

Louisbourg Public Archaeology Program 2005 Field Season Review of the De La Vallière Property Excavation

It's mid-Winter 2005, and after completing some basic data entry of field records, it's time to look back at the 2005 field season and make preliminary assessment of what we accomplished in the relatively short, but informative period of time.

First of all, a brief review of site history and our project objectives is in order:

The De la Vallière property, situated within the heart of Fortress Louisbourg, has a very brief but interesting history. The property was occupied from 1720 to 1758, perhaps even a bit longer, by French, New Englander and British occupants of the fortified town. These individuals (some of whom we know by name, others only by occupation) lived and worked on this parcel of land. They built houses, storehouses, and workshops, and lived here domestically or worked here as craftsmen and clerks. During French periods of occupation, this property provided a home base for the De Pensens and De la Vallière families. During English periods of control, the property served as a workplace for New England glaziers, carpenters, painters and clerks and provided a residence for the New England Master Carpenter and British officers. After the fall of the fortress in 1760, the buildings on this property gradually fell to disuse. The structures were most-likely stripped of timber, building stone, brick and useful hardware, and the land was left to abandon sometime after 1768.

Over time, vegetation and soils accumulated on this property (including the ruined remains of its buildings) and created an undulating grass-covered landscape that

served as little more than pasture field until archaeological excavations began at the fortress in the 1960s.



View north of the De la Vallière property, undergoing archaeological excavation in the 1970s. Note the partially reconstructed buildings in the background



View west showing excavation of the De la Vallière house and storehouse I (in foreground)

During the 1960s-70s, archaeological investigations at the De la Vallière property exposed the ruins of five buildings. Three of these buildings have been reconstructed—their design, dimensions and content based on the results of the archaeological excavations as well as fairly detailed historical records. These reconstructed buildings, which represent the De la Vallière property as it would have appeared in 1744, are part of the expansive Fortress of Louisbourg National Historic Site of Canada, and are interpreted by costumed staff in effort to portray what life would have been like in this part of the French colonial town in the mid 18th-century.



Fortress of Louisbourg National Historic Site of Canada

Although much fieldwork has been carried out at the De la Vallière property, the archaeological studies of this property are not comprehensive. Architectural features (the houses, storehouses, and the workshop) have been well-researched and interpreted accordingly by several professional archaeologists. But the yard area between these buildings has not been examined, and this leaves a noticeable gap in our understanding of what life was like on this property.

This information gap is significant, for there was probably as much activity outdoors as there was indoors at this eighteenth century property, and probably in much greater balance than we see in today's world. For instance, water would have been drawn from an outdoor well, there would have been an outdoor privy, gardens may have been tended to provide food and herbal medicines for the household, and some of the artisans construction work probably occurred in the yard.

Of course, these speculations are really just assumptions about what day-to-day life would have been like at the De la Vallière property, based on recognition of 18th century technology and historically-documented lifestyles rather than fact – and herein lies the problem. Historical records that document the De la Vallière property do

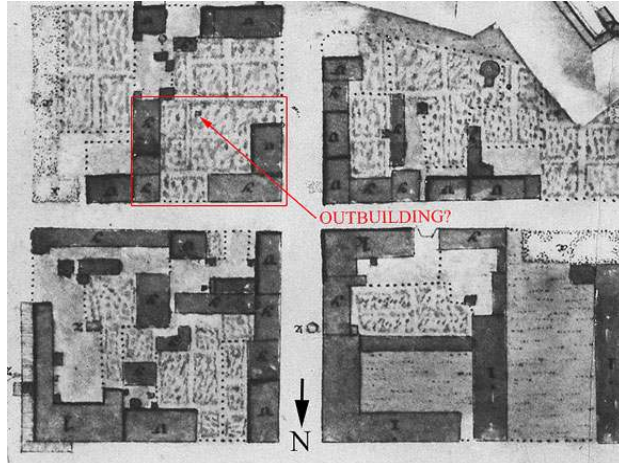
not indicate what daily life was like in the homes, storehouses, craft shops and offices, let alone what occurred in the yard area. Moreover, the topography of the property, save for the building footprints, is equally elusive.

So, naturally, questions arise about what life was really like at this property (more specifically in the courtyard) and whether the current interpretation of this property is realistic. For instance: was the yard a pleasant grassy green? Did children play there? Was there a division between the aesthetic elements (if present) and the functional (e.g. the privy, the well)? Did the artisans use the yard as additional work space? Were there many outbuildings? Was there a garden? Did anybody spend any time here at all? Was it well kept or was it little more than a garbage dump?

In response to the above noted questions, the primary objective of the 2005 field season was to begin investigating the courtyard of De la Vallière property, and develop some understanding of its use and appearance. Essentially, the unexcavated De la Vallière property yard is a 20m x 25m block of land, relatively flat-lying and maintained as a grassy lawn, by mechanical mowing and/or sheep grazing. The excavated, though not reconstructed, buildings at the perimeter of the yard were backfilled with soil at least two decades ago, and no further excavation activity has occurred in the yard, save for fence-line replacement that is carried out every nine to ten years at the south and west borders of the property.

Historical records, including fortress plans, were reviewed prior to field study, however they did not provide much information about what sort of activities were carried out in the courtyard. Only a vague bit of information came from a 1767 plan of the fortress

(767-1a) that indicated possible paths through the De la Vallière yard and a small square outbuilding in the mid-south part of the yard.



Crop of 1767 plan of Louisbourg showing the De la Vallière property (outlined in red). Note the yard area and the possible building & walkways through the yard.

Test Excavation 2005:

Field study of the De la Vallière courtyard began in late May 2005. At which time we (the Louisbourg Archaeology Department) carried out test excavation in the De la Vallière yard with the assistance of twelve Cape Breton University students, who were in the midst of an historical archaeology program at the University. The test excavation consisted of a 12m x 0.5m long trench that extended E-W across the south portion of the yard (16L96A-M). We positioned the trench to provide information about the limits of previous excavations in the southeast quadrant of the yard; to indicate where a c.1720s French drain (exposed during excavation in an adjacent property) would have extended across the De la Vallière yard; and to determine the depth and nature of soil layering and artifact density in the yard. The results of the test excavation are as follows:

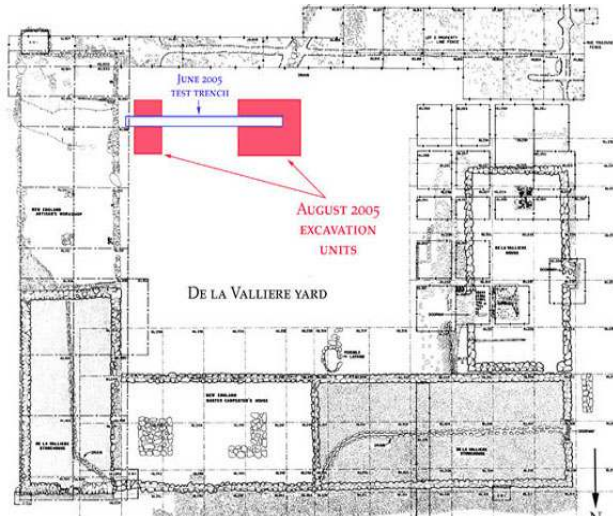
- We uncovered the limit of previous archaeological investigations in the southeast quadrant of the yard

- We discovered that the soil deposits are very shallow and the 18th century occupation periods are difficult, if not impossible, to distinguish. Also, the original terrain (pre-occupation terrain) is very rocky, not at all like the yard we see today.
- We found the artifact density in the yard to be very high and the objects are generally fragments of 18th century domestic materials and small finds such as buckles, buttons, pins, coins, pipes and sleeve-links.
- We did not find a stone drain, instead we found a stone feature that looked more like a well or privy at the west end of the trench.
- We uncovered a thin cobble layer near the east end of the trench that looks like a rough working surface (not pavé).



Students excavating in De la Vallière yard

The results of the test excavation provided direction for the development of the Public Archaeology 2005 excavation plan. We decided to open two units that would further explore the stone feature that had been exposed at the west end of the test trench (16L96K,L+M), and the possible cobble working surface at the east end of the trench (16L96B+C).



Planview of the De la Vallière yard showing 1960-70s excavation units and 2005 excavation locations (in colour)

Remote Sensing 2005:

Although the test excavation provided sufficient information to develop the 2005 public excavation program, we looked to remote sensing technology as a means of revealing sub-surface features throughout the De la Vallière yard, without digging!



Duncan MacNeill surveying with the EM-38 Conductivity Meter

In late July 2005, Duncan MacNeill conducted a remote sensing survey of the De la Vallière property using the Geonics EM-38B electromagnetic conductivity meter. The EM-38B is a survey instrument that can detect and record levels of soil conductivity and susceptibility to a depth of 1.0-1.5m underground. The EM-38 instrument transmits an electrical current through the

soil, then it reads and records how the current moves through the soil. The instrument can detect sub-surface changes in soil moisture levels, soil density and magnetism, and it can identify the location of obstructions (e.g. artifact clusters and stone walls) and disturbances in the soil.

We are in the midst of processing and interpreting the survey data, but preliminary analysis suggests that the survey went quite well.

Public Archaeology Excavation 2005:

A twelve-person crew carried out the 2005 Public Archaeology Program. The team consisted of two field supervisors, one lab supervisor, and nine program participants – all of whom had a great time digging in the De la Vallière yard. The weather was beautiful, the crew worked extremely well together, and we made some interesting discoveries!

Day 1 of the 5-day program was a training day. The crew spent the morning learning about historical archaeological field and lab methods, the goals of the excavation project, and site history. At noon, we headed to one of the period-style restaurants for lunch. Then by late afternoon, we began excavation. The excavation units (16L97A-E) had been prepped earlier in the day, including re-excavation of the 16L96 units, where they intersected with the new units. So the site was ready to go as soon as the training sessions ended.



The field project, or operation (16L97) consisted of five sub-operations (A-E). Sub-operations A and B (each 1m²) were positioned at the east end of the long 16L96 test trench to learn more about the cobble layer in that area. Was this a working surface that related to the New Englanders Artisan shop? Was it a pathway? If so, would it continue along the west side of shop? And does this feature appear in the EM-38 survey readings?

Sub-operations C, D and E (as shown in the above image, each 1m x 2m) were positioned at the west end of the 16L96 test trench to examine the stone feature that appeared to be a well or privy.

Days 2, 3 and 4 carried out in fairly routine fashion. Each morning began with an informal hour-long presentation with coffee/tea/snacks in the field lab or elsewhere on site. Presenters included an Historian, Archaeologist, Curator, and Costume Designer. The topics were varied and fascinating, and provided a lot of information about historical archaeology, fortifications, 18th century costume, material culture, social history, and how we take care of cultural resources at such a large site! After



the morning presentations, we would head to the De la Vallière property. Fieldwork carried out all day long, during which time we excavated, photographed, took notes, measured, surveyed, and collected artifacts.



These are photos showing field activities during the 2005 season. The image below shows the on-site field lab where we conducted training, daily presentations, and artifact processing



Meanwhile in the field lab, incoming artifacts were washed, sorted and labelled by the lab supervisor and members of the crew who were taking a break from fieldwork or were interested in learning more about artifact processing.

Day 5 was our last field day. We wrapped up excavation, recorded soil profiles and planviews, packed up the field gear and carried it back to the field lab. The crew then headed to the Fortress Louisbourg archaeology building and conservation lab for a tour of the extensive artifact collection (over 5 million artifacts from the 18th century occupation of the fortress) and conservation facilities. Following that, we hiked into the woods to view an impressive siege site (General Wolfe's redoubt) built and occupied by hundreds of British soldiers during the 1758 siege of Louisbourg. Then we headed back to the fortress for a leisurely private dinner at the Period-style L'Épée Royale Restaurant. And so ended the week.



Public Archaeology Excavation Results:

The Public Archaeology Program excavations took us several steps further in our effort to study the De la Vallière yard. This season's discoveries included:

1) The exposure of a thin layer of angular cobble in units 16L97A & B that appears to be the west limit of a working surface or rough walkway extending north-south along the west side of the artisans shop. This stone layer sits atop pre-occupation terrain and is in turn capped by a thick deposit of loamy soil containing 18th century domestic artifacts. Clay smoking pipe fragments were found in and around the cobble surface, including many stems marked with the name "REVB EN SI DNEY". Reuben Sydney was an English pipemaker who produced clay pipes until c. 1748.

2) The exposure of a stone-lined well & cobble surface in units 16L97C, D & E. This well has a rather unusual structure. At first glance, it appears to be a typical 18th century domestic dry-laid stone well, about 85 cm in diameter. However, there are abundant large stones around the perimeter of the well that seem excessively robust for the well structure.

It's possible that these large stones are part of a foundation for a building that was constructed over the well. Perhaps the well shaft became a privy pit. Or it's possible

that the well was filled in and an outbuilding was constructed over top. These are new questions to answer, and we'll learn more about this feature when excavation resumes in summer 2006. However we are certain that the well had been filled in during the 18th century and that the site continued to be used after the well had been plugged. This was



determined through examination of soil layering (stratigraphy) around and over the well, and examination of the artifact content found within these soil layers.

3) The exposure of rocky early 18th century terrain. Pre-European occupation terrain at Louisbourg can best be described as glacial debris. The humic soil that identifies turf level in the early 18th century is strewn with angular boulders. It would have been rough terrain to work in when digging cellars or wells, or when establishing gardens. However, the ready supply of fieldstone would have been rather handy for masonry construction. Perhaps that is why there's no shortage of stone walkways, cellars, French drains, masonry buildings, chimneys and stone fortification revetments at Louisbourg! The rough appearance of the terrain gives us a little insight into what this place would have looked like when the French settlers moved here from Plaisance, Newfoundland in 1713. It also indicates that the De Pensens and De la Vallière families did not alter the yard area when they set up residence at this site. Nor is there any indication of efforts to landscape over the stony ground. Over time, soils would have accumulated in the yard, and the turf may have thickened over the stones. But it is unlikely that this yard ever appeared as the grassy green that we see today. As we continue excavation next season, we will continue to look at 18th century terrain conditions, and hopefully achieve better understanding of the 18th century (urban) landscape within the fortified town.

Artifact Analysis:

At this point, all artifacts from the 2005 excavations have been washed and sorted by provenience and ware type. Objects that required conservation treatment, such as buckles,

coins, and sleeve-links, have been treated and are in stable condition. A preliminary examination of the artifacts indicate a fairly typical 18th century



artifact assemblage of primarily domestic materials such as ceramics, table glass, window glass, clay pipe, wrought iron hardware, coins, copper-alloy pins, buckles, musket balls, flints, cinder, coal, oyster and mussel shell, mammal, bird and fish bone, slate, brick and mortar.

We have not inventoried the artifacts yet, so we don't know the artifact count for the 2005 season excavations. All we can say at this point is that we have collected about 50 lbs. of material culture that relates to pre-1760s occupation of the fortress.

Some interesting artifact finds include:

1) Abundant *Reuben Sydney* clay pipes. 18th century clay pipes were typically stamped with a makers mark. The marks indicate where a pipe was made, by whom, and when it was made. The pipes were marked on the base or side of the bowl, on the spur, or on the stem. Sometimes the marks simply spelled out a makers' name, as we have with the Reuben Sydney pipes, or the makers mark could be an initial or a symbol, as seen on many Dutch pipes. A clay pipe was typically stamped in one place.

We collected hundreds of pipe stem fragments and complete bowls and bowl

fragments in the De la Vallière yard excavations.



About 40 of the stems bear Reuben Sydney's mark (REVB/EN SIDNEY). This suggests that about 40 pipes were deposited in a very small part of the yard. The pipes do not show any evidence of burning, so they may have never been used. Perhaps someone dropped a case of pipes and left them where they lay? The pipes were found in fairly dense accumulation, but not piled up, so the material had been spread out to some extent, though not by much. Reuben Sydney was a Southampton pipemaker, 1687-1748.

2) Etched window glass.

We found a few sherds of window pane that were inscribed with handwriting. This is a relatively rare artifact attribute in the Louisbourg collection. We currently have three pane fragments in the collection that are inscribed with English writing, but that it all.



Inscribed pane glass in Louisbourg collection.

This is an interesting attribute. We don't know what the messages are saying (we only find sections of phrases), whether the marks are graffiti or not, or why we seem to only find evidence of English handwriting.

3) Gilded copper-alloy Fleur-de-lis badge. Approx. 1½" in size.



4) Glass insert sleeve-links



5) Copper-alloy coin - French 1642.

This coin is a Double Tournois minted in France in 1642. It was found on the ground surface, just above pre-occupation terrain level. This coin pre-dates the Louisbourg occupation (and there are several early coins in the Louisbourg artifact collection) but the good provenance of this coin makes it interesting for us. Perhaps it was carried to Louisbourg in 1713, when the French moved here from Plaisance?



6) Ray or shark teeth?

This is a new one for me. They were found amidst an assortment of faunal material and shells in a thin, organic-rich deposit located near the artisans shop. This might be the edge of a midden.



3 CM.

Next Season:

The results of the 2005 season have determined the location of the 2006 season excavations.

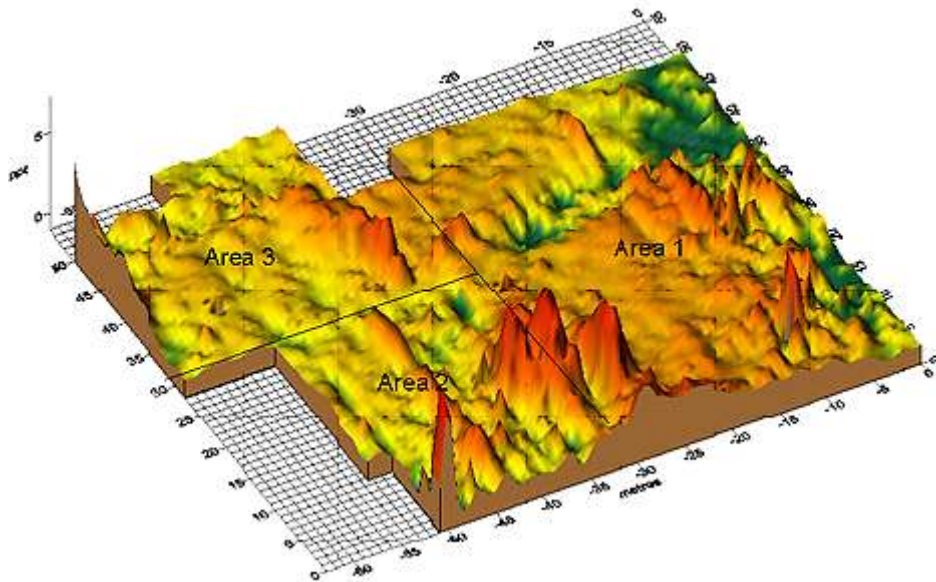
We will focus on expanding excavation in the well area of 16L97C,D,E to examine the well itself, to locate the French drain feature that, according to previous excavation work, should extend to this location, and to figure out the purpose of the robust stonework.

We will also continue to examine the nature of this urban landscape and examine feature anomalies that were revealed through remote sensing survey. In short, we're looking forward to a very interesting season!

- R. Duggan, Site Archaeologist, Louisbourg



The 2005 Crew.



Remote Sensing plot showing susceptibility readings as recorded by the EM-38B Electromagnetic Conductivity meter in July 2005. Area 3 is the De la Vallière yard. The red areas show regions of high susceptibility and the green areas show regions of low susceptibility. Note that just under 17, 000 data points were measured and recorded in two days of survey.