

Nova Scotia



Department of
Education

Nova Scotia Museum

Curatorial Report Number 74

Archaeological Investigations on the Uniacke Estate, Hants County, Nova Scotia, 1992

Museum Services Division
Nova Scotia Museum
1747 Summer Street
Halifax, Nova Scotia, Canada
B3H 3A6

By Laird Niven
July, 1993



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Nova Scotia Museum Curatorial Reports

The Curatorial Reports of the Nova Scotia Museum make technical information on Museum programs, procedures and research accessible to specialist audiences.

This report contains the preliminary results of an ongoing research program of the Museum. It may be cited in publications, but its manuscript status should be clearly indicated.

ABSTRACT

The information presented in this report represents the preliminary findings of the 1992 archaeological investigations on the Uniacke Estate, Hants County, Nova Scotia, a part of the Nova Scotia Museum since 1960. Richard John Uniacke, Attorney General for Nova Scotia, acquired the 11,800-acre property during the period 1786-1821.

The archaeological research component of the Uniacke Estate project was designed to evaluate the physical remains of three general areas: the haha wall, the outbuilding area, and the hothouse. These are all believed to be original features of the estate.

The archaeological investigation met with varying degrees of success. No physical evidence of the outbuilding was found, although the presence of artifacts dating to the first half of the 19th century indicated early activity. The haha wall was located where expected and is in stable condition. The site of the "Upper Hot-house" was also confirmed, but it was much larger, more complicated, and contained more artifacts than anticipated. The hothouse site is in unstable condition and must be a priority for future archaeology.

ACKNOWLEDGMENTS

This report would not have been possible without the support of the Nova Scotia Museum and especially Sheila Stevenson and Alex Wilson. Thanks to my assistants Kent Hodges and Heather MacLeod. The work of volunteers was essential to the success of the project. The following people graciously volunteered their time throughout the summer: Peter and Joan Steffin; Jan Millar; Leslie Card; Shawn Miner; Lyz White; Mark Gay; Mike Vance; Terry Eyland; Burton Howell; Sharon Blaise; Catherine Geddes; Henry Strong; Jason Layman; Brenda Boutilier; Goldie Robertson; and Martha Cody. My thanks as well to Bill Fougere and Carmen Stone and all of their students who took part in the excavations. Kent Hodges and Heather MacLeod also volunteered their time to assist the students. The interpretation staff at Uniacke House were constantly interested in the dig and aided by referring visitors to the areas. Sandy Middleton, Kevin Gay, and Andy Dillman were always willing to help with the more physical aspects of the project including clearing and backfilling the hothouse site. Dr. Steve Davis of Saint Mary's University and Dr. Brian Preston of the Nova Scotia Museum were also a great help, providing necessary field equipment and aiding with the editing of the report.

The cleaning and cataloguing of the artifacts proved to be an overwhelming task which was greatly aided by the assistance of Peter and Joan Steffin. The staff in the Nova Scotia Museum's Museum Services Division were extremely helpful, particularly Penny Brown, Paul Collins, Scott Robson, and Marie Elwood.

The burden of editing was very ably borne by Sheila Stevenson whose patience and insight are directly responsible for the positive aspects of this report.

Of course the greatest thanks goes to my wife Sherry who was a great help with the editing and who provided the love and encouragement so essential for struggling through a task such as this. Finally, thanks to my son John for just being himself.

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1. INTRODUCTION

The information presented in this report represents the preliminary findings of the 1992 archaeological investigations on the Uniacke Estate, directed by Laird Niven for the Nova Scotia Museum Landscape Committee. The Landscape Committee's purpose is to facilitate and support good landscape maintenance practices and interpretation within the Nova Scotia Museum. In the estimation of the Landscape Committee, this estate is a significant-but-underdeveloped heritage resource with great interpretive potential.

Richard John Uniacke, Attorney General for Nova Scotia from 1797 to 1816, established an estate, Mount Uniacke, about halfway between Halifax and Windsor, on the Windsor Road (Illus. 1, 2). Uniacke acquired the 11,800-acre property throughout the period 1786-1821, securing the actual house site in 1813 and completing construction of the house by 1815. Management of the estate would have consumed much of Uniacke's free time for there is historical evidence that he was involved in its day-to-day operations.¹ The Uniacke family continued to use the estate, mainly as a summer home, until 1949 when it was purchased by the Government of Nova Scotia. It is now part of the Nova Scotia Museum.

Archaeology has proven to be a valuable tool in the research and interpretation of estates throughout North America and Europe. It has been instrumental in the reconstruction of Thomas Jefferson's gardens and orchards at Monticello, Virginia, as well as his retirement home, Poplar Forest. Archaeology is used in the interpretation of physical environments and to provide information on the mundane everyday occurrences which are rarely recorded; e.g., the acts of eating and drinking which are much more

¹ "I have devoted to rural pursuits as much time as I could spare from the occupation of a laborious profession and after an experience of thirty five years..."(Uniacke to Young, 1820).

representative of life than political achievements.²

With funding from the Tourism Cooperation Agreement to enhance the visitor experience at the Uniacke Estate, the Nova Scotia Museum engaged specialists to do biophysical inventories, archaeology, and to produce management and basic interpretive plans.

The research components funded by the 1992-92 phase 1 project included³:

1. a biophysical study of the housesite.
2. a biophysical study of the backlands.
3. a documentary study of the garden landscape.
4. archaeological investigations of the haha wall, the barns/smithy area, and the orchard/hothouse.

The archaeological research component of the Uniacke Estate project was designed to evaluate the physical remains of three general areas: the haha wall, the outbuilding area, and the hothouse (Illus. 3). These are all believed to be original features of the estate.

The excavation strategy was based on historical research carried out by the author at the Public Archives of Nova Scotia and the Nova Scotia Museum as well as information contained in the *Uniacke Estate Seminar, 1989* (Stevenson, 1990) and Cuthbertson's *The Old Attorney General*. Three contemporary maps provided a good overview of the landscape of the estate (Illus. 4, 5, 6), and two watercolours by John Elliott Woolford (Illus. 7, 8) show many buildings on the estate in 1817. A final

²"Everyday life consists of the little things one hardly notices in time and space...The ways people eat, dress, or lodge, at the different levels of that society, are never a matter of indifference... It is fascinating, and I do not think pointless to try and reassemble these imageries" (Braudel, 1979: 29)

³The results of numbers 1 to 3 are appended to The Uniacke Estate Management Plan by Zuck and Assoc., submitted to the Nova Scotia Museum Landscape Committee in 1993.

important document is the estate inventory, compiled by two of Uniacke's sons in November 1830, a month after his death. It is a room by room list of material objects in each building, from the main house to the hothouse (Appendix 1).

A full-time crew of three worked from Sunday to Thursday for nine weeks, a total of 135 person days. The area excavated totalled 85.5m². The archaeology was designed to encourage public participation through a volunteer program aimed at educating the individuals in archaeological fieldwork and the history of the Uniacke Estate. Eighteen people of diverse backgrounds volunteered for the project, contributing 92 days of work. Two high school classes from J.L. Ilsley and Halifax West, supervised by Bill Fougere and Carmen Stone, volunteered for four days and provided 160 person days of work. The number of person days worked during the excavation totalled 387.

Explanatory signs were placed in strategic locations on the grounds to encourage people to explore the excavations and the estate and the interpreters in the house also encouraged people to visit the dig. The signs were designed to provide a brief explanation of the excavations and to expand the visitor's vision of the estate. One may often gain a better sense of an estate by wandering to the quiet, rarely visited areas and viewing the house within the context it was placed; in the case of the Uniacke Estate, a working farm designed after the principles of the English Landscape Garden⁴.

The public and the media displayed a high degree of interest in the project. A single newspaper article resulted in approximately 60 people coming to the Estate one Sunday, specifically to visit the excavations. Future archaeology on the Uniacke Estate would be a significant attraction to visitors if it were properly promoted.

⁴The English Landscape Garden developed as a reaction to the formal gardens of Europe and emphasised the 'natural' and the practical, often including a working farm within the overall design.

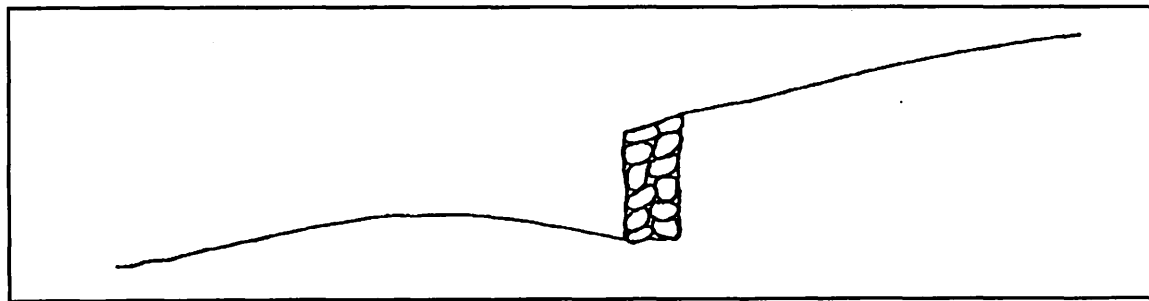
The archaeological investigation met with varying degrees of success. No physical evidence of the outbuilding was found, although the presence of artifacts dating to the first half of the 19th century indicated early activity. The haha wall was located where expected and is in stable condition. The site of the "Upper Hot-house" was also confirmed, but it was much larger, more complicated, and contained more artifacts than anticipated. The hothouse site is in unstable condition and must be a priority for future archaeology.

The excavation was followed by 31 weeks of analytical work by the author, including the washing, cataloguing, and processing of over twenty thousand artifacts. The artifact data were entered into a database to facilitate sorting and querying the records. This proved to be a very time-consuming task which detracted from the time spent mending and cross-mending artifacts. The preparation of the final report, including typing the text and preparing the line drawings and the field and artifact photographs, was started as well during this period.

2. THE HAHA WALL

Background

The crew first investigated the area believed to contain the haha wall. A haha is a retaining wall, built into a ditch to separate the lawn/garden area from the pasture without obstructing the view⁵ (Illus. 9). It was a common feature of English estates in the 18th century, and the Uniacke Estate example would have been elemental in the estate concept. The purpose of the excavation was to confirm the location of the wall, to establish construction and terminal dates, and to evaluate the condition of the wall. These aims were partially fulfilled; the wall was found well-preserved, but no physical evidence was found to support a construction date. The excavations totalled 27.5 m² on the east half of the haha wall (Illus. 10).



Illus. 9: A Haha Wall

No primary historical evidence referring to a haha on the Uniacke estate between 1813 and 1830 is known, although family oral history strongly suggested its presence (Mitchell, 1927). Physical evidence of the haha before excavation was a curvilinear

⁵“Writing long after the event, Horace Walpole saw, exactly and correctly, that the *ha-ha* marks the dividing-line between the formal gardens of French and Dutch origin and the landscape garden born in England in the eighteenth century” (Thacker, 1979: 181).

mound on the east and west lawns and the top of a stone wall hidden within the brush. An early 1820s map shows a semi-circle of trees in the area believed to be the haha (Illus. 5).

While no historical references to the haha in Richard John's time have been found, three pieces of evidence may help us establish a terminal date for the wall. Two are watercolours which Scott Robson of the Nova Scotia Museum dates to about 1870 (Personal Communication, 1993). One shows a thin black line, presumably the haha, and a couple of grazing sheep on the south side of the house (Illus. 11). The other, painted from the same spot, shows a fence in the area of the haha, presumably because the wall is no longer functioning (Illus. 12). The third piece of evidence is from Geraldine Mitchell's father's diary, dated 1881, which she partially transcribed, in which he says he put up a fence on the haha (Mitchell, 1927: 139). This fence may well have been the first one on the haha. The wall was subject to further disturbance by the estate caretaker after 1949.⁶

The Haha Wall Excavation

A curvilinear mound and depression on the east lawn were assumed to be a clue to the wall's location. The haha was assumed to be a symmetrical feature, with its centre corresponding to the centre front of the house, and its dimensions easily extrapolated to the west side (Illus. 10: 13, 14). Eight excavation units were placed at the centre of the wall and on the east lawn. The wall was found in 3 of the 8 units (Illus. 10: #4, 7, 8). The east central portion of the wall was approximately 1 meter high with a 1.5 meter band of levelling fill on the north (house) side (Illus. 15). No evidence was found

⁶“He [Mr. Stone] mentioned a swale or gully running diagonally from the driveway, south west, across the lawn. This gully was about 12 feet wide and 6 feet deep. He couldn't say whether this was man-made or natural. From his description, it is quite possible that this could have been the upper end of the haha. This gully was filled to make a smooth lawn” (Middleton, 1991: 71).

to provide information on the width of the ditch that must have existed on the south side of the haha.

The excavation units and their soil profiles are summarised below, moving roughly from north to south (Illus. 10):

1. This pit was located on the high ground east of the house, on the lawn, and was placed to look for the northeast extremity of the haha (Illus. 13, 17). The soil below the sod was a light brown loamy sand on top of stone fill (c.20-35cm), excavated to a maximum depth of 29cm. Few artifacts were recovered. No evidence of the wall was found.

2. This unit was located east of #1 and shares its stratigraphy. It was excavated to a maximum depth of 40cm. The wall was not encountered, but there was fill along the east wall of the unit at a depth of c.15cm representing the levelling of the high ground on the east lawn. Few artifacts were recovered.

3. This unit is east of #2 and has the same stratigraphy as #1 and #2, although the levelling fill was encountered at a depth of c.10cm, suggesting it increases in depth to the east (Illus. 16). This may relate to the levelling of the high ground for the tennis court that was there before 1949 (Mumford, pers.com.1992).

4. This unit is located 10 meters south of #2, in the middle of the east lawn (Illus. 13, 17). The same light brown loamy sand was encountered below the sod. At a depth of c.8.5cm, there were small rocks, 20-30cm in diameter. At c.16cm, the top of the wall was revealed, 40cm west of the east wall. The west side of the wall consisted of small rocks used as fill to bring up the grade of the lawn. The east side of the wall was filled with large stones, 40-60cm in diameter, as expected. Removal of two of these stones revealed glass and ceramics within the fill, providing the only direct evidence of an abandonment date. These artifacts date from the last quarter of the 19th century and are discussed in more detail below.

5. This unit is south of #4, at the lower end of the lawn (Illus. 13, 14). The soil below the sod was the light brown loamy sand, but a 60cm band of dark

brown sand ran through the centre of the unit. This dark soil contained many artifacts dating from the 19th to the 20th centuries and was most likely part of a twentieth-century dump located in the area during this century (Mumford, pers.com.1992). It was excavated to a maximum depth of 20.5cm. The wall was not encountered.

6. This unit is located south of #5. The same light brown loamy sand was encountered, and the top of the grade fill on the west side of the wall was found at a depth of c.15cm. Due to time restrictions it was not fully excavated.

7. This unit is located east of #6, on the east edge of the lawn (Illus. 17). This area was heavily overgrown with brush. Tree roots from a stump in the middle of the area were the cause of some disturbance. The northwest corner of the unit, below the root layer, contained the light brown loamy sand. The grade fill was encountered below this at a depth of c.20cm. The face of the wall was uncovered running from 2 meters south of the northwest corner to the centre of the south wall.

8. This unit, located approximately 50 meters south of the house, was the first to be excavated. The top of the wall was visible in this area, which was assumed to be the centre of the haha (Illus. 15, 18). It was located in a low area south of the lawn and was placed to encompass both sides of the wall. The east end of the unit contained a black/brown sand with many large rocks, presumably part of the filling-in of the wall. The excavation revealed that this portion of the haha was 75cm high and built on bedrock. The west side of the wall contained a medium brown loamy sand below the sod. At a depth of c.15cm was a c.2m band of grade fill consisting of stones c.10cm in diameter. One large stone appears to have been deliberately placed on the east side of the wall with a flat face up, possibly as part of the central stile⁷.

⁷stile: "steps, rungs, etc., arranged to allow person to get over or through fence or hedge or wall but excluding cattle etc". (The Concise Oxford Dictionary, 7th ed., 1986).

The Haha Wall Artifacts

A total of 341 sherds was recovered during the haha wall excavations. These are summarised in Table 1. They generally date from the last quarter of the 19th and into the 20th century, and were found in disturbed or uncertain contexts.

ARCHITECTURAL GROUP

Most of the sherds from this group are flat glass fragments. These are noticeably thicker than those from the hothouse, suggesting a later deposit (discussed below under Hothouse Artifacts, pp. 43-48). The other major part of the group was nails, mainly wire, which date from the end of the 19th century to the present. These nails are evidence of fencing that covered the area of the haha over the past 100 years.

KITCHEN GROUP

This group consists mainly of domestic ceramics such as refined and coarse earthenwares and includes the only artifacts which indicate when the haha was filled. These are described in more detail below.

The artifacts from E74.5S8-E76.5S9 (Illus. 10: #4) were found in context within rock fill on the east side of the wall, at a depth of at least 41cm, and were deposited when the haha was filled. They include a large fragment of a "Maritime-ware" bowl or pan, which has a hard red body, a white slip, and a clear lead glaze that is flaking.⁸ It is not certain if this is a local product or one imported from Britain. The second important artifact is the finish/body of a light blue/green glass bottle, made in a 2- or 3-piece vertical body mould.⁹ It probably served a medicinal function. The corner of a faint body panel is visible on one side and most likely held a label. This type of mould was

⁸BfCx:2:24363

⁹BfCx:2:24361

in use from c.1850 to the 1920s (Jones and Sullivan, 1985:28). The base of a liquor bottle manufactured in a Ricketts-type mould was found in the same context.¹⁰ Dating for this type of mould is from the 1820s to the 1920s (Ibid.: 29-30). The bottle compares exactly with two specimens at the Nova Scotia Museum.¹¹ The presence of these artifacts suggest the wall was not filled before the second half of the 19th century.

HORTICULTURAL GROUP

This group consists of 14 flower pot sherds, all from the same vessel. It has a plain rim, 98mm in diameter. The ceramic body of the vessel is light red/orange, soft, and free of inclusions.

Summary and Conclusion

The haha wall excavations confirmed the location of the wall on the east side of the main house. The wall's northeast terminus was not located. One test unit on the east lawn provided enough information to allow the conclusion that the wall was filled-in during the last quarter of the 19th century. Surprisingly, the wall did not appear to have been destroyed by the the filling. It is in reconstructible condition, although this would be a major undertaking. The main obstacle to reconstruction is the necessity of determining the original topography of the area so that the wall appears in the context for which it was designed. The landscape and topography around the house have undergone considerable alteration over the past 180 years, and the extent of this change must be understood before any further work is done.

¹⁰BfCx:2:24360

¹¹Acc. #88.1.4, 88.1.5

Architectural Group	
Architectural Group	251 sherds (73.6%)
Kitchen Group	48 sherds (14.1%)
Horticultural Group	14 sherds (4.1%)
Other	28 sherds (8.2%)
Architectural Group*	
Flat glass	174
Nail, wrought	5
Nail, cast	1
Nail, machine-cut	13
Nail, wire	29
Nail, undetermined	21
Kitchen Group	
Refined earthenware	16
Ironstone	4
Coarse earthenware	21
Stoneware	2
Horticultural Group	
Flower pot	14

Table 1: Haha Wall Artifacts (79 records totalling 341 sherds)

* only the major classes are listed

3. THE OUTBUILDING AREA

Background

The Uniacke Estate was originally a working farm and has included a series of outbuildings since 1813. Most of these are no longer extant (Gilmour, 1991). These would have been utility buildings such as the sheds and barns listed in the estate inventory of 1830 (Appendix 1). The location of several buildings can be deduced using the Woolford drawings and early maps, but their precise functions remain unknown. In one of Woolford's 1817 watercolours a long fence runs roughly from the northeast corner of the house, northwest along the yard and ends at an unidentified small building just northeast of the existing carriage house (Illus. 7). The wall is approximately 10 feet high and may have been part of the kitchen garden (Wilson, pers.com., 1992). The excavations in this area were expected to provide insights on the building and possibly uncover evidence of a foundation. This was not the case.

The Outbuilding Excavations

The 1992 tests were situated in an area roughly calculated to bisect both the fence and the building. This calculation was arrived at using the known dimensions of the existing barn and carriage house in the context of the Woolford watercolour. In this way the location of missing features could be estimated on modern maps. The area is located just west of a low, wet area and is north of the carriage house (Illus. 19, 20). A total area of 20m² was excavated. The soil profile in this area is consistent with documentation that Uniacke filled in low areas of his estate: dense sod (0 to 7cm); over wet, brown sand (7 to 60cm); over what is interpreted as fill consisting of field stones roughly 10-40 cm in diameter (Illus. 21).

The Outbuilding Artifacts

The artifacts from the outbuilding test are summarised in Table 2. They date from the first quarter to the first half of the 19th century. They were recovered from within rock fill and were not related to any features, suggesting that they may have been subject to later disturbance.

ARCHITECTURAL GROUP

This group is dominated by nails. Due to the poor preserving nature of the soil the majority of the nails could not be identified by their manufacturing method.

KITCHEN GROUP

The majority of artifacts belong to the Kitchen Group (56.8%). A large shell-edged pearlware rim was reconstructed from many pieces (Illus. 22: A). It is heavily potted and contains elements typical of the early 19th century: a thick, white ceramic body, rounded edges, and an S-shaped brim (Sussman, 1977: 116). It corresponds to a rim shown in an illustration by George Miller (1989: C) to which he attributes a mean date of 1823. Underglazed blue refined earthenware was well represented and two examples are illustrated in Illus. 22: B & C. The pattern of B has not been identified, but C likely was part of a vessel decorated in the Willow pattern. The Willow pattern was very popular throughout the 19th century. Another ceramic fragment from the outbuilding test is a refined earthenware piece with slip marbled and turned decoration (Illus. 22: D). A similar example is illustrated by Smith (1970, fig. 141) and dates c.1810. Also illustrated in Illus. 22: E, F are two pieces of an underglaze polychrome (green and black) refined earthenware. A single piece of soft-paste English porcelain was recovered.¹² It has relief-moulded floral decoration and a gilt rim. A similar example is illustrated in Smith (Ibid) and is dated 1820. The final piece illustrated is a badly

¹²BfCx:2:23261

burned refined earthenware tea bowl (Illus. 22: G). It is decorated in a hand-painted, underglaze blue, floral pattern, both inside and out, with a horizontal underglaze blue stripe running around both sides of the rim.

HORTICULTURAL GROUP

Three flower pot rims were recovered. The rims are of three types: one has a rounded lip, everted; one with a rounded lip pinched below by a thumb on the exterior; and one with a flat-top lip and an everted rim (Illus. 22: H, I, J). The flower pot typology for the Uniacke Estate is discussed further under the flower pot section of Hothouse Artifacts (pp.40-46)

Summary and Conclusion

Structural evidence of the outbuilding and fence was not found, either because the tests were in the wrong area or the site was disturbed by later activity. There were four small outbuildings attached to the northwest corner of the carriage house which were destroyed in 1975, but the early date for the artifacts seem to rule out disturbance related to their construction or destruction. The Woolford paintings are thought to be sufficiently accurate to use in future test unit placement. His two paintings of the Uniacke Estate illustrate a number of unknown buildings which invite future investigation.

Architectural Group	
Architectural Group	313 sherds (27.5%)
Kitchen Group	
Kitchen Group	646 sherds (56.8%)
Horticultural Group	
Horticultural Group	142 sherds (12.5%)
Other	
Other	36 (3.2%)
Architectural Group	
Flat glass	80
Nail, wrought	2
Nail, cast	1
Nail, machine-cut	0
Nail, undetermined	223
Kitchen Group	
Ceramics: Creamware	0
Pearlware	69
Undetermined	526
Bottle Glass	82
Horticultural Group	
Flower pots	142

Table 2: The Outbuilding Artifacts (331 records totalling 1137 sherds)

4: THE UPPER HOTHOUSE

Background

An 18th-century gentleman's estate would not have been complete without a greenhouse structure of some sort, and the Uniacke Estate featured a hothouse – an artificially-heated greenhouse. The site investigated in 1992 was in an area approximately 160 meters north of the main house, in the centre of a gentle slope, which was identified by Ken Gilmour of the Nova Scotia Museum as the most likely location of the hothouse (pers.com., 1993). The clues to the site's former function included the orientation and complexity of the foundation and the presence of what were thought to be planting beds (Wilson, pers.com.: 1993). The objectives of the investigation were to confirm the site's function and establish beginning and terminal dates for the structure. The hothouse excavations were well situated to draw visitors beyond the house to explore other aspects of the estate.

The only documented evidence of a hothouse on the estate contemporary with Uniacke is the 1830 estate inventory which lists the "Upper Hot-house" and its contents, including the plants (Appendix 1). The hothouse is the second to last building listed, but its location is not specified. It was assumed, however, that Uniacke's sons carried out the inventory in a systematic manner progressing away from the main house. If this were the case the final building inventoried would be the one furthest from the house, i.e. the area supposed to be that of the hothouse. A c.1821 map shows a large building with the same orientation of the hothouse in the same approximate location (Illus. 5). This may be the earliest visual evidence of the hothouse. There is no historical evidence of a terminal date for the structure.

Miller's 1807 publication *The Gardener's and Botanist's Dictionary* remains part of the Uniacke library and would have influenced Uniacke's hothouse design as well as

other aspects of the estate. This two-volume work also proved invaluable in the preliminary interpretation of the structural remains of the hothouse. The portions relevant to the design and operation of horticultural buildings are included in Appendix 2.

The 1992 archaeological investigations confirmed the site to be that of the "Upper Hot House" and indicated that it was most likely an original feature of the estate, operating up to, but not long after, Uniacke's death. There is some question as to whether the direct descendants of Richard John Uniacke possessed the means and/or desire to maintain the estate in full, and the hothouse may have been forsaken as an unnecessary expense (Cuthbertson, 1991: 49).

The hothouse was most likely abandoned and may have been partially dismantled. The presence of great quantities of flower pot sherds throughout the structure suggest that many of the less valuable contents were left in the building and were destroyed over the years. Considerable damage to the archaeological integrity of the hothouse was done after the estate was purchased by the Province. Alex Middleton, the present caretaker, interviewed Mr. Stone, the first caretaker of the property, and extracted the following information: "There is an old foundation evident in the pasture, behind the coach house. Mr. Stone said that was pretty well filled in and grassed over when he came, so he dug it out to the extent that it exists today"(Middleton, 1992: 71).

This 'digging out' may well have removed much of the structural evidence for the hothouse, although it is impossible to gauge the total impact of these actions. To further complicate the situation, an impromptu interview by the author with Charlie Mumford, the Uniacke family's last caretaker, revealed that he used to throw rocks from the upper gardens into the hothouse foundation during the 1930s (pers.com.: 1992).

The Hothouse Excavations

BACKGROUND

The hothouse site is located approximately 160 meters north of the main house, halfway up a moderate slope. In the spring of 1992, while the site was covered with trees, it was visible as a small dry-stone foundation measuring 12 by 6m (Illus. 23). The foundation was 60cm high and 40 cm thick, with two 'planting beds' in the centre and a large deep unit at the east end. By the end of the summer the foundation was revealed to be at least 16.5 by 10.5 meters and comprised of two distinct but connected areas interpreted as a hothouse portion containing the plants and a shed/utility area. A total area of 48m² was excavated on the site and over twenty thousand artifacts were uncovered (Illus. 24).

METHODOLOGY

At the beginning of the 1992 season the underbrush was cleared from the site and a number of small trees within the foundation were removed by the Uniacke estate staff (Illus. 25). A grid system was then established over the site in the form of a zero post, a second post 18m east of zero, and a third post ten meters south of zero. This encompassed what was then thought to be the total hothouse foundation. The excavation units were delineated using string. Excavation proceeded using trowels and dustpans. The backdirt was not screened. Artifacts were batch recorded by excavation unit and level. All artifacts were retained with the exception of flower pot and flat glass fragments of less than 1cm.

STRATIGRAPHY

The majority of the excavated units on the west side of the site consisted of a dark brown loamy sand under the sod, containing a mixture of bricks, flower pots, flat glass, nails, and domestic ceramics. The area was one of collapse which may have been disturbed at some time. The stratigraphy of the units on the northeast side of the site, i.e. the hothouse section of the building, appeared to be less disturbed. The typical profile is shown in Illus. 26: a thin sod over c.10cm of dark brown loamy sand containing artifacts over a c.37cm collapse level of dark brown sand mixed with mortar, plaster, charcoal, and artifacts. The remains of a c.2cm dirt cap, thought to be the original floor level, is visible in the profile over a c.30cm thick rock sub-floor. The sub-floor was laid on top of bedrock. No artifacts were recovered from the dirt floor or below.

Two test units were excavated at the start of the season in the area of what was then thought to be a walkway between two planting beds (Illus. 25, 27). They were shallow and unproductive, yielding a total of 24 artifacts. The area is now interpreted as being the air space under a wooden floor, the function of which will be discussed below.

The Hothouse Structure

The object or end of hot-houses is to form habitations for vegetables, and either for such exotic plants as will not grow in the open air of the country where the structure is to be erected, or for such indigenous or acclimated plants as it is desired to force or excite into a state of vegetation, or accelerate in their progress to maturity, at extraordinary seasons (Leuchars, 1850: 25).

The main purpose of the Uniacke hothouse was most likely to start plants early in the season and to store the more delicate mature plants during the winter. It is also possible that Uniacke was experimenting in horticulture, as he was doing in agriculture, and used

the hothouse as the centre for this activity.

ORIENTATION AND LOCATION

The Uniacke hothouse fronted the south, halfway up a south-facing slope. According to Miller, a hothouse should be placed fronting south, to expose the greatest surface area to the sun¹³. The location of the hothouse is unusual and, according to Leuchars, is less than desirable: "A bleak, elevated position should never be chosen, if there be any choice left" (Leuchars, 1851: 14). In his opinion there are three reasons for such a location: there was no other site available; the site was chosen for its view or to be part of the vista from the house; or, it was close to a supply of water (Ibid: 14,18).

There are many level sites on the estate which would have been suitable for the hothouse and much less remote than the site chosen. The location on the slope required a considerable effort to level the south and east walls, a difference in level of several meters. Leuchars also states that such a location is acceptable but "the background should always be planted up with trees"(Ibid, 14). This does not appear to be the case at the Uniacke Estate based on the historical maps (Illus. 4, 5). The slope now occupied by the hothouse foundation was cleared up to the top of the hill, possibly to the site of an existing stone wall.

Captain Fotheringay, passing the Estate in 1827, appears to confirm this fact: "The garden, and the orchard, just planted, looked sweetly in the distance, and are finely set off by the knoll of green trees which swell over the hill" (Appendix 3). It was noted during the excavations that there was a marked temperature rise as one moved from the main house to the hothouse. It is uncertain whether this difference would have existed

¹³"... the Greenhouse or Conservatory is placed exactly fronting south..." (Miller, 1807: s.v. "Greenhouse").

with the surrounding trees removed. Water may have played a part in the site selection as the hothouse is located close to the possible remains of a well, discussed below.

While Fotheringay provides us with a description of the area immediately surrounding the hothouse, it is unclear why he did not mention the hothouse, which must have been a relatively large and unusual structure. What is certain is that there was a garden and an orchard in the vicinity of the hothouse, which would explain the presence of tools such as hoes, harrows, and a pruning saw in the building (Appendix 1). The inventory also lists three tool types in groups of five, most likely indicating that five labourers looked after the garden, orchard, and possibly the hothouse. They would have been overseen, one assumes, by a chief gardener.

LAYOUT

Prior to excavation, the exposed foundation was thought to be the complete hothouse structure; however, as the excavation progressed and historical sources were consulted, it was increasingly clear that the building was much larger than anticipated. The excavations also showed the hothouse to consist of two distinct areas under a single roof: a shed/utility area along the west and north; and a hothouse area along the southeast (Illus. 28: A, B; Illus. 29: A, B). The southwest corner of the foundation was uncovered, but the search for the northwest corner proved futile (Illus. 30). What became clear was that the northwest corner ran at least 3m further west than the southwest corner. This overlap likely delineates the shed/utility area (Illus. 31).

It was common practise to attach a lean-to style shed to the north wall of hothouse structures. This was the case at the 1781 hothouse and the 1815 greenhouse excavated by Beaudet on the Terrace in Québec City, and is often mentioned in the contemporary

literature (Beaudet, 1990: Figs. 3.8, 3.17).¹⁴ The northeast corner of the Uniacke hothouse is built up using fieldstones with a slope too great for a shed. The most level area is the west side, which is also the most convenient if one approaches the slope from the main house. The hothouse entrance was not discovered, but was likely at the southwest corner or along the west wall. The hothouse on the Terrace in Québec City had an entrance at the southwest corner (Illus. 32).

The working hypothesis is that one would have entered through the southwest corner into the shed area. This area would have held the tools and equipment necessary for hothouse operation, as well as the gardens and orchards. The fireplace and the fuel supply also would have been in this section and the fireplace would have been fed from there.¹⁵ To the south of the fireplace would have been the entrance into the hothouse section of the structure (Illus. 29: B; Illus. 33). This division is also apparent in the separation of tools and plants in the inventory. The two areas had different floor types.

The function of the large pit in the southeast corner remains an enigma. It is c.3m square and c.3m deep and is located within the hothouse section (Illus. 34). The most plausible explanation is that it was a tan or bark bed/stove for forcing young plants or protecting the more exotic species (Wilson, pers.com. 1992) . The location of the pit fits well with Miller's greenhouse/stove design: "The wing facing the southeast should always be preferred for the warmest or bark stove, because the sun, at its first appearance in the morning, shines directly upon the glasses, and warming the air of the house, gives new life to the plants, after the long winter season".

¹⁴"If a house for tools, &c. be erected at the back of the Greenhouse..." (Miller, 1807: s.v. "Greenhouse").

¹⁵"The fire-place may be at one end of the house, and the door at which the fuel is put in, as also the ashgrate, may be contrived to open into the tool-house, so that it may be quite hid from sight and be dry; the fuel may also be laid in the same shed, and thus will always be ready for use" (Miller, 1807: s.v. "Greenhouse").

The hothouse is drawn in cross-section in Illus. 35, running north-south from e9n4 to e9n10, with an uneven span-roofed structure on the foundation. This is simply intended to illustrate how the hothouse may have looked based on the appearance of the Québec 1815 greenhouse.

THE FOUNDATION

The most important clue supporting this as the site of the 1830 hothouse is the somewhat complicated foundation. The hothouse foundation is an example of the exploitation of an abundant local resource – field stones. It was built on bedrock which slopes gently from the northwest to the southeast. The exterior walls vary in height from approximately 20cm to over 150cm and are 90cm thick. The exterior walls were bermed with fieldstones, presumably to provide both support and insulation. The east and southeast sides of the foundation had been built up approximately 3-4m to bring it level with the west side (Illus. 34, 36). A test unit in the area of the southeast corner¹⁶ revealed that the wall was built on a layer of cracked quartz on top of bedrock and that a portion of the top of the wall was chinked with mortar, possibly indicating it once lay above the ground and was chinked to protect it from the elements (Illus. 37) (Beaudet, 1991:100). To the north is a wall system consisting of a 90cm exterior wall, a 40cm gap, and a 122cm wall (Illus. 38). This abutts a 90cm stone feature which is 40cm high. A portion of this last feature may be part of the heating/flue system running from the ‘fireplace’ (Illus. 39).

WALLS

The frame of the hothouse structure was most likely wood, but no evidence was uncovered of the wall construction. “The wall on the back part of the house should be either laid over with stucco, or plastered with mortar and white-washed, to keep out the frost, which will penetrate through the walls, especially when it is attended with a

¹⁶e16.8s7-e18s9

strong wind". (Miller, 1807: s.v. "Greenhouse"). No plaster was recovered *in situ*, however, two samples were uncovered in the area of e9s1-e10s2 and e13.14-e14.14s2. Both samples have a gravelly temper but a well-finished face. One sample retains flakes of what may be whitewash or paint. This is logical since a tradition in hothouse design is to have white walls.¹⁷ No evidence was uncovered about the nature of the walls in the shed/utility area, apart from chinking between the stones along the north interior wall.

FLOORS

The floors at the site are two basic types, one in the hothouse area and one in the shed/utility area. The sub-floor of the hothouse area was likely of wood which rested on joists. The two stone features initially thought to be planting beds could actually be piers to support the sub-floor, providing an air space to distribute heat below the floor and/or provide insulation¹⁸ (Illus. 25, 27). The 1992 excavations provided fragmentary evidence for floor tiles (Illus. 40). The tiles have a temper resembling brick and are well fired. They were recovered from the same unit just on top of the sub-floor¹⁹. The first example (Illus. 40: A) is a corner fragment which is 25mm thick. It has a smooth face and a roughly finished underside. The top contains traces of mortar and a 30cm band of burning. There is also evidence of burning on the underside and two of the sides. The second example (Illus. 40: B) also has a smooth face, but the underside has a raised cross-shaped section which is 20mm wide and 14mm high. This tile is also broken, but mortar is found on one of the breaks, possibly indicating that it was broken before it was used and became part of the sub-floor fill. If the floor were tiled, there is the

¹⁷ "The inside of the house should be clean and white-washed, because the whiter the back part of the house is, the better it will reflect light, which is of great consequence to plants, especially in winter, when the Stove is obliged to be shut up close" (Miller, 1807: s.v. "Stoves").

¹⁸ "The floor of the greenhouse may be laid with Bremen squares, Purbeck stones, or broad tiles; and must be raised two feet above the ground..." (Miller, 1807: s.v. "Greenhouse").

¹⁹ e13.14-e14.14s2

possibility that the tiles were taken up and reused after the hothouse was abandoned. It is also possible that the flues were covered with tiles: "The flues should first be covered with broad tiles sixteen inches long..." (Miller, 1807: s.v. "Stoves"). The floor in the shed/utility area consists of a sub-floor of fieldstones and brick fragments up to 30cm thick and almost level with the top of the hothouse sub-floor. It appears to have been capped with dirt.

Hothouse Operation

LIGHT

One of the most important elements for the propagation of plants is light. The hothouse would have been designed to let in as much sunlight as possible and was probably one of two basic designs. The first style resembles a lean-to and has a glass wall sloped at 45° running from the floor to the ceiling. This is believed to be the style of the 1781 hothouse excavated on the Terrace in Québec City (Beaudet, 1992: Fig.3.8). The second design is a span-roof style with a front wall of glass and a roof at least partially glassed, such as the 1815 greenhouse excavated on the Terrace (Illus. 32). The Uniacke hothouse may well have looked like the Québec greenhouse. Miller preferred this style for its more efficient distribution of light.²⁰

A great quantity of flat glass was recovered from the hothouse; however, there was insufficient data to determine whether it came from the hothouse structure itself, or from hotbed frames stored in the hothouse for the winter. The glass was generally light green, thin, and free of bubbles and other aberrations (for a further discussion, see the Hothouse Artifacts, pp.32-33).

²⁰ "...where I have had the contrivance of Stoves of this kind, I have always built them, after the bark stove, with upright glasses in front, and sloping glasses over them, because this will more readily admit the sun at all different seasons..." (Miller, 1807: s.v. "Stoves").

HEAT

The Fireplace

The hothouse section of the structure would have been heated by an active source, most likely a fireplace and flue system. The 1992 excavations revealed the footing of what is interpreted as a fireplace (Illus. 41). It is located at the northwest corner of the structure, just outside of the hothouse area, a position which conforms well with Miller. The mouth of the fireplace would have been located in the shed/utility area, along with the fuel supply. There is evidence that what was uncovered is actually the remains of the ash grate below the firebox.²¹ The soil in the area was a dark brown loamy sand containing artifacts such as nails and flower pot fragments, but no concentration of charcoal or clinkers. It is possible the fireplace was cleaned out before abandonment.

The interior of the fireplace measures 100cm at the front, c.27cm deep, and c.55cm at the back (Illus. 42). The exterior of the south side of the fireplace consists of two courses of fieldstones chinked with smaller rocks and mortared. The southwest face is three courses of brick. The south interior is also three courses of brick. The east end, or back, is two courses of brick laid on their sides, seven bricks wide (Illus. 43). The north interior is not brick lined, and it is uncertain if this was originally the case or if they were removed. The only bricks removed from the inside of the fireplace appeared to relate to the east end. The northwest corner was not excavated, but it appears the north side is part of, or abutting, a wall. The fireplace is built along the "spine" of a large section of exposed bedrock.

²¹"This furnace should be about twenty inches deep and sixteen inches square at the bottom, but may be sloped off on every side, so as to be two feet square on the top, and under this furnace should be a place for ashes to fall into, which should be about a foot deep, and as wide as the bottom of the furnace; this should also have an iron door to shut as close as possible, but just over the ash hole, above the bars which support the fuel, should be a square hole about four or six inches wide to let in air to make the fire burn..."(Miller, 1807: s.v. "Stoves")

The Flue System

The heat from the fireplace would have been distributed through a flue system running from the fireplace along the north wall to at least the east wall. The structure of this system is a mystery as there are few remains. It is possible to make some informed speculation, however, using a combination of archaeological data and historical sources.

The physical evidence for a flue system was first noticed as the face of a wall c.40cm high, beginning approximately 1.5m east of the fireplace and running east (Illus. 44). The collapse from the adjacent wall to the north obscured much of the top and north face of what is thought to be the flue wall. The south face is intact and shows that the wall is probably built on bedrock below the level of the cobble sub-floor. The wall above the floor has been chinked with mortar. The clues from this unit resulted in establishing another unit to the east, in the centre of the hothouse, in search of a more intact portion of the wall.

The new unit at e13.14-e14.14s2 uncovered a 15cm portion of the wall's top as well as its south face (Illus. 45). Again, the wall face was chinked with mortar and some evidence of plaster was recovered. The wall was c.40cm high and built into the cobble sub-floor. The top of the wall was made level by using flat stones and mortar. There was approximately 40cm of collapse on top of the wall including bricks, nails, glass, ceramics, and flower pot fragments. The most significant find was a deposit of residue, thought to be a by-product of the heat source, in the form of a very light, bubbly clinker-like material. This lay on top of the wall in a line as if it had been poured. This is discussed in more detail under Fuel (p.28). Time constraints prevented expanding the unit to the north to uncover the rest of the flue wall.

While the archaeological evidence of the flue system is minimal, a reading of Miller gives insight into how it may have looked and operated. According to Miller, the flues

may have run under the floor or above the ground.²² The wall described above does not appear to be hollow and probably supported the flues as they ran above the ground and along the back wall. It is not possible to say what the flues would have been made of.

The Fuel

Although the fuel supply for the fireplace would have been stored in the shed/utility area, no evidence was found to confirm this. The fireplace appears quite small to have used wood as a fuel, and there does not appear to have been room for a second fireplace at the opposite end of the building. According to Miller, the fuel of choice in a hothouse is coal, followed by peat and then wood.²³ A small sample of clinker-like material was recovered from on top of what is thought to be the flue wall in e13.14-e14.14s2. The cylindrical sample was initially thought to be a by-product of burning coal. It was examined briefly by Dr. John Hill of the Technical University of Nova Scotia, who considered it to be very light and possibly not 'glassy' enough to be from coal. He suggested that it might result from the burning of peat, although that was only speculation. It has not been possible to confirm or deny this possibility, however, it is very likely that Uniacke experimented with peat as a natural resource. It is certainly present in the area : "Near Mount Uniacke, the road runs in and out of the eastern edge of the granite country...The land is flat and peat bogs stretch to the westward, illustrating the poor drainage where there is underlying granite"(Roland, 1982: 179). His library also contained a book by Rev. R. Rennie titled *Essays on the natural history and origin of peat moss* (1807), evidence of his interest in the subject.

²²"The flues are either carried under the pavement of the floor, or along the back of the house, over each other, and are returned six or eight times the whole length of the Stove, according to the height." (Miller, 1807: s.v. "Stoves").

²³"...when coals can be had reasonable, it is the best kind of fuel...The next best fuel for stoves is peat, where it can be procured good...There are some people who burn wood in their stoves, but this fuel requires much greater attendance than any other, therefore it is not very proper for this purpose" (Miller, 1807: s.v. "Stoves").

Water

There is a small stone feature located c.18m northeast of the hothouse which may be a well contemporary with the hothouse (Illus. 46). The feature is built of dry-laid stone and was filled with the same stone after it was abandoned. A small test excavation on the north side of the 'well' failed to yield any new information about its use. Further excavations inside the feature are necessary to determine its function.

The Plants

The 1992 archaeology was not designed around the scientific recovery of seeds or pollen from the excavated soil. The 1830 inventory contained a comprehensive list of the plants in the hothouse, as well as their containers. These are summarised in Table 3 and general descriptions of the identified plants are listed in Appendix 4.

There are 15 varieties of plants and shrubs listed in the inventory, 12 of which have been identified. The most numerous is the geranium (Illus. 47), of which 81 pots are listed. They would have been wintered in the hothouse, then in the summer transplanted to the gardens as well as moved into the main house, where they would have been a dominant presence. The second most numerous plant is the myrtle, totalling 2 pots, 3 tubs, and 8 boxes. The preponderance of boxes holding this plant suggests that it was used in an exterior setting around the house during the summer.

The potted plants would likely have been placed on trestles made of wood and set up in the centre of the house or along the north wall:

In the Greenhouse there should be tressels, which may be moved in and out, upon which rows of planks should be fixed, so as to place the pots or tubs of plants in regular rows one above the other, whereby the heads of the plants may be so situated as not to interfere with each other. The lowest row of plants, or forwardest towards the windows, should be placed about four feet from them, that there may be a convenient breadth left next the glasses to walk in front; and the rows of plants

should rise gradually from the first, in such a manner that the heads of the second row should be entirely advanced above the first, the stems only being hid, and at the back of the house there should be allowed a space at least five feet, for the conveniency of watering the plants, and to admit a current of air round them, that the damps occasioned by the perspiration of the plants may be better dissipated, which by being pent in too closely often occasions a mouldering upon the shoots and leaves, and when the house is close shut up, this stagnating rancid vapour is often very destructive to the plants; for which reason also they should never be crowded too close to each other, nor should succulent plants ever be placed among them (Miller, 1807: s.v. "Greenhouse").

The large shrubs and trees in boxes would have rested directly on the floor, in front of, or around, the trestles. Two of the plants in pots are listed with "stands", suggesting they were, for some reason, separated from the other potted plants.

	Pots	Tubs	Boxes	Total
Orange plants	1	0	5	6
Myrtles	2	3	8	13
Oleander	3	0	1	4
Passion Flowers	4	2	0	6
Hyderanga	4	0	0	4
Monthly Roses	2	0	0	2
Moss Roses	5	0	0	5
Toy	0	0	4	4
Jessamine	2	0	0	2
Variagated Laurel	0	1	0	1
Sweet Bay	0	0	1	1
Slanbdras	2	0	0	2
Laurestinus*	3	0	0	3
Massariane*	1	0	0	1
Geraniums	81	0	0	81
	110	6	19	135

Table 3: Plants in the Hothouse listed in the 1830 Estate inventory (as spelled in the manuscript).

*and stands

The Hothouse Artifacts

INTRODUCTION

The hothouse excavations produced the greatest number of artifacts of all the areas investigated. These are summarised in Table 4. There were many surprises encountered within the artifact classes, including the variety of transfer printed earthenwares and flower pot rim styles. As expected, however, the artifact count is dominated by flat glass and flower pot fragments (93.5%). The artifacts generally date from the first decade to the middle of the 19th century. The few late 19th- and 20th- century artifacts are interpreted as intrusive.²⁴

ARCHITECTURAL GROUP

This group consists mainly of flat glass fragments, usually associated with window panes. Flat glass makes up a total of 44% of the hothouse artifact count. The glass may have come from one or both of two possible sources. The first is the glass which would have been a part of the hothouse structure (discussed further under Light, p.25). The second possibility is that they were part of the "Hot-bed frames and glasses" listed in the inventory. A hotbed is a wooden frame with a removable glass cover (see Frontispiece), used to protect seedlings and other delicate plants during cold temperatures.²⁵ When not in use, during the winter, for example, the frames would have been dismantled and stored in the hothouse. This may explain the concentration of flat glass sherds in a 4 by 4 m area of the hothouse²⁶. Much of the glass was found in vertically-aligned groups. A hotbed frame was discovered during the excavation of

²⁴A.303 caliber rifle shell, for example (BfCx:2:2078).

²⁵"Besides these buildings, it will be proper to have deep hot-bed frames, such as are commonly used to raise large annuals in the spring...which can be no better effected than in one of these frames, where glasses may be taken off every day when the weather will permit, and put on every night" (Miller, 1807: s.v. "Greenhouse").

²⁶e6-e8s2

a 1781 hothouse under the Terrace in Québec City (Renaud, 1990: 97).

It was not possible to reconstruct any of the glass panes. A few of the sherds had the residue from the glazing still on them. The majority of the edges had been cut but not finished. Two of the sherds have rounded, fire-polished, and slightly inverted edges. In general, the glass was light green, thin, and free of bubbles and other imperfections.

The flat glass may be used as a rough guide to the date of a site by measuring its thickness. The premise behind this theory is that flat or pane glass was produced progressively thicker through time (McKee, 1992: 41). The 1338 fragments of flat glass measured from the hothouse represent 7.8 % of the total sherds recovered and had an average thickness of 1.25mm. Two similar sized samples from The Hermitage are from an early 20th-century cold frame (avg. 1.91mm) and a cabin occupied by slaves during the first half of the 19th century (avg. 1.47mm) (Ibid: 40-44).

KITCHEN GROUP

Ceramics

The majority of artifacts from the Kitchen Group are ceramic sherds. Ceramics have seen daily use in all types of households for thousands of years. Their manufacture tends to be well-documented and most have, as a result of being subject to fashion, finite manufacture dates. This makes ceramics widely-studied and especially useful to archaeologists. Site dates are often based on the results obtained from the ceramic collection.

The ceramics from the hothouse proved to be surprisingly varied and were instrumental in the conclusion that the hothouse operated from the early 19th century until sometime soon after 1830. The ceramics from the main house listed in the 1830 inventory are presented in Table 6. The cursory examination presented below does not do justice to this interesting collection from an important time in ceramic history.

Architectural Group	
Architectural Group	11,062 sherds (46.6%)
Kitchen Group	
Kitchen Group	1139 sherds (4.8%)
Horticultural Group	
Horticultural Group	11,135 sherds (46.9%)
Architectural Group	
Flat glass	10,485
Nail, wrought	91
Nail, cast	2
Nail, machine-cut	10
Nail, undetermined	325
Kitchen Group	
Ceramics: Creamware	444
Pearlware	323
Undetermined	
Coarse earthenware	32
Horticultural Group	
Flower pot	10,730
Bell glass	372

Table 4: Hothouse Artifacts (3475 records totalling 23,763 sherds)

	.75mm	1.00	1.25	1.50	1.75	2.00	2.25	2.50	
e6-e7s1	0	156	158	113	31	10	0	0	
e6-e7n1	0	13	16	12	1	0	0	0	
e6s1-e8s2	4	78	72	52	14	0	1	0	
e6n1-e7	0	20	19	11	1	0	0	0	
e7-e8n1	0	3	9	7	2	1	0	0	
e7-e8s1	0	27	49	18	6	0	0	0	
e7s1-e8s2	0	138	61	45	11	2	0	0	
e8-e9s1	0	11	10	4	1	0	0	0	
e8s1-e9s2	0	10	3	2	3	1	0	0	
e9s2-e10s2.5	0	4	6	1	0	0	0	0	
w1s5-s6	0	11	0	1	0	0	0	0	
e13.14-e14.14s2	0	50	18	26	4	7	1	3	
total	4	521	421	292	74	21	2	3	1338

Table 5: Flat Glass Thickness Data (listed by excavation unit)

TABLE 6 : CERAMICS LISTED IN THE 1830 ESTATE INVENTORY

LADY MITCHELL'S BEDROOM

- 1 Bason & jug
- 1 Plain white chamber

ALICIA & ELIZABETH'S ROOM

- 1 Jug & Bason
- 1 Plain white chamber
- 1 Blue jug & Bason

ELEANOR & ANN'S ROOM

- 1 Jug & Bason
- 1 Plain white chamber

DICK'S ROOM

- 1 Plain white chamber

MY FATHER'S BEDROOM

- 1 Jug & Bason

CROFTON'S BEDROOM

- 1 Jug & Bason
- 1 Blue Chamber

MR JEFFERY'S BEDROOM

- 1 Jug & bason
- 1 Chamber pot

DRAWING ROOM

- 1 Lismore Castle (in Porcelain)
- 1 Complete dinner set (blue ware)
- 1 White & gold breakfast set (complete)
- 1 White & gold Tea set (complete)
- 1 Common blue breakfast set

ENTRY LOWER

- 1 Com. Brown edge dinner set
part broken —

Creamware

The largest ceramic group from the hothouse is creamware, a lead glazed refined earthenware, generally characterized by its cream colour and the yellow/green of the pooled glaze. Creamware was perfected by Josiah Wedgwood in 1762 and became the most important development in ceramics in the second half of the 18th century (Noël Hume, 1982: 123). A general date range for creamware is c.1762 to c.1820 (South, 1977: 212).

The most complete creamware artifact is the plain rim of a plate which would have been 8" (200mm) in diameter and 22mm high (Illus. 48A). It has a flat brim turned up at a 45° angle. The base is flat and has considerable use-wear on it. The rim is encircled by a 3mm wide overglaze brown stripe, 2mm above a 1mm wide overglaze brown stripe. This pattern matches that on a pearlware plate illustrated by Sussman (1977: 108). This type of decoration was popular during the late 18th and early 19th centuries (Ibid: 108). This piece may also have been part of the "com. Brown edge dinner set" listed in the 1830 inventory.

A second rim is shown in Illus.48: B. It has a plain rounded rim and a flat brim which meets the body at an angle of 90°. It has not been determined what vessel this may have belonged to.

Two interesting creamware sherds were found during the excavation of the southeast corner. The first is a fragment of a plain rim which is decorated with overglaze brown stripes (Illus. 48: C). The second is a body sherd decorated with a curvilinear design in underglaze brown (Illus. 48: D). This decoration dates from the end of the 18th to the early 19th centuries (Ibid).

The final creamware piece illustrated is a base fragment from a plate (Illus. 48: E). It has a small round footring about 4" (100mm) in diameter.

Pearlware

The second largest ceramic group from the hothouse was pearlware, a type which evolved from creamware but existed concurrently with it. Pearlware is the most common ceramic type found on North American archaeological sites dating to the early 19th century (Nöel Hume, 1982: 130). The development of pearlware began about 1775 and it remained popular into the 1830s (Nöel Hume, 1977: 232-233; Lavoie, 1990: 35). Pearlware was the most diverse ceramic item recovered at the hothouse, exhibiting a surprising variety of decorative styles and patterns for a utilitarian building. This is likely testament to the fact that meals were consumed in the building, especially during the winter when constant vigilance was required.

One of the most common pearlware patterns of the late 18th and early 19th centuries is the shell-edged pattern decorated in underglaze blue or, less commonly, green. An example of this pattern was found at the hothouse (Illus. 49: A). It is part of a platter and has a scalloped rim decorated with painted, but not moulded, vertical lines in underglaze blue. The flat brim is 1½" (38mm) wide and upturned. It has a smooth, rounded upper edge and a more sharply defined bottom edge which, according to Sussman, may indicate it was mechanically trimmed, a technique which replaced hand trimming in the 19th century (1977: 110). South dates this type of pearlware to c.1780-c.1830 (1977: 212).

A second pearlware rim type is shown in Illus.49B. It is a brim from a plate which would have been 9" or 10"(230-254mm) in diameter. The brim is 1⅞" (29mm) wide and is decorated with a 2mm wide stripe in underglaze green/brown along the top edge and a similar 1mm stripe along the bottom edge. This type of decoration was popular in the late 18th and early 19th centuries (Sussman, 1977: 108).

Examples of annular decorated pearlware were also recovered from the hothouse. The two sherds illustrated (49: C & D) have horizontal grooves on the body which are

decorated in underglaze green. The first piece is a rim sherd which is plain and rounded and is from a cylindrical vessel such as a mug. The horizontal grooves begin 24mm below the rim. The second sherd is a body fragment, likely from the same vessel. This type of decoration was popular from c.1790 to c. 1820 (Nöel Hume, 1977: 129).

Two early examples of pearlware were recovered from the excavations in the area of the southeast corner (e16.8s7-e18s9). The first is a body sherd decorated with an underglaze polychrome pastel coloured floral pattern (green, orange, and black) (Ilus.49: E). The pastel colours were replaced by brighter tones some time after 1815 (Ibid). The second piece is a body sherd decorated in hand painted underglaze blue (Illus.49: F). The pattern remnant correspond to the rather bulbous leaves of a tree on an example illustrated by Nöel Hume (Ibid). It is a blue shell-edged serving dish with an underglaze blue Chinese-house motif. This motif was popular on pearlware until about 1805-1810 (Ibid).

Transfer-printed Pearlware

Transfer printing is the process of transferring a design from an engraved copper plate to a piece of paper and then pressing the paper onto a ceramic object. The object is then fired to fix the design (Savage, 1974: 296). This technique came of age on pearlware at the beginning of the 19th century and was used extensively on other wares throughout the 19th and 20th centuries. The majority of pearlware sherds from the hothouse are from transfer-printed objects representing a number of different patterns, most of which have not been identified.

One of the earliest and most common transfer patterns is 'blue willow', which was first used about 1810 and continues to be produced today (Noel Hume, 1980: 247). The rims of two 'blue willow' plates are shown in Illus.50: A, B. The patterns of the other rims illustrated have not yet been identified (Illus. 50: C-F). The identified patterns are discussed in the section below on the Herculaneum Pottery.

The Herculaneum Pottery

Three pieces of pearlware from the hothouse bear the impressed marks of the Herculaneum Pottery of Liverpool, England. The Herculaneum Pottery was established by Samuel Worthington in 1796 and operated under him until it was sold in 1833. The pottery continued to operate under the new owners until 1840 (Smith, 1970: 9, 73-83). The Herculaneum Pottery had three agents in Halifax: John Albro, Thomas Leonard, and Carritt and Alport; it does not appear unusual to find their wares in the area (Ibid: 50).

The first piece is represented by a single sherd with 'HERCULANEUM' impressed in printer's type $\frac{3}{32}$ " in height (Illus. 51: A). This size of type was in use until about 1825-1830. Also impressed on this piece is the number "12" centred above the name. This may indicate that the piece was manufactured in 1812.

Two pieces have the remains of an impressed mark in the form of 'HERCULANEUM' in a semi-circle which would have been over a crown. Smith does not give a date range for this mark, but it is found on a plate dated about 1825 (1970: Pl.164: A & B). The other piece is the only one with both a mark and a transfer-printed pattern (Illus. 51: B). It is the base of a plate or bowl which has a small footring 4"(100mm) in diameter. The pattern has not been identified.

Two pearlware artifacts have been associated with a pattern used by the Herculaneum factory. One is the partial foot/base of a bowl with a 7"(179mm) footring (Illus. 51: C). The remaining portion of the pattern is palm leaves which correspond almost exactly with those on an East Indian-style pattern shown in Smith (Ibid: Pl.158). The pattern shows three people on an elephant approaching what may be temple. The pattern is found on a meat dish, a plate, a frog mug, and a bed pan, all dated to c.1825 (Ibid). The pattern of the second pearlware artifact is of a less intense blue than the first and is not as well defined. Although not exactly the same as the pattern described above,

the second pattern shares five major design elements with it (Illus. 51: D).

Coarse Earthenware

This ceramic group is represented by 32 sherds, significantly fewer than the refined earthenwares. This may simply reflect the fact that food was eaten in the hothouse but was not prepared there. Coarse earthenware is difficult to date and attribute due to its utilitarian nature. It was not subject to fashion as refined earthenware was, remaining essentially unaltered over many years. The manufacture of coarse earthenware required a relatively low level of technology and it was produced by many small potteries throughout Britain, America, and Canada.

The three basic coarse earthenwares from the hothouse are shown in Illus. 52. The first is a rim from a 'Maritime ware' bowl or pan (A). The ascription of this ware remains obscure; it may have been manufactured in eastern Canada, the eastern United States, Wales, or the northeast of England (Lavoie, 1990: 24). This sherd has a red body covered in a white slip which is covered with a clear lead glaze.

The second sherd is a base fragment from an unidentified vessel (B). It has a soft, light red body and a light brown glaze. It may be what is known as Anglo-American ware (Ibid: 25).

The third piece may also be Anglo-American ware and is from a cylindrical vessel (C). The sherd has a white body and a dark brown glaze. The vessel has a moulded decoration consisting of vertical lines and blocks.

HORTICULTURAL GROUP

Flower Pots

In the excavation of a structure such as a hothouse one expects to recover abundant evidence of flower pots, those ubiquitous vessels assumed to be timeless and of dubious historical value. The Uniacke hothouse was no exception. In the 1830 estate inventory, 110 plants are listed in pots. A minimum vessel count of the flower pot bases revealed that at least 21 pots, or 19% of the pots listed in the inventory, were recovered during the 1992 excavations.

The Uniacke flower pots are all of unglazed, red-bodied coarse earthenware in the shape of a truncated cone with the rims thickened to varying degrees. All of the bases recovered had well-formed drain holes. A lack of time meant that only one vessel was reconstructed (taking approximately one week). Attempts will be made in the future to reconstruct further pots, and future excavations will certainly result in an impressive collection. No trays which would accompany the pots were recovered. The Uniacke flower pots fit well in the period c.1813-c.1830, although they are extremely difficult to date with any precision.

A common problem one encounters with utilitarian ceramic vessels such as flower pots is determining a country of origin. At the beginning of the 1992 field season it was assumed that, in the first quarter of the 19th-century, ceramic manufacturers in Nova Scotia would have been able to produce these cheap vessels. The subject of 18th and early 19th-century potters in Nova Scotia is, however, not well represented in either the archaeological or historical record. The only piece of evidence linking a local potter with flower pots is a reference to a man named Halfyard shipping flower pots from Annapolis County, Nova Scotia to New Brunswick in the late 18th century (Elwood, pers.com.: 1993). The location of the Halfyard pottery is known but has never been professionally examined.

The most likely origin for the flower pots from the Uniacke hothouse is Great Britain, although New England and Québec are possible sources (Duguay, 1990: 112-113). Two references to flower pots were located in a search of Halifax newspapers of the first part of the 19th century. One is from 1828 for '*Flower Pots, assorted colours and sizes*' (*The Acadian*, June 6, 1828). It is unclear what is meant by 'assorted colours'. The second simply advertises '*Flower Pots*' (*Acadian Recorder*, May 15, 1830). Both advertisements are for goods from the same ship, the *Atlantic*, sailing from Liverpool, England, but the ceramic source is not indicated. There is no evidence that the Herculaneum Pottery manufactured utilitarian wares such as flower pots.

The flower pot rims were placed into types based on the relative complexity of the lip formation. The simplest form would be a straight lip extending directly from the body (see Beaudet, 1990: Fig. 4.9: 11, 12). Four basic rim types were identified (Illus. 53). The classification of the ceramic bodies, based on subjective rather than scientific criteria, are listed in Appendix 5.

TYPE 1: ROUNDED LIP

These rims are the most rudimentary of all the types, consisting simply of rounded lips, some of which have been everted slightly. Three sub-types were identified (Illus. 53: A-C; Illus. 54).

Type 1A rims are characterised by a double undulation created by grasping the lip and inclining it to the exterior (Illus. 53A). The example illustrated has a platform on the interior of the lip created by using the fingers in this manner. The best example of this group is a reconstructed pot approximately 85% complete (Illus. 55). It has a sandy orange body containing quartz pebble (8mm – <1mm), unidentified white stone (3mm – <1mm), and red ochre (2mm – <1mm). The orange exterior finish is flaking and may have been applied (iron oxide?) (Ostrum, pers.com.: 1993). The vessel stands 7¼" (185mm) high with a 6" (152mm) base diameter and an 8" (203mm) interior rim

diameter. It has a well-formed drain hole in the middle of the base.

Type 1B rims are quite similar to Type 1A, but vary more in their lip style. They are grouped together based on the incised linear decoration, probably made by a coggle wheel, a tool very much like a wheeled pie cutter. The lips vary from rounded and slightly inclined to the interior²⁷, to rounded and almost everted.²⁸ The decoration varies in size from 3mm to 9mm wide. They are applied as ridges formed by pinching, rather than adding, clay.

Type 1C rims also have a double undulation but are not decorated.

TYPE 2: ROUNDED LIP, EVERTED

These are rims with rounded lips which are everted towards the exterior of the pot. They are distinguished from Type 1 rims by the size of the rim and the degree to which they are everted (30° and 45°) (Illus. 53: D-G; Illus. 56).

Type 2A: These are rims with rounded lips which are everted towards the exterior of the pot (Illus. 53: D; Illus. 56A). They are distinguished from Type 1 rims by the size of the rim and the degree to which they are everted (30° and 45°).

Type 2B rims are much more robust than Type 2A (13mm vs 9mm thick) and everted at least 90° (Illus. 53: E; Illus. 56: B). The lip was thickened by pulling up a 15mm wide band of clay from the exterior, creating a broad groove below the lip. This rim style and ceramic body are similar to those found on artifacts made of 'Maritime' ware, which would have been covered in a white slip and a clear lead glaze. Duguay refers to this ceramic body and ascribes it to the northeast of England or New England

²⁷BfCx:2:1022

²⁸BfCx:2:1017

(1990: 113). The two sherds of this type most likely come from the same vessel.

Type 2C : This rim has a triangular lip which is everted and slightly inclined to the exterior (Illus. 53: F; Illus. 56: C).

Type 2D This single piece is similar to those described above, but the lip is formed into a square rather than triangle (Illus. 53: G; Illus. 56: D). Two incised horizontal lines have been placed 14mm below the lip.

TYPE 3: ROLLED HEM

This is one of the dominant rim types from the hothouse. The lip of these rims has been rolled to the exterior of the pot to form a half-circle (Illus. 53: H-K; Illus. 57: A-D). These rims are associated with pots from 3½" to 8" in diameter, noticeably smaller than those associated with Type 2 rims. The rolled hems either blend in with the body, have a semi-circular gap where the lip loop to touch the body, or forms an inverted V because it does not touch the body.

TYPE 4: FLAT TOP, EVERTED RIM

This type is represented by two sub-types. The first sub-type has a more rounded flat top lip which has been pushed towards the interior by the potter's thumb (Illus. 53: L; Illus. 58: A, B). The everted lip was created by pulling the clay up with the fingers and down with the thumb creating a convex-concave profile. The second has a square lip and a flat top (Illus. 53: M, N; Illus. 58: B, C). The everted rim was created by pinching the clay between the thumb and forefinger, producing a 15mm wide surface with a concave-concave profile.

The design of the Type 4 flower pot rims is clearly functional and may be linked to their use with bell glasses (see Bell Glasses, p.47):

Pots with Double Rims.— Pots so called resemble the Oxford pots in so far that the rim is utilized for a special purpose by increasing its breadth, so that both kinds... are really pots with broad rims. In the class of pot now under consideration the rim is... grooved in order to receive the edge of a bell glass to be placed, if necessary, over any plant or cuttings in the pot. By this mode of construction plant space within the rim of the pot is not abridged, and cuttings can be placed close to or against the sides of the pot, which is not possible if the covering glass stands on the soil (Beeton, 1985: 238-239).

This rim type is associated with the largest flower pots recovered from the hothouse, having rim diameters ranging from 10" to 13". These pots likely would have stood 10" to 12" high with base diameters of 9" to 10". The rim design would also have strengthened the pots to aid picking them up by the rims. It is also possible that the design aided in separating the pots when they were stacked for firing thus preventing cracking due to shrinkage (Pers.Com., Ostrum, 1993).

Minimum Vessel Count

The bases of the flower pots were measured and used as part of the minimum vessel count. To be measured and counted, each base was required to have 75% of the external diameter intact. A distinct drain hole was required for the base to be counted. The results of the base diameter measurements are listed below. The minimum vessel count for the hothouse flower pots was 21 pots, or 19% of the 110 flower pots listed in the 1830 estate inventory.

Mending

Evidence for the mending of flower pots was found in the form of two body pieces. The first is a large body sherd with a 6mm hole drilled in it²⁹. There is a large break

²⁹BfCx:2:22198

above the hole which contains a 50mm strip of glue residue. The second mended piece is actually two sherds, almost certainly broken before 1830, each with a 3mm drill hole, which were glued together and secured with copper wire anchored through the drill holes (Illus. 59). This piece is likely from the same vessel as the first, indicating the mending of multiple breaks.

The flower pots recovered from the hothouse site have proven themselves of unusual interest due to their variety, quality, and the uncertainty of their country of origin. The difficulty of ascription emphasises the need for more historical-archaeological study of Maritime potters from the 18th and early 19th centuries.

Bell Glasses

A second distinctively horticultural artifact found during the excavations was the bell glass. These were large bell-shaped glass covers to be put over small, delicate plants to protect them and accelerate their growth. The bell glasses would have been used both directly on the ground in the garden or hot-bed, or set on the rims of Type 4 flower pots.

There were 372 sherds of what is thought to be glass from bell glasses recovered during the 1992 excavations. Two knobs from the top of the glasses were found, indicating these are the remains of at least two vessels.³⁰ The 1830 estate inventory lists 20 bell glasses in the hothouse.

The bell glasses from the Uniacke hothouse were made from a light green, leaded, glass and were probably manufactured in Great Britain. They would have looked quite similar to the example from the Nova Scotia Museum (Illus. 60), except that the knobs on top were hollow and the rims did not flare slightly but were straight-sided.

³⁰BfCx:2: 2258; 1813

Conclusion

The 1992 archaeological excavation at the Uniacke Estate was successful in fulfilling two of three objectives; while the testing in the area of the outbuilding proved negative, the location of the haha wall and the location and function of the hothouse were confirmed. The hothouse proved to be an unexpectedly productive site and warrants further investigation. The response of visitors to the Estate to the excavations in all of the areas was very positive.

Future research on the Uniacke estate should concentrate on the visual evidence, such as maps, paintings and photographs. The maps offer conflicting information on the number of buildings on the estate and their layout. It is necessary for a number of people from various disciplines to examine these in an interdisciplinary setting that allows for a free exchange of views.

A re-evaluation of these maps and other primary documents, such as Woolford's 1817 paintings and the estate inventory, should be a prelude to a comprehensive archaeological survey designed to identify and evaluate the Estate's heritage resources. Quality maintenance and interpretation are ultimately dependant on sound information.

Appendix 1: Uniacke Estate Inventory

Introduction: The Uniacke Estate inventory is a manuscript list of the buildings and their contents which were a part of R.J.U.'s estate at the time of his death. It was compiled by two of his sons, Richard and Andrew, on Nov.17-18, 1830. The manuscript is kept in the Library at the Nova Scotia Museum of Natural History (Mss./UN.#3/Rare). This appendix only lists the contents of the buildings found under the heading 'Outbuildings', not those in the main house. These buildings include the hothouse and the outbuilding which were the subject of the 1992 investigations. The ceramics contained in the main house are listed in Table 6. The manuscript nature of the document, as well as its age, meant that many words and letters were illegible. These are represented by question marks. The original spelling, punctuation, and lay-out have been retained as closely as possible.

MAIN HOUSE

Pediment
Pediment closet
Lady Mitchell's room
Alicia and Elizabeth's room
Eleanor's and Ann's room
Mrs Uniacke's bedroom
Andrew's room
Dick's room
My Father's bedroom
Upper Hall
Lower Hall
Crofton's bedroom
Mr Jeffery's room
Dining room

Drawing room
Library
Servant woman's room
Servant woman's room
Servant woman's room
Cellars
Kitchen
Pantry

Outbuildings

HARNESS ROOM

- 1 Double set of English black harness
- 1 Do brown harness
- 1 set single harness
- 2 sets harness for Go Carts
- 4 riding saddles
- 1 side saddle
- 1 pair Gambagoes
- 1 large? saddle for horse waggon
- 1 doz? set sleigh bells one single?
- 1 set Cow bells 1 do sleigh bells 1 ?

STABLE

- 4 Cart harness complete
- 4 pr plough traces
- 4 ? + chains, 3 ? bridles
- 4 tin buckets

SHED

- 4 Box carts - 1 Go Cart - 1 large waggon
- 1 Truck - 1 ? of hay cart
- 1 Large broad wheeled ox waggon
- 12 ploughs of various kinds
- 4 Drags? 2 large iron ?
- a lot of ? trees
- 4 double harrows, 4 crotch harrows

NEW GRAIN BARN

- 1 Winnowing machine
- 1 Straw cutter 4 ladders
- 1 1/2 barrel? 1 tackle

COACH HOUSE

1 English double waggon
1 Nova Scotia Do Do
1 Yanke? waggon
1 Roller (large English)
2 Grind stones 1 ? 1 hand ?
3 hand? barrows

WASH HOUSE

1 English flour mill
1 Cyder press & mill
1 Wine press & mill
washing tub
1 small stove

BILLIARD ROOM

1 Mahogany table
3 chairs
1 Thermometer
1 wash? pot
12 Tin ? 1 small glass 1 pint
fr? Ec. 1 stove & pipe

STORE ROOM

2 Ox saddles, 6 ox Collars, 6 back? bands 6 pair
trains? - 6 ox bridles
1 Donkey harness
1 pr traces - 4 ox chains - 5 iron back bands
1 log chain 5 small ? - 3 iron dogs
1 iron shoe & chain - 4 iron crow bars
?? spades - 11 pick axes, 12 hoes
7 wooden rakes, 2 iron maals, 7 shovels
1 short spade, two grain shovels, 2 new
spades, 4 dung forks, 8 pitch forks,
pr large ? ? yards?, 3 augers, 1 pr ?ers

1 drawing knife, 2 trowels, 1 credle,
 2 scythes, 13 sickles, 7 axes, 2 stone
 hammers, 5 ox yokes, lots of paint & oil
 jars?, 1 bill hook, 2 tin? oil cans, 1 new tar
 brush, ? of boxes of glass, stove for
 mixing paint, 1 fishing net & basket, 5 ox
 bows & yokes, 1 cross cut saw, 19 swingle?
 trees?(hoes?), 5 scythes, lots of oil jars, Grain? grass?
 ? ? EcEc ? , 1 Engine horse?
 ? ?, 1 bird cage, 3 ? for straw
 hay 6 meat, 1 whip saw, 1 ice pick
 ? , 2 spinning wheels, 2 ? ?
 baskets 3 large canvas bags
 4 iron bed steads, 1 wooden do, 1 carriage
 swingle, trees, 1 old set, one hobby horse,
 old Post ? - old Tan horse shoes,
 Locks, finders, stove pipes, Tacks?, axes, hoops,
 scythes, beers?feet, stoppers, springs, wheels
 fish ? , bolts, ? , ladles, wedges
 door handles, rakes, shovels, dippers, ?
 trees, blocks, bars, hinges, locks, door bolts,
 nails, pins?, screws, hooks, ladles, tea kettle
 Mill wheels ? ? ? ? ?
 Two tar pots, 1 m ? , 1 ladle, 3
 barrels Tar, 1 pitch, two baskets, two
 boats £20, Boats 4 of £22

ICE HOUSE

1 Double sled, two horse sleds, one
 riding sleigh & a set of drags

UPPER HOT HOUSE

5 Rakes, 1 dung fork, 5 ?
2 d ? hoes, 5 draw hoes, 1 reel & line, 1 pruning
saw, 1 pr hedge shears, 1 planting gouge
1 axe, ? riddle, 3 pruning ? ment
1 small garden harrow, 20 bell glasses,
2 Melon pots? with 14 large glasses, lots of
boxes, buckets, barrels, EcEc Winning?
sheet, 1 hot? house, ? , 3 water pots
1 wheel barrow, 2 ladders
1 hand cart, 3 wheel barrows

Plants alone

5 Boxes of Orange plants
1 pot Do
8 boxes of Myrtle
3 Tubs of Do
2 pots of Do, 1 box Oleander, 3 pots
of Do, 2 Tubs of Passion flowers, 4 pots of Do,
4 pots of Hyderanga - 2 pots of monthly
roses - 5 Moss Do - 4 boxes of Toy - 2 pots
of Jessamine, 1 Tub of variagated laurel,
1 box of sweet bay - 2 pots of slanbdras
3 pots and stands of Laurestinus
1 do of Masariane - 81 pots of Geraniums
Hot Bed frames and glasses

SUMMER HOUSE

1 Table

STOCK CATTLE

4 horses 2 horses

1 ass

9 cows 4 cows

1 Bull sold

1 Bull calf

100 sheep 47 sheep

4 Rams

4 Fat? Pigs

1 Sow & swine pigs

1 Boar

3 Pigs

12 Wild Geese

2 Guinea hens dead

stock of hens, ducks + Geese

PORCH

1 Thermometer

1 Barometer

1 Umbrella stand

2 Wooden boxes

Valuation of Personals £1,015 -- 0 -- 8

Valuation of Lands, Buildings £1,750 -- 0 -- 0

Total £ 2,765 -- 0 -- 8

APPENDIX 2 : FROM MILLER, 1807

INTRODUCTION: The most useful reference used during the 1992 archaeological investigations at the Uniacke Estate was the two volume set of Miller's *The Gardener's and Botanist's Dictionary*. These oversize volumes were originally owned by Uniacke and remain in his library today. Although it is uncertain when Uniacke came into possession of the books, they were likely a great influence during the establishment of the Estate, especially in the design of the hothouse. The 1807 edition was "corrected and newly arranged" by Martyn which leads to a certain degree of confusion during reading. It is sometimes unclear which words are Miller's and which Martyn's. A lack of time restricted transcription to those sections directly applicable to the excavations at the hothouse, namely 'Greenhouse', 'Stoves', and 'Tanner's Bark'. For practical purposes, a greenhouse and a stove may be considered similar structures with the same purpose, raising plants and trees, and do not differ significantly from hothouses. The original spelling of the books has been retained.

The Gardener's and Botanist's Dictionary; containing the best and newest methods of cultivating and improving the kitchen, fruit, and flower garden, and nursery; of performing the practical parts of agriculture; of managing vineyards, and of propogating all sorts of timber trees.

*By the late Philip Miller, F.R.S.
Gardener of the Worshipful Company of Apothecaries at their botanic garden in Chelsea, and member of the Botanic Academy at Florence.*

*The whole corrected and newly arranged by Thomas Martyn, B.D. F.R.S.
Regius Professor of Botany in the University of Cambridge*

In two volumes.

Law and Gilbert: London, MDCCCVII (1807).

Greenhouse.

....As to the length of the Greenhouse, says Mr. Miller, it must be proportioned to the number of plants it is to contain, or the fancy of the owner; but the depth should never be greater than the height in the clear, which in small or middling houses may be sixteen or eighteen feet, but for larger ones from twenty to twenty-four feet is a good proportion: for if the greenhouse be long and too narrow, it will have a bad appearance both within and without, nor will it contain so many plants if proper room be allowed for passing in front, and at the back of the stands on which the plants are placed; and on the other hand if the depth of the Greenhouse be more than twenty-four feet, there must be more be more rows of plants placed to fill the house, than can with conveniency be reached in watering and cleaning; nor are houses of too great depth, so proper for keeping of plants as those of moderate size.

The windows in front should extend from about one foot and a half above the pavement, to within the same distance of the ceilings, which will admit of a cornice round the building over the heads of the windows. As it is necessary to have the windows so long, it will be impossible to make them in proportion as to their breadth, for if the sashes be more than seven or seven feet and a half broad, they will be troublesome to move up and down, and their weight will occasion them to decay very quickly. The piers between the windows should be as narrow as consistent with their necessary strength to support the building; for which reason stone is preferable, or hard well-burnt bricks. If these piers are made of stone, they should be two feet and a half feet in diameter; worked as columns cylindrical, whereby the rays of the sun will not be obstructed so much as if they were square: but if they are built of bricks it will be proper to make them three feet in front; and they may be sloped off towards the inside to admit the sun.

If a house for tools, &c. be erected at the back of the Greenhouse, the back wall need not be more than two bricks and a half in thickness; but if not, it must be

three bricks or three bricks and a half thick, to keep out the frost.

The floor of the greenhouse may be laid with Bremen squares, Purbeck stones, or broad tiles; and must be raised two feet above the ground, where the soil is dry...Under the floor, about one foot from the front, a flue one foot in width, and two feet in depth, may be carried the whole length of the house, which may be returned against the back wall, and carried in proper funnels adjoining to the tool house, three times over each other, by which the smoke may pass off. The fire-place may be at one end of the house, and the door at which the fuel is put in, as also the ashgrate, may be contrived to open into the tool-house, so that it may be quite hid from site and be dry; the fuel may also be laid in the same shed, and thus will always be ready for use. The wall on the back part of the house should be either laid over with stucco, or plastered with mortar and white-washed, to keep out the frost, which will penetrate through the walls, especially when it is attended with a strong wind. To prevent frost from penetrating through the roof, reeds, heath or furze should be laid between the ceiling and the tiles; and care should be taken in framing the joints that the weight may not lie upon the ceiling; for they should be laid a foot thick at least, as smooth as possible, and fastened down well with lathes to prevent their rising, and then covered over with a coat of lime and hair, which will keep out the air, and also prevent mice and other vermin from harbouring in them, which, if left uncovered, they would certainly do.

In the Greenhouse there should be tressels, which may be moved in and out, upon which rows of planks should be fixed, so as to place the pots or tubs of plants of plants in regular rows one above the other, whereby the heads of the plants may be so situated as not to interfere with each other. The lowest row of plants, or forwardest towards the windows, should be placed about four feet from them, that they may be a convenient breadth left next the glasses to walk in front; and the rows of plants should rise gradually from the first, in such a manner that the heads of the second row should be entirely advanced above the first, the stems only being hid, and at the back of the house there should be allowed a space at least five feet, for

the conveniency of watering the plants, and to admit a current of air round them, that the damps occasioned by the perspiration of the plants may be better dissipated, which by being pent in too closely often occasions a mouldering upon the tender shoots and leaves, and when the house is close shut up, this stagnating rancid vapour is often very destructive to the plants; for which reason also they should never be crowded too close to each other, nor should succulent plants ever be placed among them.

In Mr Miller's plan, the Greenhouse or Conservatory is placed exactly fronting the south; one of the wings or stoves facing the southeast and the other the southwest; so that from the time of the sun's first appearance upon any part of the building, until it goes off at night, it is constantly reflected from one part to the other, and the cold winds are also kept off from the front of the centre building...

The wing facing the south-east should always be preferred for the warmest or bark stove, because the sun, at its first appearance in the morning, shines directly upon the glasses, and warming the air of the house, gives new life to the plants, after the long nights of the winter season.

In these buildings, if there are not sheds running behind them their whole length, the walls should not be less than three bricks thick; and if they are even more it will be better, because where the walls are thin and exposed to the open air, the cold will penetrate, and when the fires are made, the heat will come out through the walls so that it will require a larger quantity of fuel, to maintain a proper temperature of warmth in the house: and in general the closer better the houses are built the less fuel will be required to warm them; so that the first expense in building them properly will be the cheapest, when the after expense of fires is taken into consideration.

Besides these buildings, it will be proper to have deep hot-bed frames, such as are commonly used to raise large annuals in the spring...which can be no better effected than in one of these frames, where the glasses may be taken off every day when the weather will permit, and put on every night: and in hard frosts the glasses

may be covered with mats, straw, peas-haulm, or the like; to prevent the roots of the plants from being frozen. If these pits be sunk a foot or more below the surface of the ground, it will be better, providing the ground be dry. The sides of the frame should be built of brick, and a curb of wood laid round on the top of the wall, into which the gutters whereon the glasses slide may be laid: the back wall may be four feet high and two bricks and a half thick, the front one foot and a half, the width of the inside of the frame about six feet, and the length in proportion to the number of plants to be contained in it.

Stoves

The Dry Stove may be either built with upright and sloping glasses at the top; or else the front glasses, which should run from the floor to the ceiling, may be laid sloping at an angle of 45° , the better to admit the rays of the sun in spring and autumn, when the sun declines. The latter method was formerly followed by many; but where I have had the contrivance of Stoves of this kind, I have always built them, after the model of the Bark Stove, with upright glasses in front, and sloping glasses over them, because this will more readily admit the sun at all different seasons; for in the summer, when the sun is high, the top glasses will admit the rays to shine almost all over the house; and in the winter, when the sun is low, the front glasses will admit its rays; whereas when the glasses are laid to any declivity in one direction, the rays of the sun will not fall directly on them above a fortnight in autumn, and about the same time in spring, and during the other parts of the year they will fall obliquely; and in summer, when the sun is high, the rays will not reach above five or six feet from the glasses. Besides, the plants placed towards the back part of the house, will not thrive in the summer season for want of air; whereas when there are sloping glasses at the top, which run within four feet of the back of the house, these, by being drawn down in hot weather, will let in air perpendicularly to all the plants; and how much service this is, every one who has had an opportunity of observing the growth of plants in a Stove, will easily judge; for when

plants are placed under cover of a cieling, they always turn themselves towards the air and light, and thereby grow crooked; and if, in order to preserve them straight, they should be turned every week, they will still be feeble, and look pale and sickly.

If the situation be dry, the floor of the stove need not be raised more than four feet above the level of the ground; but if it be wet, it will be proper to raise it three feet, especially if the flues are to be carried under the floor. For if these be placed upon the surface, they will not draw so well as when they are more raised. The furnace must be placed at one end of the house; and the size of it must be directed by the kind of fuel intended to be burn: if for coals or wood, it may be made according to the common method for coppers, only much larger, because as the fire is to be continued chiefly during the night, if there be not room to contain a considerable quantity of fuel, it will want frequent attendance, and consequently there will be great hazard of its being neglected. But if the fuel intended be turf, then the stove may be the same as will be directed for the bark stove.

The flues are either carried under the pavement of the floor, or along the back of the house, over each other, and are returned six or eight times the whole length of the Stove, according to the height. If they are under the pavement, they may be carried straight, or in a waving line; which latter, some think, will draw better, and they may be so much turned, as to reach almost from the back to the front of the house.

The depth of them should be not less than eighteen inches, and width nearly equal, which will prevent their being choked up with soot, as is often the case when the flues are made too small. The spaces between the flues should be filled up either with dry brick rubbish, lime or sand, from which little moisture will arise; and the flues should be closely plastered with loam both within and without, and the upper part covered with a coarse cloth under the floor, to prevent the smoke from getting into the house. When the flue is carried from the furnace to the end of the house, it may be returned in the back above the floor twice in straight lines, which may be

contrived to appear like a step or two, by which means the smoke will be continued in the house until all its heat is spent, which will consequently warm the air of the house better: and the chimneys through which the smoke is to pass off, may be either at both ends, or in the middle, carried up in the thickness of the brick work of the flues, so as not to appear in sight within the house. The flues should be first covered with broad tiles sixteen inches long, and then a bed of sand laid over them about two inches thick, upon which the other tiles should be laid to correspond with the rest of the floor. This thickness of cover will be full enough to prevent the too sudden rise of heat from the flues.

But if the furnace be placed under the floor, the thickness of sand between the brick arch which covers it and the floor, should not be less than four or six inches, so that the bottom of the furnace should be sunk the lower; and if from the fire-place to the end of the house the flues be laid a little rising, it will cause them to draw better; but this rise must be allowed in the placing them lower under the floor next the fire, because the floor must be laid perfectly level, otherwise it will appear unsightly.

In this Stove there should be a stand or scaffold erected for placing shelves above each other, that the plants may be disposed so as to make a handsome appearance in the house: but these shelves should be made moveable, so as to be raised or sunk according to the various heights of the plants, otherwise it will be very troublesome to raise or sink every particular plant according to their heights, or every year as they advance in their growth. In placing the feet of this stand you must be careful not to set them too near the fire, nor directly upon the top of the flue, especially that end next the fire; left by the constant heat of the tiles the wood should take fire. The stand should be in the middle of the house, leaving a passage about two feet and a half in the front, and another of the same width in the back, the more conveniently to pass round the plants in order to water them, and that the air may freely circulate about them. In disposing of the plants, the tallest should be placed behind, and the shortest in front, so that there will not be occasion for more

than five or six shelves in height at most; but the scaffold should be so contrived, that there may be two shelves in breadth laid upon every rise, whenever there may be occasion for it, which will save much trouble in disposing the plants.

[Bark Stoves were of later introduction, as was observed above, than these Dry Stoves, which were only an improvement upon the old Greenhouse, by adding more glass, and a furnace with flues. It seems probable that the culture of Ananas first gave rise to the introduction of the Bark Stove. See TAN, or TANNER'S BARK...]

The other sort of Stoves are commonly called bark Stoves, to distinguish them from the dry Stoves already mentioned. These have a large pit, nearly the width of the house, three feet deep, and six or seven feet wide, according to the breadth of the house, which pit is filled with fresh tanner's bark to make a hot-bed, and in this bed the pots of the most tender exotic trees and herbaceous plants are plunged. The heat of this bed being moderate, the roots of the plants are always kept in action, and the moisture detained by the bark, keeps the fibres of their roots in a ductile state, which in the dry Stove, where they are placed on shelves, are subject to dry too fast, to the great injury of the plants. In these Stoves, if they are rightly contrived, may be preserved the most tender exotic trees and plants which, before the use of the bark was introduced, were thought impossible to be kept in England; but, as there is some skill required in the structure of both these Stoves, I shall not only describe them as intelligibly as possible, but also annex plans of both Stoves hereto, by which it is hoped every curious person will be capable of directing his workmen in their structure.

The dimension of these Stoves should be proportioned by the number of plants intended to be preserved, or the particular fancy of the owner, but their length should not exceed forty feet for one fire-place; but where there are two fires it will be proper to make a partition of glass in the middle, and to have two tan-pits, that there may be two different degrees of heat for plants from different countries (for the reasons before given in the account of dry Stoves;) and were I to erect a range

of Stoves, they should be all built in one, and only divided with glass partitions, at least the half way toward the front, which will be of great advantage to the plants, because they may have the air in each division shifted by sliding the glass door which should be made between each division, for the more easy passage from one to the other.

These stoves should be raised above the level of the ground, in proportion to the dryness of the place, for if they are built on a moist situation, the whole should be placed upon the top of the ground, so that the brick-work in front must be raised three feet above the surface, which is the depth of the bark-bed, whereby none of the bark will be in danger of lying in water; but if the soil be dry, the brick-work in front need not be more than one foot above ground, and the pit may be sunk two feet below the surface. Upon the top of this brick-work in front must be laid the plate of timber, into which the wood-work of the frame is to be mortised; this should be of sound Oak felled in the winter, without sap, the dimension one foot wide, and six inches deep, and the upright timbers in front must be placed four feet asunder, or somewhat more, which is the proportion of the width of the glass doors or sashes; these should be about six feet and a half, or seven feet long, and placed upright; their dimension should be nine inches by six, of yellow Fir; but from the top of these should be sloping glasses, which which should reach within three feet of the back of the Stove, where there should be a strong crown-piece of timber placed, in which there should be a groove made for the glasses to slide into; the dimension of the sloping timbers should be ten inches by nine of yellow Fir, and the crown-plate one foot by nine or ten inches in the same timber. The wall in the back part of the Stove should be at least thirteen inches thick, but eighteen or twenty-two inches, which is two bricks and a half, will be better, for the greater thickness there is in the back wall, the more heat will be thrown to the front, whereby the air of the Stove will be better warmed, and the building will be so much stronger; for to this back wall the flues, through which the smoke is to pass, must be joined. This back wall should be carried up about sixteen or twenty feet high, or more for tall Stoves, that

they may be of proper height to support the timbers of the back roof, which covers the shed behind the Stove. The roof is fastened into the crown-piece before-mentioned, which in tall Stoves should be about thirty feet above the surface of the tan-bed, which will give a sufficient declivity to the sloping glass to carry off the wet, and be of a reasonable height for containing many tall plants. The back roof may be slated, covered with lead, or tiled, according to the fancy of the owner; but the manner of the outside building is better expressed by the annexed plan, than is possible to be described in words.

In front of the house, before the tan-bed, there should be a walk, about two feet wide, for the conveniency of walking; next to which the bark-pit must be placed, which should be in width proportional to the breadth of the house. If the house is fourteen feet wide, which is a due proportion, the pit may be eight feet wide, and behind the pit should be a walk two feet wide, to pass, in order to water the plants, &c. then there will be two feet left next the back wall to erect the flues, which must be all raised above the level of the bark-bed. These flues ought to be one foot wide in the clear, that they may not be too soon stopped with the soot, as also for the more conveniently cleaning them; the lower flue, into which the smoke first enters from the fire, should be two feet deep in the clear; this should be covered with broad tiles, which should be a foot and a half square, or one foot by a foot and a half long, that they may be wide enough to extend over the wall in front of the flues, and to take sufficient hold of the back wall; over this a second flue must be returned back again, which may be twenty inches deep, and covered on the top as before; and so in the like manner the flues may be returned over each other six or eight times, that the heat may be spent before the smoke passes off. The thickness of the wall in front of these flues need not be more than four inches, or three will do very well if they are carefully carried up, but it must be well jointed with mortar, and pargitered within side to prevent the smoke from getting into the house: the outside should be faced with mortar, and covered with a coarse cloth, to keep the mortar from cracking, as is practised in setting up coppers. If this be carefully done,

there will ne no danger of the smoke entering the house, which cannot be too carefully guarded against, for there is nothing more injurious to plants than smoke, which will cause them to drop their leaves, and, if it continue long in the house, will entirely destroy them.

The fire-place must be made at one end, where there is but one; but, if the Stove is so long as to require two, they should be placed at each end of the shed, which must be made the length of the Stove, that the fires and the back of the flues may not suffer from the outer air; for it will be impossible to make the fires burn equally, where the wind has full ingress to it, and it will be troublesome to attend the fire in wet weather, where it is exposed to the rain.

The contrivance of the furnace must be according to the fuel which is designed to burn, but as turf is the best firing for Stoves, where it can be had cheap, many prefer it, because it lasts longer than any other sort of fuel, and so requires less attendance. I shall describe a proper sort of furnace for that purpose.

The whole of this furnace should be erected within the house, which will be a great addition to the heat, and the front wall on the outside of the fire-place, next the shed, should be three bricks thick, the better to prevent the heat from coming out that way. The door of the furnace, at which the fuel is put in, must be as small as conveniently may be to admit of the fuel; and this door should be placed near the upper part of the furnace, and made to shut as close as possible, so that there may be but little of the heat pass off through it. This furnace should be about twenty inches deep and sixteen inches square at the bottom, but may be sloped off on every side, so as to be two feet square on the top, and under this furnace should be a place for ashes to fall into, which should be about a foot deep, and as wide at the bottom of the furnace; this should also have an iron door to shut as close as possible, but just over the ash hole, above the bars which support the fuel, should be a square hole about four or six inches wide to let in air to make the fire burn: this must also have an iron frame, and a door to shut close when the fire is perfectly lighted, which will make the fuel last longer, and the heat will be more moderate.

The top of this furnace should be nearly equal to the top of the bark-bed, that the lowest flue may be above the fire, so that there may be a greater draught for the smoke, and the furnace should be arched over with bricks. The best materials for this purpose are what the bricklayers call Windsor bricks, which should be laid in loam of the same kind as the bricks are made with, which, when burnt by the fire, will cement the whole together, and become like one brick; but you should be very careful, wherever the fire is placed, that it be not too near the bark-bed, for the heat of the fire will, by its long continuance, dry the bark, so that it will lose its virtue, and be in danger of taking fire; to prevent which, it will be the best method to continue a hollow, between the brick-work of the fire and that of the pit, about four or five inches wide, which will effectually prevent any damage arising from the heat of the fire; nor should there be any woodwork placed near the flues, or the fire-place, because the continual heat of the Stove may in time dry it so much as to cause it to take fire, which should be very carefully guarded against.

The entrance into this Stove should be either from a green-house, the dry Stove, or else through the shed where the fire is made, because in cold weather the front-glasses must not be opened. The inside of the house should be clean and white-washed, because the whiter the back part of the house is, the better it will reflect the light, which is of great consequence to plants, especially in winter, when the Stove is obliged to be shut up close.

Over the top sliding-glasses there should be either wooden shutters, or tarpaulins fixed in frames to cover them in bad weather, to prevent the wet from getting through the glasses, and to secure them from being broken by storms of hail, and these outer coverings will be very serviceable to keep out the frost; and if in very severe cold there is a tarpaulin hung before the upright glasses in the front, it will be of great service to the Stove, for then much less fire will preserve the heat in the house.

In the warmest of these houses or divisions should be placed the most tender exotic trees and plants. These, being natives of very warm countries, should be

plunged in the bark-bed, and over the flues may be a conveniency made to set the Melon Thistle, the tender sorts of Cereuses, and Euphorbiums, with other very tender succulent plants, which require to be kept dry in winter.

As in this Stove are placed the plants of the hottest parts of the East and West Indies, the heat should be kept up equal to that marked Anana upon the botanical thermometers, and should never be suffered to be above eight or ten degrees cooler at most; nor should the spirit be raised above ten degrees higher in the thermometer during the winter season, both which extremes will be equally injurious to the plants.

But in order to judge more exactly of the temper of the air in the Stove, the thermometer should be hung at a good distance from the fire; nor should the tube be exposed to the sun, but, on the contrary, as much in shade as possible; because, whenever the sun shines upon the ball of the thermometer but one single hour, it will raise the liquor in the tube considerably, when perhaps the air of the house is not near so warm, which many times deceives those who are not aware of this.

In the management of the plants placed in the bark-bed, there must be a particular regard had to the temper of the bark, and the air of the house, that neither be too violent; as also to water them frequently, but sparingly in cold weather, because when they are in continual warmth, which will cause them to perspire freely, if they have not a proper supply to answer their discharge, their leaves will decay, and soon fall off. As to the farther directions concerning the culture of particular plants, the reader is desired to turn to their several articles, wherre they are distinctly treated of.

...The quantity of fuel which will be wanting for a Stove of thirty-six feet long in the clear, is about three chaldron and a half of coals, or in such proportion for any other sort of fuel; when coals can be had reasonable, it is the best kind of fuel; and the pit or Scotch coal is preferable to the Newcastle coal, because the latter is very subject to melt or run into clinkers when the oven is very hot, which the pit coal never does, but always burns away with a white ash, making but little soot; so

that the flues will not require to be so often cleaned...The next best fuel for stoves is peat, where it can be procured good, but the scent of this fuel is disagreeable to many people. There are some persons who burn wood in their stoves, but this fuel requires much greater attendance than any other, therefore is not very proper for this purpose; but in the building of the Stoves, the ovens must be contrived for the sort of fuel which is to be used in them.

TANNERS BARK is the Bark of the Oak-tree, chopped or ground into coarse powder, to be used in tanning or dressing skins, after which it is of great use in gardening: first, by its fermentation (when laid in a proper quantity,) the heat being always moderate, and of long duration, which renders it of great service for hot-beds; and secondly, after it is well rotted, it becomes excellent manure for all sorts of cold stiff land, upon which one load of Tan is better than two of rotten dung, and will continue longer in the ground...

These Tan-beds should be always made in pits having brick walls round them, and a brick pavement at the bottom, to prevent the earth from mixing with the Tan, which will prevent the Tan from heating. These pits must not be less than three feet deep, and six feet in width, but seven is better; the length must be in proportion to the number of plants they are to contain, but if they are not ten feet in length, they will not retain heat long...

When the Tan is good, one of these beds will retain a proper degree of heat for near three months; and when the heat declines, if the Tan is forked up and turned over, and some new Tan added to it, the heat will renew again, and will continue two months longer...

Oak leaves are preferable to Tanner's Bark; for they always heat regularly and constantly, never heating with violence, or turning cold after the furious heat is gone off...and the decayed fermented leaves make good garden manure; whereas rotten Tan is of no value, for that purpose.

APPENDIX 3: FOTHERINGAY, 1827

“A Ride from Halifax to Windsor

From Captain Fotheringay to his Friend Charles Escalon, Esquire.” *In. The Colonial Herald*, Halifax, Thursday, September 20, 1827.

...Twenty-five miles from Halifax - still a land of bareness. Another mile brought us to a fantastic looking cottage stuck on the road side, which as I was told stood on the boundary line of Mount Uniacke. Driving along we opened upon the mansion, and certainly it broke upon the astonished view, as unexpected a sight, as was the avalanche in the valley of _____ pshaw, I forget the name, when we commenced our ascent to Mount Sunplon. It is built upon the borders of a small Lake, in a style of architecture which is singular and unique. A square form, rising into two or three stories, large windows and a pretty veranda are its distinguishing characteristics. The outhouses are neat, and the lawn which spread before the door – a kind of sheep walk, with some scrubby firs set as shade – may by and by, after its present rudeness is mellowed into sylvan beauty, prove an ornament. The view of the lake is gloomy, but as it is deeply fringed by hanging woods it gives the scene an air of beautiful romance. The gate is one of the most wonderful exhibitions of taste which ever met my eyes. Like the enchanted palace it hath ornaments ‘from the depths of the sea and the valleys of the earth, and the beasts and the fishes therein.’ The posts are covered with a variety of horns – among which the antlers of the deer and moose are conspicuous, and surmounting the arch there is a figure of a fish, which bears a snout the full length of a French pike. Gad what a cachinnation I had from the conceit of the thing. The garden, and the orchard, just planted, looked sweetly in the distance, and are finely set off by the knoll of green trees which swell over the hill. The House has only one fault – had it been built upon the gentle ascent which rises behind it, and this laid out as a lawn, with a few deerhorns rambling in its green, instead of being glued to a gate post, the place would have had a more princely air ‘and been a cynosure to passing eyes.’

APPENDIX 4 - THE HOTHOUSE PLANTS

INTRODUCTION: The following appendix is series of short paragraphs, taken from two early 20th century sources, on a few of the plants listed in the 1830 Estate inventory. The modern names of the plants have been used and may not correspond exactly to the names found in the inventory.

Myrtle - "Evergreen shrubs with opposite leaves, spotted by translucent dots. Flowers in small clusters or solitary... Nearly all come from S. America and Australia, but one species, *M.communis*, the common Myrtle, is one of Asiatic origin and has been grown in Europe for centuries; it was sacred among the ancients to the Goddess of Love. It is only hardy in the mildest parts of the country" (Kirk, 1927: 241-242)

"The common myrtle... in its numerous varieties, can only be grown in the open in the south-west; in all other parts it requires the shelter of a wall, and during severe weather additional protection. But it well deserves the little care necessary to preserve it. The myrtle is a native of the south of Europe, and bears the spray of the sea with impunity. The date of its introduction is probably about 1597"(Thompson and Moore, 1892: 657).

Passion Flower - "Climbing shrubs with palmate lobed leaves and tendrils. Flower solitary, large and usually blue, from the leaf axils... Chiefly from America. *P. cœrulea*, and a white variety, is cultivated and may be grown anywhere in the south, but it is easily killed by a severe winter and should be grown against a wall" (Kirk, 1927: 251-252).

"*Passiflora coerulea*.- This species of passion-flower is perfectly hardy in the south and west, fruiting freely in warm summers; and it is at the same time one of the most beautiful climbers we have for training up housefronts to the balconies, as the young wood may be cut back annually after the flowering season is over... Uruguay, South America, 1699" (Thompson and Moore, 1892: 662).

Hydrangea - "Deciduous shrub, in suitable places growing to strong bushes or small trees, with simple opposite leaves, and bearing flat or pyramidal heads of flowers, white, pinkish or blue... E. Asia and America. In cultivation garden forms produce heads of flowers which are all barren and enlarged...The common plant of this genus is *H. Hortensia*, and its varieties..." (Kirk, 1927: 230-231).

"Dwarf shrubs, with undivided or lobed leaves, and enormous terminal panicles or corymbs of white, pink, or blue flowers. The Chinese and Japanese species only attain perfection in sheltered situations, and they succeed admirably on the coast in the south and west of England, or in Ireland. The North American species are hardier, but less ornamental... *H. Hortensia* - The varieties of this species are numerous and beautiful, but they are most of them better suited for a cool conservatory than the open air... The common variety was introduced from China in

1740 ” (Thompson and Moore, 1892: 649).

Jessamine (or Jasmine) - “Shrubs with weak stems, generally climbing or rambling. Leaves deciduous or evergreen, trifoliolate or pinnate, sometimes reduced to 1 leaflet... Flowers yellow, white or pinkish, singly or in clusters or panicles from the ends of the shoots...Tropical and sub-tropical regions in the Eastern Hemisphere. A large genus, but only a few are hardy of which the old yellow winter Jasmine, *J. nudiflora*, and the summer white Jasmine, *J. officinale* are still the favourites” (Kirk, 1927: 378).

Sweet Bay - “*Laurus nobilis*, sweet bay, or bay laurel.- This assumes the dimensions of a tree in the warmer parts of the kingdom. It is prized for its aromatic leaves of firm texture. Mediterranean region, 1562” (Thompson and Moore, 1892: 645).

Geranium - “Half-hardy herbaceous or semi-shrubby plants, grown in greenhouses, but often bedded out in summer. Leaves opposite or alternate, generally palmately lobed or cleft, and with stipules. Flowers showy, in many-flowered umbels, generally pink or white, but often variously marked... A few originate from N.Africa and the East, but the majority are from S.Africa. It is now become, as far as outdoor plants are concerned, a genus of cultivated varieties rather than a species...” (Kirk, 1927: 147).

Laurestinus - “(*Viburnum tinus*). Neither the English broad-leaved laurel, Portugal laurel, sweet bay, laurestinus, arbutus or strawberry tree... can withstand the severity of the winter frosts in the middle of the eastern States... and, therefore, must in these places be treated as green-house plants” (McMahon, 1976 : 376)

“*Viburnum* - The only evergreen species of this genus in general cultivation is *V. Tinus*, the laurestinus. This is one of the most valuable of winter-flowering shrubs for all well-drained soils, and it flourishes with unusual luxuriance either on sand-rock, chalk, or limestone... It flourishes well in sheltered places near the sea. South of Europe, 1596” (Thompson and Moore, 1892: 658).

APPENDIX 5: FLOWER POT RIM TYPES

Type 1

Type 1A: Lip: rounded lip inclined to the exterior (Illus. 54: A; 55: A).
sherd count= 16, plus 1 complete vessel

Ceramic body: colour - orange

porosity - high

hardness - soft

inclusions - quartz, unid. white stone, ochre, mica (fine)

texture - sandy

firing - low

Decoration - double undulation created by grasping the lip with the fingers, the thumb on the exterior, and inclining the lip to the exterior.

Measurable internal diameter - 6" = 2 sherds

8" = 1 (complete vessel)

Type 1B: Lip: rounded lip, inclined to the exterior, with coggle wheel
decoration

sherd count = 9

Ceramic body: colour - orange to red

porosity - average

hardness - average

inclusions - unid. white rock, mica, quartz (all fine to very
fine)

texture - sandy

firing - average

No measurable rim diameters

Flower Pot Rim Type 2

Type 2A Lip: rounded lip, everted
sherd count = 13

Ceramic body: colour - orange to reddish-orange

porosity - average

hardness - average to moderately hard

inclusions - unid. white flecks, ochre (very fine)

texture - sandy to moderately sandy

firing - average to moderately high

Measurable internal diameter - 8" = 1 sherd

Type 2B Lip: rounded lip, everted
sherd count = 2
Ceramic body: colour - red
porosity - moderately low
hardness - hard
inclusions - unid. white flecks, mica flakes
texture - sandy
firing - moderately high
Measurable internal diameter - 10" = 2 sherds

Type 2C Lip: triangular lip, everted
sherd count = 4
Ceramic body: colour - orange to brownish-orange
porosity - average to moderately low
hardness - average to moderately hard
inclusions - unid. white flakes, mica flakes, quartz
texture - sandy to smooth
firing - average
Measurable internal diameter - 7" = 1

Type 2D Lip: square lip, everted
sherd count = 1

Flower Pot Rim Types: Type 3

Type 3 Lip: rolled hem
sherd count = 98
Ceramic body: colour - orange to red
porosity - moderately low to moderately high
hardness - moderately soft to hard
inclusions - light coloured stone, ochre, quartz (fine)
texture - sandy
firing - low to high
Measurable internal diameters:
3½" = 1
4" = 1
5½" = 1
7" = 5
8" = 1

Comments: some examples have an exterior iron oxide wash; some have glaze spots (dark brown).

Flower Pot Rim Type 4

Lip: flat top lip , everted rim
sherd count =

ceramic body:colour - orange to brownish-red

porosity - low to average

hardness - average to hard

inclusions - yellow streaking, light coloured sone, ochre, quartz
(fine to large).

texture - sandy

firing - average to moderately high

Measurable internal diameters - 10" = 6

11" = 2

12" = 3

13" = 1

Comments: some examples have exterior iron oxide wash, some have glaze spot (dark brown).

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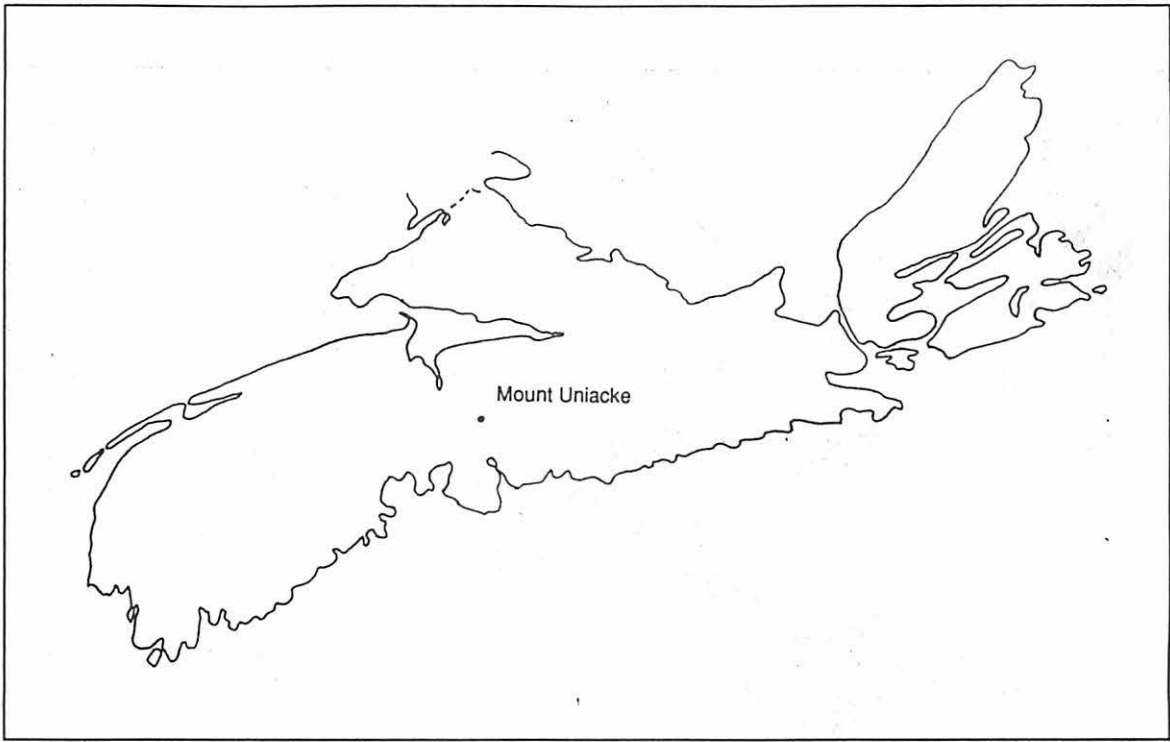
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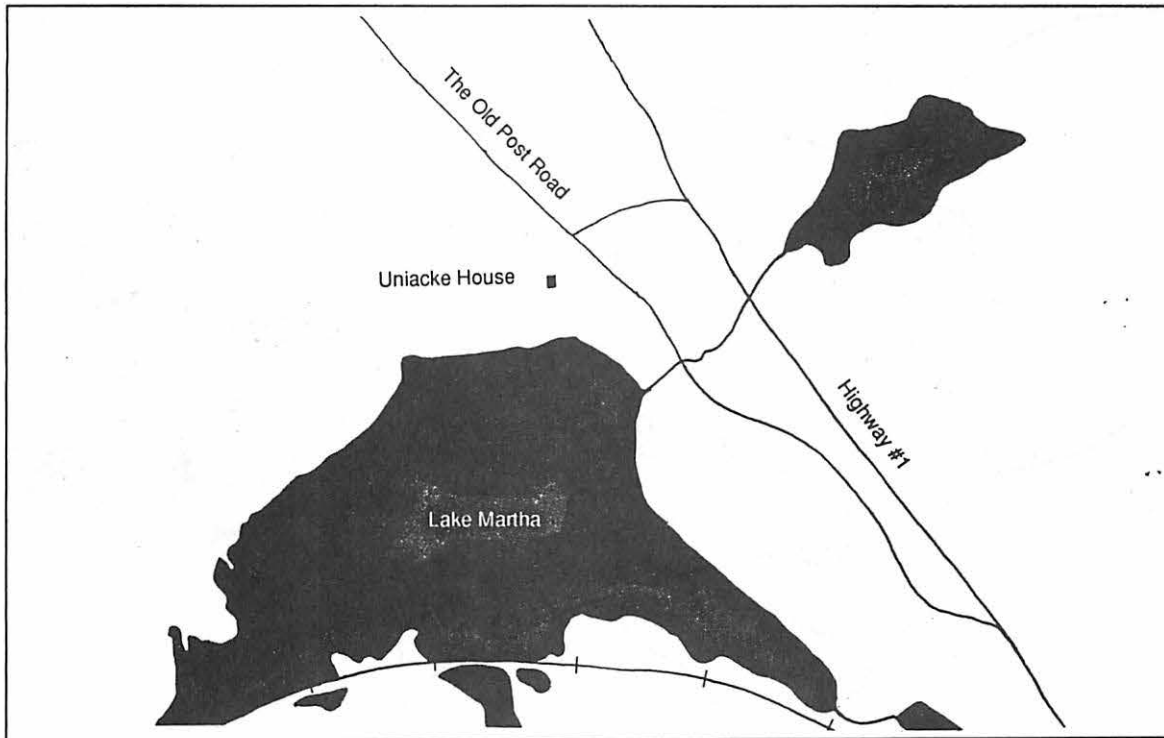
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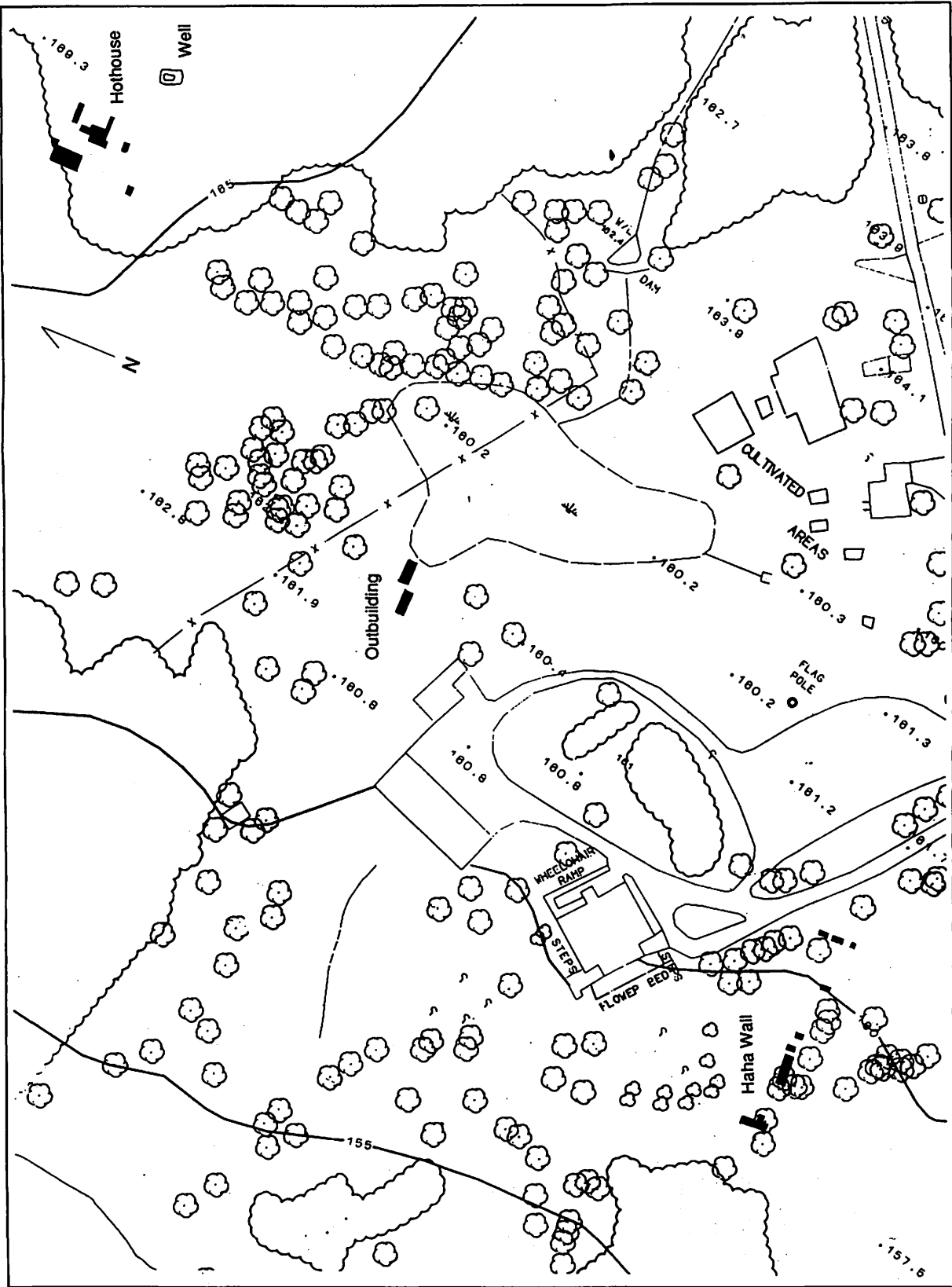
ILLUSTRATIONS



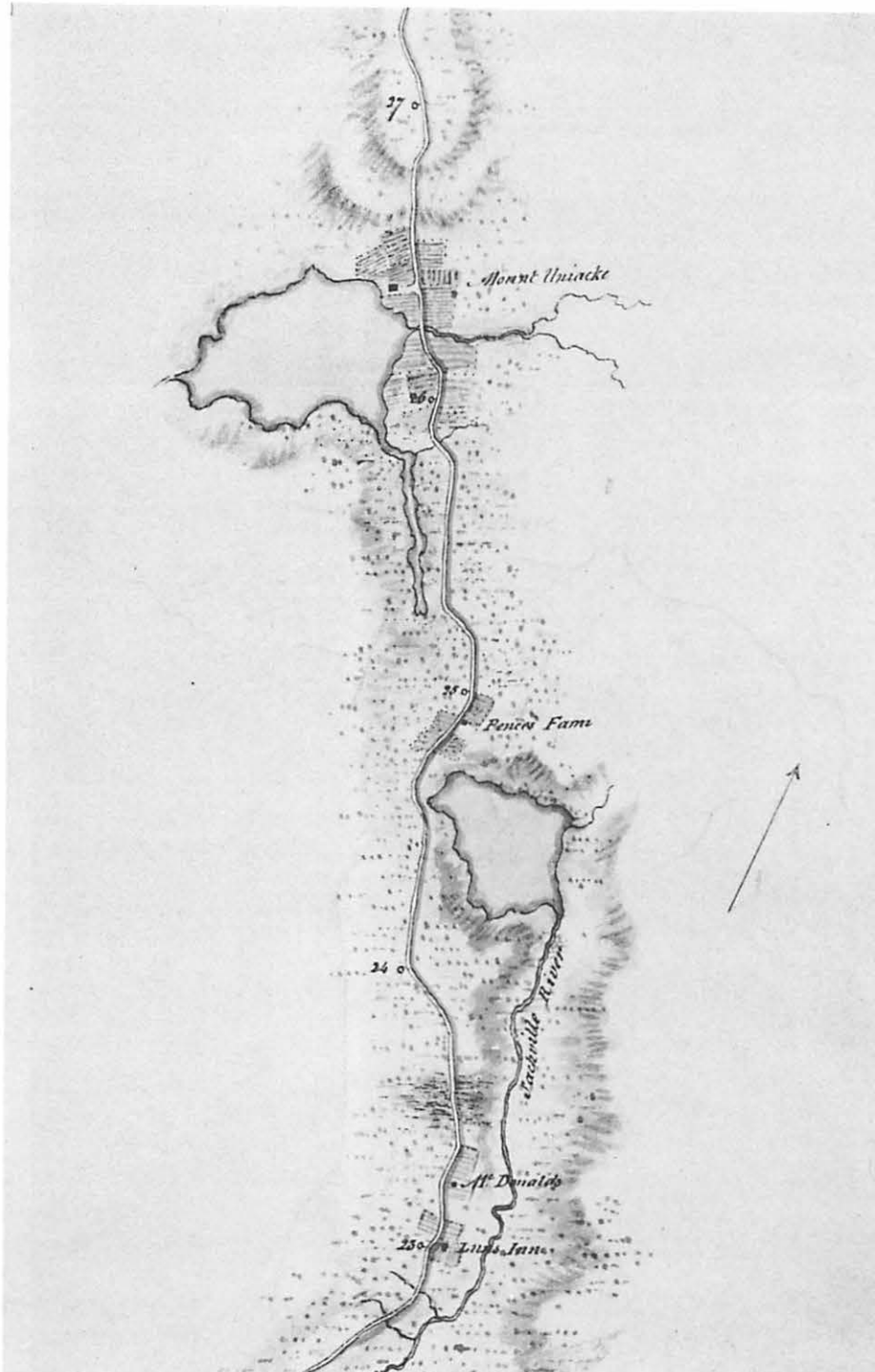
1. Mount Uniacke, Hants County, Nova Scotia (See text p.1)



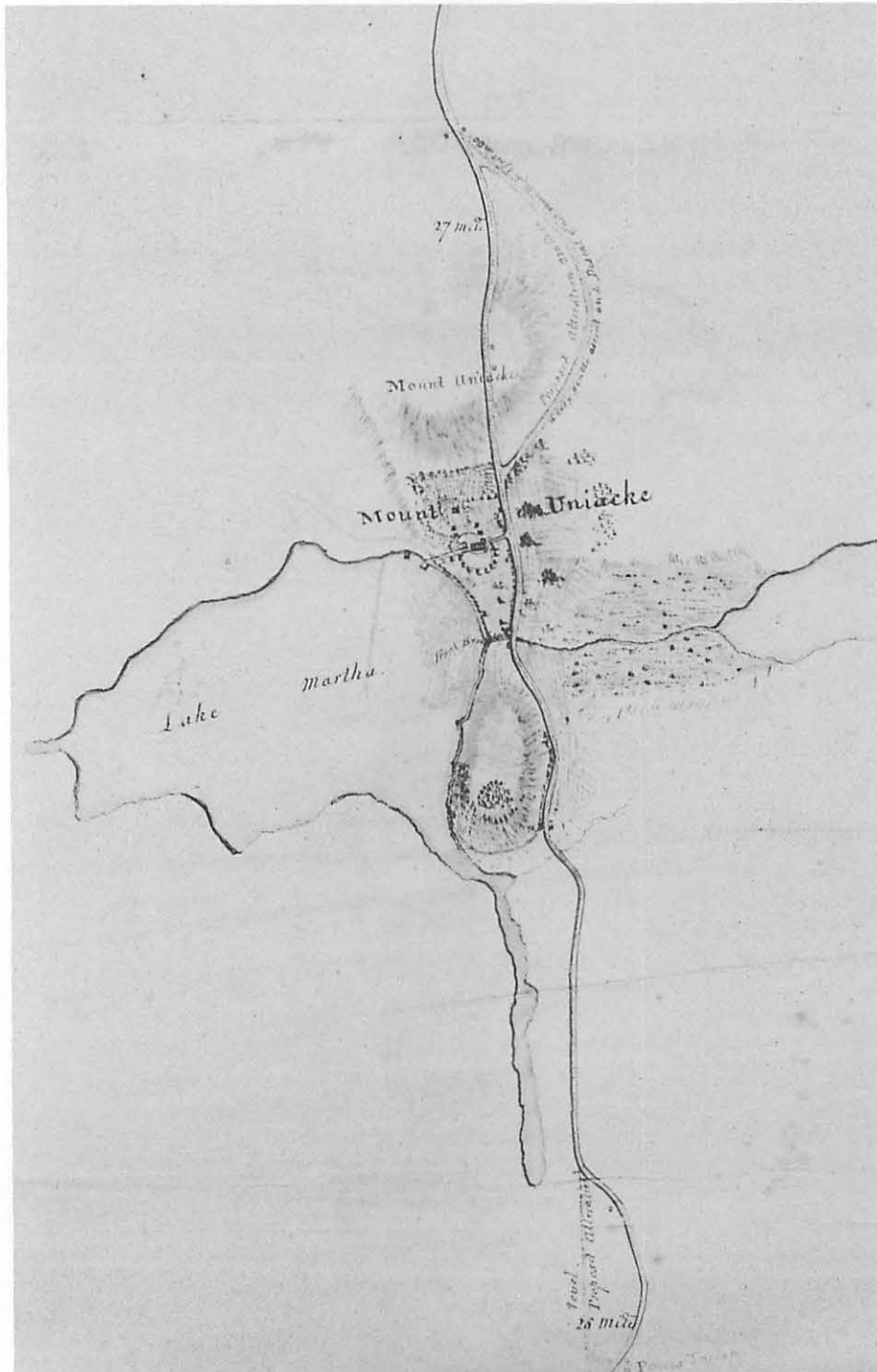
2. Mount Uniacke. Scale 1: 10,000 (See text p.1)



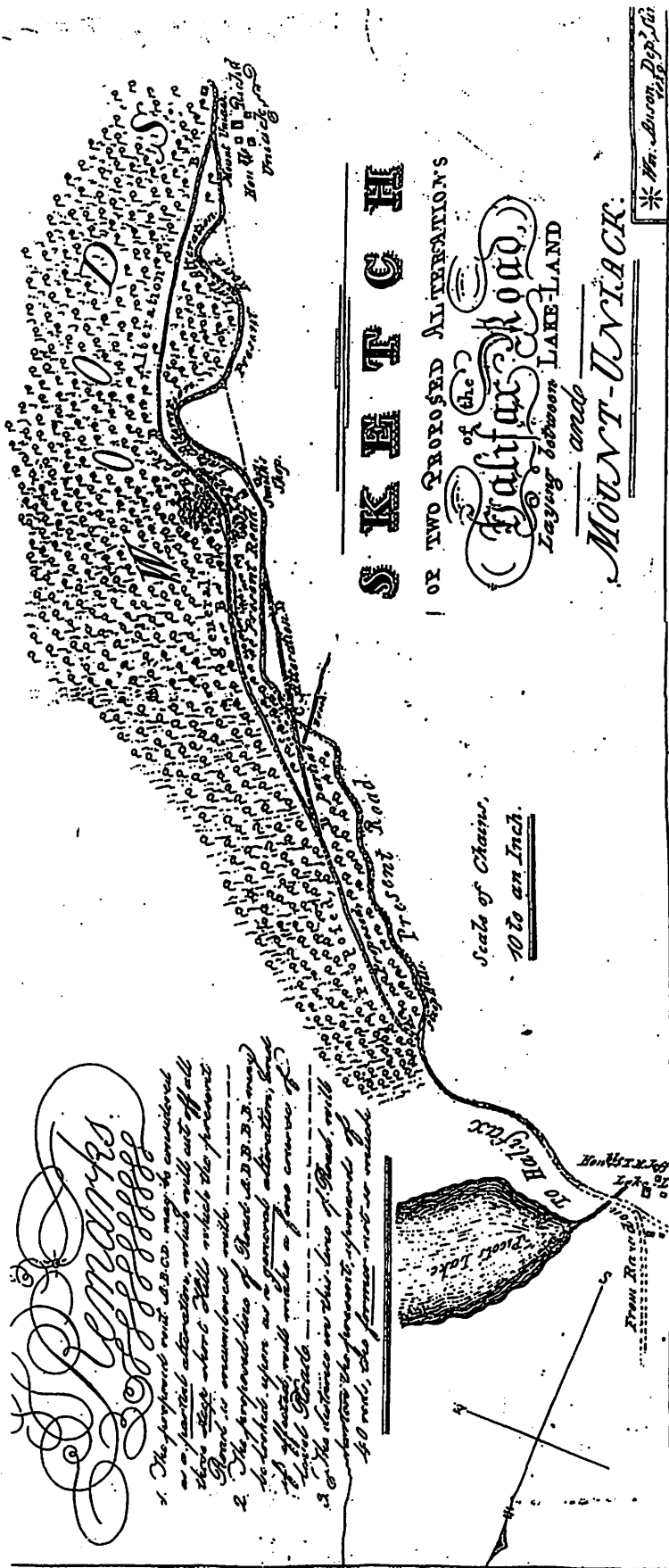
3. Uniacke estate, archaeological excavation units, 1992.
 Scale 1:1,000 (See text p.2)



4. "Surveys of the roads from Halifax to Windsor and from Halifax to Truro",
J.E.Woolford, 1819-21, PANS Collection F/209-1819, NSM neg. no. N-11538.
(See text pp.2, 20)



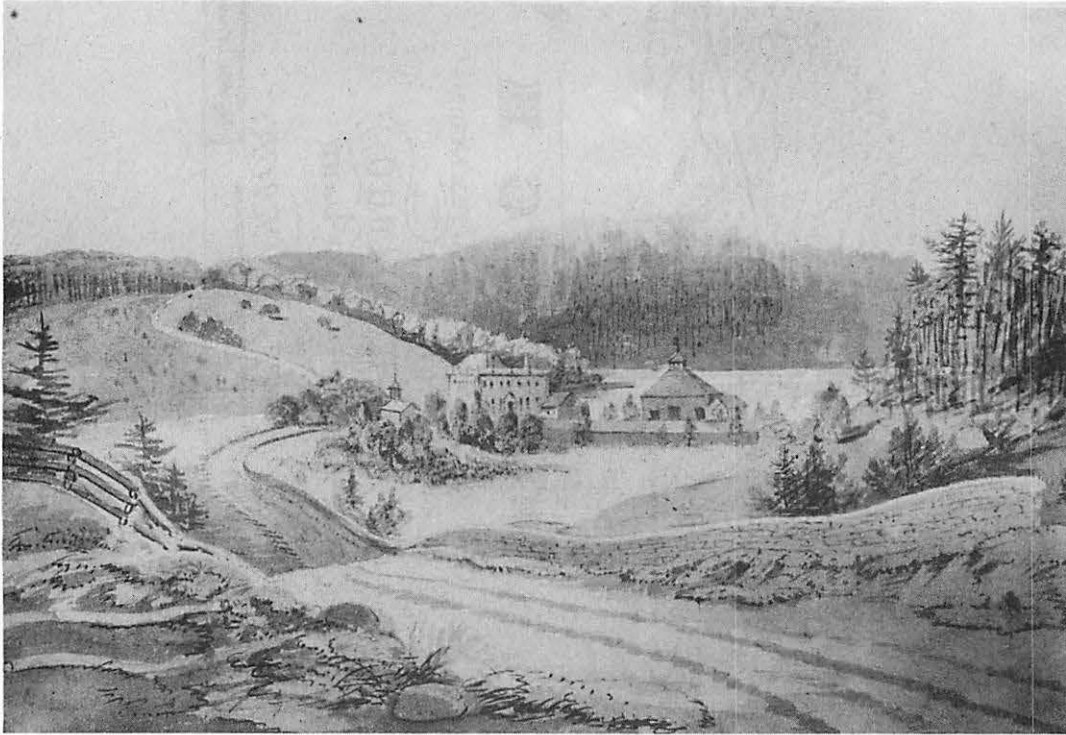
5. "Proposed alterations to the road from Halifax to Mount Uniacke", anonymous, 1821-25, PANS Collection, NSM neg. no. N-18236. (See text pp.2, 6, 20)



Wm. Anson

1. The proposed line of about 4.5 miles may be considered as a partial alteration, which will cut off all those zig-zags which the present Road is encumbered with.
2. The proposed line of about 4.5 miles may be looked upon as a general alteration, and if effected will make a fine curve of about 3 miles.
3. The distance in the line of Road will between the present ground of 4.5 miles, the former not a mile.

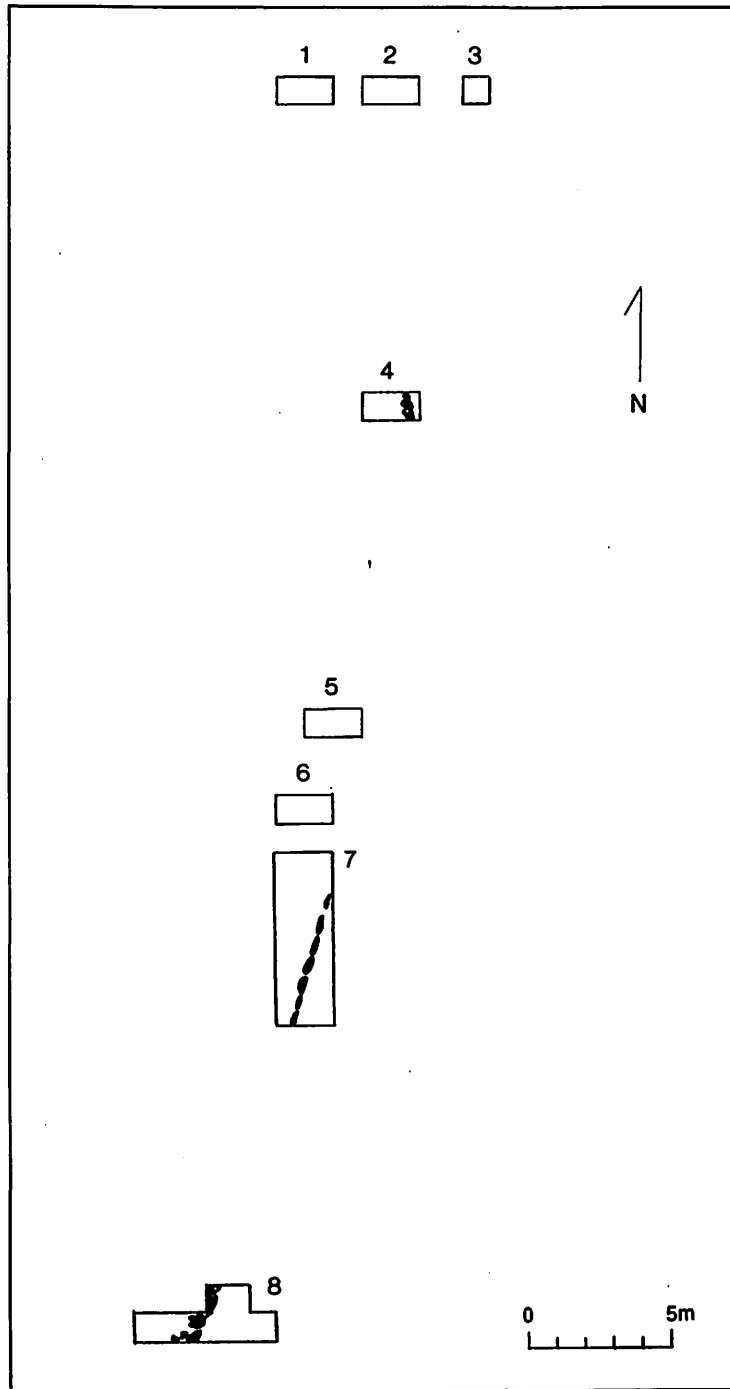
6. "Sketch of two proposed alterations of the Halifax Road laying between Lake-Land and Mount-Uniack" (sic), Wm. Anson, 1829. (See text p.2)



7. "Mount Uniacke", from the Halifax-Windsor road, looking southwest. Wash drawing by J.E. Woolford in *Sketches in Nova Scotia 1817*, NSM neg. no. N-8160. (See text pp.2, 12)



8. "Mount Uniacke", from the lakeshore, looking northwest. Wash drawing by J.E. Woolford in *Sketches in Nova Scotia 1817*, NSM neg. no. N-8168. (See text p.2)



10. Haha wall excavation units, 1992. Scale 1:200 (See text pp.5, 6, 7, 8, 9)

1. e71.5n3-e73.5n2

2. e74.5n3-e76.5n2

3. e78n3-e79n2

4. e74.5s8-e76.5s9

5. e72.5s19-e74.5s20

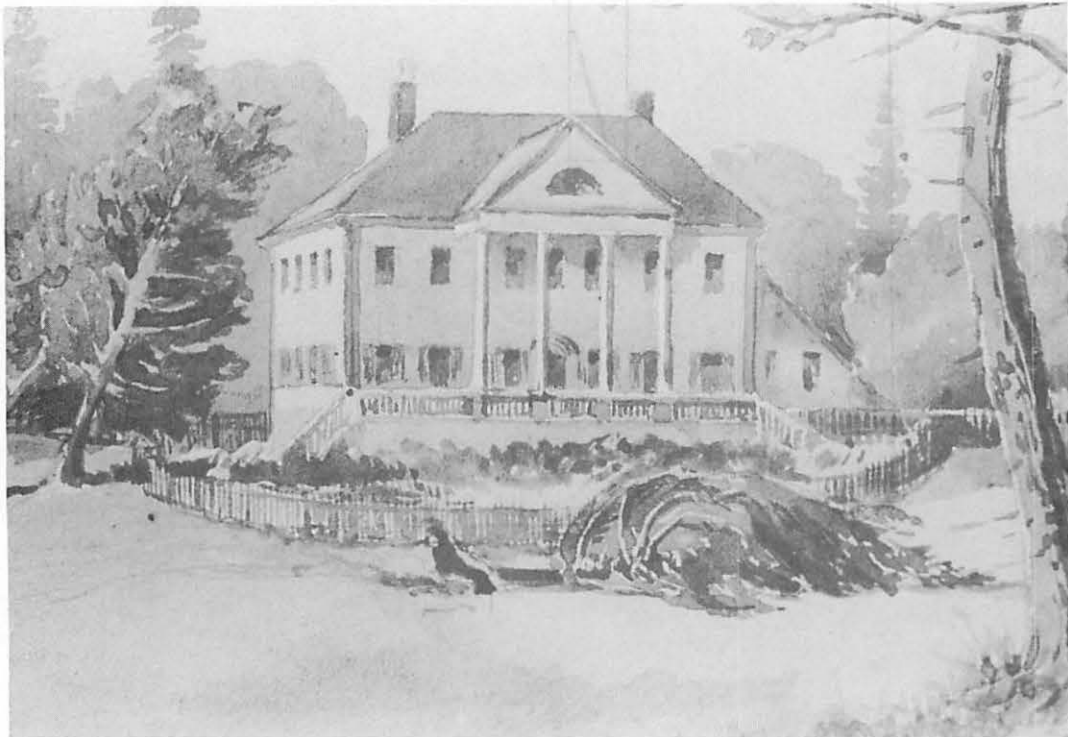
6. e71.5s22-e73.5s23

7. e71.5s24-e72.5s30

8. e66.5s40-e71.5s41



11. View of house and sheep, with haka in between. Watercolour, anonymous, c1870. NSM Collection 49.10.7, neg. no. F143: 16a. (See text p.6)



12. Mount Uniacke, c1870. An ascription reads "done by Wilkie Collins son", watercolour. Private collection, NSM neg. no. F80: 4. (See text p.6)



13. The haha wall excavation units on the east lawn, 1992, looking east. Refer to Illus. 9, from left to right, units #1, 2, 3, 4, and 5. Also note the haha wall sign on the right of the photo. (See text p.7)



14. Haha wall excavation units on the east lawn, looking southeast, 1992. Unit #4.(See text p. 7)



15. Haha wall, unit #8, looking west, wall face and grade fill. (See text pp.6, 8)



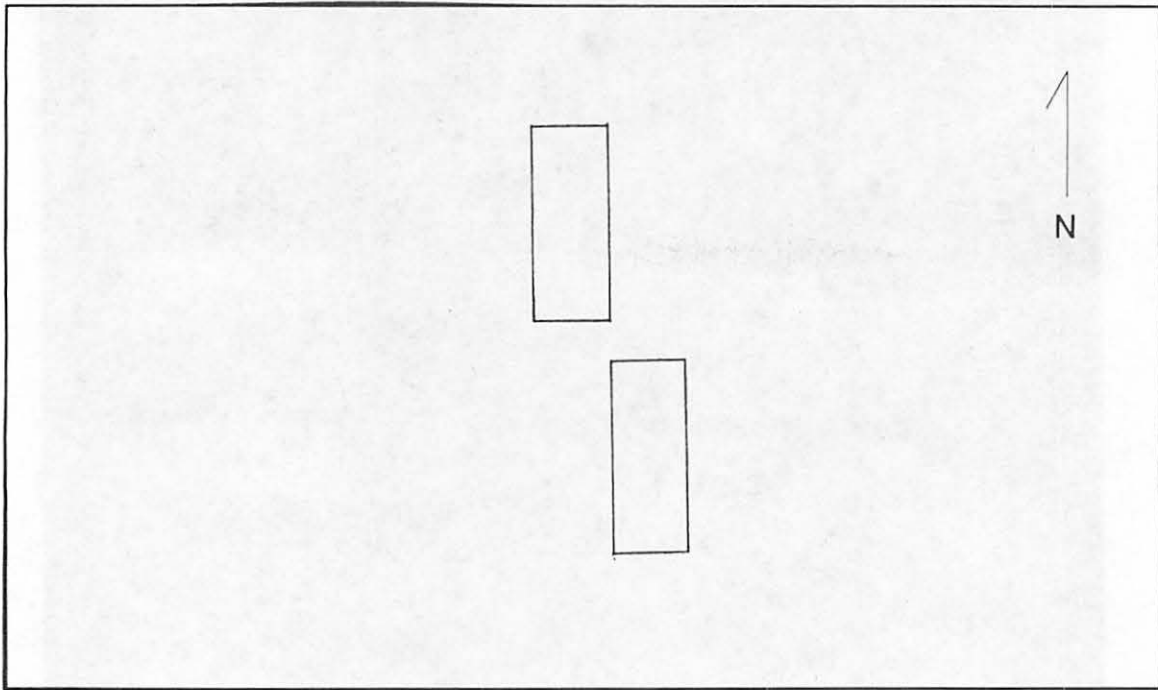
16. Haha wall, units #2 and 3, looking northeast. Note the fill increasing uphill.
(See text p.7)



17. Haha wall, units #1, 2, and 4, looking south. Note the slight depression along the line of the posts indicating the exterior of the haha under the ground. (See text p.7)



18. Haha wall, unit #8, looking northwest. Note the possible stile rock at the bottom right. (See text p.8)



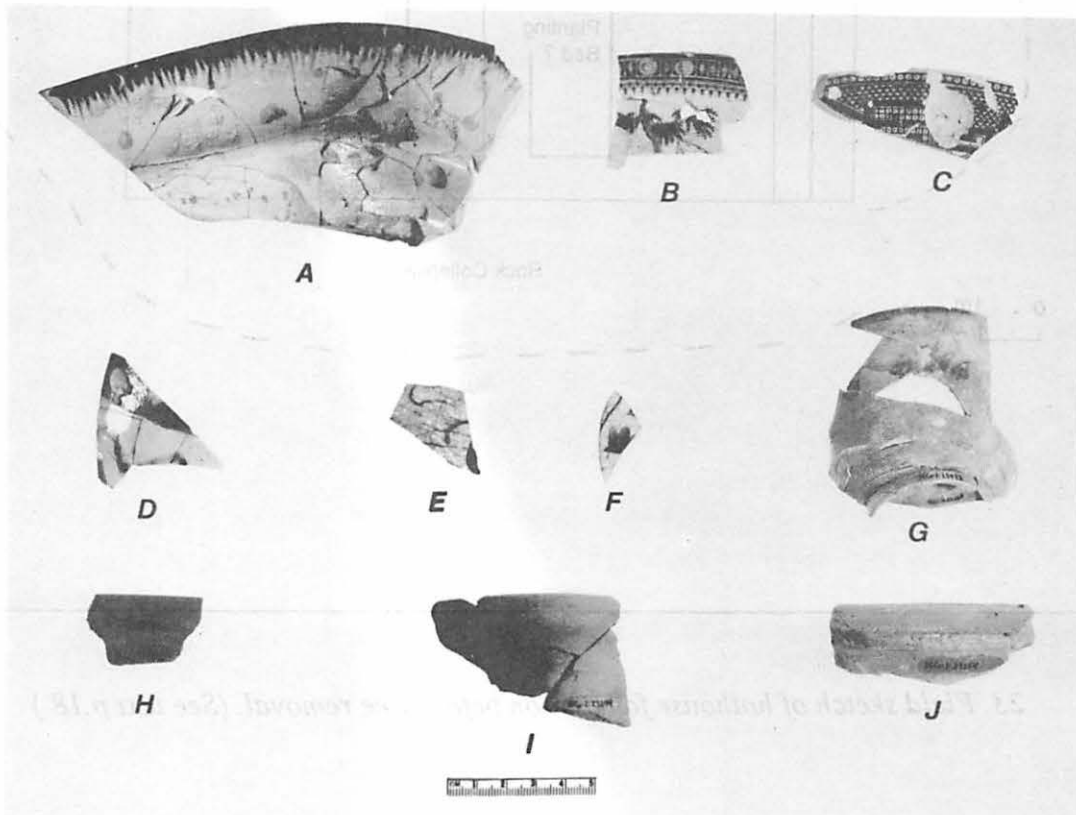
19. Outbuilding excavation units. Scale 1:200 (See text p.12)



20. Outbuilding excavations, looking east, with the carriagehouse on the right.
(See text p.12)



21. Outbuilding excavation unit, looking north. (See text p.12)



22. Outbuilding artifacts. (See text pp. 13-14)

A. Shell-edge pearlware
(BfCx:2:23250)

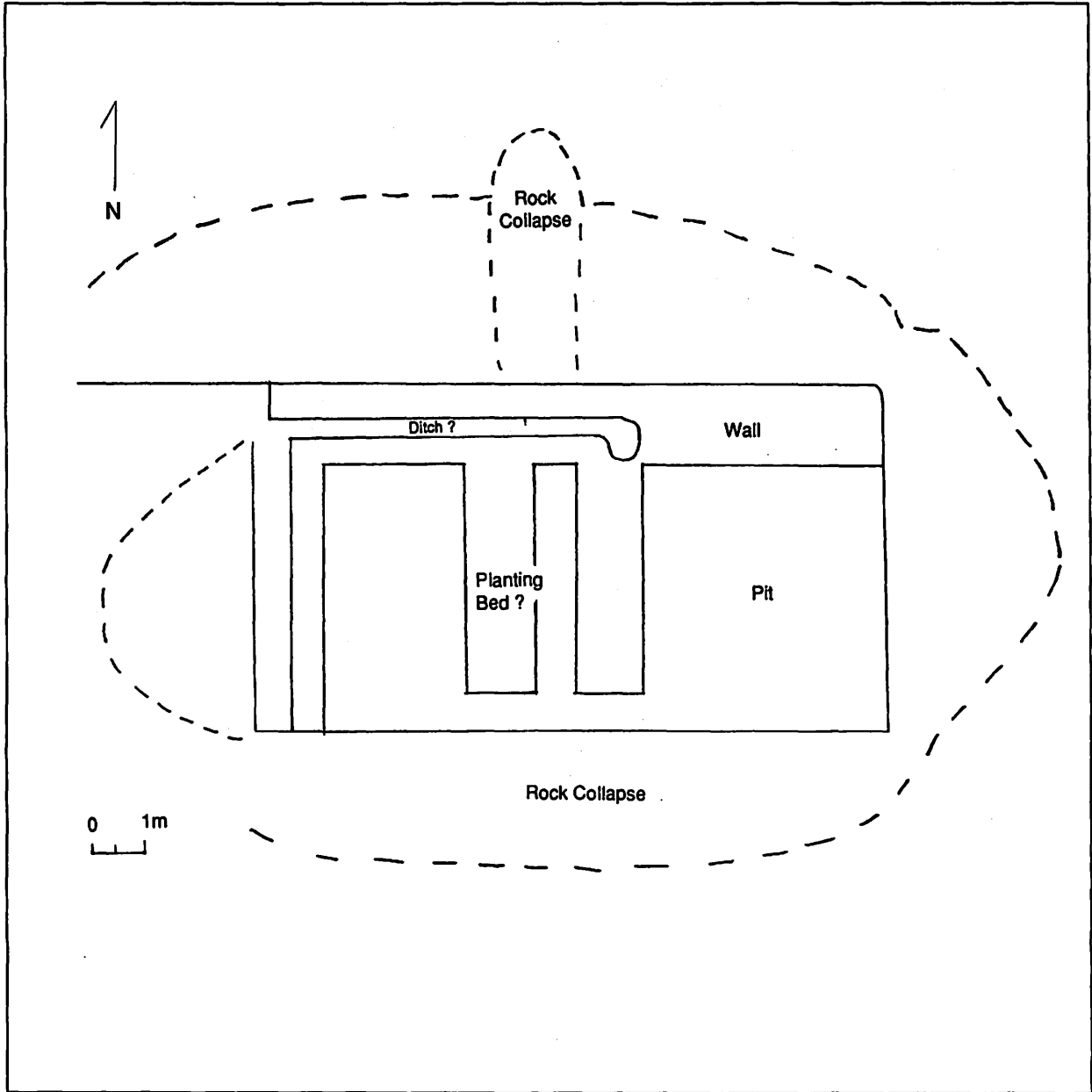
B,C. Transfer-printed pearlware
(23263, 23249)

D. Slip marbled and turned refined earthenware
(23264)

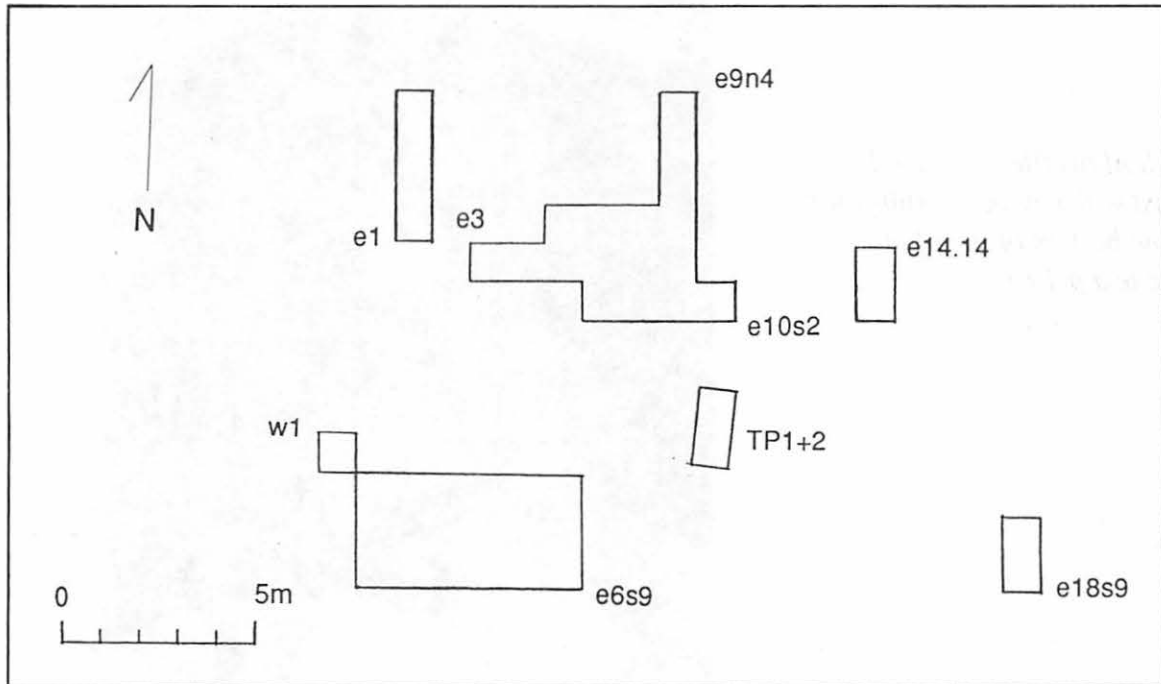
E, F. Polychrome painted pearlware.
(23260, 23326)

G. Tea bowl, refined earthenware.
(23261)

H, I, J. Flower pot rims.
(23243, 23244, 23254)



23. Field sketch of hothouse foundation before tree removal. (See text p.18)



24. Hothouse excavation units, 1992. (See text p.18)

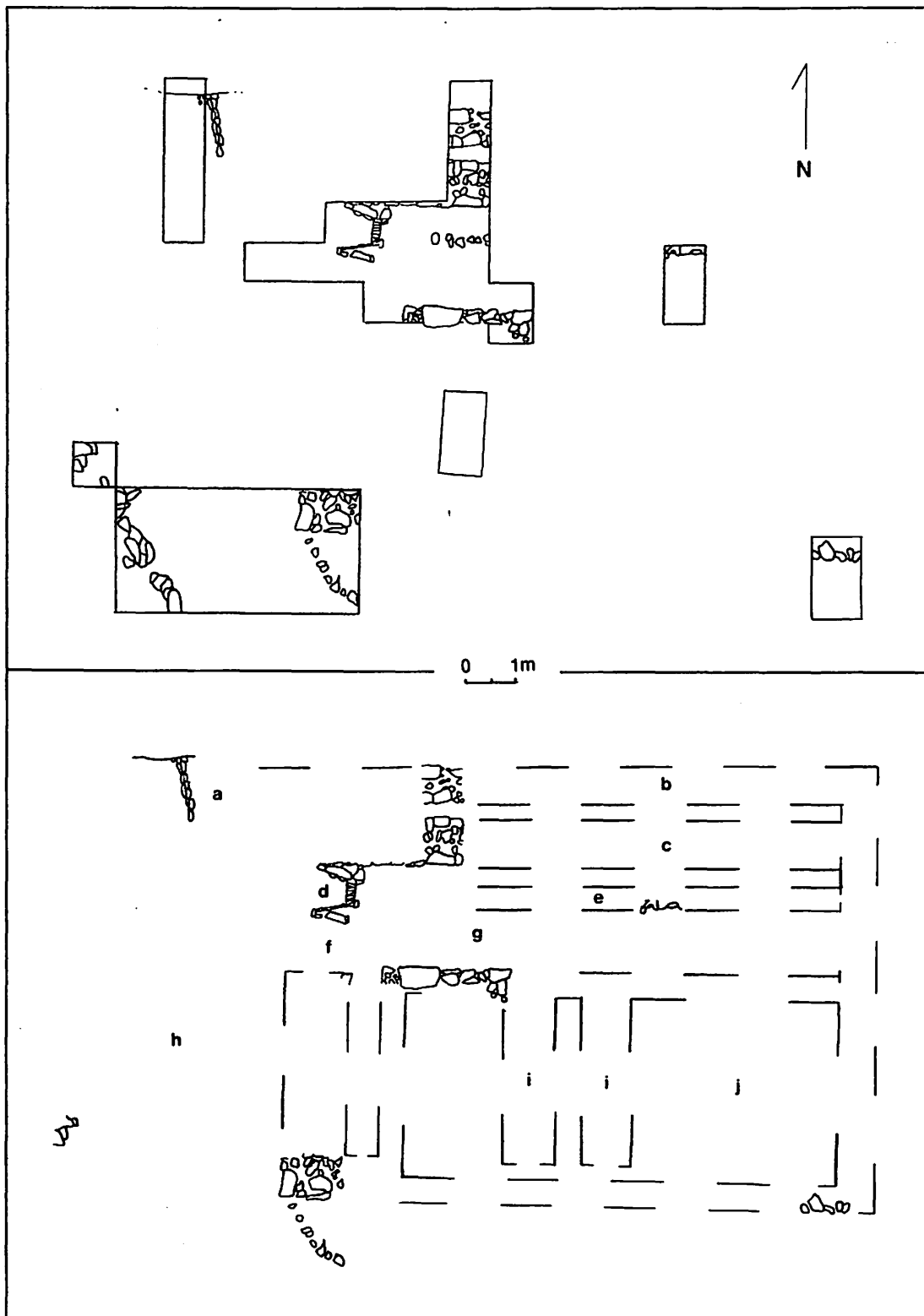


25. Hothouse foundation, looking southeast. (See text pp.18, 19,24).
The letters refer to Illus.28 and 29.

26. Soil profile of e9-e9s1
(east wall), with the sub-floor
at the bottom of the photo.
(See text p.19)



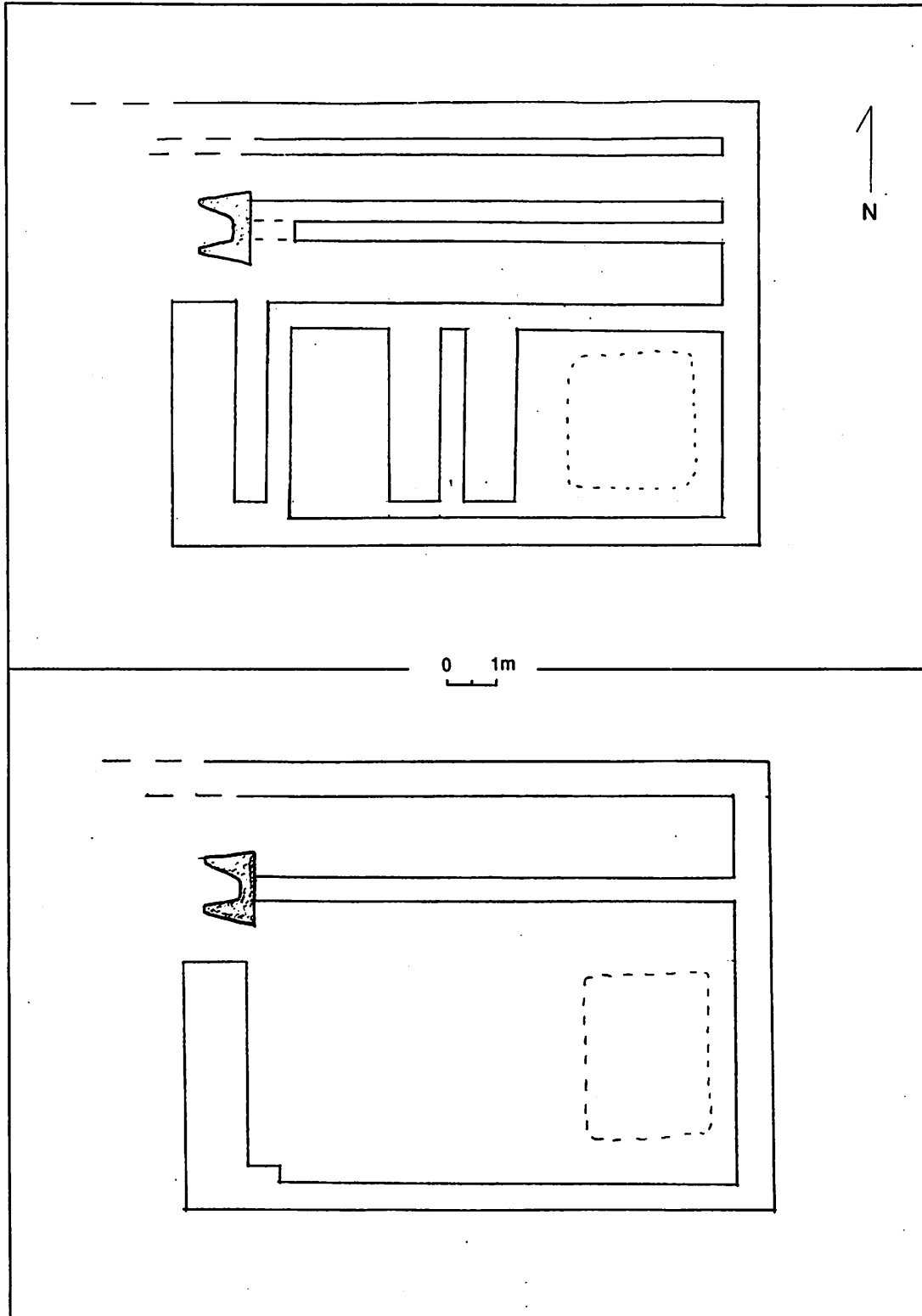
27. The hothouse section of the foundation, looking southeast. (See text p.19)



28A. The hothouse foundation with the wall lines extended.

B. The hothouse walls. (See text p.21)

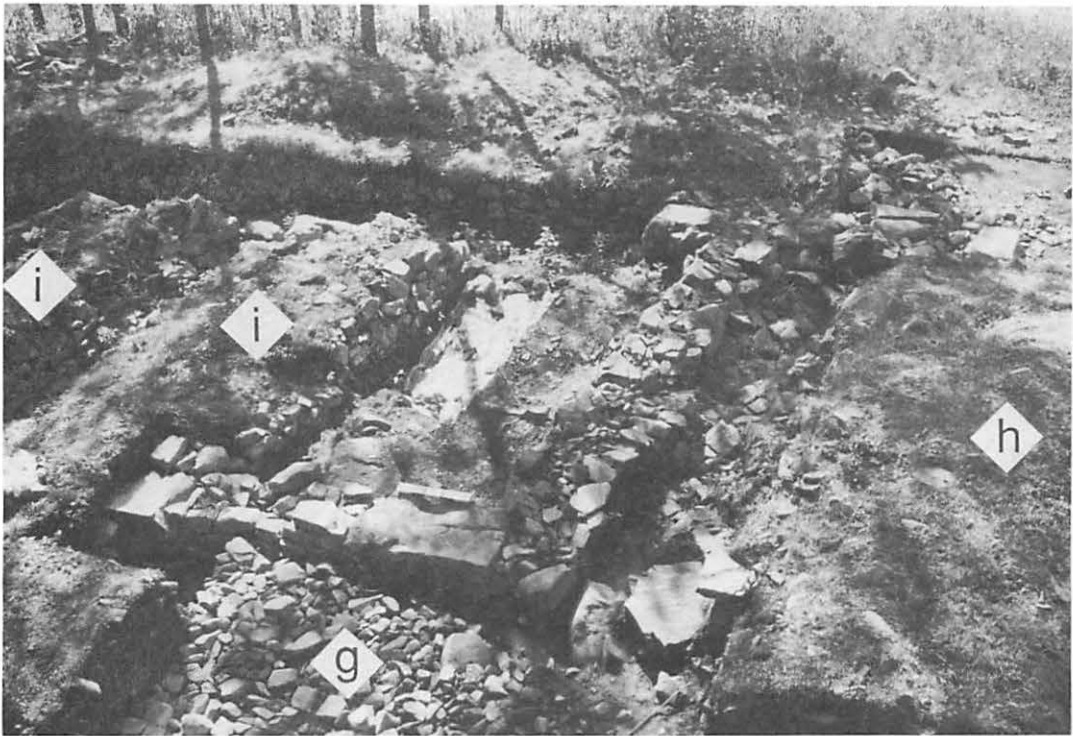
- | | | |
|---------------------|------------------------|---------------------------------|
| a. northwest corner | b. exterior north wall | c. interior north wall |
| d. fireplace | e. flue wall | f. entrance to hothouse section |
| g. cobble sub-floor | h. shed/utility area | i. piers for sub-floor |
| | j. pit area | |



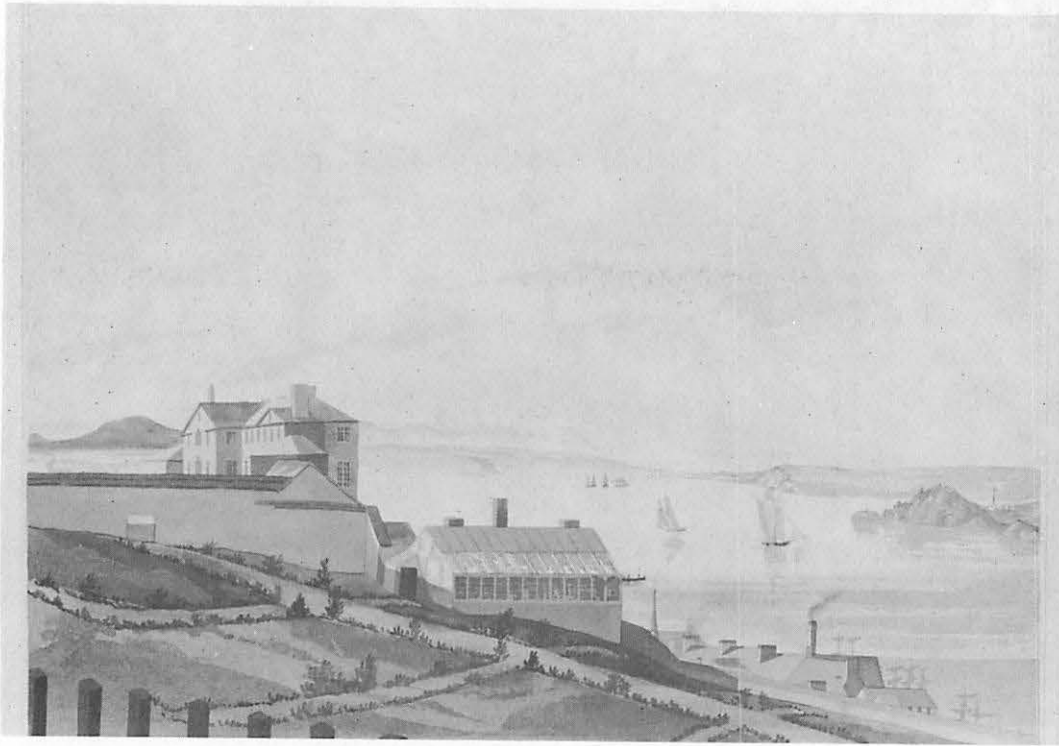
29 A. The hothouse walls
B. Conjectural floor plan of the hothouse (See text p.21, 22)



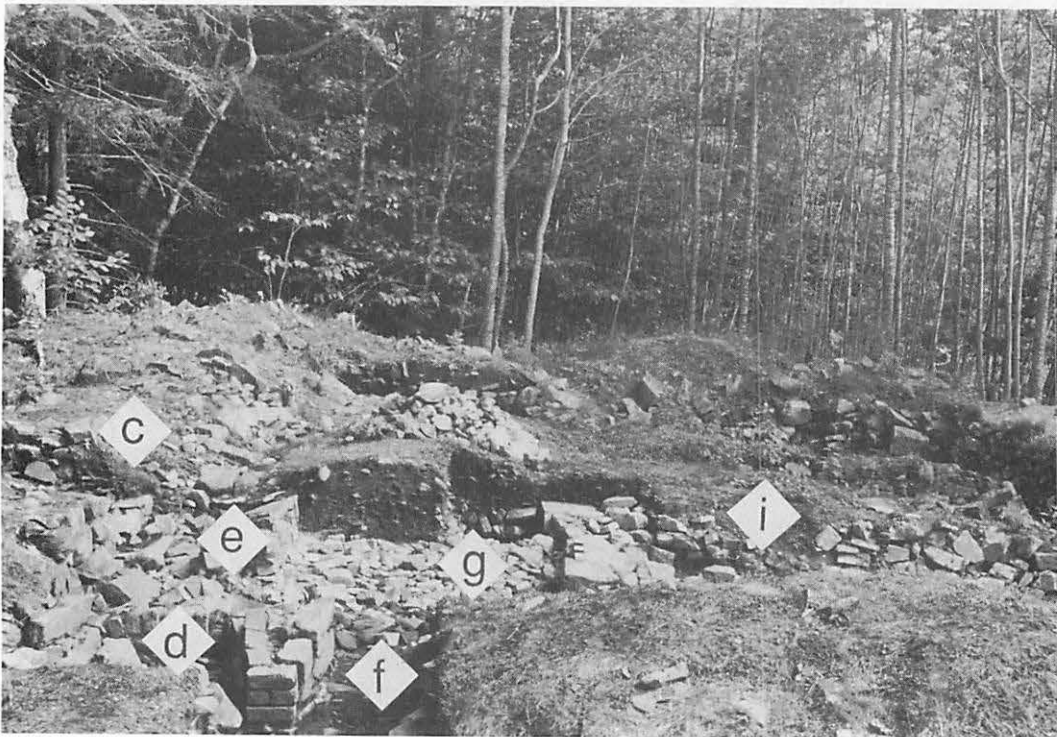
30. The northwest corner area of the shed/utility section.
(See text p.21)



31. Hothouse, looking southeast. (See text p.21)



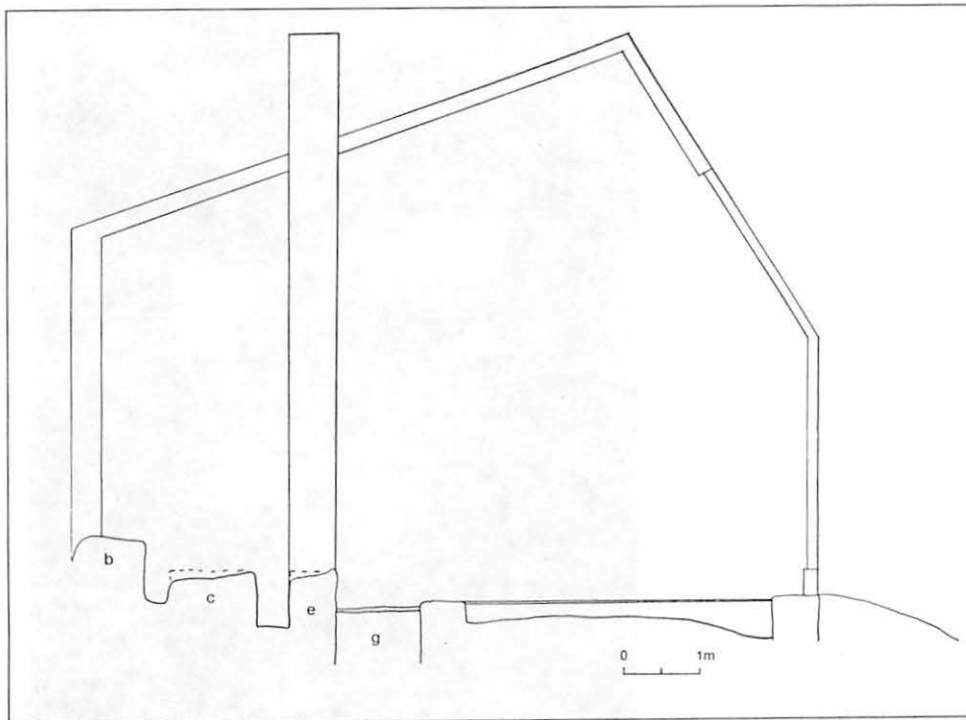
32. "The Chateau St. Louis and Part of the Lower Town". Anonymous.
Quebec City. c.1818. National Gallery of Canada Acc. #16686.
Reprinted by permission. (See text pp. 22, 25)



33. Hothouse, looking east. (See text p. 22)



34. Hothouse, looking south. Jan Millar and Heather McLeod are working in the southeast corner. (See text p.22)



35. Conjectural drawing of an unequal span-roofed building on the hothouse foundation, based on Miller (1807). (See text p.23)



36. Hothouse, looking east.
Jan Millar is working on
the southeast corner. Note
the extent to which the south
and east walls are built up.
(See text p.23)



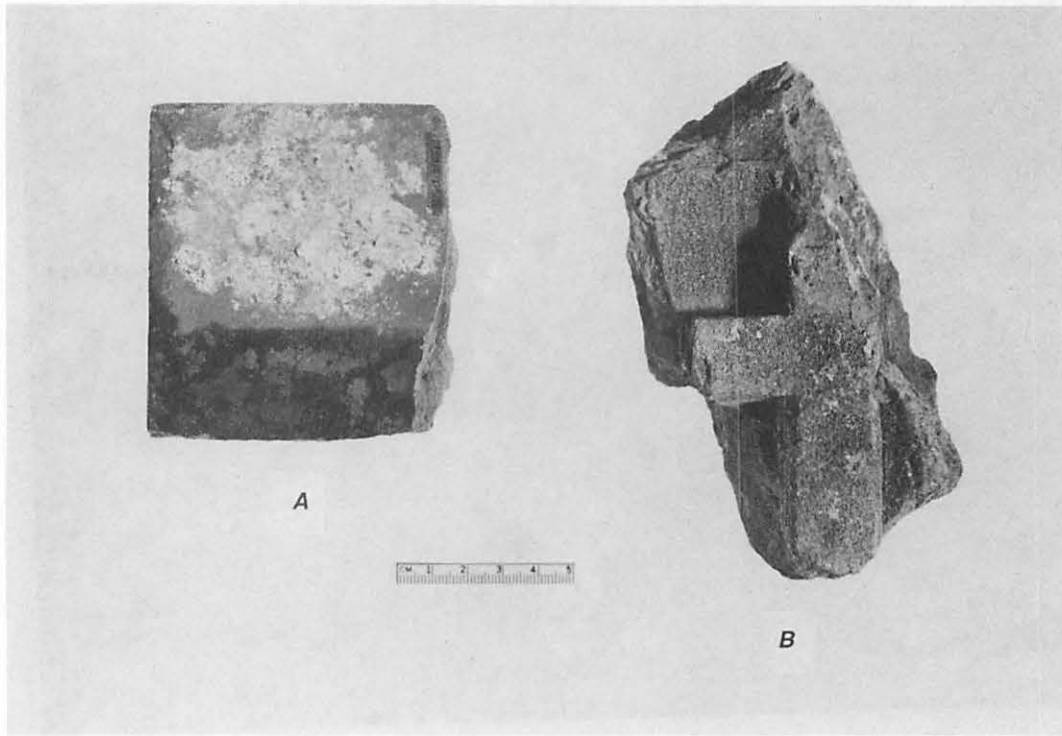
37. Hothouse, exterior wall
of the southeast corner
(e16.8s7-e18s9). (See text p.23)



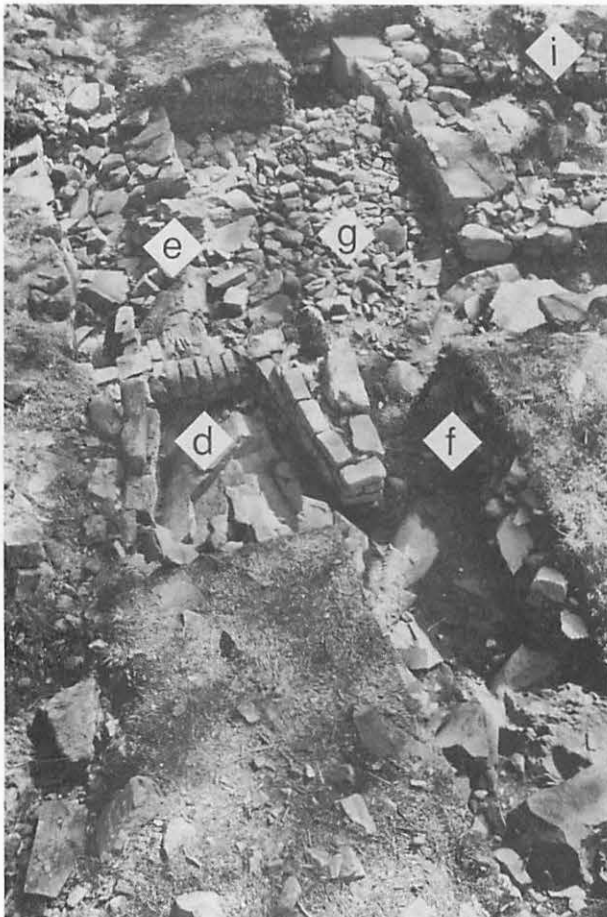
38. Hothouse, north walls. (See text p.23)



39. Hothouse, looking east. (See text p. 23)



40. Possible floor tiles from the hothouse. (See text p.24)
 A. BfCx:2:21251 B. BfCx:2:1032



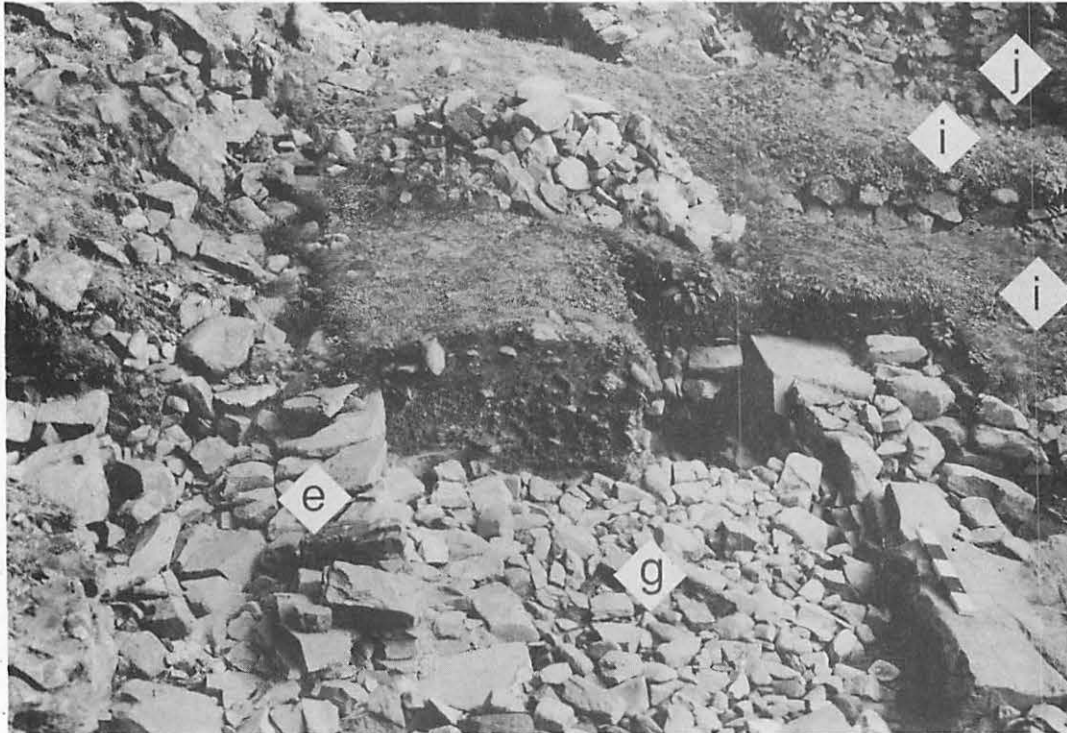
41. Hothouse, looking east
 from the shed/utility area
 at the fireplace and flue wall.
 (See text p.26)



42. Hothouse fireplace. (See text p.26)



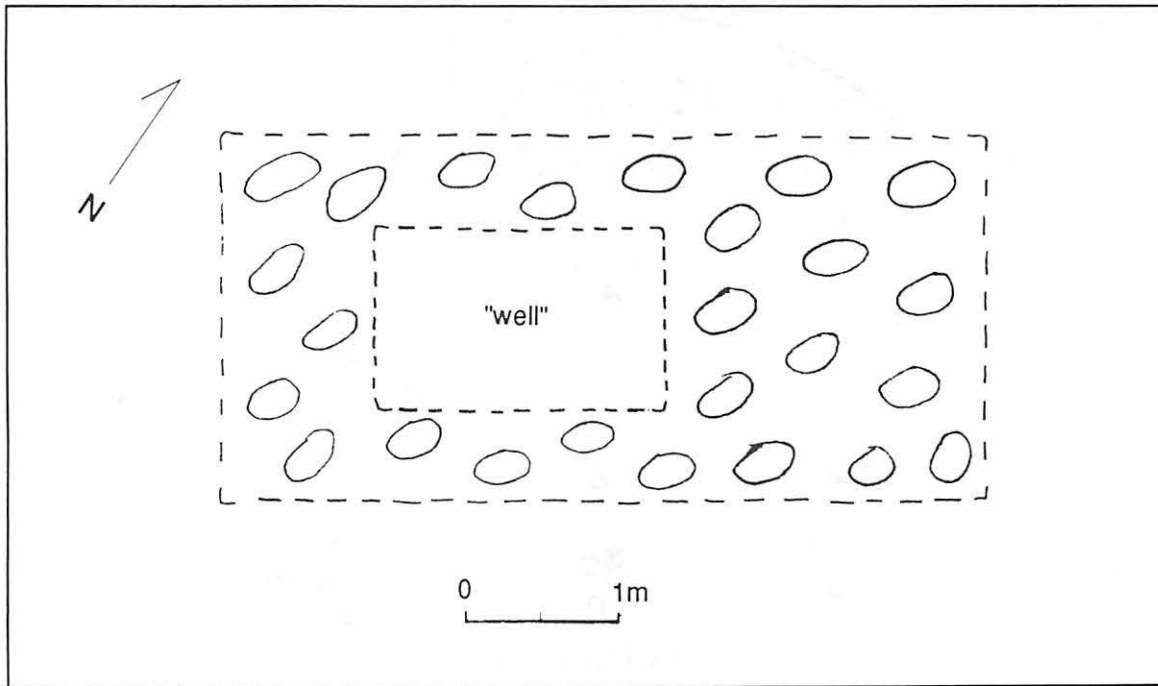
43. Shawn Miner cleaning the flue wall. (See text p.26)



44. Hothouse, looking east, at the flue wall and sub-floor. (See text p. 27)



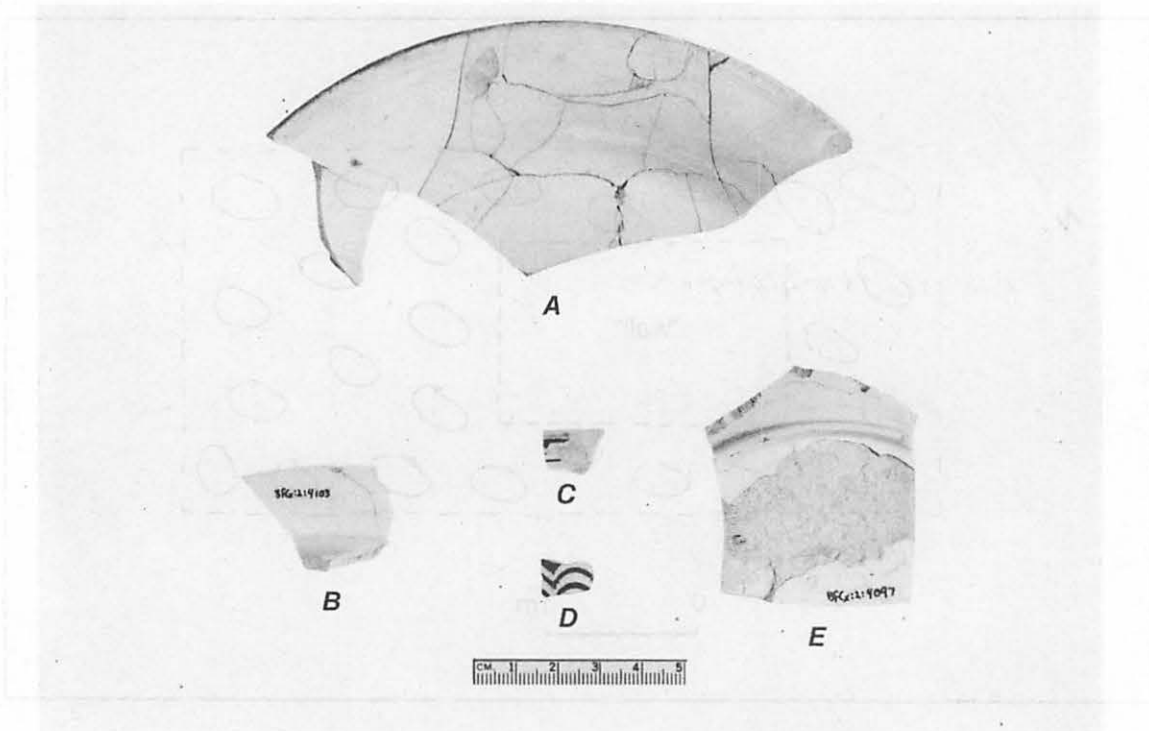
45. Hothouse, looking north, at the flue wall's south face in e13.14-e14.14s2. (See text p.27)



46. Field sketch of the hothouse well. (See text p.29)

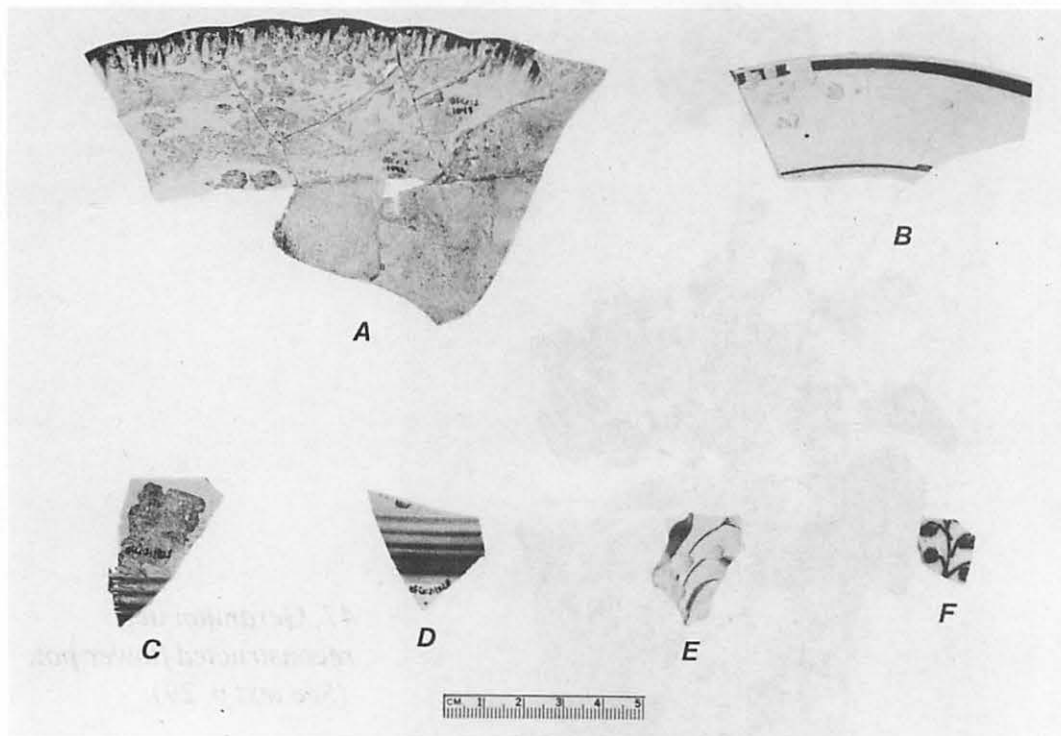


47. Geranium in a reconstructed flower pot. (See text p. 29)



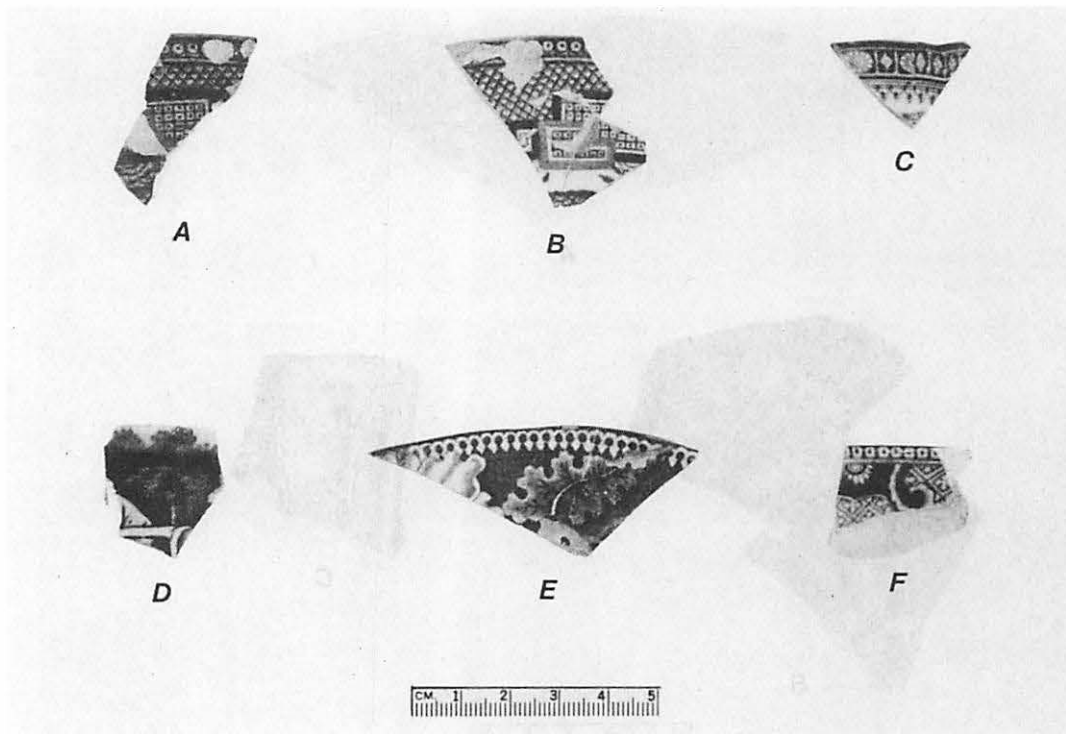
48. Hothouse creamware. (See text p.37)

- | | |
|--|---|
| A. plate, plain rim, overglaze brown stripe
(BfCx:2:1040) | B. plain rim, unid. vessel
(4103) |
| C. plain rim, overglaze brown stripes
(1847) | D. body sherd, underglaze brown
(1848) |
| E. plate, base fragment
(4097) | |



49. Hothouse pearlware. (See text pp.38-39)

- | | |
|--|---|
| A. plate, blue shell edge
(1042) | B. plate, underglaze green/brown stripe
(1024) |
| C. rim, underglaze green annular
(1821) | D. body, underglaze green annular
(1821) |
| E. body, underglaze polychrome
(1960) | F. body, underglaze blue
(1954) |



50. Hothouse transfer-printed pearlware. (See text p.39)

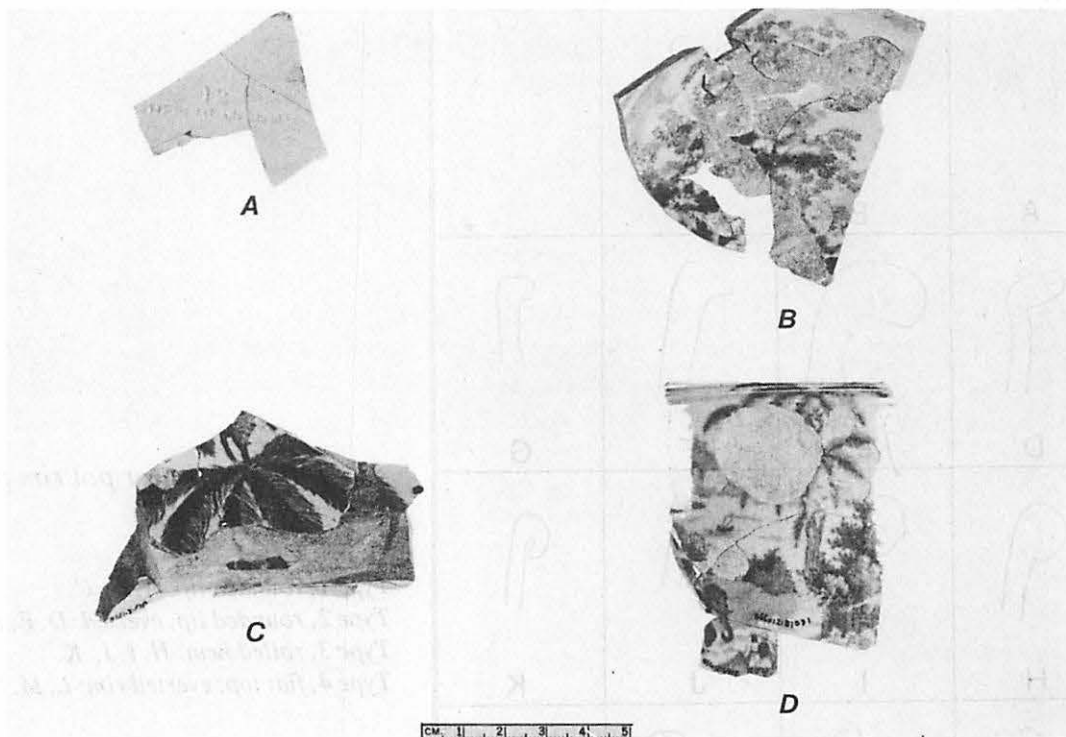
A, B. rims, blue willow
(surface collected)

D. rim, unid. pattern
(1827)

F. rim, unid. pattern
(1811)

C. rim, unid. pattern
(1835)

E. rim, unid. pattern
(1029)



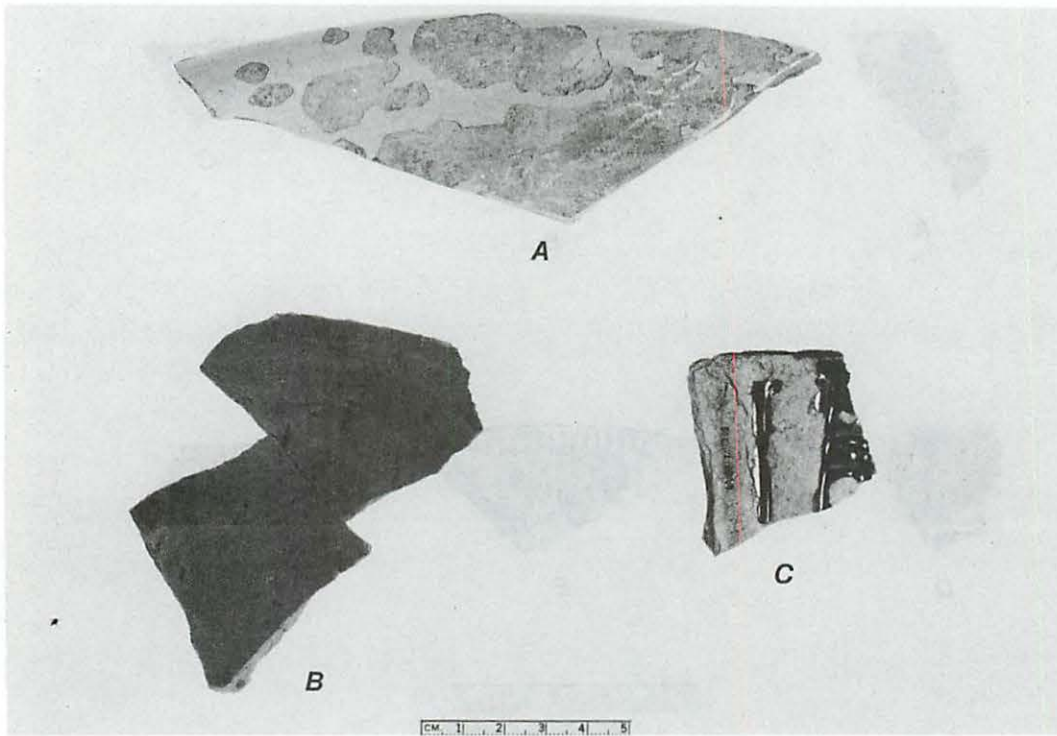
51. Hothouse Herculanum pearlware. (See text pp.40-41)

A. base sherd, impressed mark
(1034)

C. base frag., desert scene
(1037)

B. base frag., unid. pattern
(1033)

D. body frag., pattern similar to C
(1031)

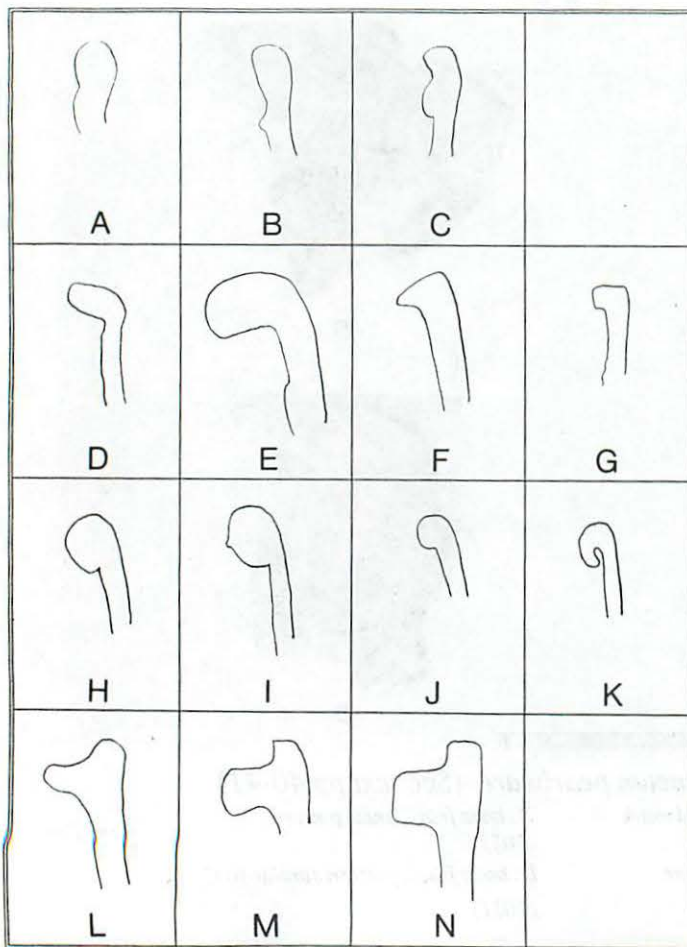


52. Hothouse coarse earthenware. (See text p.41)

A. Maritime ware
(1026)

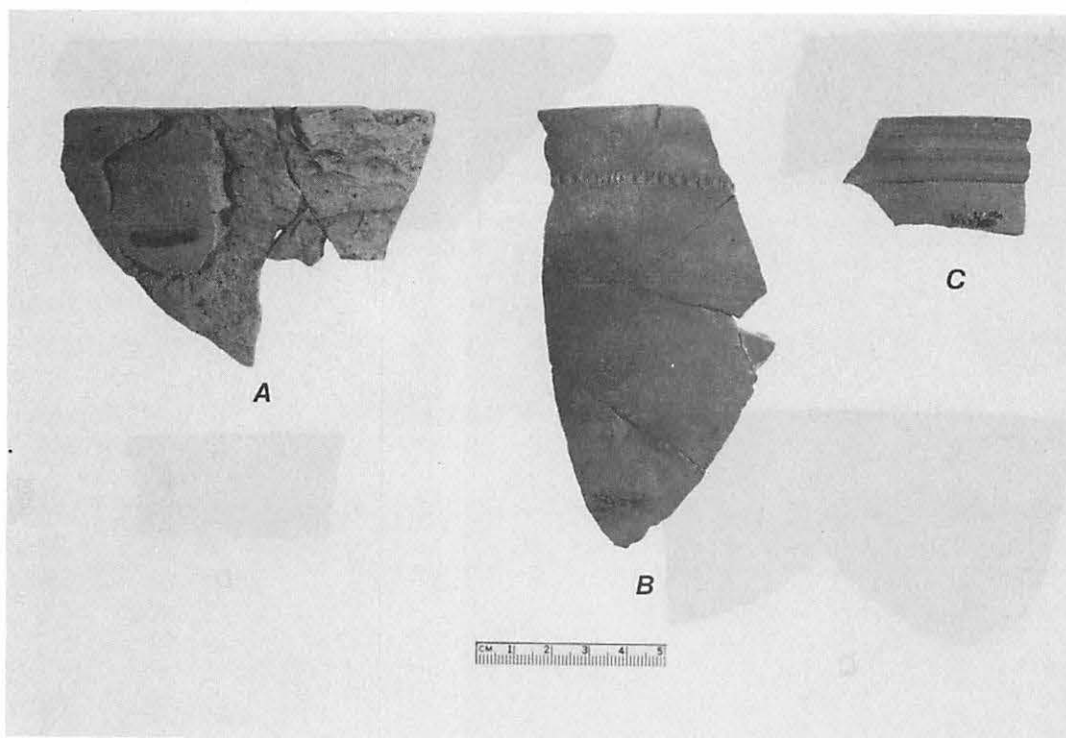
B. Anglo-American?
(1815)

C. Anglo-American?
(1023)



53. Hothouse flower pot rim profiles.
(See text pp.42-47)

Type 1, rounded lip: A, B, C.
Type 2, rounded lip, everted: D, E, F, G.
Type 3, rolled hem: H, I, J, K.
Type 4, flat top, everted rim: L, M, N.



54. Hothouse flower pot rims Type 1. (See text pp. 43-44)

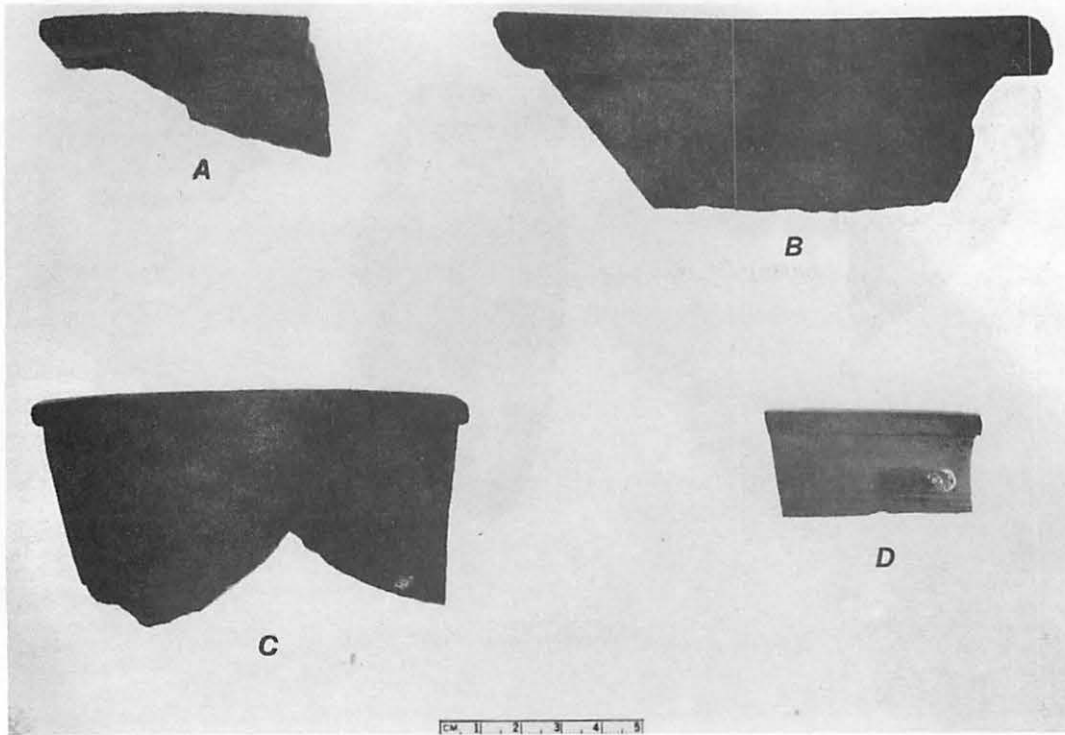
A. Type 1A
(21284)

B. Type 1B
(1015)

C. Type 1C
(1020)



55. Hothouse flower pot rims Type 1, complete pot (971). (See text pp.43-44)



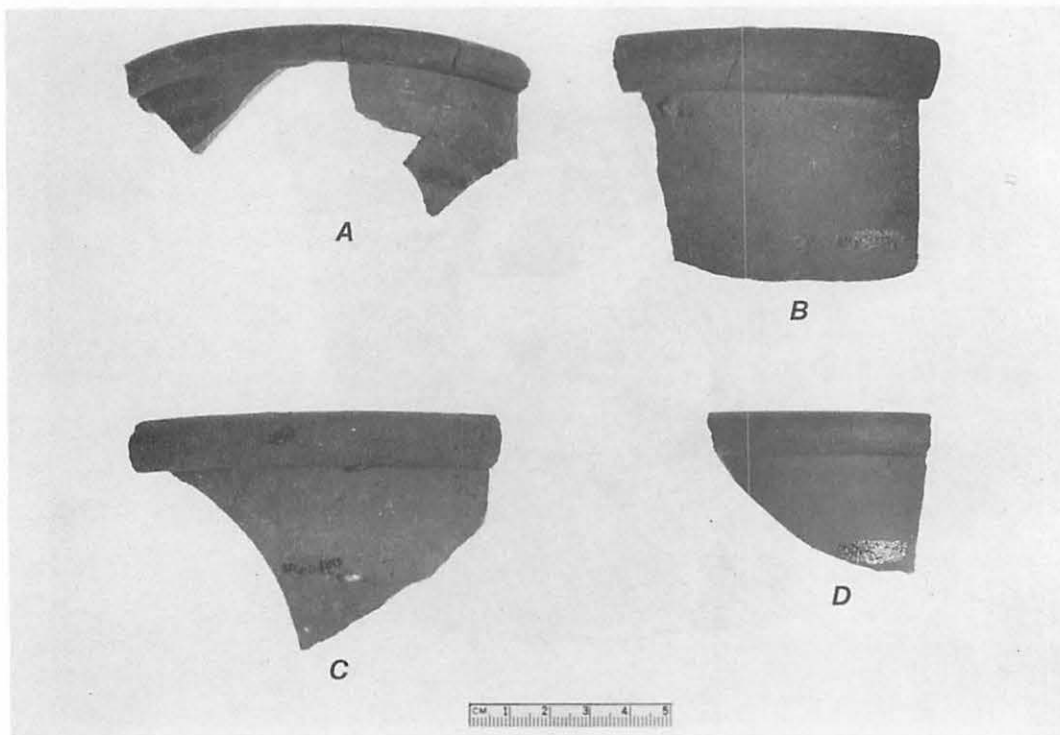
56. Hothouse flower pot rims Type 2. (See text pp. 44-45)

A. Type 2A
(22248)

B. Type 2B
(1006)

C. Type 2C
(1011)

D. Type 2D
(1016)



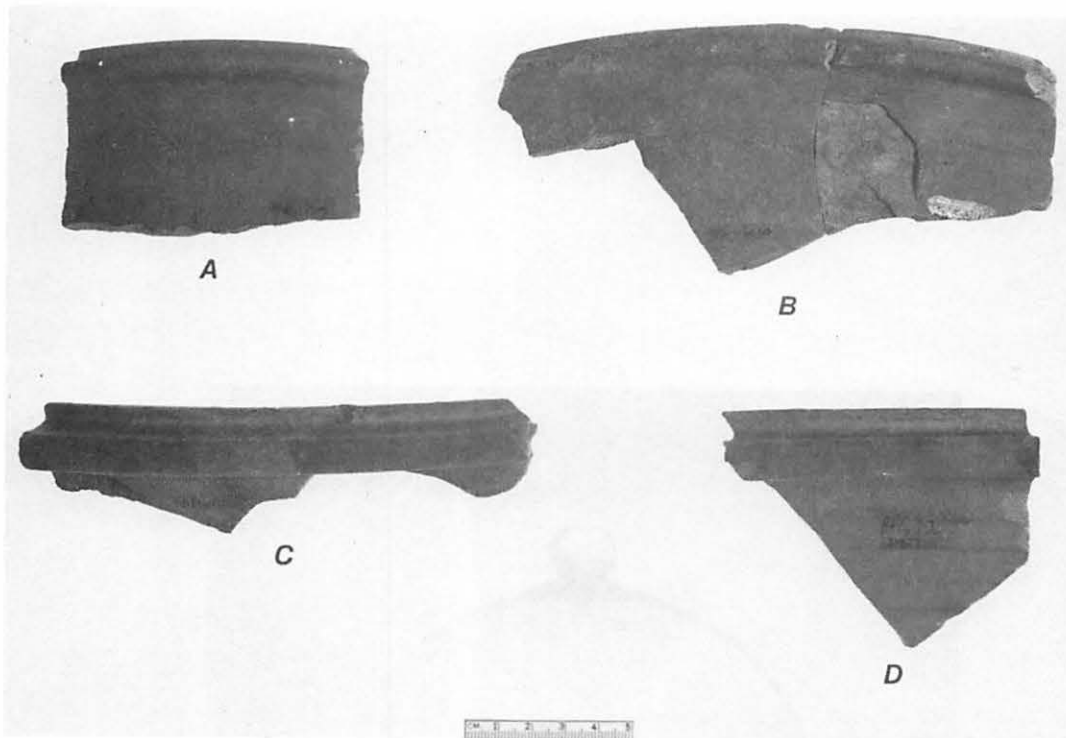
57. Hothouse flower pot rims Type 3. (See text p.45)

A. 18465

B. 2374

C. 2013

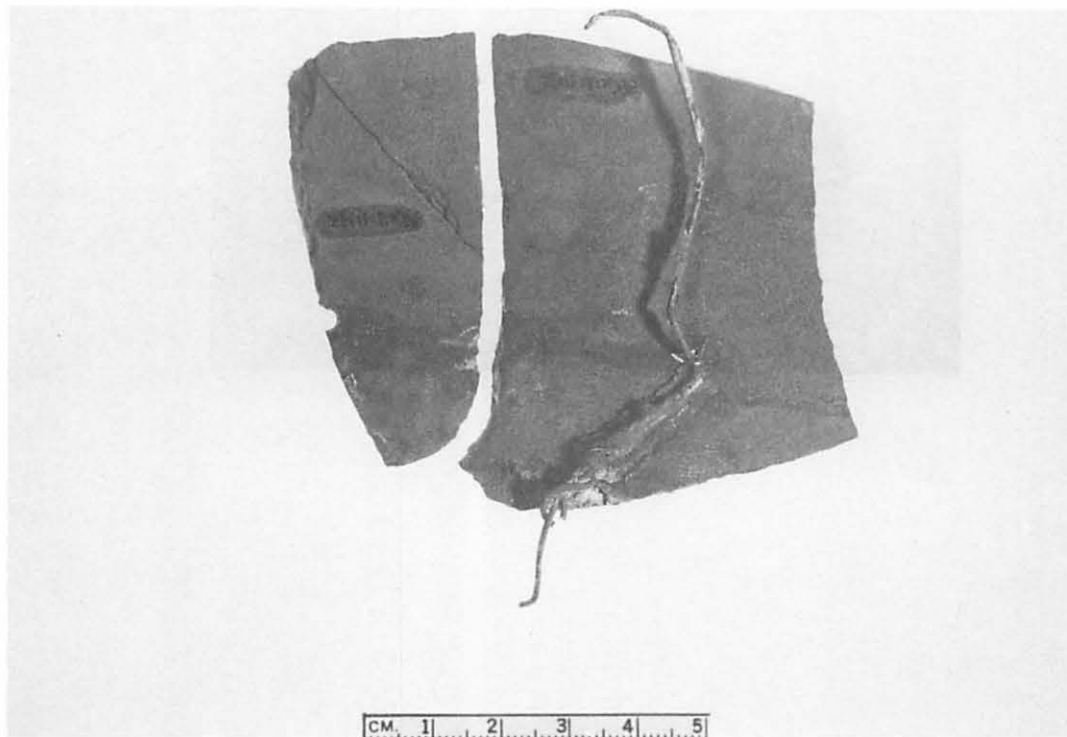
D. 13764



58. *Hothouse flower pot rims Type 4. (See text p.pp.45-46)*

*A, B. Type 4A
(5979, 8668)*

*C, D. Type 4B
(no cat.#, 21327)*



59. *Hothouse, mended flower pot fragment. (See text p.pp.46-47)
(1132)*



60. *Bell glass from the Nova Scotia Museum, Acc. # Z3813 (See text p.47-48).*