

## Early Works: Preliminary Glimpses of the First Military Complex at Point Henry, Kingston, Ontario, 1812-1827

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*In the first months of the War of 1812, work parties of Canadian militia and British regulars began clearing and fortifying the high ground of Point Henry, Kingston, Ontario. Over the next several years the temporary works were expanded and improved to become a large military complex and the chief depot for Upper Canada. However, in the late 1820s plans were drafted to replace the existing fort with a masonry citadel; construction for the new fortification would be so extensive that by mid-century most traces of the original structures were completely removed. Evidence of the site's earliest occupation would not re-emerge until the mid 1990s, when archaeological testing uncovered foundations pre-dating the second Fort Henry. Since then, historical research and excavations by Parks Canada have revealed more about the first fort's boundaries, architecture, and something of its builders and garrison. This essay presents some preliminary glimpses of the first Point Henry complex and discusses areas with potential for future research.*

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### A Brief History of the Early Works

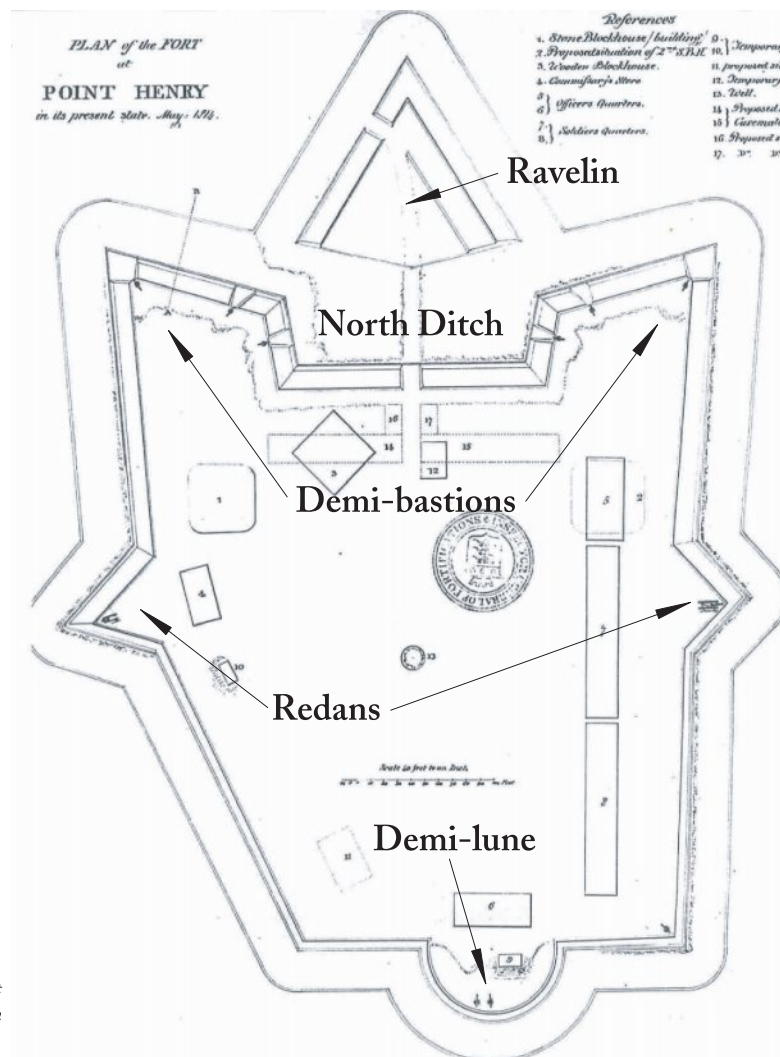
Point Henry's commanding view of Kingston and its naval approaches from Lake Ontario and the St. Lawrence and Cataraqui Rivers would be unappreciated until relatively late in the area's military history. When the French established defences in Kingston in 1673, they did so not on Point Henry or similarly elevated ground, but on a low plain on the Cataraqui's west shore. Their fort, named for the Governor of New France, Comte de Frontenac, evolved into a substantial masonry work, yet one strategically situated to promote trade and Christianity with the local native population, protect *habitant* farms, and cover the maritime supply routes (Osborne and Swainson 1988:10). Fort Frontenac's destruction by the British in 1758 ended Kingston's military occupation until 1783, when the fort was rebuilt for Loyalist settlers flooding into Upper Canada at the close of the American War of Independence. Before the settlers had arrived, Major John Ross suggested to Upper Canada's Lieutenant-Governor Sir John Graves Simcoe that Point Henry be considered as a defensible position, but Simcoe saw more strategic worth in York (now Toronto) and the Niagara Peninsula, and was reluctant to commit resources to Kingston despite pressure to do so from his superior in Québec,

Governor-General Lord Dorchester (Macleod 1972:172; Osborne and Swainson 1988:47-48).

British policy changed abruptly with the American declaration of war on June 18, 1812. The next month, a party of local militia under the command of officers from the Royal Newfoundland Fencible Regiment began clearing the trees and brush on Point Henry to erect a *blockhouse* and *battery* on the heights (Mecredy 1985:3). From here maritime traffic on Lake Ontario and the St. Lawrence could be monitored, and the vulnerable east flank of the Royal Navy shipyards, operating in Navy Bay since the late 1790s, could be protected. The defences were completed just in time: on November 10, 1812, a small group of American warships attempted a raid on Kingston, but were successfully repelled, in part through the actions of the Point Henry battery (Hitsman 1999:110). While brief, the action reinforced the need to build stronger fortifications should the Americans launch a more coordinated invasion. In response, militia and regular army details enclosed the Point Henry summit and began constructing permanent defences (Mecredy 1985:4). This work was accompanied by construction of batteries at Murney and Mississauga Points, fortifications at Point Frederick, and blockhouses and a *palisade* line that encircled Kingston's western flank.

By October 1813, Royal Engineer Captain Benjamin Marlowe could report that despite labour and material shortages, progress had been made at Point Henry (Mecredy 1985:9-10). Contemporary plans show a defensive trace that incorporated many classic fortification elements: on the north front were two *demi-bastions* and a *ravelin* that shielded the north gate, while on the west and east fronts were two *redans* that allowed artillery to cover the curtain walls on the east and west approaches (Figure 1). A *half-moon* (also called a *demi-lune*) *battery* on the south provided 180-degree range of fire to the water-side. From

north to south, the site was about 710 feet (216.5 m) long, and at its widest east-west, was 500 feet (153 m). A 37.5-foot (11.4 m) wide and 12.5-foot (3.8 m) deep ditch was cut around the northern *demi-bastions* by 1814, but subsequent elevation drawings, sketches and watercolours indicate the ditch was never extended more than a few metres south of the northwest and northeast corners. Renderings also show the west, east, and southern walls located slightly down-slope from the parade, producing walls that appear high on the exterior, yet were only about waist high on the interior; this arrangement provided

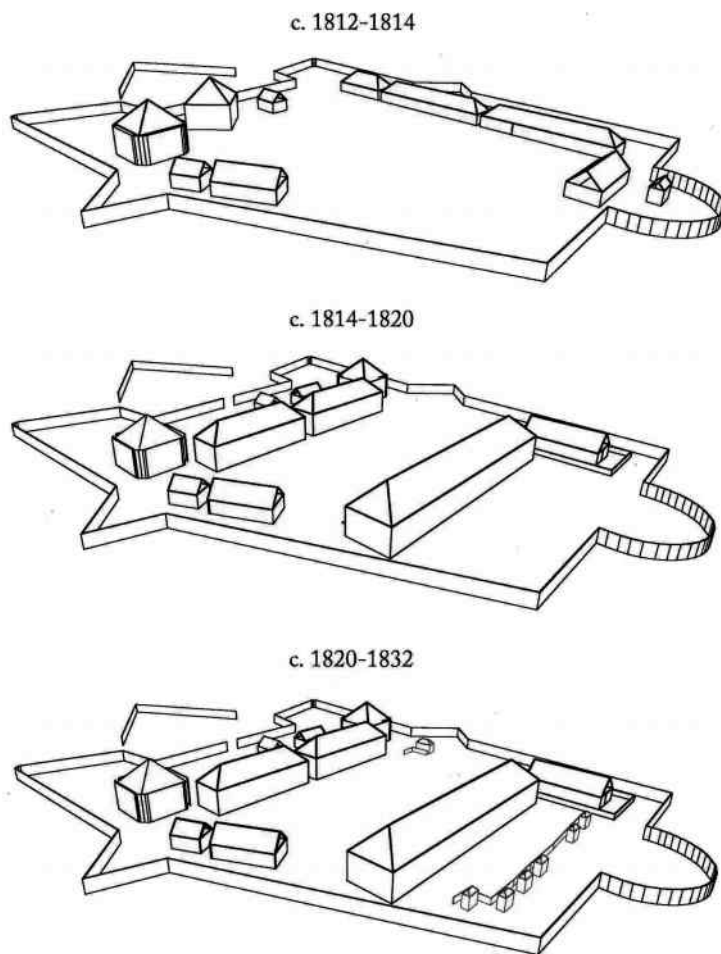


**Figure 1.** The anatomy of Fort Henry, from a May 1814 plan (LAC NMC 4677).

little cover for the buildings inside the fort, which stood proud on the horizon when viewed from both Kingston and Lake Ontario.

The trace remained virtually unaltered throughout the fort's history while numerous changes were made inside the work (Figure 2). By 1814, three long barracks probably of log construction were located on the eastern side, and on the west two small wood buildings and a 50x50 foot (15.24x15.24 m) stone defensible tower had been constructed. Two wood structures were placed within the demi-lune battery, and the 1812 blockhouse still stood in the north.

gone and in their place stood another 50 foot square stone defensible tower, followed in 1816 by a 78x32 foot (23.8x9.75 m) stone *powder magazine* with surrounding *blast wall* in the southeast corner. Between the towers, and oriented east-west, were two 111x30 foot (33.8x9.1 m) two-storey masonry soldiers' barracks constructed between 1819 and 1820. On the same axis to the south a 233x40 foot (71 mx12.2 m) two-storey stone officers' barracks was added in 1820. By the late 1820s some of the earlier wood buildings still survived, notably the guardhouse near the north gate and a stable in the west centre, and several stone privies had been built; one



**Figure 2.** *The evolution of the first fort interior architecture (reconstruction by H. Cary).*

east of the soldiers' barracks and six in the area south of the officers' quarters. It appears a screen was erected around these structures, probably for added privacy and to deflect the odours carried on the prevailing southwesterlies.

Major construction was also taking place on Point Henry's shore throughout the years 1812-41. The land was divided into Board of Ordnance and Royal Engineer Department yards on the Navy Bay side, and a garrison hospital complex on Hamilton Cove, now called Deadman Bay (Garcia 2006:2). Lieutenant-Colonel Elias Walker Durnford (1824), then Commanding Royal Engineer for Canada, produced detailed records, plans and elevations of the magazines, warehouses, shops and offices on the military reserve in 1824, and Royal Engineer Major Richard Bonnycastle and Ordnance Storekeeper Smith (Bonnycastle and Smith 1831) conducted a similarly extensive survey in 1831. Ten years later another inventory was taken by Royal Engineer Lieutenant A.H. Freeling and Ordnance Storekeeper James Windsor (Freeling and Windsor 1841). However, by this time much of the first fort had already been destroyed. Since June 18, 1832, construction had begun on a stone *casemated redoubt* that over the next three decades would completely replace the existing complex and become one of Canada's largest and most expensive defences. The first buildings to go were those inside the fort's northern half, and the addition of two Commissariat ranges in 1841 called for the last structures inside the first fort to be removed. Four years later, the Navy Bay buildings were demolished or re-located to the north, and all but the stone guardhouse of the eastern hospital complex were torn down during the Second World War to prevent, in part, the PoWs held inside the Redoubt from using the buildings as cover during an escape attempt.

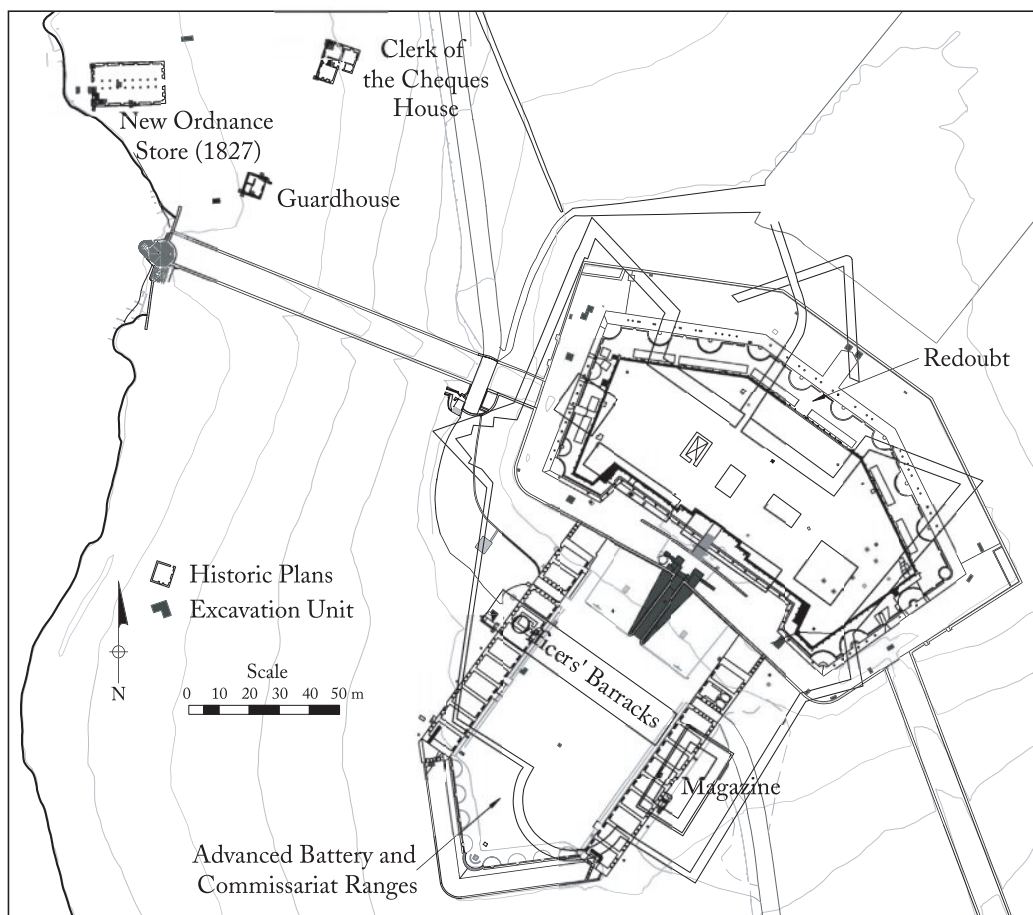
### **The First Fort Rediscovered**

Evidence of the earliest Fort Henry was first unearthed in 1994 when Heritage Quest Incorporated was carrying out excavations prior to the installation of a sewer line (Bazely 1996:50-52). On the *glacis* close to the East

Commissariat Range, two foundation walls were unearthed, one 60 cm wide and another 70 cm wide, both clearly predating the 1842 Commissariat construction. A limited schedule prevented examining these walls further, but they provided definitive proof that some elements of the first fort still existed (Bazely 1996:50-52). Another investigation of the first fort complex took place in 2000, when the Catarqui Archaeological Research Foundation conducted small-scale excavations on the garrison hospital and associated structures (Bazely 2004:38-40). Parks Canada Archaeological Services did not begin work on the first fort until 2002, when several early occupation deposits were uncovered at various locations in the Advanced Battery (Figure 3). On the east side of the ramp entrance what appeared to be an early MacAdam surface was exposed and near it were found pre-1832 sod and burn layers (Cary et al. 2005:6, 10). An early debris level was also excavated near the centre of the Advanced Battery parade, although little information about the early period could be gleaned from these initial findings.

More substantial remains were found in November 2002, when earth behind the entrance ramp walls was being removed. Backhoe and shovel work near the ramp walls' curbs uncovered large amounts of stone and brick debris, prompting a halt to the mechanical excavation and more careful excavation by trowel. Behind each wall, 2 m wide stone foundations were exposed, and these appeared to have been bisected by the 1832 ramp walls' construction. It was concluded the foundations must have been there before the ramp was built, and were possibly contemporaneous with a MacAdam surface unearthed north of the foundations (Cary et al. 2005:10).

The foundations' dimensions suggested they had supported a large building, but which one? The initial problem faced was that the first fort boundaries were unknown. An 1832 elevation drawing (LAC NMC 20788) showed how the new Fort Henry would replace the existing buildings, but as this was a proposal sketch little confidence could be placed in whether this was eventually built. Susan Bazely (personal communication 2002) had determined the relationship



**Figure 3.** Excavations at Fort Henry, 1994-2005, with the first fort structures plotted over the modern landscape.

between the two fortifications using as a common reference point the present well and one shown on an 1814 plan; however, the well appears infrequently on early plans and was too ephemeral to accurately plot the first fort buildings.

A breakthrough came with the discovery of a December 1833 plan (Wright 1833:188) showing how much of the Redoubt had been built to that date. Importantly, it displayed the relationship between the barracks and towers of the first fort with the walls of the Redoubt. Now armed with the necessary link between the first and second fortifications, the early complex could be plotted on the modern landscape. Using digital mapping software the progress report plan was scaled over a recent aerial photograph using the first fort towers and partially completed Redoubt

as benchmarks. The resulting map was both instructive and disappointing. Half the former work was where the Redoubt now stands, an area known from other investigations to have been excavated up to two metres into bedrock to create the defensive ditch of the new fortification (Cary et al. 2005:11). On the positive side, the map indicated the southern portion of the 1812 fort, including the officers' barracks and powder magazine, to lie beneath the Advanced Battery. Instead of being mined, this portion of the site had been filled with stone debris originating from the Redoubt ditch. Closest to the ramp was the officers' barracks which, accounting for the imprecision of the overlay, was tentatively assigned to the foundations bisected by the ramp.

Excavations in 2003 and 2004 revealed a great deal more about the first Fort Henry. Within an “L”-shaped unit on the west-central section of the Advanced Battery parade an early deposit was found that included a range of objects such as ceramic soup tureen fragments, pieces of a “basketware” ceramic bowl, stemmed wine glasses, high quantities of domesticated animal bones, and wine bottle, decanter and tumbler fragments (Cary et al. 2005:11). Most of these artifacts were of a quality more typical of an officers’ table than that of the average enlisted man, but had been unearthed nearly 33 m south of the ramp way, where the officers’ barracks was surmised to stand.

The dilemma was fortuitously solved in the fall of 2003. On the west glacis path two stones partially covered in sod were noticed on the surface, and these seemed to follow an east-west line. When the soil was peeled from the stones, another aligned block appeared, and one more as cuts were made to the west. This turned out to be a substantial masonry wall, over 1.20 m thick and 1.80 m high, located very close to where the overlay had projected the south wall of the officers’ barracks. Additionally, it was only 5 m north from where the higher quality artifacts were uncovered on the Advanced Battery parade. The conclusion was clear; it was this foundation, not the one in the ramp, which had once supported the 1820-1841 officers’ barracks (Cary et al. 2005:12).

Early the following year, the stone foundation excavated by Bazely in 1994 was re-discovered outside the East Commissariat Range. It was trenched south for three metres before the decision was made to stop digging and wait until time permitted careful investigation of the feature. This came in July when the southwest corner of the officers’ barracks was uncovered only 4.75 m from the previous excavations. With this landmark, the overlay was used to determine the walls outside the East Range to be part of the 1819 powder magazine (Cary et al. 2005:25). To learn more about the magazine, its wall was followed a further five metres southward until the south gable end wall was reached.

The opportunity to explore the Ordnance and Royal Engineer yards on the west glacis arrived in

June and July 2005. Here locating historic structures using the overlay proved discouragingly inconclusive, with greater success achieved when excavations were carried out over surface features discovered while field walking. Portions of the north, south, and west faces of an 1819 guard-house were exposed in four units; the northwest and southwest corners of the 1820 Clerk of the Cheque’s House were revealed in two units; and eight units were dug on the exterior and interior of the 1827 Ordnance Store No. 2. Two more units unearthed portions of a road and subsurface drain. While the overlay did not help locate these structures, once excavation was complete it aided in identifying them.

Discoveries of Fort Henry’s early nineteenth-century occupation have thus far been dispersed and limited. However, enough data has been collected to partially reconstruct the architectural development of the first complex and learn more about what life was like for those who built and garrisoned it.

### **The Cultural Landscape**

The landscape of Point Henry has undergone some significant changes in the past 190 years. Clearing the site of vegetation took the militia nearly a year (Mecredy 1985:7), although this appears a relatively small task compared to the nearly twenty years, beginning in 1841, it took the Royal Engineers to sculpt the glacis of the second fort with rubble fill. Contemporary sketches and paintings of the first and second fort provide some indication of this transformation, with finer details emerging when the topography of the earliest surfaces unearthed at Fort Henry were mapped. By plotting the historic elevations in relation to height above sea level, the original ground inside the fort was found to be only slightly more undulating than present, yet dropped away steeply on the west flank. For example, beneath the southwest corner of the officers’ barracks, the natural strata falls just over one metre within a 4.5 m run, and must have descended even more before reaching the 1812 southwest curtain wall. After 1841, loose stone

fill was used to moderate the steepness of this grade. Northwest of the fort, in the original Ordnance Yard, few modifications took place except at the eastern boundary, where increasingly thick layers of fill were deposited after the second fort construction.

In adapting to the natural topography instead of manipulating it, the first Royal Engineers on Point Henry were following practices similar to those enacted elsewhere in Canada during the late eighteenth and early nineteenth centuries. For example, at Fort George, Niagara-on-the-Lake, the Engineers simply enclosed the high ground rather than level the parade inside, leaving the historic parade at a higher elevation than its bastions and curtain walls (Fox 1996). Such willingness to adapt to local terrain was replaced later in the nineteenth century by the desire and means to create a new landscape. This is clearly seen at the second Fort Henry and Halifax Citadel, where building the fortification involved substantially changing the country by digging and filling.

Less dramatic additions to the early landscape were parade surfaces, roads, and below-grade drains. Inside the first fort a MacAdam pavement of 8-12 cm cobbles impressed into a 2-3 cm thick clay substrate was uncovered; named for its inventor John Loudon MacAdam, surfaces like this are common to British military sites, with examples similar to Fort Henry found at Fort Mississauga, Niagara-on-the-Lake (Last 1997). The pavement may not have covered the entire fort interior, possibly only between the soldiers' and officers' barracks, as it was not found south of the latter structure. A similar pavement was used to create a road that ran through the Ordnance Yard. Here a variety of stone types and sizes were present but all were laid over a clay base. Stone debris found where the road abutted the west wall of the 1819 guardhouse may have served as a French drain to keep water from pooling on the road and around the guardhouse foundations. South of the guardhouse a 25 cm wide stone channel capped by limestone slabs up to 75 cm long was unearthed, which directed water towards Navy Bay. Despite being omitted from historic plans of the area, it is likely that

many such drains were installed in the Ordnance Yard to channel runoff from the steep slopes of the Point.

### Inside the First Fort

#### *The 1820 Officers' Barracks*

Limited excavations of the officers' barracks—just 2.8% of the total structure—revealed a surprising amount about the building's construction and its inhabitants. The foundations provide an introduction to the structure's scale: robustly built using two parallel *wythes* of squared limestone rubble, averaging 40x15 cm in size and infilled with rubble and mortar, the walls are 1.15 m to 1.20 m wide on the south façade, and 1.10 m wide on the west gable end (Figure 4). Between one-third and halfway up the excavated interior of the south façade the masonry narrows to 1 m in width, creating an 8-20 cm wide ledge. This step construction centres the vertical and lateral thrust from the upper wall sections and roof, and probably also supported interior floor joists. The façade wall foundation was laid directly on the sloping surface of bedrock and rises in elevation towards the centre of the structure and the summit of Point Henry. Conversely, the gable wall foundation was laid against a vertical cut in the bedrock, and built tall to account for the rising façade wall. Despite this added height, neither the gable or façade foundation would have been visible during the occupation period. The walls' exterior was covered by successive layers of rubble, mortar, and clay, some of which relate to the barrack's construction and others that were used to landscape around the foundations. These fills were laid periodically over the structure's lifetime and one of the top-most layers contained granite that probably came from the Redoubt defensive ditch in 1832.

Fill was not similarly deposited inside the barracks. If the interior ledge on the façade wall did support floor joists, there was a crawlspace at the gable end that varied from 0.55 m to 1.20 m high, but one that diminished towards the centre of the building, 30 m away, because of the rising bedrock elevation. Bonnycastle and Smith's



**Figure 4.** Excavations on the southwest corner of the 1820 Officers' Barracks, facing south. (Photo 131H653E by H. Cary).

(1831:27) report states that the officers' barracks had a cellar, but does not mention where; it seems likely the cellar was situated on the western side as the space had been built, and high numbers of artifacts had been dumped there (see below).

The relatively small grey stones of the foundation may not be representative of the entire upper wall masonry. Bonnycastle and Smith's (1831:27) report describes the officers' barracks as having "a dressed front and back and ends of rough coursed work," which suggests an ashlar finish for the façades and squared rubble for the gable end walls. All of the foundation stonework uncovered is coursed squared rubble, indicating that the original façade wall must have been completely dismantled. The above-grade façade may have also been of different stone than that of the foundations. A house at 247-249 Brock Street, Kingston, is reputed to have been built in 1843 using stones salvaged from the "old Fort Henry" (Committee of Architectural Review 1973:114-116), but it has an unusual yellowish tint at odds with the grey colour of the officers'

barracks foundation. Stone from the barracks is known to have been made available to the public as an advertisement placed in the *Kingston Gazette* (1841) on June 14, 1841 announced that all materials except the brick work would be sold at auction and yellow-coloured stone was also used for other military structures in Kingston, such as the "Stone Frigate," built at Point Frederick in 1820 (Angus 1999:110). However, no such yellow stone, except for one finely cut block, was found within the barrack's debris that conforms to the Kingston house or the Stone Frigate.

There is more certainty about other elements of the façade. For the windows, thin (1-2 mm) fragments of green pane glass were found, their hue caused by an inability to remove sodium silicate during the manufacturing process (Hodges 1976:55). These were probably made as "crown glass" in England, which involves taking a gather of molten glass on an iron rod and spinning it to create a large circular panel. The imprecision of the spinning method causes imperfections in the glass such as small bubbles of trapped air, and



these were evident on the pieces found around the officers' barracks. However, the glass uncovered here was probably of higher quality than would have been used on the men's barracks. Of the five grades of glass produced—firsts, seconds, thirds, fourths and CC—it was the seconds that were usually reserved for an officers' barracks (Vincent 1993:183). Despite its relatively high grade, the glass used for the barracks may have been considerably cheaper than that available in Britain because glass for the export market was tax exempt (Vincent 1993:171). It can be postulated that the panes were once  $8\frac{1}{2} \times 7\frac{1}{2}$  inches (21.6x19 cm), one of the most popular sizes used during this period (Vincent 1993:202), and if the comparable soldiers' barracks at Fort Lennox are used as an example, these panes were set in "two across, six down" casement windows. Some of the glass may have also originated from the fan transom lights believed to have filled the entrance arches, or the sidelights of each north façade doorway.

From Durnford's report (1824:8) it is known that the officers' barracks roof was covered in tin, but the archaeological findings helped flesh out this description. Within one of the debris layers were fragments of two 14x10 inch (35.6x25.4 cm) tin sheets folded into four six inch (15.2 cm) wide sections. Overall the two tin sheets measured 20.8 inches (53 cm) long and each pleated section was nailed with six  $1\frac{1}{2}$  inch (3.8 cm) wrought iron nails. The two sheets match the 10x14 inch dimensions of tin roofing plate used extensively in Canada during the early nineteenth century (Vincent 1993:110). A three inch (7.6 cm) wide band of dull metal on each plate shows either where the tin was exposed to the weather, or was originally beneath overlapping tin plates. The former arrangement of only 3 inches (7.6 cm) exposed to the weather is a technique seen in the Caribbean where high winds are expected (Joseph Last, personal communication 2005), while the latter leaves 7 inches (17.8 cm) exposed, more typical of Canadian roofs (Vincent 1993:111). Chemical analysis of the metal concluded it was left unpainted (Unglik and Moyle 2004).

Numerous complete red bricks, most averaging 20x10x6 cm, and high quantities of brick

fragments were found in the demolition debris inside the foundations. These probably originated from the structure's fireplaces and internal chimneys but no remnant of fireplaces were found on the gable end, even though two are shown on Durnford's 1824 plan (Figure 5). From the 1841 newspaper advertisement it can be deduced that the Royal Engineers had an expressed purpose for the brick as it was specifically not included in the salvage auction; perhaps the hundreds of bricks used in the officers' barracks chimneys were retained to construct the arched *casemates* of the second fort Commissariat Ranges, and only the damaged and unsuitable pieces were left behind in the demolition. The open fireplaces shown on Durnford's plan may have been replaced by more efficient stoves, the evidence for which is a circular-cut, yellow-tinted stone (mentioned above) that may have once connected a stovepipe to the existing brick chimney.

Other building materials discarded inside the barracks were wrought and cut iron nails and spikes. Fragments of up to 526 nails and spikes were collected during the excavations, 194 of which were complete. Sixty-four percent (n=125) are under 4 cm long, with the remaining number being up to 12.5 cm long. The high percentage of smaller nails probably came from the lath, roofing, or interior trim work, and intentionally discarded in favour of larger nails salvaged from the framing and floor construction.

By far the most ubiquitous architectural material found within the foundations was wall plaster. The plaster averaged 2-3 cm thick and would have been applied directly to the stone and brick walls, and over lath for the wood interior partition wall and ceiling construction (Vincent 1993:82). Wash or paint layers on the plaster indicated it had been periodically freshened in up to four colours ranging from zinc white to yellow ochre and burnt sienna (Ridley 2005). The 1877 *Handbook for Military Artificers* instructed barrack walls to be painted "with two coats once in seven years internally" (quoted in Ridley 2005:3) but repainting could have also been carried out when a new officer moved into quarters. A coat was probably applied after

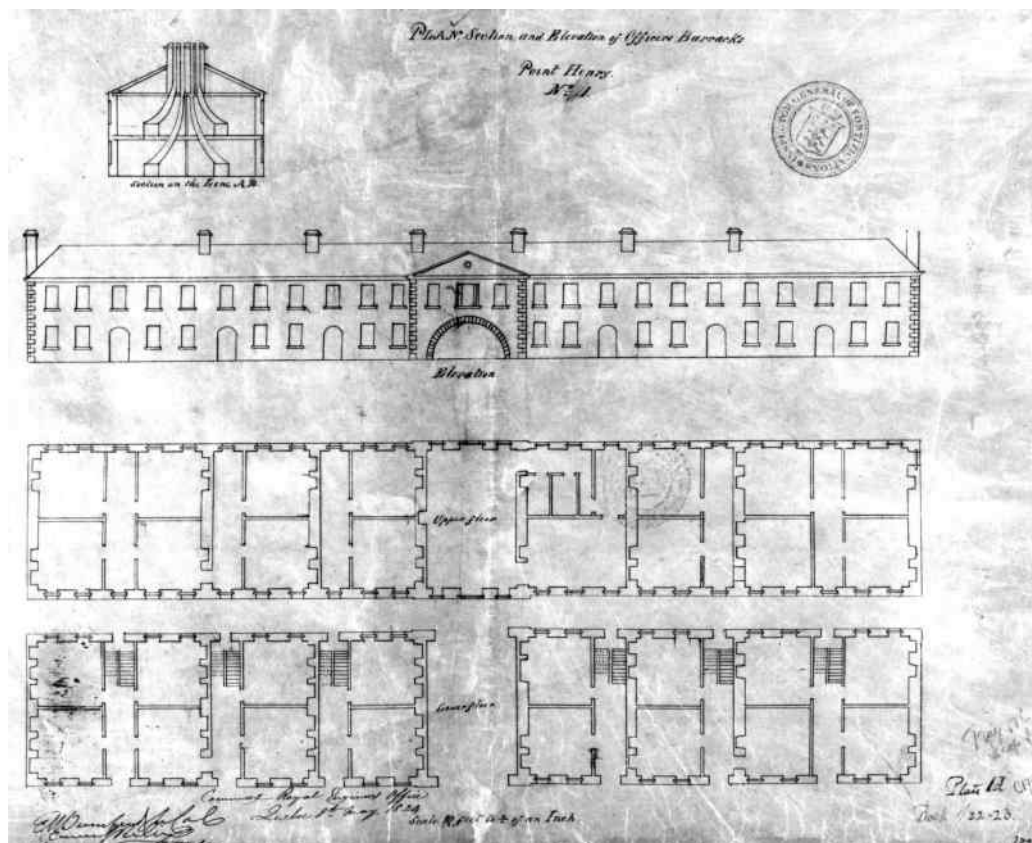


Figure 5. Durnford's plan and section of the Officers' Barracks, 1824 (LAC NMC 4650).

Durnford (1824:8) observed that the officers' barracks required "painting and whitewashing," and other layers may date to when Fort Henry was "sanitized" during Kingston's 1832 and 1834 cholera epidemics (Spurr 1975:28).

When it was completed in 1820, the officers' barracks may well have been the largest structure in Kingston (Figure 5) (Robert Garcia, personal communication 2005). It was 5,320 square feet (494.4 square metres) larger than the combined soldiers' barracks just to its north, yet housed just 19 or 20 officers, giving each a personal space between 1,458 and 2,916 cubic feet (41.3x82.5 cubic metres); conservatively about seven times the amount for the regular troops (Cary et al. 2005:66). Much of this space may have been left vacant. Senior and married officers in the Kingston garrison often kept homes in town (Spurr 1976:107), leaving only the junior officers

to stay at the fort and supervise its daily operation. Even so, the officers' barracks must have been at full capacity occasionally to merit construction of six privies to the south.

The scale, masonry, and visibility of the officers' barracks above the fort's curtain walls made it a prominent feature of the Kingston skyline and a tangible symbol of British military protection, sovereignty and control. Its architecture mirrored the tastes and fashion of the military command, although its style was also popular in civilian circles. During the early seventeenth century, architect Inigo Jones introduced Greek and Roman motifs to Britain and with it came an emphasis on order and symmetry (Summerson 1970:117). This architectural style is known variously as neo-classical, Palladian, and later Georgian, of which the officers' barracks possessed many typical elements; the placement of

windows and doors is geometrically balanced and the massing of the central pediment, complete with ox-eye, was influenced by Greek temples. The archway in the building's centre and arched doorways are of Roman origin. Dwellings big and small, and particularly institutional buildings, were built in the neo-classical style throughout the seventeenth, eighteenth, and early nineteenth centuries until gradually falling out of fashion in the late Regency period (Kindler 1974:23). So popular was neo-classical architecture that inhabitants of houses built in earlier styles sometimes transformed asymmetrical façades to ape the Georgian ideal (Deetz 1996:158-161).

Unlike other buildings of the first fort complex, the lineage of the officers' barracks is relatively simple to trace. When touring Canada's defences in 1819 Governor-General Charles Lennox, the fourth Duke of Richmond, was so appalled by the state of the troops' wooden barracks at Fort Henry that he immediately ordered new permanent masonry accommodations for both the officers and men. This was done with such rapidity that Durnford (1827:211) would later complain to the Inspector General of Fortifications, Gother Mann, that "the buildings [the mens' and officers' barracks] were ordered by the Commander of Forces (His Grace, the late Duke of Richmond) without previously consulting me." From this exchange it appears that Durnford had little to do with the officers' barracks design but it may have originated with another Royal Engineer. Richmond's officers' barracks is very similar to those proposed in 1816 by Royal Engineer Lieutenant Colonel Gustavus Nicolls for the deferentially named Fort Lennox, Québec (Charbonneau 1994:189), and it is possible Richmond simply took them off the shelf and modified them for use at Fort Henry. Determining where Nicolls' design came from is more difficult because it was not till the late 1790s that the Royal Engineers received cursory formal training in architecture (Clerk 1984:16), something Nicolls may not have received as he was commissioned in the Royal Engineers in 1783 (Charbonneau et al. 1982:172). Inspiration for the barracks may have come from the numerous style books published

during the eighteenth and nineteenth centuries (McMordie 1975), or by looking at the myriad of similarly-styled barracks, institutions, and country homes of Britain (Douet 1998). However, unlike aristocratic houses, the classical embellishments selected for military buildings had to be mitigated by the costs of imported materials such as tin, brick, and window glass, all purchased on the Ordnance account.

From the exterior alone, there appears to be inherent class distinctions between the officers' barracks and the two soldiers' barracks built to its north. The soldiers' barracks are utilitarian structures of simple Georgian balance, a seemingly perfect structure to satisfy the working class tastes of the regular soldiery, while the officers' barracks mirrors the classical education of its middle-class occupants. Other sites confirm how architecture conveys hierarchy; at Fort George the officers' quarters is an ornate and delicate building compared to the three robust defensible blockhouses that housed the men. This theory breaks down, however, when Fort Lennox is included as an example. Here it is the soldiers' barracks that closely matches the officers' barracks at Fort Henry, while the officers' barracks at the former is a quite different structure altogether. The officers' barracks façade at Fort Henry, then, cannot represent the officer class if the same design was being used as a soldier's barracks elsewhere. But if housing for the officers and soldiery did not require architectural difference, why not build two identical structures and use one for the officers and one for the men? It appears that the Duke of Richmond, despite using a design for one group at Fort Henry that had been used for another group at Fort Lennox, maintained a contrast between the soldiers' and officers' barracks, thereby reinforcing class and rank distinction in a more local sense—within Fort Henry.

Certainly life inside the officers' barracks was very different than across the parade. The increased personal space is one example, while others can be gleaned from analysis of the material culture found inside and near the foundations. One of the most predominant artifact groups unearthed were fragments of ceramic

tableware, of which three different types are present: creamware, pearlware, and refined white earthenware. Overall, we found fragments from up to 41 ceramic vessels—18 creamware, 11 pearlware, and 7 refined white earthenware—in forms ranging from bowls, plates, twifflers (small plates), saucers, a spice boat, and a pitcher. All are decorated in a wide array of transfer prints and edging. Other tableware vessels found were made of porcelain, bone china, and fine stoneware, as well as a fragment of a basalt or “Egyptian Black” teapot with flower decoration in relief. The collection also included wine glasses, tumblers, decanters, and wine bottles (Cary et al. 2005:74-85).

The outward appearance of wealth this range of material suggests is not entirely opulent. The glass and ceramic tableware was well made, but could be bought at modest prices, and would not be out of place in a middle-class home in Kingston during the early nineteenth century (Phil Dunning, personal communication 2004). Officers, while generally of privileged or middle-class birth, were usually second sons or further down the inheritance list and what funds they had were soon whittled away by the institutional and social obligations of military life (Holmes 2001:415). If a young officer did not have to purchase his commission, a practice affecting about half of new positions during this period (Glover 1980:234), he would be required to spend a small fortune on his department: a uniform (a fragment of gilt lace from an officers’ tunic was uncovered), riding tack, a horse, weaponry, and other trifles such as his personal toilet (also found was most of a plain creamware wash basin jug called an ewer, a bone shaving brush handle, and a tin glazed medicine jar). This was followed by the mandatory officers’ mess membership fees. By then, many officers were mired in debt, often prompting the mess to economize on its tableware purchases to reduce the burden on its poorer members (Senior 1981:148). Examples of this are visible in the officers’ barracks collection. A refined white earthenware pitcher fragment, decorated with a “Brosely,” or “Temple” transfer print, and two creamware plate fragments show deficiencies that might

have placed them on the “seconds” market (Cary et al. 2005:21). The glaze on the plate fragments was imperfectly fired, and the transfer print on the pitcher does not line up, leaving an irregular pattern. But some objects were of greater value.

Two wine glass sherds were unearthed that had been etched with the Roman numerals “L” and a partial “X”, encircled by a double lined cartouche, an oval or oblong graphic that encircles a design. One of the fragments has a partial rim, which allowed for an estimate of the shape and size of the wine glass to be determined, and although the two shards did not mend together, they are likely from the same trumpet bowl-type vessel popular during the first part of the nineteenth century (Jones and Smith 1985:38-39). The etching was clearly a regimental mark, but one difficult to identify specifically since ten of the twenty-one line regiments who served at Fort Henry between 1812 and 1841 had “LX” as part of their mark (Spurr 1972:30-32). Several regiments could be eliminated from the identification because their marks were either too short or too long to fit into the cartouche, and this narrowed the field to the 65<sup>th</sup> (LXV) and 70<sup>th</sup> (LXX) Regiments of Foot. Using regimental marks found on previously excavated items such as a creamware soup plate from Fort Frontenac, it was eventually deduced that the cartouche was “LXX,” or “70” (Cary et al. 2005:23). There is not enough of the mark to confirm beyond doubt that this wine glass once belonged to the 70<sup>th</sup> Foot mess, but the regiment did garrison Fort Henry while the officers’ barracks was standing between 1819 and 1821 (Spurr 1972:30-31).

Other findings indicate that the officers stationed at Fort Henry were not entirely impoverished. The tumblers, wine glasses, and wine bottles are evidence of liquor consumption—an activity condoned for officers yet prohibited for soldiers in barracks—and the quantity and range of animal remains recovered shows a varied diet of domestic mammal and bird, wildfowl, fish, and shellfish meat. Officers were allowed to hunt and fish to supplement the mess table, and many of the bird and fish remains may well have been the officers’ own quarry (Graves 1979:66-67).

The contents of the ribbed sauce, “London” mustard, and “Crosse and Blackwell” food bottles unearthed would have contributed seasoning to the fare.

The latter artifacts such as these and the butchery marks on the animal bones also provide a link to those in the officers’ barracks who were not officers. Civilian cooks were sometimes hired to prepare the mess dinner, often extravagant multi-coursed affairs attended by waiters drafted from the garrison (Lambly 1984:49), and other remnants of their presence might be fragments of a creamware jar, likely for food storage, and two vessels of glazed coarse red earthenware and glazed coarse red stoneware. These may additionally point to the officers’ personal servants, usually veteran privates in the regiment, who cooked the officer’s other meals and also saw to his department, such as cleaning kit (Graves 1979:70-71). The latter activity may be represented by the six Derbyshire blacking bottle and blacking jar fragments found during the barracks excavations.

The officers’ barracks provided more than accommodation for the junior officers. In 1838, the building was used as a courtroom to try Nils von Schoultz and the “Patriot Hunters” for their role in the 1837 Upper Canada Rebellion. Representing von Schoultz and advising “Patriot Hunter” Daniel George in the court was a 23-year old Kingston attorney named John Alexander Macdonald (Graves 2001:173-174). His clients went to the gallows, but thirty years later “John A.” would become Canada’s first prime minister.

#### *The 1819 Powder Magazine*

Typical of freestanding powder magazines built during this period, the foundation construction is particularly massive, with a seven foot (2.1 m) thick foundation laid directly on the limestone bedrock. Being wider than the wall above it, the foundation formed a pedestal for the one-storey structure, instead of the buttress design favoured for earlier magazines, which was found to contribute to internal dampness (Lewis et al. 1848:317-318). E.W. Durnford must have been pleased with this design, as he later suggested it replace the failing buttressed magazine at Fort York (Benn 1993:82).

Durnford’s 1824 plan (LAC NMC 4663) indicates that the walls were tied to an internal casemate arch, and the near complete absence of brick debris suggests this vault was constructed in stone. A simple pitched roof covered the arch, which was framed in wood but sheathed in tin as a fire precaution (Durnford 1824:3). We can be less certain about where the entrance was located. Durnford’s plan shows it on the gable wall but makes no mention of whether this was the north or south end. Usually a magazine doorway is situated opposite to the primary threat; at Fort George, for example, the door is on the landward side, opposite the American side of the Niagara River. Determining the direction of Fort Henry’s primary threat is less clear. The site was oriented to expect a northern attack, but placing the door on the south would leave it exposed to naval bombardment from this flank. None of the historic plans or sketches are helpful in this regard, and it can only be assumed that the door was on the south in keeping with the historical assumption that an attack would come from the north.

The building plan shows as many as three interior foundations supported the flooring, and excavations revealed one of these to be a 60-70 cm wide coursed, squared rubble wall laid directly on bedrock. Surprisingly, no copper nails—predominant in magazine construction for providing spark-free fastening for the floor and other wood construction—were recovered beneath the floor level, nor were there any charcoal layers commonly used as a desiccant. Instead, the space between the interior supports had been filled by large angular limestone slabs, upwards of 38x30x10 cm. It is unknown whether this was an intentional sub-floor fill, or debris deposited when the building was torn down, although the former may have been laid to allow free drainage beneath the magazine floor (Duffy 1975:77).

Despite its solid construction, by the 1830s the magazine was of little value to the second fort design. Just eight years after it was constructed it was listed in only “tolerable repair” and its masonry required pointing (Durnford 1824:3). In 1841, it was dismantled down to only one-to-two remaining courses. Twentieth-century utility line installations destroyed sections of the northern

interior, and it is possible the east side of the magazine was removed by the 1996 sewage line, which runs along the East Commissariat Range. Only further excavation will tell how much of the building still survives.

#### *Other Structures Within the Fort Walls*

Within the L-shaped unit inside the Advanced Battery was discovered a 1x1 m section of flagstones laid around a stone-lined hole, 20 cm in diameter and 55 cm deep. Because so little was exposed it is impossible to determine the feature's original function, although one possibility is that it was a corner post and flagstone floor for a temporary structure. Cobble or flagstone flooring was common in English barn construction (Stephen Mills, personal communication 2004), and post-in-ground or corner post construction was occasionally used for temporary structures such as lime sheds (Carter-Edwards 1985:46; McConnell 1977:46). Determining the flagstone and post hole to be remnants of a building is therefore not unreasonable, but first it will be necessary to define the feature's boundaries.

As for the foundations in the ramp area—the walls which initiated our research on the first fort—neither the refined overlays nor surrounding artifacts have provided an indication of their original function. Once again, more excavation is required to fully understand this feature.

### **The West Glacis**

#### *The 1819 Guardhouse*

On the plain immediately north of the West Branch Ditch several stones around a low square mound (Figure 6) were noticed on the surface. Three units were dug on the mound's perimeter and revealed two corners of a 50-70 cm wide coursed limestone rubble foundation. From these corners the structure's dimensions were determined to be 23.5x21.6 feet (7.18x6.5 m), conforming very closely to the 23x21 feet listed for the Ordnance Yard's one-storey stone guardhouse built in 1819 (Garcia 2006:89). The walls still stood up to 95 cm high and had been laid with copious amounts of mortar within a narrow

trench cut 40-50 cm through natural soils. On the interior side of the east wall, notches spaced 65 cm apart still supported 8-12 cm squared wood joists that would have braced the floor boards. Plaster found within the foundations indicated the walls had been washed in a light brown colour.

According to the records left by Durnford (1824:8), the guardhouse walls were built in stone and the interior was divided into a front room with door to the exterior, a cell for prisoners, and bunk space around the fireplace on the gable wall. Windows lit only one side. Although Durnford's (LAC NMC 4645) plan gives no idea what direction the building faced, more general historic plans show a porch on the north side of the structure. This can only have been associated with the doorway, placing the prisoners' cell on the northwest, the windows facing the road to the east, and the fireplace on the south gable wall. To search for the latter feature another unit on the guardhouse wall was opened but, like the officers' barracks, no evidence of a fireplace or hearth was found.

Outside the north wall a MacAdam pavement was uncovered that likely supported the porch construction, the remains of which are now only scattered wood fragments. On the east face, more interesting discoveries were made; three pieces of a solid "12-pounder" ball that had broken apart, probably from insufficient casting (Figure 7), were found beside a small canister shot and a fragment of shrapnel shell. This ordnance was probably left behind when the area was used as a "shot yard" prior to the guardhouse construction (Garcia 2006:89). Another possible vestige of the shot yard is wood planking unearthed outside the southwest corner of the guardhouse, though this could have also served as a duck walk around the south of the building. On the same corner a small refuse pit was excavated that had been filled with a variety of objects such as clay tobacco pipe and white earthenware fragments, as well as pieces of a metal downspout that probably once hung from the guardhouse eaves.

An absence of large rubble fill covering the foundations suggests that most of the masonry for the guardhouse walls was salvaged when the



**Figure 6.** Excavations on the 1819 Guardhouse, facing west. On the left is the West Branch Ditch Tower of the second fort (Photo 131H986E by H. Cary).



**Figure 7.** The “12-pounder” cannonball unearthed outside the guardhouse. Note where it has fractured into three fragments (Photo 131H930E by H. Cary).

structure was knocked down sometime in 1845. Over the next 150 years, a thin accumulation of natural soil gradually erased the building from view.

#### *The 1820 Clerk of the Cheque’s House*

Brick and mortar debris exposed in a groundhog hole north of the guardhouse led to the foundations of the Clerk of the Cheque’s house, a 45x36 foot (13.72x11 m) two-storey stone structure built in 1820. Inside the northwest wall corner

were 1.85 m deep levels of stone, plaster, and mortar, as well as several collapsed oak and pine beams, which covered an earthen floor free of artifacts except for eight straight pins. The walls of this cellar were of coursed limestone rubble whitewashed to a height of 1.20 m, which was presumed to denote the location of the ground level floor. However, unlike the guardhouse, there were no notches in the wall to support floor joists, suggesting either the floor level was higher up the wall and demolition had removed all trace of it, or that the floor had been supported by internal timber framing subsequently removed.

Bonnycastle and Smith (1831:6) described the masonry as rough coursed, yet at least some of the stone used for the above-grade walls were finely dressed ashlar blocks, the fragments of which were found in the cellar fill. Of the numerous bricks found in the cellar, most were fragmentary and in concentrations smaller than would be expected from a structure that had five fireplaces; it is possible that these too were salvaged for use elsewhere. Wall plaster was once again found in huge quantities and also exhibited a sequence of

repainting in different colours, correlating with Bonnycastle and Smith's report that the rooms had been "coloured or whitewashed."

Little relating to the structure's occupation was found in the cellar or outside the foundations, but it is known that the building was once of some standing. The Clerk of the Cheque was an official of the Board of Ordnance, in charge of recording work hours and its accompanying wages (Whitfield 1981:26), and the house likely resembled homes of similar middle-class standing in Kingston. With its classic Georgian façade and over 3000 square feet (278.8 m<sup>2</sup>) of space, the house would have been a comfortable residence with an excellent view of the town and Navy Bay. The position of the Clerk of the Cheque would only last until 1832, but the previous year the house had been turned over to two clerks of lower rank, who used the house until its demolition in 1845 (Garcia 2006:100-101).

### **Digging the First Fort: Lessons Learned**

Excavations at Fort Henry in the past decade have gradually revealed a part of Kingston's military history previously overshadowed by later defence construction. This new information has allowed for the first fort to be placed within its wider British military context, while also providing some important lessons for how these colonial sites are understood. One lesson concerns the accuracy of historic military plans. In initially placing the officers' barracks over the ramp area, a certain amount of error on behalf of the Royal Engineers who mapped the site between 1814 and 1832 had been factored in. However, the Royal Engineers were extremely competent surveyors, and it should come as no surprise that one can take a map made in 1832 and use it to find, with near sub-metre accuracy, features such as the corner of the officers' barracks, or the internal foundations of the powder magazine. Such proven precision led to an expectation of similar results when searching for Ordnance Yard buildings on the west glacis, but here the map overlay provided only a gross representation of where structures might be located on the modern

landscape. Why was the accuracy of the Yard maps so general, compared to those of the fort proper? Answers may come from looking at terrain and its ease of survey—distances may have been easier to measure on the plain where the fort sits than on the steep slopes of the glacis—or by assessing the military importance of certain structures; the fort proper and its boundaries were more critical to defence and therefore more deserving of accurate survey than the logistics buildings on its flanks. Thus, using historic military plans to find areas of archaeological potential must take into account a variety of physical and social factors before they can be assumed to be an accurate representation of a past landscape. In plotting and finding the first complex, it is striking how virtually none of it was incorporated into the second Fort Henry design. Similar conditions occurred at Halifax, and to a lesser degree Quebec, and represent the new approach to Canadian colonial defence in the years after the War of 1812. Instead of repairing and upgrading small dispersed posts, the British were concentrating and consolidating resources in just a few large centres. Once the site for a new citadel was approved, existing works were often completely eradicated, the landscape modified, and an entirely different design erected. The reasons for doing this are well documented in the historic record (Garcia 2006:6-16), but excavations provide insights for how this was achieved "on the ground" at Point Henry. For instance, the archaeology shows the difficulties involved with dismantling the old works to start afresh. Because the first complex was not a hastily-built collection of temporary wooden huts but masonry structures, its demolition would have been labour intensive in its own right, beyond the energy required to construct the new defences. Small wonder it was often only feasible to pull down the buildings to a certain level, then fill around them. Regardless, it is a testament to the power of military planning that so much could be built and destroyed in response to an abstract notion of "defence."

Although the first fort buildings were not saved intact as part of the new fortifications, the material that once comprised them may live on



in the present citadel. Excavations on the foundations of the 1840s gun shed, in the present "New Ordnance Yard", revealed finely dressed stones from earlier structures, possibly those from the first Ordnance Yard (Cary et al. 2005:70). Similarly, the officers' barracks brick may now be incorporated into the casemate arches of the Commissariat Ranges, and the privately sold building material could be part of Kingston's built heritage, like the house at 247-249 Brock Street. As research continues, further evidence of what survives of the first fort, and what it says about the people who lived and worked there at this critical time in Canada's defence, will no doubt emerge.

*Acknowledgements.* Many thanks go to John Grenville (Parks Canada), John Robertson, Ron Ridley and staff (St. Lawrence Parks Commission) of Fort Henry National Historic Site for their strong and sustained support of our archaeological work, and to Parks Canada archaeologists and historians Joe Last, Bob Garcia, Chuck Bradley, Mike Teal, Stacey Taylor, Suzanne Plousos, Dennis Carter-Edwards, Phil Dunning, and Gerard Gussett. The Kingston base map is courtesy of the City of Kingston GIS Department, and Fort Henry base map (Figure 3) is courtesy of Don Ryan at Public Works and Government Services Canada. Thanks to Susan Bazely (Cataqui Archaeological Research Foundation) and Jeff Earl (Past Recovery Services Inc.) for sharing their information on the first Fort Henry, and to Paul Amirault (National Research Council of Canada) for his ongoing first fort computer reconstruction project. The data we have gained on the first fort would not be possible without the hard work of the 2002-2005 field and lab crews (in alphabetical order): Michael Berry, Megan Brooks, Rachel Brooks, Sarah Campbell, Lindsay Dales, Claire Freisenhausen, Nick Gromoff, Zoë Hurtebise, Nadine Kopp, Kevin LeGrand, Shan Ling, Helen Moore, Jonathan Moore, Melissa Novak, Andrew Pawlowski, Doug Ross, Heather Tulloch, and Jennifer Wood. Finally, thanks to Sheri Burke for her unfailing encouragement and support.

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Au cours des premiers mois de la Guerre de 1812, des détachements de la milice canadienne et de l'armée régulière britannique ont commencé à dégager et à fortifier les parties surélevées de Point Henry, Kingston, Ontario. Au cours des années suivantes, ces ouvrages temporaires, agrandis et améliorés, sont devenus un grand complexe militaire et ont constitué le dépôt principal du Haut Canada. Cependant, dans les dernières années de 1820, on a conçu des plans pour remplacer le fort existant par une citadelle en maçonnerie; la construction de la nouvelle fortification a revêtu une telle ampleur que, vers le milieu du siècle, elle avait effacé la plus grande partie des traces des structures originelles. L'enregistrement des premiers sites d'occupation n'a pas été décelé avant le milieu de 1990, alors que des sondages archéologiques ont découvert les fondations antérieures au second Fort Henry. Depuis lors, la recherche historique et les fouilles faites par Parks Canada ont jeté un plus grand éclairage sur les limites, l'architecture, les constructeurs et la garnison du premier fort. Cet essai présente un aperçu préliminaire du complexe du premier Fort Henry et évalue les aires qui semblent présenter un potentiel pour les futures recherches.

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