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PRELIMINARY REPORT ON FORT MALDEN,
AMHERSTBURG, ONTARIO
by
DAVID LEE
(1963)

MEN'S BRICK BARRACKS: FORT MALDEN,
AMHERSTBURG, ONTARIO
by
GEORGE C. INGRAM
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EXCAVATIONS AT FORT MALDEN,
AMHERSTBURG, ONTARIO
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1: A BRIEF HISTORY

When the British were forced to give up their fort at Detroit in 1796 in accordance with Jay's Treaty, they retained their strength in the area by constructing a fort called Amherstburg or Malden interchangeably; it was strategically located near the junction of the Detroit River and Lake Erie overlooking the channel between Bois Blanc Island and the eastern shore, which almost all shipping had to use.

Originally the fort consisted of small earthworks enclosed by picketting twelve feet in height. Pickets were usually made of red cedar and were "6 to 8 inches in Diameter, of 12 feet in Height and two feet in the Ground, framed and based every ten feet, cross-silled and pinned to an Oak Ribbon of 5 by 8 Inches." Those not of cedar were of water ash and decayed quickly; ash had to be used sometimes because the cedar came from the islands of Lake Erie and civilians charged great prices to go there and cut it. By 1801 there were still only five buildings - three blockhouses, an officers' quarters and a small barracks for the men; the fort contained a company of volunteers, three subalterns (volunteers), and an artillery detachment.\(^1\) By 1808 the fort was falling into disrepair and was occupied by only sixty rank-and-file, most of them too elderly to do any heavy work.\(^2\) There was also a small naval detachment at the fort between 1796 and 1813. A small amount of ship building and ship repair was carried out there but Malden's chief function as a peacetime naval centre was to assist in
transporting supplies to forts like Michilimackinac, St. Joseph's Island etc., on the Upper Lakes.

The chief military importance of the fort was to retain British influence among the Indians of the area. It was British policy, as War Minister Castlereagh said, that in the "undefined relation with the United States of America", the Indians must be "conciliated"; i.e., made dependent on the British for supplies. This policy was based on the belief that if the Indians were "not employed to act with us, they will be engaged to act against us, and ... we are to consider not so much their use as allies as their Destructiveness if Enemies." Indians gathered annually at Malden to renew alliances and receive gifts. Between 25 June 1796 and 24 June 1797, for example, 1132 gallons of rum were distributed among the Indians along with 6587 bushels of corn. The Americans of the nearby States and Territories of the Midwest believed that the British were inciting the Indians in their continuous conflict with the advancing line of American settlement. It was about Malden that the Americans complained the most and it was only natural to expect that it would be one of the first British posts to be attacked in the war which seemed to be inevitable.

The Americans believed that most of their Indian troubles would be solved if Malden were taken. However, many military authorities, like Admiral Mahan, have shown that a concerted attack on Montreal with the object of cutting British communications to the West would have been of more use in the long run in winning the War of 1812. Since however the strength of the "War Party" in Congress was among the western legislators, the more immediate goal of taking Malden, the centre of most of their grievances, was favoured over the sounder strategy of taking distant Montreal.

War was declared on 19 June 1812 and in July General Hull advanced close to Malden after crossing the Detroit
River near Sandwich. He issued a proclamation urging the co-operation of the residents of the area claiming that he had come to protect them and not to injure them: "You will be emancipated from Tyranny and Oppression and restored to the dignified station of freemen." Most of the men in the militia left the fort then and returned home to harvest their crops. Hull hesitated to attack Maiden without heavier artillery and on 10 August Maiden was reinforced from Niagara by General Brock and 400 men of the Royal Newfoundland Regiment. This was added to the reinforcements sent earlier in the year which had consisted of a Subaltern's detachment of Artillery and about 120 men of the 41st Regiment. By the time Brock and his men arrived the earthworks were being deepened, a log barracks erected, 20 pieces of cannon added and the 'curtains' thickened (on the north side to 14 feet!). Hull lost heart at the approach of Brock; he fled to Detroit and dug in, expecting an inundation of Indians supplied from Upper Canada trying to over-run the North West.

On 13 August Brock occupied Sandwich, threw up earthworks, mounted some artillery and by 15 August, began shelling the American fort at Detroit. On 16 August he landed troops below the fort and, before he could attack, Hull yielded. Hull was later court-martialed for his timidity because he had between 1800 and 2500 men - volunteers from Ohio and Michigan and a regiment of regulars. The British had only 400 Indians and 700 men including the militia of Kent, Essex, Lincoln, York, Oxford and Norfolk, who had returned to action upon the retreat of Hull. In his trial Hull claimed that he thought the British had more troops but his chief argument or excuse was that he could not hold Detroit once the British had cut off his communications with Ohio, his principal centre of supply. Holding Malden, the British controlled all shipping below Detroit and the British Indians
were over-running the surrounding territory on both sides of the border.

Brock considered the capitulation of Detroit to be the surrender of all Michigan Territory and small detachments were stationed in various spots in the area. There were a few small skirmishes during the winter but the Americans were concentrating their efforts on solving the communications problem by constructing a small navy for the Lakes. The British had only five small ships above Niagara but they built one, the "Detroit", at Malden during the winter. The Americans were better able to build ships at Presque Isle which, being on the Pennsylvania shore near the present-day town of Erie, was easily supplied.

The British position on the western frontier of Upper Canada was precarious in 1813 because the Americans now had control of Lake Erie and the Niagara Peninsula. Supplies and reinforcements for Malden were few and infrequent and by September Major-General Henry Procter, Officer Commanding at Malden, was desperate. The blockade of Malden by Commodore Perry's navy seemed to pave the way for a landward advance by the army of General William H. Harrison, later President of the United States and then Governor of the Territory of Indiana. The six British ships commanded by Captain Robert Barclay were small, poorly fitted, lacking in provisions and manned by French Canadian boatmen who knew little English and by infantrymen who knew little seamanship. Perry had hoped to attack Malden with his navy of ten larger ships; he reconnoitred the fort on 25 August but the wind was not favourable for attack. Procter and Barclay knew that he would be back and with rations running low decided to risk a flight without waiting for more reinforcements, which had been promised for months but never came. Cannons were taken from the fort to outfit the barely completed "Detroit"; matches and tubes were so deficient that pistols had to be
fired at the guns to produce a discharge. The British fleet was completely destroyed 10 September 1813 on Lake Erie between Malden and Sandusky, Ohio; 23 British were killed and the rest taken prisoner.⁹

Procter now had only three alternatives - starvation, defeat by Harrison or Perry, or retreat. Choosing the latter he packed all movable equipment at Malden and Detroit and destroyed the remaining barracks, shipyard, stores and fortifications. On approximately 26 September he began a retreat along the St. Clair and Thames rivers accompanied by Tecumseh and his ever-diminishing band of Indians. Harrison arrived at Malden on 27 September and followed Procter with 3500 men. Travelling more slowly because encumbered with so much baggage, Procter was overtaken just outside of the Moraviantown missionary station on 5 October 1813. Harrison easily defeated the remaining 500 British soldiers; most were taken prisoner but Procter fled and was later courtmartialled for having done so. The great Tecumseh was killed leading his loyal Indians. Harrison burned Moraviantown and returned to Sandwich and Detroit, garrisoning both.

In 1814 there were about 150 militia and 250 regulars of the American army stationed there, using some of the town buildings for accommodation.¹⁰ The Americans threw up new pickets and moved 22 pieces of ordnance into the restored fortifications. The fort was also used as a shipyard to repair some of Perry's fleet. An attempt was made to retake Malden but the expedition was halted by the Americans in a skirmish on the Delaware River, 4 March 1814, before it could join up with the Indians.¹¹ After the Treaty of Ghent was signed 24 December 1814 ending the war, Malden was returned to the British on 1 July 1815.

The British continued restoring the new fort which the Americans had begun. In 1816 it was reported that "this post
is now entirely defenceless. There are merely Barracks for the men stationed there, none for the Officers except the Field Officer Commanding & the men Barracks are without the Old Fort." A barracks accommodating 96 men was begun in 1819 and completed in 1820 and several more buildings were added in 1823; there is no evidence of further construction between 1823 and 1839. The Indians of Upper Canada and nearby American territory continued to come to Maiden to collect their annuities for war services until the 1830's. The British planned to withdraw the garrison at Maiden later in the decade, believing it was no longer necessary for the defence of Upper Canada.

Plans to abandon the fort were forestalled with the outbreak of rebellion in 1838. It was known that there were many people in the area who were sympathetic to the rebels. Many of these were Americans who hated the British form of government or emigrants from Canada living in the United States. General Van Rensselaer, William Lyon Mackenzie's Commander-in-Chief, invested a Buffalo sympathizer, Thomas Jefferson Sutherland, with the rank of Brigadier-General and the commission of "freeing" the "oppressed" Canadians of the Detroit River area. On 9 January 1838 Sutherland arrived in Detroit and called for volunteers. He found about sixty and took Bois Blanc Island, meeting no resistance. Using the American vessel "Anne" he planned to take the fort and thus establish a foothold from which further military activities could proceed using captured stores from Malden.

Sutherland issued a proclamation urging the residents of the Windsor-Amherstburg area to "rally around the standard of liberty" and "free your lands from tyranny." But none rallied around: in fact, 100 militia came down from Windsor to reinforce Malden. The next day, as the "Anne" was reconnoitring near Malden, her helmsman was short from land and she drifted onto the Canadian shore before the other
men could regain control. Twenty men were taken prisoner and the remainder on Bois Blanc retreated to American territory. There was a later plan, supported by the Michigan governor, to take the fort but it was thwarted by internal disputes among the "Patriot" generals.\(^\text{15}\)

On 31 March 1838 however, 400 troops marched across the ice of Lake Erie to take Pelee Island hoping again to establish a foothold later on the mainland with the assistance of sympathizers from Canada. They added more men from the American shore but they never reached the Canadian side. Five companies of regulars along with a company of Essex militia and Indians under General Maitland crossed the ice from Malden, stormed the island, killed about sixty of the self-styled "Patriots" and took nine prisoners. The rest fled back to the United States.

The garrison at Malden was involved in the Rebellion again when, on the evening of 4 December 1838, General Bierce of the Detroit "Hunters' Lodge" crossed the river near Windsor with 135 men. They captured and burnt the militia barracks and the steamer "Thames" which was wintering in the ice. They were turned back by sixty men of the local militia under Col. Prince and Capt. Spark when they attempted to march on the town. Capt. Broderick reached Windsor the next afternoon from Malden with a detachment of Royal Artillery and drove them back across the river.

This skirmish ended the usefulness of Malden as a military post. The fort was strengthened again in 1839 when several more buildings were constructed and the Royal Canadian Rifle Regiment was stationed there. But there was so little work to do after 1839 that ground had to be provided for gardens to keep the men busy.\(^\text{16}\) In 1851 it was decided to make the defence of the region the responsibility of the local militia. For this purpose a large amount of the military reserve of Malden and Bois Blanc Island was set
aside for land rentals of two to three acres to pensioners who would strengthen the militia. The garrison was withdrawn gradually as more and more pensioners and their families came and required temporary accommodations in the buildings of the fort. By 1853 there were 124 pensioners enrolled and by 1855 there were 177 and they were in charge of the fort.

Some of the buildings of the fort were used as an asylum from 1859 to 1872. The land became the property of the Militia Department at Confederation and was transferred to the Department of the Interior in 1875. More of the property was then divided into lots for private sale.

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1 C.547, pp. 1-2 and 120.
2 C.363, p. 60.
3 *Michigan Pioneer and Historical Collections*, vol. xxiii, p. 69.
4 *Ibid*, vol. xii, p. 263.
6 *Archives Report 1912*, p. 59.
8 C. 676, p. 134.
10 C. 682, p. 156.
12 *Michigan ... Collections*, vol. xvi, p. 549.
13 C. 405, p. 201.
16 C. 770, pp. 176-181.
Although the fort was only indirectly involved in the War of 1812 and the Rebellion, it was of more historical significance in the former period. If the fort is to be restored at all, however, it would be much easier to restore it to the period of the Rebellion because the earthworks and one building (the Men's Brick Barracks, 1820) remain from that period, while nothing has survived from the years of the war with the United States. Besides, we have plans of the fort and its buildings during the period of the Rebellion but know little of the earlier period.

With three exceptions the map of 1840 (fig. 1) shows buildings which were constructed after 1839, after the Rebellion, in darker shadings. Presumably then, the lighter-shaded buildings were standing in 1838. The following is a consideration of those buildings which appear to have been standing in 1838;

1. The Brick Cookhouse was probably built between 1820 and 1823, for it was not mentioned in the Engineering Report of 1820 (Appendix I) but is shown in the same position on both the maps of 1823 (fig. 2) and 1840; a check of the dimensions indicated on the plans of 1823 (figs. 3, 4) and on the maps of 1823 and 1840 verify that it is the same building.

2. The 1820 Engineering Report does not indicate the location of the Commissariat Store, but the map of 1823 locates it outside the fortifications.

3. The brick Guard House shown on the maps of 1823 and 1840 is a modest building, but could not be reconstructed without the removal of Hough House.
4. It is not known when the stone Barracks and Ordnance Store was constructed. Despite the fact that it is not shaded darkly on the 1840 map, it was probably built after the Rebellion because the plans are similar to those of the other post-Rebellion constructions. It is not shown on the map of 1823 and there is no evidence that any buildings were constructed between 1823 and 1839.

5. The Framed Arm Store was not shaded darkly on the 1840 either. Nothing is known about its construction.

6. The small stone Magazine would today be located on the south side of Fort Malden Ave. on private property.

7. The Men's and Women's Privy was not shaded darkly on the 1840 map and we have no information concerning it at all. It was likely similar to other "huts" mentioned in the 1820 Report which would be found within the walls but which were probably not permanent fixtures.

8. The location and dimensions of the men's brick Barracks on the maps of 1823 and 1840 and the plans of 1823 suggest that it is the same one mentioned in the 1820 Report as having been constructed "during the last year". The plans dated 1823 and the maps of 1823 and 1840 show the same building, but a problem arises concerning the existence of a verandah on the west side. The 1823 plans show no verandah whereas the map of 1840 does. Calculations based on the dimensions of the building suggest that the verandah was added to the barracks and not built into it. The dimensions of the building as shown on a map of 1904 (not included in this report) indicate that the verandah had been removed. It is likely that was a rather makeshift affair if it was similar to that verandah attached to the brick guardhouse outlined in the plans of 1823. The wing which today extends on the east side of the building is an addition built sometime after 1858 (according to a map of that date not included in this report), probably in connection with its use as an insane asylum.
APPENDIX I


THE FORT: The Fort is a square consisting of three Bastions and one demi-bastion and in its present form was constructed by the Americans. The original Works which had progressed very slowly and stood unfinished on the approach of the Enemy during the last War were (as far as it was practicable to do so) destroyed by the British Troops prior to their retreat from the Western Frontier.

The Americans had advanced but a little way towards the completion of the present Fort when the renewal of Peace placed it in the hands of the British. The Banquette was so low that no soldier standing on it could fire through the loop-holes cut in large Pickets which were destined to form the interior slope of the Parapet in some places, and to supply the place of a Parapet in others. The platform (or terre-plein) of the Bastions formed of Planks had been in two of them but partly laid down. The boarded facings of the Embrasures had been fixed but as yet the Spaces of the Parapet between the Embrasures had not been filled in: in short the Fort was not in a state of even temporary defence.
Since the reoccupation of Amherstburgh by the British troops, the Fort (such as it was) has been allowed to decay, and in consequence scarcely merits the name of a Work of Fortifications. The pickets become rotten at their bases have in many places fallen into the Ditch and are long the whole of them will be in the same state. Two only of the Bastions are in tolerable Order. The Banquette has sunken still lower than it was originally formed; and, to be brief, the Fort displays but one scene of ruinous decay.

MAGAZINE WITHIN THE FORT: A small stone Building covered with sheet iron; it is weatherproof and seamed but cracked at the Roof in consequence of original malconstruction.

BARRACK KITCHEN AND PRIVY: These are new Buildings, having been erected during the last year: They are in excellent Order and afford every comfort and accomodation for 80 Men. The Barracks and kitchen are fine brick Buildings. The Privy is a frame-building weatherboraded. The chimneys of the Barracks unfortunately smoke; they should therefore be altered before the Winter.

GUARDROOM, ENGINEER'S AND ORDNANCE STOREROOM: A small, miserable, patched Building. Part of it is a frame-house weather-boarded, the remainder consists of Logs pointed with Lime mortar. - It is divided into three parts, one of which is occupied by the Guard and the other two are used as Engineer and Ordnance Stores--It requires very frequent repairs and its wretched exterior takes much from the good appearance of the Barracks.

HUTS ETC.: There are several small huts in the Fort which do not deserve any comment.

COMMISSARIAT STORE: A large frame-building weatherboarded. It consists of a ground and two upper Floors and is in very good Order. This Store is sufficiently large for every purpose of the Commissariat; I even think that a part of it might without any inconvenience to the Department be
partitioned off and appropriated as a Barrack - store; the allowance now granted for the upkeep of one being thus saved to the Publick. The Commissariat Store was not built under the Superintendence of the Engineer Department, nor has it even been altered or repaired by that Department.

HOSPITAL: A very indifferent log-builging having a ground and a loft Floor. It is much out of Order, and can scarcely be rendered comfortable or decent at any expence.

MAGAZINE STANDING WITHOUT THE PRESENT FORT: A stone-building now covered with a shingled Roof. It stood within the original Fort and was (especially the arched roof) very much shattered prior to the Evacuation of the Place. It contains the powder of the Indian Department and is therefore still of use.

OFFICER'S QUARTERS: A small weather-boarded Building lined with Bricks it contains two rooms and a closet on one Floor. Adjoining are a Kitchen and Stable both built with squared Logs. This Quarter is in a tolerable state but the Window-sashes etc. require some repairs and the House itself a fresh coat of paint.

ENGINEER'S QUARTERS AND OFFICE: A frame-Building weather-boarded and lined with Bricks. It consists of four Rooms on one Floor; viz. a Sitting-Room, an office a small bedroom and a Kitchen. Behind the House is a Stable. Both these Buildings are in good general order but the Window-sashes require some slight repair the Chimnies alternative, and the Stable a Coat of Paint.

MASTER CARPENTER'S QUARTER: A small log Building plastered within and pointed on the outside. It consists of two Rooms on the ground-floor and a small Attic-story. Some repairs are required.

OLD BARRACK: A very wretched log building pointed within and without: it is low, dark and totally out of repair.
GARRISON BAKE-HOUSE AND OVEN: A Brick-building, small, but perfectly serviceable. The Oven requires repair. It is situated close to the Town.

BUILDING CLOSE TO THE TOWN: This was formerly occupied as a Commissariat Office and though not used by it remains in the hands of that Department. It would need individual repair but (if not removed or sold) I do not see any sufficient reason why it should not be employed as before for an Office—Being situated in the Town consequently beyond the limits of the Reserve I have hitherto made no remarks on it; but must now observe that standing as it does in the principal Street and being of most wretched appearance, it is far from ornamental to the Town.
APPENDIX II

The Fort, 1799-1851

1. Malden Hospital 1799: "The building is to be of two storeris (sic) without garrets. The length 44 feet by 28 feet wide. To be a framed work, weather-boarded & plastered within & to stand on a stone foundation. To contain two large wards for the sick, kitchen & Rooms for the Surgeon & Hospital attendants."
(Michigan Pioneer and Historical Collections, xx, p. 649).

2. Buildings, 1801: #1 Blockhouse had eight rooms occupied by the Officer-Commanding and senior officers; #2 Blockhouse had two rooms occupied by one company of Volunteers; #3 Blockhouse had two rooms and a kitchen, occupied by three subalterns (volunteers); a log building was used by the officer of artillery and a Subaltern (volunteer); and an old mess kitchen was used by a detachment of Royal Artillery (C. 547, pp. 1-2.)

3. The Fort, 1811: "A Field Work consisting of four small Bastions faced with framed Timber and Plank very much decayed and out of repair. The Bastions are connected with a Line of Picketting similar to Fort George, in bad repair and cannot be considered as capable of any Defence. The Troops are lodged within the Fort in a large Blockhouse that contains quarters for about three officers and 80 men. The Magazine is a Stone Building, Arched but not Bomb Proof. There are two small detached Blockhouses constructed as a protection to the Marine Arsenal, they are occupied as Officers Quarters and are contiguous to the Navy Yard." (MP&HC, xv, p. 54).
4. A POW's description of the fort the day it was burnt:
"It stands about 30 yards from the river bank. I judged
it to be about 70 or 80 yards square; the wall
appeared to be of timber and clay. The side from the
river was not walled, but had double pickets and was
entrenched round about four feet; and in the entrenchment
was the second row of pickets." (Cleary, "Fort Malden
or Amherstburg" OHS Papers 1910, p.12)

5. Health conditions: In the 1830's it was once planned to
fill in the ditch around the fort due to the health
hazard from the stagnant water (C. 302, p. 76). In
September 1834 cholera broke out in the area and it
was necessary to cut off all relations with the Town
of Amherstburg and to put the wives and children
of the men into Barracks. The ditch was never filled in,
however, because the medical officers considered Malden
one of the healthier posts (C. 302, p. 162).
Bibliography:

--About sixty volumes of the "C" Series, Public Archives of Canada, were consulted; among the most useful were:
35, pp. 15-18, 363, p. 60; 405, p. 201; 547, pp. 1-2, 120;
676, pp. 92, 117, 134; 682, pp. 32, 100, 112, 156,
233-243; 770, pp. 176-181.
--Michigan Pioneer and Historical Collections, vols. 2, 15, 16, 18, 20, 21, 25, 35 and 38.
--Archives Report, 1912, (Documents relating to the invasion of Canada, 1812, on the Detroit River).
--Francis Cleary: "Fort Malden or Amherstburg," Ontario Historical Society, 1910, pp. 5-19
--J.W. Pratt: The Expansionists of 1812, New York, 1925.
Map of fort, 1840. (Public Archives of Canada.)
Floor plan of buildings constructed between 1820 and 1823. (Public Archives of Canada.)
Floor plan of buildings constructed between 1820 and 1823. (Public Archives of Canada.)
5 Plan of recommended restoration. (4H-75-101-1.)
APPENDIX 2

Above: View of earthworks (date of photo unknown)

Below: View of Hough House (date of photo unknown)
APPENDIX 2

Men's Brick Barracks (1820) before and after modernizing (date of photos unknown)
Men's Brick Barracks: Fort Malden, Amherstburg, Ontario
by George C. Ingram
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28 f. Plan of the Malden Lunatic Asylum
29 g. Photograph showing the northern side of the building c. 1910
31 h. Various photographs of the building
Summary of the Early History of Fort Malden

Fort Malden was first constructed in 1796 at the junction of the Detroit River and Lake Erie. It was only a small, crude fortification and as late as 1801, it contained only five buildings many of which were located outside the actual fort area. At the time of the War of 1812-1814, the fort was destroyed "as far as was practicable" by Colonel Procter when the British troops were forced to abandon it in September 1813. The Americans took control of the area and began to construct new works. Little had been accomplished however when the British took possession again in July, 1815. Col. Durnford described the fort's ruinous condition in 1816—"this post is now entirely defenceless, there are merely Barracks for the men stationed there, none for officers except the Field Officer commander & the old Barracks without the old Fort." ¹

Construction Period

In 1819 it was decided to construct a new brick barracks for 96 men because "the present barrack is not capable of repair." ² The item was included in the estimates of 1819 and approved. ³ The building materials were obtained locally through tenders advertised in December (1819) and construction likely began in the following Spring. ⁴ Although originally to be done by contract, the actual work was probably carried out by the Engineer Dept. in order that the labour of the carpenters of that dept. as well as that of two military masons and labourers may be taken advantage of." ⁵

The building was likely completed that year. Later in 1820 Lieut. Portlock, R.E., could report of the
barracks (kitchen and Privy) that:

these are new buildings, having been erected during the last year: they are in excellent order and afford every comfort and accommodation for 80 men. The barracks and kitchen are fine brick buildings... The chimneys of the barracks unfortunately smoke; they should therefore be altered before winter. 6

In September, 1823, Lt. Durnford R.E. visited the fort on an inspection trip and drew a crude plan. 7 He described the building as a framed building on stone foundations. Brick nogged. In good repair." 8 His floor plan shows that the building was partitioned only to the south side of each of the two fireplaces and therefore the building was actually one large room. Windows of standard shape (3' X 5' according to his crude scale) are shown only on the southern side of the floor plan; on the other hand, his cross section has them marked in both walls. The latter seems more likely considering later plans. (especially 1841)

A variety of figures are cited over time as to the number of troops that the barracks accommodated. The most convincing is a return of 1831 9 which gave 88 men "in double berths" as its capacity. 10 The men probably ate in the barracks since the small cook house adjacent to the building was only large enough to house the cooking facilities. 11 Tables for this purpose may have been located in the open areas shown in Durnford's plan. (although it is difficult to see where 88 men could sleep.)

Verandah

In 1823, the commandant of the fort told Durnford that a verandah "was much wanted to protect the front of the building from the severity of the weather; the Bricks of which it is composed being of
the very worst description: it will also prove to the greatest comfort to the troops to screen them from the heat of the sun.\textsuperscript{12} Durnford included the verandah in the estimates for the year 1824. (Item 62 to be built for 36\textsuperscript{x})\textsuperscript{13} and the addition was quite likely made as intended. A report of 30, December 1835, mentioned "a verandah in front of the whole length of the building...";\textsuperscript{14} and a later plan of 1841 shows the verandah in detail.\textsuperscript{15}

The Rebellion Period:

In 1838 Fort Walden entered an extensive construction period in which several new buildings, including framed barracks were added. At the same time (or perhaps a bit earlier) the brick barracks of 1819-20 underwent considerable interior renovation. The partitions, which before had apparently stopped at the fire places, were continued through to the northern wall thus dividing the building into three rooms each serviced by an original door.\textsuperscript{16} The accommodation rated at 88 as late as 1834, hereafter is cited as 66.\textsuperscript{17} This could be due to one of, or a combination of, at least three factors:

a. The changed nature of the interior might have cut down the capacity of the building.

b. The replacement of double berths by iron bedsteads—this was being done at other posts in the 1830's—would have had the same effect. The return of 1831 had estimated accommodation in this manner at 59 men.\textsuperscript{18}

c. The construction of more barracks buildings might have meant that the men did not have to be as crowded as before. (But the figure of 66 was cited before the new barracks were completed)\textsuperscript{19}

A plan of 1841 shows the changes in detail including the verandah added in 1824. Here the windows on the
southern side are 3' wide according to the scale. Those on the northern side are about 2 feet. The latter although not shown on the floor plan of 1823, were probably built at the time of the original construction.

Hospital

The barracks is marked "Hospital" in a plan of 1851 and in 1853, "the old brick building in Fort Maiden formerly a hospital kitchen" (probably the old cook house, constructed in 1819) was declared unfit for repair. No reference could be found to changes made to the interior of the barracks. If it was converted to hospital use, few changes in fact would be required. Those necessary would have been made between 1841 and 1851.

Pensioners.

During the early 1850's the major part of the Ordnance reserve at Maiden was transferred to pensioners of the British army. Although the buildings remained Ordnance property, the pensioners did occupy some of them. It is unlikely however, that any structural changes were made at this time. The occupancy of the fort buildings by the pensioners was considered as only a temporary expedient until they built their own homes, and the British army no longer considered Maiden a strategic area for investment.

Under the United Province:

The Ordnance land was placed under the control of the Provincial Government on the 30 May 1855 (18 Vic. 91); but the buildings were not handed over to the Crown Lands Department until 1858. In the
following year, the fort was assigned to the Provincial Asylum at Toronto for the establishment of a branch unit to service the western area of the province. Extensive changes had to be made to the buildings which had been unoccupied for a number of years.

Numerous repairs to render them habitable, and various alterations and improvements to fit them for the custody and treatment of the insane had to be made. Among the repairs may be enumerated roofing the principal buildings, restoring rotted and worn out portions, and putting up new eaves. Provision also had to be made for the supply of water; for drainage; for heating water; and window guards, water closets, baths and furnaces and boilers &c. had to be put up. . . "24

*plan of 1859*25 showing the proposed changes shows in fact, the actual changes effected in the subject building. The barracks, marked C, received priority attention so that in the letter enclosing the plans the Medical Superintendent announced that the "work has been done in a substantial manner."26

The brick barracks became the nucleus of the early asylum supplying control and food to the male and female wards in the wooden barracks on either side of it.27 The room in the East side of the building was converted into a kitchen, probably to prepare and handle food which was cooked in a brick cook house added to the north side of the barracks immediately adjacent to the east room. A door was cut into the side (north) of the old barracks to provide access to the new addition. It was probably connected by a covered passage to the door in the kitchen.

*The new addition was made to a part of the*
barracks wall where there had previously been a window. It is not known whether the window was bricked in, whether it supplied a serving access, or whether the wall was in fact removed. The proposed window scheme in the kitchen addition itself must have been changed. In the plan showing the proposed alterations, one small window appears on the north side, probably of the same shape as those on the north side of the old barracks. But in the earliest photographs, the windows here are of a narrow gun slot type. (This might have been an attempt to keep patients from staring in as much as an attempt to ensure military authenticity of the building.) Later (plan of 1875) a further extension appears on the northern side of the kitchen addition which was probably a wood shed or something else associated with the cooking facilities.

The central room was now divided by a corridor which ran from the original door on the south side to a door on the north side which was made by enlarging the window dating from 1841 or 1823. (This door provided essential access to the water closet which was located in the fenced in back yard.) The two rooms created by the division were used to accommodate the steward and the matron whose rooms opened on to the corridor through doors in the partitions near the south wall. The exterior door here might have been changed into a window (it is marked so on the plan of 1859) but the inconvenience which such a change would involve raises questions about its being brought into effect. Finally two windows were added to the northern side sometime during the Asylum period.

The west room was converted into a store room.
For some reason the window arrangement on the North wall of the room was changed installing two windows while the original one appears to have been bricked in. In subsequent photographs these windows appear to be smaller than the original windows on this side of the building. The change might therefore have been made to provide greater security for the stores.

The barracks building was connected to the other buildings by a passage of which the verandah, now walled in, provided the central portion. Extensions on both ends completed the link. It is possible that as a part of supplying a passage-way, the South exterior wall may have been covered with wood.

The modern period.

Fort Malden was occupied by the Asylum until November 1870 when the Malden patients were removed to London. The buildings were given over to the Federal Government in 1874 and offered for sale in 1875. Lot No. 4 containing the barracks along with other buildings was patented to Park and Barrowman Lumber Company in March 1887. While the company seems to have used other buildings on the lot, pictures of the Brick barracks taken early in the twentieth century indicate that the building was unoccupied and allowed to fall into ruins.

The building was purchased by F.A. Hough and converted into a bungalow residence in the 1920's. The kitchen (in the barracks east room) was converted into a double garage, and the interior was made over into a living room, two bedrooms, a kitchen and a bathroom.

In 1946, the building was purchased from the
Hough family by National Historic Sites and turned over to the caretaker to be used as a residence.
FOOTNOTES


2. Durnford, R.G. 8, C. 408, p. 56.

3. C 407?, pp 165-166; C 408, p. 56; C 404, pp. 6-8.

4. See Appendix IV, Attachment b, Schedule of Tenders, 7th December, 1819, C 404, pp. 187-190.

5. Hawkins to Maitland, October 20, 1819, C 567, pp. 136-137.


7. See Appendix IV, Attachment c.


10. See also Smyth Report 1825, R.G. 8, Series II, Vol. 6-1.

11. See Durnford Plan. The cook house was built at the same time as the Mens Barracks.

12. Barracks Estimate for the year 1824, C 421, p. 239.

13. Ibid; also C 420, p. 66.


15. See Appendix IV, Attachment d.

16. See Ibid.


20. See Appendix IV, Attachment e.

22. For example March 26, 1852, Hawes to Butler, C 502, p. 110.


25. Plan of Proposed Changes Malden Lunatic Asylum, See Appendix IV, Attachment f.


27. Some of the changes could have been made between 1841 and 1851 but a check of the documents failed to reveal such changes.

28. See Photo, Appendix IV, Attachment h, photograph


30. See Historic Sites file, F.M. 2.

31. See Ibid.

32. Ibid.
Appendix I Comparison of Floor Plans* (additions for each phase shown in red)

Phase I - Floor Plan in 1823

Phase II - Floor Plan in 1841 (Windows shown in red likely there in 1823)

Phase III - Proposed Floor Plan in 1859

Phase IV - Floor Plan 1920+ (not available)

* floor plans not in scale.
Appendix II The caretaker, Mr. D. Botsford has mentioned that while replacing flooring in the barracks what seemed to be old blackened brick foundations were found.

A It does not seem that the barracks building constructed in 1819-1820 was built on the location of a previous building. Fort Malden had taken three positions in all by 1820. Attachment a, Appendix IV, indicating these different positions shows that the building under study was located in the middle of the barracks square of the previous forts. Incidentally, rather extensive correspondence regarding the preliminaries to construction makes no mention of anything peculiar about the site.

However since little is known of the additions made to the fort by the United States during its occupation, the possibility of an earlier building cannot be ruled out entirely.

B Other possibilities.

(i) When changes were made in the partition walls changes might also have been made in supporting foundations running in a North South direction. This may have been especially true in 1859 with the central corridor. By the 20th century, with extensive changes these would form an irregular pattern which would not correspond to the present walls in the house.

(ii) The brick work might have remained from the kitchen addition of 1859 or in the East room of the barracks converted to a kitchen in 1859 and to a garage in 1921. The chimney has now disappeared from the former.
Appendix III

Contemporary Measurements

Appendix IV, Attachment b

Schedule of Tenders for the Supply of Building Materials for the service of the Engineer Department at this post.

Accompanying letter.

I have the honor to enclose a schedule of the tenders received for the supply of materials for the new barracks and Cook House together with the Originals of those we have accepted in order that His Excellency's approval may be affixed. When no material would arise to the Government we gave preference to Mr. Pastorus, he having tendered for all the articles, besides which he lives on the spot and possesses every means for prompt delivery of the articles,—whenever the office of engineers thinks the work may be commenced, I shall order him to do so.  

1 Hawkins to Bowles, 7 Dec., 1819, C 404, pp. 187-190.
Appendix IV, Attachment c, Part A.

Plan of the fort showing the position of the Mens Barracks and the cook House.
Plan of the Mens Barracks Fort Malden, 1823.

Note:
The shape of the windows in the Southern side of the building
the absence of windows in the northern side of the floor plan.
The presence of windows in the cross section on both sides.
The partitions run only to the fireplaces.
Appendix IV, Attachment d,

Plan of the Men's Barracks in 1841.

Note:
The detail of the verandah which was added in 1824. The partitions now run across the full width of the room. The windows on the Northern side of the building are smaller than those on the Southern side.
Appendix IV, Attachment e

Plan of Fort Malden in 1851.

Note:
The men's Barracks is building no. 5 described as Hospital in the legend.
Appendix IV, Attachment f, part 1

General plan of Provincial Asylum at Fort Malden showing proposed changes.
Appendix IV, Attachment f, part ii.

Specific Plan of the buildings at the Provincial Lunatic Asylum, Branch at Fort Malden

Note:

The addition of the kitchen to the rear of the main building connected to it by passage-way.

The two doors in the Northern side not shown in previous plans and therefore added at this time.

The door in the centre of southern side of the building is now shown as a window.

The two new partitions in the central portion of the building.

The changed window grouping at the west end of the northern side of the building.

Accompanying letter:

I have the honour to forward you certified accounts of the amount of liabilities incurred, from 1st of July to 31st October 1859, in the works of alterations, repairs, and improvements necessary to adapt the Barracks at Fort Malden for a lunatic asylum. The buildings were in a worse state of repair than I anticipated when writing to you on 5th July last. I then mentioned the leaky state of the roofs and eaves . . .

When I arrived here on 15 July last, I directed all my attention to the repairs and alterations of the buildings A, B, C. The work has been done in a substantial manner, and all the arrangements have been made with a view to the efficient and economical working of the establishment. I now have all the apartments in these three buildings ready for the lodging of patients . . .

\textit{... there is one building still remaining situated quite near Laird Avenue. This building is 102 feet long, 22 feet wide, with a 12 foot wall in height. The thickness of the wall is 18" solid brick and the building is constructed on a good stone foundation.}  

Comment Mr. Farney seems to be incorrect in two matters:  
\begin{itemize}
    \item a. his dimensions
    \item b. his belief that: "Originally there were no openings seen in the wall shown in the picture in the way of door or windows, nothing but the Loop-holes for the rifles as seen in the left End of the building."
\end{itemize}

\footnote{Farney to Harkin, June 24, 1921, \textbf{F.M. 2}, Vol.1.}
Appendix IV. Attachment 4: Plan showing the different fort positions.
Appendix IV
Attachment b
Schedule of tenders unavailable.
Appendix IV. Attachment c part a: Plan of building in 1823. (Public Archives of Canada.)
Appendix IV. Attachment c part b: Plan of building in 1823. (Public Archives of Canada.)
Appendix IV. Attachment F: Plan of the Malen Lunatic Asylum
This building is 102 feet long and described in letters. Originally there were no openings seen in the wall shown in the illustration, in the way of doors or windows, nothing but the long holes for the rifle as seen in the left end of the building. The machinery seen at the right-hand end at the rear of the brick building is the barrack of 1837. But was removed two years ago from the property. The old yard house stands behind this long building as you will see by the sketch of the property I have made.

Appendix IV. Attachment g: Photograph showing the northern side of the building c. 1910. (Public Archives of Canada.)
Appendix IV. Attachment h: Various photographs of the building.
Excavations at Fort Malden,
Amherstburg, Ontario
by Iain C. Walker
1966
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4H-66-102-3
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Part of Suboperation 1A and 1C looking northeast.
Section of east wall of Suboperation 1A.
PREFACE

The body of this report has been ready since December 1966. The historical material incorporated in this report has all been collected by this writer, but much remains to be ascertained, particularly regarding the period when the Hough House was the Asylum Laundry and then the Park and Borrowman planing mill (additional information on the former period will almost certainly be found in the various Annual Reports on Asylums made to the Upper Canada legislative assembly by provincial authorities: cf. footnotes 18, 19, and 21 in this report). I am grateful to Mr. Botsford, a local historian, for release of his extensive files on Fort Malden's history.
ACKNOWLEDGEMENTS

The writer was assisted in the excavation by Miss. D. Herst, with Miss M. Dumont (Laval University), Mr. M. Lessard (Laval University), Miss J. Miller (University of Toronto), Miss L. Milne (University of Calgary), and Miss K. Spirydowicz (University of Alberta) as students and labourers. All photographs, other than copies made of maps or of old photographs, were taken by the writer.

February 1969
EXCAVATIONS AT FORT MALDEN, 
AMHERSTBURG, ONTARIO, 1966

INTRODUCTION

During the four weeks from mid-May to mid-June 1966 limited excavation was undertaken by the Historic Sites Division at Fort Malden, Amherstburg, Ontario, on the Detroit river some 18 miles S of Windsor, to investigate the subsidence of a corner of one of the museum buildings on the site, known as the Hough House, the site of which appeared to overlie structures of the period of the fort in an area near the W entrance.

HISTORY

Fort Malden was built in 1796-9 to replace Fort Lernoult at Detroit, one of the posts excavated by the British in 1796 in accordance with the terms of the Jay Treaty. The fort was of the normal square form, with bastions at each corner.

The fort overlooks the Detroit River, which this century, as a result of channelling operations to aid navigation, has eroded some of the bank below the fort. The channel overlooked is now the up channel for lake traffic, the down channel being on the farther side of Bois Blanc Island; but when the fort was built much of the extensive area of river on the farther side of the island was shoal, and the channel close to the E bank - now the up channel - was the only one for practical navigation, which helps to explain the potentially strategic position of Fort Malden (figs. 1a, 1b).

A plan of the Fort dated 1796 (fig. 2) depicts an
"ordnance store with blockhouse over" on a N-S axis on the W side of the fort, approximately centrally placed to the W curtain wall; there is an elevation drawing of this (fig. 3), also dated 1796. Subsequent plans depict the building astride the axis of the W entrance, and those of 1797, 1800, (fig. 4), and 1804 consistently refer to it as a blockhouse, the last-listed referring to it as an "ordnance blockhouse". The same plans depict a storehouse "for Indian department" or "for Indians" lying to the S of the blockhouse.

It appears that a certain David Ramsay and his brother-in-law Edward Hazel were on the site of the fort before the latter was built, having obtained the rights from a Mr. Byrd a few years prior to 1796.

In 1813 the British retreated from Fort Malden, burning its buildings; the Americans occupied and rehabilitated it, but in 1815 it was restored to the British.

Plans of 1823, (fig. 5), 1831, and 1835 indicate that Fort Malden was replanned as a smaller fort: the SW bastion and most of the S and W walls remained in the same place, but new N and E walls and associated bastions were constructed inside the line of the older defences. Between 1821 and 1823 a guardhouse was built behind the W rampart and immediately N of the entrance in that line of defence. In November 1820 Durnford, giving the estimates for the next year, noted that a guardhouse with an officers' room and cells for solitary confinement was "Indispensably requisite," and in September 1823 Durnford was able to refer to a "Framed Building with a Portico in front 25 x 20 feet and 10 feet to wall Plate. In excellent repair." All three maps referred to above indicate it as a guardhouse, and there is a floor plan of this, dated 1823 (fig. 6).

Two plans, both of 1840, (figs. 7 and 8) indicate porticos on the E and W sides as well as the front: room
partitions are in different postions from those in the 1823 plan, two windows are shown in the N wall, and the guardhouse itself is indicated as being of brick. The legend on the map implies that the building had not been modified during the fairly extensive work carried out in 1839-40. N of the guardhouse lie "Framed Cells" and "Framed Cook-house". A reference dated to c. 1857 also refers to this guardhouse as being of brick.\textsuperscript{14}

In 1859, eight years after enrolled pensioners took the place of regular troops, the fort was converted to civil use as an insane asylum, and a plan of that year\textsuperscript{15} (fig. 9) indicated that the use of the guardhouse was to be the porter's apartment. The cells were to become the Male Solitary Cells, and the cookhouse the Laundry.

However, it is possible that much of this plan was altered during the 11 years that the asylum occupied these premises, as local history ascribes the construction of the buildings which with drastic modification became the Hough House and the MacGregor House (immediately W of the SW Bastion) to this period as the laundry and Superintendent's House respectively: a photograph of what is now the Hough House\textsuperscript{16} is captioned "Park and Borrowman Planing Mill about 1905. Originally built about 1860 as the Laundry of the Malden Lunatic Asylum. Remodelled about 1920 as the residence of Franklin A. Hough;" and a photograph of the MacGregor House\textsuperscript{17} is captioned "William S. Falls Residence, about 1905. Later remodelled for Malcolm MacGregor by the addition of three wings. Originally built as a residence for the superintendent of the Malden Lunatic Assylum, about 1862." This agrees with documentary evidence\textsuperscript{18} which indicates that the "new residence for the Medical Superintendent" was nearly complete in 1861, and was being inhabited by that person and his family in 1862.\textsuperscript{19} (The date of c. 1905 for at least the latter picture may be fairly accurate: a map of
1904\textsuperscript{20} indicates that the three wings had not yet been added at that date*.

According to Botsford's files, a laundry was built by the inmates in 1859-60, the tubs being in the basement, the ground and second floors being for drying, and the garret for sewing, though as Botsford himself pointed out, the apparent lack of windows, as deduced from admittedly later photographs (if the laundry was the later planing-mill), made this last seem rather difficult. There was a fire in October 1859\textsuperscript{21} immediately after the asylum opened, when the ironing and drying house was destroyed and the adjacent pump and wash houses severely damaged, and Botsford's files indicate that as a result of this a water-tower of 30,000 gallons capacity was erected in the former parade ground - this point was a bearing on the archaeological discoveries, as will be noted later. It is not stated where these buildings were, but they presumably were in the original asylum laundry (fig.9), for in July 1862 the "new laundry" opened\textsuperscript{22}, and it may be assumed that this building is the one that became in turn the mill and Hough's residence. The site of the original laundry may have been left unused - it was unoccupied by 1904. The new laundry must have covered the guardhouse and the originally intended male solitary cells. The walls of the new laundry and the rafters were built by 1861 and sheeting for the roof on, preparatory to its being tinned\textsuperscript{23} - the same time as the report, but these have still to be located.

* According to Botsford, a local historian, after the Superintendent left - it was said he was dismissed because the house (which he had built) cost so much - the house was taken over by an individual MacLeod, then used as a summer residence by one Green, and then taken by MacGregor, who was responsible for the poor ersatz Scottish baronial inside and outside. The house subsequently went to his three daughters and thence to the Federal Government.
In 1870 the asylum was moved. In 1874 the Federal Government acquired the land and in 1875 a map was prepared dividing the fort and the surrounding area into lots for sale: lots 2, 3, and 4 include all the buildings inside the fortifications, and lot 4 appears to include the site of the guardhouse, though in this area a much larger building is shown.* (According to Botsford's files, Laird Avenue was built in 1872, destroying the NE and SE bastions: the date appears to be at least approximately correct, as the 1875 map referred to above shows the avenue already in existence by that time; the Amherstburg Echo for 22nd December 1966 suggests 1875, but this may be merely an uncritical deduction from the 1875 map.)

According to Botsford's notes a lumber firm of Park and Borrowman brought the property in 1875 - the land was patented to them on 5th March 1887 - and they were certainly there by 1878, and earlier according to Botsford who had account books for the firm dated to earlier than this.

The map of 1904 (fig. 10) marks a planing mill on the site on the Hough House with adjoining it to the S a structure labelled "old guard house (1812)." Again according to Botsford, Hough was on a county committee which had been pressing for government action to preserve the site before the First World War and had taken an option of this property some years prior to 1918. (Once more, these remarks seem to be basically accurate, as various letters in the Department's files - FM2, 1 to 6 - and as evidence noted below indicates, Hough had the land by 1918.) However, his subsequent attitude to the property indicates that he had no regard for the site as an historical landmark: what must have been his first

* Some of the buildings on this blueprint are shown in white in a manner which suggests their depiction has been subsequently altered - there is an unclear marginal note dated 21/9/91 - while others are in outline. The large building referred to is in outline; there is a smaller white square immediately to the N.
act was to cut the barracks on the N side of the fort into five parts and transport them to various parts of the town to be private dwellings. A letter from the Secretary of the Essex Historical Society to the Commissioner of the Canadian National Parks dated 24th June 1921 noted that "two of the old houses (of the fort) ... one of them has been changed into a modern bungalow - with a garage! - and the owner of the grounds is shortly to alter the other old building into residences." Shortly afterwards, the Rev. A.B. Farney, Trinity Church Rectory, Simcoe, writing the Commissioner on 24th July 1921, noted that two of three buildings "of historic interest" were owned by Hough, one 102' long by 22' wide, another being "part [of] the old guard-house of 1812" and about to be turned into a dwelling house. The building with the incorporated garage is the Officers' Mess on the E side of the Fort; the second building in both letters was what is now known as the Hough House although it was called "The Fort" by the Hough family. The next year Farney notified the Commissioner (in a letter of 30th July, June is meant, 1922) that "The old Guard House has been taken down and replaised [sic] by a modern building." There is no evidence that any attempt was made to dissuade Hough from this - possibly this was because he was a person of some local weight.

In 1945-6 protracted negotiations were carried out between Hough's son and the National Parks Bureau for the purchase of the Hough property at Fort Malden, Hough Sr. having died; and a letter dated 4th September 1945 enclosed nine photographs taken at various times during the first quarter of the century with comments on them. Unfortunately, these pictures have become separated from the letter but numbers 3 to 8, and probably 9, can be identified. Of these two (figs. 11 and 12) are particularly relevant to the history of the Hough House: the former (dated by Hough Jr. to "1900-10 [?]") shows the Planing Mill looking SW
(not as Hough Jr. says, taken from the N) and Hough notes that the structure to the S of the building (i.e., the left of the picture) or at any rate the brick part, was understood to be the "original guard house" of the fort which had been converted into a boiler room either during the time the building was used by the Asylum or when it was the planing mill. It was demolished, along with the brick chimney, by Hough Sr. and incorporated into the present two-storey sunroom and sleeping porch, though according to Botsford the mill chimney had caught fire in 1918 and been demolished as a result. This sunroom and sleeping porch can be seen in fig. 13, a view looking W, of the Hough House after its conversion from the mill. Hough Jr. points out that the relocation of the windows and the installation of the upper doorway above the main entrance, evidence for which is visible in the picture, was covered by Hough Sr. probably by repointing the whole exterior; according to Botsford, Hough Sr. had a complete outer brick 'skin' built over the original walls to hide these marks.

The same letter also noted that Hough Sr. covered the original metal roof of the building with cedar shingles; this is in agreement with the statement (p. 8 above) that the roof of the new laundry of the asylum was of tinned metal. A picture of the E side of the house, probably taken much later, shows it covered in ivy, a covering subsequently removed when the Government took charge of the property.

Fig. 12 shows the mill from the E, and shows that the brick remains of the guardhouse were not exposed on this side and that the wooden side here jutts out from the line of the building proper by a few feet, which is precisely what is indicated on a plan of 1904 (fig. 10). Fig. 14, which is undated, shows the planing mill and its chimney-stack in the centre.
From the above evidence, therefore, it would appear that at least part of the guardhouse that was built before 1839 continued to be used by both the asylum and the lumber firm and was finally removed as late as 1922 (on the evidence of the Rev. A.B. Farney). It is also clear that the guardhouse lay immediately to the S of the main body of the building that was in turn laundry, planing mill, and Hough's House; in other words under, or at least partly under, the "two storey sunroom and sleeping porch" (fig. 15); and that this construction utilized in part the bricks from the guardhouse. As the corner of the Hough House which had cracked (fig. 16) and started to subside was the SW corner of this sunroom, it seemed certain that any work designed to strengthen this area would disturb structural remains belonging to the military occupation of the site, and specifically to the guardhouse foundations. Accordingly, an archaeological investigation of the area immediately to the S of the sunroom was undertaken.

GUARDHOUSE

Two plans of the guardhouse are available: fig. 6 is dated 1823, fig. 8, 1840. The former represents the building constructed between 1821 and 1823, which was of frame construction; the latter shows both internal and external reconstruction, and was built of brick. As fig. 11 indicates that the part of the guardhouse incorporated into the apparent boilerhouse of the laundry and mill was of brick it is reasonable to suppose that the wall shown in this picture is substantially that of the second guardhouse of the fort. A door with a straight wooden lintel is set in this wall, but if the 1840 plan is correct was not an original part of the guardhouse plan. On the other hand, that plan does indicate a verandah, and part of such a verandah is
shown in fig. 11.

From what can be seen of this wall in fig. 11, it would appear that in length it may have been between a third and a half as long as the mill building proper: assuming that the latter's dimensions closely approximate those of the Hough House this would indicate that the guardhouse foundations, provided they were left in situ by Hough, should extend beyond the S end of the sunroom wall. In other words, if the foundations exist at all, they should be revealed by excavation.

ARCHAEOLOGY

The Area before Excavation (fig. 15)

Immediately against the S wall of the building was a flower-bed 4' side. Beyond this was a concrete walkway also 4' wide which ends in a raised paved area along the W side of the house, and which turns N along the E side of the house to its main entrance. Beyond this is the lawn of the park grounds. At the very SW corner of the sunroom is a drainpipe leading down from the rone; some 3' beyond this is a fairly young tree - otherwise the surrounding area is flat and unencumbered at least at surface level.

Excavation

In view of the limited time available, and the impossibility of obtaining either labour or a backhoe to assist those working (the writer and six students), only a limited amount of excavation could be undertaken. Operation 1 was defined as all work done by the writer in the area immediately S of the Hough House (fig. 17). Two trenches, each 20' long x 5' wide were laid out to end at the S wall of the Hough House "sunroom". Each had their outer side 2' in from the two S corners of the building; that to the west was
designated suboperation 1A, that to the east 1B. Suboperation 1C was defined as the area between these two trenches, an area 11'3" wide excavated to a distance of 10' out from the building.

The basic stratigraphy, reading downwards (figs. 18, 19) was revealed to be as follows:

Layer 1: Turf. Surprisingly for its lawn-like appearance, was very thin - c. 3" deep.

Layer 2: Heavy concentration of brick rubble, whole bricks, topsoil, mortar lumps, and mortar detritus, up to c. 1' deep. The mortar appeared to occur more frequently in the upper part of this deposit, suggesting that it has not been deposited long enough for worms, root action, and rain to leach it down.

Layer 3: Deposit, up to c. 1' deep, of unconsolidated clayey earth, flecked yellow and dark.

Layer 4: Deposit, c. 1' deep, of heavy dark clay.

Layer 5: Deposit of unknown depth, below Layer 1, of heavy yellow clay. Excavation discontinued at 4' below present surface.

Layer 6: Very fine, black soil comprising the flowerbed between the concrete walkway and Hough House. Its depth is irregular - c. 1'6" against wall, tapering off to a point under the edge of the walkway.

Layer 7: Hard, light yellow clay, up to c. 1' in thickness, parts of the top rather sandy in texture (from rain, root, and worm action in all probability) underlying Layer 6 and the walkway.

Layer 8: A massive deposit of bricks, mostly whole, of unknown depth (c. 2' removed during excavation without reaching bottom) extending under wall of Hough House sunroom.
Intrusion A: A narrow - c. 6" wide - vertical trench filled with sand, against the south (outside) of the east-west brick wall (see Feature AA below) which crosses this suboperation, extending from 3.3' below present surface to 6.2' below.

Intrusion B: A trench c. 2' deep x 1' wide, not at all clear in the stratigraphy, filled with mixed soil and loose clay, dug to take the east-west tile drain pipes that cuts this suboperation.

Intrusion C: A small pocket at a point between 7' and 8' from the zero stake, lying at an angle of c. 45° with the lower and towards the south, consisting of loose soil - could be the remains of a filled-in stake hole, root hole, or borrow.

Intrusion D: A concentration of unfaced stones mortared together.

Intrusion E: A large, nearly vertical-sided trench 2.5' wide towards its base running east-west and containing a large earthenware pipe c. 1' external diameter and one (in suboperation 1B, two) small metal pipe(s) of c. 3" enteral diameter. Excavation discontinued at 5'6" below present surface. Trench presumably continues to at least 6'3" below present surface in order to take the rest of the earthenware pipe.

Of the layers and intrusions listed above, Layers 1 to 3 and 6 to 8, and all the intrusions, are artificially made or deposited; Layers 4 and 5 - clay - are natural subsoil.

Excavation of suboperation 1C revealed a most complex series of remains linked to the features already exposed at the N ends of Suboperations 1A and 1B (figs. 20 and 20b). Fig. 21 shows in diagramatic form these features:

Feature AA: An L-shaped brick wall, one leg running east-
west, the other north-south, the former
extending 7'3" from the west side of subo操-
eration 1A, the latter 3'9" to a point where it
is overlain by Feature CC, beyond which it
presumably runs under the Hough House sunroom
wall.

Feature BB: A brick wall running parallel to the west side
of suboperation 1A and 2'6" from it, extending
from under the Hough House sunroom wall for 6'
and butt-jointing the east-west leg of
Feature AA.

Feature CC: A mass of unfaced mortared stones extending
3'3" from under the Hough House sunroom wall,
bounded on west side by Feature BB and over-
lying the north-south leg of Feature AA,
immediately beyond which it appears to stop,
butt-jointing with Feature DD.

Feature DD: A mass of unfaced mortared stones extending
from under the Hough House sunroom wall,
bounded by Features CC and AA (north-south
part) to the west and Feature EE to the east,
for a distance of 7'3". South of Feature EE
it may extend eastwards, but this area is
extremely confused.

Feature EE: A mortared brick "platform" comprising two
butted parts, the whole 6'3" long x 2' broad,
bounded by Feature DD to the west and Feature
GG to the east.

Feature FF: A similar mortared brick "platform" to Feature
CC 2'6" long x 3'3" wide but of a single
construction, separated from Feature EE by the
2'6" gap of Feature GG.

Feature GG: A gap in the expanse of heavy, mortared, stones
in this area, filled with loose bricks and
extending from Hough House sunroom wall to edge of stone expanse.

Feature HH: General flat expanse of mortared stone forming no apparent structure.

Interpretation

As has already been indicated in the historical introduction, an extremely complex series of building and rebuilding operations has taken place on this site. There is the blockhouse of the original fort (1796 and following) presumably destroyed in 1813; the wooden guardhouse of 1821-23; its rebuilding or at least its modification, in brick sometime before 1839; its incorporation into the laundry of 1861 (and possibly some use in 1859 and 1860 as the porter's lodge or for some other function at present unknown); the conversion of the laundry to a planing mill in 1872; and finally the conversion of the planing mill into Hough's residence resulting in the demolition of what remained of the guardhouse in 1921-2 and the construction of the sunroom for the Hough House on its site.

Despite this, it is possible to arrange at least some of the features noted above in relative sequence, and to tie into this sequence some of the areas and layers mentioned previously.

Starting with Feature AA, its two arms can be shown to be integral parts because their junction is a complete bond. The inside of this L-shaped wall is carefully pointed and whitewashed (fig. 22) but the bricks used are of indifferent quality, and are often half-bricks. Feature BB, on the other hand, is probably later because it butt-joints with Feature AA. That it is of a different construction period is also suggested by its different foundation (it being built on 2' of mortared flatish unfaced stone while Feature AA continues down to its base as an uninterrupted plain
brick wall), its less tidy pointing, its better brickwork, and its lack of whitewashing - the one or two whitened bricks suggest that some at least of the material for this wall came from a previous construction (fig. 23). Butt-jointing is not a proof of later age, but it is an indicator, especially when other evidence supports a different mode of construction, as here. Further, it is difficult to see why Feature BB should have been constructed so close and parallel to the north-south leg of Feature AA if it had been part of the original construction - it seems more likely that it was inserted because the structure of which it formed a part underwent a major modification, perhaps to bear more weight.

Feature CC is later than Feature AA on the basis of part of the latter either having been dismantled or having collapsed, enabling Feature CC to overlie it (fig. 20a). Although no definite reason for Feature CC overlapping this part of Feature AA can be given, it seems possible that it was to make a solid, level, area and that it ended against Feature DD immediately after overlapping the north-south leg of Feature AA because Feature DD was already there. Feature CC is likely to be later than Feature BB because it gives the impression that it was inserted to fit the gap between Feature BB and the north-south leg of Feature AA - the fact that it does not extend to the east-west leg of Feature AA, but leaves a space so small as to be virtually useless, suggests that it was built for one specific purpose, and while it is possible to suggest that it was associated with the erection of the foundation of the Hough House sunroom, the extraordinarily poor function for the part of this wall on the other side of Feature BB has then to be accounted for. The fact that Feature DD by contrast extends much farther out from the sunroom foundations is an additional indicator that Features CC and DD are of different
periods, and it seems easier to believe that Feature CC was carefully fitted in because Feature DD was already there than vice-versa. The fact that Feature CC butts Feature BB cannot be used as proof of a later construction, because bonding a stone structure to a brick one would have been difficult - though not impossible. However, the very fact that one construction was of stone and the other of brick suggests they were built at different times. The looseness of the butt-joint does give an impression of a later fitting of Feature CC against Feature BB.

Feature DD has Feature CC appearing to butt in on its west side and on the arguments outlined above it would be simpler to regard Feature DD as preceding Feature CC than vice-versa. Feature DD has no deducible relationship to Feature BB, but it seems very likely, though not provable, that it is later than Feature AA.

Thus so far the tentative sequence is as follows:

<table>
<thead>
<tr>
<th>ARBITRARY</th>
<th>FEATURES</th>
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<tbody>
<tr>
<td>TIME-PERIODS</td>
<td>CC</td>
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<tr>
<td>III</td>
<td></td>
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<tr>
<td>II</td>
<td>BB</td>
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<tr>
<td>AA</td>
<td>DD</td>
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</table>

However, Feature DD appears to curve round Feature EE - i.e., in an apparent desire to make the south side of this whole stone area straight line, in which case one could argue that Feature DD was later than Feature EE. Further, although the structural relationship of Feature DD to Feature EE is not clear, Feature EE is certainly not
merely a layer of bricks set on top of the stones of Feature DD (fig. 20b) but two structures butting with up to eight courses of bricks in alternating courses of stretchers and headers (English Bond) (fig. 24a, 24b) which it it had been built after - i.e., into - Feature DD would have necessitated digging out part of the latter. It thus seems more likely, though certainly not proved, (see p. 28), that Feature EE was of prior construction to Feature DD; however, it cannot be related to any of the other features.

Feature FF (fig. 25a, 25b) has similarities to Feature EE - though smaller and thinner, it too is built English Bond, and for want of any better evidence, it is suggested that it may be of the same time as Feature EE. There is no evidence to indicate an earliest possible date for either of these two features.

The general area of stone uncovered - Feature HH - is level, if not flat; if Features EE and FF were inserted into this area then the reason might have been to establish a definite flat surface, for example for some heavy structure to rest on. Even if the features were earlier than the stone this explanation could still be substantially correct. On the other hand, Feature EE comprises two brick parts butted together and now at any rate the one nearer the Hough House is higher by 2" (figs. 24a, 24b), and the reason for this is not obvious.

Thus we have the following very tentative sequence for Features AA to FF

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<tr>
<th>ARBITRARY TIME PERIODS</th>
<th>FEATURES</th>
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<tr>
<td>III</td>
<td>CC</td>
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<tr>
<td>DD</td>
<td>EE</td>
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<td></td>
<td>FF</td>
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</table>
It must be emphasized, however, that the above is only a model - a concept - against which to set possible theories; in the writer's opinion the sequence from Feature AA to CC and probably DD seems likely, but no more.

Feature GG cannot be satisfactorially fitted into the sequence. It is a gap in the expanse of stone filled with brick rubble and mortar detritus to at least a depth of some 18" below the surrounding stone (the depth excavated) and is apparently associated with a metal pipe which runs along this line from the south. An unexplained feature is the soot deposited on the lower parts of the sides of this gap (figs. 24a, 25b). This takes the form of flakey, bituminous-like particles, but its significance is unknown - there does not seem to be enough to suggest it was part of the flue of a chimney or part of a furnace, for example. Apart from there being a furnace on this site for c. 60 years, there is Botsford's reference to the planing-mill chimney catching fire. A series of bricks mortared together was found in the east wall of Suboperation IB, suggesting that a relatively large piece of a demolished structure had been dumped - or had fallen - there. (Occasional fragments of burnt wood and cinders, brick fragments glazed with heat, and a deposit of solidified tar were found during excavation, but there was relatively little to indicate that a furnace had been on the site, and certainly none of the layers indicated a fire. The ashes from the furnace were certainly not dumped in the area excavated.) As Feature GG
belongs to another complex series of finds it will be dealt with later (p. 27-8).

As noted earlier, the pointing on the inside (north- and west-facing sides) of Feature AA is very neat - on the outside (south-facing side) however, it is completely untrimmed, and the mortar squeezed out during the laying of the bricks has solidified in that position (fig. 26). The construction of this wall was thus done from the inside, implying that the site of the building was dug out in its entirety rather than merely foundation trenches being dug. Once any height of wall had been built it would become impossible to reach down the front of the wall to smooth off the surface, which might suggest that the wall was built fairly quickly and in one lift. As it would be senseless, particularly with the heavy clay subsoil, to leave the opening along the front of the wall - Intrusion A - unfilled to collect water and damage the foundation it is reasonable to assume that the backfilling of this area with the sand that was found on excavation took place immediately after the construction of the wall, so that any material found in this deposit would not be later than the construction of the wall itself.

Unfortunately the disturbance caused by the collapse of the upper part of the east-west brick wall has destroyed the topmost part of Intrusion A (fig. 18) and with it the exact relationship that this wall had with the layers deposited against it on its south side, so that all that is obvious is that the wall is subsequent to Layers 5 and 6, which is self-evident as these latter are the natural subsoil.

The most crucial part for the interpretation on the relative sequence of events in this area had unfortunately been ruined by the installation of the drain in Intrusion B (fig. 18) which completely destroys the relationship of
Layer 3 to Layers 6, 7 and 8. (According to Botsford this drain was installed about 20 years ago.)

Layer 8 overlies Layer 4, which again is self-evident and for the same reasons. Layer 8 represents the collapse or demolition of Feature AA, and the laying of Layer 7 - a deposit of clay - on top of it suggests that the latter was put in to consolidate and level off Layer 8. As Layer 8 has no soil or other material mixed with it which would indicate that it did not lie open to the elements for long, we may thus suppose that the deposition of Layer 7 was made shortly after Feature AA collapsed or was demolished. Layer 6, representing the planting of a flower bed, follows Layer 7 after an unknown interval.

That Layer 8 was the result of a deliberate demolition of Feature AA rather than the collapse of a derelict structure might be hinted at by the immediate covering of the area in Layer 7 (if the area was derelict, why bother to level off the area with clay apparently soon after the collapse), and the fact that Feature BB and part of Feature AA appear to have been cut off at a definite level makes the idea of collapse due to disintegration of the site rather unlikely.

As can be seen in fig. 18 the bricks of Layer 8 lay against the concrete foundation of the sunroom for a depth of 11", but also ran under the concrete. Fig. 27a shows the foot of the foundation resting on the brick rubble of Layer 8; fig. 27b shows the same area with nearly a foot more of the brick rubble removed. As can be seen from the marks on the concrete, the foundation here was made by pouring the concrete into wooden frames. As the wood has been removed following the setting of the concrete, the bricks forming the top 0.9' of the brick rubble cannot have lain against the foundation as they do now until after the construction of the foundation; on the other hand the
lower rubble obviously must have been there before the found-ation was poured. Thus either a rough trench was dug into the brick rubble to take the forms or else the rubble was laid on two separate occasions - once before construction, once after. As Hough is known to have demolished the brick boilerhouse and possibly its brick chimney to build the sunroom in 1921 or 1922 it is possible that Layer 8 repre-sents this work. The parts of Feature AA west of Feature BB has definitely collapsed as its coursing buckles inwards, having fallen like a pack of cards; on the other hand the area between Feature BB and the north-south arm of Feature AA was filled with mortar detritus, and lumps of mortar mixed with a few brick fragments, indicating that the brickwork of the parts of the features surrounding this area must have been used for some other, and pre-sumably more important, piece of work, for which Hough's sunroom is an obvious candidate. Layer 8 could have been caused by a collapse during the demolition of the boiler-house, or enough brick may have been already obtained so that there was no need to salvage more. If Feature AA and BB do represent parts of the boilerhouse then any collapse must have occurred between Park and Bannerman's leaving the site in 1918 (or perhaps the alleged demolition of this chimney in that year) and 1921-2.

The identification of Features AA and BB as part of the boilerhouse present unresolved difficulties, however. To judge from the available illustrations of the boiler-house (figs. 11, 12, and 14) and from the plan view shown in fig. 15, the boilerhouse was not attached symetrically to the S end of the mill, but overlapped to the W. The E side is partly of brick (fig. 11) but the W side is of wood (fig. 12). However, figs. 11 and 16 indicate that the E side is in line with E side of the mill which contradicts the plan in fig. 15. As the extent and position of the
mill must be approximately the same as those of the Hough House, scaling off fig. 10 (in default of better dimensions being available) gives the S end of the mill as 40' across and the brick side of the boilerhouse as joining this wall 16' from the SE corner. As the S end of the Hough House proper now measures 43'1" across, the former figure appears accurate, especially if Botsford is correct in saying that an outer skin of brick was added all round the mill building by Hough. However, even if the position of the brick boilerhouse wall were on the line indicated in fig. 10 this would still not correspond with the north-south arm of Feature AA, which lies 32'6" from the line of the E side of the Hough House.

Further, if the 1840 plan (fig. 8) is reliable, Feature AA bears no resemblance to the foundations depicted in this plan for the brick guardhouse; on the other hand, the side of the guardhouse is given as 20'6" in length on this plan, and this corresponds exactly with the distance of the east-west part of Feature AA from the S wall of the Hough House proper, assuming that this wall is basically that of the laundry.

At present therefore, the writer is not prepared to state definitely that Feature AA is the remains of the pre-1839 guardhouse-later turned boilerhouse; some features of it could be construed as indicating this identification but other evidence contradicts this. Further investigation in two areas would be necessary: one, excavation of the SE angle formed by the sunroom and the Hough House proper (fig. 15) which would necessitate the removal of all the flower bed and all the concrete paving in this area; and two, the uncovering of the area immediately "of Suboperation 1A (this would necessitate the removal of more paving, more of the modern E-W tile drain, and the drain joining this from the rone at the SW corner of the sunroom, and would run
into problems from the tree in this area and possibly from the septic tank which lies in the area of the fort ditch immediately off the S corner of the flagged patio, and its associated pipes).

During the excavations a series of pipes were found running E-W across Suboperations 1A and 1B (fig. 17). In suboperation 1A one iron 2" diameter pipe ran immediately to the N of a large stoneware pipe of an estimated 1' diameter (fig. 28); in suboperation 1B there were two metal pipes, one directly on top of the large earthenware pipe and one immediately to the S (fig. 29). The earthenware pipe was constructed of two foot long sections with stoneware hoops cemented over the joints; the metal pipes appear to comprise considerably longer sections as only one joint (visible in fig. 28) was visible in the two trenches. The pipes were too rusted to be examined closely but the single visible joint appeared to be a coupling.

The trench in which these pipes were laid was vertically-sided for most of its depth, being 2'6" across.

There is a curious difficulty in deciding from which layer this trench was dug. In fig. 30, the east wall of suboperation 1A, there is no doubt that the fill of the trench appears to be the same material as Layer 2 - in other works, Layer 3 was the surface from which the trench was dug. However, in the west wall in fact identical in consistency to Layer 3, although - as can be seen in the illustration - it is of a lighter colour. As can be seen from fig. 29, the fill of the trench in suboperation 1B is also similar to that on the west wall of suboperation 1A. If the fill of the trench was indeed the same material as Layer 3 then it would indicate that Layer 4 was the ground level when the trench was dug.

That the metal pipes belong to the same period as the large stoneware one is suggested not only by their being in
the same trench but by the closeness of the southernmost metal pipe in suboperation 1B to the S wall of the trench, for if the metal pipes were inserted later the fill of the trench would have to have been carefully re-excavated, and to then lay this metal pipe against the S side of the trench when it could have been placed anywhere would make no sense. The metal pipes are of the size that would be used to take water under pressure; the stoneware pipe is a typical drain pipe. During excavation one of the joints broke with it a small part of this pipe: there was a cool draught of air from the pipe, but no odour, and as far as could be ascertained the pipe was dry and empty.

As there was a boilerhouse on the site from 1861 to 1921 it is probable that the metal pipes date from that time - the water-tank which is said to have been constructed at the same time as the boilerhouse is presumably that shown on fig. 13 (erroneously dated there to 1838) - an eastward extension of the line of the pipes would approach very close to this site. Excavation in suboperation 1C revealed that a pipe, running N-S ran into the area of stonework previously described on the line of Feature GG.

It is difficult to say whether Feature GG is a result of a trench being put through it for the pipe or not, but the line of stone which crosses this gap at its S end (see fig. 21) is several inches lower than the stones on either side and appears either to have sunk from its original position (presumably into the pipe trench) or else to have been thrown into such a trench. It may thus be tentatively suggested that Feature GG is a trench subsequently dug into the stone area uncovered in suboperation 1C in order to lead the pipe into the boilerhouse. This would make at least part of this stone area pre-1861, and could also be used as an argument of place Features EE and FF later than that date, for their symmetrical placing on either side of the
trench would be difficult to explain by coincidence. On this line of reasoning one could also suggest that these features were, like the trench, intrusive to the stone area; yet earlier (p. 20) it had been suggested that the brick areas were earlier than the stone area.

However, the whole argument is thrown into confusion by the section revealed in the S wall of Operation 1C (fig. 32). Here was found not one metal pipe, as expected from the evidence of suboperations 1A and 1B, but two - one completely rusted away and surviving only as a deposit of rust and the merest shell of a pipe, the other in the same general condition as those uncovered in suboperations 1A and 1B with wood surrounding it. Further, instead of the neat, vertical-sided trench found in these suboperations a great, untidy, confused pattern of fill was found. A plausible interpretation of these features would be that originally the pipe was laid in the same type of trench as found in suboperations 1A and 1B, and that subsequently the pipe broke - the area was untidily dug in order to locate the break and a new piece of pipe inserted, perhaps with a wooden sleeve as a protection against further breaks. The stratigraphy of the S face of suboperation 1C is of little help: it does show some suggestion of two intrusive diggings (the sides of which are indicated by the trowels in fig. 2) but neither appear to be of the neat-sided type revealed in the other suboperations. However, the nature of the fill suggests that the diggings cut through (and was therefore later than) Layer 3, but this is not directly relevant to the problem discussed above (p. 26) because it is assumed that subsequent digging was done here.

One possibility is that the original pipe could have gone into the solid stonework, and Feature GG did not appear until the pipe was relaid. However, if this were the case how is the soot on either side of the gap to be explained
(p. 21) and is the fact that the brick Features EE and FF are symmetrically placed to this gap coincidence? There seem to be too many imponderables in trying to understand this area, and it seems more honest to try to take the arguments any further.

At first sight the pipe in suboperation 1C would appear to be the higher pipe (that immediately on top of the stoneware pipe) in suboperation 1B after it had turned N at right angles, because the other pipe in suboperation 1B would have to cross both the stoneware pipe and the first-noted metal pipe, increasing its elevation by c. 6", in order to reach suboperation 1C; but if this were the case then the second pipe in suboperation 1B would have to cross the stoneware pipe in any case, because it appears on the opposite side in Operation 1A, where the elevation of the metal pipe and the stoneware pipe is c. 6" lower. Elevation is not relevant to this argument, however, because if these pipes were waterpipes from the watertank E of the laundry-planing mill the water would presumably be under enough pressure to take a considerable increase of elevation. The available evidence, therefore, cannot be said to give any definite interpretation of the finds.

As the stoneware pipe is noted in the plan of 1859 (fig. 9) it must have been installed about that date and the other pipes presumably were put in at this time: it is likely that the stoneware pipe went to the river. Continuing its line to the riverbank, a similar but rather smaller pipe was found discharging into the river; however, this seems more likely to be connected with the septic tank situated near the SW corner of the Hough House and referred to previously (p. 26). What the metal pipe found in suboperation 1A was for is less clear, for unless the Detroit River was as crystal-clear one hundred years ago as it is full of pollution now (receiving the sewage and industrial waste of the entire Detroit-Windsor and related areas) water is
unlikely to have been pumped to the cistern from the river. The other metal pipe, that found in suboperation 1B and presumably turning north and appearing in suboperation 1C, must have brought water from the tank to the laundry.

Immediately S of the line of the pipe trench across suboperations 1A and 1B there was found in Layer 3 and sitting on top of Layer 4, and in both suboperations, a curious brick 'wall' comprising two to three courses of brick, one course thick, mortared together but lying on no foundation (fig. 33). It extended 1'6" into suboperation B from the W side of the trench, but stopped at this point. In suboperation 1A this wall was found projecting 1' into the trench from its E side, but did not extend farther.

As it was evidently considered important enough to be constructed with mortar, but not important enough to have a foundation of any description laid, a reasonable suggestion would be that it was meant as some fairly temporary barrier: as it was only one brick thick it is unlikely that it was built to any height, and because it runs along one side of the trench containing the pipes, and because the W entrance to the fort lay immediately to the SW of the area excavated, it is suggested that it was laid as a curb to prevent traffic coming too close to the trench while it was open (i.e. c. 1859). The section shown on E side of suboperation 1A (fig. 35) suggests that the wall may have been higher and that Layer 2 occupied the part removed, but more than an additional two or three courses is unlikely.

The reason for this wall appearing to stop in both trenches where it does appears to be connected with two other features uncovered. In suboperation 1A, lying in the line of this wall with its centre 3'6" from the W side of the trench, is an upright timber, square-sectioned and
slightly larger than 6" square (fig. 34). The post was set on a flat but unfaced stone of 1'5" x 1' x 6" overall dimensions at a depth of 3'9" below modern ground level in a quite large shallow saucer-shaped depression, one axis of which was 5'6". This pit was difficult to see in the floor plan of this trench, but the difference in soil texture was discernable when tested by pick-blade and probe, and appeared to extend over most of the width of the trench, although there seems no obvious reason for it to be so large. The pit was dug through Layer 4 and into Layer 5, and was filled with Layer 3: as the pit was far too large to support the post it seems certain that Layer 3 acted as a support. If the post was part of a structure - i.e., not free-standing - or supported in some other manner, the support of Layer 3 would not be vital, but were this layer not deposited the foundation of the post would be exposed and in the clay of Layer 4 the pit would collect considerable water after any rain, so that it seems reasonable to assume that the pit was filled very shortly after the post was erected. It therefore follows that if the erection of this post could be dated, the deposition of Layer 3 could also be dated, or vice-versa - probably c. 1859 in the light of previous evidence.

In suboperation IB no trace of a post was found, but at a depth of 3'7" below modern ground level (i.e., at virtually the same elevation as the stone base for the post in sub-operation IA) a carefully shaped and smooth stone was found (fig. 29) measuring 10½" x 8½" x c. 4", and lying 2'7" from the W wall of the trench just set into Layer 5. As no trace of wood was found, the post, if that was what stood on top of this stone, must have been removed: if such a post did stand on this stone, the distance, centre to centre, between it and that in suboperation IA was a shade over 15'. Using the scale and given measurements in fig. 8 the distance
between the posts supporting the verandah in front of the
guardhouse that was in existence by 1839 was 11' centre to
centre and the posts themselves were 1' square. Further, the
distance between the guardhouse wall and the front of the
verandah posts is given as 5' while the post found was 11\(\frac{1}{2}\)'
out from the brick wall Feature AA. On none of these
scores, if this plan is accurate, do these posts appear to
be the supports of the guardhouse verandah. As there is no
means of knowing whether fig. 9 has been enlarged from its
original, its scale, given as 12 feet to the inch, is use­
less, so that the distance from the pipe to the guardhouse
wall cannot be scaled. However, as the north-south wall of
the guardhouse is given as 20 feet in fig. 6 the distance
between the pipe and the south wall in fig. 9 should be
c. seven feet - the distance from the pipe and the brick
wall found is c. nine feet. On the other hand, fig. 9
indicates the pipe as being S of the verandah, and the pipe
here is N of the posts found in suboperation 1A and the
probable foot for another post in suboperation 1B.

Returning to the brick wall, this, as already noted,
lies on Layer 4 but has no indication of being laid into
Layer 3, so that it should date earlier than Layer 3. This
in turn agrees with the apparent removal of the wall in the
areas of the pits in suboperation 1A and 1B which on the
above evidence should date to immediately before the deposi­
tion of Layer 3.

If the wall was erected as a temporary marker along the
S edge of the pipe trench then presumably it was put down as
that trench was dug: if this is the case then the trench must
have been dug from Layer 4 when that was the ground level.
If so, then the ambiguities noted previously (p. 26) are
resolved, and the fill of the trench, whether strictly of
the same material as Layer 3 or not, must be substantially
similar.
In the west side of suboperation 1A, approximately continuing the line of the brick wall, there is the end-sawn-of a timber, c. 6" by 6". This, however, appears to have no connection with the wall, for it is enclosed in Layer 2. It is not possible to say whether it was part of the upright post or not as the end of the latter was too rotten to ascertain whether it too had been sawn off.

Recapitulating the above evidence we have the following sequence: pipe trench and brick wall contemporaneous (stoneware and metal pipes possibly inserted at same time), post later than brick wall and immediately followed by Layer 3. As Layer 3 must have been used to seal the pipe trench also it follows that all three features must be of almost exactly the same time: Layer 3, in fact, must have been a general levelling layer. As the metal pipes must be connected with the new laundry of the asylum Layer 3 must have been deposited between 1860 and 1862.

Unfortunately any attempt to fit this sequence to that postulated earlier (p. 21) is impossible because the only two points of contact of the former to the latter have been disturbed: the modern tile drain has destroyed the junction of the layers against Feature AA in suboperation 1A (p. 23) and the apparent relaying of the water pipe into suboperation 1C has confused the sequence there (p. 29).

One last discovery, Intrusion D, remains to be described. This, as already noted, consisted of unfaced stones mortared together, and appeared on both sides of suboperation 1A (figs. 35, 36, 18, 31). However, while it appeared as an area 2' high by 1½' wide on the W side of the trench (figs. 18, 31) on the E wall it took the form of an area almost 6' long by up to c. 2' high (figs. 35, 36). Over most of the line of the trench, however, there remained no more than a few isolated stones, and it appears that in that area the wall if such it is, had been robbed, or otherwise destroyed. This
feature was set through Layer 4 and into Layer 5, but is was impossible to find actual evidence of its trench, indicating that the stone must have been fitted carefully into a foundation trench and enough mortar used to block the intertices. Layer 3 overlay it, and assuming that the remains found are the foundations of a removed structure this would indicate that this removal occurred prior to the deposit of that layer - i.e., prior to 1860-2, if the tentative date suggested earlier for this layer is correct. If the part of this wall shown on the east side of the trench at one time continued north then the remains are earlier than Feature AA, for the latter and its associated construction trench (Intrusion A) appear to cut it. No trace of this wall - Intrusion D - appears in suboperation 1B, and not enough was uncovered to give any clear indication of its form of use. One tentative suggestion is that it was connected with the Blockhouse built here in 1796 and which must have been removed by the time the first guardhouse was built, but this is no more than a suggestion.

CONCLUSIONS

In as much as the reason for the subsidence of the SW corner of the Hough House sunroom wall was revealed, the immediate purpose of the excavation was fulfilled. The subsidence was the result of the building of the last 4'6" of the S wall and an unknown length of the W wall of the sun-porch on top of an unconsolidated mass of brick rubble which resulted in the concrete foundation of the sunroom, and with it the brickwork of the wall, splitting at the point where the solid foundation ended, and settling. Why such a extraordinarily poor piece of work should have been permitted, especially at a corner, is more difficult to explain. However, both Botsford and Mr. Marsh, editor of the
Amherstburg Echo, noted that Hough Sr. was a skillful manipulator of financial deals, that many local people found themselves in debt to him, and the he was unpopular: they also noted that he was in the habit of using a modern system of the corvee by using his debtors to build part of his house instead of paying him the money, and it seems possible that either his "labourers" were completely incompetent - which is not unlikely - or that some of his debtors deliberately did second-rate work of his part of the building and covered it up before it was seen.

As regards gaining information and material from the period of the fort (1796-1859) - or for that matter from the post-fort period - the excavation was not successful. In the small area excavated, and with the amount of time available, it was generally not possible to interpret structures found, or even stratigraphy, in anything more than isolated fragments. In the complex welter of ruined structural remains uncovered not even the remains of the brick guardhouse could be definitely identified. Little significant artifact material was found.

SUMMARY

Excavations at Fort Malden, Amherstburg, Ontario, 18 miles south of Windsor were undertaken to determine the cause of subsidence of one wall of the Hough House, one of the museum buildings on the site, which was known to be on or extremely close to a guardhouse of the fort. Construction of the original fort commenced in 1796; it was modified during and after the War of 1812 (during which war it was for a short time in American hands) and occupied until 1859, when it became an insane asylum, which it remained until 1872 when the land was sold to private individuals.

The guardhouse in question was commenced in 1821 and
must have been built on or extremely near the site of an earlier blockhouse; it had been modified by 1839 and when the fort was converted to an asylum the guardhouse was used as the boiler-room for the newly-built adjacent laundry. In 1875 the laundry was converted into a planing mill and remained as this until 1917. In 1921-2 the building was converted into a private house (the present Hough House museum) and the guardhouse demolished to be replaced by a sunporch.

In view of this extremely complex sequence of buildings and modifications, it is not surprising that in the limited trenches laid out to determine the cause of wall subsidence a confused welter of largely amorphous walls and stone structures was exposed which proved largely impossible to relate to the historical sequence. The cause of the wall subsidence was revealed, being the result of its foundation resting on an unconsolidated mass of collapsed brick from a wall that may have been connected with the 1821 guardhouse, or rather its modification from a wooden structure to a brick one sometime before 1839. While some of the other structural remains could be placed in sequence relative to each other and to this brick wall their purpose remained obscure - intrusive trenches carrying water pipes - no doubt connected with the subsequent use of the guardhouse as a boiler-room - and a drain pipe were also found. Little of interest in the way of finds was discovered.
REFERENCES

1 National Historic Parks and Sites Branch Files, H3/440; 1796
2 Ibid., H4/450; "Plan and Elevation of an Ordnance Storehouse and Blockhouse erected at Fort George, Amerherstburg, and St. Joseph, 1796."
3 At present missing from NHPSB files.
4 NHPSB Files, H1/440; "Sketch of the Post at Amherstburg, Upper Canada...[1800]."
5 At present missing from NHPSB files.
7 NHPSB files, H4/450; 1823.
8 Ibid., no number; "Plan...explanatory to the accompanying Returns called for by the Honlbe Board's Order dated 14th May 1839."
9 Ibid., H3/440; 1836.
10 Durnford, 14th November 1820, p. 25, c. 409.
11 PAC, RG8, vol. 81, 24th Sept. 1823.
12 NHPSB files, H4/450; "Plan Sections and Elevations of the Building at Amherstburg [1823]."
13 Ibid., H4/450; 1840 (map, plan).
14 At present missing from NHPSB files.
15 NHPSB files, no number; "P.L. Asylum, Fort Malden... 1859."
16 In east room top floor of Hough House Museum as of June 1966.
17 Ibid.
19 "Report on the Malden Lunatic Asylum for the Year 1862"
in Annual Report on Asylums, Prisons, etc. 1862,
Sessional Paper 66, Sessional Papers of Province of
Canada, 1863, XXI, vol. 5.
20 NHPSB files; no number; "Copy of Topographical Map
showing present conditions of Grounds at Fort Malden
[1956] Copy of 1904 survey map.
21 "Report of the Malden Lunatic Asylum," Andrew Fisher,
Amherstburg, 15 Jan. 1861 in Annual Report on Asylums,
Prisons, etc. 1860, Sessional Papers, vol. 4, Fourth
Session of the Sixth Parliament of the Province of
Canada, Session 1861, vol. XIX, No. 4.
22 as (19).
23 as (21).
24 G. Ingram, Men's Brick Barracks, Fort Malden (1964) 7,
typescript, Historic Sites Division Files.
25 INA files FM2-1.
26 NHPSB files, no number; "Plan of village lots...of
Amherstburg...21st April 1875."
27 INA files FM2-1; letter from Superintendent, Ordnance
and Admiralty Lands Branch, Dept. of the Interior, to
the Commissioner of the Canadian National Parks, dated
2nd October 1960.
28 Amherstburg Echo, 22nd February 1878.
30 INA file FM2-1.
31 Loc. cit.
32 Op. cit., FM-2; letter from Hough Jr. to Controller,
National Parks Bureau, 4th September 1945.
33 as (31).
34 as (32).
1a Position of Fort Malden (arrowed) showing its strategic location commanding the E channel—formerly the only navigable one—of the Detroit River. Bois Blanc Island top left.
lb View, looking east from salient angle of northwest Bastion of Fort Malden, of east channel of Detroit River. Bois Blanc Island in background. (4H-1-X)
Plan of first Fort Malden, dated 1796
(at present missing from National Historic Parks and Sites Branch files).
3 Ordnance store and Blockhouse of first Fort Malden, an approximate site of Guardhouse of second Fort Malden. (Public Archives of Canada,)
Plan of first Fort Malden, dated 1800. (Public Archives of Canada.)
Plan of the Fort at AMHERSTBURG

PLAN OF THE FORT AT AMHERSTBURG

RIVER DETROIT

Scale 100 feet to the inch

W. M. Woodford, Esq.,
Comd. March 1823.
6 Floor plan of Guardhouse of second Fort Malden, dated 1823. (Public Archives of Canada.)
Plan of second Fort Malden, dated 1839-40.

[Public Archives of Canada]
Plan of Guardhouse at Fort Maiden, dated 1840.

(Public Archives of Canada.)
Photograph, perhaps datable to first decade of 20th century, of Park and Borrowman's planing mill at Fort Malden, looking west. The Brick extension to the south is part of the boiler house and almost certainly was part of the brick guardhouse of the second Fort Malden.
12 Photograph, possibly taken at the same time as fig. 11 (cf. amount of snow in each) of Park and Borrowman's planing mill at Fort Malden, looking east. Wooden extension to south appears to be part of boiler house.
Photograph, taken c. 1923, looking west, of Hough's residence "The Fort" (now known as the Hough House) immediately after its conversion from the Park and Borrowman planing mill. The sunroom and sleeping porch is the addition at the left.
Undated photograph looking north from interior of southwest Bastion showing south end of Park and Borrowman's planing mill with boiler house (including the apparent remains of the brick guardhouse) just visible.
15 South end of Hough House before excavation, showing sunporch and sleeping porch looking northwest. The cracking of the wall due to subsidence can just be seen to the right of the drainpipe at the left corner of the sunporch. (4H-3-X.)
16 Close-up, before excavation, of cracking of the wall of sunporch due to subsidence. Looking northwest. (4H-4-X.)
19 South end of west side of Suboperation 1A (compare with fig. 20). (4H-38-X.)
20a  General view, looking east-northeast, of excavations against south end of Hough House. (4H-77-X.)
20b General view, looking west, of excavations against south end of Hough House. (4H-73-X.)
APPARENT BUTT JOINT

AA RUNS UNDER CC

HOUGH HOUSE SUNROOM WALL

NOT TO SCALE

Diagramatic plan of feature revealed during excavations against south end of Hough House (compare with figs. 20a and 20b). (4H-66-102-4.)
22 Features AA and BB looking south-east, showing whitewash on the part of Feature AA behind the range pole. (4H-82-X.)
Features AA and BB looking south-west, showing difference between part of Feature AA behind the range pole with its smooth pointing and whitewash, and Feature BB on right with its rough pointing and butt-pointing to Feature AA (its east-west part). (4H-79-X.)
24a West side of Feature EE showing English Bond construction and butted joint in middle of Feature. (4H-96-X.)
25a East side of Feature FF showing English Bond construction and soot-covered faced sandstone under brickwork. (4H-99-X.)
26 Part of Suboperation 1A and 1C, looking north-east and showing mortar squeezed out between bricks of Feature AA (behind range pole). (4H-92-X.)
27a North end of Suboperation 1A against sunroom wall with brick rubble (Layer 8) removed only as far down as the base of sunroom wall foundation. (4H-26-X.)
27b Same view as in Fig. 27a but with approximately a foot more of Layer 8 removed, showing that this layer of brick runs under the foundation. (4H-54-X.)
Suboperation 1A, looking northwest, showing large earthenware and one small metal pipe running east-west. (4H-66-X.)
Suboperation 1B, looking southwest, showing large earthenware and two small metal pipes running east-west; also stone for possible base of a post. (4H-69-X.)
Suboperation 1A, looking east, showing trench for pipes in suboperation side and floor. Note that Layer 2 appears to continue into the trench as its fill (compare with Fig. 31). (4H-65-X.)
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32 Drawing and photograph of south side of Suboperation 1C. (4H-89-X.)
Suboperation 1B looking south, showing brick 'wall', perhaps a temporary barrier. (4H-49-X.)
Post and stone base in Suboperation 1A set into natural clay (footer trench visible to right of post.) Looking southeast. (4H-41-X.)
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Archaeological Salvage at Hough House,
Fort Malden
by John Dewhirst
1974
Archaeological Salvage at Hough House,
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Abstract

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Abstract

This report records archaeological features exposed during installation of a drainage system around Hough House, Fort Malden National Historic Park, Amherstburg, Ontario, in November 1974. The foundation remains of three earlier structures were uncovered; one relates to features from earlier salvage excavations by Iain Walker (1967). His findings are reinterpreted here in light of the recent archaeology and history of the site.
Preface

This report describes archaeological salvage conducted from 7-10 November 1974 as a result of excavations for a drainage system for Hough House, Fort Malden National Historic Park, Amherstburg, Ontario. The excavations appreciably altered the west side of Hough House, and revealed the foundation remains of three earlier structures. One of these foundations is clearly related to a complex series of features exposed in limited salvage excavations on the south side of Hough House in 1966 by Iain Walker (1967). His findings are reinterpreted in light of the recent archaeology and history of the site.
Historical Background

Historical information on Fort Maiden is reported by Lee (1963), Ingram (1964), and Walker (1967). The reader should consult Walker's report which relates the history of the fort to the site of Hough House, and has special relevance to the archaeological findings discussed here. Rather than reiterate the data of the above three reports, only information which appears relevant will be drawn upon.

Fort Maiden was built in 1796-9 to control the Detroit River and to counter the influence of Fort Lernoult at Detroit, ceded under the Jay Treaty to the United States. Relatively little is known about the early stages of Fort Maiden. A plan dated 1800 (Walker 1967: Fig. 4) shows a large blockhouse on or near the site of Hough House; about 24 feet south of the blockhouse and in the same alignment is a smaller building labelled "storehouse for Indian Department". The blockhouse, labelled "an Ordnance Storehouse and Blockhouse" on a drawing of 1796 (Walker 1967: Fig. 3), measured 84.5 ft. long by 23.5 ft. wide, and had foundations about 1.5 ft. thick. Judging from the plan of 1800, the storehouse was the same width as the blockhouse, but only about one half as long. In 1813 these buildings were burned by a retreating British army, and Fort Maiden fell into American hands. The Americans partly rehabilitated the fort, but in 1815 it was restored to the British, who replanned it as a smaller fort.

In the replanned fort a guardhouse was built adjacent to the present site of Hough House, and two frame buildings
were constructed either on or partly on the present site of Hough House. Documents of 1823 (Walker 1967: 4, Figs. 5 and 6) show the guardhouse as a one storey frame building measuring 25 ft. by 20 ft., with a verandah on the front, but with no indication of a cellar or basement. Two plans of 1840 (Walker 1967: Figs. 7 and 8) show a brick one-storey guardhouse with the verandah extended on the east and west sides; the foundations measure 24.5 ft. by 20.5 ft. thick. No cellar is indicated. One of the 1840 plans (Walker 1967: Fig. 7) shows "F [rame]d. Cells" about 6 ft. north of the guardhouse and in the same alignment and on the present site of Hough House; these cells measured approximately 35 ft. by 25 ft. The same plan shows a "F [rame]d. Cook-house" about 6 ft. north of the cells, and in the same alignment on the east side.

In 1859 the fort became the provincial lunatic asylum. A plan of August 1859 (Walker 1967: Fig. 9) shows that the guardhouse was to be the "porter's apartment"; the frame cells, "male solitary cells"; and the cookhouse, the "laundry". However, many of the proposed conversions were likely changed. A fire in October 1859 destroyed the ironing and drying house, and severely damaged the adjacent pump and wash houses. The locations of all these buildings are not known, but presumably they were in, or near to, the original asylum laundry or former frame cookhouse. In 1862 the new laundry opened. The guardhouse appears to have been the boiler room for the new laundry. In 1870 the asylum was moved. In 1874 the federal government acquired the land, divided it into lots, and sold them locally.

The lumber firm of Park and Borrowman acquired the laundry and converted it into a planing mill in 1876. A report in the Amherstburg Echo of 13 April 1876 provides several important details about both the laundry and
planing mill:

Had the buildings on Laird Avenue been built especially for their business, they could hardly have been better adapted for all its requirements, and they have now a door, sash and planing mill superior to any in the county. The main brick building formerly used as a laundry has been fitted up with their machinery and as a workshop, and so solid is it, that hardly a jar is perceptible when all the belting and machinery in the three stories is in full blast at once. On the ground floor they have placed their mortising machine, planing machine, rip, buzz and other saws. The main floor is laid with solid stone and concrete and the only wood in the whole building being the upper floors, joists and rafters, there is little danger from fire. . . . Their large engine has been placed in the old boiler room, which formerly contained the machinery for supplying all the buildings with water, and their water supply will be obtained through a pipe which extends into the river. This place is perfectly fire-proof, being solid brick with tinned roof, with the latter of which the main building is also furnished.

A plan of the grounds dated 1904 (Walker 1967: Fig. 10) shows the planing mill with a building labelled "old guardhouse (1812)" adjoining on the south side. The west
wall of the "old guardhouse" projects slightly beyond the west wall of the planing mill, and the "guardhouse" covers only about 25 ft. of the adjoining south side of the planing mill.

After 1904 the "guardhouse" was enlarged, because three undated photographs (Walker 1967: Figs. 11, 12, 16), probably taken after 1904, show the "guardhouse"—then boiler house—adjoining the whole south side of the planing mill. The photographs clearly indicate that the west and east sides of the boiler house were constructed at different times. The older, west side, which projects slightly beyond the planing mill as in the 1904 plan, is covered with narrow boards. On the recently built east side, the first storey is brick and contains the lower part of a large brick cylindrical chimney, but the second storey is covered with wide boards. Thus, it appears that after 1904 a chimney and furnace(s?) were added to the east side of the boiler room and to the rest of the south side of the planing mill. It is also important to note that the brick structure described in the Amherstburg Echo in 1876 was no longer extant when the photographs were taken. Just when the boiler house was changed is not known at present. Possibly when it was enlarged the older structure was rebuilt.

By 1918 Hough had acquired the land, and in following years he altered many buildings in the fort. In 1921-22 Hough began to convert the planing mill and boiler house to what is largely now Hough House (Figs. 1-4). Gables, cornices, dormers, side windows, archways, and a chimney, etc. were added. The boiler house was demolished, and a two-storey sunroom and sleeping porch was built onto the south end of the house. A basement with window wells was constructed under the main part of the house, but not under the sunroom. At a later date a patio extending along the
whole west side of the building was added. Apart from the National Parks Bureau's conversion of Hough House to a museum and administrative offices after 1945-6, the building has remained much the same until recent alterations which necessitated salvage archaeology.
Excavations of the northeast side of Hough House encountered at 7.2 ft. east of the concrete footing, the face of a foundation wall. The wall is oriented north-south and consists of at least three courses of mortared unfaced stone (profile A-A\textsuperscript{1} on Fig. 5; Fig. 6). It is difficult to determine without further excavation whether the outer or inner face of the wall was encountered. The adjacent undisturbed dark brown clay suggests that a foundation trench for the wall was dug more to the east, and the stones were set against a vertical clay face in the trench, thereby suggesting that we encountered the outer face. However, directly above the undisturbed clay is a layer of charcoal with no intervening layer of topsoil. This would indicate that the topsoil on this side of the wall was removed; possibly the clay served as a floor?

The layer of charcoal may come from the wooden superstructure of the same building. The only buildings known to have been burned in this area are the ordnance storehouse-blockhouse of 1796-1813, and the frame cells and cookhouse of the replanned fort. The two latter buildings were likely more to the west, more or less on the site of Hough House. Possibly the charcoal layer and foundation belong to the ordnance storehouse-blockhouse.

The overlying layer of dark brown clay surrounding the projecting piece of mortar is the same colour as the sterile, undisturbed dark brown clay. The clay layer overlying the charcoal appears to have been used as fill; it may also be backdirt from a foundation hole.
The mortar layer appears to have come from construction of nearby buildings, possibly the frame cells, the cookhouse, or even the new laundry (now Hough House).

The light brown fill of clay, pebbles, and brick fragments is probably linked to 20th century alterations of the Hough House. Possibly this layer comes from construction of the basement and alterations to the superstructure.

The overlying layer of sand suggests mixing of concrete. Hough House has a concrete wall footing and concrete window wells which were formed only on one side with board forms; the other side was left as rough earth, and the cement took the form of the hole into which it was poured.

Two foundation remains were encountered on the north side of the house. These are probably from the frame cookhouse later converted to the first laundry of the asylum. Unfortunately construction of the window wells disturbed the archaeological context here considerably. The problems of digging around and removing the window wells further disturbed the context so much that it was unrecordable.

Removal of the patio and excavation on the west side of Hough House unearthed some large fragments of cedar (?) post or posts, likely part of a palisade known to be in this area. However, exact provenience of these remains could not be determined. The third group of foundation remains were uncovered between the southwest corner of Hough House proper and the west wall of the sunroom. Here a 1.0 ft. thick wall formed of three bricks laid side by side originally abutted the south wall of Hough House. At 1.5 ft. west of the southwest corner of Hough House, the wall formed a corner and ran southward. Hypothetical extensions of the wall to the south and east are shown on Figure 5. Very little of the wall abutting
Hough House was extant (Fig. 7). A large part of the corner was intact (Figs. 7-9), but to the east the wall was knocked in for fill, and removed by construction of the window, window well and drain—all later buried by the patio. Part of this wall probably also became fill for the base of the sunroom, and can be seen in Figures 8 and 9. The south leg of the wall had also been knocked in to fill the cellar when the building was demolished, but the lower 1.5-2.0 ft. of the south leg (Fig. 10) appears extant. Inside of the wall and 7.5 ft. below the top of the recent concrete footing of Hough House is a cellar floor of large angular stone slabs joined with mortar or concrete (Figs. 8, 9). Dimensions of some of the floor stones are: 1.4 ft. by 1.0 ft.; 1.9 ft. by 1.3 ft.; 1.3 ft. by 0.8 ft.; and 1.3 ft. by 0.9 ft.

The brick corner uncovered is clearly the foundation of the boilerhouse for the planing mill shown on undated photographs probably taken after 1904 (see Walker 1967: Fig. 12); the north side of the boilerhouse adjoining the south side of the planing mill projected slightly westward as does the uncovered brick corner. It was not known, however, that the boilerhouse also had a cellar. This cellar, the rubble fill and hypothetical projections of the brick wall are related to remains found by Walker (1967). The relationship between the recent finds and his remains is discussed later in this report.

Artifacts Recovered
Because the archaeology was salvage in nature, essentially observing material unearthed by the backhoe, exact proveniences of artifacts could not be determined. Therefore, only artifacts which were complete or unusual items, or related to building features, were saved. Few artifacts
were collected. Only two merit discussion here.

A complete stoneware bottle manufactured by J. Bourne and Son was unearthed on the west side of Hough House by the backhoe. The bottle dates to 1850-1860.

An unusual purple heavy glass artifact, flat on one face and ridged on the other may be a large pressed glass window. The purple colour suggests pre-World War II manufacture. This artifact was found with several other pieces near a window well (Fig. 8) covered over by the patio, on the south wall of Hough House proper near the corner where the west side of the sunroom joins. Possibly this very heavy glass was used on windows of the lunatic asylum.
Reinterpretation of Walker's Salvage Archaeology

The recent archaeological findings on the southwest side of Hough House, and possibly the wall on the east side, relate to archaeological features uncovered by Walker (1967), and prompt review and reinterpretation of his findings.

Walker unearthed a complex series of foundation remains and other features (1967: Figs. 19, 22a, 22b, 26a, 26b) which he labelled with double letters AA to HH (1967: Fig. 23). In reviewing Walker's discussion of these features, some omissions and discrepancies between drawings, photographs, and text were noted:

1) Figure 26a shows the east side of Feature EE, not the west side.
2) Figure 27a shows the west side of feature FF, not the east side.
3) The brick wall (Feature AA) in the section drawing of Figure should be 1.0 ft. thick, not 0.5 ft. thick.
4) Figure 19 shows the sunroom extending 13.5 ft. from the south wall of Hough House proper. However, a recent plan drawing of Hough House (Technical Services Reference No. HOFM74/R36) indicates that the sunroom extends 14.5 ft. Assuming that this drawing is accurate, the 1.0 ft. difference bears on the interpretation of Feature AA (1967: 22); thus, Feature AA is not 20 ft. 6 in. from the south wall of Hough House--a distance which corresponded with the width of the brick guardhouse in the plan.
of 1840.

5) An important feature, called Intrusion DD (1967: 30-31, Figs. 20, 36, 40, 41), has been omitted from plan drawings of the excavation. Intrusion DD is a wall of unfaced stones mortared together, and runs in a north-south direction just south of Feature AA. It appears that Intrusion DD once extended where Feature AA is now, but was removed by the construction of AA.

6) Figures 22a and 22b indicate that Feature EE should be approximately 1.0 ft. more to the west than shown on Figures 19 and 23. Correspondingly, DD should be about 0.5' narrower.

7) An important omitted feature attaches to the north end of Feature EE. This is a brick wall about 1.5 ft. wide, and runs north under the sunporch where the concrete foundation projects from the middle of the sunroom (Figure 26a).

8) According to the text, Feature GG is a gap 2.5 ft. wide (1967: 14), but on Figure 19 it is only 2.0 ft. wide.

9) Figures 22a and 22b indicate that Feature GG on Figures 19 and 23 is incorrectly placed; it should be about 1.0 ft. more to the west.

10) Figures 22a and 22b indicate that Feature EE and the mortared stones to the south of it, on Figure 19, should be about 1.0 ft. more to the west.

11) Figures 22a and 22b show that Features FF and HH on Figures 19 and 23 should be about 1.0 ft. more to the west. Feature FF on Figure 19 also appears to align incorrectly with Feature EE. Figures 22a and 22b suggest that the north edge of FF aligns with the butt joint of Feature EE, and that the south edges of EE and FF do not align as shown in
Figure 19.

12) Figures 22a and 22b show that Feature HH runs under the sunroom wall and to the east beyond the excavation limits, but this is not shown or noted.

A plan showing the relationship to Hough House of the recent archaeological findings, the corrected proveniences of Walker's features, and the probable unexcavated projections of archaeological features (Fig. 5) facilitates reinterpretation of the major remains from the most apparent oldest to the most recent.

The oldest feature is Intrusion DD, the unfaced stone wall which appears to have been removed at one end by construction of brick Feature AA, now known to be part of the boiler room for the asylum laundry of 1862. Therefore, Intrusion DD predates Feature AA and the other features added to AA. The only pre-1862 buildings known in this area are the frame guardhouse of ca. 1815-ca. 1839, the brick guardhouse of ca. 1839-1859?, the ordnance storehouse-blockhouse, and the brick guardhouse (assuming its foundation was of stone). Little is known of the foundations of the frame guardhouse, and nothing is known of the storehouse construction. Thus, Intrusion DD might be the remains of any one of these four buildings.

The possibility that Intrusion DD was in some way related to the wall recently encountered near the entrance to Hough House (Fig. 6) is remote. Both features are parallel to each other in a north-south alignment. Thus, it is conceivable that if Intrusion DD were the west wall of the ordnance storehouse-blockhouse or the west wall of the Indian Department storehouse, the newly discovered wall which extends for an unknown distance to the south might be the east wall of the ordnance storehouse-blockhouse. However, both these buildings were about 24 ft. wide, and the distance between Intrusion DD and a hypothetical
extension of the wall is approximately 35 ft. Therefore, the newly found wall is likely a feature some unknown structure.

Feature AA and the brick rubble fill bordering it and Feature BB are clearly related to the recently uncovered northwest corner of the boilerhouse for the Park and Borrowman planing mill which operated from 1876 to ca. 1918. Both walls have the same size and type of bricks, and the same construction. If Feature AA and the corner of the boiler house are projected (Fig. 5), they form a nearly square structure with foundation walls measuring 1.0 ft. thick, 20.5 ft. (east-west), 21.5 ft. (north-south), and about 7.0 ft. deep (west of Feature BB). This structure west of Feature BB also contained a cellar with a floor of large flat angular unfaced stones set in mortar or concrete.

Our available historical information suggests that this structure had evolved from the brick guardhouse on the plan of 1840, but comparison of features basic to the two structures shows little similarity. The guardhouse was a one-storey brick building with no cellar; the foundations, presumably also of brick, measured 24.5 ft. (east-west) by 20.5 ft. (north-south), 2.0 ft. thick, and about 2.0 ft. deep. The only basic features tentatively shared by this guardhouse and the above described boilerhouse are brick foundations and presumably the same site. Therefore, it seems very unlikely that the brick features revealed by both excavations are in fact the original brick guardhouse. Possibly conversion of the guardhouse to the boilerhouse for the new laundry in 1862 was extensive enough to include a cellar and shortening of the building. It is tempting to speculate that the guardhouse was damaged in the fire of 1859, was torn down, and its bricks were used for foundations of the boilerhouse rebuilt on
more or less the same site for the new laundry in 1862.

Assuming that the northwest corner of brick and Feature AA (and probably BB) are part of the laundry boilerhouse of 1862, we can interpret the other subsequently constructed features accordingly.

Feature BB, which abuts the outer foundation wall AA, is the east wall of a cellar that did not extend over the whole building plan.

The 1876 newspaper report discussing the conversion of the laundry to the planing mill provides us with some clues for interpreting Features CC to EE. The report notes that the "main floor is laid with solid stone and concrete" and that the "large engine" was placed in the old boiler room of the laundry. It seems that a strong floor was required to support this machinery, and this may account for the heavy construction of Features CC and DD, both unfaced stone structures. Thus, the arm of AA which runs to the north, under the sunroom (Walker 1967: Fig. 22a), was removed for the construction of CC, a strong mortared stone platform. This structure was also extended slightly to the east with the construction of DD to fill out the corner, and EE to extend the wall. It is not clear why the bricks of EE would be added here; they appear to project about 0.5 ft. from the wall, and may have served as a doorsill. In any case, remains of the extended east wall join to the north end of EE and run to the north, under the sunroom at the concrete projection of the sunroom foundation (see Walker 1967: Figs. 22b, 26a). The shape and size of the boiler room now is very close to that shown on the plan of 1904 (see Walker 1967: Fig. 10), therefore the features to the east probably were constructed after 1904. They are undoubtedly linked to the enlarged boilerhouse of wood and the large chimney shown in the three early photographs (see Walker 1967: Figs. 11, 12, 16).
The brick rubble west of Feature BB is probably fill of the walls of the brick boilerhouse pushed in when the boilerhouse was enlarged and rebuilt (?) in wood after 1904.

Feature GG, a gap 2.5 ft. wide between Features DD/EE and FF/HH, contained two metal pipes running north-south. These probably supplied the boilerhouse with water from the river. The pipes would not have been permanently covered over with stone or brick, so that repairs or additions, etc. could be made. The fragments of burnt wood, cinders and soot found in this gap by Walker (1967: 18-19) may be the remains of wooden flooring.

Feature HH is not a "general flat expanse of mortared stone forming no apparent structure" as described by Walker (1967: 14). Although the workmanship of HH appears not as well finished as that of Features CC or DD, Feature HH does have structure. Its west edge is parallel to Feature EE, and its south edge aligns directly with the south edges of Features AA and DD. The north edge is under the sunroom, and the east edge is unexcavated. Feature HH is a more or less flat platform of mortared unfaced stones, similar to Feature CC. Feature HH was the floor and supporting structure for the post-1904 enlargement of the boilerhouse with the large chimney as shown in the undated photographs (see Walker 1967: Figs. 11, 12, 16). Thus, the unexcavated east edge of Feature HH probably aligns with the east side of Hough House proper as projected on Figure 5.

Feature FF, the 2.5 ft. by 3.5 ft. mortared brick platform built on Feature HH served an unknown function. However, the position of Feature FF in relation to the south side of Hough House proper approximates that of the boilerhouse chimney (See Walker 1967: Fig. 16). Feature FF may have part of the chimney base.
References Cited

Ingram, George C.
1964
"Fort Malden, Amherstburg, Ontario." Manuscript on file, National Historic Parks and Sites Branch, Parks Canada, Ottawa.

Lee, David
1963

Walker, Iain C.
1967
1 The east side of Hough House, 7 October 1974. (4H-113-X.)

2 The south side of Hough House with the added two-storey sunroom, 6 October 1974. (4H-105-X.)
3 Hough House seen from the northwest, 6 October 1974. Recent alterations removed the concrete patio and stone retaining wall; the ground was then sloped from the west side of the house proper to the ditch in the foreground. (4H-111-X.)

4 The north side of Hough House, 7 October 1974. Parks staff are removing the iron railing from the balcony and locating underground wiring and water pipes in preparation for the building alterations. (4H-116-X.)
Plan of Hough House adapted from Technical Services drawing reference number HOFM74/R36. Features excavated by Iain Walker in 1966 lie south of the sunroom, and his labels are retained (Walker 1967). Recent excavations are labelled 4H2A1. Hypothetical extensions of features are shown with broken lines. Indicators of brick and stone features are purely symbolic, and do not represent actual bricks and stones. A-A[1] shows the location of profile A-A[1] in Figure 6. (4H-74-102-1.)
A concrete footing of Hough House

rough concrete pour of window well

light brown fill of clay, pebbles, brick

mortar

dark brown clay

undisturbed dark brown clay

0 2 feet

foundation wall of unfaced stones

mortar edge of foundation

sand

topsoil

topsoil

light brown clay
Unearthed cellar floor, brick northwest corner of boilerhouse, collapsed wall and formerly buried window well on south wall of Hough House proper. (4H-1-M.)
Backhoe trench looking east, revealing unexcavated north-west corner of boilerhouse, cellar floor of mortared flat stones, formerly buried window well, and brick rubble of collapsed wall extending under added sunroom. (4H-6-M.)
Excavated northwest corner of boilerhouse, cellar floor, and brick rubble of boilerhouse walls pushed into cellar for fill. Looking slightly southeast. (4H-13-M.)
Stratigraphy of the backhoe trench west of the south leg of the northwest corner of the boilerhouse, looking south. Remains of the south leg are on the left, set against dark brown clay. Overlying the clay is brick rubble from the south leg of the cellar wall. This rubble rests on what was probably an earlier "living surface" in the 19th century. The earth above the rubble appears to be relatively modern and disturbed from banking up fill for the patio base and construction of a modern drain and nearby septic tank. The notches on the ruler at the left indicate divisions of 0.5 ft. (4H-19-M.)