hospital is suggested by artifacts found within the building debris level: two-hinge mold glass dates to c.1840 or later (Lorrain 1968); metal buttons of the 100th Regiment of Foot date to the 1866-1868 period. Crossmends with the nearby cookhouse establish a date of 1864 or later for the demise of the hospital, based on a knife fragment with the date 1864 stamped on the blade; several Henderson (c.1848 or later) and McDougall (c.1847 or later) pipe stem fragments may also date to this period, but certainly date to post 1847. In sum, the demise of the hospital would seem to have been in the late 1860's, a date which agrees well with the historical date of 1870.

The artifacts are essentially the same types found in other structures on Ile-aux-Noix. Very few artifacts, if any, give the impression of a hospital, with the possible exception of certain wide-mouthed glass bottles and the iron forceps previously described.
Figure 39. The hospital, looking north

Figure 40. The west wall with brick footing
Figure 41. Elevation view of brick footing beneath stone wall

Figure 42. The east wall, with shelf on interior
Figure 43. East entrance foundation

Figure 44. West entrance foundation
Figure 45. North fireplace foundation, plan view

Figure 46. North fireplace foundation
Figure 47. North fireplace foundation, section view, looking east

Figure 48. Portion of circular soil stain, looking north
A building labeled the "Hospital Cooking House" on an 1823 map of Ile-aux-Noix was the subject of intensive archaeological excavation in 1964. The cookhouse served the garrison hospital (Fig. 49). It was built in 1816 and supposedly was still standing in 1870 (Lee 1966).

The structural remains thought to be the cookhouse were uncovered within the grid area 470N-503N, 161W-191W, some 73 feet west of the military hospital. The corners were found, and the interior of the building was completely excavated. The cookhouse structure measured 32 feet (north-south) by 18 feet (east-west). These measurements compare very favorably with the measurements ascertained from the 1823 map of the cookhouse - 30 feet by 15 feet. It was apparently a small wooden structure, supported by four stone corner foundations. A central back-to-back hearth or fireplace with a probable bake oven attached on the west side measured approximately 12 feet square, and backed on the west wall of the building. The building itself is oriented to face the east toward the hospital. A doorway was undoubtedly located on the east side (Figs. 50, 54).

Hearth

The most substantial structural feature found was the hearth-bake oven foundation, made of brick and stone, situated in the west-center of the building, backing on the west wall of the building (Figs. 51-61). The hearth-bake oven foundation measures a maximum of 12 feet square and was about 4.1 feet in height (foundation
Fig. 49. Hospital Cooking House from 1823 Drawing
stones - 2.6 feet thick; brickwork - 1.5 feet thick). The surface of the feature was at approximately the same elevation as the stone corners (c.101 ft. ASL).

When first exposed, a large amount of brick and mortar rubble was found on the structure. Further investigation provided evidence that the structure was composed of two sections, a front, east portion or back-to-back hearth, and a back, west portion, or bake oven foundation (Figs. 51, 55). The hearth and bake oven had separate foundations and different patterns of brickwork:

A). the hearth is situated in the center of the building, facing the hospital building. It measures 12.0 feet (N-S) by 7.5 feet (E-W) by 2.6 feet in thickness. The hearth was constructed of 4-5 courses of foundation stones, large and small, the majority heavily mortared. On top of the foundation, laid on a thin bedding of reddish-brown sand, were up to four courses of brick set in mortar for the floor. The type of brickwork varies, and four distinct construction patterns can be discerned:

1. the south and north flooring of the hearth are made of relatively soft brick, the average size of which is 0.75 ft. long, 0.4 ft. wide, and 0.2 ft. thick. The bricks, laid on edge, formed a partial concentric square pattern. The joints formed in one row were laid opposite the middle portion of the bricks in adjacent and parallel rows. Complete stretchers and/or cut bricks were used. The bricks were set on a brownish red sand, beneath which was brick, mortar, and artifact fill. The outer or southern 1.7 feet of brick flooring was set on top of fill, which was on top of sterile soil. The remainder was set on fill which in turn was on top of foundation stones (Fig. 57). In other words, the hearth pavement, measuring
12 ft. by 7.5 ft., extended beyond the foundation, which measures c. 8 ft. square, and sloped downward from the hearth center.

The brickwork of the north portion of the hearth is identical to that described, but the extent of the north portion is narrower (Fig. 51).

2. Located in the flue area of the hearth is the second type of brick construction and the highest elevation of what remains of the hearth - 103.12 ft. ASL. Four complete, well-constructed courses of brick are set in mortar. Bricks measure 0.85 ft. by 0.42 ft. by 0.3 ft. This portion of the construction is bordered on each side by an east-west line of flat bricks placed end to end. The interior is constructed of whole and half-bricks, well mortared.

3. The third and fourth types of brick construction are situated to the immediate north of type 2 construction. Both consist of one or two courses of brick on top of reddish-brown sand and mortar, below which is the stone foundation. Type 3 consists of the same type of bricks as type 1, except they are slightly shorter, averaging 0.6 ft. in length. These bricks, together with brickbats, have been placed on their sides in lines running north-south, giving a total thickness of about 0.7 ft.

4. The same thickness of brick occurs for type 4 construction, end-glazed bricks set in an upright position on top of hearth sand and mortar. Bricks measure 0.7 ft. by 0.37 ft. by 0.2 ft.

The hearth structure had a chimney, probable archaeological evidence for which can only be discerned in a pile of brick rubble found to the west of the hearth outside the west wall. However, a relatively small amount of brick was uncovered in this area.
FIG. 51. PLAN OF BRICK HEARTH
B). The bake oven area measures 10.3 ft. (N-S) by 4.5 ft. (E-W), and is constructed differently than the adjoining hearth. A plaster or mortar flooring covered a single course of brickwork. The brickwork slopes up gradually to meet the lower brick pavement of the hearth. A foundation of 11 courses of brick, resting on small stones with a course of brick beneath, supports the pavement (Fig. 58). The brick foundation begins at a depth of 0.5 feet lower than the adjacent stone hearth foundation, and extends 1.3 feet further to the south than the latter. The back extension was poorly constructed in comparison with the finer work of the hearth. The bricks used are rougher and larger, and the brickwork is not as well defined. The bake oven runs up to what probably was the west wall of the building, and it may have formed a portion of the west wall.

Numerous artifacts were found, especially among the top few courses of the brickfill. Here fragments of about 40 wine bottles, made in 3-hinge molds (c. 1810 or later), were found, many of which were partially filled and encrusted with mortar (Fig. 119). Apparently broken bottles had been thrown in during construction for use as fill.

The bake oven and the hearth are depicted on the 1823 architectural drawing. Both were planned units as of this date. Whether the bake oven was actually built in 1823 is debatable. The difference in construction techniques between the bake oven foundation and the hearth foundation is striking. The bake oven may be later in date than the hearth. Korvemaker (1972:74) suggests that the original cookhouse may have burned down, and that broken bricks from the collapsed chimney were used to construct the base for the bake oven which was to be added to the new cookhouse; and that a new
hearth floor and chimney were made of brick at the same time.

The date of the bake oven foundation is perhaps suggested by a bottle fragment found within the foundation, found either among or below some 400 plaster-filled, three-hinge mold, 19th century wine bottle fragments (field notes are vague on the exact location of the bottle). In raised letters on the bottle fragments are the words FARQUAR - WILSON 'Est. 1845", refering to a specific manufacturer. This suggests that the bake oven foundation, and possibly the entire hearth area, was built in 1845 or after.

Corners

The cookhouse structure was apparently constructed of wood supported by four stone corner foundations (Figs. 50, 59-61). The L-shaped foundations were relatively small, both in length (4.5 feet, both north-south and east-west), width (1.8-2.2 ft.), and thickness (1.0-1.5 ft.). The present top elevation averaged 101 feet ASL, or approximately 2 feet below the highest level of the brick hearth. The foundations were constructed of both large (up to 1.8 ft. by 1.4 ft. by 0.4 ft.) and small (0.4 by 0.4 by 0.2) stones, only 1-2 courses of which remained. The stones had been set in mortar. No bricks were used in the corner foundations. Evidence of wood was found on top to the stones of the southwest corner, together with portions of a vertical beam.

Wood Remains: Interior

Within the area bounded by the stone corner foundations, traces of wood were found, especially on the north, east, and south sides of the hearth-bake oven structure. The wood undoubtedly represents the remains of sills and/or flooring, as several pieces articulate
FIG. 52. SECTIONS OF HEARTH

- BRICK
- WOOD
- VERY DARK BROWN SANDY CLAY
- PALE BROWN LOOSE MORTAR
- REDDISH-BROWN HEARTH SAND
- STONE
- GREYISH-BLACK CLAY AND CHARCOAL
- BROWNISH-YELLOW SANDY CLAY
- MORTAR PLASTER
- BROWN SANDY RUBBLE FILLED CLAY

scale in feet
with the hearth at about the level of the base of the brick hearth floor. Associated with the wood were iron nails and spikes.

Large wooden beams or sills probably ran from corner to corner. Evidence of probable sills was found on the west, east, and south sides, in line with the stone corner foundations. Traces of wood planking were also found which run east-west perpendicular to the probable north-south sills. These possibly represent girts which were probably fastened to the sills by a mortise and tenon joint. Floor boards and/or floor joists were probably nailed to the girts. Several pieces of wood were found to articulate with the hearth at about the level of the basal course of brick flooring, indicating the floor and upper hearth were probably at the same horizontal level.

Wood Remains: Exterior

Outside of the area bounded by the stone corner foundations was found evidence of wood planking. On the west exterior, 3.5 feet west of the bake oven foundation, was found two overlapping planks with a total length of 11 feet. Similar planking scraps were found on the south side.

Remains of wood planking were most prevalent on the east exterior. Three groups, each consisting of three parallel planks, were found 3 feet east of the stone foundations. Each group of planks, separated by 0.5 ft., measured 5 feet to 7 feet in length, stretching a total north-south length of 20.5 feet. Numerous nails were associated with the planking.

The wood planking was at the same elevation as both the interior wood remains and stone corner foundations - about 101.62 ASL. It seems probable that the wood represent the remains of a porch on the east side of the building - the side that faced the hospital.
structure. However, no evidence of foundation posts or corners were found in this area. The wood found west of the hearth is at a lower elevation (100.7 feet ASL) and may represent collapsed boards of the west wall.

Soil Stains

To the immediate west of the cookhouse, running underneath both the southwest stone corner and a pile of bricks was an irregular black clay soil stain approximately 11 feet long, with a width varying between 0.4 ft. and 8.5 ft., and shallow in depth. This may represent a portion of a drainage ditch.

Stratigraphy and Artifacts

The stratigraphy of the cookhouse area was as follows: a top humus layer; a series of brown sandy clays beneath the humus and overlying the structural features, containing brick and mortar debris; a series of brown and grey clays without brick-mortar debris.

The artifacts recovered were found mostly in the humus and debris layers, and among the bricks of the hearth and bake oven foundations. The datable artifacts, especially glass and ceramic, ranged in date from the early 19th century to the last quarter of the 19th. Cross-mends between areas of excavation in the immediate vicinity of the cookhouse were numerous, suggesting a relatively rapid demise and filling of the structure. Several military buttons with regimental numbers (15th, 59th, 65th, 89th, 100th) were found in the debris layers. The 100th Regiment of Foot, identified on the button as the Prince of Wales Royal Canadian Regiment, arrived in Canada in 1866 (Stewart 1964). If this date is correct, then the destruction of the cookhouse and the resulting debris level date to 1866 or
FIG. 53. SECTION, HEARTH

- HUMUS
- BLACK CLAY AND RUBBLE
- YELLOW CLAY AND MORTAR
- BLACK SANDY CLAY
- GREY SANDY CLAY
- FINE MORTAR
- MORTAR
- LT. BROWN SAND
- BROWNISH-BLACK SAND
- WOOD

D

CORNER STONES

HEARTH

D'

0  4 FT.
later, agreeing with the historical date of 1870.

Another artifacts tends to confirm this dating. A table knife, stamped with the date 1864, was found in a nearby level, some artifacts from which crossmend with artifacts from the debris level.

The quantity of artifacts recovered in the excavation of the cookhouse exceeded the number found in any other operation. Approximately 12,200 artifacts were found in the cookhouse - c.2000 pane glass fragments, c.5000 pottery sherds, and 5,200 other artifacts (metals, bottle glass, pipes, etc.).

Structural - Hardware

BRACE or BRACKET, wrought iron - a squared, U-shaped fragment with a fastening hole in each arm.

HASP, iron - in the shape of an 8, 23 cm. in length (Fig. 141, no. 3).

HINGE - two strap hinges with flattened, circular terminals (Fig. 138, nos.8,9); a fragment of a T hinge (Fig. 138, no.4); two HL hinge fragments; and three butt hinge fragments.

HOOK, wrought iron - gate, door, or shutter hooks; length from 7.5 cm. to 27 cm. (4 specimens). (Fig. 141, no. 1).

KEY - two complete keys each with an oval bow, tooled shank and pin, 11 cm. and 13 cm. in length; another key is nearly complete, 6.5 cm. long, with an oval bow, a circular shank which is hollowed out for one-half its length to fit on a drill pin, and a small bit with a single notch. (Fig. 142, no. 1).

KNOB, brass - two complete door knobs with threaded iron shanks; knob diameters - 3.7 cm. and 4.6 cm.

LATCH, wrought iron - a). a complete latch, including latch bolt, latch plate, and loops or yokes; bolt length is 22 cm. (Fig. 139, no. 7); b). several bar latch fragments and one latch catch or guard were found (Fig. 139, nos. 3).

LOCK - a). a possible lock fragment is a thick piece of brass with a thin piece of wrought iron riveted to one side; numerous small holes have been partially drilled into the brass (Fig. 142, no. 3). b). the front plate and side rim of a small padlock measures 2.5 cm. by 2.3 cm. (Fig. 142, no. 9).
PINTLE, iron - one pintle of two-piece construction measures 11.5 cm. in length. (Fig. 138, no. 2).

STAPLE, wrought iron - U or squared U-shaped with pointed ends varying in size from 6 cm. to 10 cm. (4 specimens; Fig. 140, no. 3).

Household - Maintenance and Repair
PIN - five brass straight pins with either flat heads (2) or wire-wrapped rounded heads (3).

SCISSORS - two pair. One has rounded blades with rounded terminal ends, oval bows, an ornamental shank, and a length of 11 cm. the second pair has a flattened shank with a threaded neck; length 12 cm. (Fig. 127, no. 4).

THIMBLE - of brass, lettered and flowered border around the base above a rolled rim; lettering is only partially legible: HONOUR THE? ? (Fig. 131, no. 6).

Household - Furnishings
GEAR WHEEL, brass - a possible gear wheel from a clock; wheel consists of a thin outer gear with 30 teeth (2.6 cm. diameter) and a smaller (9 mm.) adjoining gear wheel with 8 teeth.

HANDLE, iron - several probable drawer handles: a). an elongated C-shaped handle 10 cm. in length; b). a probable C-shaped handle attached to a rectangular plate (10 cm. by 4 cm.), the latter having 4 fastening holes; the broad arrow mark within a circle is stamped on the plate (Fig. 143, no. 3). c). a fragment of a small brass handle.

LAMP CHIMNEY, glass - fragments of long cylinders of thin clear glass, with straight rim, flat lip, and mouth diameter of c.3 cm.

LOCK, iron - a chest lock, with a portion of the front plate and cover plate missing; the front plate is rectangular with 4 fastening holes; a drill pin projects beyond the cover plate (Fig. 143, no. 1).

Household - Food
BOTTLES - the largest amount of bottle glass found at Ile-aux-Noix was associated with the cookhouse. Wine bottles were the most plentiful, some having been used as fill for construction. Other two-or three-hinge mold bottles, occur in a variety of colors and shapes, including some with raised lettering; one two-hinge mold
bottle has the wording RRR RADWAY & CO NEW YORK; another has a broad arrow mark above the letters WD; a three hinge mold soda bottle reads FARQUAR & WILSON EST 1845 MONTREAL (Figs. 118, 119).

BOTTLE STOPPER - two clear glass stoppers, with rectangular or circular hand-holds.

BOTTLE TOP - a tin bottle top is circular and c.2.3 cm. in diameter. A seal on top consists of a feline head surmounted by the top one-half of a fleur-de-lis with the remainder of the fleur-de-lis below, all in the top half of the design; around the top of the circle are the words PATENT TRADE MARK CAPSULE; under the feline are the words TRADE MARK; below this in a dashing script are the words BETTS LONDON MAKER, with London in larger letters; seal is offset by a very narrow raised edge.

A second tin bottle top has the words TRADE MARK CAPSULE over a face view of a lion-like head, below the words TRADE MARK, a signature, then LONDON.

COLANDER(?), brass - a colander-like device, 14.7 cm. in diameter, consisting of a number of wires stretched across a circle made of a larger wire, forming a mesh.

FORK - a). 3 forks with flat handle tang, with cut bone riveted onto tang to form handle; handle is often decorated with incised lines; one handle has H873 cut into one side; another handle has 2 nails at far end, indicating that the handle was once capped with metal; 2 or 3 tined with circular shank.
b). one 3-tined fork with a rat tail tang; c). fragments of a 4-tined fork. (Fig. 127).

KNIFE - a). five table knives with flat tang for handle attachment and straight-backed blades; one fragment has the following stamped on one side of the blade: HUNTER SHEFFIELD C&M 1864.
b). two table knives with rat tail tang for handle attachment; swayback or straight backed blades.

POT - a basal fragment of a cast iron pot (c.22 cm. basal diameter) and a lid fragment.

POTTERY - 22 of 27 pottery types were found in the cookhouse excavations. Redwares, probably Canadian-made, include slipped and slip decorated wares, and other finer black glazed and lustre wares. English tablewares include a variety of decorated and non-
decorated pearlwares: blue handpainted, delicate painted, sponged, gaudy Dutch, shell-edged, and annular ware. Creamware, mocha, and a slip banded ware made on a yellow body also were found. Stonewares include black basaltes, one piece of a lead glazed stonewares, a yellow stoneware, and brown to grey blacking bottles and containers (Figs. 120-126).

SPOON - several iron spoon bowls are oval in shape and have been tinned.

STEMWARE, glass - two vessels have stems with a slight knop near the conical, folded foot, and a trumpet shaped bowl; one vessel has a plain stem, trumpet bowl, and plain foot.

TUMBLER, glass - nine tumblers were found, six of which are without decoration and three of which are mold decorated.

Craft - Tool

CHISEL - a wood chisel of wrought iron with a plated ferrule attached at the blade-tang juncture; length - 17 cm. (Fig. 146, no. 3).

FILE, iron - a flat file with straight, tapering edges; double cut (Fig. 146, no. 9).

SAW, wrought iron - a). saw fragment with uneven teeth; two small haft holes near one end; 21 cm. long with maximum width of 7.5 cm. (Fig. 146, no. 1). b). a small fragment of a toothed saw blade, possibly a coping saw.

SHOVEL, wrought iron - a fragment of a probable shovel or spade, with a hafting socket 3.6 cm. in diameter.

WEIGHT, - two possible lead weights; rectangular with hole at one end (Fig. 145, no. 11).

Weapons

BALLS - 3 cast iron balls are 2-3 cm. in diameter. Eight lead musket balls are c.70 calibre (Fig. 145, no. 10).

BULLET, lead - two Brunswick belted rifle balls, 70 calibre, date to c.1845 or later.

Transport - Horse Gear

BUCKLE, harness - 2 buckles made of brass; one buckle is rectangular, with a roller; the other buckle is oval in shape, with a dropped center bar and iron tongue.
STRAP BOLT, wrought iron - object is 24.5 cm. long with 2 holes; a threaded bolt is forged to one end of the object; possibly used on a wagon (Fig. 144, no. 3).

**Personal - Activities**

CRAYON, slate - 10 specimens (Fig. 131, no. 8).

DOMINO, ivory - a thin rectangle measuring 4.5 cm. by 2.2 cm.; on one half of upper surface, 5 cone-shaped depressions; on other one half of same surface 1 cone-shaped drilled depression, representing a 5:1 domino (Fig. 137, no. 8).

ICE SKATE, BLADE, cast iron - blade is thickest at the base; front end of blade curves upward; length - 28 cm. (Fig. 131, no. 2).

MARBLE - nine clay marbles ranging in diameter from 1 cm. to 1.7 cm.; one specimen is painted.

PIPES, clay - 757 white clay tobacco pipe fragments, both plain and with molded decoration, were found in the cookhouse excavations: 701 pipe stems, of which 32 are marked, and 56 pipe bowls and fragment. Pipe bowl shapes, when compared to those illustrated by Oswald (1975), seemingly cluster toward the mid-19th century (shapes 3, 4, and 5). One bowl (no spur) has the words ??LO and STRAND impressed on the back of the bowl.

The following initials occur on bowls and/or spurs found in the cookhouse: TD within a circle (impressed); TD (impressed); TD within a circle (in relief); TD in relief; and on a spur, the initials M and G.

Marked pipe stems are as follows: A. COGHILL/GLASGOW (1826-1904); HENDERSON or HENDERSON'S/MONTREAL (c.1848-c.1880), MCDougALL/GLASGOW (1847-1868); MURRAY/GLASGOW (1830-1861), W.WHITE/GLASGOW (1805-1955) (Fig. 130).

WHEEL, cast iron - a complete spoked wheel, 5.1 cm. in diameter; probably a wheel from a toy (Fig. 131, no. 9).

**Personal - Grooming**

BRUSH, bone or wood - the handle of a hair brush is concavo-convex in section, with a drilled hole at one end; two crude incisions are present on the upper surface; the handle is 3 cm. wide (Fig. 137, no. 1). The small fragment of a wooden brush, probably a tooth brush, has numerous very small cone-shaped holes drilled into it. A second more complete toothbrush, 1 cm. wide, has 40 small holes.
in one surface, with 4 narrow slits in the opposite side (Fig. 137, no. 4).

**Personal - Adornment**

BEAD, glass - one spherical, frosted glass bead, 7 mm. in diameter.

EARRING or SLEEVE LINK (?) - a brass fixture, 9 mm. in diameter, is crimped onto a stone; the stone is white and alabaster-like and circular (7 mm. diameter) with a flat top. In the center of the stone is a small blue circle within which is a gold-speckly material. An eye is attached to the brass backing, to which in turn is attached a circular brass link (Fig. 136, no. 5).

**Personal - Clothing**

BUCKLE - two metal buckles: a). a shoe buckle, fragmentary and bent, made of a copper alloy. The upper surface of this rectangular shoe buckle is decorated with intertwining cords. The pin terminal is of a style common throughout the 18th century (Abbitt 1973: Fig. 8A). The buckle may date to the Revolutionary War period (see Cunnington 1964: 229).

b). a rectangular waist or sword belt buckle with three teeth.

BUTTONS - a total of 72 buttons were found at the cookhouse, by far the largest number recovered from any excavation at the site. Glass (12), bone (21), and shell (20) buttons comprise 73 percent of the total number of buttons; metal buttons (19) include 11 whitemetal or brass buttons with regimental markings: the 15th (1830s); the 59th (1814); the 65th (1838-41); the 71st (1824-1831, 1855-1852); the 89th (1812-15, 1841-1847); the 100th (1866-68); the Royal Regiment of Artillery (1813-1868); the Canadian Militia (1812-1835); the Royal Marines (1812-1834); and a probable regimental button with the word DONNEGAL over a crown (Fig. 135).

Four brass buttons, dating to the c.1800-c.1830 period, are stamped with the words GILT or DOUBLE GILT.

HEEL, leather with iron nails. A U-shaped shoe heel, measuring 4.5 cm. by 4.3 cm., consists of 4 thin layers of leather and 15 square-headed, small nails driven into the leather; nail length is c.3 cm.

HEEL PLATES, iron - three heel plates, each parabolic in shape
with maximum overall dimensions of c.7 cm. square and 1 cm. in thickness; two plates are of cast iron, with the shoe surface flat and the ground surface grooved to contain nails; one heel plate is of wrought iron, flat on both surfaces, with equally spaced nail holes (Fig. 131, no. 4).

SHAKO PLATE, brass - a probable shako side-ornament is circular, 4.4 cm. in diameter, and slightly convex. The GR (George III) cypher is raised above a background of fine horizontal lines (Fig. 133, no. 7).

SHAKO SCALES, brass - half-round pieces of very thin brass, with 3 holes along one edge, measuring c.2 cm. by 1.5 cm. These scales were sewn onto shako chinstrips or other parts of the shako, and date from 1829-1835 on officers' and men's shakos. Chin scales were discontinued in 1842 and replaced with chain or a plain leather strap (Cattely 1936, Plate II, 8). Four shako scales were found in the cookhouse (Fig. 134, no. 14).

**Personal - Coinage**

COIN - three coins and tokens. a). a copper, half-penny, English coin, 27 mm. in diameter and 1 mm. in thickness. Obverse: laureate dexter bust of George III, draped. Reverse: Britannia seated. Probable date of c.1812 (Howorth 1890a,b:47-53).

b). copper token, 27 mm. in diameter, 1.5 mm. thick. Obverse: eagle displayed with legend HALF PENNY TOKEN 1814. Reverse: Britannia seated, holding an olive branch, in a wreath of oak leaves. Tokens of this type first issued in 1813 by a Boston merchant who had settled in Montreal; lightweight specimens dated 1813, 1814, and 1815 are local imitations (Charlton 1969: 55).

c). a copper half-penny token, 28 mm. in diameter, 1.5 mm. thick; in poor condition. Obverse: a sinister head surrounded by lettering; the only readable letters are UC I and CO. Reverse: traces of lettering.

**Miscellaneous**

UMBRELLA BRACE, iron - a long straight shaft, square in section, with one end flattened and pierced by a tiny hole; the opposite end of the shaft is U-shaped, with an iron pin linking the arms. Length - 28 cm., maximum width - 9 mm., and the shaft is 3 mm. square (Fig. 131, no. 1).
Conclusions

A comparison of the historical drawing of 1823 with the archaeological data leaves no doubt as to the belief that the excavated structure is the "Hospital Cooking House". The 1823 architect's drawing (Fig. 4-9) shows a one-story building with a single entranceway on the side opposite the hearth, confirmed by archaeology to be thus facing east toward the hospital (i.e., fireplace or hearth backed up on the west wall of the building). The wooden structure, built on stone corner foundations, had three windows and a large central fireplace and oven.
Figure 54. Plan view of cookhouse remains, looking north

Figure 55. Plan view of brick hearth, looking west
Figure 56. East side of brick hearth

Figure 57. Plan view of stone foundation, brick hearth, south side.
Figure 58. Section view showing relationship of brick and stone foundation, brick hearth

Figure 59. Plan, northeast corner of cookhouse
Figure 60. Plan, northwest corner of cookhouse.

Figure 61. Plan, southwest corner of cookhouse.
Historical maps of Ile-aux-Noix locate numerous buildings on the western portion of the island, to the north of Fort Lennox. One building in this area is of particular interest, the "Garrison Bake House", which is shown on maps dated 1814, 1823, 1830, and 1833 (Lee 1966). It is portrayed in more detail on the Durnford drawing dated 24 Sept. 1823: a one-storied frame structure with two chimneys, consisting of three rooms and what appear to be two large ovens (Fig. 62). The largest room measures 24 ft. square, and a second room, with a fireplace in one corner, measures 16 ft. by 15 ft., while the smallest room is 16 ft. by 10 ft. The three rooms together cover an area 40 ft. by 25 ft. Built on one side of the largest room is the double oven structure, measuring 27 ft. by 16 ft. in overall length and width. In the plan view, each oven is of an oblong shape, narrowest where it meets the largest room of the structure. The actual oven cavities measure approximately 14 ft. by 9-10 ft. by 2 ft. high.

The bake house is shown to have a peaked roof (highest elevation is c.19 ft.), with the oven structure slanting away from the main building (elevation of 6-10 ft.).

As previously noted, one chimney connected with a fireplace in the medium-sized (16 ft. by 15 ft.) room. The other chimney served the oven structure.

During July of 1964, building foundations were investigated on the western part of the island. The measurements and characteristics
Fig. 62. Garrison Bake House, 1823 Drawing
of the foundations correspond very closely to the 1823 bake house previously described.

Two types of foundation walls were found, stone and brick, and both joined on the west side of the building. The stone foundation walls supported the frame building, and the brick foundation walls were the basal portions of the ovens (Fig. 63).

The stone foundation walls were not completely excavated, but the horizontal extent of the foundation can be ascertained, as three corners were exposed (southwest corner not exposed). The structure measured 42 ft. (north-south) by 26 ft. (east-west). The foundation rested upon a sterile clay 3.4 ft. below ground surface. No foundation trenches could be discerned. The walls as found measured an average of 2.5 ft. in height.

Each foundation wall was of similar construction - four to five courses of stone remained, with each wall being 2-3 stones wide (c.2.0-2.4 ft.). Large field stones, some roughly squared, were held in place by mortar. In general, stones on the wall exterior were slightly larger (average 0.8 by 1.4 by 0.6 ft.) than those on the interior. Smaller stones or pieces of brick had been used as chinking (Figs. 67-71).

The west stone wall was slightly wider (c.3 ft. wide) at its base than the other walls, due to an additional row of stones. The bricks of the oven foundations overlapped these basal stones.

Red bricks were found on top of the east wall, forming course no. 5 of this wall (Figs. 69, 70). The bricks were scattered in haphazard fashion, with the exception of the south-central portion of the wall, where two courses of brick were found. Laying upon a flat bedding of stones and mortar, a row of stretchers lay along
FIG. 63. PLAN OF BAKE HOUSE
the edge of the wall, flanked on its west by a row of headers. To the west of the headers, and at the same level, was a row of stones, which formed the west edge of the wall (Fig. 65B). The opposite arrangement of headers and stretchers occurred in the brick layer above (Fig. 65A).

The building under discussion may well have had a brick facade of some sort on its east side. Very few bricks were found in the north and south walls, with none being found in the west wall.

Several interesting features were found within the area encompassed by the stone foundation walls: two areas of brick pavement, two small brick features, and a dark soil stain composed largely of charcoal debris.

1) Brick pavements or floors. Four excavation squares in the southern one-third of the building yielded evidence of a brick pavement at 0.6 ft. below ground surface (Figs. 63E, 72, 73). The majority of bricks were oriented with their long axis north-south. In the area excavated, the brick debris extended at least 14 ft. (east-west) by 15 ft. (north-south). Whether all of this area was actually a fitted brick pavement, or simply brick rubble, is not known. The south edge of the pavement ended at a point where the south stone wall should have been. The north edge was 15 ft. north of the south wall. At the north edge, the pavement was 1.3 ft. in depth, consisting of four courses of brick. The brick was oriented as follows (beginning at the base): headers laid flat, on top of which were three rows of headers set on edge. It is probable that the brick represents the foundation for a fireplace, as a fireplace is shown for this area on Durnford's 1823 plan.

A similar brick pavement was found to abutt the west stone wall
(Figs. 63D, 74). Again only a small portion was investigated. This pavement was thicker (2.2 ft.) and the brickwork consisted of seven courses, oriented differently from the bricks of the pavement previously described (beginning at the base): headers set on edge, stretchers on edge, headers flat, two rows of stretchers flat, headers flat, and stretchers (?) flat. The pavement extended three feet to the east of the west stone wall. Later excavations by Korvemaker (1972:45) revealed this brick area to be 25 ft. long by 4.5 ft. wide, paralleling the west stone foundation wall. This brick pavement may have been a platform or foundation in front of the bake ovens.

2). In the eastern one-third of the building, three features were found, all at the same elevation as the brick pavements, but out of line with the main foundation walls. Two small squarish concentrations of brick and mortar were separated by a large area of charcoal and burned soil.

The north feature was fairly well defined. A layer of brick together with a great deal of mortar formed a small structure four feet square. In the center of the square was a "horseshoe" made of half-bricks set on edge. The opening of the "horseshoe" pointed south. Within the brick "horseshoe" was a concentration of ash. The area between the "horseshoe" and the outer brick was composed of brick rubble and mortar (Figs. 63H, 70, 75).

The east edge of this feature was 1.8 ft. from the east stone wall, and the north edge was 5.5 ft. from the north wall.

A second less-definite feature, possibly the remains of a hearth, was situated 8.5 ft. south of the above feature, oriented in a more
FIG. 64. SECTION OF BAKE HOUSE OVEN

A. HUMUS

B. LT. GREY WITH BRICKS AND MORTAR FRAGMENTS

C. LT. GREY SANDY SOIL

D. DK. SANDY CLAY WITH BRICK AND CHARCOAL FRAGMENTS

E. YELLOWISH-GREY CLAY WITH BRICK FRAGMENTS
northeasterly direction. It also measured approximately 4 ft. by
4 ft. The west side was defined by a double row of brick, the south
side by alternating headers and stretchers. The north side con­
sisted of a double row of squared stones 1.5 ft. in width. The
east side could not be defined, only brick rubble being present.
Within the center of this ill-defined feature was a concentration
of ash, together with various artifacts (pipe stems, nails, glass),
(Figs. 63F,76).

3). A dark grey soil stain, containing charcoal and deposits
of what appeared to be burned earth, was found between the two small
brick features described above. The east side of the stain apparently
had been cut into by the east stone wall, for reasons to be described
below. Thus, the original shape of the soil stain could not be
determined, but it was either square or rectangular. The present
long axis measures a maximum of 7.0 ft. The stain is approximately
one-half foot in thickness, and rests upon a sterile soil (Figs. 63G,
76,77).

The soil stain is situated beneath the two brick and/or stone
features flanking it, and is therefore earlier. The charcoal layer
was found to extend east of the east stone wall, where it lies
immediately beneath a small brick pavement (Fig. 63I). The soil
stain has been disturbed in this area, so its exact outline could
not be ascertained.

The charcoal earth appears intermixed with the bottom two
courses of the east stone foundation wall in the area of the soil
stain. It is probable that the soil stain predated the foundation
wall. When the east wall was constructed, a foundation trench was
probably dug through a portion of the stain. Then the wall was
constructed, and some of the charcoal earth was thrown back into
the trench, thus becoming intermingled with the lower stones of the wall.

The soil stain may represent a trash pit. Artifacts found within the charcoal matrix are not fireburned, suggesting that burning did not take place in the present location. Debris was probably burned elsewhere and deposited in this spot previous to the construction of the bake house.

The interior building features previously described were situated at approximately the same elevation, on a horizontal plane roughly equal to the upper surface of the third course of the stone walls (c.0.6-1.0 ft. below top of wall). This would tend to indicate that the walls were sunk approximately two feet into a foundation trench, if the elevation of the features are equal to the original floor surface of the structure.

The interior hearths (?) (Fig. 63F,H) may predate the main foundation walls, as does the soil stain, as previously mentioned. All of these features are out of line with the main building, and none are shown on Durnford's 1823 plan. If this is the case, one may argue that the floor level of the bakery was above these features.

On the exterior of the building, nine pieces of wood planking, portions of a brick pavement, and a lead pipe were found at slightly lower elevations than the interior building features.

Wood planking was found in the following locations, possibly indications of a former sidewalk immediately outside Structures 1 and 2: 1. four planks faced north-south on the east side of the building, paralleling the stone wall (Fig. 63). The two largest planks, measuring 3.0 ft. by 0.8 ft. and 4.6 ft. by 1.0 ft., were 1.5 ft. distant from the wall. The smaller planks, 3 feet away from the wall, measured 1.2 ft. by 0.4 ft. and 2.0 ft. by 0.6 ft.
FIG. 65. EAST WALL (S. I)

FIG. 66. MEASUREMENTS OF OVENS (in ft.)
2. two planks, only partially uncovered, paralleled the north wall, oriented east-west. One plank, measuring 1.0 ft. in width, was 2 feet north of the wall. The other plank was 3.6 ft. distant from the wall. A third plank, measuring 2.6 ft. by 0.8 ft., lay 1.8 ft. north of the junction of Structures 1 and 2.

3. on the south side of the brick structure, portions of two planks were excavated. Both lay parallel to the south wall.

What appeared to be a portion of a brick pavement was found to the east of the soil stain (described previously) on the east exterior of the building (Fig. 63I). The bricks lay upon a dark sandy charcoal material, probably a portion of the soil stain (Fig. 63G). The bricks are definitely set in place, and extend to within 0.5 ft. of the stone wall. The eastern limit of the bricks is not known.

The brick pavement as found covers an area of only 4 ft. (north-south) by 5 ft. (east-west). Some significance may be attached to it in that it is situated at the mid-point of the east stone wall. Perhaps this is a portion of a stair support or a sidewalk.

A lead pipe, 2 cm. in diameter and encased in a wooden box 0.3 ft. square, was found lying in a roughly east-west direction (Fig. 63J). The west end of the pipe, which had a fitting attached, lay between the second and third course of the east stone wall of Structure 1 near its northeast corner. The upper courses were out of place, obviously disturbed. Stratigraphy indicated the pipe intrusion to be recent (i.e., the trench associated with the pipe cuts through all layers except the topsoil), and the pipe itself to have been later than the building.

The oven foundation, formed of five brick walls, abutted the west stone foundation wall. Three of the red brick walls of the
oven foundation were east-west oriented, two of these forming north
and south boundary walls, the third being an interior wall. The
two remaining brick walls were oriented north-south, and formed the
western boundary. The overall dimensions of the ovens were 26.7 ft.
(north-south) by 13.3 ft. (east-west). The two ovens each measured
10.4 ft. (east-west) by 9.1-9.6 ft. (north-south), the variation
in the north-south dimensions occurring because of the slightly
northeast-southwest orientation of the interior brick wall which
separated the two rooms. Only the south oven (Fig. 63B) was com-
pletely excavated, with the top of the walls (walls 3 and 5) being
partially exposed in the north room (Figs. 78-84).

Individual wall dimensions are summarized in Figure 66.
The east-west oriented walls (walls 1, 2, 3) were each 13.3 ft. in
length, with the two exterior walls being the thickest (wall 1 -
2.8 ft., wall 3 - 3.0 ft., wall 2 - 2.2 ft.). Walls 4 and 5
apparently were the latest of the five walls to be built, as they
abutt walls 1, 2 and 3. The latter three walls were built after
the stone foundation, as the brickwork in some areas overlap the
stones of the west stone foundation wall.

Approximately seven to nine courses of brick remained in each
brick wall, with the average brick size being 0.6 by 0.3 by 0.2 ft.
The bricks, showing traces of mortar, had been laid in a generally
haphazard non-patterned fashion:

wall 1 - the bricks are mostly stretchers, but occasional
headers do occur, especially in the top layer of brick exposed.
Many of the headers were set on edge, especially on the wall edges,
but others were laid flat.

wall 2 - the central or interior wall had been built in a much
more orderly fashion. The wall was made of alternating courses of
headers and stretchers, the latter forming the bottom course.
Headers were either whole or half-bricks.

wall 3 was not investigated.

wall 4 - mostly stretchers were used in this wall, but there was more use of headers set on edge than in wall 1. Half-bricks were used in abundance.

wall 5 - only the top surface of the wall was exposed, and was found to be mostly headers, with occasional stretchers along the west side. Headers were set on edge on the interior side of the wall.

All of the brick walls of the oven foundations were uneven horizontally, i.e., the courses of brick undulated over the extent of each wall (Figs. 80-82). Walls 1 and 2 were particularly uneven, the eastern one-half of Wall 2 dipping toward the east. This situation can perhaps be attributed to inadequate footing preparation. No foundation trenches were discernable. Brick walls had been laid directly on a dark grey sandy soil 0.5-1.0 ft. in thickness, beneath which was a sterile clay subsoil (1.8 ft. below surface). The dark grey sand contained pieces of white mortar, brick chips, and small stones, once again suggesting a possible earlier structure predating the bakery. The vertical weight of the brick walls, sitting upon an unstable footing, undoubtedly caused sagging in portions of each brick wall. The absence of a solid footing for the brick walls, together with the resulting sagging or uneveness of the brick courses and the generally variable pattern of brick placement, suggests fairly rapid, careless, construction techniques.

The south oven foundation was completely excavated. Lying upon the same dark grey sandy soil and covering the extent of the south "room" was a layer of large field boulders, not shaped in any way (Figs. 82,83). The boulders, generally larger in size than the stones used for the stone foundation wall, definitely lay against
the brick walls, thus having been placed in their positions after
the walls had been constructed. The boulders undoubtedly represent
a footing to support the oven above.

In conclusion, a comparison of the archaeological measurements
of the building with those obtained from the 1823 drawing show
significant similarities:

<table>
<thead>
<tr>
<th></th>
<th>1823</th>
<th>Archaeology-1964</th>
</tr>
</thead>
<tbody>
<tr>
<td>stone foundation, overall</td>
<td>40x25</td>
<td>42(n-s)x26 (e-w)</td>
</tr>
<tr>
<td>&quot; north rm.</td>
<td>24x24</td>
<td>26(n-s)x26(e-w)¹</td>
</tr>
<tr>
<td>&quot; southeast room</td>
<td>16x15</td>
<td>16(n-s)² x ?</td>
</tr>
<tr>
<td>&quot; southwest room</td>
<td>16x10</td>
<td>16(n-s)² x ?</td>
</tr>
<tr>
<td>brick foundation, overall</td>
<td>27x16</td>
<td>26.7(n-s)x13.3 (e-w)</td>
</tr>
<tr>
<td>&quot; interior room</td>
<td>c.14x9-10³</td>
<td>10.4(e-w)x9.1-9.6⁴</td>
</tr>
</tbody>
</table>

Measurements in feet

Notes:
1. north-south measurement taken from north wall to
north edge of interior brick pavement.
2. north-south measurement taken from south wall to
north edge of interior brick pavement. East-west
extent of the room was not determinable from the
archaeological evidence.
3. oven measurements taken from the 1823 drawing are
not precise, as the oven walls (interior) are curved.
4. measurements represent probable oven measurement
(interior).

The similarities of dimensions are striking and beyond co­
cidence. Based upon the comparative measurements, one can say
that the 1964 excavations were carried out in the "garrison bake
house". This statement cannot be adequately corroborated by the
artifact evidence, with possibly one exception. Bottle glass,
ceramics, pipe stems, occasional iron hardware, etc., were found throughout the excavation, as they were on other parts of the island. However, three wrought iron objects were found immediately outside of the south wall of the oven foundation near the southwest corner, at a depth of c. one foot below the top of the wall. The objects are heart-shaped, with tangs at opposite ends. Individual dimensions are as follows: 1.5 ft. by 1.2 ft., 1.6 ft. by 1.3 ft., 1.9 ft. by 1.4 ft. The thickness of each object varies, being thickest at one end (23-28 mm.) and sloping to a thinness of 5-6 mm. at the opposite end. All three objects were found lying on top of each other (Fig. 84). Their function is not known, but possibly they are in some way connected with a bake house operation.

Crossmends of artifacts were found between the strata which lay against or on top of the walls of the building. It appears that the building, when in ruins, was leveled and covered over relatively rapidly with earth and building debris. Strata were markedly similar on the interior and exterior of the building. A yellowish-grey clay subsoil lay c.2.5-3.1 feet below ground surface. Above this a series of grey sandy soils were encountered, all of which contained red brick fragments, white mortar chunks, and/or small pieces of charcoal or wood.

The majority of artifacts recovered from the excavation came from the grey sandy soil levels, all of which date to the demise of the building. A knife fragment, with the date 1864 stamped into the blade, was found in the building debris level, signifying the date of devastation of the building as 1864 or later. One can infer that the bakery, as many buildings on the island, was probably in use to c.1870.
Artifacts

Structural Hardware

GRATING, cast iron - a T-shaped device, with a rectangular slit in the middle, with evidence of breakage at all ends, suggest a part of a grate.

HINGE - fragment of a H, HL, or T hinge; also one butt hinge was found.

PINTLE - four pintles, each made from one-piece of wrought iron.

Household - Maintenance and Repair

PIN - a brass straight pin, tin-plated, with a wire-wrapped head.

SCISSORS - a nearly complete pair with oval loops to the side of a slightly curved shank.

Household - Furnishings

LOCK - fragment of an iron chest lock.

Household - Food

BOTTLE - bottle glass found in the bakery includes octagonal 2 hinge mold bottles, 3 hinge mold bottles of blue color, and free blown wine bottles. Compared with the hospital-cookhouse complex, relatively few bottles were recovered from the bakery.

KNIFE - fragment of a blade and flat tang, with the following stamped on the blade: HUNTER SHEFFIELD C&M 1864.

POT - rim fragment of a cast iron pot.

POTTERY - the bakery excavations yielded 15 pottery types, as classified in this report. Finer wares include a variety of creamware, mocha ware, slip banded ware, plain and decorated pearlware, including transfer-printed, blue handpainted, delicate painted, sponged, gaudy-Dutch, shell-edged, and annular wares. Two slip decorated varieties of redware are probably of Canadian manufacture of the later 19th century. Stoneware blacking vessels and a few sherds of 19th century porcelain were also found.

STEMWARE, glass - two vessels with plain stems, trumpet bowls, and plain conical feet were found; nine vessels have trumpet bowls, a slightly knopped stem, and a conical, folded foot; one vessel is similar to the previously described vessels, except for the addition of vertical fluting on the knop.
STOVE - fragment of edging of a cast-iron stove.
TUMBLER - 14 glass tumbler fragments with flat bases and slightly outsloping side walls. Thirteen of these tumblers are plain and 1 tumbler is mold decorated, with the side walls divided into 8 equal flat planes.

Craft - Tool
DIVIDERS - iron dividers are 11.5 cm. in length, with the two halves hinged with an iron pin. The numeral IX or XI is scratched into the shaft (Fig. 143, no. 7).

Weapons
BULLET, lead - one Brunswick-belted rifle ball, .70 calibre, dated to c.1845 or later.
GUNFLINT, flint - one gunspall of dark grey flint (Fig. 143, no. 9).

Transport - Horse Gear
BUCKLE, harness - two rectangular iron buckles with central bar having 2 or 3 teeth.

Personal - Activities
IRON, cast iron - a small iron, probably a toy; the main body is V-shaped in plan, with a handle extending 4 cm. above the body. Length - 7.4 cm.; width - 4.5 cm. (Fig. 131, no. 11).
PIPE, clay - the bakery excavation produced the largest number of white clay tobacco pipe fragments, a total of 1,375 - 23 pipe bowls, both plain and mold decorated; 1,325 plain stem fragments, and 27 marked stems. Certain bowl shapes seemingly date to the mid-19th century, as one at least is similar to a 1840-1860 pipe illustrated by Oswald (1975).

Bowl and spur marks are limited to the following: TD within a circle (impressed); TD within a circle (in relief); TD in relief; TD impressed on back of the bowl, and W and G on the spur sides; WG impressed within a circle; on a spur fragment, the letters M and G in relief. The TD mark could date from the mid-18th century well into the 19th century (Oswald 1975: 67). WG may refer to the London pipemaker William Goulding, Jr., 1733-1762 (Oswald 1975: 137), (Fig. 130).

Marked pipe stems are mostly from Glasgow, with five from Montreal: A COGHILL GLASGOW (1826-1904); HENDERSON'S MONTREAL
(c.1848-c.1880); McDougall Glasgow (1847-1868); Murray Glasgow (1830-1861); W. White Glasgow (1805-1955).

**Personal - Clothing**

**BUTTON** - a total of 19 buttons were found in the bakery excavations - 2 glass, 3 bone, and 14 metal. One whitemetal regimental button is from the 65th Regiment (1838-1841). A brass button bears the markings of the Royal Regiment of Artillery (1813-1868). Five plain whitemetal buttons, solid cast, date to the 1776-1781 period. Two brass buttons are lettered with TREBLE GILT, and date to the c.1800-c.1830 period or later (Fig. 135, 136).

**SHAKO PLATE, brass** - a fragment of a shako ornament consists of the portion of a crown which would surmount a shako-plate possibly of 1812 date, although they were also used on star-shaped plates which lasted until 1844 (Cattely 1936). The fragment is the right-hand part of a crown and the bottom ring which would rest on the head. The maltese cross, fleur-de-lis, and lining of crown are all present. The bottom of the crown appears to be unusually curved, so it may have come from a star-shaped plate.

**Personal - Coinage**

**COIN** - six coins and tokens were found in the bakery excavations:

1. a Spanish silver coin, 1.7 cm. in diameter, worn and patinated. Obverse: dexter bust of Charles III of Spain; legend - CAROLUS III DEI GRATIA 1774. Reverse: quartered arms surmounted by a large crown of 8 spokes, supported by 2 columns crowned, and with a banner loosely falling around; legend - HISPAN ET IND REX Y 1 R (Y and 1 are dubious). Arms are those of Spain - Castille and Leon, the small circle at the bottom is for Grenada (La Fuente y Zamalloa 1889; Craig 1966; Rietstap 1967).

2. copper coin, English, 27 mm. diameter, 1.5 mm. thickness, design very faint. Obverse: a sinister bust, possibly clothed in a uniform and with a sailor's pigtail of Lord Nelson (?). Reverse: date of 1811 and design which may be an anchor.

3. copper coin, probably English, 27 mm. diameter, 1 mm. thick. No readable legends or dates, but with designs seemingly similar to coin No. 2 above; probable date - 1811.
4. two identical copper half-penny tokens, Canadian, 28 mm. in diameter, 2 mm. in thickness, with unmilled edges. Obverse: a Canadian habitat, standing; legend - PROVINCE DU BAS CANADA... UN SOU. Reverse: the arms of the city of Montreal; the ribbon bearing the name of the issuing bank is found inscribed in sunken letters, QUEBEC BANK, date of 1837; around the top edge is written BANK TOKEN, around the bottom edge is written HALF PENNY.

5. copper coin, English, 27 mm. in diameter, 1 mm. thickness, poor condition. Obverse: dexter bust in uniform (?), hair tied in a queue; around the left edge GEORGIVS; no date or indication of which George, but probably George III. Reverse: Britannia seated; no signs of a legend or date. Coin is probably a half-penny dating to the 1770-1775 period (Seaby 1968: 206).

Miscellaneous

CAN LID, iron, tin-plated - a lid or cover from a blacking can, 9 cm. in diameter. Words in relief on surface, within a raised circle; around edge near circle the following words: WARRENS ORIGINAL MILITARY PASTE BLACKING; in center, numeral 72 below which is HERCULES BUILDINGS, 1867, WESTMINSTER ROAD, LONDON; above numeral 72 is ROB WARREN.
Figure 67. Bake House, facing west

Figure 68. Bake House, facing southwest
Figure 69. Bake House, east wall, facing south

Figure 70. Bake House, eastern one-third of Structure 1, facing north
Figure 71. Section of east stone wall, facing north

Figure 72. South brick area, facing east
Figure 73. South brick area, facing south

Figure 74. West brick area inside Structure 1, facing west
Figure 75. Brick structure

Figure 76.
Figure 77. Soil stain in center

Figure 78. West walls of Structure 2, facing south
Figure 79. Southwest corner of Structure 2, facing east

Figure 80. Southwest corner of Structure 2, facing south
Figure 81. Elevation view of portion of south brick wall of Structure 2, facing south

Figure 82. South room of Structure 2 with some boulders removed, facing east
Figure 83. South room of Structure 2 with all boulders in place, facing west

Figure 84. Iron artifacts in situ
A men's barracks-storage building is shown on several maps of Ile-aux-Noix (1814, 1816, 1819, 1823, 1829) and an 1842 map designates the spot as the "site of Burgoyne's old barracks", which would indicate that the building was built c.1776 (Lee 1966). This date is apparently substantiated by the fact that the building appears on the earliest English map (1783) of the island. From c.1812 to 1833, the structure was used for storage purposes. It is not shown on the 1852 and 1863 maps of Ile-aux-Noix.

In summary of the historical evidence, very little is known of the building under consideration. Its length of use as a barracks is not known, but it may be assumed that sometime between 1833 and 1852 the building went out of use. Nothing is known concerning construction details, except that it was a two-storied building.

Rough measurements of the rectangular building can be obtained from two of the historical maps: 1816 - c.160 ft. by c.35 ft.; 1823 - c.150 ft. by c.30 ft.

Twenty-five exploratory excavation trenches were placed in the area 360-560N, 216-288E in order to locate remains of the men's barracks-storage building. Geohm readings had indicated the presence of resistant material in this area. Unfortunately, little of the building was found, and the limited amount of excavation raised more questions than it answered. Further archaeological work is necessary in this area.
FIG. 85. PLAN OF BARRACKS

STONE CHIMNEY BASE

EXCAVATED SQUARES

STONE CHIMNEY BASE

FIG. 85. PLAN OF BARRACKS
The following archaeological evidence was recovered (Fig. 85):
1. soil stains extending grid east-west at 374N and 556N, presumably the north and south walls of the barracks building.
2. a series of disconnected soil stains extending grid north-south along lines 226E and 258-262E, presumably the east and west walls of the building.
3. two stone fireplace or chimney bases.
4. segments of well preserved wood beams.

A building roughly 182 ft. (north-south) by 32 to 36 ft. (east-west) is indicated by the archaeological remains.

From the stratigraphic evidence, all features appear to be contemporary. All soil stains immediately underlay the grey topsoil and cut into a yellowish-brown sandy clay stratum below the topsoil.

The North and South Walls

No brick or stone walls were found, only soil stains marked the former location of walls. Presumably the soil stains mark the location of foundation trenches, the stone or brick of the walls having been removed for re-use in other buildings at some time in the past.

Two excavation squares (5G14G, 5G14J) revealed east-west oriented soil stains at a depth of 1.2 feet below surface, presumably the south wall (Fig. 87A). The stains measured 1.6-2.0 ft. wide, with a vertical extent of 0.6-1.0 ft. The stain in 5G14G was located c.2 feet south of the stain in 5G14J. This variation in east-west alignment cannot be explained at the present time.

Soil stains which appear to mark the northwest and northeast
corners of a building were uncovered in 5G14R and 5G14S. The
stains, running north-south and east-west to form corners, measure
3 to 4 feet in width, c.1.0 foot in depth, and are larger than the
south wall stain.

Complications arose in the archaeology of the north wall area.
Scattered stones, presumably remnants of a wall, lay on top of the
north wall soil stains in a roughly east-west line. However, the
stones, as well as soil stains of a different color, continued
beyond the northwest and northeast corner stains. In a northeast
excavation square (5G14U), the stones ended at a point where a soil
stain turned north. The latter stain was 4-5 feet wide, and 2 feet
in depth.

From the limited amount of digging done in this area, it appears
as if the walls of two buildings overlap - an earlier building, the
barracks, represented by the east-west soil stains which turn
south, and possibly a joiner's shop, represented by the stones which
continue beyond the above stains and other east-west soil stains,
which in 5G14U turn northward, forming a probable southeast corner
(Fig. 86A). An 1814 map of the island shows the barracks and
joiners shop adjacent to one another.

From the soil stain evidence, it appears that the north barracks
wall was extended to the east and west to form the south wall of
the joiner's shop. The supposed northwest and northeast corner
barrack stains were clearly discernable as corners, in contrast to
the obliteration of these stains one might expect had the entire
joiners wall been of new construction.

The above discussion is based on meagre archaeological evidence.
Further excavation should be carried out in the joiners shop area to clear up the problems relating to the barracks area. Geohm readings revealed much resistance in the area north of the barracks.

The East and West Walls

The supposed east and west walls of the barracks were uncovered in ten excavation squares. They consisted of square or rectangular soil stains averaging four feet in width, 4 feet in length, and two feet in vertical extent (Figs. 86B, 87A, 87B). All were separated by intervals of between two to three feet. Several of the stains contained wood chips and remains of wooden boards. All occupied the same stratigraphic position, immediately beneath the topsoil.

The function of the soil stains remains unclear. They were undoubtedly foundation pits into which large wooden posts had been set, or in which small stone support pillars had been built. The use of posts is suggested because of the evidence of wood within the soil stains.

The total number of support pillars, if evenly spaced (c.3 ft. apart) for the entire length of the building, would approximate 25 for each wall.

In summary, the exact nature of the barrack's walls remains indefinite. Seemingly continuous foundation trenches mark both north and south walls, while discontinuous foundation pits mark the location of the supposed east and west walls. Why these differences exist cannot be explained.

No information is available on the intersection of the north and south walls with the east and west walls. In 5G14G, a square
FIG. 86. SECTIONS

A TOPSOIL
B GREY SANDY CLAY
C YELLOWISH-GREY CLAY
D LIGHT BROWN SAND
E BROWN SAND
F GREY CLAY
G DARK GREY CLAY - SOIL STAIN
H LIGHT GREY CLAY
I BROWN CLAY - SOIL STAIN
J REDDISH-BROWN SAND
which was located near the supposed southeast corner of the barracks, only an east-west stain was found and no north-south stain.

Another problem is that the northeast corner stain is c. four feet east of the line formed by the east wall foundation pits. However, the northwest corner stain is in alignment with the west wall remains.

The Fireplaces

Two chimney or fireplace foundations were found within the building, about one foot below ground surface. The north base was not excavated, but its dimensions were found to be ten feet square.

The south foundation was completely excavated. It was constructed of large roughly-hewn stones and mortar. It measured 11.2 ft. (maximum north-south dimensions) by 9.3 feet (maximum east-west dimensions), with a vertical extent of about 2.0 feet (5-6 courses of stone), (Fig. 89).

In section, the lower portions of the foundation sloped inward (Fig. 88). No definite foundation trench could be discerned, but the stones undoubtedly had been forced or laid into a pit the size of the base. The exterior and surface of the base was coursed stone, with the interior being essentially rubble fill.

The surface of the base was uneven, and little evidence of fire was found.

The position of both foundations was equidistant from the supposed building walls. The south building wall is 40.2 ft. south of the south foundation, while the north wall is 39 ft. north of the north foundation. The north foundation is situated 77 ft. north of the south base. The east and west walls of the building are both exactly 8.4 ft. distant from the south foundation.
A TOPSOIL
B BROWN CLAY - SOIL STAIN
C LIGHT BROWN SANDY CLAY
D YELLOWISH-BROWN CLAY
E BROWN SANDY CLAY
F REDDISH-BROWN SAND
G BROWN SAND

FIG. 87. SECTIONS
Slightly east of center on the south side of the south foundation was found a small (3.6 ft. long), poorly constructed north-south stone wall. The wall is separated from the foundation by less than 0.5 ft. It is one course thick and one stone wide, its surface being slightly below the surface of the chimney base.

Two feet west of center on the north side of this same foundation was found a similar wall. Perhaps both walls once ran the entire length of the building and, if so, were undoubtedly used as floor supports.

Nearly two feet below the above wall (2.3 ft. below the top surface of the south fireplace foundation) and parallel with the south side of the south base (running east-west), was a large, perfectly preserved, wood square-cut beam (Fig. 90). The beam measured 0.9 ft. by 0.9 ft., and its length was continuous across the 15 ft. wide excavation square. The same beam was also found some 8 feet to the east, making the total length of the beam at least c.25 feet (Figs. 91,92). The beam stopped at the outer edge of the east wall soil stain. Although the wooden beam stopped abruptly at this point, the east-west trench in which it originally had been placed continued 7 feet to the east of the east wall soil stain, where it joined wooden planks oriented north-south (Fig. 93). The exact stratigraphic relationship between the east-west beam and the so-called east wall of the building was not ascertained, as no evidence of a "pillar" stain was found in this immediate area. However, both features immediately underlie topsoil and cut into the same strata.

The east-west beam lay 0.6 ft. south of the south fireplace foundation. At the point where it extends beneath the north-south
wall (supposed floor support wall) mentioned previously, the beam was reinforced by two additional parallel beams immediately to the south and a piece of board to the north, all at the same level as the large beam.

The larger beam had several mortise holes in it, all of which measured approximately 0.9 by 0.3 by 0.5 ft. deep. Peg holes were noticeable in two of the three mortise holes, round wooden pegs being still intact within the holes.

It is certain that we are dealing with mortise and tenon joints in this beam. One of the smaller beams mentioned previously, laying parallel and south of the large beam, had been tenoned on one end (Fig. 90). However, there is no evidence, stratigraphical or otherwise, to suggest that this smaller beam or any other beam had ever been tenoned to the mortise hole of the large beam. Possibly old beams, reused from other buildings, were laid below the chimney base for support-reinforcement-stabilization purposes. This supposition is further suggested by the fact that one of the mortise holes in the large beam was situated immediately below the "floor support" stone wall (the other holes were 7 feet to the west and 14 feet to the east), indicating that a vertical post could not have been tenoned into the beam. (The tenoned beam mentioned above was 2.5 feet in length, too long to have fit into the space between the support wall and the mortise hole.)

As previously mentioned, several north-south oriented wood planks were found at the east end of the beam trench (Fig. 93). The planks were seemingly supported at 5 ft. intervals by east-west oriented logs (only 2 logs were found in the area excavated). The planks lay 21 feet east of the south chimney base and 8 feet east of the location of the supposed east wall of the building. On the assumption that the planks might represent the true east wall of the
FIG. 88. SECTIONS OF SOUTH FIREPLACE BASE

A BROWN CLAY
B GREY CLAY
C BROWN CLAY
D BROWN SAND
E GREY-BROWN SAND
F GREY CLAY
G DARK BROWN SAND
building, an excavation square (5G14X) was dug where this wood would presumably intersect the south wall. However, no additional evidence was uncovered relating to the planking, but the south wall stain was found to extend beyond the east wall soil stains (to at least 268E).

Artifacts

A variety of artifacts - metal, glass, ceramic - were uncovered. Of the approximately 1,300 artifacts found in the barracks area, nearly all came from the topsoil, a layer which was clearly above or later than the soil stains, beams, and chimney bases. Numerous modern artifacts were recovered from this stratum, and thus it cannot be used for dating purposes. However, many of the artifacts found in the topsoil may originally have been associated with the barracks, as the island has been plowed by farmers with resulting disturbance of lower levels. Only a few pipe bowls and buttons date to the fourth quarter of the 18th century. The majority of artifacts are of 19th century date, from which the latest datable artifact, a button of the 100th Regiment of Foot (c.1866-c.1868), coming from the topsoil.

Structural Hardware

HINGE - a flaring strap hinge, of wrought iron, has two impressed marks, a broad arrow and a large E.
HOOK - a gate, door, or shutter hook, with one end turned at right angles to the shaft, with the opposite end eyed.
KEY - a fragment, 6 cm. in length.
PINTLE - two pintles of one-piece construction. One pintle has a broad arrow mark stamped on the shaft (Fig. 138, no. 1).
STAPLE - one U-shaped staple of wrought iron (Fig. 140, no. 3).
Household - Maintenance and Repair

SCISSORS - an incomplete pair, iron, with oval handle loops and a round tup shank with a flat blade.

Household - Food

BOTTLE - very few glass bottle fragments were uncovered from this limited excavation. Finds include square 2-hinge mold bottles, as well as free blown wine bottle fragments.

KNIFE - a folded iron pocket knife with a pistol-grip bone handle; 2 additional knife fragments have criss-cross incised decoration on the handle.

POTTERY - ten pottery types were found in the area of the barracks: several slip-decorated redware sherds, probably Canadian in origin of the late 19th century; creamware pottery fragments; undecorated pearlware vessel fragments; blue handpainted dishes; delicate painted vessels; sponged ware; transfer-printed and shell-edged sherds. Brown stoneware blacking bottles and vessels were also associated with the barracks area.

TUMBLER - three plain glass tumblers have a flat base and a probable height of 3-4".

Craft - Tools

CHISEL, wrought iron - one chisel has an expanding blade 4.5 cm. in maximum width (Fig. 146, no.2). A second chisel has a flat blade of equal width, which is beveled, and a short shaft with a blunted head; length of 10.6 cm.

FILE, iron - a fragment of a half-round file (Fig. 146, no.4).

Weapons

GUN, upper vise jaw, iron - from a flintlock musket.

Transport-Horse Gear

BUCKLE, harness - an oval brass buckle, with a dropped center bar, 3.5 cm. by 2.9 cm.

Personal - Activities

PIPE, clay - a relatively large quantity of white tobacco pipe fragments were found. A total of 684 pipe fragments include 13 bowls and 671 plain stems. One nearly complete bowl closely resembles a c.1760-1800 bowl shape illustrated by Oswald (1975; Fig. 4, no.23). However, the pipe may be of Canadian manufacture and of a later date (Fig. 130).
Makers marks on pipe bowls include the following: TD within a circle (in relief); TD impressed on the bowl back and the letters T and D in relief on the spur; TD impressed on the back of the bowl, with the letters W and G on the spur (in relief); on a spur fragment, the letters S and E in relief.

**Personal - Adornment**

PERFUME LID, tin or aluminum. A circular cover of light colored metal, from a perfume jar or bottle, with a diameter of 4.9 cm. and a thickness of c.1 mm.; a circular design is stamped into the surface; in a circle around the edge is written, in capital letters, E. COUDR? Y PARFUM at the top, and at the bottom PARIS; within this is a design of two flowering branches tied at the bottom, surrounding the letters CC in Old English and surmounted by a crown.

**Personal - Clothing**

BELT PLATE, brass - two oval cross-belt plates, measuring 6.9 cm. by 5 cm. The surface of each is convex and plain. One of the belt plates is impressed on the back side with a fouled anchor. On the back are two projections or studs for belt attachment, with an opposite belt hook broken off (Fig. 134, no. 9).

BUTTON - of the fourteen buttons found, five are regimental buttons; one whitemetal button, with an upright, fouled anchor impressed on the face, is probably of the Royal Marines or Royal Navy (1812-1834); the 62nd Regiment (1776-1783); the 15th (1830's); the 100th (1866-1868); and the Royal Regiment of Artillery (1813-1868). Four plain, solid cast whitemetal buttons probably date to the 1776-1781 period. Four brass buttons, with words such as BEST PLATED on the backside, date to the first one-half of the 19th century (Fig. 135).

HEEL PLATE - one wrought iron heel plate is parabolic in shape and flat on both surfaces; overall dimensions - 7 cm. by 7 cm. (Fig. 131, no. 4).

**Coinage**

COIN - l. a silver two real Spanish coin, 27 mm. in diameter, 1 mm. thick, in very good condition. Obverse: arms, probably royal, surmounted by an 8-armed crown but unsupported; on the left side of the shield are the letters R*S and to the right \( \frac{1}{2} \); legend *PHILIPPUS*V*D*G* (note: what are shown here as stars are really
6-petalled rosettes). Reverse: quartered arms inside an 8-lobed figure rather than an escutcheon, with castle and lion rampant; legend is HISPANIARUM*REX*1733; the letters go to the right, always with the top of each letter toward the coin edge (Lafuente y Zamalloa 1889; Craig 1966; Rietstap 1967).

2. a copper token, 27 mm. in diameter, 1.5 mm. in thickness, with milled edges. Obverse: eagle displayed with the legend HALF PENNY TOKEN 1814. Reverse: Britannia seated, holding an olive branch, in a wreath of oak leaves. This type of token was first issued in 1813 by a Boston merchant who had settled in Montreal. Lightweight specimens dated 1813, 1814, and 1815 are local imitations (Charlton 1969:55).

Conclusion

There is no valid archaeological evidence to substantiate or disprove that the building under question was built in the last quarter of the 18th century as historical sources indicate.

Archaeological investigation has uncovered the remains of a poorly defined building which measures approximately 182 feet (north-south) by 32-36 feet (east-west). This compares favorably with measurements of the building taken from historical maps - c.160 feet by c.35 feet. Because of the substantial chimney bases found, the building may have functioned as a barracks at one time, and perhaps later as a storage area. The majority of artifacts found are of a domestic or personal nature, ranging in date from the late 18th century to the 1860's.

Before definite conclusions can be reached, more archaeological work is needed on the following:

1. the north stone wall is in need of further investigation in order to establish a more definite relation between the "barracks" and the "joiner's shop", if such a relation does in fact exist.

2. the wooden beams and planking should be traced more extensively, and additional work should be done to try to ascertain
their relationship to the fireplaces and soil stains.

3. the north fireplace/chimney base should be completely excavated and checked for the presence of beams and floor support walls.

4. the east and west wall soil stains should be completely uncovered. Are they in fact foundation trenches for stone or wood pillars?

In short, much more information is needed on the exact relationships between all the features uncovered in 1964: the wooden beams and planking, the chimney bases, the soil stains, and the stone wall.
Figure 89. South chimney base

Figure 90. Wood beams at south chimney base
Figure 91. Wood beam

Figure 92. Wood beam and beam trench
(same beam as in Fig. 91)
Figure 93. Wood planking
FIG. 94. PLAN OF GUN SHED

STONE WALL

PRESUMED STONE WALL (not excavated)

NO WALL FOUND

MEASUREMENTS IN FEET
the excavation of the north and south foundation walls. Wall remains were found in every square at the expected place. From the archaeological evidence alone, the location of entranceways is not known.

The foundation walls rested upon wood footings, consisting of one wide board or two narrower boards paralleling one another. The board footings, running lengthwise beneath the wall, sometimes did not extend the entire width of the wall. Individual boards measured from 0.4-1.0 ft. in width and 0.1 ft. in thickness. When two boards were used as a footing, the average combined width was 1.5 feet, with a space of 0.05 ft. to 0.3 ft. separating the boards (Fig. 106).

At wall corners, the wood footings lay at right angles to one-another (Fig. 95). In 5G6D, which exposed the southeast corner of the building, both footings were single boards. Several nails were imbedded in the southern end of the east board. Since the footings did not touch, i.e., one board was not fastened to the other with nails, it is possible that old boards with a few nails remaining in them were sometimes used for footings.

Although wood footings were exposed in only three trenches (5G6D, 6E, 6G), it is assumed that boards lay beneath the full extent of the exterior stone walls. The length of individual boards was not determined.

An interior stone wall bisected the building lengthwise (Fig. 102). This wall did not exactly parallel the north and south foundation walls, being c.0.5 ft. more to the north at its west end than at its east end. Some portions of the wall were entirely missing, the stone possibly having been removed and reused in the
The archaeological remains thought to be the gun shed were situated in the grid area 257N to 285N, and 5E to 88E. Thirty-one archaeological squares were systematically placed so that the horizontal-vertical extent and character of the building could be ascertained with a minimum of effort. A rectangular building, measuring 82.5 feet (east-west) by 27.5 feet (north-south) was found in this area (Fig. 94).

The remains of four foundation walls and one interior wall appeared at a depth of c.0.5 ft. below ground surface. The stone walls were of fairly crude construction, being only one or two courses high, measuring a maximum of one foot in vertical extent (Figs. 98-105). The elevation of the walls varied between 101.02-102.32 ft. ASL. The walls consisted of large and small angular stones, among which occasional traces of mortar were found. Varying in width from 2-3 feet, the walls sometimes had no distinct interior or exterior face. The four corners formed by the exterior walls were merely continuations of the same pattern of construction, that is, one wall did not specifically abutt another wall to form a corner. Builders or foundation trenches were not readily discernable.

The east and west exterior walls were nearly completely excavated. No breaks or gaps were found in the walls.

Archaeological squares were placed every 15-20 feet during
construction of other buildings. However, traces of mortar often continued where the stone wall had once presumably been.

The interior wall was very crude, being a ragged line of odd-sized stones. It was one course in height, made of angular stones, some of which had been vaguely squared. Brickbats were sometimes associated with the wall, but in no particular pattern.

Neither a builders' trench nor wood footing were present for the interior wall. The wall itself abutted the west and east exterior walls.

In addition to the structural remains, a series of trenches or ditches were found in the excavation area. A trench 1.1 ft. wide runs in a north-south direction parallel to the east foundation wall on the interior of the building. It runs under the south foundation wall, and is probably earlier in date than the building. This trench may be a continuation of a similar trench found in 5G1 (Figs. 104, 105).

Two other trenches occur outside the building on its south side. These trenches run east-west, paralleling the foundation wall (Fig. 96A). Trench A, five feet in maximum width and 2.3 ft. deep, predates the foundation wall. Trench B, 1.6 ft. wide and 2.0 ft. deep, cuts into Trench A, but its debris overlies and thus postdates the foundation wall. The total horizontal extent of Trench A is not known, but it may possibly be related to the north-south oriented trench previously mentioned.

All trenches, with the exception of Trench B, predate the building, and may have been part of a drainage system that possibly extended over large parts of the island.

In summary of the structural features found, only the bottom
SECTION OF WALL WITH FOOTINGS

PLAN OF CORNER CONSTRUCTION

FIG. 95
portions of the foundation walls and an interior wall remained. The walls were of stone construction. Brick was not a major building material in this particular structure, although some brickbats were found in association with the walls.

Compared with the other structures excavated on Ile-aux-Noix, the structure under consideration yielded few artifacts. Comparatively few ceramic or vessel glass materials were recovered. Fragments of pane glass, found in the majority of archaeological trenches, testify to the presence of windows. The scarcity of artifacts plus the almost complete lack of military items makes it impossible, from archaeological evidence alone, to state that this building was a gun shed. However, the minimal amount of domestic refuse, as compared with other buildings, and the lack of fireplaces or chimneys within the structure, certainly suggests a storage area such as a gun shed.

**Artifacts**

**Structural Hardware**

HINGE - a portion of a T-hinge, 25 cm. in length (Fig.138, no. 3); a second hinge is of the H-L type, folded, with a total of 10 holes for fastening (Fig.138, no.5); several butt hinges of cast iron were also recovered.

LOCK - a complete bolt from a probable door lock measures 16 cm. in length.

**Household - Food**

BAIL EAR AND HANDLE fragment, of wrought iron.

BOTTLE - the majority of glass bottle fragments found in association with the gun shed were made by various 19th century molding techniques, including dip mold, 3 hinge mold, and 2 hinge mold. Wine bottles, including some free blown examples, are in the majority, as at other sites on the island.
FIG. 96. SECTIONS

1 TOPSOIL
2 BROWN SANDY CLAY
3 YELLOW-BROWN SAND
4 BROWN CLAY
5 BROWN SAND - TRENCH
6 MIXED BROWN CLAY-YELLOW SAND
POT - a rim fragment of a cast iron pot, with the lip of the pot flattened and recessed for a lid; pot diameter - 12 cm.

POTTERY - 12 of 27 identified varieties of pottery were found in the gun shed excavations: a slip-decorated redware, possibly Canadian-made, late 19th century; four fragments of English lustre ware; mocha ware; a variety of wares made of a pearlware body, including plain vessels, a delicate painted ware, vessels with sponged or annular banded decoration, shell-edged ware, and a gaudy Dutch-like ware. Brown to grey stoneware blacking bottle fragments were also found.

STEMWARE, glass - one glass with a trumpet bowl, a slightly knopped stem, and a conical, folded foot.

TUMBLER - one plain glass tumbler with pontil marks present on the base (fragment).

Craft - Tools

CHISEL, wrought iron - a chisel with a tang for handle attachment; blade length is 7.6 cm.

Weapons

BALL - seven cast iron balls (3-4 cm. in diameter) and eight lead musket balls (c.70 calibre) were recovered from the gun shed excavations.

GUN, upper vise jaw screw, iron - a crudely-made screw, with a slit at the top of the screw; length - 4.3 cm.

GUNFLINT, flint - two flints, black in color, made from a blade.

Personal - Activities

PIPES, clay - 123 tobacco pipe fragments, of which 114 are plain stems, 3 are marked stems, and 6 are pipe bowl fragments. The bowl fragments are marked as follows: TD within a circle (impressed); TD within a circle (in relief); TD (in relief); TD impressed on back of bowl, with W and G on spur (in relief) (Fig. 130). The marked stems identify one Canadian pipe maker: HENDERSON or HENDERSON'S/MONTREAL (c.1848-c1880).
**Personal - Clothing**

**BUTTON** - eight buttons were found in association with the gun shed: one glass, three bone, two shell, and two metal buttons, the latter with regimental markings. A whitemetal button has the numeral 3 and the motto VETERI PRONDESCIT HONORE. The 3rd Regiment of Foot was in Canada in 1814-1815. The second metal button, of brass, is of the 65th Regiment (1838-1841), (Figs. 135, 136).

**HEEL** - leather with iron nails - several U-shaped shoe heel fragments measure c.4.5 cm. by 4 cm.

**SHAKO SCALES** - brass - two fragments were found (Fig. 134, no. 14).

**Miscellaneous**

**UMBRELLA BRACE** - iron - a long straight shaft, square in section, with one end flattened and pierced by a tiny hole; the opposite end of the shaft is U-shaped, with an iron pin linking the arms of the U; length - 28 cm., maximum width - 9 mm., shaft is 3 mm. square (Fig. 131, no. 1.

The majority of the artifacts were found in the topsoil layer, which post-dates the foundation walls. One may assume, however, that many of these artifacts were used by occupants of the gun shed structure or were a part of that structure.

A brown sandy clay layer, below the topsoil, is probably contemporary with the gun shed. This layer contained few artifacts: pane glass fragments, 19th century ceramics, wrought iron nails, two lead musket balls, a pipe stem fragment marked HENDERSON/MONTREAL (c.1848-c.1880), a brass button of the 65th Regiment of Foot (1838-1841), and a fragment of a Farquhar and Wilson glass bottle with the notation "established 1845" on it.

The artifact evidence suggests a post-c.1848 date for the demise of the gun shed. Historical map evidence agrees with this dating. A number of 19th century maps (1823, 1829, 1830, 1851, 1863, 1870) show a building labeled "gun shed" in the same area as the excavations. The main axis of this building runs east-west,
Fig. 97. Gun Shed From 1823 Drawing
as does the building found archaeologically. The earliest map to show the gun shed dates to 1823, although maps dating to the 1814-1819 period do exist for the island. On this basis, we can assume the gun shed to have been built somewhere between the years 1819-1823. However, the year of construction was perhaps closer to 1823, by evidence of a drawing which shows the plan, elevation, and section of the gun shed in question (Fig. 97). It is dated 2 September 1823.

The latest map to show the gun shed is dated 1870. Thus, the building (or portions of it) stood until at least 1870, but its length of use as a gun shed was presumably ended in/or before 1863. On a map of Ile-aux-Noix dated 1863, the following note refers to the gun shed in question: "Old Tumble down Sheds used as cow house and O'Garns (?) stable". Thus, somewhere between 1823 and 1863 the building ceased to function as a gun shed.

Conclusions

In conclusion, although artifacts found within Operation 6 do not prove the structure to have been a gun shed, a comparison of historical maps with the archaeological evidence suggest that the Operation 6 remains were the gun shed. As mentioned previously, various historical maps place the gun shed in the same location as the archaeological excavations. Also, the dimensions of the structure as shown on the 1823 drawing (Fig. 97) and as measured archaeologically compare very favorably - 81 feet by 25 feet vs. 82.5 feet by 27.5 feet.

The substructure of the gun shed consisted of stone foundation walls which were of fairly crude construction, and wooden board
footings beneath the stone walls. An east-west interior wall, on the same level as the foundation walls, was undoubtedly a base upon which rested wooden beams, which in turn supported floor boards.

Details of the superstructure of the gun shed can be surmised from the 1823 drawing (Fig. 97). The building was of wood construction, rising c. 21 feet above the stone foundation walls and having a pitched roof. It was two-storied with an attic and outside gables. One side of the gun shed was broken up into 10 doorways or entrances, each 6 feet in width. The entrances were separated by wooden beams, which rested upon the foundation wall.

It is possible that the gun shed was divided into ten separate rooms, each room corresponding with one entranceway. An alternative to this is that the ground floor was one large room as is suggested by the plan, with numerous entranceways constructed so as to guarantee easy access to the equipment stored in the room. Lack of interior subdivisions would allow more storage space. Neither of these assumptions can be supported by archaeological evidence, since only foundation walls were uncovered.

The gun shed was undoubtedly a storage area for ordnance and other military equipment. The building may once have housed items similar to those mentioned in a report date 2 October 1819 (P.A.C., C 407, pp.18-19):

"One shed on Ile-aux-Noix, containing field Service guns, carriages, fire engines, and carts. The loft over this building is occupied with...other stores".
Figure 98. Portion of north wall

Figure 99. Portion of south wall
Figure 100. Southeast corner, looking west

Figure 101. Northwest corner, looking west
Figure 102. Interior wall, looking east

Figure 103. Portion of north wall
Figure 104. South wall near southeast corner, and trench

Figure 105. Portion of north wall and trench
Figure 106. Footing under north wall
From July 23 to August 6, 1964, archaeological excavations were directed toward locating one or more ordnance stores which are known to have existed on Ile-aux-Noix. Maps of the island dating between 1823 and 1842 show three such buildings, built close together in a single row (Fig. 107). On the 1823 map the buildings are labeled "Temporary Ordnance Stores", apparently having been moved, along with other buildings, to this location from the first British fort on Ile-aux-Noix (Lee 1966).

An 1823 architect's drawing illustrates a plan, section, and elevation of the ordnance stores. All are of wood construction, with doorways on the west side, and pillars running longitudinally in the center of each building (Fig. 108). Each building is 18 feet in width (east-west), but variation occurs in length; the north ordnance store (#16 on map) is 84 feet long, the center building (#17) is 114 feet long, and the south ordnance store (#18) is 70 feet in length.

Information gathered through the 1964 archaeological work can add very little to the historical descriptions. Excavations were carried out in the grid area 384-484N, 108-179E, as the resistivity meter had encountered very high resistance in this area.

A total of 38 excavation squares were investigated (Fig. 109). Stratigraphy was uniform over the entire area: (1) 0.0-0.5 foot below ground surface - a dark brown topsoil, (2) 0.5-1.0 foot b.s. - a light brown loam, (3) 1.0-1.5 feet b.s. - a yellowish
Fig. 108. "Temporary Ordnance Stores", 1823.
grey sandy-clay subsoil. Nineteenth-century artifacts, such as vessel glass, a variety of ceramics, a few clay pipe fragments, etc., were found throughout the upper two strata, as were metal items: in the topsoil - iron scissors, fork, gudgeon, spike, file, shot, ring; in layer 2 - iron forks, buckle, spoon, nails, heel plates, shot, hinges, washer, a currycomb, gudgeon, and an 1814 copper coin. The artifacts are of the type found in other structures on the island, so they are of no help in determining the function of the building under investigation, although it is assumed to be one or more of the ordnance stores previously mentioned.

No distinct walls were found in the area. Scattered stone and brick fragments formed no discernable patterns. Numerous soil stains, of a brown loam, were found on the surface of the lighter subsoil. The soil stains were scattered over the entire excavation area and, in general, formed no discernable building patterns or outlines. The stains were usually of irregular shape, non-extensive horizontally, and in most cases the stains did not line up with one-another. No definite corners were found. A few small stains, possibly post-molds, square, rectangular, or irregular in shape and non-uniform in measurement (1.6 feet square, 2.0 by 1.3 feet, 1.0 by 1.2 feet, 3.0 by 0.7 feet, etc.), were found to be roughly in line (north-south) on the west part of the excavations, spaced 10-11 feet apart. However, they do not seem to correlate with any of the other soil stains. Only a few of the stains found contained wood, brick, and/or stone fragments.
FIG. 109. PLAN OF ORDNANCE STORE
Artifacts

Household - Maintenance and Repair

SCISSORS - complete scissors, 17.5 cm. in length, with loops of handle oval in shape and off-center, and a round tup shank with a flat blade.

Household - Furnishings

HANDLE - two probable brass drawer handles each measure 8.2 cm. in length.

LAMP CHIMNEY, glass - fragments of long cylinders of glass, with a straight rim, flat lip, and mouth diameter of 3 cm.

Household - Food

BOTTLE - dark green wine bottle glass was the most common form of glassware found in the ordnance excavations. Bottles were either free blown, dip mold made, or made in a 3 hinge mold. Other bottles include square, octagonal, circular, and oval shapes made in 2 hinge molds.

FORK - a 2 tined and a 3 tined fork, each with a circular shank and a 2-piece bone handle riveted to the flat handle tang.

POTTERY - 17 types of pottery were found in the ordnance area. One tin-glazed earthenware sherd as well as white saltglazed stoneware and black basaltes date to the 18th century. Other wares are 19th century in date, and include a variety of pearlwares - plain, transfer printed, blue handpainted, delicate painted, sponged, shell-edged, annular, and a gaudy Dutch-like ware. Brown stoneware blacking bottles were also found.

STEMWARE, glass - three vessels have stems with a slight knop near the foot, trumpet shaped bowls, and conical, folded feet; one vessel has a trumpet bowl, plain stem, and a solid conical foot; one vessel is represented by a hollow stem fragment with a baluster knop.

TUMBLER, glass - six tumbler fragments are plain and five are mold decorated. Basal diameter range from 2-3 1/2 inches and bases vary in thickness from 8-17 mm.

Crafts - Tools

BIT, wrought iron - an open cylinder ending in a twist, with a flattened and beveled hafting tang. Length - 21.5 cm. (Fig. 146, no. 7).
FILE - a fragment of a triangular-shaped file.

Weapons

GUNFLINT - one gunflint made of black flint, rifle size.

Personal - Activities

PIPE, clay - 31 white clay tobacco pipe fragments were excavated - 4 pipe bowl fragments, 23 plain stems, and 4 marked stems of HENDERSON MONTREAL (c.1848-c.1880). Only two pipe bowl fragments are marked, with a TD mark impressed on the bowl back. This may be a pipe made by Henderson, as a similar TD mark occurs on a pipe found in the hospital. The latter pipe has the name Henderson on the stem (Fig. 130).

Personal - Clothing

BUTTON - eleven metal buttons were recovered from the excavations: 2 plain, whitemetal buttons, probably of c.1776-1781 date; 1 brass button of the Royal Regiment of Artillery (1813-1868); and 8 brass buttons with lettering (GILT or TREBLE GILT) on the back of the buttons. The latter buttons date to the first one-half of the 19th century.

HEEL, leather with iron nails - a U-shaped shoe heel fragment measures 5.5 cm. by 5.5 cm.

HEEL PLATE, iron - four shoe heel plates measure 7 by 7 cm. in overall dimensions, and are parabolic in shape. Two plates are of cast iron, with a groove for nail heads in the ground-side surface. The other two heel plates are flat on both surfaces, of wrought iron, and have equally spaced nail holes (Fig. 131, no. 4).

Personal - Coinage

COIN - a copper token, 27 mm. in diameter, and 1.5 mm. in thickness, with milled edges. Obverse: eagle displayed with the legend HALF PENNY TOKEN 1814. Reverse: Britannia seated, holding an olive branch, in a wreath of oak leaves. This token was first issued in 1813 by a Boston merchant who had settled in Montreal. Lightweight specimens dated 1813, 1814, and 1815 are local imitations (Charlton 1969: 55).

Miscellaneous

UMBRELLA BRACE, iron - one long, straight shaft, square in section, with one end flattened and pierced; the opposite end of
the shaft is U-shaped, with an iron pin linking the arms. Length - 28 cm.; maximum width - 0.9 cm.; shaft is 0.3 cm. square (Fig. 131, no.1).

Conclusion

Archaeological evidence in the form of soil stains and artifacts seems to indicate that a building of some sort once stood in the area. The indefinite nature of the evidence makes it impossible to draw valid conclusions about the building(s), and whether or not it has any relation to the ordnance store shown on the historical map. No ordnance materials were actually found. However, negative evidence may give more meaning to this situation. The lack of fireplaces may add credence to the remains having been a ordnance repository, as no fireplaces are indicated on the 1823 architect's drawing, nor were any found in the excavation of the gun shed (5G6), a building similar in nature to the ordnance store. The lack of any definite walls or features may support the temporary nature of the building(s).

The date of destruction or disuse of the structure is unknown. The latest datable artifacts (marked pipe stems) found in an undisturbed context indicate the building was probably still occupied in the 1848 period or later.
FORGE AND SMITH'S SHOP

For one week in August of 1964, excavations were carried out in the grid area 332-357N, 262-290E. A forge and smith's shop was once situated in this general area, as indicated on maps of Ile-aux-Noix dating between 1814 and 1830 (Lee 1966).

Archaeological exploration was narrowed down to this area because of high geohm readings. Eleven squares of varying sizes were excavated. From the moment the first inches of topsoil were removed, an appreciable quantity of iron artifacts began to appear. From the limited amount of archaeological work done, there seems to be little doubt that the early 19th century forge-smith's shop has been located.

All features were found between ground surface and 2.0 feet below surface (Figs. 110,111). The soil situation was as follows:

Layer 1 - 0.0-0.4' b.s. - topsoil
Layer 2 - 0.4-1.2' b.s. - a mixed soil with occasional brick and mortar detritus
Layer 3 - 1.2-2.0' b.s. - a greyish-yellow clay

The main feature that testified to the former existence of a forge was a concentration of debris at the base of Layer 2. A stratum of white mortar (0.1-0.3' thick) lay 1.5 feet below surface, intruding into the sterile yellow clay. Immediately above the mortar and grading into it was a very dense layer (0.4-0.6' thick) consisting of iron bars and broken iron tools,
FIG. 110. PLAN OF FORGE
wood chips, charcoal, stones, brick, and mortar. The stone and brick were concentrated toward the outer fringes of the debris. The iron artifacts in the debris layer were of the type one would expect to find in a forge: c. 50 bars or blanks, circular in section, each 1-4 inches in length, of various weights not exceeding c. 2 pounds; c. 200 scraps of iron, mostly broken tools or other broken artifacts - bolts, nuts, scissors, hinges, augers, locks, spikes, chisels, keys, staples, buckles, eyes, nail headers, etc., and miscellaneous copper scrap. Since iron was a relatively valued commodity, and a substance which could be re-used, broken, non-usuable artifacts were very probably saved and delivered to the local blacksmith. These items were melted down and shaped into convenient bars of iron, which could be forged at a later date into other tools.

Immediately above and within the layer of debris were heavy concentrations of charcoal.

The debris had extremely well-defined horizontal limits, forming a very regular rectangle, measuring 10 feet (north-south) by 12.5 feet (east-west) (Fig. 110). There seems no doubt that these remains have something to do with a forge. The question remains whether the rectangle of debris is the entire forge or whether it represents only one portion of the forge interior. The latter is probably the most plausible suggestion, for the following reasons:

1. because of the type of activity that goes on in a typical forge-smith's shop, it is inconceivable that such a building could measure only 10 feet by 12.5 feet. More likely the entire build-
1 TOPSOIL
2 MIXED SOIL
3 CLAY

---

FIG. III. SECTIONS

- CHARCOAL
- DEBRIS
- MORTAR
ing approximated the size given in a historical reference. An architect's drawing dated 24 Sept. 1823 (Ile-aux-Noix), shows a plan, section, and elevation of building no. 20, the "Black Smiths Shop R. E. Dept" (Fig. 112). The one-storied building has two chimneys, i.e., two fireplaces and/or hearths. The building measures c. 44 feet by c. 25 feet. The largest chimney base or hearth measures approximately 6 feet by 10 feet.

2. no indications of a wall were found in the excavations.

In conclusion, it seems most probable that the rectangle in question represents a hearth situated within the forge shop. The size of the rectangle and its characteristics - the bricks and stone toward the bottom and outside, the mortar, wood chips, heavy deposits of charcoal, and the abundance of iron blanks and broken iron artifacts - attest to this supposition. This type of concentration was the only one of its kind found during the 1964 work on the island.

Additional excavation is needed around the vicinity of the rectangle of debris in order to define the actual limits of the forge-smith's shop.

The relatively few non-metal artifacts found were bottle glass, pottery, and stemware, all food-related items.

**Household - Food**

**BOTTLE** - glass bottle finds in the forge are limited to a few free blown wine and medicine bottles, fragments of wine bottles made in a dip mold, and octagonal 2-hinge mold vessels.

**POTTERY** - seven pottery types were found in association with the forge: a slipped redware made in the late 19th century in Quebec or the Maritimes; plain and blue handpainted pearlware; shell-edged ware as well as transfer-printed earthenware. A few fragments of
Fig. 112. Blacksmith's Shop, 1823 Map
porcelain as well as a small quantity of brown salt glazed stoneware blacking bottles were also recovered.

STEMWARE, glass - one vessel with a trumpet-shaped bowl, a stem with a slight knop near the foot, and a concial, folded foot.

The artifact evidence suggests the forge was in operation at least until after the mid-19th century. The date of construction is unknown, except for a possible map reference. A map of Ile-aux-Noix dated 24 Sept. 1823 gives the following reference: "no.20. Black Smiths Shop R.E. Dept". However, the map fails to pinpoint the exact location of no. 20. Thus, this reference either refers to the forge-smith's shop under discussion (5G19) or to a similar structure on the island.
SEARCH FOR A LIME KILN

The excavations designated 5G20 were instigated to investigate a circular structure shown on the 1816 and 1819 maps of Ile-aux-Noix. This structure might have been a lime kiln, as it was situated near (c. 50 feet away) a building designated "lime shed" on the above maps. A smaller structure labeled "civil workmen" was located c. 100 feet to the north of the circular structure (Fig. 113).

Archaeological trenches were placed within the area 920N-968N, 220W-264W. This location was marked by a mound rising approximately two feet above the surrounding field. Two cross-trenches were excavated through the mound, one north-south, the other east-west (Fig. 114).

The most productive and informative portion of the mound was the western one-half. Perhaps the most tangible evidence of a structure was found there - in trenches 5G20F, 20H, and 20L at 2.6 feet below surface. One course (0.3 foot thick) of crumbly orange-red brick, interspersed with a few hard, well-fired red bricks, measured 4.5 feet (E-W) by 3.6 feet (N-S) in horizontal extent (Fig. 115A). The bricks were not randomly placed, but had definitely been fitted into a pattern. A wood plank, measuring c. 3.0 feet by 0.5 foot and running north-south, lay directly beneath the brick at its west end. Also in association with the brick was a burned area, consisting of a greasy black soil, within which were lenses of mortar, sand, and loam. This black stain
was readily noticeable but irregular in extent, occurring mostly around the brick area, but also to the east of it in square 5G20C (Fig. 114).

The following artifacts were found in the vicinity of the brick area:

- 1 pintle, iron
- 1 hinge, iron
- 1 lock, iron
- 104 pipe stems, clay
- 1 pipe bowl, clay
- 14 pipe bowl fragments
- miscellaneous pane and vessel glass

Further evidence of possible structural remains was found 11 feet to the east of the brick area in 5G20C. A group of c. 8 shaped stones, in association with sheet metal, pane glass, and wood fragments, was exposed at 2.6 feet below surface. The stones were in no definite pattern, and they were not traced to the north. Consequently, their horizontal extent is not known (Fig. 115B).

A definite stone wall corner was exposed in 5G20B, c. 13 feet north of the previously-mentioned stones and c. 16 feet northeast of the brick area. The stones were faced on the east and south sides, and the corner measured 1.6 feet in vertical extent. The corner was overlain by a light brown loam which contained numerous chips of brick and mortar (Fig. 115C).

In the excavation squares immediately to the north and west of 5G20B (i.e., 5G20J, 20K) additional stonework was found in association with scattered red brick remains. Probing in non-excavated areas revealed much rubble. As judged by this evidence together with the stone corner found within 5G20B, a square or
FIG. 114. PLAN OF LIME KILN AREA
rectangular building probably once stood in this area. All of the stone and brick remains discussed occupied a similar stratigraphic position - beneath a light brown loam. It is probable that all were in use at the same time. Scattered throughout the light brown loam on the north and southeast sides of the mound (5G20B, 20C, 20D), were numerous fairly large pieces of sheet iron. None was found near the brick area.

Artifacts

From the vicinity of the brick area:

Structural Hardware

HASP - a fragment, wrought iron.
HINGE - a long (56 cm.) expanding strap hinge, with the narrowest end expanding into a flattened oval. Three large clinched wrought nails are still intact. A second hinge is of the double strap variety.
LOCK - a door lock with a rectangular cover plate has the bolt in place.
PINTLE - a one-piece pintle of wrought iron.

Household - Food

BOTTLE - free blown glass wine bottle fragments were found in the area of excavation.
KNIFE - one folding knife fragment.
POTTERY - six pottery types were found - creamware, plain, shell-edge, and delicate painted pearlware, transfer-printed earthenware; and a gaudy-Dutch-like ware.
STEMWARE - one glass vessel with trumpet bowl, plain stem, and plain foot.

Personal - Activities

PIPE, clay - 14 pipe bowl fragments, plain or molded, are of a spurless type (Fig. 171, Shape 7). On five bowls, the name VINER is impressed within a rouletted circle on the back of the bowl. On the spur are the initials A and V on opposite sides. Anne Viner of Bristol manufactured pipes in the 1775-1805 period (Oswald 1975: Fig. 9).
One bowl fragment has the word STRAND impressed below the blurred letters ??LO. The use of a full name on the bowl back dates from c.1770-1780 to c.1850 or later (Oswald 1975: 67).

**Personal - Clothing**

**BUTTON** - one brass button is ball-shaped and hollow.

**Conclusion**

The excavation yielded only "bits and pieces" of evidence, nothing complete or definitive. No circular structure was revealed, nor were any soil stains found that indicated a circular building. The brick area together with the black, burned soil suggests a fire area, but not necessarily a kiln. The artifacts found in the brick area suggest a domestic structure once stood in the area. The brick remains may represent remnants of a fireplace or possibly a kiln. If the latter is correct, perhaps the kiln was almost totally dismantled in post-1819 times, as it does not appear on subsequent historical maps of the island.

On the basis of the artifacts as well as the stone wall corner found to the north of the brick area, and the scattered rubble in the immediate vicinity, it is probable that a building stood in this area. In what ways it was connected with the brick area is not known. However, both occupied the same stratigraphic position.

In summary, until further archaeological work is done in the area under consideration, the identification of the remains uncovered in 1964 must remain in question. The remains could be those of either a lime kiln, a lime shed, the building designated "civil workmen", or some other structure not noted on the historical maps.
FIG. 115. SECTIONS

1 TOPSOIL
2 BROWN LOAM
3 GREY SAND
4 BROWN SAND
5 BLACK SOIL
6 GREY CLAY
7 BROWN SAND
8 BRICK & MORTAR CHIPS
9 STONE
11. SEARCH FOR A WELL

A well, located c. 200 feet west of the cookhouse, is shown only on an 1870 map of Ile-aux-Noix and therefore it may be later in date than either the cookhouse, the hospital, or bakery, all of which are shown on earlier maps of the island. The well, as shown by the 1870 map, was supposedly flanked by numerous structures - brick sheds, temporary huts, and miscellaneous buildings.

Magnetometer tests conducted in the supposed area of the well located anomalies between grid 470-480N and 250-265W. Exploratory trenches were sunk in this area of high readings, as well as in the general area 450-500N and 240-280W. No definite indication of a well was found. However, other structural features were located - various soil stains, two possible barrels, and a stone pavement (Fig.116). The functions all remain unknown, since the excavation was of an exploratory nature and not definitive.

The features found were as follows:

1. a dark soil stain, running approximately grid north-south, was traced for 26 feet and the end was not found. The stain was one foot in width, and was at least 2.8 feet deep.

2. immediately to the west of the above feature was another soil stain, squarish although irregular in shape, approximately 6 feet square and 1.2-1.4 feet deep. Centered in the southwest corner of this stain was another squarish stain, inside of which was found an iron strap or probable barrel hoop 2.2 feet in diameter.
A similar squarish soil stain and barrel hoop was found 8 feet to the north, immediately west of the northwest corner of the 6 ft. square stain. Traces of wood were found around the hoops, and this evidence may represent the remains of wooden barrels once sunk partially (c.1.4 feet) into square holes. The soil inside the hoops was packed with brick and mortar rubble.

The northwest corner of the large soil stain protruded c.1 ft. beyond the six foot square. Brick dust was found around the edges and much charcoal in the center.

3. immediately to the west of one barrel hoop and stain was found a nicely constructed stone pavement, measuring 6 feet (east-west) by 4 feet (north-south). The pavement was made of 2-3 courses of squared field stones, measuring 1.0-1.5 ft. in overall thickness. Several stones were large - 3 ft. by 2 ft. by 0.7 ft. The stones were well mortared, and had been laid on a wood foundation consisting of four wooden beams running east-west. The boards were 0.5-1.2 feet in width, and 0.05 ft. thick. Several nails were in evidence.

It seems unlikely that this stone pavement represents a hearth or fireplace foundation, because of the use of wood under the stone and also the foundation beneath the stones is of a different construction than was found for hearths on other structures excavated. Five excavation trenches were dug in the vicinity of the stone pavement in order to locate possible walls and/or corner foundations, but nothing was found.

As mentioned previously, the function of the above features is not known. All are probably related to one or more structures. Whether or not they have anything to do with a well is not known at this time.
A brownish-black sandy clay containing brick and mortar rubble was the main artifact bearing layer in the area of excavation. The types of artifacts found in this layer together with the rubble suggests a structural function for the features uncovered. Domestic refuse suggests people lived in the immediate area. The artifacts found were as follows:

**Structural Hardware**

HOOK - a gate, door, or shutter hook, with one end turned at right angles to the shaft, with an eye at the opposite end of the shaft.

LATCH - a bar-type latch fragment and one rectangular latch catch or bracket were uncovered.

PINTLE - of one-piece construction, 13 cm. in length.

STAPLE - one U-shaped staple.

**Household - Food**

BOTTLE - free blown glass wine bottle fragments, as well as wine bottle made in a dip mold and 2 hinge mold were found.

BUNG HANDLE - an ornate T-shaped brass bung handle, 31 cm. in length.

FORK - one 3-tined fork with a circular shank widest in the middle and constricted near the tines and tang; another fork fragment has a 2-piece bone handle riveted onto an iron handle tang.

POTTERY - 15 pottery types include redware from Quebec or the Maritimes; creamware; mocha ware; a variety of pearlwares, including plain vessels and vessels with delicate painted, sponged, shell-edged, annular, or transfer-printed decoration. Some black basalte ware, as well as stoneware blacking vessels and porcelain were found.
STEMWARE, glass - one stem fragment with an annular knop and a bucket-shaped bowl.

TUMBLER, glass - 16 tumblers were found in this excavation. All are plain or non-decorated, and range in basal diameter from 1 3/4 to 3 1/2 inches. Eleven of the 16 have had basal pontil marks ground off.

Craft - Tools
FILE, iron - a triangular file is 14 cm. in length. A half-round rasp-single cut file combination tool is 18 cm. in length.
SHOVEL, wrought iron - a blade fragment is 18.5 cm. in width and slightly convex in section.
WEDGE, wrought iron - a wedge with a blunted head, possibly a broken axe re-used as a wedge.

Personal - Activities
JEWS HARP, brass - 4.3 cm. in length and 2.0 cm. wide.
PIPE, clay - one white tobacco pipe fragment has the mark TD in relief on the probable bowl back.

Personal - Clothing
BUCKLE, brass - a rectangular waist-belt buckle, 5.1 cm. by 3.3 cm., with central bar and evidence of an iron tongue.
SHAKO SCALE, brass - portions of two were found.

Coinage
COIN - a copper coin, probably English, 28 mm. diameter, 2 mm. thick, in poor condition. Obverse: a sinister bust; legend is illegible. Probably a half-penny token, early 19th century.

Miscellaneous
UMBRELLA BRACE, iron - 4 specimens, complete and fragmentary. A long straight shaft, square in section, with one end flattened and pierced by a tiny hole; the opposite end of the shaft is U-shaped, with an iron pin linking the arms. Length - 28 cm. Maximum width - 9 mm. Shaft - 3 mm. square.
In the general grid vicinity of 240N and 40W a flat mound rises c.1-2 feet above ground surface and measures approximately 20 feet square. This mound or possible structure does not appear on any of the historical maps of Ile-aux-Noix. The nearest possible historical buildings to the area under investigation are a "Canteen", used from 1830 until 1863, and a small "root house" which stood to the east of it in 1842 and 1852 (Lee 1966). The archaeological finds of Operation 10 could represent the structural remains of either building, but the evidence is too inconclusive and the artifacts too meagre in number to enable any conclusions to be reached. No interpretations will be made, except to state that the mound was man-made and that at some time in the past a structure probably stood at this spot.

Scattered rock, brick, and wood fragments were found in the various trenches of the eight suboperations. A grey clay stratum covered the same horizontal area as that covered by the mound. This clay underlays a brown topsoil and is situated above a yellow subsoil.

The main features of any consequence found were a series of seven nearly identical soil stains, comprised of a mixture of grey and brown clays, averaging c.3 feet long (east-west) by 2 feet wide (north-south) by c.2 feet deep. (Fig. 117). The stains cut through the grey clay into the yellow subsoil. The stains may represent holes or ditches dug for posts, which would have been
placed 2-3 feet apart (north-south) and c. 5 feet apart (east-west).
ARTIFACTS

During the 1964 excavations on Ile-aux-Noix, a total of 36,705 artifacts were recovered. The majority of artifacts were found in the hospital-cookhouse complex - 21,200 artifacts or 58% of the total. The cookhouse itself yielded 12,200 artifacts (34%) and 9,000 artifacts (24%) were found in the hospital. A few thousand artifacts were found in association with each of the following excavations: old English fort, the bake house, and the barracks. Artifactual materials were not as numerous in the remaining excavation areas.

Glass bottle fragments (c.4,000 or 11%), pottery sherds (21,745 or 60%), pane glass fragments (c.6,000 or 15%), and tobacco pipe fragments (3,904 or 11%) were the most common artifacts found and represent 35,649 specimens or 97% of the total assemblage. Given the large number of pottery and bottle glass fragments (71% of the total), the majority of artifacts fit into the "Household - Food" category, as previously defined. The remaining 1,056 artifacts (3%) are mostly metal tools, weapons, structural items, or personal articles. Relatively few military artifacts, besides buttons, were found.

The following discussion will summarize the characteristics and distribution of glass bottles, buttons, pottery, stemware, clay tobacco pipes, and glass tumblers.
BOTTLE GLASS

Free Blown - Free blown bottles, having no mold marks present, were relatively common. A minimum of 87 free blown bottles were found, from all sites, with concentrations in the old English fort. These bottles can be classified as wine bottles, medicine bottles, square case bottles, and possible decanters.

Wine bottles constitute c.72 bottles of the total sample. Two nearly complete bottles can be dated by shape to the c.1790-c.1810 period (Fig. 118, no.1). Seventy other bottle bases are similar in shape. One incomplete bottle, of a squatter shape dating to the c.1770-c.1780 period, has the date 1779 pecked into one side.

Medicine bottles are thin, small (basal diameter of 3/4 to c.2 inches), light green or clear vessels, usually with a pontil mark in the middle of a raised base. A minimum of 10 vessels were found.

Only a few square case bottle fragments were found. Dark green in color, the walls slope outward from a base 1 1/4" to 3 1/2" square. Large pontil marks are noticeable on most bases.

Several wide-mouth decanter fragments of dark green metal have gently-sloping and short necks, everted or thickened rims, and a mouth-opening of c.1 3/4 inches.

Dip Mold - One nearly complete wine bottle, dark green in color, measures 11 3/4 inches in height and 3 inches in basal diameter (Fig. 118, no.2). The basal kickup is regular with a pontil mark in the center (Fig. 119). The surface of the glass has a hammered metal appearance. An additional eleven bottle bases are identical in characteristics to the nearly complete specimen. Bottles made in dip molds date from c.1790 until sometime after 1810 (Lorrain 1968;38).
Three Hinge Mold - A minimum of 83 bottles were found which were manufactured in a three part hinged mold, and therefore date to c.1810 or after (Lorrain 1968). The majority of these bottles, c.54 in number, are of dark green color, uniform diameter (3½") and height (c.10"), and can be termed wine bottles. Bases are indented and exhibit a small nipple of glass in the center of the indentation. The majority of bases are plain, but a few have the words IMPERIAL PINT in raised letter (Fig. 119). Of the c.54 bottle bases, 48 are from the cookhouse, 5 are from the adjacent hospital, and only one comes from another building, the ordnance store.

Other three hinge mold bottles resemble wine bottles in shape, but are light green or dark blue in color. A minimum of 16 bottles are of this type, with basal diameters of c.3½ inches and a probable height of over 7 inches.

Ten additional bottles are wide vessels with wide mouths and short necks. Two nearly complete vessels have a basal diameter of 4½ inches, a mouth diameter of 1 5/8 inches, and a height of 8 3/4". They are of light green color and have a shallow, regular kickup in the base, without a pontil mark (Fig. 118, no.3).

Three bottles can be classified as soda bottles. These round-bottomed, aqua-colored bottles are c. 9 inches high and 3 inches in diameter (exterior). Raised lettering runs vertically on the bottle: FARQUAR & WILSON, ESTABLISHED 1845, MONTREAL.

Two Hinge Mold - Square, octagonal, circular, and oval bottles were found in the excavations. The bottles are aqua, light green, light blue, or clear.

1). square bottles have flat sides with a short neck and a slightly raised base. One bottle, of clear metal, measures only
Table 1. Distribution of Bottle Glass

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<th>Hospital</th>
<th>Cookhouse</th>
<th>Gunshed</th>
<th>Fort</th>
<th>Cemetery</th>
<th>Open 10</th>
<th>Bakehouse</th>
<th>Ordinance</th>
<th>Barracks</th>
<th>Well</th>
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<td><strong>2 hinge mold</strong>:</td>
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one inch square at the base, c. three inches in height, and decreases in size towards the neck. Writing appears on the four sides in raised letters, one word per side: FREEMAN'S GUTTA SALUTARIS PRICE 20. A minimum of eight square bottles were found.

2). octagonal bottles, with unequal or equally wide sides, are relatively small in size, varying in maximum basal width from 3/4 inch to 2 7/8 inches, and in height from 5-6 inches (Fig. 118, no.4). Examples of writing or lettering appearing on the 24 bottle fragments include the following: a. LONDON; b. WD c. WUS TARD d. ?EELER LIVERPOOL e. R.R.R. RADWAY & CO. NEW YORK PA d ACORD TO ? CONGRESS.

3). circular bottles. A minimum of six bottles are circular in shape, with flat or slightly raised bases, and measure c.2 inches in diameter. Two soda bottles, light green or aqua in color, have pointed bases, and measure c.3 inches in exterior diameter.

4). oval bottles are light green or aqua in color, with one bottle of amber color. Fragments from at least 6 bottles have slightly raised flat bases, with one exhibiting a pontil mark. Maximum basal size is 3 3/4 inches by c.2½ inches and a c.6½ inch height.

Two hinge mold bottles began to replace three-hinge mold bottles between 1840 and 1850 (Lorrain 1968).

Miscellaneous glass includes fragments of four bottle stoppers, of clear or light green color. One stopper from the cookhouse has raised lettering around the top: LEA & PERRINS. It measures 1 3/8 inches in height and one inch in diameter.
BUTTONS

A total of 196 buttons were found in all areas, except for the well area and the forge site. Of this total, the majority of buttons were found in the cookhouse (72) and hospital (32). Metal buttons (99) and bone buttons (51) were most common. Thirty-seven of the metal buttons were marked with regimental or other military insignia. Eighteen regiments are represented in the sample.

Whitemetal

A. solid cast buttons, no mold seam visible, with an iron eye cast in place. The face of the button is convex and decorated; the back is rimmed with a large boss, to which the iron eye is attached; lettering on back of button.

1. in center, a dragon in relief, surrounded by a garter, within which, in Roman letters, is the motto VETERI FRONDESCIT HONORE; the numeral 3 below the garter. Lettering on button back: McGOWAN LONDON. 16 mm. diameter (Fig. 135, no. 22). According to Stewart (1964: 84) the 3rd Regiment of Foot (East Kent Regiment - The Buffs) was in Canada in 1814-1815. Gunshed.

2. on a plain background, within a depressed circle, the numerals 13 surrounded by an 8-pointed star, in relief. Back is unreadable. 16 mm. diameter (Fig. 135, no. 3). The 13th Regiment of Foot (Somersetshire Light Infantry) in Canada in the 1813-1815 period (Stewart 1964: 114-116). On 27 July 1813, 1 officer and 180 men of this regiment were at Ile-aux-Noix, and on 25 Sept. 1813, 16 officers and 322 men are listed as being on the island (Lee 1967). Old English fort.

3. on plain background, within a foliole, an eight-pointed star, in relief with laurel wreath in center, in which are the numerals 15 (Fig. 135, no. 2). Back is not readable. 19 mm. diameter. The 15th Regiment of Foot (East Yorkshire) was at Ile-aux-Noix in 1830 and 1838 (Stewart 1964: 120). A detachment of the 15th was at the island on 31 Oct. 1832 (Lee 1967). Cookhouse.
4. the numeral 24 within a wreath. On the back of the button is NUTTING LONDON. 19 mm. diameter. The 24th Regiment of Foot (South Wales Borderers) was in the Montreal area between 1829 and 1940 (Stewart 1964: 148). Lee (1967) lists a Capt. George F. Stark of the 24th Regiment as the Officer Commanding at Ile-aux-Noix on 29 May 1831. Hospital.

5. the numerals 60 within a wreath. Back unreadable. 18 mm. in diameter. The 60th Regiment of Foot (King's Royal Rifle Corp) in America and Canada 1755-1824, in Canada 1844-1847, and 1866-1876 (Stewart 1964: 258-259). Lt. Col. A. Rumpler, of the 60th Regiment, was officer Commanding at Ile-aux-Noix beginning 11 April 1821 (Lee 1967). Provenience unknown.

6. the numerals 60 in relief surmounted by a crown, surrounded by a double band within which is the motto HONI SOIT QUI MAL Y PENSE. 16 mm. in diameter (Fig. 135, no. 6). See description of button no. 5 above for information on the 60th regiment. Old English fort.

7. the numerals 65 within a circle, in relief (Fig. 135, no. 8). The back has the raised letters NUTTING LONDON. 19 mm. diameter (2 buttons). The 65th Regiment of Foot (York and Lancaster Regiment) was in Canada in the 1838-1841 period (Stewart 1964: 274). Bakehouse and Operation 1 area.

8. upright anchor with a rope border around the button edge, both impressed (Fig. 135, no. 26). Back unreadable. 23 mm. diameter. Probably Royal Marine or Royal Navy button, both of which were active on Ile-aux-Noix in the 1812-1834 period (Hooper 1967; Lee 1967). Old English fort.

9. upright, fouled anchor impressed on face of button. Back is unreadable. 22 mm. diameter. Barracks.

B. solid cast buttons, no mold seam visible, with iron eye cast in place. Face is flat to slightly convex, back probably spun, with a large boss. No writing on back.

1. the letters RP in relief, 5 mm. high, surmounted by a crown. Back is plain. 22 mm. diameter. Identical to a button shown and described by Emilio (1911, no. 582): "A general service button of the loyalist soldiers who are referred to as 'Royal provincials'. These buttons were probably on the yearly supply of thousands of
<table>
<thead>
<tr>
<th></th>
<th>Hospital</th>
<th>Cookhouse</th>
<th>Gun Shed</th>
<th>Port</th>
<th>Cemetery</th>
<th>5G10</th>
<th>Bake House</th>
<th>Ordnance</th>
<th>Barracks</th>
<th>Well Area</th>
<th>Forge</th>
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**TABLE 2. BUTTON DISTRIBUTION**
uniforms made by contract in England and sent to America for all
the loyal enlisted men or organizations, except those forming the very
few loyalist corps that had regimental buttons" (Ibid., p.104).
The button probably dates to the 1776-1781 period. Old English fort.
(Fig. 135, no.25).

2. on a plain background, the figures 62 in relief within a
foliole, with a dot at the top opening. Back very corroded. The
62nd Regiment of Foot (Wiltshire Regiment) in Canada 1758-59, 1814-
23, 1856-64, and mentioned as being at Ile-aux-Noix in the fall of
1776 (Stewart 1964: 265). Barracks. (Fig. 135, no.7).

3. eight buttons with plain faces and backs, diameters ranging
between 14 mm. and 23 mm. Old English fort, ordnance store, barracks,
bakehouse.

The whitemetal buttons of Category B resemble those described
by South (1963, Type 7, 1726-1776 context) and Olsen (1963, Type D,
1760-1785). They probably all date to the 1776-1781 period.

C. solid cast buttons, mold seam and plug visible, back has boss with
iron eye cast in place; button is flat and plain. Nine buttons of
this type were found, ranging in diameter from 16 mm. to 21 mm. They
are similar to buttons described by South (1963, Type 8, 1726-1776
context) and Olsen (1963, Type C, 1760-1790 context). Hospital,
old English fort, bake house.

D. solid cast buttons, eye and button one-piece cast whitemetal, plain
or decorated.

1. the face has the numerals 71 within the curve of a bugle and
circle, a crown above, in relief. Back is plain. 20 mm. diameter.
The 71st Regiment of Foot (Highland Light Infantry) in Canada in
1824-1831 period and 1838-1852, with a detachment sent to Ile-aux-
Noix in 1827 (Stewart 1964: 295). A Major E. White of the 71st was
the Officer Commanding at Ile-aux-Noix, 28 Aug. 1841 (Lee 1967).
Hospital. (Fig. 135, no.10).

2. two buttons, both surfaces plain. 20 mm. diameter. Barracks.
Brass

A. brass buttons, two-piece domed and hollow, with face overlapping back and crimped onto back; back slightly domed with groove running across back, with eye looped over groove inserted into holes on each side of groove; writing on back of button with insignia or numerals on front in relief.

1. two buttons. In center of a plain background, three field-pieces with crown above, in relief. On back the words SMITH & WRIGHT BIRMINGHAM. 16 mm. and 22 mm. diameter. Buttons are identical to no. 701 of Emilio (1911), which are identified as Army, Royal Regiment of Artillery, 1820-1840. The Royal Regiment of Artillery was in Canada from 1724-1907 (Stewart 1964: 41-56), and listed at Ile-aux-Noix in 1813, 1843, 1849, 1850, 1862, 1864, 1868 (Lee 1967). Cookhouse, ordnance store. (Fig. 135, nos. 14,15).

2. in relief, the numerals 59 with crown above, within a circle. Back: SMITH & WRIGHT BIRMINGHAM. 24 mm. diameter. The 59th Regiment of Foot (2nd Nottinghamshire, 2nd Battalion - East Lancashire Regiment) in Canada 1758-1775 and 1814. Cookhouse. (Fig. 135, no.5).

3. six buttons. In circle in center, three feathers and crown in relief; below in scroll motto "ICH DIEN", below which is numeral 100 in relief; around central circle paralleling button rim, in relief, PRINCE OF WALES ROYAL CANADIAN REG. Back: SMITH & WRIGHT BIRMINGHAM. 25 mm. diameter. The 100th Regiment of Foot (Prince Regent's County of Dublin, later Prince of Wales Leinster Regiment - Royal Canadians), in Canada 1805-1818, 1866-1868, 1898-1900 (Stewart 1964: 388). The 100th is listed as being at Ile-aux-Noix in 1812 and 1813 (Lee 1967). Buttons probably date to 1866-1868 period or after as Royal Canadians arrived in Canada in 1866. Hospital, cookhouse, barracks. (Fig. 135, no.13).

B. brass buttons, two-piece domed and hollow, with face overlapping back and crimped onto back, back slightly convex, with brass eye soldered into hole on back; face decorated; back plain or lettered.
TABLE 3. REGIMENTAL BUTTONS EXCAVATED IN 1964

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<th>Regiment</th>
<th>Provenience</th>
<th>Probable Regimental Date</th>
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<td>3rd</td>
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<td>English Fort</td>
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<tr>
<td>15th</td>
<td>Cookhouse, Barracks</td>
<td>1830's</td>
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<td>19th</td>
<td>Hospital</td>
<td>1814-1816</td>
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<td>24th</td>
<td>Hospital</td>
<td>1829-1840</td>
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<td>59th</td>
<td>Cookhouse</td>
<td>1814</td>
</tr>
<tr>
<td>60th</td>
<td>English Fort</td>
<td>c.1821-1876</td>
</tr>
<tr>
<td>62nd</td>
<td>Barracks</td>
<td>1776-1783</td>
</tr>
<tr>
<td>65th</td>
<td>5G1, Bake House, Cookhouse,</td>
<td>1838-1841</td>
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<tr>
<td></td>
<td>Gun Shed</td>
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</tr>
<tr>
<td>71st</td>
<td>Hospital, Cookhouse,</td>
<td>1824-31, 1838-52</td>
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<tr>
<td>89th</td>
<td>Cookhouse</td>
<td>1812-15, 1841-52</td>
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<td>100th</td>
<td>Hospital, Cookhouse</td>
<td>1866-1868</td>
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<td>Royal Provincials</td>
<td>English Fort</td>
<td>1776-1783</td>
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<td>Royal Regiment of</td>
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<td>1813, 1843, 1849, 1850,</td>
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<td>Barracks, Ordnance</td>
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<td>5G1</td>
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<td>Cookhouse, Fort</td>
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<td>Cookhouse, Fort</td>
<td>1812-1834</td>
</tr>
<tr>
<td>Royal Marines</td>
<td>Cookhouse, Fort</td>
<td>1812-1834</td>
</tr>
</tbody>
</table>
1. on plain background in relief, a crown, above 3 fieldpieces, one above another; below the motto UBIQUE; a raised, scalloped border inside of a narrow, rounded rim. Back is plain. 17 mm. diameter. Probably a button from the Royal Regiment of Artillery. Bake house. (Fig. 135, no.17).

2. two buttons. Face portion of a two-piece brass button. An eight-pointed star, within which, in a circle, the raised letters GR, with a probable crown covering the eighth point of the star; above, the word CANADIAN, below the word MILITIA in raised Roman letters. 22 mm. diameter. Identical to Emilio (1911, no.690), War of 1812-1815. Cookhouse, old English fort. (Fig. 135, no.18).

3. on plain background in center, in relief, a curved horn or bugle, with the numeral 6 in twist of bugle; above, the words CANADIAN, below the words MILITIA; all within raised rim. Back: HERBERT & CO. LONDON. 25 mm. diameter. Probably War of 1812 period. Cookhouse. (Fig. 135, no.1).

4. in relief, crown and garter with ROYAL SAPPERS & MINERS in center of garter, foliated script WR in center. Back: DOLAN'S LONDON. Royal Sappers and Miners in Canada 1794-1856, but the name was assumed in 1813; at Ile-aux-Noix 1814, 1821-1822, 1842 (Stewart 1964: 61, 62). (Fig. 135, no.20). Found in Operation 1.

5. three buttons. in relief, numerals 65 surmounted by crown, within a raised circle. Back: NUTTING LONDON. 19 mm. diameter. The 65th Regiment of Foot (York and Lancaster Regiment) was in Canada in the 1838-1841 period (Stewart 1964: 274). Cookhouse, gun shed, and Operation 1 area. (Fig. 135, no. 9).

6. in relief, a bugle, with strings and knot; a crown above; within the curve of the bugle the numerals 71; a thistle wreath around. Back: C. JENNENS LONDON. 17 mm. diameter. The 71st Regiment of Foot (Highland Light Infantry) in Canada in 1824-1831 period and 1838-1852, with detachment sent to Ile-aux-Noix in 1827 (Stewart 1964: 295). A Major E. White of the 71st was the Officer Commanding at the island, 28 Aug. 1841 (Lee 1967). Button is identical to no.658 of Emilio (1911), who ascribes it to the Highland Light Infantry. Cookhouse. (Fig. 135, no.11).
7. in relief, numerals 89 within a circle. Back: GILPIN & CO. NORTHUMBERLAND LONDON. 20 mm. diameter. The 89th Regiment of Foot (2nd Battalion Princess Victoria's - Royal Irish Fusiliers) in Canada 1812-1815, 1841-1847 (Stewart 1964: 370). Cookhouse. (Fig. 135, no. 12).

C. brass buttons, ball-type, domed and hollow, with slightly rounded backs, fairly high eye probably soldered to the base. Not decorated. Two buttons, each 13 mm. in diameter. Lime kiln area and Operation 10.

D. brass buttons, solid cast, flat, spun back, boss with brass eye cast in place; not decorated. Five buttons, 16 to 28 mm. in diameter. Buttons similar to those described by South (1963, Type 7, 1726-1776 context) and Olsen (1963, Type D, 1760-1785). Old English fort and bake house.

E. brass buttons, solid cast, flat to slightly convex, brass eye soldered onto back; plain face; writing and designs stamped on back; surfaces gilded. Twenty buttons, ranging in diameter from 14 mm. to 22 mm. Lettering on back side of button: GILT with 8 stars; DOUBLE GILT, LONDON, wreath around outer border; TREBLE GILT in large letters, BRIGHT ORANGE in small letters; GILT with floral wreath; GILT; eagle above 7 stars, in circle, in relief; BEST PLATED, with wreath; PLATED. Buttons of this type have been found by South (1963, type 18) in an 1800-1830 context. Cookhouse, ordnance store, bake house, barracks.

F. brass buttons identical to type E buttons in form, but without decoration or lettering on back. Two buttons, 15 mm. and 17 mm. in diameter. Hospital and cookhouse.

G. brass buttons, solid cast, slightly convex, no decoration; heavy eye cast with button, with eye hole drilled. One button, 13 mm. diameter.
H. brass buttons, solid, convex, with brass eye soldered to back; no writing on back; face decorated.

1. impressed on face of button: an upright, fouled anchor on plain background; vertical parallel lines on shank; horizontal parallel lines on stock, fluke, and arm. 20 mm. diameter. Probably Royal Marine or Royal Navy button, both of which were active on Ile-aux-Noix in the 1812-1834 period (Hooper 1967; Lee 1967). Old English fort. (Fig. 135, no. 27).

2. within a depressed, lined shield, 3 fieldpieces, one above another; above them, in upper part of shield, 3 balls. 20 mm. in diameter. Probably Royal Regiment of Artillery, in Canada from 1724-1907 (Stewart 1964: 41-56), and listed at Ile-aux-Noix in 1813, 1843, 1849, 1850, 1862, 1864, 1868 (Lee 1967). Barracks. (Fig. 135, no. 16).

3. face badly worn. In relief, numeral 15 within a circle with star-rays radiating outward. 16mm. diameter. The 15th Regiment of Foot (East Yorkshire) at Ile-aux-Noix in 1830 and 1838 (Stewart 1964: 120). A detachment of the 15th at the island on 31 Oct. 1832 (Lee 1967). Button identical to Emilio (1911, no. 703), Army, 15th Foot, 1827-1840. Barracks.

I. brass buttons, solid, slightly convex, distinct foot where brass eye soldered to back, decorated front, plain or decorated back, often gilt.

1. gold gilt, curvilinear design in relief on face; stamped on back is G & W BOGGETT & CO. LONDON. 25 mm. diameter (Fig. 135, no. 23). Cookhouse.

2. in relief on face, DONNEGAL over crown (Fig. 135, no. 19). Back is plain. 17 mm. diameter. Cookhouse.

3. on face, ROYAL MARINES over anchor and laurel. Back plain, gilt. 15 mm. diameter. Identical to no. 694 of Emilio (1911), who says that the Marines were made "Royal" in 1802. Royal Marines at Ile-aux-Noix in 1813 and 1814 (Stewart 1964: 421-422). Cookhouse.

4. in relief, ASSAYE above crown and elephant; XIX below elephant; letter L to left of elephant, letter D to right of elephant. Letters LD signify Light Dragoons. The 19th (Prince of Wale's Own)
Hussars in Canada 1813-1816, with a detachment at Ile-aux-Noix in the 1814-1816 period (Stewart 1964: 37). Hospital. (Fig. 135, no.21).

J. stamped brass buttons, with sunken panel, 4 holed. Four buttons, 14 mm. or 16 mm. in diameter. One button has stamped on the face WARRANTED NOT TO CUT. Another button has stamped on the back G. BARNETT AND P. ARMFIELD’S PATENT. The latter type has been found by South (1963, Type 32) in a 1837-1865 context. Hospital, cookhouse.

Iron
A. ten buttons, stamped iron, with sunken panel, 13-17 mm. in diameter. On one button is stamped TURNER & CO. PATENT. Hospital, bake house, Operation 1 area.

Glass, white (Fig. 136, no.3).
A. 4-holed plain, slightly curved back, sunken paneled face, 8 mm. to 15 mm. in diameter. 10 buttons. Hospital, cookhouse, bakehouse.
B. 4-holed, decorated on face with molded or painted designs (red), 10 mm. in diameter. 6 buttons. Cookhouse, bake house.
C. button with cone shaped face, with iron eye attached to hole in back. 10 mm. in diameter. 3 buttons. Hospital.
D. mold decorated glass button, 10 mm. in diameter, inset into brass ring 15 mm. in diameter; brass is 6 mm. in height, with evidence of iron on back (Fig. 136, no. 4). Cookhouse.

Bone (Fig. 136, nos.6,7).
A. flat button with one central hole, no rim, 15-18 mm. in diameter. 6 buttons from the hospital, cookhouse, old English fort, barracks, and bake house.
B. button with both surfaces slightly convex, one central hole, 13 mm. in diameter. 2 buttons. Cookhouse and bakehouse.
C. 2-holed, thick (8 mm.) button with flattened back showing 2 holes and centering hole for cutting tool, face 2-holed in small sunken panel. 20 mm. in diameter. Gun shed.
D. 3-holed, flat back, sunken panel in face, 11 mm. diameter. 4 buttons. Cookhouse, gun shed, and hospital.
E. 4-holed, flat back, sunken paneled face, 18 mm. diameter. 5 buttons. Hospital, cookhouse.
F. 4-holed, rounded back, sunken paneled face, 13-28 mm. diameter, 17 buttons. Cookhouse, hospital, bake house.
G. 5-holed, slightly rounded back, sunken paneled face, 17 mm. in diameter. 4 buttons. Hospital and cookhouse.

Wood (Fig. 136, no. 8).
A. 4-holed button, solid, convex, with spin marks on both sides; painted green; 23 mm. in diameter. 1 button from the old English fort.

Shell (Fig. 136, no. 1).
A. 2-holed, flat, no rim, with circle cut near edge; 10-13 mm. in diameter. 3 buttons from cookhouse and gun shed.
B. 3-holed, one side flat, face slightly cone-shaped with a sunken panel. 8 mm. in diameter. 2 buttons. Cookhouse.
C. 4-holed, flat back, sunken paneled face, some decorated with star-like cut decoration around panel; 10 mm. in diameter. 5 buttons. Cookhouse and old English fort.
D. 4-holed, both surfaces flat; face usually decorated with star or ray patterns; 6-14 mm. in diameter. 14 buttons. Hospital, cookhouse, gun shed.
E. shell disc 20 mm. in diameter with brass eye inset into back, and brass links fastened to eye. Possibly a sleevelink. (Fig. 136, no. 2).
POTTERY

The majority of pottery excavated at Ile-aux-Noix is 19th century in date and, for the most part, is difficult to date specifically and identify. English wares predominate, but several redwares were tentatively identified as Canadian-made.

Earthenwares comprise 97.6% (21,217 sherds) of the total sample. Twenty types of earthenware were separated on the basis of paste, glaze, or decoration. Pearlwares predominate, as most decorated and plain wares had a white body with a bluish-tinted glaze. Plain pearlware (31.9%), creamware (29.7%), and transfer-printed ware (27%) comprise 88.6% (19,109) of the total earthenware. Earthenwares are chiefly of the table variety, with a relatively small percentage of utilitarian redwares. Presumably few local ceramics were purchased.

Stonewares comprise only a surprising 2% (474 sherds) of the total pottery sample. The most common kind of stoneware found was an English salt-glazed blacking bottle or container, which comprised 93% of the total stoneware found in 1964.

Porcelain and ironstone sherds were relatively rare.

The pottery types and their distribution are summarized in Tables 4 and 5. The majority of ceramics, as with artifacts in general, were found in the hospital-cookhouse complex, where 21 (hospital) and 22 (cookhouse) types were found. All structures or areas yielded ceramics.

A description of the types of pottery follows.
TABLE 4. POTTERY TABULATION

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of Sherds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Slipped Redware</td>
<td>80</td>
</tr>
<tr>
<td>2. Black glazed Redware</td>
<td>50</td>
</tr>
<tr>
<td>3. Green glazed Earthenware</td>
<td>9</td>
</tr>
<tr>
<td>4. Glazed Redware</td>
<td>40</td>
</tr>
<tr>
<td>5. Slip Decorated Redware</td>
<td>27</td>
</tr>
<tr>
<td>6. Yellow Slip Decorated Redware</td>
<td>30</td>
</tr>
<tr>
<td>7. Lustre Ware</td>
<td>6</td>
</tr>
<tr>
<td>8. Tin Glazed Earthenware</td>
<td>15</td>
</tr>
<tr>
<td>9. Creamware</td>
<td>6,436</td>
</tr>
<tr>
<td>10. Mocha</td>
<td>70</td>
</tr>
<tr>
<td>11. Slip Banded</td>
<td>230</td>
</tr>
<tr>
<td>12. Plain Pearlware</td>
<td>6,936</td>
</tr>
<tr>
<td>13. Blue Handpainted Pearlware</td>
<td>85</td>
</tr>
<tr>
<td>14. Delicate Painted</td>
<td>129</td>
</tr>
<tr>
<td>15. Sponged</td>
<td>240</td>
</tr>
<tr>
<td>16. Gaudy Dutch</td>
<td>340</td>
</tr>
<tr>
<td>17. Annular Ware</td>
<td>250</td>
</tr>
<tr>
<td>18. Shell-Edged</td>
<td>480</td>
</tr>
<tr>
<td>19. Green Banded</td>
<td>27</td>
</tr>
<tr>
<td>20. Transfer Printed</td>
<td>5,737</td>
</tr>
<tr>
<td>21. White Saltglazed Stoneware</td>
<td>11</td>
</tr>
<tr>
<td>22. Black Basalte</td>
<td>8</td>
</tr>
<tr>
<td>23. Yellow Stoneware</td>
<td>12</td>
</tr>
<tr>
<td>24. Brown-Grey Stoneware</td>
<td>442</td>
</tr>
<tr>
<td>25. Lead Glazed Stoneware</td>
<td>1</td>
</tr>
<tr>
<td>26. Porcelain</td>
<td>42</td>
</tr>
<tr>
<td>27. Ironstone</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21,745</strong></td>
</tr>
</tbody>
</table>

Nos. 9,12,20 total 19,109 or 88% of the sample.
Total earthenware (nos. 1-20) = 21,217 or 97.6%.
Total stoneware (nos. 21-25) = 474 or 2%. 
EARTHENWARE

1. Slipped redware

The interior is white slipped over a fairly hard red paste, with a yellowish lead glaze over the slip. The lip of the rim and the exterior wall to about one-half inch above the base in clear lead glazed only. Shape: deep pans, c.9 cm. in depth and c.30 cm. in diameter. Rim is flattened and rolled, and the base is flat with a slight exterior flange.

This type of redware is probably Canadian, from Quebec or the Maritimes. A similar pot is illustrated in Webster (1971:p.10, lower) - a milk skimming bowl from Nova Scotia, c.1870. Another possible source of this ware is the Charles Pearson Pottery, Iberville, Quebec, c.1880.

2. Black glazed redware

Teapots and pans with a black opaque glaze. Pans are c.9 cm. in height, with thin (5 mm.) outsloping walls and an inward-rolled thickened rim. The interior is glazed. Probably English in origin.

3. Green glazed coarse earthenware

A. seven sherds from one or more vessels are from a pan c.30 cm. in diameter, glazed only on the interior. The rim is thickened and rolled inward, with evidence of one slightly depressed spout. (Fig. 125, F).

B. the bottom one-half of a large bowl or jar, very heavy, crude, and poorly fired. Base is 13 cm. in diameter. The pot has outsloping walls and only the interior is glazed.

4. Glazed redware

A clear lead glazed (interior only) pan with a flat base (17 cm. in diameter). The rim is thickened and rolled inward.

5. Decorated redware

This ware is similar to no. 1 described above, except for its basal shape (no flange) and decoration. The interior of these deep pans exhibit sponged or dribbled decoration in brown, not unlike a Rockingham type glaze. The exterior is undecorated and unglazed.

This ware was probably made in the Maritimes or Quebec. A similar example is illustrated in Webster (1971:p.90, lower) and is probably from Nova Scotia or Prince Edward Island, c.1860-1880.
Pottery Type:

1. Slipped redware
2. Black glazed redware
3. Green glazed earthen
4. Glazed redware
5. Slip dec. redware
6. Yel. slip dec. redware
7. Lustre ware
8. Tin glazed earthen
9. Creamware
10. Mocha
11. Slip banded
12. Plain pearlware
13. Blue handpainted pearl
14. Delicate painted
15. Sponged
16. Gaudy Dutch
17. Annular ware
18. Shell-Edged
19. Green banded
20. Transfer printed
21. White salt gl. stoneware
22. Black basalte
23. Yellow stoneware
24. Brown-grey stoneware
25. Lead glazed stoneware
26. Porcelain
27. Ironstone

Total no. of types:

<table>
<thead>
<tr>
<th>Potter Type</th>
<th>Hospital</th>
<th>Cookhouse</th>
<th>Gun Shed</th>
<th>Fort</th>
<th>Cemetery</th>
<th>Baka House</th>
<th>Ordnance</th>
<th>Barracks</th>
<th>Well Area</th>
<th>Forge</th>
<th>Lime Kiln</th>
<th>Totals</th>
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<tbody>
<tr>
<td>1. Slipped redware</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>2. Black glazed redware</td>
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<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<td>x</td>
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<td>3. Green glazed earthen</td>
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<td>x</td>
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<td>5. Slip dec. redware</td>
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<td>x</td>
<td>x</td>
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<td>8</td>
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<td>6. Yel. slip dec. redware</td>
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<tr>
<td>7. Lustre ware</td>
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<tr>
<td>8. Tin glazed earthen</td>
<td>x</td>
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<td></td>
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<td>x</td>
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<td>x</td>
<td></td>
<td></td>
<td>9</td>
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<td></td>
</tr>
<tr>
<td>9. Creamware</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>7</td>
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<tr>
<td>10. Mocha</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
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<tr>
<td>11. Slip banded</td>
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<tr>
<td>12. Plain pearlware</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Blue handpainted pearl</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
<td></td>
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<tr>
<td>14. Delicate painted</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>15. Sponged</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>9</td>
<td></td>
<td></td>
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<tr>
<td>16. Gaudy Dutch</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>10</td>
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<tr>
<td>17. Annular ware</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<td>18. Shell-Edged</td>
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<td>x</td>
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<td>19. Green banded</td>
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<td>3</td>
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<tr>
<td>20. Transfer printed</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>11</td>
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<td>21. White salt gl. stoneware</td>
<td>x</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>22. Black basalte</td>
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<td>23. Yellow stoneware</td>
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<td>24. Brown-grey stoneware</td>
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<td>x</td>
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<td>x</td>
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<td>25. Lead glazed stoneware</td>
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</tr>
<tr>
<td>26. Porcelain</td>
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<td></td>
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<td>x</td>
<td></td>
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<td>6</td>
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<tr>
<td>27. Ironstone</td>
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<td></td>
<td></td>
<td>2</td>
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</tr>
</tbody>
</table>

Total no. of types: 21 22 12 18 10 15 17 10 15 7 6

TABLE 5. POTTERY TYPE DISTRIBUTION
Again the possibility exists that the ware was manufactured by Quebec potters such as Charles Pearson (Iberville, c.1880), or the Dion Pottery (spattered redware produced into the 1920's) (Webster 1969). (Fig. 122, D).

6. Slip decorated redware

Milkpan-like vessels, c.28 cm. in diameter, with a flattened rim and thickened lip. The vessel interior exhibits a white slip decoration, which appears yellow in contrast with the red glazed body. The exterior is not glazed.

This redware is probably Canadian in origin (Fig. 125, E).

7. Lustre ware, red paste

Small fragments are copper and yellow in color, and shape is unknown. English, 19th century.

8. Tin glazed earthenware

Bowl and drug jar fragments have a light blue tin glaze, with hand painted decoration in blue. English, 18th century.

9. Creamware

Four shapes are represented: small bowls; large, heavier bowls; plates and serving dishes; jars. Plate rims exhibit a variety of molded decoration, including Queens Pattern, Royal Pattern, and feather-edged. One complete serving dish has the impressed mark CHETHAM & WOOLEY. Jar-like containers are straight-sided, 9 cm. in diameter, with a v-groove on the exterior just below the rim. (Fig. 120).

Creamware dates to c.1765 into the first one-half of the 19th century.

10. Mocha ware

Pitcher and bowl fragments with dendritic moss decoration in black with orange and brown background. Probably English (Fig. 122, B).

Another cruder variety of mocha may be Canadian in origin, notably from Brantford, Ontario (c.1875-1890) or the Cap Rouge potteries, Quebec (c.1870-1880) (Webster 1971:181).

11. Slip banded

Small bowls with annular bases are either decorated by raised slip banding in white or blue, or in a mocha style in blue or black.
over a white zoned background set off by dark annular lines.

These pots may have been manufactured at Brantford, Ontario (c.1875-1890) or the Cap Rouge, Quebec, potteries (c.1870-1880) (Webster 1971:181).

12. Plain pearlware

A variety of shapes - plates, cups, handled bowls, saucers - with a white body and a lead glaze with a slight bluish-tint. The majority of vessels are not decorated, although some exhibit molded decoration (Fig. 121). Origin: England, late 18th - first one-half of 19th century.

A few impressed marks appear on some body sherds: PHILLIPS - LONGPORT (the N in Longport is reversed), a mark dated to the early 19th century. DAVENPORT above an anchor, which probably stands for J. Davenport, 1793-1882.

13. Blue handpainted pearlware

Thin, porcelain-appearing cups and bowls with blue handpainted decoration, utilizing leaf motifs and combining delicate and wide brushmarks (Fig. 123, B).

14. Delicate painted pearlware

Vessels, mostly shallow bowls, with delicate, thin-line, hand-painted decoration in polychrome colors - brown, yellow, blue, orange, green. Decoration is on the interior on a majority of fragments. One vessel has a bridge scene with a human figure (Fig. 123, C). Another nearly complete small plate has slightly coarser designs, with a multi-colored fish painted in the center of the vessel (Fig. 123, A).

15. Sponged

Sponged-stamped decorative motifs on cups, plates, bowls, and saucers, in blue, brown, red, purple, blue, or green. Some vessels combine blue sponging in zones, the zones sometimes being outlined by red or green lines (Fig. 122, A). Origin: England. This ware was in great demand between 1840's and 1880's (Hughes 1959: 71).

16. Gaudy Dutch-like vessels

Vessels with decoration by handpainting of bold, wide strokes in dark red, greens, yellow, and blue. Leaf motifs are common (Fig. 123, D).
17. Annular ware
This ware is distinguished by lines of colored slip around the exterior of the vessels, mostly bowls. Decoration consists of either narrow bands often alternating with wider colored areas on the rim, or bands of slip sometimes accompanied by smearing and/or combing of different colored slips (Fig. 122, C).

18. Shell-edged ware
Plates with blue or green shell-edge decoration impressed on rim. Variation exists in the type of "shell" impressions. A minority of rims are painted only in an attempt to represent shell-edging (Fig. 125). Origin: English, late 18th and 19th century.

19. Green banded
Small plates with a dark green band on the rim near the lip, at the juncture of the rim and shoulder, and on base — on interior surface only. Plates are c.18 cm. in diameter. Slightly raised annular base (Fig. 125, B).

20. Transfer Printed
Transfer printed decoration in blue represents c.95% of the sample, with 5% of sherds transfer printed in other colors — black, brown, red, purple, or green. The majority of sherds, from plates, saucers, cups, and bowls, are very small, making it difficult to classify decorative motifs. Geometric designs, as well as basketwork designs, naturalistic motifs, and stylized curvilinear motifs were common (Fig. 124, A-F).

STONEWARE

21. White salt glazed stoneware
Plate fragments with molded decoration of the Barley pattern on the rim (Fig. 126, A). Origin: England, mid-18th century.

22. Black basaltes ware
Only eight sherds were found, all with molded decoration. Origin: English, late 18th century or 19th century (Fig. 126, B).

23. Yellow stoneware
Stoneware with a yellow-buff body, possibly cane ware. The exterior exhibits engine-turned decoration. One sherd has
handpainted neo-classical designs in black. Exterior is not glazed, while the interior is lead glazed.

24. Brown to grey stoneware bottles, blacking cups, and inkwells

   All vessels are finely salt glazed.
   a. Blacking bottles are cylindrical in shape with a large mouth
diameter (3-5 cm.) and a flat base. Height varies from 14-17 cm. and
basal diameter from 6-7 cm. The words BLACKING BOTTLE are impressed
near the base on some specimens (Fig. 126, D).
   b. A few narrow-mouthed bottles (neck and shoulder fragments only)
were found.
   c. Probable blacking cups or containers are V-shaped with a
raised base. A V-groove is present on the exterior immediately below
the lip. Height - 6-9 cm.; diameter at rim - c.7.5 cm.; diameter at
base - 3.5 cm. (Fig. 126, D).
   d. Inkwells are circular in shape with a squat body, short neck,
and flat base. Size of two complete specimens: height - 4.4 cm. and
4.8 cm.; diameter - 5.3 cm. and 4.7 cm.; mouth diameter - 1.3 cm.
(Fig. 126, E).

25. Lead glazed stoneware

   A large vessel fragment is vertical sided, with an inward
sloping shoulder. Impressed bead designs appear on the wall just
below the juncture with the shoulder. Basal diameter - 16 cm.
(Fig. 126, F).

PORCELAIN AND IRONSTONE

26. Forty two sherds, representing a minimum of 15 vessels, are
decorated in underglaze blue colors or overglaze reds and other
colors (Fig. 126, C).

27. Ironstone

   Grey ware with hard paste. Plates and bowls with molded or
painted decoration (Fig. 125, C).
STEMWARE

The following stemware types were found at Fort Lennox in 19th century contexts, the majority from the English fort area and Bake House (Table 6):

1. Stems with a slight knop at the juncture with the foot, the foot being conical in shape and folded. The bowl is trumpet shaped. At least 28 vessels of this type were found.

2. Plain stems with trumpet bowls, with a plain or solid conical foot. At least 7 vessels are represented in the sample.

3. A stem fragment, similar to type 1 above, has vertical fluting below the bowl and on the knop.

4. Several hollow stem fragments with a baluster knop.

5. One stem fragment has an annular knop and a bucket bowl.
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<th>Barracks</th>
<th>Well Area</th>
<th>Forge</th>
<th>Lime Kiln</th>
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**TABLE 6. DISTRIBUTION OF STEMWARE FRAGMENTS**
CLAY TOBACCO PIPES

White clay tobacco pipes, manufactured in England, Scotland, and Quebec, were found in all areas excavated, with the exception of the forge. The majority of pipes were found in the hospital-cookhouse complex and the bake house (Table 7), in 19th century contexts. The pipes themselves are difficult to date, compared with more thoroughly researched 18th century pipes. Bowl shapes appear to be quite variable in the 19th century, and dating is more confused due to the fact that pipes were also being made in Quebec. Comparison of Lennox bowls with dated pipe shapes found in Oswald (1975) and others was relatively useless, as 19th century Lennox pipes resembled some dated pipes but were not identical and possibly Canadian-made of a different date.

Pipe stem dating is invalid after c.1780, which means that c.95% of the Lennox sample is relatively useless for analysis. Of the 3,735 pipe stems recovered, 82 had impressed names of makers which were identifiable and somewhat datable.

In the twelve excavation areas included in the present report, 169 pipe bowls, mostly fragments, were recovered. The bowls have been classified using the criteria of shape, the presence or absence of mold decoration, and makers marks (Fig. 130).

1. Plain bowls (not decorated)

A. Twelve bowls have no makers initials or marks, with three shapes represented. All bowls have spurs. Shape no. 1 most resembles a bowl dated c.1760-1800 (Oswald 1975: Fig. 4, no.23). Shape 2, with a more vertical bowl, may date to c.1730-1780 (Oswald 1975: Fig. 4, no. 22). Shape 3 most resembles a c.1840-1860 bowl illustrated by Oswald (1975: Fig. 8, no. 18).
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**TABLE 7. TOBACCO PIPE DISTRIBUTION**
B. Plain bowls with makers initials impressed or in relief on back of bowl, without any marks on spurs.

1. the letters TD within a circle, both impressed into the back of the bowl. Fifteen pipe bowls were recovered from 19th century contexts. All bowls had relatively straight sided walls with spurs. The TD mark, beginning in the 1760's (Walker 1971:64,65), also continue in the 19th century (Oswald 1975:67).

2. thirteen bowls have the letters TD impressed into the back of the bowl, but are not within a circle, as above. On one fairly complete pipe, the stem is impressed with HENDER SON MONTREAL, dating the pipe to the c.1848-c.1880 period (Collard 1967:342).

3. eleven bowl fragments, with spurs, have the letters TD within a circle, in relief. The circle is a plain line or is composed of dots. Marking such as these date from the late 18th century to the mid-19th century (Oswald 1975:67).

4. the mark TD, in relief, not within a circle, on the bowl back of 16 pipe bowl fragments. Discernable shapes are probable Henderson pipes, c.1848-c.1880. The use of large separate initials, especially TD pipes in America, begins at the end of the 18th century and continues to the mid 19th century (Oswald 1975:67).

C. Plain bowls with maker's marks (initials or name) on back of bowl and initials on spur.

1. seven bowl fragments have the initials TD impressed on the bowls back and the letters T and D in relief on opposite sides of the spur. Similar marks are illustrated by Walker (1966, Figs. 4,5) and dated by him to the mid-18th century. TD marks are found into the 19th century also (Oswald 1975:67).

2. on nine bowl fragments, the back of each bowl is impressed with TD and a decorative motif above and below within a rouletted or plain circle. The spur has the raised letters W and G on opposite sides. The WG mark is probably Williams Goulding Jr., a London pipe maker who worked from 1733-1762 (Oswald 1975:66,67,137).

3. three bowl fragments are impressed with the initials WG
with a decorative motif above and below within a rouletted circle. On one specimen the WG mark is upside down on the bowl back. On the spur, in relief, the letter W on one side and the letter G on the opposite side. Probably made in the period 1733-1762 (see above).

4. five bowls, all from Operation 20, with a flat bottomed spur (Fig. 133). The name VINER is impressed within a rouletted circle on the back of the bowl. On the spur, in relief, are the initials A and V on opposite sides. Anne Viner of Bristol manufactured pipes in the 1775-1805 period (Oswald 1975: Fig. 9, no. 19).

D. Plain bowls with initials on spur only.

1. In relief on one pipe, the initials S and E on opposite sides of the spur.

2. In relief, the initials M and G slightly above the spur at the stem-bowl juncture. On three of the five specimens, the numeral 9 appears below the M initial.

E. Plain bowl with name impressed on back of bowl. No spur is present. One pipe has two words, a blurred upper word ??LO, and a lower word ?STRAND. The rim of the bowl is rouletted below the lip. The use of a full name on bowl backs started c.1770-1780 and continued to c.1850 or later (Oswald 1975:67).

II. Pipes with molded decoration.

Pipes with molded decoration in relief on the bowl were nearly equal in occurrence to plain bowls (Table 7). A variety of molded designs cover all or a portion of the bowl: leaf designs, fluting, fleur-de-lis with a thistle; masonic emblems; effigy bowls in the shape of a human head; etc. A minority of bowls or spurs have maker's initials. Two pipes have a TD mark in relief on the back of the bowl. Several pipes have one initial on each side of the spur, in relief - the letters H or I and an inverted T; W and W; M or W on one side of spur only.

A total of 3,735 pipe stems were found, 82 of which are marked with maker's names and place of manufacture:
R. BANNERMAN MONTREAL

One stem from the hospital. Bannerman was a Montreal clay pipe maker in the early 1860's. In 1888-89 Bannerman Bros. are listed as clay pipe makers (Collard 1967: 334).

BELL QUEBEC

One stem from the hospital. William and David Bell of Quebec made common earthenware and tobacco pipes from the 1850's into the 20th century (Collard 1967: 334).

A. COGHILL GLASGOW

Fourteen stems from the hospital and other sites (Table 7). Alexander Coghill was a pipe-maker from 1826-1904 (Oswald 1975: 205).

HENDERSON or HENDERSON'S MONTREAL

Thirty-four pipe stems were found bearing the Henderson makers mark (Table 7; Fig. 130). The Hendersons, including William Henderson, James M. Henderson, and James M. Henderson Jr., were Montreal clay pipe makers. William Henderson is listed in the Montreal directories beginning in 1848. Henderson listings end with James M. Henderson and Son in the later 1870's (Collard 1967: 342).

McDOUGALL GLASGOW

Eight stems from 4 sites on Ile-aux-Noix. Duncan McDougall and Co. operated from 1847-1968 (Oswald 1975: 205).

MURRAY GLASGOW

Two stems, one each from the cookhouse and bakery. The firm of William Murray and Co. dates to 1830-1861 (Oswald 1975: 205).

W. WHITE GLASGOW

Twenty-two stems. William White is listed as a pipemaker from 1805-1955 (Oswald 1975: 206).
TUMBLERS

Tumblers or drinking glasses are of clear glass, either plain or with molded decoration. In the sample of 74 vessels, plain tumblers outnumber mold decorated tumblers by 61 to 13 (Table 8). Tumbler bases are the most common finds. Basal diameters vary from 1 3/4 inches to 3 1/8 inches, with 47 bases measuring in the 2-2 5/8 inches size range. Side walls slope outward slightly. Of the 61 non-decorated tumblers, 45 have pontil marks present on the base, whereas 16 tumblers have had the pontil mark ground off. Tumblers were found at all structural features in 19th century contexts, with the exception of the forge and lime kiln area.
## TABLE 8. GLASS TUMBLER DISTRIBUTION

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<th>Fort</th>
<th>Cemetery</th>
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The archaeology carried out in 1964 on Ile-Aux-Noix was a definite success. A number of Canadian students were trained in archaeological field and laboratory procedures and interpretation. As a result of the training program, nine buildings or presumed buildings were precisely located and three additional areas (lime kiln, well) were explored. Two of the structures were thoroughly excavated, the cookhouse and the hospital. The remaining structures or areas were only partially excavated. Given the incompleteness of excavation of the majority of structures, it is difficult to put forth definite conclusions based on the archaeological evidence.

Building foundations were constructed of local stone materials, with footings of brick-bats (hospital) or wood (gun shed). The ovens of the bake house were built entirely of brick. Foundation walls generally displayed only fair workmanship.

The identification of excavated buildings was accomplished by comparison of their location and size with original architect's drawings and maps. However, the characteristics of the foundations also gave clues as to the functions of the buildings. The large size of the barracks and hospital structures, for example, implies communal functions. The large hearth found in the cookhouse, and the location of the cookhouse near the hospital, suggests a function geared toward meal production for hospital patients. The plan of the bake house structures and the use of brick for the
ovens suggest a cooking-baking function.

Artifacts found in the destruction debris of the buildings yielded little information as to original usages of the structures. The majority of artifacts were found associated with the hospital-cookhouse structures which reflects not only more intensive cooking-eating activity in this area in the 19th century, but also the more thorough archaeology carried out on these structures in 1964. Other structures yielded generally the same kinds of artifacts, but fewer of them. Only the forge area yielded distinctive artifacts - broken iron tools which suggested a blacksmithing function.

The excavated artifacts, dating from different times within the 19th century, could not be stratigraphically separated for dating purposes. The majority were found in either a disturbed topsoil layer or a presumably disturbed debris stratum, the latter dating to the demise of the particular structure. Glass, pottery, and tobacco pipes constitute 97% of the artifact sample. Nearly all of these artifacts came from England, with the exception of some locally-made items. Only 3% of the artifacts recovered were of metal. Iron artifacts were very few in number, perhaps indicating a general scarcity of iron in the settlement or the reworking of broken iron tools, as is suggested by the forge finds, which further indicates scarcity. Numerous iron nails were found in the excavations. Unfortunately, the nails could not be studied for this report. Except for the presence of various military artifacts, such as regimental buttons and insignia, the artifact assemblage was essentially a civilian one. It is
interesting to note the large variety of ceramics that were in use on the island. The cookhouse and hospital, for example, yielded 21 types and 22 types respectively. Very few porcelain or stoneware vessels were utilized.


Emilio, Luis F., The Emilio Collection of Military Buttons (Salem, Mass., The Essex Institute, 1911).


La Fuente y Zamalloa, Modesto, *Historia General de España* (Barcelona, 1889).


118 Glass Bottles.
119 Wine Bottle Fragments.
120 Creamware.
121 Mold Decorated and Plain Pearlware.
19th Century Ceramics.
19th Century Ceramics.
124 Transfer-Printed Ceramics.
125 Ceramics.
126 Stoneware and Porcelain.
127 Forks and Scissors.
128 Knives and Spoons.
Silver Spoon with Maker's Mark.
Clay Tobacco Pipes.
131 Personal Artifacts.
132 Brass and Iron Artifacts.
133 Military Insignia.
134 Buckles, Shako Scales.
135 Military Buttons.
Glass and Bone Buttons.
137 Brushes, Dominos, etc.
138. Hinges and Pintles.
139. Latches.
140 Hardware.
141 Hooks.
142 Keys and Lock Fragments.
143  Locks, Gunflints, Shot, etc.
144 Tools, Iron.
145 Tools, Iron.
146 Tools, Iron.